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WHAT'S ALL THE FUSS ABOUT NOISE?

MERC'S TECH SECRETS REVEALED

*Mark Hughes: A new era of Silver Arrows domination?*

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*By Richard Williams*

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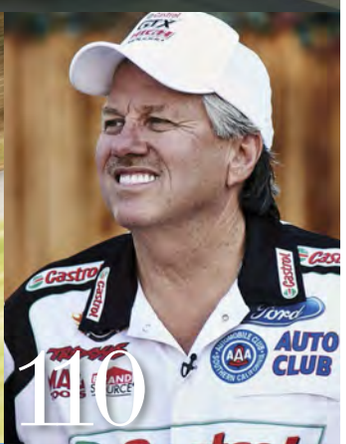

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DAMIEN SMITH
EDITOR

WE'VE BEEN GRATIFIED BY the overwhelmingly positive response to our *Time for a Formula 1 Revolution* cover story, run in the April issue. We published our framework for change on the conviction that the majority of *Motor Sport's* readers have become disenchanted with the artifice of modern Grand Prix racing, and judging by the feedback our instincts were on the mark.

The response from the superpowers at the top of the sport, including that from a certain former second-hand car salesman, was slightly more muted. In fact we've yet to hear a squeak from anyone in a position of authority. Are we surprised? Of course not. The promotional rights holder couldn't care less what we think of its 'product', the same is probably true of the sport's governing body and it's certainly the case with the man we made look like Che Guevara or Andy Warhol (depending on your point of view). Also, we suspect other matters might be occupying Bernie Ecclestone's attention right now.

Still, that doesn't mean we'll let it rest. As you can read this month, both Nigel Roebuck and Mark Hughes have been hugely encouraged by what they have seen (and heard) so far in 2014. But while the new F1 rules are a welcome shot in the arm, the fundamental weaknesses we raised remain all too real. We won't stop campaigning for a better sport.

❖

SO MANY THINK F1 *IS* MOTOR racing, it seems. Even a wide-ranging topic of importance such as the MSA's lobbying of government on the subject of closed public roads for competition (see page 44) was spun into a silly story about a London GP moving closer to reality. Talk about a red herring.

The closed roads act, if it can be marshalled through Parliament, could be the most exciting development in UK motor sport for years, allowing both national and district car clubs to create highly promotable grass-roots events. But it has nothing to do with F1.

Niggled by the nonsense of a London GP, I was then further reminded how this F1 fixation bears little relation to reality. Motorsport Industry Association chief Chris Aylett pointed me towards a report his trade body published recently, reviewing the strength and breadth of the so-called 'motor sport valley' in this country.

Based on 2012 figures, the UK motor sport industry generated a turnover of £9 billion, up from £4.6bn in 2000 – not bad in the face of the global economic downturn. A total of 4300 businesses employed 41,000 personnel, largely in high-performance engineering roles. But the figures that really made me sit up were the contributions made by F1.

Just 12 companies were included in what was called the 'F1 Business Group': McLaren, Red Bull, Lotus, Mercedes, Williams, Force India, Marussia, Caterham, Mercedes AMG and HPP, Cosworth, Silverstone Circuit and the Formula One Management Group. Of the gross national turnover of £9bn, these 12 generate £2.1bn: an impressive contribution from just a dozen companies, but still only 23 per cent of the overall business. And of the 41,000 employees working in motor sport, only 5243 operate at the pinnacle.

F1 is exclusive, just as it should be. But lest we forget, it's not the whole story – never was, never will be.

❖

IF MICHAEL CARRICK (NOT THE Man Utd midfielder, in case you wondered) has his way, the proposed Circuit of Wales – due to be built in time to host MotoGP in September 2015 – will add another 6000 to the overall employee count in British motor sport. The project, based on an Ebbw Vale site comparable in size to Silverstone, seems to be of F1-scale proportions when it comes to cost. A whopping £280million will be required – more than five times what it took to build Britain's last all-new race circuit at Rockingham.

The project has churned up a great deal of ill feeling and suspicion within British motor sport. The mooted MotoGP deal isn't signed and sealed, but that's just the start. The real focus of resentment among the other UK circuit owners is CoW's request for £50m of public funding, £30m from the Welsh Assembly and £20m from Westminster – so much so, it prompted Silverstone to "request clarification" from Prime Minister Cameron, claiming any such funding would be "illegal state aid", the Government's verdict when it chose not to help save the British GP in 2009.

Silverstone pointed out that, "Motor sport at circuit level is not particularly profitable and often loss-making. Many UK circuits are under-utilised and struggle for revenue. It is unrealistic to suggest Circuit of Wales will be the exception."

Expectations have been raised among the Ebbw Vale community, not only of multiple jobs but 500,000 visitors a year. Now Carrick and the Welsh politicians supporting the project must deliver on their promise.

Marc Márquez and Jorge Lorenzo in a Welsh dogfight? Fantastic. But for now we remain sceptical.

❖

BY THE TIME YOU READ THIS, THE first rounds of this year's BTCC will have been and gone. The crash-bang-wallop of Britain's premier four-wheeled series isn't to every purist's taste, but with seven former champions in a guaranteed field of more than 30 cars, the BTCC is flying high once more.

As you can read on page 121, 1999 British Formula 3 champion Marc Hynes is returning to full-time racing directly because the BTCC attracts sponsors – according to Marc, easily so. The all-day TV coverage on ITV4 is a



Made in Wales? The notion of a new British circuit appeals, but will the Ebbw Vale project be viable?

big part of this growing success story. But judging from the crowds that attended the March media day, it won't just be TV viewing figures that bloom in 2014. Packed spectator banks are all too rare, as any British circuit manager will lament. BTCC race days buck the trend.

❖

THE BIG NEWS FOR THE Goodwood Festival of Speed this summer is that nine-time world rally champion Sébastien Loeb will go for the hill record in the amazing Peugeot 208 T16 that blitzed Pikes Peak last year. Nick Heidfeld's mark of 41.6sec in a McLaren F1 car has stood since 1999, so it's about time it was broken. Let's hope it stays dry on June 26-29.

I was also delighted to hear Richard Petty will return to the Festival for the first time in years. "I've been getting emails from 'The King' – no doubt who that is!" said Lord March. "It's great to have him. And to have two current Sprint Cup cars will be exciting too, from Michael Waltrip and Richard Childress. They've made these special lightweight chassis, so they'll be trying."

Many star names have appeared at Goodwood over the past 20 years, but there are exceptions. I asked Lord March who was still on his list. "Michael [Schumacher], tragically," he said. "That was going well for this year…

"And AJ Foyt. I just can't persuade him! We've tried everything, but he doesn't like the transatlantic travel. He loves his horses, and as Goodwood is as much about horses as cars I've tried that, too. You never know, one day it might happen."

The incongruity of the Texan legend at a Sussex garden party would instantly become a great Goodwood moment. Let's hope LM can talk him around. Ⓜ






## CONTRIBUTORS

Cricket lover, walking encyclopaedia, former *Motor Sport* editor, professional Mancunian: **Paul Fearnley** is all of these and relishes a challenge. This month, his missions embraced the 1964 Indy 500, the last to be won by a front-engined car, and the fleeting, fascinating duel between Ayrton Senna and Michael Schumacher. How might that have panned out, given time? A young **Richard Williams** hadn't heard of Jim Clark… until he watched the Scot scoop four wins at Mallory Park in 1959. The waiting is over for **Andrew Frankel,** who has been able to try McLaren's extraordinary, £866,000 P1 road car. And **Simon Taylor** concluded his recent US tour with a visit to drag racing linchpin John Force (and family).



## IN NEXT MONTH'S ISSUE

Porsche targets Audi and Toyota at Le Mans…

ON SALE MAY 5

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**MOTOR SPORT MAGAZINE**
Incorporating Speed and The Brooklands Gazette
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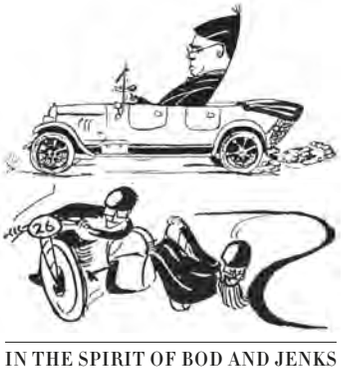
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**UK & Overseas subscriptions** +44 (0) 20 7349 8472

Motor Sport Magazine Limited, Unit 38 Chelsea Wharf, 15 Lots Road, London, SW10 0QJ, UK. Motor Sport subscriptions: Unit 38 Chelsea Wharf, 15 Lots Road, London, SW10 0QJ, UK. Subscription rates (12 issues): UK £49.99; USA $85; rest of world £64. Postage is included. Motor Sport (ISSN No: 0027-2019) is published monthly by Motor Sport Magazine Ltd, GBR and is distributed in the USA by Asendia USA, 17B South Middlesex Avenue, Monroe NJ 08831 and additional mailing offices. Periodicals postage paid at New Brunswick NJ. POSTMASTER: send address changes to Motor Sport, 17B South Middlesex Avenue, Monroe NJ 08831. UK and rest of world address changes should be sent to Unit 38 Chelsea Wharf, 15 Lots Road, London, SW10 0QJ, UK, or by e-mail to subscriptions@motorsportmagazine.co.uk. Subscription enquiries: subscriptions@motorsportmagazine.co.uk. Subscription orders: www.motorsportmagazine.com. Distribution: Marketforce, Blue Fin Building, 110 Southwark Street, London SE1 0SU. Colour origination: All Points Media. Printing: Precision Colour Printing, Telford, Shropshire, UK.

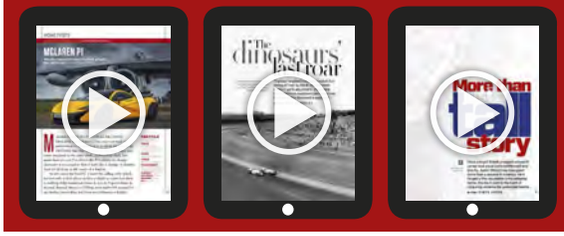
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- *Justin Wilson scores his first oval victory*

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# THE MOTOR SPORT MONTH

## IN PICTURES

MARCH 9, 2014

## Concours d'Élégance

### AMELIA ISLAND, FLORIDA

Two of the star exhibits from the popular annual Floridian extravaganza. Miles Collier's 1958 Scarab (left) won Best of Show in the Concours de Sport, while the 1937 Horch 853 of Bob and Anne Brockinton-Lee took top prize in the Concours d'Élégance.




AUDI

MARCH 25, 2014

## Audi's new R18 e-tron quattro

**LE MANS, FRANCE**

Audi began its Le Mans defence by launching its 2014 car in front of the city's cathedral, from where Tom Kristensen mingled with Clios and other commuter traffic en route to the Circuit de la Sarthe...



MARCH 23, 2014

## MotoGP, round one

**LOSAIL, QATAR**

Reigning world champion Marc Márquez (93) got his 2014 campaign off to a winning start (despite a recently broken leg), but only after an epic tussle with MotoGP doyen Valentino Rossi.




YAMAHA

# THE MOTOR SPORT MONTH

## IN PICTURES



NASCAR

MARCH 9, 2014

### NASCAR Sprint Cup

**LAS VEGAS, NEVADA, USA**

The Fords of pole winner Joey Logano and Brad Keselowski lead the field away at the start of this season's third Sprint Cup race. Keselowski went on to win from Dale Earnhardt Jr and Paul Menard (both Chevrolet), with Logano slipping to fourth. Of the 43 cars that started, 42 were still running at the chequered flag.




RED BULL

MARCH 26, 2014

### Back on the Dakar trail

**PARIS, FRANCE**

It is 25 years since Peugeot entered the Dakar Rally, but the French firm returns in 2015. Its line-up includes ex-WRC star/2010 Dakar winner Carlos Sainz (left), and Dakar bike hero Cyril Despres.

# REFLECTIONS *with*



# Nigel Roebuck

>> SPECTACLE TRUMPS SOUND >> WIZARDS OF OZ >> ANDRETTI'S CONCORDE OFFER




SUTTON

## THE MAGIC OF A BYGONE ERA

**From 1977-1988, the previous-generation Formula 1 turbos weren't especially noisy – but they were dramatic to behold. And never were they more spectacular than when Ayrton Senna attempted a qualifying lap in Monte Carlo. The Brazilian is pictured in 1985, aboard his Lotus 97T-Renault.**

# REFLECTIONS *with* Nigel Roebuck

BACK IN THE DAY IT WAS MY invariable habit, for final qualifying at Monte Carlo, to position myself immediately behind the guardrail somewhere close to the left-right entry to the swimming pool area. Then defined by solid masonry rather than white lines, it was a place that rewarded the bravest, as well as the most deft, and in 1985 I was mesmerised by the commitment of Ayrton Senna as he hurtled through, time after time, shaving the walls with that black Lotus-Renault, visibly quicker than the rest.

I don't recall being disappointed by – or even aware of – the muted sound of the car's turbocharged V6. Instead I relished its underlying *muscle*, finding myself much in agreement with Denis Jenkinson, whose first love in motor racing was always engines: indeed the first turbo era, which began with Renault's pioneering debut in 1977 and ran through to the end of 1988, was Jenks's favourite.

It was, I grant you, very different from the new turbo era in which we find ourselves, in the sense that back in the 1980s 'green' was no more than a colour, and at the time F1 was an all-out power game. "I remember asking the Honda guys what sort of power we had," said Patrick Head, "and they couldn't tell us – because they didn't know! Their dyno only registered up to 1000bhp – which they were reaching at 9300rpm. We were revving them to 13,500 or so..."

Short of an NHRA dragster, I have never seen anything accelerate like the F1 cars of that era. As with Senna at Monaco, embedded in my memory is a moment at Kyalami during qualifying in 1983, when Nelson Piquet – on maximum boost, questionable fuel and who knows what else – flung his Brabham-BMW through the uphill Jukskei Sweep. The thing was like an unbroken stallion.

In terms of sheer decibels, though, it wasn't noisy – and it didn't matter a bit, because the *quality* of the sound made you shiver. It was exactly the same with the turobocharged engines in the great days of Indycar racing.

Since the Australian Grand Prix weekend I have been surprised by the degree of adverse reaction to the new 'quieter' F1, but then, as I say, I always cared for the sound of turbo engines, and was never a fan of the high-pitched racket made by the 2.4-litre V8s, thinking it out of kilter with an engine that relatively – according to those who had experienced something more – couldn't pull the skin off a rice pudding.

To my ear, perhaps the purest sound ever made by a racing engine came from Matra's 3-litre V12, which made its debut at Monaco in 1968. I can remember being awakened early on the Thursday morning, and thinking, 'What the hell is *that*?' This was some hours before the roads were closed for F1 practice, but life was rather more informal back then, and the police, keen to help this new French contender in any way they could, had erected temporary barriers at either end of the harbourfront, allowing Jean-Pierre Beltoise to scream up and down.

Thus was I stirred by a Matra engine for the first time, and if the noise it made was sadly never matched by its performance, it always had the abiding virtue of sounding like nothing else. To me the recently departed V8s were much of a shrill muchness, and I won't miss them.

> "POLICE ERECTED TEMPORARY BARRIERS, ALLOWING BELTOISE TO SCREAM UP AND DOWN"

Given the clamour, though, perhaps I am in a minority, for the engine sounds in Melbourne appear to have riled some fans like nothing for a very long time, and that – in this showbiz era of DRS, deliberately inefficient tyres and double points – I find curious. God knows what the response would have been had not the FIA been talked out of its original plan to insist on four cylinders. Personally, I'm delighted to welcome this new breed of F1 car and relish the balance of the season with greater pleasure than for many a year.

Why? Because, thanks to a combination of significantly increased torque and reduced downforce, suddenly the rails around Albert Park had been taken up. As I watched Massa's Williams or Alonso's Ferrari 'step out' when the power was applied, I thought of something Tony Brooks said to me long ago: "A racing car should always have more power than its chassis can comfortably handle..." As a simple philosophy of what motor racing should be, that will never be bettered.

Of course you can argue – and I'd be hard-pressed to take issue – that this effect might have been achieved without the need to go to 'power units' vastly more expensive than those they have replaced. For all the teams involved in F1 – and particularly those fighting for crumbs from CVC's grasping table – this has been expense they could emphatically have done without, but still I disagree with those, notably Bernie Ecclestone, who insist that we should have stuck with what we had.

F1, to my mind, had become stale – and not only because one man and one team were winning every fortnight. We could have arrived at a formula for 'more power and less downforce' by far cheaper means, but if F1 were to remain attractive to the manufacturers who produce its engines, it had to become more – forgive me – 'relevant' to the world in which, like it or not, we find ourselves. Had engine rules remained the same, Renault would not have continued and Honda would not have returned.

That said, many would argue that in quest of the Brave New World the FIA perhaps didn't need to go *quite* as far as it has. These new 'hybrid power units' are not only exorbitantly pricey, but also scarily complicated, and personally I thought it a mistake, for example, to impose quite such a draconian reduction – 160kgs down to 100 – in the fuel available for a 200-mile race. Cruising does not belong in anything calling itself a Grand Prix: we've already had quite enough of that with high-degradation tyres, thank you very much.

Apart from anything else, it is a delight to see Formula 1 influenced – if perhaps only temporarily – by something other than aerodynamics. If ever you needed proof that downforce is the enemy of spectacle, Melbourne provided it. In time they will inevitably get a lot of it back – by definition the aerodynamicist is not the spectator's friend – but let us savour the situation until they do.

In the era of 'frozen-spec' V8s, engines had ceased to count for very much. Once the rev limit of 18,000 had been imposed, they were effectively bullet-proof and there wasn't much to choose between them – they all sounded the same, and rarely had much of an impact on the outcome of a race.

The FIA has not done away with the principle of freezing engine specifications, but as this new F1 gets underway there are plainly differences – not least in sound – between the three power units on offer, and at the moment Mercedes has a clear edge over Ferrari and, particularly, Renault.




LAT

That's fine with me. I'm perfectly happy with one car being faster than another in a straight line, and have never understood why some get sniffy about it – as if it's somehow not quite 'cricket', as if the only acceptable superiority is in the corners, in *grip*.

Back in 1981 Gilles Villeneuve won the Spanish Grand Prix at twisty Jarama, holding off four nimble 'Cosworths' in a turbocharged Ferrari 126C that he called, "My big red Cadillac." If Gordon Murray described Villeneuve's drive as "The greatest I ever saw – by anyone", others moaned that it wasn't fair, that Gilles won only because he had more horsepower, blithely omitting to mention that Messrs Laffite, Watson, Reutemann and de Angelis had vastly superior handling.

Jacques, nearest at hand to the Ferrari, didn't see it that way. "Of course it was frustrating to be left behind on the straight every lap, but Gilles's car was *terrible*! If he'd made one mistake, we would all have passed him – but he didn't…"

What I liked about Melbourne, and what makes me optimistic for the future, was not only that, with youngsters like Ricciardo, Magnussen, Bottas and Kvyat around, F1's future – in terms of drivers, anyway – is in safe hands, but also the fact that this new generation of cars appears far less amenable than those just gone. With all the endless systems to consider and adjust, you could understand Lewis Hamilton's quip that "You need a degree to drive them", but so you also need – to a far greater degree than before – sensitive throttle control, what Mario Andretti christened, "the educated right foot".

Some appeared not to notice this. Perhaps they didn't care. All they could do was rant that the cars were too quiet, and I found laughably fatuous the remarks of Melbourne promoter Ron Walker, Ecclestone's close friend and frequent mouthpiece. One must doubt that Formula E will ever find its way into the Australian Grand Prix weekend schedule.

"We are an entertainment company," said Walker, "and we have to entertain. When you take the excitement away, you have trouble selling tickets. You have to create demand, and part of that demand is people liking the sound of the race cars. We are resolving that with Bernie. It's not what we paid for, and it's clearly in breach of our contract."

I could be wrong, but I somewhat doubt that there is any mention of 'a minimum decibel count' in Ecclestone's contracts with race promoters. Second, Walker apparently threatened that failure to get satisfaction in the matter might lead to his races being run in future for Indycars, rather than F1.

Not the brightest thing he could have said. What do we know about the engines in this generation of Indycars? They're turbocharged, and don't make a loud noise. Presumably this was unknown to the Melbourne race authorities.

Not surprisingly, the bulk of the complaints about the new, quieter, F1 appears to have come – Bernie apart – from folk with no knowledge or memory of the first turbo era. I must say I have no recollection of any such unrest back then: what the fans revelled in was that the cars were so *fast* and, being patently difficult to drive, a joy to watch.

While it is unlikely that this new generation of turbos will ever match the sheer drama of F1 30 years ago, more power and less downforce is what many of us have long craved for the top echelon of the sport, and for me this is greatly preferable to screamers on rails. Yes, of course ears have a part to play in appreciation of this sport, but so also have eyes – ask anyone who saw Ayrton on full boost at Monaco.

❖

AS THE AUSTRALIAN GRAND PRIX CAME AND WENT, MORE than once I remembered titbits from a conversation over lunch with Mark Webber in January. As we talked through the coming Formula 1 season – the first in which Mark would not be involved since 2002 – he recalled how, in successive years, Fernando Alonso and he had made their debuts with Minardi. Even though the cars built by the perennially breadline team were uncompetitive, still they allowed a couple of exceptional apprentices the opportunity to give notice of intent.

"Like Hamilton, Magnussen's getting a dream start in F1 with McLaren, and I'm sure he'll make the most of his opportunity," Webber said, "but that's something that hardly ever happens – most kids start in a small team, and it bothers me that it's become so dependent on the cash they bring. I know that financially and commercially some of the team bosses have to do that, because so much money is being sucked from the sport, but somehow we really need to get the good youngsters – skilled, hungry, drivers – into the cars, rather than pay-drivers…"

It baffles me, I said, that the top teams continue to ignore Nico Hülkenberg, to my mind a potential superstar, and Webber

agreed. "Yeah, you're right. Hülkenberg's a gun, a hard racer. I like him, too – a good handshake always goes a long way with me...

"And speaking of Nicos, the other one – Rosberg – will be in great shape this year, assuming Mercedes comes up with a good car. There's a technological revolution in F1 in 2014, and Nico will thrive with that, just as Alain Prost would have done – he's quick, he's *very* smart and he always has the big picture going."

On the nail. Of course it's easier to look imperious in a clearly superior car – as we have seen times without number in recent seasons – but in Melbourne Rosberg looked just as he did in Monaco in 2013, or Shanghai the year before that: flawless.

For a long time many in the business resolutely harboured doubts about Nico. Yes, he was clearly brighter than most, and unquestionably quick – but was he the real deal? At Williams he sometimes excelled, and at Mercedes, too, but although he invariably had the beating of Schumacher in their three seasons as team-mates, it was a widely held view that Michael wasn't the driver of old, that Nico *should* have had the better of him. It was only in 2013, with Hamilton – the yardstick for pure speed – now at Mercedes, that Rosberg's performances caused folk not only to appreciate his true capabilities, but also to reassess Schumacher's comeback years.

As Webber's observation about Rosberg came back to me over the Melbourne weekend, so also did what he had to say about his fellow-countryman, and successor at Red Bull, Daniel Ricciardo.

"He'll go well, I'm sure of that. I think he'll give Vettel a *real* hard time in qualifying – it'll be 50:50 in the first year, I reckon…"

That rather surprised me, and I said as much.

"Well," said Mark, "I took a few off Seb last year – and the blown floor, which he exploited brilliantly, is gone now. I reckon Daniel will be fine – and it certainly won't hurt him that he's come through the Red Bull system…"

That of course struck me as Helmut Marko hugged Ricciardo – certainly a first for Australian Red Bull drivers – after a superb performance on race day. The downside was that, five hours later, he was disqualified because his team had opted to ignore FIA demands that all teams should observe the governing body's own fuel sensor readings (restricting fuel flow to 100kg/h), in favour of its own data.

Red Bull was not the only team to question the reliability of the FIA's sensor, but whereas the others heeded Charlie Whiting's warning of a 'zero tolerance' policy on the matter, and decided to play safe, Dietrich Mateschitz's outfit did not, which was why there was afterwards rather more sympathy in the paddock for Ricciardo than for his team.

In absolute terms, it was unfortunate that this new F1 era should have begun with a late-night revision of the results, but rules is rules, and one has long clung to the belief that they should be fairly applied.

On occasion, of course, this naïveté has been put to the test, as we remember from the debacle in 1999 when the victorious Ferraris of Irvine and Schumacher were disqualified by the FIA stewards from the Malaysian Grand Prix – and then reinstated by the FIA Court of Appeal six days later. In Sepang the cars' bargeboards didn't fit the regulation; in Paris the regulation didn't fit the bargeboards. Irvine's reinstatement thus kept the World Championship alive to the last race, at Suzuka, and that satisfied the Great God TV. Nowadays, of course, we have 'double points' to take official care of such matters.

> "HAMILTON'S POLE LAP – ON THE EDGE, CONTAINED BY GENIUS – WAS ONE FOR THE AGES"

After Melbourne Ecclestone went on at length about the lack of noise, saying the race had been 'farcical' – an odd remark from one supposed to be promoting F1 – and suggesting that it would alienate the fans, and drive them away. Quite why he has failed to recognise their distaste for cheap gimmicks like DRS, silly tyres and double points remains a mystery. Employ such things in touring car championships if you wish, but to Grand Prix racing they are an affront.

Unfortunately such matters are now decided by the recently introduced – and thus far ill-named – F1 Strategy Group, which appears to be completely out of touch with the fans, if a recent remark by Toto Wolff is any guide: "The reaction to 'double points' was not what we expected…" Still, gimmickry aside, I was gratified by the Australian GP for several reasons, one of which – Saints Be Praised! – was that there was barely a mention of tyres, and Pirelli's necessary move to something more durable meant that the circuit was not awash with marbles.

As well as that, because pre-season testing had been unusually chaotic, there was fevered speculation that few cars would make it to the end of this first race. It surprised me when, before the start of practice, Alonso predicted there would be 16 finishers, but he was only slightly optimistic, and one was – yet again – astounded by the abilities of F1 people, by the progress made in a short time.

Granted, the first session got away to an edgy start, with Hamilton's Mercedes stopping out on the circuit on its first lap, but even more unexpected was that the first car to set a time was a Red Bull – and that of Ricciardo, rather than Vettel.

In all respects, the 2014 Melbourne experience will not be one the world champion cares to remember. In trouble with software problems, his failure to make it out of Q2 was greeted with a hail of cheers – clearly audible in this new era – from the spectators, for whom the Malaysian 'Multi 21' controversy still resonates. As Stuart Broad could have told Vettel, Australian sports fans do not quickly forget – and in this case, nor should they.

Who knows, Webber, too, might have permitted himself a wry smile, and perhaps remembered the start of 2012, when changes to the 'blown floor' regulations briefly compromised Red Bull's superiority, during which time he routinely out-ran Vettel: "You could say he wasn't too happy at that stage – very pissed off and bad-tempered, in fact…"

Although team personnel sought to play it down, Seb's mood in Australia wasn't too sunny, either, as evidenced by the tone of his radio contact with the team, but perhaps we should cut him some slack: it can be very trying to go through a Grand Prix weekend without winning – why, it had happened only last August.

In trouble from the word go in the race, both Vettel and Hamilton retired early, but whereas Lewis – deeply disappointed after starting from pole – stayed around with his team, by half-distance Seb was gone from the circuit, thereby passing up the opportunity to congratulate his new team-mate on a tremendous drive. A pity, one thought.

In point of fact, although Vettel's weekend was a wash-out, still he must have taken heart from the progress made by Red Bull since its embarrassing test programme. Adrian Newey's perfectionist approach can be a double-edged sword – his preoccupation with tight packaging makes life difficult for the mechanics, and has been known to cause the odd problem with overheating and vibration – but, as everyone knows, when his cars work as they should they work like no others. Even when




Jacques Anquetil rides into French folklore during the Bordeaux-Paris race in '65

WELOFFSIDE

the RB10 was struggling to complete a lap at Jerez, rivals looked at it nervously, hoping devoutly it would take a long time to come right.

If Melbourne disabused them of that, it surprised even Red Bull personnel, as Christian Horner acknowledged. Vettel's car might have been troubled throughout, but Ricciardo's was in the mix from the beginning, despite the fact that Renault's engine is yet patently no match for Mercedes. If the team's ill-advised – and lone – decision to ignore FIA warnings about the fuel flow meter flattered the car's race performance to some degree (while reinforcing Red Bull's already sturdy reputation for arrogance), still there are few doubts about the RB10's fundamental quality.

Back in the 1930s it was said of Bernd Rosemeyer, who drove Auto Unions as no one else ever did, that, having made his debut with the team and remained there throughout his sadly brief career, he came fresh to the wilful rear-engined cars, and thus had nothing to un-learn, if you will.

Perhaps there was an element of this in the Melbourne performances of such as Kevin Magnussen and Daniil Kvyat, both of whom were patently unintimidated by the complexities – and driving characteristics – of this new generation of racer. "I've never driven a car with torque before," said Jenson Button during practice, and he wasn't altogether joking.

These things can catch a driver out in ways unknown through the V8 era. In qualifying Kvyat clipped a wall, but he had made it to Q3 by the time it happened, and Magnussen almost lost it away from the grid, just as did Gerhard Berger on his (turbo) F1 debut, at the Österreichring 30 years ago. Those moments apart, the two rookies were confident and assured throughout the weekend, and Magnussen's performance, if perhaps not unexpected, was stunning.

Throw in such as Ricciardo, whom we have already discussed, and Bottas, and there is every reason to feel optimistic about the next generation. As he scythed through the pack, Valtteri was clearly revelling in his Williams FW36, and perhaps uttering a prayer of thanks that Frank's team, on course for its best season in a decade, had made the switch from Renault power to Mercedes. Had he not clipped a wall and destroyed a tyre, he would have made the podium.

If one had to be impressed by the progress made in a short time by most of the teams since the pre-season tests, so the same was emphatically true of a majority of the drivers as they adapted to something so different: at no time was this more apparent than in qualifying, when it rained. Almost to a man, this was their first experience of the new F1 car in the wet, and one might reasonably have expected the torque to cause havoc; as it was they coped superbly, and Hamilton's pole position lap – on the edge, contained by genius – was one for the ages. Again, I can't say I noticed the lack of noise.

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PERMIT ME, IF YOU WILL, A BRIEF DIGRESSION FROM motor racing, so as tell you a little about Jacques Anquetil.

One of the very greatest riders in cycling history, by the mid-sixties Anquetil had done it all, being apart from anything else the first man to win the Tour de France five times. Curiously, though – perhaps because he was *too* good – he was way less popular in his own land than Raymond Poulidor, one of conspicuously less achievement, but a country boy with whom the fans closely identified.

Thirty years ago it was just that way with Alain Prost and René Arnoux. "French mentality is odd in some ways," Alain said to me once. "They don't really like winners – they prefer the man who gloriously loses…"

It was Anquetil's manager, former rider Raphael Geminiani, who came up with the notion of 'Le Double', believing – correctly – that if his man succeeded it would change forever the public's perception of him. When first the idea was put to him, Anquetil thought it mad, but gradually he was talked around.

In Avignon, on May 29 1965, he triumphed in the week-long Dauphiné Libéré, completing the awards ceremony at five o'clock, then dashing off for a shower and a quick dinner – steak tartare and two beers – before boarding an aeroplane (laid on by President de Gaulle) at Nimes. This took him to Bordeaux, where he had a brief sleep and another swift meal.

At 2am, into a head wind and driving rain, Anquetil started the race to Paris, at 372 miles regarded as the toughest one-day event in cycling; when he entered the Parc des Princes more than 15 hours later, he was a minute clear of his nearest rival.

Hence 'Le Double', and the reception from the crowd that day was such as he had never known before. At last France, stunned by his courage, took Anquetil to its heart, and 35 years later, long after his death, a poll of *L'Équipe* readers rated his exploit as the greatest sporting achievement of the 20th century.

Deeds of this kind – pushing endurance to unusual limits – have always fascinated me. I remember, for example, August Bank Holiday Monday at Brands Hatch in 1967, when Jack Brabham, Jackie Stewart, Jochen Rindt, John Surtees, Graham Hill and Chris Irwin arrived only at mid-morning.

They were late because the day before they had taken part in the Canadian Grand Prix at Mosport (won by 40-year-old Brabham), then jumped on a 'red eye' to Heathrow so as to compete in the Formula 2 Guards International Trophy. Having necessarily missed practice, they were granted a brief session of their own, and by 12.30 were on the grid for the first heat, which Rindt won from Stewart. Later in the day they finished 1-2 in the final.

It astonishes me now to recall that at the time, while noteworthy, it was not thought especially remarkable. Racing drivers lived differently back then, not confining themselves to the Grand Prix schedule, but competing in different cars in a variety of events, and the man who kept this going longer than anyone was, of course, the most versatile of all time, Mario Andretti.

Following the death of Jim Clark, in April 1968, Colin Chapman

suggested to Andretti, whom he had come to know and appreciate at Indianapolis, that he should take a shot at Formula 1, and Mario, who from childhood had dreamed of nothing else, swiftly accepted.

Problem was, where – and how? Andretti's US commitments were many and varied, and it proved difficult to find a weekend that didn't clash. When finally it was decided he should make his debut at Monza, the arrangements were anything but straightforward: the day before the Italian Grand Prix he was due to race on the other side of the Atlantic…

A glance at Mario's schedule from that time is eye-opening. On Sunday, September 1, he drove a Lola T70 in the CanAm race at Elkhart Lake; the following day – a public holiday – he drove his Kuzma-Offenhauser to victory in a USAC Championship race on the dirt mile at DuQuoin; on the Wednesday he flew to Milan (with Bobby Unser, also due to make his F1 debut, with BRM); on the Thursday he practised at Monza in the Lotus 49; on the Friday morning he qualified for the Italian Grand Prix (all sessions counted for the grid in those days), and in the afternoon he and Unser flew to Chicago, and thence to Indianapolis; on the Saturday they competed in the prestigious Hoosier 100 (Andretti taking pole, and finishing second to AJ Foyt) at the Indiana State Fairgrounds, another dirt mile, after which they set off again for Milan, which – allowing for the time change – they reached on Sunday morning.



Andretti (2) and Unser (3) in Hoosier 100 after qualifying at Monza – and before flying back

A busy time, you'd have to say, but the dramas weren't over yet. "We were due to get to Monza by helicopter," said Mario, "but instead of that we get met by a Lotus mechanic – in a Mini! We set off, and we're going pretty good, but time is short, and Bobby says, 'We need to go faster – Wop, you drive!' And he just drags the guy out of the seat – I had to grab the steering-wheel, and take over! That was some crazy journey, over the sidewalks and everything, and when we get to the track we don't have the right credentials to get in. Of course the police don't believe we're drivers, and one of them starts pulling his gun – I just gassed it and took off for the paddock…"

All to no avail, as it turned out, for during their absence it had been decided by the Monza authorities – after a protest by Ferrari on 'safety grounds' – that Andretti and Unser, having raced the day before, should not be allowed to compete. "It would have been nice," said Mario, "if they'd let us know before we got on the goddam plane…"

Fast forward 10 years to Zolder in May '78. By this point in his career Andretti's first commitment was to F1, and in the Lotus 79 he knew he had a car in which he could realise his life's ambition and become world champion.

At the same time, though, Mario continued to take part – for Roger Penske – in as many Indycar events as his schedule allowed, and the problem he had now was that the Belgian Grand Prix clashed with the first weekend of qualifying for the Indianapolis 500.

Yes, it was only qualifying, and in those days – when the 500 was wildly oversubscribed – there was a second weekend of it, too, so why the pressure to get it done in the first?

It was all a matter of starting position: the quickest qualifier of the second weekend – no matter what his speed – lined up behind the slowest of the first, and Gould Industries, sponsor of Andretti's Penske, was very keen that he should be there.

This scenario was not unknown. In 1961, when John Cooper entered an underpowered Climax-powered car and thereby swung a lamp over the future of the 500, again there was a clash between Indy's first qualifying weekend and a Grand Prix, this time Monaco. Jack Brabham duly did his thing, qualifying in the Principality on Thursday and at the Speedway on Saturday, but by the time he got back to Monaco, on Sunday morning, he was shattered, and not too disappointed to retire before half-distance.

On to Thursday, May 18 1978, to the Zolder paddock where my colleague Jeff Hutchinson and I are chatting to Andretti. "You guys interested in a trip to the States?" he says. We say yes, sure – when?

"Tomorrow…" Mario says. Jeff and I gulp. Then there comes a more intriguing question: "Either of you been on Concorde?"

We gulp again. Andretti might have become accustomed to using the supersonic jet like a commuter, but neither of us had yet experienced it, and by now he had our full attention.

"Well," he grinned, "there's this plan…" And he went on to explain that, all things being equal, the following morning he would qualify for the Belgian Grand Prix, then fly from Brussels to Paris, where he would take a Concorde – *chartered* by Gould! – to JFK, and then a connecting flight to Indianapolis.

On Saturday morning he would qualify his PC6 for the 500, after which the travel procedure would be reversed, and he would get back to Zolder in time for the race.

"Want to come with me?" he asked, and it won't surprise you that we said 'Yes, please'. All right, we would miss a chunk of the Zolder weekend, but what a story we would have…

A few hours later, though, we were brought back to earth with a jolt. "Sorry, guys," Mario said, "but the trip's off…" Thirty-six years on, neither he nor I can remember the precise details, but there is a sketchy memory of the booked Concorde having a technical problem, and no other being available for charter.

Whatever, none of us crossed the Atlantic that weekend, but it wasn't all bad. On the Saturday, while journeyman Mike Hiss qualified Andretti's Penske for him at Indianapolis, I did my first proper interview with Gilles Villeneuve and Mario put his beautiful Lotus 79 on pole. Twenty-four hours later he took the car to its first victory.

These memories are in my mind just now because NASCAR star Kurt Busch recently announced that on May 25 he will drive for Andretti Autosport in the Indianapolis 500, then later in the day switch to his Stewart-Haas Chevy for the longest stock car race of the season, the Coca Cola 600 at Charlotte.

It's been done a handful of times before, notably in 2001, when Tony Stewart finished sixth at Indy, then third at Charlotte, but not for a while. Busch – an avid F1 fan, incidentally – describes himself as, "A bit of an old-school racer, a throwback. I enjoyed the era of drivers racing different cars, and testing themselves in other series…"

Good on him, say I, and I'm sure Mario agrees.

# F1 FRONTLINE *with*



# Mark Hughes

>> MERC'S F1 SECRET >> ROSS BRAWN LOOKS BACK >> MELBOURNE THOUGHTS




LAT

## A LINE OF HISTORY

**Melbourne winner Nico Rosberg holds aloft his trophy, the replica Jack Brabham Cooper steering wheel. Ken Tyrrell first tasted F1 as stand-in team manager at Cooper for injured team boss John Cooper. Ken, after setting up his own team and winning world titles with Jackie Stewart, sold out to BAR in 1998. This team later morphed into Honda, Brawn Grand Prix and – finally – Mercedes F1.**

DO YOU WANT TO KNOW why the Mercedes W05 had one second per lap on the opposition in the season's opening race? It's been conceived around a single, brilliant idea.

Brilliant ideas often seem so obvious once someone has come up with them. Usually they are simple, yet startlingly original. Mercedes came up with one about two years ago.

But sometimes just seeing the invention in isolation doesn't explain its effectiveness. It's only when you dig deeper into its implications that its full significance becomes apparent. Which is why the works team – in on the innovation since the start – has evidently been able to make more spectacular use of it than the three customers, McLaren, Williams and Force India.

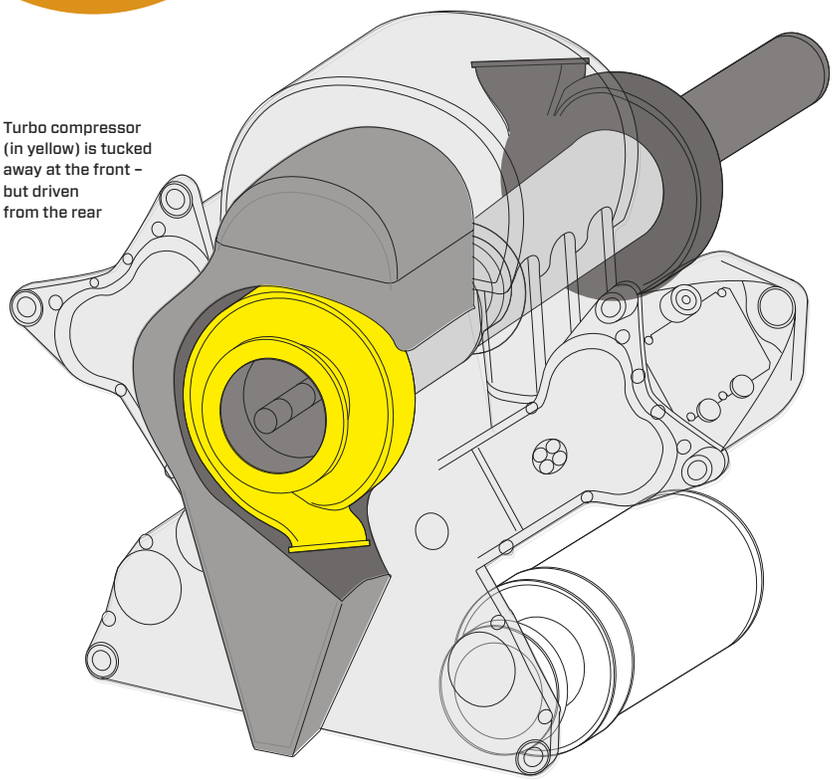
The innovation is having the turbo's compressor at one end of the engine and the turbine at the other, linked by a long shaft through the engine's vee. Normally the two components are housed directly together, plumbed into the exhaust primary pipes somewhere near the back of the car. But in the Mercedes V6 only the turbine sits with the hot exhausts that drive it. That turbine drives a compressor up front, where the surrounding air is about 600-deg C cooler.

That temperature difference suggests one of the advantages of the system: the compressed air has to be cooled before being fed to the engine. Having it surrounded by cooler air in the first place helps this process, albeit only slightly. The less the air needs to be cooled, the smaller the bulky intercoolers (mounted in the sidepods) can be. But that's only the beginning of the cascading series of benefits this innovation offers.

Consider: this new hybrid formula is all about filling up your battery's capacity quickly and thereby having the engine require as little fuel as possible. The more electrical energy you have available to use, the less you dip into the fuel reserves to get your power. The harder you can brake without locking the wheels, the faster you can harvest energy for the battery.

So you need a car that has great braking stability and heats up its tyres quickly, particularly the fronts. That way you can harvest the energy more aggressively. The better your tyres work, the less fuel the engine needs – and the spare fuel can be used to employ more boost. So you get more power for a given fuel consumption. Feeding into this formula is aero efficiency – the less drag you create for a given amount of downforce, the less fuel you use… and the more boost you can deploy etc.

So returning to Merc's trick turbo layout, the inlet air for the compressor is taken from a scoop above the cockpit. It now has a nice short distance to travel, improving the turbo's response. But these new cars have an ersH electrical turbine on the same shaft as the turbo: this can be used either to feed excess turbo energy to the battery or in the other direction to spool up the turbo to eliminate lag. So if this already eliminates lag, what's the benefit of the short inlet tract to the compressor? It means you will be asking less of the electrical power of the ersH because the turbo won't need as much spooling. Which means you retain more stored electrical energy – which in turn makes more electrical power available, reducing fuel consumption and allowing greater boost.



Turbo compressor (in yellow) is tucked away at the front – but driven from the rear

## STRAIGHT *talk*

**The design details that separate Merc's V6 turbo from the rest**

With the compressor up front, it's virtually alongside the intercooler. Again this improves turbo response – and also cuts down the plumbing necessary, creating more space, allowing everything to be shrink-wrapped for greater aero efficiency.

As a tangential feature, the W05 features air-water intercoolers. These are more compact but do not cool the air as much as the more traditional air intercoolers used by the other Mercedes teams.

Typically they will deliver charge air to the combustion chamber at about 20-deg C above ambient. The air intercoolers can get it down close to ambient. The cooler the better as far as power is concerned. But, with a regulation fuel flow limit, the cooling requirement is not as great as it would otherwise be. So the trade-off between power and the aero efficiency engendered by the smaller sidepod changes – in the direction of water-cooling.

So we now have a car with super-small sidepods and radiator inlets. It has more efficient energy use because of a) the superior turbo response and b) greater aero efficiency. But the cascading hasn't finished. The compressor – which gets very hot – is no longer at the back, so the gearbox cluster can be brought forward. This centralises the car's masses and makes more compact packaging feasible. The W05 is so tightly packaged it is the only car with bodywork blisters around the rear to comply with regulation dimensions.

The layout will also allow the weight distribution to be brought forward to the limit of the tolerance allowed by the regulations, helping heat the front tyres. Which, as explained, will help maximise energy harvesting under braking and – ultimately – deliver more power...

*Want to learn more about the Mercedes W05?*

***SEE MARK HUGHES ON SKY DURING THE BAHRAIN GP***

**The F1 Show:** Live Friday April 4 8pm and repeated
**Practice:** Friday April 4 11:45am, 3:45pm & Saturday April 5 12:45pm
**Qualifying:** Saturday April 5 3pm
**Race:** Sunday April 6 3pm

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F1 FRONTLINE

*with*

# Mark Hughes





# “Michael and I had been in the trenches together”

Departed Mercedes-Benz team principal Ross Brawn analyses the key moments of a long, successful F1 career... and outlines the reasons for his decision to step down at the end of 2013

ROSS BRAWN AND ADRIAN Newey have won all but three of 22 world championships for constructors since 1992. The current score is Newey 10, Brawn 9. These two, more than any drivers, have provided F1's competitive thrust for almost a quarter-century. Yet they could hardly be more different in their abilities and personalities. Title-winning teams have been formed around their differing strengths and weaknesses, and have risen and fallen with their arrivals and departures.

Yet Ross currently sits on the F1 sidelines, eased out of Mercedes F1 just as it is apparently poised on the verge of success built upon foundations he laid. We're sitting in a hotel reception the morning after his induction to the *Motor Sport* Hall of Fame and he's in standard-spec jovial, relaxed form. Given the immensity of his achievements, his induction and his current non-participation, it seems an apt time to look back on title success over two decades, to a career built upon a controversial partnership with Michael Schumacher and encompassing championships with Benetton, Ferrari and Brawn Grand Prix. If Mercedes should go on to win the 2014 title, he will have played no small part in that on the 20th anniversary of the first championship with which he was involved – Schumacher's controversial 'option 13' launch control-tainted, Damon Hill-nerfing season with Benetton in '94.

"We had some tough times," says Ross, smiling. "We grew up together at Benetton. My formative years as a technical director were his as an F1 driver and we both made mistakes, were both wet behind the ears. That really made our relationship very special; we went through all that controversy together and stood by each other. It was a bit traumatic at times. It was like we'd been in the trenches together; we came out the other side after a lot of pain and aggro.

"Michael by his own admission made some questionable moves on the track. At Jerez in '97 when he hit Villeneuve, he came back to the pits and said, 'That bastard had me off'. I replied, 'Michael, stop. You need to look at what went on'. When he did, he said: 'Oh shit, that was me, wasn't it?' At that level of commitment to win, it's right on the edge. That's what makes him so special. He'd been through those situations and, although I didn't like it, I stood by him in support. Similarly at Benetton, there were things the team and I did that he didn't like, but he stood by and supported regardless."

That last sentence is particularly interesting. Ross is speaking specifically of the Benetton phase of their partnership, a chapter of F1 that has yet to be fully mined and exposed. The main players – and Ross would have to be included as one – are not about to go into detail. But something was going on behind the scenes, a bigger picture than just Benetton perhaps. Ayrton Senna had joined Williams, the world's greatest driver getting into the dominant machine of the previous two seasons; a whitewash looked on the cards. But it didn't happen that way. The Williams was flawed, the Benetton improbably fast and Senna went to his death believing he was competing against an illegal car. Tom Walkinshaw, a man who prided himself upon not being too constrained by what the rulebook said, was in charge at Benetton. That's how Ross, who had overseen the blockbusting Jaguar XJR-14 sports racer for Walkinshaw, got his big F1 break. Something enabled Schumacher to get out of his Benetton contract one year early; it was supposed to expire at the end of '96, just like those of Brawn and Byrne. Instead he was able to walk at the end of '95, after winning his second consecutive title, in less controversial fashion. Why did he want to get out and what clause was invoked? After the FIA had Benetton's Imola '94 software analysed. it was found to contain an 'option 13' that could trigger the banned launch control. But the FIA said it could find no evidence that it had been used, which seemed a fairly soft conclusion under the circumstances. The reader should fit all those pieces together to come up with their own most likely story. For the moment, that's all we have.

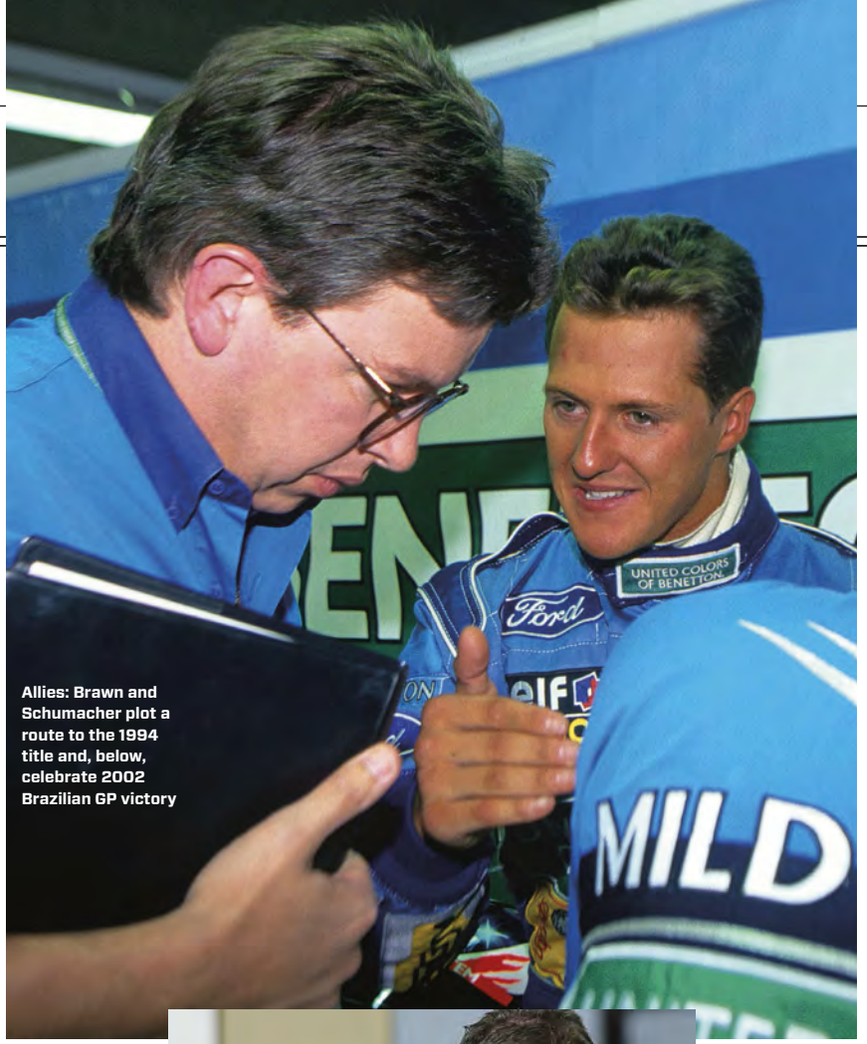
Let's not try to paint Ross as some wide-eyed innocent caught up in the ways of his bosses, but at one point Benetton owner Flavio Briatore was considering a 'plea bargain' with the FIA. Ross informed him that both he and Rory Byrne would resign if he did so, because it would implicate them in something they felt was not of their making. Some of the players in this piece seem to have been trapped within a bigger game and Ross was probably among them. Brawn retains a keen eye for the unfair advantage, for circumnavigating the intent of a rule with clever interpretation of the wording – and afterwards he plays the perfectly reasonable, well-intentioned, fair play gentleman brilliantly well while retaining that inner steely edge – but they are simply the real-world rules of F1. Benetton '94 and the traction control software was something rather more blatant.

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WITH ALL THE KEY PLAYERS ON THE GROUND – Schumacher, Brawn and Byrne – untangled from the Benetton management web, they were re-united at Ferrari from '97 under the direction of Jean Todt. This foursome made a pact: that they would not allow anyone to break them apart, to use them the way three of them had been used at Benetton. They were the four points of a compass and not even Ferrari boss Luca di Montezemelo could penetrate their force field. It was the basis of Ferrari's eventual return to glory and thereafter the longest period of sustained success for any team in the sport's history. This time Ross was in more direct control and the team was expressly, deliberately constructed around Schumacher.

"We didn't want a conflict within the team – and for Michael's team-mate we chose only the fastest driver we could get within that constraint. Why would we pick someone we knew would immediately go into loggerheads with Michael and ensure us a lot of wasted energy trying to deal with it? It was never, 'Oh we don't want that guy because he's too quick'. It was more, 'What's the character of this guy? Is he going to fit into the team?' There was a need to make sure we had the best chance of winning championships – and that was particularly acute the first few years because the team hadn't won for so long."

The Schumacher-centric structure was infamously exposed at Austria in 2002, when Rubens Barrichello was forced to surrender his lead to Michael, creating an outcry. Brawn explains the background to it all. "The whole thing was a mess. We'd had the discussion before the race, anticipating exactly that situation and agreed what we would do. Rubens then didn't want to do it. He came on the radio and said, 'Don't make me do this, I want to win the race', and we had this massive dilemma. You can either let it go – and then you have a different problem because you can't trust that driver any more and any discussions in the future wouldn't mean anything, and that is something which is very fractious in the team. Or you could insist. We said, 'Rubens, you agreed to do this, you said you'd do it, you'd better do it'. And Rubens made a big show of doing it – which didn't help the team at all. I have a lot of sympathy with him. But he needed to say before




**Allies: Brawn and Schumacher plot a route to the 1994 title and, below, celebrate 2002 Brazilian GP victory**




ALL IMAGES LAT

the race, 'Look guys, if I'm leading the race I ain't going to do that' and then we could have thrashed it out and come to a conclusion. Michael just got dragged into the situation. He was given the win, could see the crowd reaction and was embarrassed."

With his title secured, Schumacher then 'gave' Barrichello Hungary, trying to make amends by driving off the pace at critical parts of the race. He also tried a staged finish at Indy – which resulted in Rubens sneaking the win. "We didn't plan any of that," says Brawn. "It was just Michael trying to compensate for what had happened, because he felt bad about it and was getting bad press. That was all fall-out from Austria. We can debate whether team tactics should be a part of F1, but that's how it was."

Perhaps inevitably post-Benetton, insinuations followed the team about traction control and at times there was audible evidence that the Ferrari had some electronic help in getting its power down. But what Ferrari had during this time was not traction control in the strictest sense of the term, but rather a clever interpretation of the regulations that forbade any torque reduction reaction from the ECU to a spinning wheel. What the Ferrari system was doing was anticipating wheelspin rather than reacting to it and was thereby technically legal. Other engine manufacturers came to realise this in time and at least one was using a similar system before the technology was re-admitted in 2002.

These are the murky waters of F1, pushing the rules and politicking. Everyone plays them, but Brawn perhaps most adeptly of all. But there was one area of advantage he claims not to have known. Many years later it emerged that Ferrari had enjoyed a rules veto since 1998, something Todt had negotiated with Max Mosley. "I was quite shocked when I discovered that existed," says Ross. "It was never used to my knowledge and I couldn't see how you could use it. Perhaps the threat of a veto had more impact [on the FIA] than ever using it."

In 1999 – Brawn's third year at Maranello – a constructors title finally came Ferrari's way, the first in 16 years. Prior to that, the obstacles were always the designs of Adrian Newey, firstly at Williams and later at McLaren. Michael took a few against-the-odds wins during this time, when it was difficult to see the join between his own extraordinary skills and Brawn's strategic nous. "It was a golden era for race strategy," he recalls. "I'd had the good fortune of getting involved in strategy through sports car racing for a couple of years before F1. So I had a better insight. It was a small group and we were quick, nimble on our feet. We probably missed a few opportunities because we didn't have the capacity to look at everything, but our hit rate was better than 50/50.

It worked for a number of years – and at crucial times. The impression I got of the McLaren system was that it was broader-based and less dictatorial and sometimes that let them down, though occasionally it was to their advantage because they would have scanned and understood the broader situation. In later years, with the speed of communication with the factory and the enormous modelling, there was less scope for an innovative decision to swing it."

❖

SCHUMACHER NARROWLY defeated McLaren's Mika Häkkinen in 2000 to become the first Ferrari-mounted world champion for 21 years – and from there the team bestrode the sport for several seasons. The energy eventually began to wane as first Rory went into retirement, then di Montezemelo, in trying to plan for a post-Schumacher future by signing Kimi Räikkönen, triggered Schumacher's reluctant retirement at the end of 2006. Months earlier, Brawn had already decided he was going to take a sabbatical in 2007.

Negotiations regarding his Ferrari return broke down and Brawn opted instead for the altogether more difficult challenge of trying to make something from under-achieving Honda. He would be in the team principal role this time – and without Schumacher or Byrne. It was quite a test. The 2008 car was woeful and he spent much of his time trying to keep the input from Japan from compounding the difficulties faced at the Brackley factory. The course of events there would directly impact upon the fortunes of Mercedes to this day.

"It takes three years in my view to build a team," he says. "When I joined Honda I tried to accelerate that process by not wasting time in the first year, just accepting what was there, bringing people in, getting to build a team up. That got abbreviated because they withdrew [at the end of 2008 following the world financial crisis], but that impetus and inertia just carried us through into the Brawn GP year." Incredibly, Brawn GP won both world championships in its only year of existence.

"Honda had made a huge investment and a massive effort had gone in to that car. That became Brawn GP for a year but it wasn't sustainable – we couldn't continue that momentum because

there weren't the resources any more. We only had two cars for half the year, the spare didn't appear until mid-season. We were actually OK financially but concerned we might have to do a second year without a major sponsor. It was a finely judged year and we didn't spend anything more than we had to. Which meant there wasn't a lot in the coffers in terms of technical innovation, development for the following season."

Technically, there were two crucial components to Jenson Button's championship that year in the Brawn BGP 001. The Honda engine for which the car was designed was replaced by a customer Mercedes unit that proved rather better. Secondly, the car had a double diffuser – getting around the intention of new regulations that limited diffuser size and steepness of ramp. This cunning interpretation had left designs from such rivals as Ferrari, Red Bull and McLaren essentially obsolete before they raced. Adrian Newey was furious and remains adamant that the only reason the sequence of Red Bull titles didn't begin in 2009 is that the Brawn was not legal. In looking at the long-running struggle between these two giants, there's a sense that Newey finds it frustrating to have his creative design genius constantly thwarted by Brawn's interpretive skills, rather like the gifted striker who's forever being taken down by the burly defender. Adrian sometimes finds it difficult to hide that frustration, Ross seems to enjoy being magnanimous – which surely only winds up Adrian even more. "My nemesis!" says Ross, smile a mile wide, eyes sparkling with mischief. "I don't know why he gets so caught up on the double diffuser. What is legal? Legal is what the FIA defines. A lot was made of the double diffuser, but two other teams [Williams and Toyota] also had it and we beat them comfortably. A lot was made of the fact that we were able to optimise our car, but we didn't hit upon it until quite late – around August, so our car wasn't fundamentally designed around it and was still a compromise.




"I DECIDED I WASN'T VERY COMFORTABLE THE WAY THINGS WERE"

"Although we've been in competition with each other, Adrian and I have been in slightly different spheres. He has operated within the creative side and I've been in the operative element. But he is extremely competitive, very innovative, very good at interpreting regulations, a poor loser – like I am, I think that goes with the territory – and we've been at each others' throats for 20-odd years.

"I have huge respect for him. He's very talented but just has a different cross-section of talents to those I might have. You build a team around the people you have and a team built around Adrian would have a different profile to a team built around me."

Button won six races in 2009, Barrichello another two. "Jenson had his fantastic days, then sometimes the odd off-race. On his day, though, he's very, very, very good; great on the tyres, great in the wet. Put it all together with Jenson and you can do what we did – which was win the world championship. It got a bit sticky in the middle of the year, yet he really dug down and did the business. He came to me before the race in Brazil and said, 'Don't worry, we're going to be OK today, I'm going to sort it out', and he did just that."

Brawn GP was bought out by Mercedes, making Ross an even wealthier man, but he was retained as team principal. "During 2009 it's fair to say we had quite a number of approaches – some of them outside F1 but very big within the sports world. But because we had become close to Mercedes, we informed them that we were moving towards trying to find some commercial security for the future and that might involve other people becoming involved. It was then that Mercedes said, 'Well, maybe now's the right time for us to bite the bullet and have our own team'. If I'm frank it was a very good deal for the shareholders – but it wasn't the best deal that was on offer. There were more lucrative alternatives, where we could have had extra money and have it sooner because the Mercedes deal was staged over three or four years, but it was the right deal for the team."

Unfortunately, Mercedes could not simply carry on where Brawn GP had left off and even the return of Schumacher could not make the team a consistent winner. "We all believed the resource restriction was going to bite," Ross says, "and the size of Brawn GP would be the model for where the big teams would be in the next year or two. Unfortunately, that simply didn't happen. The 400 people at Brawn GP weren't enough. We suffered during the first year or two as Mercedes, because we didn't have the resources. When Toto [Wolff] joined the team he advised us that Williams's budget was bigger than what we'd been working on as Mercedes. The good thing was that Toto was able to go to the board and say, 'Look, you guys better wake up because…' And the board did wake up. Even before Toto arrived we'd managed to persuade the board to step up because the resource restriction wasn't going to be effective and, in 2012, we brought Aldo Costa and Geoff Willis on board and upgraded the wind tunnel to 60 per cent.

"But somewhere along the way I lost the board's confidence. We'd not had a good second half of 2012 as I diverted resources to the 2014 project. They brought in first Niki [Lauda], then Toto… who without my knowledge appointed Paddy Lowe [as technical director, with the promise of team principal later]. I was informed by McLaren that Paddy was coming – and that's not the way I think things should be done. Then of course we had a much better 2013, so there was an about-face and the board tried to find a solution to keep me within the team. But I decided I wasn't very comfortable the ways things were. I think the team is going to be very successful this season and in a way it's frustrating not to be around to be part of it, but I'm just going to have to be philosophical."

Philosophical, perhaps, but he'll be watching and waiting for the next opening. He is not short of offers and his title tally within the last 20 years dwarfs that of McLaren...

GRAND PRIX NOTEBOOK

# AUSTRALIA



**ALBERT PARK, MARCH 16 2014**

| | | | |
|---|---|---|---|
| 1 | NICO ROSBERG | Mercedes W05 | 1hr 32min 58.710sec |
| 2 | KEVIN MAGNUSSEN | McLaren MP4-29 Mercedes | 1hr 33min 25.487sec |
| 3 | JENSON BUTTON | McLaren MP4-29 Mercedes | 1hr 33min 28.737sec |

**FASTEST LAP** NICO ROSBERG Mercedes W05 1min 32.478sec
**RACE DISTANCE** 58 laps, 191.117 miles
**POLE POSITION** LEWIS HAMILTON Mercedes W05 1min 44.231sec



## THE SOUND

Just the sound of gently lapping water, the oars of a boat and the shriek of the local birdlife as farmer John Batman made his way up the Yarra River in 1835. Upon seeing it was good, he entered into a treaty with the Aborigines for the use of the land. Other settlers came and two years later this settlement around Port Phillip was named Melbourne. Gold was found and from 1850 for the next 40 years there was a gold rush. Now there was plenty of noise. In no time at all Melbourne was the most populous city in Australia. In the time frame of civilisation this place arrived at only 10-to-midnight yet is now a buzzing metropolis that mixes business, sport and bohemia like few others. It's consistently voted one of the top cities in which to live.

There's a traditional rivalry between Melbourne and Adelaide. When Melbourne businessman Ron Walker prised the rights to the Australian Grand Prix away from Adelaide from 1996 – by offering to pay 12 million Australian dollars rather than Adelaide's 9 million – he was made chairman of the event and remains so to this day. He hit it off with Bernie Ecclestone instantly and the two have been staunch allies, always weighing in with support when the other has been under fire.

Walker and his Australian Grand Prix Corporation have been under fire rather a lot in the last few years, because several in the city have questioned what it gets for an annual hosting fee about five times that which secured the race in '96. A 500 per cent inflation rate over 18 years (an average of almost 28 per cent per year) is fairly typical of how F1 has priced itself around the world in that time.

Walker has always insisted there is still a net benefit for the city in terms of tourism, inward investment and so on, and has always delivered a brilliant event around the parkland track that first hosted a national status Australian Grand Prix in 1953 (won by Doug Whiteford's thundering Talbot-Lago). But the questions have become more strident of late and, with the current contract expiring after 2015, there is a real prospect that the state will not rubber-stamp its renewal. So the last thing Walker needed was something that he felt was taking away from his show. He was horrified when the idea of quiet, hybrid V6s was first mooted – and very vocal about how horrified he was. He even arranged a coalition of race organisers to voice their disapproval. He was singing from absolutely the same sheet as Ecclestone, who has always been against this new formula. It increases the costs to the teams (thereby putting pressure on the sport's owners to put back more of what they take out) and in his opinion reduces the spectacle. But F1's adoption of 21st century green automotive technology has happened regardless, at the FIA's insistence.

So it was all quite apt that the opening race of the quiet new era should be Ron Walker's Australian Grand Prix. The race happened, Nico Rosberg's brilliant new Mercedes W05 dominated, the cars were quiet – and Walker and Ecclestone were not happy.

## THE FURY

"We [the Grand Prix Corporation] are an entertainment company and we have to entertain the public," Walker said. "A big part of that entertainment is the F1 noise – and we didn't get it. Everybody was talking about it. When you take the excitement away, you have trouble




Rosberg leads Ricciardo in the early stages. Opposite, podium celebrations and, far left, Kobayashi flies off

selling tickets. You have to create demand and part of that demand is people liking the noise of the race cars." He also said, "This is not what we paid for," and intimated legal action.

Ecclestone was sympathetic, telling Reuters: "I don't know whether he has a point [about the supposed breach of contract]. Let's assume he hasn't as far as the legal side is going. Then you have to look at it from a moral side. If you went into the supermarket today and bought some strawberry jam and you got peanut butter you'd probably be a bit pissed off. It's good quality peanut butter, but he's saying it isn't what he bought. Whether the contract describes what he'd bought, the strawberry jam with so many strawberries, I don't know. I doubt it. I think he bought the FIA Formula 1 World Championship. Which is what he's got."

For the sake of the event's future amid all this controversy it was a Godsend that a young Australian, in his first race for a top team, performed brilliantly, Daniel Ricciardo slotting his Red Bull on the front row to split the Mercs of Lewis Hamilton and Rosberg, then driving a faultless race to second. The cheers of the crowd as he crossed the line easily drowned out the sound of the cars – obviously. But then he was disqualified. Bad, bad timing guys. F1's gift horse was promptly shot – the Red Bull's FIA-supplied fuel metering unit suggesting the Red Bull had exceeded the new regulation flow limit of 100kg/hour. This too was a part of the new regulations. The fuel flow limit was put in place partly to discourage the development of high-revving engines that had little to




do with the development direction of the car industry and also to prevent a car disappearing out front early and then simply managing the gap. To monitor the flow the FIA provides the teams with ultrasonic metering units (made by Gill Sensors). But several teams claimed the units gave inconsistent readings. When teams compared the data from their own injectors, they did not always tally. The FIA insisted teams respect what the official sensors were reading and alter their engines' fuel flow accordingly. Red Bull was warned after Friday practice that Ricciardo's engine was over-delivering. Red Bull countered that its own data showed that it wasn't and that it was therefore a fault with the flow metering units. When Ricciardo's engine continued to show over-delivery in the race, the FIA felt it had no choice but to exclude him. Red Bull has appealed the decision.



CLARK CHICANE, ALBERT PARK

## Close to the edge

"At the braking area for the Clark chicane there's a platter of sounds as F1 takes its first steps into the new turbo era. The whine of heavy energy harvesting, the cough of cylinder-cut wasting not a breath of precious fuel; then, the turn made, the wheeze and burble of V6 muted by the turbo to a cultured growl and that lovely, counter-intuitive sound of acceleration a turbo always provides.

Everyone is short-shifting to get back into the strong part of the torque band and, as the grunt arrives before the corner's finished, we're confronted with the retro scene of powerslides – very apt with the gorgeous, Martini-liveried Williams.

Aggressive energy harvesting is audible by the deeper tone of the rumble under braking. Most brake-by-wire systems are not yet perfect, a fluttering instability apparent on some – though not the Red Bull. Daniel Ricciardo is revelling in what is visibly the most stable car, confidently taking more momentum than anyone else into the chicane. The Renault V6 lacks its rivals' sci-fi aural sophistication, though; at this stage of development it sounds rougher, more mechanical.

The Ferrari's downshifts are barely audible – because they use the ersK to blip engine revs rather than the throttle, so no fuel wasted on throttle blips and an electrically controlled, instantly responsive rev.

Valtteri Bottas is attacking the braking area with total commitment, apparently unconcerned by the Williams's twitchiness on corner entry. In fact he's making an asset of it, using it to help rotate the car early into the turn.

As they rush up the connecting, curving flat-out 'straight' between Clark chicane and the fast Turn 11-12 sequence, the lack of volume combined with the visibly higher speed over the V8s somehow amplifies the drama, the Doppler effect enhanced by the quieter approach. They float across the bumps on the way to 11 and turn in anyhow, drivers way busier than before.

Again Ricciardo catches the eye, flamboyant with his entry speed and taking big, bold lines that encompass the track's full width. Tame in volume they might be, but the F1 car of 2014 allows the driver to look more heroic."

MAP DATA: GOOGLE, SINCLAIR KNIGHT MERZ & FUGRO

# F1 FRONTLINE *with* Mark Hughes




## THE CHALLENGE

Regardless of whether the result stands or not, to be on the front row and second past the flag was an enormous achievement for Red Bull, given that testing was derailed by fundamental problems with Renault Sport's new power unit. The ersH and ersK (respectively heat and kinetic energy recovery units) were only combined with the V6 engine on the dyno for the first time late last year. Each component in isolation performed well, but when brought together problems became apparent. The forces around key dynamic couplings – how components move relative to each other when installed – had been wildly underestimated.

There were three key hardware problems: the drive between the ersK (the motor generator unit that sits between the rear wheels and battery) and the crankshaft overloaded the gearset and caused crankcase failures. The drive from the ersH (the electrical turbine motor generator unit that operates between the turbo and the battery, and which can also deliver power to the wheels through the ersK) was not working as intended. When not delivering power to ersK, the ersH was designed to keep the turbo's turbine spinning even when the turbo was not boosting. But in doing this it was creating way more heat than expected, which was causing component failures. Finally, the cells in the battery were adversely affected by heat and vibration.

The battery problem was quickly solved, but fundamental redesigns were required elsewhere. In the meantime, the software – having been configured around the hardware that didn't work – had to be totally reconfigured to give some level of driveability. Red Bull's own people went to Viry and helped configure something workable. Ricciardo was thus able to show some of the RB10's potential. It looks by far the most stable car and generates corner entry speeds beyond reach of its rivals. But Sebastian Vettel's machine was in constant electrical trouble, restricting him to 13th in qualifying and an early race retirement. This lost him the chance of beating Alberto Ascari's nine grand prix victory sequence from 1952-53 – and he was furious with his lot all weekend.

Meantime, Mercedes was showing the benefits of an engine manufacturer fully integrated with its works team. But it wasn't only that. As you can read elsewhere, the W05's 1sec per lap advantage was derived from a brilliantly conceived car, at the heart of which is an innovation in how the turbo's compressor and turbine are separated. Hamilton's pole owed something to more fortunate track placement than Rosberg, as they were completing their final laps while the wet track was improving, and his early retirement from the race, one cylinder down, means we don't know how he and Rosberg might have compared. With Hamilton out, Rosberg cruised.

But it isn't just about plugging in a Mercedes engine. Powered by the same unit, McLaren took third and fourth with Kevin Magnussen and Jenson Button respectively, but the MP4-29 was about 1sec per lap slower than the Merc. Button was able to save fuel early in the race, when stuck behind slower cars, but running up front Magnussen had to monitor it carefully throughout and only rarely unleashed full power. So why for Mercedes and not McLaren? Aerodynamic efficiency, as summarised by McLaren's Eric Boullier. "I think aero efficiency is now going to be the absolute key to having access to full power efficiency." Reducing drag to reduce fuel consumption to increase boost.

That said, Magnussen drove brilliantly on his debut, pushing hard without error in qualifying and delicately treading the balance between push and consolidation in the race. With some smart marshalling of his stored power, he almost succeeded in jumping Ricciardo at the second stops from a long way back. Thereafter he just kept on the pressure to the end.

Valtteri Bottas's Williams would have been smack in the middle of this battle, maybe even ahead of it, had he not a) been compromised in qualifying and then hit with a five-place grid penalty for a gearbox change and b) picked up a puncture after hitting the wall in pursuit of Fernando Alonso's Ferrari. The Williams-Mercedes was the best-looking car and probably second quickest around Albert Park.

As for Ferrari, it's energy recovery is not yet working effectively (it is about 70bhp down on Mercedes) and its brake-by-wire system is inconsistent, something Kimi Räikkönen found very difficult. Alonso simply bullied the car to a good fifth place, which later became fourth. Early days yet, but Ferrari was not a serious force in Melbourne.

## THE FUTURE

Yes, the cars were quiet. But the quality of that noise was wonderful as was the way it allowed you to hear the different phases of the power units in operation. All that torque allied to a reduction in aero grip made for old-fashioned power slides out of the slow turns. Even through the faster stuff the cars were moving around, the drivers having to use up parts of the track they'd never noticed were there in the previous V8 cars.

Yes, perhaps the fans missed the sheer volume. But after a while they might come to appreciate that what they've got is actually an improvement. And Mr Walker's dilemma? If the commercial rights holder wasn't charging such exorbitant fees, there would be less pressure on the event and the outcry wouldn't have such potentially serious ramifications.

It was a fascinating opening contest and we saw the emergence in Magnussen and Toro Rosso's Daniil Kyvat of some great new talent. We look forward also to seeing Bottas light up the tracks. The rest? It's all just noise.



*Read the definitive account of the race from Mark*
***@ THE MOTOR SPORT DIGITAL GP REPORT***




The shade of things to come: 2014 WEC challengers from Audi, Porsche (below) and Toyota (bottom)

# Audi's power cut

**Le Mans king reins in hybrid targets** | BY GARY WATKINS

AUDI HAS REVEALED THAT ITS NEW R18 e-tron quattro will race with just one energy-retrieval system and run in the lowest class of hybrid power in this year's World Endurance Championship.

Audi has abandoned a system that recycles energy from exhaust gases and confirmed as much late in March, when officially launching its new car and livery in Le Mans. It will now rely solely on a revised version of the front-axle energy-retrieval system that it has used for the past two seasons in the original R18.

The announcement included Audi's intention to run in the sub-class that allows for only two megajoules of energy retrieval over the course of the 8.47-mile Le Mans lap. That means Audi has more modest targets than rivals Toyota and Porsche: the new Toyota TS040, also unveiled at the end of March, will run in the 6MJ class and Porsche will field its 919 Hybrid in the highest 8MJ division.









"We tested it, but in the end we said that the ratio between the benefits and the risk was not a good one"
**Wolfgang Ullrich**

Audi Sport boss Wolfgang Ullrich explained that the exhaust system, part of the first instalment of technical details announced in December, had been abandoned because it did not meet its targets and raised reliability concerns. "We tested it, but in the end we said that the ratio between the benefits and the risk was not a good one," he said.

Ullrich revealed that the decision to run in the 2MJ class was linked to a desire to optimise weight distribution, which would not have been possible with a heavier hybrid system.

"From the calculations we have done, we think the combination of the diesel engine and the 2MJ system is a better combination than going into a bigger class and having the problem of not getting the weight where you want it," he added.

Audi also announced that its existing single-turbo V6 diesel had been increased in capacity from 3.7 to 4.0 litres, in the name of efficiency. As part of the launch, Tom Kristensen drove an R18 from the city centre to the Circuit de la Sarthe.

Toyota, which unveiled its TS040 two days later, has increased the capacity of its normally aspirated petrol V8 from 3.4 to 3.7 litres. Its new car retrieves energy from the front and rear axles and Toyota claims it has a potential 1000bhp when outputs from the V8 and its twin-hybrid systems are combined.

Porsche, meanwhile, has revealed the livery its pair of 919 Hybrids will run in the 2014 WEC. When viewed from above, the livery incorporates the opening letters of company slogan 'Porsche Intelligent Performance'.

## Battersea power station?

BATTERSEA PARK IS THE LATEST site under consideration for London's round of the FIA Formula E Championship in June 2015.

The 200-acre site in the Borough of Wandsworth has been evaluated for its potential as venue for the final round of the inaugural Formula E series. London Mayor Boris Johnson is believed to support the idea in principle. The series organisers, the local council and the mayor's office are understood to be trying to keep plans secret until the capital's local elections conclude in May, after which they will begin the process of applying for planning permission to create a temporary venue for the June 27 fixture.

Formula E is not commenting on its plans for the London event, except to say it has identified a site and that the majority of hurdles have already been cleared.

The track layout for the inaugural Formula E race, in Beijing in September, has been finalised. The 20-turn 2.14-mile track runs around the Bird's Nest stadium on the city's 2008 Olympic site.

## Busy year for McNish

WORLD ENDURANCE CHAMPION Allan McNish will have a multi-faceted role with Audi in his first season after retiring from the cockpit.

McNish, who called time on his front-line driving career in December, will act as a link between Audi's LMP1 driving squad and development engineers from Audi Sport. At the same time, he will be involved in liaising with motor sport governing bodies around the world.

Audi Sport boss Wolfgang Ullrich said. "Allan will take care that the thoughts of the drivers go directly to the development people and make sure all their points are taken into account as quickly as possible."

McNish, 44, will also play a role in driver development and was instrumental in placing new Audi LMP1 squad member Filipe Albuquerque with the Jota Zytek LMP2 team for the European Le Mans Series.

"Part of my job will be to ensure that the car is exactly as the drivers need it, because they are the ones who will be out on the track," McNish said.

■ **The future of the Nürburgring has been saved after a new group took over the company that operates both the modern Grand Prix circuit and the Nordschleife. The Capricon Group, an automotive parts specialist, has paid €100 million (£83 million), of which one quarter will be invested in the facility.**

■ **Former Grand Prix driver Nelson Piquet Jr will race in the Blancpain Sprint Series this year. The one-time Renault driver will dovetail an assault in the US-based Global Rallycross series with selected outings in a BMW Team Brazil Z4.**



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REVS INSTITUTE

# GORDON KIRBY

## WHEN MARIO ANDRETTI TURNED PRO

FIFTY YEARS AGO THIS MONTH, MARIO Andretti quit his day job to become a professional racing driver. Mario had built his reputation in the north-eastern USA throughout 1962 and '63, winning a bunch of races aboard his own Triumph-powered three-quarter midget, as well as the Kurtis-Offy midget of Bill and Ed Mataka (above). He drove the Mataka brothers' midget in more than 50 races during those two seasons, winning six times (and taking the first road course victory of his career, when he beat Mark Donohue at Lime Rock in July '63).

Andretti's good work with the Mataka midget resulted in an offer to drive Rufus Gray's Gapco sprint car. Gray paid him $175 a week and Mario considers this to be one of the biggest breaks of his career. The Gapco ride came as May – Indy 500 time – rolled around, so Mario decided to spend the month nosing around the Speedway's garage area. At the same time, he'd be settling in with Gray's team for the series of spring and summer USAC sprint car races in the Midwest.

Mario finished fourth first time out for Gray at New Bremen, Ohio, but at the start of the race Chuck Hulse ran into Mario's tail, crashing hard and breaking his back. Hulse was driving Indycars that year, for Clint Brawner's Dean Van Lines team, and Brawner decided to replace him with the promising Andretti.

But Brawner told Mario he wasn't ready for Indianapolis, or the next race at the infamous Langhorne one-mile dirt track. He believed Langhorne was too dangerous for such a spirited, raw youth and made a temporary agreement with the more experienced Bob Mathouser to drive at Indy and Langhorne.

After watching that year's Indy 500, Mario finished second in Gray's sprint car in another race at New Bremen and was second-fastest qualifier at Terre Haute a few weeks later. Then came an offer to drive Lee Glessner's dirt championship car at Langhorne, in his USAC Championship debut. Langhorne's D-shaped configuration featured the infamous Puke Hollow, which had claimed many lives (including that of Jimmy Bryan in 1960).

"I had never raced at Langhorne, but had been there and seen several fatalities," Mario says. "Preparing for that first time made me feel as though I was a soldier on the front line, facing battle the next day. It's the only time in my career that I remember feeling, the night before, like maybe I won't come back.."

Unlike most of the front-runners, Glessner's car lacked power steering – and that made Mario's job even more difficult. To negotiate Puke Hollow it was necessary to pitch the car sideways three or four times, which was extremely heavy work without power steering.

Mario qualified eighth and hung on to finish in the same place. "I was the first finisher without power steering and my hands were like hamburgers," he says. "I had so much adrenaline I didn't feel it until the end."

The week after Langhorne, Mario finished second at Indianapolis Raceway Park in the Gapco sprint car. At Williams Grove soon afterwards, however, he spun one lap after passing AJ Foyt for the lead and was hit by Don Branson, taking both out. Brawner warned his young charge that any further wild driving would cost him his ride.

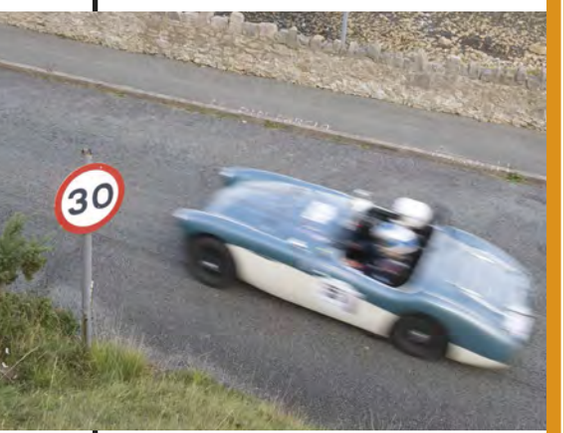
Mario made his debut in Brawner's roadster at Trenton the following day, working his way up to sixth before losing two laps after spinning on oil. He finished 11th, beginning a five-year marriage that would result in three USAC titles and 29 wins, including the '69 Indy 500. By then Andretti had become not only a racing superstar, but a household name.

# Road bill boost for UK sport

THE POSSIBILITY OF CLOSED-ROADS MOTOR sport in England, Wales and Scotland has taken a major step forward, with the announcement of a government consultation process. Most countries in Europe, including the Republic of Ireland, have laws allowing public roads to be closed for motor sport. And the Isle of Man already reaps major financial benefit from closed-road motor sport.

However, aside from specific bills catering for the Tour of Mull and Jim Clark Memorial rallies in Scotland, the UK does not allow motor sport on public roads. The main hurdle has long been cited as the need to suspend road traffic laws, including speed limits.

The UK's governing body, the MSA, has lobbied successive governments to give local authorities the right to suspend the Road Traffic Act without having to resort to an Act of Parliament. Such an amendment would open the way for competitive motor sport such as

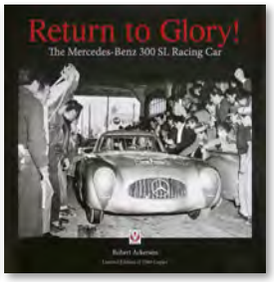



stage rallies, sprints and hill climbs to take place on a limited number of British roads. Responses to the consultation close on April 10.

Rob Jones, MSA chief executive, said the consultation was a huge step forward for the MSA's long-running campaign. "This is the news British motor sport has been waiting for," he said. "It represents a once-in-a-lifetime opportunity to change the landscape of our sport, allowing local communities across the country to host motor sport events and enjoy all the excitement and economic benefit they bring."

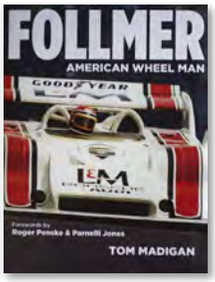
Leading characters in the sport have added support, including 1992 Formula 1 World Champion Nigel Mansell. "I have seen first-hand the very significant impact of motor sport on the economy of the Isle of Man and Jersey," he said, "so this would be a great move forward for the sport and would bring visitors and pride to parts of the country that stage events."










## BOOKS & DVDS

### 1 – Life on the Limit

Grand Prix racing has always had its darker side. While this excellent documentary doesn't focus solely on the tragic, it is certainly a common theme. Overall, however, it goes towards telling the story of how the sport has evolved on every level, with safety now to the fore.

Fast editing and a brilliantly clever soundtrack give sharp relief to the vividly emotional scenes. Interviews with top names are numerous and well used, with even the sometimes difficult Mr Ecclestone contributing a few choice quotes. Self-congratulatory safety champion Max Mosley appears far too frequently for our liking, however...

Directors have previously struggled to commit to film the sights, sounds and emotions of why we love F1. Well, that is no longer the case. This is hands-down brilliant and will make you want to book tickets to the next British GP.

Be warned, though. It will cause even the toughest of you to reach for the Kleenex. It doesn't just tug on the heart strings, but pretty much yanks them clean out and chucks them over the pit wall... **DC**
*Produced by StudioCanal, £22.99*

### Return to Glory
**The Mercedes-Benz 300 SL Racing Car**
*Robert Ackerson*

Think 'Silver Arrows' and 1930s Grand Prix behemoths spring to mind, or perhaps Moss and Fangio in mid-50s W196s and 300 SLRs. Such images surely explain why Mercedes-Benz's exploits of 1952 are sometimes overlooked.

Nevertheless, just seven years after the end of WWII this single-season return with the futuristic 300 SL was hardly low key, in terms of either ambition or hard results. Victories at the Nürburgring, Le Mans and Mexico's epic Carrera Panamericana gave the original gull-wing a very successful wins-to-starts ratio. A tale worthy of a tome, then.

American author Ackerson tackles the genesis of the 300 SL and its single season in the spotlight using familiar driver autobiographies, contemporary magazine reports and, pictorially, Daimler Media's extensive archive. Good sources, but it means there's nothing new for those familiar with the history. Instead, this is a useful, albeit overpriced, introduction to a season overshadowed by events both before and afterwards. **DS**
*Published by Veloce*
*ISBN 978-1-845846-17-6, £75*

### Alpine Renault
**The fabulous Berlinettes**
*Roy Smith*

By definition, the fact you're perusing *Motor Sport* means you ought to have a soft spot for the Alpine A110. It might not be a universal truth, but it should be.

People tend to go weak at the knees whenever the Lancia Stratos is mentioned, but has there ever been a more proportionally elegant rally car than the svelte A110 coupé – which was usually clothed in purest French racing blue?

There has been many a dedicated model history in the past, but this is the first to appear in English and contains a rich seam of photographs that the publisher claims to be previously unseen. In addition to a vast amount of detail about the A110, there is also a chapter about what Alpine did after winning the 1973 World Rally Championship – including construction of the first Renault F1 prototype, the turbocharged A500 pictured at rest during a low-key test in May 1976 (more than a year before its race debut).

Costly, yes, but there's one hell of a lot of information in here. **SA**
*Published by Veloce*
*ISBN 978-1-845844-04-2, £75*

### Follmer
**American Wheel Man**
*Tom Madigan*

It's taken a long time for George Follmer's story to make it into print and, like his route to the pinnacle of motor sport, this book isn't quite what you'd expect.

Madigan presents a series of interviews in the order he conducted them, piecing together an image of Follmer, his life and the cars he drove that, while often repetitive, can be fascinating.

There was little room for romanticism in Follmer's racing. He drove for money first, satisfaction second: winning was a way to support his family and that pragmatism turned him into a relentless competitor.

That he went from club racing to F1 in a few short years speaks volumes for his talent, but it's his adaptability that stands out. He was a genuine all-rounder, capable of beating anyone on his day.

Despite its repetition – and significant price – this welcome book contains a rare racing story that hasn't been told enough. **ACH**
*Published by Justice, $59.95*
*ISBN 978-0-9828999-2-2*

# Gary Bettenhausen
1941-2014

GARY BETTENHAUSEN has passed away, aged 72. Bettenhausen won the USAC Sprint car championship in 1969 and '71 and led most of the Indy 500 in 1972, driving a McLaren-Offy for Roger Penske, before a late ignition failure allowed team-mate Mark Donohue to score Penske's first Indy 500 victory.

Gary was the oldest of 1951 and '58 Indycar champion Tony Bettenhausen's three sons. He, Merle and Tony Jr all went on to race Indycars and Gary was most successful, starting no fewer than 21 Indy 500s and winning four USAC championship races between 1968-'73.

Gary started his career in stock cars and made his USAC Championship debut in 1966. He took his first Indianapolis start in 1968 before scoring his maiden Indycar win at Phoenix at the end of that year. Gary won again at Michigan in 1970 and was hired by Roger Penske in 1972, winning at Trenton that April.


MS

In 1974 Gary was seriously injured in a mid-season sprint car accident that sidelined him for the rest of the year and left him with restricted use of his left arm. As a result he was dropped by Penske but continued to race Indycars, midgets and sprint cars through to 1993.

Gary scored his best Indianapolis result in 1980, finishing third in an outdated Wildcat-Offy against the Cosworth V8-powered front-runners.

He is survived by his wife Wavelyn and sons Gary Jr, Cary and Todd. *Gordon Kirby*




# Graham Warner
1929-2014

RACING DRIVER AND constructor Graham Warner died on March 8, aged 84.

Born in Battersea on May 1 1929, the Londoner would devote his life to two great passions: aircraft and motor sport. After leaving college, Warner joined the RAF and flew Meteors and Vampires at the dawn of the Jet Age. The lure of motor sport, however, was never far away: reasoning that his racing heroes were all car dealers by day, Warner joined Civvy Street in 1953 and became a salesman with Performance Cars of Brentford.

After competing in a handful of hill climbs aboard his ex-Richard Stallebrass Aston Martin 2-Litre Speed Model, he acquired a Ford-engined Kieft and entered a race at Castle Combe in '53 only for a broken stub axle to end play; a further five years would pass by before he made his circuit debut. In the meantime, he decided to go it alone and, in 1956, The Chequered Flag was born in Chiswick. A spin-off race team, The Chequered Flag Stable, was established two years later, with Warner campaigning an Austin-Healey 100S in '58 before adding a Tojeiro-Bristol, a Cooper Monaco and a one-off Lotus 7/12 to the line-up. Team members included Percy Crabb and Graham Hill.

As a driver Warner became inextricably linked with racing his Lotus Elite, which in time received the number plate LOV1. His battles with the similar car of Les Leston – whom he loathed – would enter into legend. In 1962, he stepped up to race for John Ogier's Essex Racing Stable, sharing an Aston Martin DB4GT Zagato with Jim Clark. Warner also gave the sainted Scot his first-ever start in a single-seater, on acquiring the rights to the Moreland Formula Junior design that subsequently morphed into the Gemini Mk2.

Warner fielded sports cars and single-seaters until 1968, including works machinery for Brabham and McLaren. Alumni including Jackie Stewart, Jacky Ickx, Mike Parkes, Bob Bondurant, David Hobbs, Gijs van Lennep, Andrea de Adamich, Frank Gardner and Chris Irwin (who he considered the best driver ever to race for him). The team returned with an abortive F1 bid in 1974, before switching to rallying a year later with Lancia Stratoses, Porsche 911s and Triumph TR7 V8s.

In later life Warner was the driving force behind the revival of a Blenheim bomber – restored a second time following a crash – and also a respected aviation historian. *Richard Heseltine*

# WEB SPIN

### FORMULA 1 SEASON PREVIEW PODCAST

**Rob Widdows:** Just returning to last month's magazine and the Formula 1 Revolution. Do we honestly think that any of the ideas that we've put forward are likely to happen?
**Mark Hughes:** Yes Comrade… I think it's more to put it out there and it seems to have struck a chord with a lot of followers of the sport. There's definitely been a bit of a reaction since the double points idea. That seemed to be the straw that broke the camel's back for a lot of people. 'Yeah, and while we're at it, that's a stupid idea, so was DRS, the silly tyres…'
It seems to have finally cracked a lot of people – it's become apparent just how artificial F1 has become. I think the sport would be well advised to listen to that.
**Simon Arron:** If television numbers continue to decline then they will have to do something. There was a big dip last year – it was exaggerated in certain markets, but the overall viewership was down.
**MH:** And it's not pulling in new viewers, it's not getting younger people in like it used to.

## What we're all talking about @ www.motorsportmagazine.com




The following for Formula 1 is aging.
**RW:** Is that because Red Bull has been winning all the races?
**MH:** Yes, that's certainly a part of it – there are lots of factors working towards it. You can tell from the reaction to double points that artifice is part of what people aren't happy with.
**RW:** We know revolutions work, but they normally work well when the pressure is kept up rather than one outburst that is then forgotten about. So how about all the people in grandstands coming down and standing outside the paddock, refusing to leave?

## TOP TWEETS

**@Damien__Smith** Ricciardo and Magnussen impressive in Aus GP, as was Kvyat. Great to see new generation.

**@dariofranchitti** Not the same without @pauldirestaf1 and @AussieGrit on the F1 grid, but I'll enjoy watching them in DTM and WEC.

**@Andrew_Frankel** Strongest feeling after my afternoon in the P1? How much my neck hurts. Always a good sign.

**@paulpunter** Stat of the day: Richard 'The King' Petty led 51,380 laps in NASCAR #dizzying.

**@SportmphMark** Just returned from trackside in Melbourne. The new cars sound fabulous, look spectacular.

**@AnotherEdFoster** You decide to do a bit of racing and want to ease yourself into it. Nürburgring 24 Hours in a GT3 R8 should do it... #FelixBaumgartner

**@SportmphMark** Lewis Hamilton had a turbo fitted to his snowmobile to get used to tpower delivery. Great excuse!

**@Andrew_Frankel** Fabulous effort by @MFranchitti and co to win Sebring 12 hours by 5sec. Well deserved and long overdue.

## MOST READ THIS MONTH

**What's been catching the attention of our online community**

**The death of US bike racing**
*by Mat Oxley*

**The demise of FOTA**
*by Nigel Roebuck*

**FIA muddles historic racing regulations**
*by Andrew Frankel*

## ONLINE WITH OUR WRITERS

### Sébastien Buemi
**Toyota's year ahead in the WEC**

When you see how much it takes just to finish Le Mans, let alone win, other racing looks almost easy. You have one opportunity every year and that adds pressure. You can't afford to mess it up, you can't miss one braking point because you'll be in the gravel and that's it. In the past you could win by changing things. Now, if you have to mend something at all serious, that's it. Gone. Finished.



### Lee McKenzie
**The season of the debutants**

The rookie with the biggest reputation is Kevin Magnussen, a nice guy and a quick driver with one of the coolest demeanours. I've known Kevin for a while and to this day his attitude is the same, serious and stealth-like in arrival, ambition and execution. His maturity is greater, though, as is his confidence.

### Oliver Gavin
**Sebring: a true test of endurance**

There were many who lacked experience at Sebring – a tough, physical and bumpy track, very technical in places. You only have to be slightly off line and all of a sudden you're in real trouble. There were a number of big incidents, initiated by spins or someone rejoining at an inappropriate time, or just people being in the wrong place at the wrong moment. Some of the yellows were caused by very foolish driving and we have to hope they're looking at that and will do something.

### Paul Fearnley
**Jacky Ickx's final flourish in Formula 1**

But Ickx was the fastest man on the track. On lap 15, he passed Fittipaldi for second place. By lap 30, he had Lauda in his sights. The move, when it came, was epic. Having feinted once and surmised that Lauda hadn't seen him, Ickx went for it on lap 35. This was the final year of the original Paddock Hill Bend – a relatively fit man with an Atco could have mown the run-off in less than an hour. Yet the blithe Ickx came from way back, teetered over the crest and sailed around the outside.




KAWASAKI

# MAT OXLEY

## A WORLD CHAMPION OF CHARACTER

BRITAIN'S MISERABLE LACK OF SUCCESS IN MotoGP has been well documented in these pages, our success in the second-division World Superbike series less so. We seem to be just as incapable of losing in World Superbike as we are of winning in MotoGP.

Over the past 26 years 13 Britons have won 138 World Superbike races – more than any other nation – and four of them have gone on to claim eight WSB titles. Perhaps we should be more geographically precise, because all eight of those championships were won by riders born within a 30-mile radius of each other in the counties of York and Lancaster.

The latest Plantagenet to wear the crown is Tom Sykes, who took the 2013 title on his Team Green Kawasaki ZX-10R (above), a heavily modified road bike, like all WSB machines. The Huddersfield rider follows in the wheel tracks of Carl Fogarty (Blackburn), Neil Hodgson (Burnley) and James Toseland (Doncaster).

Sykes is only joking (I think) when he attributes the success of gritty northerners to the water – apparently, northern riders are harder than southerners because the water is softer up north.

Chisel-faced Sykes is a great character: tough, funny and no airs or graces, unlike many top racers. "A lot of riders have split personalities," he says. "They're your best mate when you're having a coffee, then you get to the paddock and they don't know you. That's not my style, that's not who I am. The main thing for me is what you see is what you get and that I'm very grateful for what I do."

Sykes got his first WSB ride in 2009 and was hired by Kawasaki the following year. In 2012 he came within half a point of winning the WSB title, beaten by former MotoGP star Max Biaggi (many MotoGP riders pass through WSB en route to retirement).

Sykes would like a MotoGP ride, not only because he would get paid a lot more, but also because he would like to measure himself against the best. In fact he's already done that. During testing at Jerez last year he came within three tenths of Jorge Lorenzo's MotoGP lap record. That's quite something on a bike with less horsepower, fewer electronics and steel rather than carbon brakes.

Sadly, a MotoGP ride is little more than a dream for Sykes, because he is 28 years old and would have to join a long queue of thrusting youngsters from MotoGP's heartlands: Spain and Italy.

"I feel the door is closed for me," he says. "I think the top riders in WSB are better than a lot of riders in MotoGP, but we don't get the chances."

Sykes believes it will become even harder for WSB riders to break into MotoGP, because their bikes are to be detuned to prevent them from matching MotoGP lap times. Both series are now owned by the same private equity company, so there's an obvious corporate interest in keeping them apart, which means slowing down the cheaper, less lucrative of the two championships.

"It's a shame what they're doing, but we're run by the same organisation so it was always going to happen," he says.

Perhaps if Kawasaki were to return to MotoGP (the factory withdrew in 2009, beset by the economic crisis and a lack of results), Sykes might find himself on the grid. But the manufacturer's success with its ZX-10R has won it valuable publicity in the motorcycling world for a fraction of the cost of competing in MotoGP.

"What Kawasaki spent in MotoGP was massive," says Sykes. "I'd say we're spending 20 per cent of their MotoGP budget, if that."

A marketing type might explain the difference between the two championships thus: you race in World Superbikes to sell motorcycles to motorcyclists; you race in MotoGP to sell bikes, but also energy drinks and mobile phones.

Although Kawasaki is part of the vast Kawasaki Heavy Industries empire (planes, ships, helicopters, trains, industrial plants etc), its motorcycle wing is small and its race department tiny.

"After I won the title I went for a celebratory presentation in Japan. I had a photo taken with the whole racing department: there were six people from the chassis side, six from engines and electronics and five from management."

Sykes is proud of his championship success, especially since he achieved it against Aprilia's RSV4, more like a MotoGP bike built for the road than a road bike tuned for the track.

"I never really shout about it, but my natural feel for a motorcycle is good and my feedback is normally very detailed. What I appreciate is that Kawasaki is willing to listen and understands how to react to issues."

The most important partner in Sykes's success is Kawasaki engineer Ichiro Yoda, who made the unusual move – for a high-grade Japanese employee – of switching companies. He defected to Team Green after designing Yamaha's YZR-M1 MotoGP bike. Inevitably, he has to put up with a lot of Star Wars 'jokes'.

"People are always coming up to him in airports, asking if he's the real Yoda, and for all I know he might be," Sykes says, with a laugh. "He's been involved in racing longer than I've been alive and he's quite European, so he helps transfer my feedback to Japan."

Although WSB riders live in MotoGP's shadow, they do occasionally get recognised for their efforts. Sykes was recently awarded the Torrens Trophy at the Royal Automobile Club. True to himself, he sat down at the awards lunch in a grand RAC dining room, next to wife Amie and baby daughter Millie in a pram. He was overwhelmed by the glittering trophy – many times more magnificent than the gongs he receives at WSB races.

"It's a beautiful piece of silverware," he says. "It's a bit embarrassing in Superbikes now – you win a race and get a piece of plastic. Even with my World Championship trophy, the name plate is on the piss and it's already falling off. That's what things have come to!"




"The main thing for me is what you see is what you get and that I'm very grateful for what I do."




A full field of 1920s-1930s sports racers is expected for the *Motor Sport* Trophy

PETER MCADYEN

# Donington Festival grows

***Motor Sport* Trophy a key cog in the 2014 line-up** | BY PAUL LAWRENCE

THE 2014 DONINGTON HISTORIC Festival will be the biggest such event yet, with racing on each of its three days from May 3-5.

The line-up spans more than 60 years of racing, starting with the *Motor Sport* 90th Anniversary Trophy for pre-war sports cars. A full grid from the 1920s and 1930s is anticipated, with a pair of half-hour pitstop races.

The most recently confirmed event is for saloon cars from 1958 to 1966, to showcase the early years of what became the British Touring Car Championship. The Historic Racing Drivers Club is putting together a representative field to cover an era that embraces the Austin Westminster of Jack Sears and Jaguar Mk1 of Tommy Sopwith, plus Ford Zephyrs, Austin A40s, Minis and Jaguar Mk2s.

"We will endeavour to illustrate the championship winners from the early years as well as the class acts that supported them," said HRDC founder Julius Thurgood. The race, planned for Saturday, will last 45 minutes and includes a pitstop.

The meeting also features headline races for Pre '63 GT cars, the Martini Trophy for 2-litre sports-racers of the 1970s and the FIA Masters Historic Sports Car Championship.

John Surtees will be the guest of honour at this year's Festival, because this season heralds the 50th anniversary of his 1964 F1 World Championship victory with Ferrari. The event will raise funds for the Henry Surtees Foundation, set up in memory of John's late son, and Surtees will attend autograph sessions on Sunday and Monday.




■ **An ex-Jean-Christophe Boullion Renault Laguna will return to racing this year, with Simon Garrad in the Super Touring Trophy. He will run the last of the Lagunas built for the 1999 season. Round one takes place at Thruxton over the Easter weekend.**

■ **The Shelsley Walsh Classic Nostalgia weekend will be held on July 19/20. Classic and historic cars will be in action on the famous 1000-yard hillclimb, while a concours will be held in the adjoining car parks. Sir Stirling Moss will be among the guests.**

## Mikkola for Sydney-London

HANNU MIKKOLA IS THE STAR entry for the 2014 Sydney to London Classic Marathon Rally, which starts in Sydney on April 12 and finishes in London a month later.

The rallying legend will drive a Ford Escort Mk2, with son Vesa co-driving, and admits that, at 71 years old, this could be his last such marathon. The 1983 World Rally champion heads a 27-car field and the route covers 91 stages in eight countries.

On the last marathon to link London and Sydney, in 2000, Mikkola was co-driven by elder son Juha. Now, it's his younger brother's turn. "It will be good to get my father back where he belongs, behind the wheel of a Ford Escort RS1800," Vesa said.

## Bahamas back on track

MOTOR RACING RETURNS TO the Bahamas next January, as the Speed Week Revival steps up a gear on a purpose-built track that's currently under construction.

Between 1954 and 1966, the Bahamas Speed Week was a popular off-season event for the period's leading drivers, who took part in sports car races on temporary circuits near Nassau. In recent times, the flavour of that event has been recreated and the return of full-blown racing represents the next stage.

A new FIA-standard circuit is being built on a 600-acre sports complex in Nassau. It will be inaugurated on January 22-24 with grids of up to 30 cars racing on a two-mile track. Featured categories include Formula Junior, Pre '66 Saloons, Formula Vee and sports-racing and GT cars from 1954-60 and 1961-66.




LAT

"The track is now in build," said event chairman David McLaughlin. "The layout includes about 20 per cent of the Oakes Field track (pictured in 1961, above) first used in 1954, so we will also be celebrating the 60th anniversary of that event.

"The layout will flow really well for historics. It was always part of the long-term plan to bring racing back to the Bahamas and there is a development plan for the event in future years."

## Historic F1 in demand

THE FIA MASTERS HISTORIC Formula One Championship is poised for a record-breaking season, after a 29-car entry was received for the

opening races at Barcelona's Catalan Classic Festival (April 4-6).

The field includes reigning post-78 champion Greg Thornton in his ex-Nigel Mansell Lotus 92/5 and 2013 runner-up Ian Simmonds (Tyrrell 012). Meanwhile, former GP Masters champion Richard Barber will run his new-for-2014 Williams FW08C.

"It proves that there is still huge enthusiasm for historic Formula 1 racing," said Rachel Bailey from Masters, "and we know of more cars that will come out later."



LAT

## Trident at the 'Ring

THE CENTENARY OF THE MASERATI marque will be commemorated during the 42nd Oldtimer Grand Prix at the Nürburgring (August 8-10) – and celebrations will be topped by the spectacle of classic 250F Grand Prix cars being driven on the 14-mile Nordschleife.

While the focus of the weekend's racing will again be the modern GP track, a parade of racing Maseratis will take to the full circuit. The 250F has rarely been seen on the Nordschleife since Juan Manuel Fangio's famous German GP victory in 1957 (above).

The HGPCA will present its Nuvolari and Ascari Trophies to winners of races for Pre '60 and Pre '66 Grand Prix cars on the modern track.

## Mustang tally

THE PROMOTER OF THE Silverstone Classic aims to set a new record for the number of Ford Mustangs in one race.

The July 25-27 event marks the 50th anniversary of the American machine and two Masters Pre '66 Touring Car races will include Mustangs running to Appendix K specification – as well as a one-off invitation class for slightly more modified examples.

It is hoped that 25 racing Mustangs will be involved.

— OBITUARIES —

## Erle Morley

**Erle Morley, who died in late February, shared many international rallying successes in the 1960s when co-driving for his brother Don. The Suffolk farmers rallied Austin Healey 3000s and MGBs on most major European events of the era and won the 1965 Geneva Rally. However, their programme was always interrupted by harvest commitments. In 1964, they took their MGB to a class win on the Monte Carlo Rally and helped BMC to win the team prize for manufacturers.**

## David McKinney

**Respected writer and historian David McKinney has died following a lengthy period of illness. He was 68. Born in New Zealand, David had been based in Britain since the mid 1980s and contributed to a wide number of publications. He also wrote the definitive Maserati 250F history, which unravelled many a mystery surrounding individual cars' identities. He will be remembered fondly for his no-nonsense approach, attention to detail, generous spirit and unfailingly good company.**

## PRODUCTS



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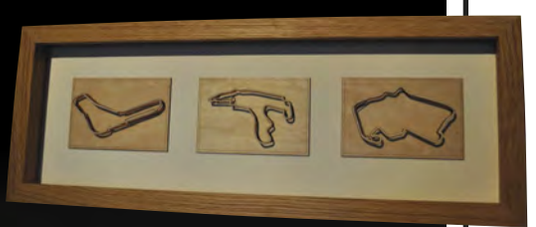



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## WHEN THEY WERE NEW
# Triumph TR2

**An original road test taken from the *Motor Sport* archives, February 1955** | BY BILL BODDY

TO DESCRIBE THE TR2 AS A VERY good car is to state the obvious, after the splendid showing in competition motoring by this Coventry product, a skilful development of standard components and not a specialised sports car. The idea was to meet the growing demand for a compact, fast and not too expensive two-seater of modern lines, and this the Triumph design team did with some skill, by using a Standard Eight chassis with Triumph Mayflower axle/suspension units and the trusty Standard Vanguard engine, reduced from 2088cc to under two litres and endowed with a new cylinder-head to take two carburettors. In 1952 the developed engine yielded 75bhp and a maximum speed of 90mph.

The immense interest this new Triumph aroused swiftly caused the company to iron out initial bugs. They improved the shape of the tail, stiffened the frame, fitted an overdrive gear and increased the power output to 90bhp. The production TR2 was soon able to present itself as a 100mph two-seater of modest cost and surprising economy. Since then a special version has reached 125mph at Jabbeke, and others have finished in the Mille Miglia and Le Mans races and performed outstandingly in their class in the TT, while rally successes are legion.

It is now our happy task to present our impressions of a normal 1954 wire-wheeled TR2, which came along for test just before Christmas. At this hardly ideal time of year, it covered a four-figure mileage in the hands of various members of the staff, to their general complete satisfaction. The makers had requested us not to submit the car to a full road-test ritual and consequently no performance figures were recorded. A very easy indicated 95mph is obtainable, with a few more mph coming up along clear stretches. Acceleration is vivid, while overdrive endows the TR2 with the effect of having, with its tractor-like torque curve, a five-speed gearbox, producing in overdrive top an indicated 112mph, equal to a calculated 97mph, whereas in fourth gear the highest indicated speed was 100mph.

For a car with a basic price of only £625 (£887 with purchase tax), the speed and acceleration are beyond criticism. Besides the performance of the TR2 (which enabled a jaunt from London to Exeter and back to be fitted in between morning coffee and a late dinner), its other qualities are astonishing for so modest a price.

If the outward appearance of the TR2 leaves a good deal to be desired, the interior appointments are for the most part practical and pleasing. The instruments are sensibly grouped, with the speedometer and rev-counter only very mildly masked by the three-spoke spring steering wheel. The minor control buttons are of good quality, but so placed that they lead to confusion of the gloved hand at night. Moreover, we do not love the pull-out combined head and sidelamps switch.

The screen is large, inclined and solidly mounted, providing excellent protection and, most commendably, is of laminated glass. The wipers function well, working in unison, but would benefit from water-squirts. Full marks for the heater fitted to the TR2, which sends a fine volume of warm air over one's feet and lower half, so useful in an open car. The separate, adjustable bucket seats provide a big range of adjustment and are quite comfortable, although considerably more support of back and shoulders would be a decided improvement. There is an unobtrusive grab-handle for the use of nervous or gymnastic passengers. The pedals are badly placed for a heel-and-toe change, while the handbrake lever is set between the tunnel and the driver's left leg, not at all a bad place, and has a fly-off action.

The remote gearlever is one of the charms of the TR2. Very conveniently placed, it is truly short and rigid, enabling rapid gearchanges to be made. There is useful synchromesh, but so readily does the engine respond to the throttle that double-declutching will be the usual method of swapping ratios. That about completes the cockpit-drill, except to mention that the horn is rather mediocre, and that the flashing-type direction indicators are self-cancelling, by an excellent flick-switch on the steering-wheel hub.

On the road the Triumph TR2 certainly doesn't hang about! More than 50mph is obtainable in second gear and nearly 80 in third. The TR2 is reasonably hard-sprung, so that it does not wallow when cornering or dip its nose excessively under braking, and generally the ride is exceptionally comfortable, even on unmade roads. The steering is light and smooth at speed, provides a reasonable turning circle and transmits practically no

TRIUMPH SPECIALISTS

**TRGB**
www.trgb.co.uk

**Southern Triumph**
www.southerntriumph.com

**Jigsaw Racing**
www.jigsawracing services.co.uk

kick-back. Although the occupants sit rather low, both front lamps and wings can be seen, in spite of the wide bonnet.

The Triumph holds the road very well, though in cornering there is an oversteer tendency, leading to sudden rear-end breakaway, and wheelspin is easily promoted in the wet. There is a faint suspicion that the rear axle is not quite positively located, but in general the TR2 is a safe, charming motor car in which to travel. It is also a useful touring car, for the luggage boot is of




sensible capacity, with the spare wheel located in a compartment beneath.

Normally the TR2 will be enjoyed as an open car, but erection of the sidescreens renders the car very comfortable even in winter, though the hood is likely to be used only in heavy rain or at the request of a member of the fair sex. Once in place there is ample headroom and good visibility, while a large rear window offers useful vision for reversing. Simple yet sensible, the sidescreens fit snugly into metal sockets on the doors.

Apart from its very fine performance, the Triumph TR2 is surprisingly economical: fuel consumption, driving hard, worked out at 27/28mpg. It's a very useful aspect of this attractive car.

In conclusion, the Triumph TR2 may not possess 'character' to any appreciable degree, but as a vice-free sports car of modest price and fuel thirst, no one with £887 to spend can afford to ignore it. It is a desirable addition to the British market. That it can successfully be constructed from standard components is a tribute to the more sober cars for which such components were intended.

The Triumph Motor Company, moreover, will obviously develop its excellent TR2 still further. This sports model clearly has a rosy future.

## TRIUMPH TR2 FACTFILE

Production: 1953-55
Power: 90bhp
0-60mph: 12.6sec
Max speed: 105mph

**The car that probably saved Triumph. Neat parts-bin special that took off in USA and founded TR line. Cheeky rather than pretty, but many competition successes thanks to rugged components. Notable upgrades were shallow doors and bigger brakes, before TR3 with flush grille came in '55. Disc brakes from '56. Highly successful 'wide mouth' TR3A followed in '58, by now with 105bhp.**

*Perfect spec: for rarity, early 'long door'; for fun, late 3A with rally mods*

# AUCTIONS

**A summary of classic and racing auctions from around the world - in numbers** | BY ALEX HARMER

## RM Auctions

**@ AMELIA ISLAND** MARCH 8

**RM RECORD** FOR AMELIA ISLAND SALE
**$35,947,500**
TOTAL AMOUNT RAISED

**$6.6m** **1937 Delahaye 135 Competition Court Torpedo Roadster**
An Amelia Island record. One of only two surviving examples and the only one with the Géo Ham body

**@ MONACO** MAY 10

**1966 Brabham BT20**
**Chassis F1-2-66 Original Repco V8**
**Ex-Denny Hulme**
Podiums at '66 French, British, Italian and Mexican GPs. Winner of 1967 Monaco Grand Prix. Later raced by Guy Ligier and Silvio Moser. €200,000 restoration, full FIA historic racing papers

**1982 Renault RE30B**
Ex-René Arnoux. Pole position at 1982 San Marino, Monaco and Dutch Grands Prix

**1971 Lola T260**
Driven in Can-Am by Jackie Stewart. Winner at Mont-Tremblant and Mid-Ohio

**1989 Aston Martin AMR1**
One of four examples. Driven in period by Brian Redman and David Leslie

## Gooding & Company

**@ AMELIA ISLAND** MARCH 8

TOTAL AMOUNT RAISED **$30.9m**

**1968 Porsche 907LH**
**$3.6m**
Led Porsche 1-2-3 at 1968 Daytona 24 Hours. Driven by Vic Elford, Hans Herrmann, Jochen Neerpasch, Jo Siffert and Rolf Stommelen. Class winner at Le Mans, 1971

## Bonhams

**@ GOODWOOD** JUNE 27

**1968 Lotus 49B**
**Chassis 49-R8**
Raced by Graham Hill in the 1969 Tasman Championship and the 1969 British Grand Prix. Driven by Richard Attwood to fourth place at Monaco

**Austin-Healey 100S**
'EVV 106' – one of just 55 built. Raced by David Shale: 60 races, 7 wins, 24 podiums
**Estimate: £600,000-700,000**

**1939 Aston Martin Atom prototype**
One-off concept car, fully running. Features early semi-automatic gearbox. First car fitted with Aston's new 2-litre engine in 1945

## APRIL AUCTION CALENDAR

**10-13** **MECUM** Houston 2014 Sale, The Reliant Center, Houston
**11-13** **BARRETT-JACKSON** Palm Beach Sale, Expo Center, South Florida Fairgrounds
**12** **SILVERSTONE AUCTIONS** The Restoration Show Sale, NEC, Birmingham
**24** **H&H** Imperial War Museum, Duxford
**24-26** **MECUM** Kansas City Spring 2014 Sale, Kansas City Convention Center
**26** **COYS** Ascot Racecourse Sale
**26** **OLDTIMER GALERIE** Classic Cars & Motorcycles, Toffen, Switzerland
**27** **BONHAMS** The Spring Stafford Sale, Staffordshire County Showground
**28** **BONHAMS** Collectors' Motor Cars and Automobilia, RAF Museum, Hendon
**28** **BARONS** Spring Classic, Sandown Park, Esher, Surrey




Huracan looked better than Frankel expected. Below, Audi's TT Sport concept

# Eye-catching Lambo

**Huracan steals the headlines at busy show** | BY ANDREW FRANKEL

AT MOST MOTOR SHOWS, THE search for a star is rarely difficult. Someone will pull a rabbit from a hat or unveil a car whose existence was known but whose appearance was not, and there your star will be. This didn't happen at Geneva: for while there was no stand-out superhero to suck all the attention away from other stands, it seemed that almost everyone had brought something that, for one reason or another, was worthy of attention.

Lamborghini probably produced the most attention-grabbing car, not just because its Huracan – replacement for the Gallardo – is its most important launch in more than a decade, but also because it looked so much better than it had appeared in the press photography. Rather than dull and predictable, it was revealed to be subtle and nuanced, enough of a Lamborghini to retain its existing customers but sufficiently tasteful to appeal to those who might never have considered the idea in the past. That said, I was a little concerned to learn from Audi's head of engineering Dr Ulrich Hackenberg (de facto head of Lamborghini engineering, too) that the forthcoming R8 will use the same engine, suspension, transmission, steering and basic platform as the Huracan, albeit with a slightly longer wheelbase. If a Lamborghini comes to be perceived as differing from an Audi in looks alone, it will do as much harm to the former as it does good to the latter.




Audi's contribution was an all-new TT, though you had to squint a bit to see it. Audi has received significant criticism for the car's lack of visual imagination, but you can say the same about the last four generations of VW Golf and that's not exactly harmed its prospects. The TT is a disgustingly successful car for Audi and the company has focused its efforts not in changing its look, which almost everyone already liked, but in addressing more pressing concerns such as its weight and perceived lack of driver appeal. So now it is lighter, quicker and more frugal. Audi also showed what it called a TT Sport concept powered by a 2-litre, four cylinder engine producing no fewer than 420bhp. I asked Hackenberg how far the wick would have to be turned down before it could become a production reality, to which he replied that the engine was ready to go right now, just as it is. If there is another 210bhp per litre




engine in a production road car, with specific output unassisted by hybrid power, its name escapes me. Hackenberg says the engine will be used for a new TT club racer he's developing, but that road-legal versions will be made available.

## Strategic sense from JLR

IT WAS A QUIETER SHOW FOR British brands in general – particularly Jaguar Land Rover, which usually delights in stealing the thunder of its larger German rivals by unveiling a hitherto unseen car or concept.

Jaguar had no new product at all, Land Rover just a 25th anniversary limited-edition Discovery. But that didn't mean the company had nothing to say. Despite the paucity of metal, this was a hugely significant show for both.

Jaguar used it to announce that its new small saloon – its most important product in a decade – will be called XE. Powered by a new generation of JLR petrol and diesel engines, it comes with the promise that some models will dip below 100g/km of CO2 while others will reach 186mph. It claims it will be the most advanced and efficient car of its type and is known to use the first aluminium monocoque in its class. Hopefully, all these factors plus a purposeful appearance will kill off any suggestion that this is somehow a replacement for the X-type, whose ugly appearance, ill-disguised Ford Mondeo underpinnings and unworthy engines made Jaguar's last foray into this market such a disaster.

If anything, the news from Land Rover is more interesting still. For some time concerns have been expressed that the company has been so obsessed with expanding and renewing its vastly profitable Range Rover models, that poor old Land Rover had been forgotten. No longer. At Geneva it was announced that the Discovery would be upgraded from a simple product to an entire model line and sub-brand, as has been done for Range Rover. The first fruit of this new approach will be a Discovery-badged Freelander next year.

But this is only the start: what is really clever about the strategy is that it also provides the solution to the vexed problem of how you replace the Defender with a car that'll appeal equally to trendy 'urban adventurers' and the military personnel and emergency services in some of the most inhospitable places on earth. Although Land Rover will not confirm or deny as much, the answer seems to be that it will be replaced by at least two cars, both bearing Defender badging. So that's the future of Land Rover, at least for the time being: three families – Defender, Discovery and Range Rover – each with multiple children and all living under the same roof. We'll wait to see the products themselves, but the theory makes perfect sense.

## Honda hits comeback trail

GENEVA WAS ALSO THE PLACE we saw the first sign of what Honda promises to be the comeback of all comebacks next year. On the list is a return to F1 in the back of a McLaren, a new hybrid NSX and the car you see above, the new Civic Type-R. This is allegedly a 'concept' but, having spoken to its designers at length and being at least passably well versed in the art of reading between the lines, the ground-hugging road warrior that showed up in Geneva is visually more than 90 per cent of the real thing.



**Soon after Geneva, Jaguar announced that XK production was to cease – and it wouldn't be replaced. There's no real surprise here as the car is in its 10th season and the crossover between it and the F-type is considerable. Even so, this is the car that restored Jaguar's credibility when the company was close to its lowest ebb. Its fine looks and aluminium construction also set a template that has taken Jaguar to the present and will power it into a future that is looking increasingly bright.**

And it will need to deliver on the promise of those looks. As I was standing looking at it, news arrived that Seat had become the first manufacturer to lap the Nürburgring in under 8min using a standard production road car (a Leon). This is more than a mild inconvenience to Honda, which had claimed precisely that goal as a target for the Type-R. So now the benchmark is a 7min 58.4sec lap. I don't think these times mean a thing in terms of what the car is like to drive, but the idea of a road-tyred family hatch circulating in less than 8min is almost beyond comprehension. Put it this way, it would have qualified 14th out of 38 for the last 1000Kms race held there in 1983, with 11 of the cars that beat it being Group C machines.



# McLAREN P1

**Why the company's latest missile is actually two cars in one** | BY ANDREW FRANKEL

McLAREN SAYS ITS P1 hypercar costs £866,000, but it doesn't. The only way truly to understand its proposition is to deem the cost to be £433,000, but that you have to buy two. They may come wrapped in the same sleek, carbon fibre shell, but more than any car I've driven the P1's ability to change character is so complete that it feels like a change of identity. And it's all done at the touch of a button.

So let's meet the first P1. I won't be calling it Dr Jekyll, for not only is that about as lazy a cliché as exists but there is nothing mild-mannered about it, nor do I spot torture in its soul. Instead there's a 727bhp, twin turbo V8 assisted by an electric motor that, fed from two lithium-ion battery packs, can provide up to a further 176bhp. But for now we're going to stick with the dull old 727bhp and use the electrics for a

different purpose that I'll come to in a moment. Gears (all seven of them) come and go via paddles from a double clutch transmission related to that in the conventional 12C, but with longer, strengthened ratios.

The tub started life as that of the 12C, too, with a stressed roof section added, but the P1 has evolved during four years of development and now shares only the basic concept with its less potent stablemate. Like most of the body, it is of course made from carbon fibre.

The aero package is massively complex, not least because the deployable rear wing varies its position according to which mode the car is in – normal, track or race – and incorporates both an air brake and a rather gimmicky drag reduction system, whose sole appeal to most owners will be to allow them to point out the button on the steering wheel. Rear downforce is balanced by active flaps operating through a 60-degree arc ahead of the front wheels.

The cabin is closely related to that of the 12C – too closely related, given the additional cost of almost £700,000 – but with more exposed carbon, additional switchgear to operate all its different systems and carbon fibre bucket seats that offer world-class location for your body and also far more interior space.

Even with the scope of what this manifestation of the P1 can provide, there are normal, sport and track modes for both powertrain and aerodynamics. I spent enough time in 'normal', chuntering around the perimeter road of Dunsfold aerodrome, to know the ride is challengingly firm (McLaren says the wheel rates equate to a 12C in 'sport'), but sufficiently nuanced to make it an entirely sensible if not exactly cosseting conveyance on a long journey.

There's even room for a couple of bags in the nose.

But that's not why we're here. With no time to test every combination of modes, I turn everything to 'track' and head out onto the flat, featureless and very quick circuit.

Without using its electrics to boost peak output, the P1 has approximately the same power as a Ferrari F12, but with about 180kg less to carry. This gives it a power to weight ratio similar to that of a Bugatti Veyron. Even at the tamest it can manage, you're thus very unlikely to become bored. The engine sounds deeper and more like a conventional V8 than the related 12C motor, even though it retains a flat-plane crank; as you approach your first decent straight all you're pondering is just how much turbo lag a 3.8-litre engine must have to generate 727bhp all by itself – how long will you need to wait for the bang, and how big will it be? But there's lots of space and no reason not to plant the hoof and find out.

## FACTFILE

£866,000

**ENGINE**
3.8 litres, eight cylinders, turbocharged, hybrid assisted

**POWER**
903bhp @ 7300 rpm

**TORQUE**
531lb ft @ 4000 rpm

**TRANSMISSION**
Seven-speed paddle shift, rear-wheel drive

**0-62MPH** 2.8sec
**TOP SPEED** 217mph
**ECONOMY** 34mpg
**$CO_2$** 194g/km





Frankel reckons you'd need a full works Le Mans Prototype to rival P1 muscle

At once at least half of the P1's secret is revealed. There's no lag at all. By which I mean zero. The throttle response is as sharp as the best normally aspirated engine I know. At once all you thought you knew about turbo motors vaporises. But it's not the engine that's doing this: it's the electrics. The hybrid system is not there just to give more power, it also fills in all the holes in the torque curve that, left unaided, would look more like craters. I've driven neither LaFerrari nor the Porsche 918, but their hybrid systems cannot provide such benefits because both are normally aspirated. You might observe that they don't need to.

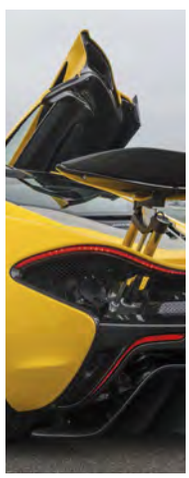
So there's no bang in the back, you're just pressed firmly and inexorably ever deeper into that bucket as the revs flick to 8000rpm in gear after gear. It is mesmerically, majestically quick in a way that makes conventionally fast cars seem frankly impotent.

But the brakes are better still. Its bespoke Akebono discs hurl you forward fast enough for your seat belt to think you've crashed and lock around your body. If you're one of the 375 with a P1 on the way, a proper harness will transform your comfort on the track. I've known 500kg racing and track day cars lose speed like this, but never something weighing a tonne and a half. Still it's the pedal feel you notice most – perfect weighting and progression, vindicating McLaren's decision not to harvest electrical energy from deceleration and put up with the inevitably compromised pedal response that results.

Inevitably you arrive at corners travelling slower than you'd anticipated, but in this particular P1 mode that's fine. It gives you more time to appreciate the steering's linearity and, despite the car's weight, how light the nose feels and how keen it is to dart into the apex. In time and as speeds rise you find it understeers a little on the way into corners and oversteers really quite a lot on the way out, even if you don't switch off the ESP, but the car is fundamentally faithful. In the way it lets you dose the rear tyres with great gobs of impeccably meted torque at the exit, it is also remarkably reassuring.

There is one more facet of this character to explore before returning to base and turning the car into the other P1, one more button I've yet to push. It's on the steering wheel and is called IPAS, or Instant Power Assist System. Press it when the car is travelling in a straight line and electrics turn their attention from making pretty pictures of your torque curve to the provision of all the grunt they and the engine can muster. All 903bhp of it.

This is another world, a place so far beyond the perimeter of the road car radar that when you lift your thumb and return to an everyday, boring, ho-hum 727bhp, the P1 actually feels slow. It's easier to understand in a racing context, where I reckon you'd need at least a full factory Le Mans Prototype to get anywhere near this level of shove. It makes you want to laugh and your passenger scream. I could hurl numbers at you all day – 0-62mph in 2.8sec, 0-124mph in 6.8sec, 0-200mph in less than 20sec and so on, but even these times, traction limited as they are, fail to provide a proper picture. So let me put it this way: whatever idea you have of what constitutes a fast road car, be it BMW M5, Porsche 911 or Ferrari F12, the P1 will take it and burn it before your eyes.



❖

SO PART ONE IS COMPLETE. I HEAD back to base, trying but failing to look nonchalant about what's just happened. All I'm going to do now is press two buttons: one marked 'boost' to switch off the IPAS system, so all the power is there all the time, and another marked 'race'. What happens next takes 30 seconds, in which time the P1 sinks 50mm lower to the ground and the rear wing flips up into maximum downforce mode. The lowering of the ride height and additional rear wing provides 600kg of downforce at 150mph, and there are entire road cars that weigh less










McLaren plans to sell only 375 examples of its P1 hypercar, which generates more than 900bhp in its ultimate state of electronic tune

than that. Above this speed the wing deliberately spills downforce to improve maximum speed (217mph), negate the need for stiffer springing to support the body and keep the car in aerodynamic balance front to rear. As owners are unlikely to be on the limit above 150mph, it's a sensible move.

Even at 10mph you are aware you're in another car as it wriggles over every pit in the surface as you return to the track. This is because in addition to all the aero benefits of dropping the car by 50mm, it also increases the spring rates by 300 per cent.

What happens next, curious though it sounds, is that the car becomes much easier to drive. You don't have to think about the IPAS button, you can just get used to having 903bhp all the time. And, because of the way it is delivered, it is simpler than you'd think. Sure, the numbers are properly scary, but if you can rid your brain of the distraction and focus instead on the fact it's just a car with a steering wheel, pedals and paddles, you can make sense of the phenomenon that is the P1.

Because now it feels like a racing car. I hate it when journalists invoke motor sport metaphors to describe road cars, because today they feel less like racers than ever: they have neither the downforce nor the spring rates required to deal with it. The P1 does. Through slow corners you notice all the body roll has gone, though the car doesn't feel like it is generating any more grip. Through fourth-gear curves taken at substantial, three-figure speeds, however, the fairly violent forces it exerts are quite unlike those in any other road car I've driven. You can turn and brake too, all the way into the apex from dizzying speeds. Instead of throwing you into the nearest District General, as would any other 1450kg car, you can just hear tyres chirruping their approval as the P1 tracks your chosen line like the highly sophisticated guided missile it is. McLaren says its downforce is similar to that of an FIA GT3 racer, but rather sophisticated in the way it is affected by pitch, yaw and roll. In the time I had I can't vouch for the latter statement, but the former seems about right.

Yet neither this nor the P1's ability to do an entire lap of Dunsfold in complete silence, on electric power alone at up to 100mph, preyed most on my mind as I reluctantly slunk back to the hospitality unit knowing, in all likelihood, I'll never sit in a P1 again. It is the car's accessibility I'll most fondly recall, long after my neck has stopped hurting from all that downforce.

A car of such vast potential would at best be a wasted opportunity if it did not provide you with the confidence to push it to the limit, at worst a lethal menace. Yet I would say that any reasonably skilled and sensible driver could be taught to drive the P1 quickly and safely, if not absolutely to the giddy technical limit of what the car can do, but certainly to a point where they'd feel not the slightest desire to go any faster.

It can be criticised, especially in the context of the LaFerrari and Porsche 918, because its roots lie in a car than already exists rather than being a bespoke creation. And good though its turbo V8 sounds, I'd be happy to bet their normally aspirated V10 and V12 will sound better still.

But I don't see it like that: I see a machine touched by genius with the potential to influence cars relevant to far more than 375 P1 owners.

There is no question that the future of the combustion engine lies in small capacity turbo units boosted by hybrid power. The way its electrics make all the traditional turbo problems vanish, while adding a new swathe of talents as relevant to a zero emission city as the Nürburgring, provides a lesson all car manufacturers should heed.

Or am I thinking too hard about it? Should we not simply celebrate that the P1 exists, and feel proud to come from the country that made it?

The truth is that this is a car with many levels, both literal and figurative. And just as any McLaren should, it works on every damn one.

www.motorsportmagazine.com/author/andrew-frankel

# PEUGEOT RCZ R

**Elegance is now available with extra zip**




I'VE BEEN WAITING SO LONG for Peugeot to produce a car worth driving that, a year or two back, I bought a 205 GTI. It reminded me of a time when seeing that lion on the nose of a car was as close to a guarantee as you'd find of affordable driving pleasure. To be fair, products have improved of late and across the board, but then they needed to: when I bought the 205, Peugeot had one of the most unappealing product ranges on earth and it's still in the process of clawing its way back to respectability.

This new RCZ R will help. This won't be in terms of volume, because as a coupé costing £31,995 sales will be but a prick in a pin cushion, but in the way it helps restore some much-needed brand credibility.

The standard RCZ is a pretty coupé with a double bubble roof and just about enough shove and dynamic competence to hold its own against its key competitor, the Audi TT.

Not that this is saying very much: the TT is so old it will be replaced in its entirety this year and wasn't that great to drive when new.

The R version of the RCZ is an altogether more serious piece of equipment and you'll know it from the 266bhp it extracts from an engine displacing just 1.6 litres. According to my fag packet maths, that puts its specific output on par with or slightly ahead of the McLaren 12C. Naturally it has its own suspension tune but, tellingly, a torque sensing front differential as well to stop all its energy being fruitlessly spun away by the unloaded tyre.

One squirt is all you need to know no road-going Peugeot ever went like this, not even the 205 T16. The numbers say 5.9sec to 62mph but omit to factor in that the front wheels have to get it there. With rear-wheel drive, that number would be 5.5sec or less. And Peugeot has stayed with a six-speed manual gearbox rather than a faster but less involving paddle. So it's quick. So what?




## FACTFILE

£31,995

**ENGINE**
2.0 litres, four cylinders, turbocharged

**POWER**
270bhp @ 6000 rpm

**TORQUE**
225lb ft @ 1900 rpm

**TRANSMISSION**
six-speed manual, front-wheel drive

**0-62MPH** 6.1sec
**TOP SPEED** 155mph
**ECONOMY** 44.5 mpg
**$CO_2$** 145g/km

Well, it's also taut and nicely damped. Dry road grip is remarkable and even in the wet it clings with impressive tenacity. I managed a few laps of a fiendishly slippery Club circuit at Silverstone and even discovered it has real balance, letting you brake into the apex without worrying about the fact the back is waving around. As soon as you reapply the power, it yanks you straight and hauls you out of the corner, that front diff working overtime.

All it lacks is some feel. The steering is well weighted and accurate, but it tells you nothing about what the car is or isn't about to do. That's a shame, because it spoils what is an otherwise unexpectedly excellent car.

Even so, I would not have bet on modern Peugeot being able to produce a car as focused as this. The fact it has bodes well for more driver-oriented products in future.

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# ALPINA D3

**173mph and 53.3mpg... but possibly not at the same time**

LATER THIS YEAR BMW WILL launch its new M3, powered by a twin-turbo 3-litre straight six engine. With 425bhp and a 0-62mph time of 4.3sec, it's going to be the quickest 3-series ever to wear an M badge.

But until then, consider for now the proposition offered by this new Alpina 3-series. Like the M3 it will be available as coupé or saloon, but also as an estate, a configuration never used by BMW for an M3. It also has a twin turbo 3-litre straight six engine, but offers only 345bhp on account of the fact it's fed by diesel, not petrol. But this is also the reason it has far more torque than will the M3, so not only is its 0-62mph a paltry 0.3sec slower, that performance is delivered in an instant at almost any revs. Now consider that according to BMW's own numbers, the new M3 is good for 32mpg; by precisely the same calculations, the Alpina D3 betters 53mpg. Even factoring in its slightly smaller fuel tank, this gives the Alpina a realistic range of more than 550 miles, 200 miles farther than the M3 will travel before you're going to start scanning the horizon for fuel stations.

Of course you can only prove so much with raw data, but here's the thing: even if you know all about the D3's vast envelope of performance and economy, the car itself will still have you gasping in admiration for its real world abilities.

I try very hard not to gush about cars, because when I read others who do, the hyperbole makes their opinions less credible and me more likely to doubt their ability to reach a reasoned, objective verdict. But this is hard with the D3, for it is a fantastically difficult car to fault.

The performance feels stronger even than the figures say, because it's delivered with such a silken wallop from low revs. The recalibrated eight-speed auto plays the perfect loyal sidekick. The spring rates have increased by 40 per cent and on 20in wheels you'd think the ride would shake your teeth loose. But then you drive it and discover that, counter-intuitively, it actually rides better than a standard 3-series because body control has improved with zero apparent loss of secondary absorption.

It's not even that expensive. The new M3 will cost £56,175 when it goes on sale, the D3 just £47,000, stunning value considering the sophistication of what this buys. Alpina makes its real money on the extras customers specify to make their cars feel even more bespoke. Of them all, the box marked 'limited slip differential' is the most important to tick, for I imagine the car would be massively traction limited without one, especially in the wet.

I've blown hot and cold about various Alpinas over the years, but not this one. The single biggest criticism I can summon is that I'd prefer it to come with conventional shift paddles rather than small buttons behind the wheel. Other than that, it is miraculous. If the idea appeals, I can only advise you to make your move now: the way I hear it, the wait for Alpina's greatest product to date is getting longer by the day.

## FACTFILE

£47,000

**ENGINE** 3.0 litres, six cylinders, turbocharged

**POWER** 346bhp @ 4000 rpm

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**$CO_2$** 139g/km

## April fuel

I've just been reading about your article in April's issue on your ideas for shaking up the world of F1. I was particularly interested in the use of the word 'punkish' to describe what the sport needs right now.

This grabbed my attention as I happened to use the same language to describe the approach we're taking on some of the work that we're doing for motor racing, in particular F1, at the moment at Polyhedrus Electronics. I described it as, "Anarchy in the FIA."

If you're planning to turn this into a movement I need a subscription!

*Jon Masters, Salisbury, Wiltshire*




LAT

Martin Brundle guides his Tyrrell to second place in the 1984 Detroit Grand Prix, a result he later lost

## By George, it's Orwellian

I enjoyed Nigel Roebuck's recent reflections with Martin Brundle. However, his reference to an Orwellian future was somewhat ironic – especially where Brundle was concerned.

In Orwell's *Nineteen Eighty-Four*, Winston Smith was employed to rewrite history, removing all references from the records of those who had fallen foul of Big Brother.

Martin will recall that his Tyrrell team was judged by FISA (as the FIA was then) to be using illegal lead shot ballast (plus other minor infringements). Tyrrell was not only disqualified, but all its points for the season were removed. It was as though the team had never existed. This conveniently removed Tyrrell from the right to vote on the lowering of fuel capacity for the following season. It was the only team holding out against this and the decision had to be unanimous.

The year was 1984...

*Dr Peter O'Donnell, Epsom, Surrey*

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## Off the hook

Many of your readers remark on the sad demise of Formula 1 as a sport and suggest good, achievable solutions to improve overtaking and, therefore, the fans' enjoyment.

Let's have much smaller wings, narrower tyres, anything to increase braking distances: eradicate poor driving and we will see some proper racing again.

I attended my first British Grand Prix in 1960 (grandstand seat 10 shillings, or 50p in today's money) and didn't miss one for 32 years. I struggle now to watch it on television.

One reason I stopped going was my discovery of the Formula Ford Festival. Johnny Herbert won on my first visit, in 1985, and I was hooked. The cars were narrow, with road tyres and no wings, and the racing was fantastic. Just look at the list of winners from the 1970s through to the '90s... and then consider Formula Ford today. Wide cars, slicks, wings and perhaps a dozen drivers on the grid. Herbert was one of 180 entrants when he won – they really were the good times.

In the meantime, please keep up the good work at *Motor Sport*. Reading your magazine – with gin and tonic in hand – and the Goodwood Revival are the best ways to enjoy my racing.

*Guy Raines, York*

## Revson: another view

According to Andrew Frankel (April issue), there was a suggestion that Peter Revson graduated to F1 "more for his money than his pace". At the time, my own feeling was that the colour of his passport was more helpful than the colour of his money.

As Leon Mandel's *Speed With Style* biography shows, Revson and Teddy Mayer had known each other a long time before the McLaren director gave him a chance to take over Chris Amon's M15 during practice for the 1970 Indy 500 – 10 laps to show what he could do. Little more than a year later he had won the Can-Am series. Revson might not have had many lucky breaks earlier in his career, but this time he did: there was a vacancy in the F1 team.

Revson liked to think his style said he was a gentleman, quoting an unnamed writer who defined a gentleman as, "Someone who never undermines the self-respect of another." That certainly didn't prevent him being less than respectful in his criticism of rivals, particularly Mark Donohue.

The choice of Mark's own quoted tribute to Peter – "Nobody ever applied himself harder to succeed" – seems rather ironic in the circumstances, especially if you read the Paul van Valkenburgh and Michael Argetsinger books on the Penske driver. And it must be said that Shadow and Eagle both approached Mark to drive their cars before they turned to Revson – a detail not mentioned in Mandel's book.

*David Cole, Oakham, Rutland*

## Crown duels

Nobody can doubt that we missed many potentially titanic battles between Ayrton Senna and Michael Schumacher, but a decade earlier we lost some that might have been even more intense.

After Gilles Villeneuve died in 1982, we missed the chance of seeing him go head to head with Senna.

It could have been a golden age, with those two plus Nelson Piquet, Keke Rosberg, Alain Prost, Nigel Mansell and – had he, too, survived – Stefan Bellof in the prime of their careers.

Given how Gilles reacted to Didier Pironi's actions, it would have been fascinating to see how he coped with Senna's tactics and Bellof's speed. The whole scene would have been very different. Who would have filled Villeneuve's seat if/when he left Ferrari for McLaren? And who would have partnered him in Woking? There is a series of questions we can never answer, but the racing would have been terrific.

*Mark Bowley, Coalville, Leicestershire*

## Join our club

It is great that *Motor Sport* stands almost alone in its ability to write freely. I have come to think of you as the Radio 6 of the motoring world, open to all yet sufficiently knowledgeable to ignore the rubbish and keep the informed entertained.

I come from Mat Oxley's side of the industry, but have been dancing around four wheels for as long as I remember. All forms of modern motor sport are fast falling into a trap. A double-points finale for F1 (among other sins),

NASCAR's Chase, The Showdown for British Superbikes... the list goes on. But I am far less interested in 'the show' than the sport. What, though, about the casual observer?

A while ago I sat in a meeting to discuss putting some classic motorcycle racing on the BSB support programme... and talk turned to making sure we put on 'a show'. I nearly fell off my seat. Members of the general public are not dumb and the skill of an expert rider should be obvious to all. It has nothing to do with 'a show'.

Why is the Goodwood Revival so popular? Of course it has everything, but at its core is some real racing – AC Cobras drifting, lightweight E-types dancing, Manx Nortons leaning...

Modern racing developments can be likened to those in cricket. We started with test matches, a game of the brain, ripe with mental and physical skills, but there were too many draws, it took five days and people said it was boring. So then came one-day games and finally we have Twenty20...

Until F1 sorts itself out (or implodes), I'd recommend some good, honest club racing. A friend has given up going to the British Grand Prix because, for the same price, he can go to a bunch of club events, see lots of races and talk to the drivers. It is a good day out and shows how things should be done.

*Mike Russell, Farnborough, Hampshire*

## Well done (apparently)

Common sense has prevailed and Nigel Roebuck's Reflections has been moved closer to the front of your magazine.

Well done!

The last issue had a superb, erudite piece on Ron Dennis by Mark Hughes – a beautifully constructed article that told me stuff I didn't already know.

Well done!

Simon Arron, your guy who's been almost everywhere, went to the Rolex 24 at Daytona for the first time.

Well done!

I've been going for the last six years and for $85 get a four-day pass to the infield, grandstands, garages, autograph sessions and grid walk. The grandstand seats in the main block are padded, with enough legroom to swing a cat. And they're pulling the stands apart to make seating even more comfortable by 2016.

Well done!



Plugged by several readers this month, the Goodwood Revival illustrates how a good race meeting should be

One Daytona highlight was bumping into Dario Franchitti in our hotel reception. Still healing after his horrendous Houston crash, he was a real gent and you can see why the Americans love him.

Well done!

Finally, what was Mark Hughes's epistle on modern F1 all about? He certainly lit a fire under Grand Prix racing's bosses. How would you like your F1 stakeholders, Mr Hughes?

Well done?

*Andrew Hodgson, Bury, Lancashire*

## On the mark, Hughes

I feel compelled to congratulate you on the inspired decision to add Mark Hughes to the *Motor Sport* team.

His article on the return of Ron Dennis was far more gripping than any fictional thriller I've read.

The magazine now has a perfect blend of writers and topics. Maybe Nigel Roebuck could be touted as Bernie's successor, so long-suffering fans finally get the F1 we truly deserve.

*Peter Spiers, Watford*

## Rand stand

As a visitor to the UK, it was a privilege to be able to buy the latest issue of your magazine. In South Africa, delivery can take eight weeks and correspondence on my part would be too late to be relevant. This time, I can be current.

I enjoyed Nigel Roebuck's interview with Mark Webber, who exhibited the honesty common to most Australians (except when they play rugby against South Africa). He accepted that F1 had been turned into a circus and has little to do with actual racing. Drag-reduction systems make overtaking as farcical as the value of my home currency...

Did we need the imposition of manufactured tyre degradation, or other external elements, during recent seasons? And is F1 'racing' or merely a fuel-saving exercise? Would people of the calibre of Ross Brawn, Mark Webber and others be walking away if everything was as good as it should be?

Do we really want this year's fuel-flow limits, or such complex energy recovery systems? Why can't we have the wheel tethers and carbon tubs – because safety is paramount and we don't want these superb athletes to be injured or worse – but let teams choose the tyre compounds they want? I'd allow teams to test if they feel the need, but get rid of all the pricey add-ons that make racing so expensive.

Oh, and you can forget all about double points...

Le Mans is more honest than F1, with greater innovation, and Mark is going to have a wonderful impact on the World Endurance Championship.

He'll be doing some proper racing.

*Gordon Forrester, Gauteng, South Africa*

## Simply red and gold

Gordon Cruickshank's recent article on Alan Mann Racing brought back some fond childhood memories.

My father Ernie Symons worked for the team back in the '60s. I remember going to the factory and seeing the Mann cars race at Brand Hatch. I also retain many period mementos.

Thank you very much. I shall enjoy looking out for the great red and gold at future events.

*Barry Symons, London*

## Double diamond

I'd like to take issue with so many of your excellent writers. I think the idea of a double points Formula 1 finale in Abu Dhabi is great.

For too long older drivers have identified the likes of Monaco, Monza, Spa and the Nürburgring as being the most important circuits, but now Abu Dhabi is indisputably twice as good. In fact, might I suggest that double points are awarded for all races? This would extend the excitement all season long...

*Mark Witham, Hampshire*

## Tale of heads or tails

Your magazine was already brilliant, but the arrival of Mark Hughes takes it to another level. As a 40-year *Motor Sport* veteran, I thought your April issue the best ever.

Mark's *F1 Frontline* is a showcase for the story-telling talents first revealed in his excellent book on Tommy Byrne.

Until now I routinely turned to Nigel Roebuck's column as soon as the shrink wrap was removed. You have now given me a monthly dilemma that only the toss of a coin will decide…

*Graham Rowan, Richmond, Surrey*









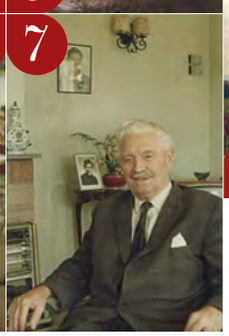
## LEWIS MACKENZIE

**While serving with the Army in Germany, Lewis drove his Jaguar E-type to the 1967 Belgian GP – and slipped on to the grid before being ushered back to his seat. Later, in 1975, he visited Jim Clark's home town – and ended up meeting the Scot's parents** **1** Spa winner Dan Gurney **2** Clark and Chapman chat before the start **3** Lewis's E-type to the fore – he took his heavily pregnant wife for a swift lap of the track on the eve of the race **4** Welcome to Duns **5** Clark's memorial stone **6 & 7** Clark's mother and father, who made a bashful visitor very welcome and gave him a guided tour of the area **8** Chirkside cemetery, the double world champion's final resting place









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MOTOR SPORT SINCE 1924 HALL OF FAME

## Senna, 20 years on
### Williams pays homage

While unveiling its new partnership with Martini Racing on March 6, Williams also showed its latest tribute to Ayrton Senna. Since his death at Imola in 1994, the team has always carried his personal logo on its cars' front wing struts.

To mark that day's 20th anniversary, the 2014 Williams-Mercedes FW36 features a new logo on its nose with an image of Senna and the text 'Ayrton Senna sempre' – Ayrton Senna always.




The logo will appear on both Williams cars throughout the Formula 1 season and be shown at several Ayrton Senna Foundation events throughout the year, to honour the life, legacy and values of the three-time champion.

"I was very close to Ayrton," said Sir Frank Williams, "and the iconic double S logo has been a mainstay on our cars since his death 20 years ago. This new logo is our way of celebrating his achievements as a racing driver – and also the sterling work of his Foundation, which is doing so much to promote educational opportunities in Brazil."

Log on to:
**www.motorsportmagazine.com/halloffame**
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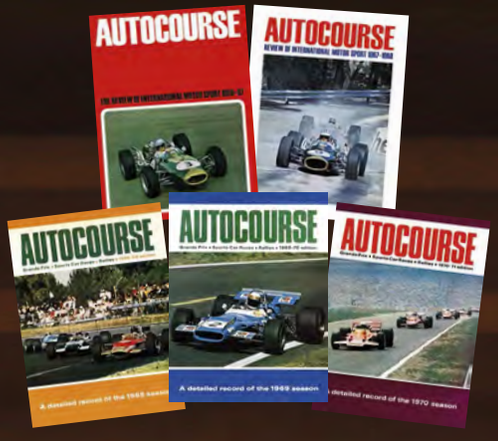

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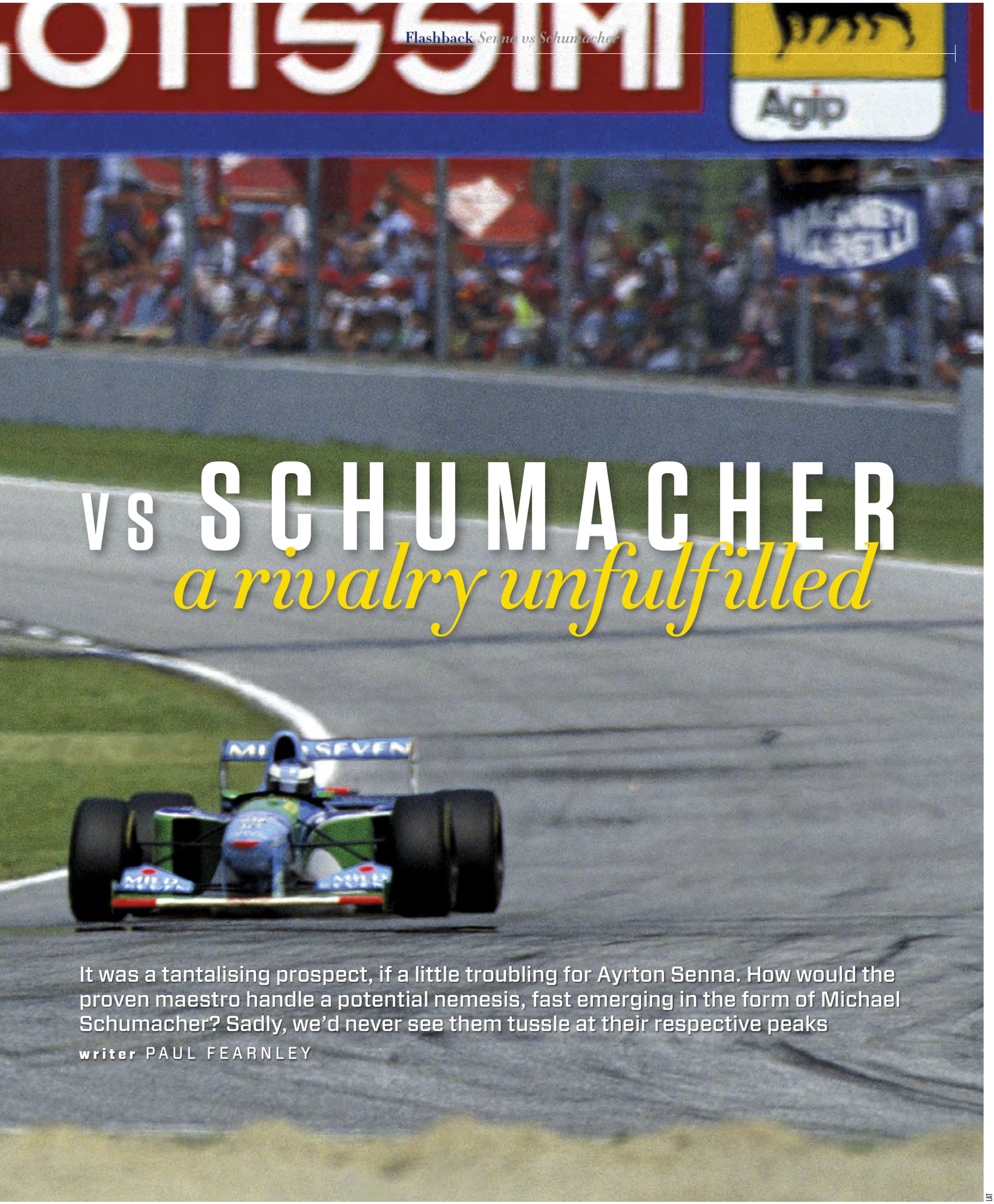
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# VS SCHUMACHER
## *a rivalry unfulfilled*

It was a tantalising prospect, if a little troubling for Ayrton Senna. How would the proven maestro handle a potential nemesis, fast emerging in the form of Michael Schumacher? Sadly, we'd never see them tussle at their respective peaks

**writer** PAUL FEARNLEY

LAT


LAT

BROTHER RALF LOOKED EMBARRASSED and turned away. He didn't understand. How could he?

Mika Häkkinen had raced Ayrton Senna; had hoped for the best while fearing the worst next to Michael on the Imola 1994 podium. And, six years on, he understood immediately, put an arm around a heaving shoulder and requested a break. Failing to get one – this was Formula 1 after all – he said: "Go to Ralf! Ralf can continue." Ralf, however, was by this stage consoling his tearful brother. Family had overcome the unfamiliar.

The post-race TV press conference at Monza 2000, indubitably awkward, was touching for some, mawkish for others. Martin Brundle, for one, admits that he didn't buy it; so out of character was it.

"Michael was more aggressive [than Ayrton]," says the German's 1992 Benetton team-mate. "Unemotional. Focused. He drove me off the road in Hungary [in '92]. I tapped him in a corner a bit later and his rear wing fell off; I think Germans call it *schadenfreude*. We had words afterwards, but that turned out to be more of an opportunity for him to express his anger with me. Two or three years later, he apologised."

But Brundle, in his role of analytical, compassionate brother in arms rather than wheel-rubbin' rival, concedes: "If you're a normal Joe Public – meek, mild, polite and friendly – you're going to get swept aside.

"As a racing driver you carry emotional shit that normally, to recover, would require three months off work or else a visit to a therapist. Instead, you suck it up and carry it forward. Then, suddenly, out it comes."

Before it did on this occasion, Schumacher chokingly confirmed that, yes, it meant a lot to him – to equal Senna's tally of victories.

He had been 25 and 'immortal' when Ayrton veered off – noisily, publicly – right in front of him; perhaps he would miss one or two races. Two hours after the finish he was told that things were looking bad for Ayrton. Two weeks later he "had to accept that he was dead". Two years later – quietly, privately – he visited his grave; he'd not felt able to attend the funeral.

Schumacher's was an uncomfortable 'peace'. Now 31, did its lingering suspicion and bitterness prick his eyes, catch his throat? For no amount of hard work – and nobody worked harder than he – nor success, not even 50 more wins, could clear the air. There could be no rapprochement.

"Michael was a bright boy," says Brundle. "He knew he had the skills to get the job done. There was a Germanic confidence about him and, to begin with, arrogance: in hotels and restaurants, down the gym, in the paddock and debriefs. He got rid of it as he achieved. It disappeared with maturity and success.

"I saw Ayrton as an emotional, great human being. Passion was his energy source. But it became a weakness. He convinced himself that Benetton was cheating. I was in those races in 1994 and I felt he was pushing beyond even his great skill."

Both men, blinded by their duel's intensity, had still to see the best of each other when Senna was killed doing what he was born to do. And Schumacher had to live with that.

Brundle: "Michael loved to talk. I've seen him chat for hours at a race, and not necessarily with the powerful or famous. But I can't recall him asking me about Ayrton, even though I had all that experience of racing against him. 'What's he like?' 'How do I beat this guy?' There was none of that. I think that would have been perceived as weakness."

Not that Senna was mining for information or opinion. "No," says his 1994 Williams team-mate Damon Hill. Eloquent pause. "I don't think anybody knew how good Michael was going to be. Clearly, he was a coming man, a challenger, but I think the view of him then was tinged with suspicion about his performance. Was it down to his brilliance or was something else going on?

"I never spoke with Ayrton [on this topic either], but I think it is on record that he had doubts – about traction control and God knows what else. There was a bit of conjecture within our team. There was nothing more to it than that. Anyhow, that was Ayrton; I was just the bloke in the other car."

Surely Senna and Schumacher must have recognised something of each other within themselves. Both registered points at their second and third Grands Prix, podiums within their first 10 starts and a victory within the next 10. Both excelled in the wet, pulled teams tightly around them and were among the precious few to win in inferior equipment. Both used intimidation as though it were a birthright and were dogged by controversy from the start.

And yet: "Yes, they raced with total commitment – but they were poles apart," says Hill. "Ayrton raced with his heart and soul; Michael raced with his head and was much more calculating."

Schumacher, the younger by nine years, was certainly more scientific: heart rate monitors, blood samples, electrolyte levels. "In their early days, Michael was more complete; Ayrton didn't have the same attention to detail and was ridiculously unfit," says Pat Symonds, engineer to both at Toleman/Benetton.

Senna – more worldly, white collar, better educated – graduated directly from F3, whereas Schumacher stayed on a year to contest the FIA Sportscar World Championship (again) under the tutelage of Mercedes-Benz. Senna thus jumped from nimble 160bhp front-runner to mid-grid turbo monster, whereas Schumacher arrived in F1 with experience of 900bhp and 200mph-plus; manufacturer pressures and processes; tyre and fuel management; strategy and tactics.

Leaner, meaner and more logical, though not necessarily faster, Schumacher's operating system was tailored for an increasingly regimented,

Schumacher heads Prost and Senna at Hockenheim in 1993 (leader Hill already out of shot). Below, with Ayrton at Silverstone earlier that summer



SUTTON

digitised sport controlled by nerd-do-wells.

Senna provided a spark. Schumacher – Senna 2.0, if you like – was plugged in.

Same planet. Different world.

❖

F1 WAS STILL SENNA'S WORLD IN AUGUST 1991. Not that he was enraptured by it: Honda's V12, heavy and thirsty, wasn't as good as the V10 it replaced, while McLaren had lagged in the technology race. He had, for now, seen off Alain Prost yet was having to drive harder than ever to maintain his rightful position. It wasn't supposed to be like this. He felt he deserved the best and was distraught to discover at Spa that Williams-Renault had finalised its 1992 line-up without him.

A lone shark, Senna had turned down powerful men – Ron Dennis and Bernie Ecclestone – before signing with Toleman for 1984. Although he was (uncomfortably) familiar with parts of Schumacher's buzz route – F3 title success, astounding maiden F1 test, and instant overachievement in an under-the-radar team – others were, therefore, lost on him.

Schumacher had jumped at the chance to join Eddie Jordan's Blarney Army at Spa. Tipped into the Piranha Pool, sensibly he swam in the tow of wiser, bigger fish. Handlers. Benetton's opportunistic signing of him prior to Monza enraged Senna, who considered Roberto Moreno's dismissal unethical. His own benching by Toleman at the same track in 1984 – punishment for breaching his contract – was not deemed germane, clearly.

Schumacher's card was already marked. Not that he seemed to notice. He drove without mistake to fifth.

This Phoney War escalated at Brazil in April 1992. Having been delayed for several laps by Senna's misfiring McLaren, Schumacher shot from the lip: "He was playing a game with me. He knew he couldn't finish. He did so to give others the opportunity to overtake me."

Though unamused by such impudence, Senna kept his counsel – until Schumacher spun him out of July's French GP. Dressed in casual pastel civvies but looking far from relaxed, he marched onto the grid when the race was suspended because of rain. Though he waved cameras and mics away, Michael's was a very public dressing down.

There was mischief in it, too, according to McLaren team co-ordinator Jo Ramírez: "Ayrton said, 'Look at Michael! I'm going to rattle him'.Though I couldn't hear, I could see his finger close to Michael's chest and how carefully Michael was listening; he didn't say a word. And when he crashed for a second time, Ayrton was quite pleased."

It was a blip. Unrepentant Schumacher could not be intimidated in the main. Senna had created a monster with thick skin. "He massaged my neck," grinned Michael after McLaren mechanics separated them following a transgression of track etiquette during a Hockenheim test.

"Ayrton was fixated on Michael, not the other way around," says Brundle. "When he went looking for him was the day I knew he'd realised Michael was the pretender to his crown. The friction carried extra bitterness."

The Phoney War was over.

It was Ford versus Ford in 1993. Benetton was on the up and up. Finally united under one roof, it was ready to make huge technical strides – semi-auto gearbox, active suspension – and flex its political muscle as the Blue

Oval's official team. Schumacher, already a winner at Spa, was champing at the bit.

Senna, shorn of Honda support and mortified at losing 'his' Williams-Renault drive to Prost, faced the uninviting prospect of holding steady, at best, with a customer engine. He threatened to stay away – but couldn't. Despite playing financial Russian Roulette with Dennis and his sponsors, he was distractingly brilliant. Second in South Africa, with his active rear suspension stuck in the up position, he scored sensational victories in changeable conditions at Interlagos and Donington Park.

Schumacher, his Ford HB boasting pneumatic valves but not yet traction control, spun and




GETTY

## "I COULD SEE HIS FINGER AND HOW CAREFULLY MICHAEL WAS LISTENING"

stalled when attempting to take second from Senna at Kyalami, outqualified him in the dry at Donington – a feat he repeated at Imola – and set fastest lap giving closing chase in Spain before sliding wide on oil. Finally equipped with TC, he was running away with the Monaco GP when his hydraulics sprung a leak. In Canada, he finished second after Senna, pulling over to retire, almost took him out; a rare apology was forthcoming.

The Benetton was flat, plain better through the mid-season – even when McLaren finally received engine parity. Senna's patience wore wafer thin. At Spa, emerging from a pitstop, he attempted to block Schumacher, who was recovering from a botched start that ultimately cost him victory.

"As soon as he saw me, he turned left, right across in front of me," said Schumacher. "It made me angry, but I didn't lift off and was able to overtake." Two wheels on the grass, on the plunge to Eau Rouge – Prost (and I write this as a huge fan of his) would have backed out. Senna versus Schumacher was more visceral.

McLaren aero improvements allowed Senna to sign off with two more brilliant victories, in Japan and Australia, but not before new team-mate Häkkinen had outqualified him at the first time of asking; dégagé debutant Eddie Irvine had driven him to violence; and Schumacher had scored his second GP win, a brilliant display of strategic opportunism, judicious use of backmarkers and injudicious weaving on old tyres in Portugal. This 'robot' could think for itself.

With Nigel Mansell in Indycars and Prost now retired, the landscape was changing around Senna, and he was struggling to make sense of it. "Ayrton sent his manager Julian Jakobi to fetch me [at Imola in 1993]," says Hill. "It was like being summoned to the headmaster's office. I went because I was intrigued by what he might have to say. I think he wanted to give me some kindly advice… to calm me down. I didn't think he had a leg to stand on given what I had seen him do and I must admit I adopted the 'cheeky tyke' attitude. It was classic Ayrton: he had a licence to do as he wished, but nobody else did."

Though he remained the man, with five wins to Schumacher's (unrepresentative) one – it was eight-all in qualifying in 1993 – still Senna felt he had something to prove.

"Ayrton was unhappy and we knew we couldn't keep him," says Ramírez. "But I told him that he had won the most difficult races and proved that he was the best even if he was not world champion. He said it was important for his CV to win races and championships for different teams."

Williams, at last, was next.

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SENNA WAS THE OVERWHELMING favourite for 1994. If he concurred with his odds – and there was no obvious reason why he shouldn't – he received the rudest awakening. Williams, relearning shocks and springs after two seasons of active – now banned – got it wrong: the FW16 was unsettled and unbalanced. When Senna spun from the Brazilian GP, he put his hand up: he'd been trying too hard to catch Schumacher. When he spun during practice for the Pacific GP, he admitted to feeling silly. This was serious.

Outside bets Schumacher and Benetton won both races with unexpected panache. The reintroduction of mid-race refuelling played into the hands of the team's sports car element and driver's fitness. In Brazil, a faster first pitstop moved Schumacher ahead of Senna.



## SENNA, BY SUTTON…

London gallery pays tribute to a fallen hero, 20 years on from Imola

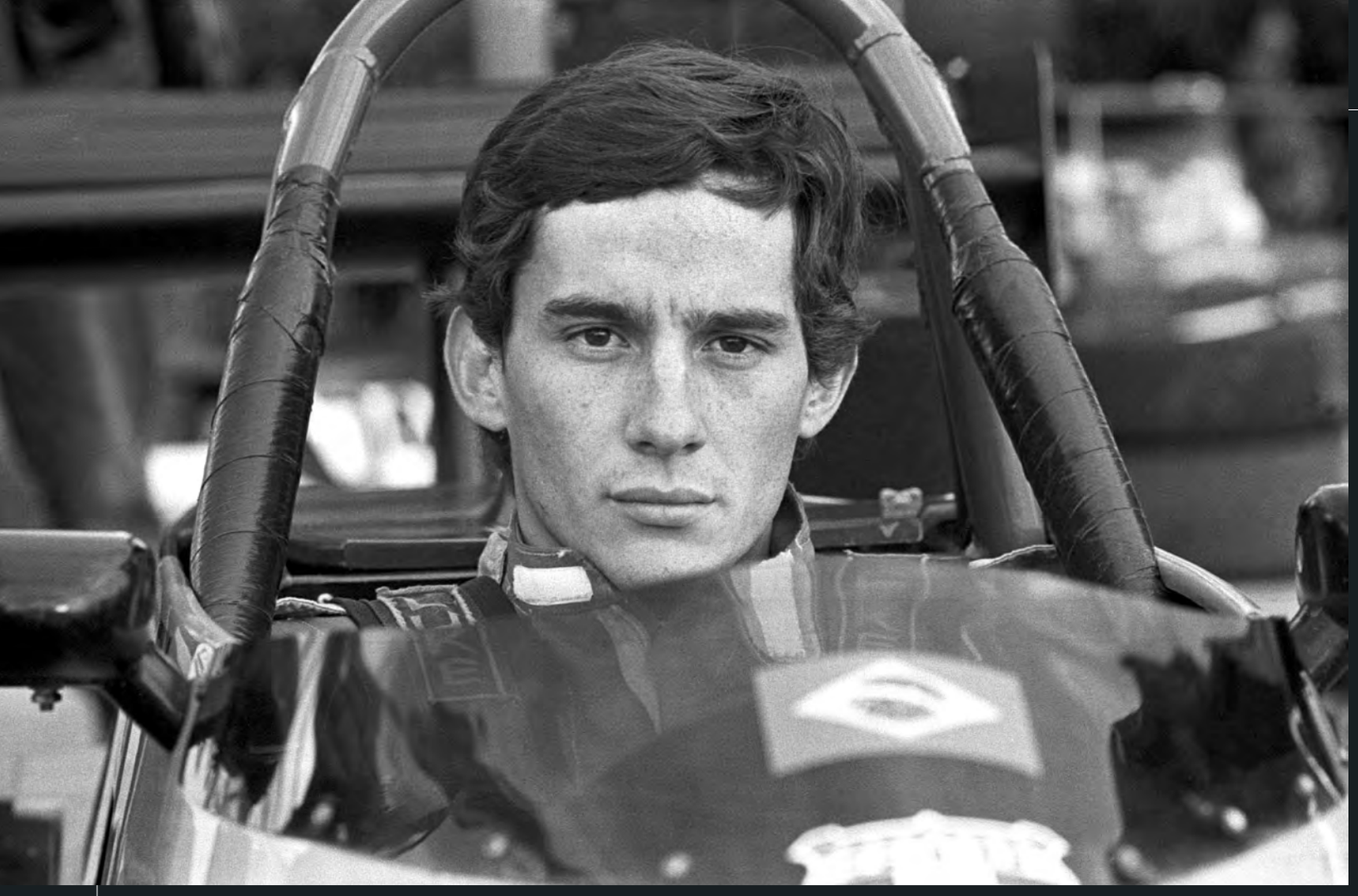
**KEITH SUTTON HAS BEEN A trackside ornament at major motor sport events for more than 30 years.**

**He covered his first Grand Prix – Silverstone 1977 – after convincing marshals that an Oulton Park press armband was a valid credential. Such were his persuasive powers that he was promptly ushered to a better perch. The same trick worked at four more Grands Prix (including Zolder, twice, in 1977 and 1978).**

**Later, Sutton was frequently to be found squashed into the rear compartment of my *Motoring News* Mazda RX-7, cadging a free ride to European F2 events and suchlike in northern Europe.**

**It was parallel resourcefulness that led him to strike a deal to supply promising youngster Ayrton Senna with photographs and press releases during the 1981 season, when the Brazilian arrived in Britain to race in Formula Ford. That sparked an enduring friendship and Keith was on hand to capture Senna's rise from wide-eyed starlet to triple world champion.**

**Some of Keith's finest Senna photos have been selected as basis for an exhibition, which opened on March 6 and runs to May 4 at Proud Chelsea, 161 Kings Road, London, SW3 5XP. *Simon Arron***










A star on the rise – sumptuous Sutton images of a youthful Senna. Clockwise from top left: on the other side of the lens in March 1982; primed for action in FF2000; pondering FF1600 set-up; the seasoned traveller in Denmark; hefty Cadwell Park F3 shunt in '83

In Japan, with Senna watching – and listening – intently from the sidelines after a first-corner tangle, Schumacher gave another perfect demonstration of the sport's new look: three sprints, two stops.

Senna had good reason to be suspicious of Benetton; it was discovered to have left banned software in and taken mandatory hardware out: the Orwellian Option 13 launch control (at Imola) and a filter from its fuel rig (at Hockenheim). But Senna's dark, doubting mood contributed to his underestimating it: Schumacher, Tom Walkinshaw, Flavio Briatore, Ross Brawn, Rory Byrne and Symonds was a formidable combination, on and off the track.

Williams had spotted it.

"I was with Ligier in 1993 and, more and more, Williams sent new bits to help us because they didn't want Benetton to get the Renault engine," says Brundle. "It wasn't difficult to see how that would pan out."

> "THERE WERE A NUMBER OF ISSUES IN AYRTON'S LIFE. IT WASN'T ONE THING"

If Senna had awarded it the same credit, he might have cut himself some slack, stepped back, waited for his own car to be 100 per cent and then pushed. Instead he was driven by desperation to the end.

"He was one of those drivers who just could not allow for the possibility that anyone could come close to them in terms of performance," says Hill. But what happens when somebody does? "That's where the model breaks down. That's when that mindset becomes a problem. It doesn't allow room for admitting that you might be wrong or that somebody might be as good as you are. It's what distinguishes them.

"Michael had the same mindset."

Albeit with a subtle difference.

Hill: "Ayrton had made himself a rival to the sport's establishment. He saw himself as a crusader. There were certain vested interests, he felt, swingeing regulations that suited them, and he was the guy who was going to challenge them."

Schumacher never became so embroiled, enmeshed, entangled. His was a simpler soul. There'd be no 'It's not fair!' monologues against powers-that-be. There would be no moralistic cartoon character in his own image; his large charitable gestures would be low-key. And his first retirement (at the end of 2006) failed not only because it was handled badly, but also because, hand on heart, he wasn't sure what to do next. Yes, he'd race a superbike – but he'd not put his name to one.

Senna, in contrast, possessed a head for business and a more marketable image: Audi, Ducati, Mont Blanc. But that brought pressures and distractions, too.

"These are just my impressions," says Hill. "There were a number of issues in Ayrton's life, personal and sporting, that were coming together: the rise of a new guy, the politics of the sport. It wasn't one thing. So many factors. He was still settling at Williams."

Ramírez: "He was unhappy. He didn't like the atmosphere there. It was me whom he asked to arrange a helicopter for him for after the race at Imola. I think he would have come back to us – or gone to Ferrari. As long as he had a competitive car, I think he would have kept racing. Prost was, at 38.

"I met Ayrton at the drivers' briefing and told him the registration of the helicopter and the name of the pilot. He told me his car had felt better in warm-up. That was the last time I spoke with him."

The FW16 had undergone a number of beneficial revisions for this race – new front wishbones, a slightly shorter wheelbase and a reprofiled nose with its wings mounted higher – but even so, Senna's first lap after the restart, on cool tyres and heavy tanks, was arguably the most committed of his career. (Only Schumacher and Hill would go faster later that day.)

Senna's next lap, of course, was his last.

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SCHUMACHER, WHO INSISTED THAT Senna remained the championship favourite at the time of his death, dedicated his title to Ayrton, who would have been (uncomfortably) familiar with its controversial conclusion.

"It would have been difficult for Ayrton, he was already 20 points behind," says Ramírez, "but my money would have been on him."

Brundle: "Williams was getting sorted and I am sure that Adrian [Newey] would have worked his magic [on the FW16] sooner rather than later."

Hill: "Well, I nearly beat Michael in it; I think Ayrton could have, yes."

Brundle: "But Michael was in the ascendency. Youth would have come through in the end. [Plus Benetton did get that Renault engine in 1995.] Ayrton, though, was better. We're talking tiny percentages, but he had a sixth sense for speed and grip that Michael didn't. Michael achieved great things with all the tools and levers at his disposal, but he didn't have the competition – all those household names of the 1980s – that Ayrton had."

Fate denied him that.

Suddenly it comes.

Senna would have understood. He'd raced Michael Schumacher. He would have put an arm around Ralf. M




SUTTON



# SENNA'S DIRTY WEEKEND

**It was the kind of thing a team would nowadays doubtless suppress – an F1 star sneaking away to try his hand at rallying. But such things were possible in 1986, even when the driver was Ayrton Senna. He relished every second**

**writer** STEVE BENNETT

AYRTON SENNA – rally driver. Now there's a cover line any magazine editor would covet. It happened too, on a blustery, grey Welsh hillside in 1986. Ayrton Senna and five rally cars in a top-secret test, organised by the late Russell Bulgin for *Cars and Car Conversions* magazine, with the help of his Welsh rallying mates. There was no PR element, no prima donna Formula 1 antics, no catering for the stars, just the world's fastest F1 driver curious to understand the dark art of going sideways.

Fast-forward to the present and through technical advancement which would now render such a top-secret test impossible, tap in 'Ayrton Senna – rally driver' into your good old Google search engine, as I did last year. You will find, pretty close to the top, a grainy, flickering 3min 57sec piece of video footage. It opens with Senna posing for the camera in front of the assembled machinery. The Brazilian is the star and he's both patient and gracious to the demands of the photographers. The voices are familiar (Norman Hodson and Tony Butler), but even more spookily familiar is my own voice asking Ayrton to deliver the corny helmet on raised knee routine. It came as something of a shock.

Yes, I was there, and it all came rushing back when I heard my somewhat dull-sounding vocal cords. I was but a bit player in the whole production and, at just 20 years old, a young one at that. I was just one month into my first publishing job on *Cars and Car Conversions* (*CCC* or *Triple C* to its regular readers), straight out of college and helped along the way by a bit of work experience on *CCC*'s sister mag, *Custom Car*. My role was that of designer-cum-editorial assistant and my job was to direct the front cover shoot and generally hang around being slightly overwhelmed and star-struck.

Without a doubt that September day in Wales was one of the most incredible of my career but, as is so often the way, I didn't realise as much at the time. OK, I didn't imagine that every day would involve superstar F1 drivers, but I didn't appreciate the unique and bespoke nature of this story, or how it would resonate over the years. But how could any of us have known?

Russell might have understood a bit more. He was editor of *CCC*, but in reality was just passing through after *Motor* magazine decided it didn't need him any more as its F1 correspondent – or more accurately decided it




couldn't afford to have him jetting all over the world. Russell – as well as being the world's tallest motoring journo at 6ft 7in – brought a whole new style to the often stuffy world of motoring journalism. His copy fizzed with the style of the *NME* and Elmore Leonard crime novels, and influenced a generation of modern car scribblers. Russell and I started on *CCC* in the same week and he very much took me under his wing, though I didn't really appreciate that at the time. He didn't really need me for the Senna story but wanted me to share the experience. But that was Russell. One week it was Senna, the next it was the Formula Ford Festival at Brands, the next it would be Motörhead at the Brixton Academy. And so it went on, at 100mph-plus.

Russell and Ayrton were mates. They arrived in F1 at the same time and clicked in the way that journos and F1 stars rarely do these days. Without that connection this extraordinary story would never have happened. Equally, without rallying's huge popularity at the time, there wouldn't have been the desire and curiosity from Senna's side. This was the pinnacle of the Group B era, when rallying was a worthy challenger to F1 and Röhrl, Toivonen, Blomqvist, Alén, Mikkola and Mouton were household names. Group B cars blazed a trail through the forests before the whole thing got out of hand. This story was supposed to be about Ayrton Senna, GpB rally driver, but it didn't quite turn out that way. And that, in many ways, adds to its charm.

Which kind of brings us to *CCC*. Long gone now, it was a mag that punched well above its weight. Its editorial strategy was very much 'bits of this and bits of that', but revolving in the main around club motor sport and rallying, with some fast road car stuff thrown in as well. Put it this way, a typical issue of *CCC* from 1986 could easily combine a feature on jetting Weber carbs with the technical challenges faced by Lancia in developing the turbo/supercharger installation on the Delta S4. *CCC* had thrown itself into the GpB era with gusto. It was the go-to mag for all things turbocharged and four-wheel drive, but not necessarily 'F1 stars go rallying'.

Perhaps that's why, at the very last minute Ford, Peugeot and Lancia pulled out, leaving just Austin Rover to provide a GpB Metro 6R4 in basic 250bhp Clubman spec. Maybe they just didn't quite believe that the world's fastest F1 driver really was going to Wales to drive their rally cars, or maybe they just didn't need the aggro of getting service crews and wagons from Italy, France and Boreham to South Wales. Whatever, with a day to go we had the Metro and that was it.

SUTTON

Being a Shropshire lad, not so far from the Welsh borders, Russell was soon on the blower to his rallying contacts and in no time had assembled Phil Collins with his GpN Sierra Cosworth, Harry Hockly and his works GpA Vauxhall Nova, Allan Edwards' home-brewed Ford V6 GA-powered four-wheel-drive Escort and a David Sutton-prepared GpA VW Golf 16-valve. Not the full gamut of GpB machinery Senna had been expecting, but a rather more progressive learning curve.

But we're getting ahead of ourselves. First, we had to get Ayrton to Wales. His grasp of UK geography was understandably a little sketchy, despite living in Esher at the time. He knew how to get to all the UK race tracks, but that was about it. Russell and I arranged to meet him at the Slough Holiday Inn (probably for its close proximity to the M4) on the Friday afternoon before the Saturday test, from where we would travel to Newtown, Powys and Jan Churchill's Welsh Forest Rally School.



SUTTON

I'd been expecting. Russell was being generous to a fault, but frankly Senna could probably have done without entertaining the office boy en route to Wales. In retrospect I don't suppose many people have been privileged to spend such one-to-one time with Senna, but I sensed that this wasn't the time and place to try and go for the in-depth interview. After all, that isn't why he was there. Besides, he could sense my nerves and was kind enough to do the talking, and so I tried to appear as knowledgeable about rallying as possible while questions about what he was going to be driving came thick and fast. I tried also to block out the fact that he clearly liked Phil Collins quite a lot (that's the crooner, not the aforementioned rally driver), judging by the cassettes on display. But then I also remembered that – according to Bulgin – most F1 drivers had diabolical music taste and we shouldn't hold it against them. I should point out that we were a couple of tedious music snobs and our trip to see Motörhead had been slightly ironic.










**Ayrton Senna's colours in unusual habitat: GpN Sierra above, and GpA Nova, right. Above, Russell Bulgin listens to his mate's conclusions**

And so we waited for the emerging legend – an F1 driver devoid of minders, managers, PRs and all that other stuff that goes hand-in-hand with contemporary F1 stars. This was Senna, on his only available day outside racing and sponsorship gigs, expanding his horizons with a little rally driving. Oh, and he'd neglected to inform his team – Lotus – of his 'dirty weekend' because such activities were excluded in his contract. That will be Senna the maverick, then.

Our budding rally driver arrived solo in his Mercedes 500 SEL coupé (Mercedes knocked them out at a good discount to F1 drivers) and I fell strangely mute – never have been good at meeting my heroes. It was late afternoon and we had a long way to go. "You follow me, Ayrton," said Russell. "Steve, you go with Ayrton and here's a map just in case." OK, this wasn't what

"OUTSIDE THE RACES THAT I DID, THIS WAS PROBABLY THE BEST DAY I EVER HAD IN BRITAIN"

Russell had devised a cunning cross-country route and was driving the more suitable machine for the job: CCC's project Golf GTI. This was Russell's pride and joy. Modded by GTI Engineering at Silverstone it was born for B-roads and quite useful in town too, and so even an F1 driver of Senna's prodigious talent was occasionally struggling through the lumpier traffic hot-spots as Russell found the gaps or just beat the amber going to red at the lights.

We've all read about F1 drivers antics on the road. Well, I was about to find out first-hand the exhilaration and frankly sheer terror of another person's absolute faith in their ability, not to mention trust in other road users to comply with the fact that they are travelling towards them on the wrong side of the road, overtaking a stationary line of traffic about 30 cars long. This

TONY BUTLER/NORMAN HODSON/RACECAR ENGINEERING

happened quite often and, for some reason, even more frequently when careering through Woodstock in Oxfordshire. Bulgin reported the Merc's tank-like presence in his rear view mirror as it bludgeoned its way through Friday traffic, Senna laughing and me looking decidedly unsettled. Every time I thought he'd run out of road and luck, and that the oncoming Metro with a petrified OAP at the wheel was going to end up in the engine bay, a gap miraculously opened up and Senna forced his way back in.

After a fuel stop, I opted to ride with Russell. Our next port of call was Russell's mum and dad in Ludlow. Why not? Russell wanted to introduce his mate to his folks, and Ayrton was the perfect guest. Later, Russell's Senna obituary stood out in many ways, not least because it opened with, "And there he was, leaning against the wall in my parents' kitchen, talking about this and that with my mum." Wonderful.

And so, lightly refreshed, we carried on. By now it was dark and the roads were twisty and the road. And then through came Senna in a glorious slide, laughing his head off and making a gesture with his hand that suggested we both enjoyed sex of a singular nature.

That night we dined around the large table in Jan Churchill's warm farmhouse kitchen. A large pot of chilli con carne and a few bottles of red wine were consumed (I can't remember if Senna partook or not). It was convivial and Senna was happy to shoot the breeze, crack a few jokes and generally not be a superstar. He was also spectacularly indiscreet about his team-mate's ability to break gearboxes, something that he now fully understood having watched some in-car Monaco footage. Accommodation was in the B&B annexe next to the farmhouse, where Senna signed the guest book and took to bed with him a 1970 issue of CCC that Russell had bought along: it featured Emerson Fittipaldi testing a rally-prepped Hillman Imp.

And so the next day Senna donned his Lotus JPS overalls and went rallying in front of a much as I was. I felt that everybody was curious to see where I was going to go off the road and, you know, what was going to happen. That was the fun. Because it was so unknown. Everything was so new there was a big question mark. That feeling was the excitement.

"Apart from the races that I did, testing or anything, this was probably the best day I ever had in Britain. Believe me or not. Outside the races that I did, for fun this was the best day."

Twenty-eight years ago? Seems like yesterday and an eternity all at the same time, and the three main protagonists are all gone: Ayrton at Imola in 1994, Russell, tragically young, from cancer in 2002 and CCC one year later as a result of management neglect.

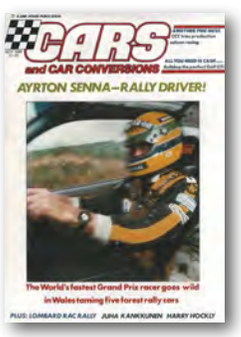
Me? I still mess around with cars for a living and treasure my two days on the periphery of Senna's incredible life. I still have a signed, framed in-car picture from that day. In gold it says: 'To Steve, best wishes and thanks, Ayrton Senna'. It's my most treasured possession. M




**Metro 6R4 was only GpB car on hand; 4WD Escort, right, brought variety. Centre, Bulgin and CCC man Martin Sharp with Senna on his "best day of fun"**

Russell was in his element, charging hard in his '80s hatch of choice. I should add here that Russell was a pretty handy driver, if obviously less so than Ayrton Senna. Despite being saddled with a wallowing luxo barge with the handling characteristics of a small ocean liner, and with a three-speed auto box, there was no shaking the man from Brazil or the grin from his face.
I spent more time looking back at the sideways Merc than I did at the road ahead. "You'll never get rid of him, Russ," I said confidently. And then a slow-moving tractor appeared, with just enough of a gap for a Golf, and we were past and away. Russell called on all 130bhp and made a run for it. He was going pretty well, too, until a very fast bend tightened without warning and the Golf ran out of grip and we found ourselves going backwards on the wrong side of hard-bitten, slightly dubious bunch of clubmen. And what happened on that Welsh rally stage stayed on that Welsh rally stage until the magazine hit the newsstands. No one texted, no one Tweeted, no one Facebooked.
No information leaked into the atmosphere. Pictures were committed to film, quotes were gathered on magnetic tape and shaky video was shot on VHS. And Senna won over the rallyists with his charm and obvious talent.

I'm not going to go into the blow-by-blow details of how Senna got to grips with the sideways art: that was Russell's (award-winning) story, but to give you an idea of what Senna felt about the whole experience, the driving and the day itself, this quote will suffice: "Those people there, with the cars, they were curious to see what was going to happen. As




*The feature 'Welsh Rarebit' appeared in the November 1986 edition of* Cars and Car Conversions. *If you're very lucky you might find a copy on eBay, but at a price. After Russell Bulgin's death, a book simply called* Bulgin, *featuring the best of his work, was published in limited numbers, with the proceeds going to the Royal Marsden Hospital. It contains the Senna story, plus other prime cuts of Russell… including a legendary Nigel Mansell interview. It's worth hunting out. ISBN: 0 9543604 0 0*


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SUTTON

# This charming man

**A gutsy, talented racer whose story is rarely told, Roland Ratzenberger died while trying to qualify an uncompetitive car for the 1994 San Marino Grand Prix. More than just fast, he also oozed personality**

**writer** ADAM COOPER

DURING A BREAK between sessions at the 1989 Le Mans 24 Hours, I bumped into event rookie Roland Ratzenberger in the back of the paddock.

A pal since his Formula Ford days, he'd just experienced his first laps of the circuit in a Brun Porsche 962 and was beaming wildly. Le Mans was his kind of race and, since the ACO had announced that chicanes would be added to the Mulsanne Straight for 1990, he was delighted to be sampling the track in its unadulterated form.

"You know," he said with his trademark smile. "The Steve McQueen movie is what made me want to become a racing driver..."

The moment summed him up perfectly. You would struggle to find a driver possessed of such deep-rooted enthusiasm for the sport, or who had worked so hard and for so long to get where he was, fuelled by self-belief and an absolute commitment to make it.

Five years later Roland would achieve another big ambition when he finally made it to F1, albeit with a struggling new team. But his death at Imola meant that the world at large never got to know a man who made a lasting impression on those who knew him, and who earned the respect of team-mates and rivals.

"He was a good-looking guy, super fit and very charming," says F1 team-mate David Brabham. "He was quite a ladies' man, let's put it that way! He was a colourful character. It's a shame that we lost the opportunity to see what kind of man he would have become."

"Ratzy was super, super competitive, and very professional in the car," adds his 1992 Group C co-driver Eddie Irvine. "He gave 100 per cent every time. He was smart, talented and worked hard for everything he had."

Roland was born in Salzburg on July 4, 1960, although – much like Gilles Villeneuve, one of his heroes – he would later lose a couple of years in order to keep his career on an upward trajectory. His father Rudolf was a civil servant involved in pensions, and didn't have any interest in motor sport. The family lived on a main road, however, and young Roland became fascinated by the passing cars.

When he was seven his grandmother took him to a local hillclimb at Gaisberg, then in







1969 the Salzburgring opened just a few kilometres from his home, further stoking a growing interest in motor sport. With Jochen Rindt and, later, Niki Lauda competing in F1, there was plenty to excite a young Austrian.

As a teenager Roland discovered that racer and Formula Ford team owner Walter Lechner was based nearby and, while studying at a technical school, he began to hang around the workshop. On finishing his education at 18 he joined Lechner, who – with perfect timing – was just opening a racing school at the Salzburgring.

Roland had no money, and there was no support whatsoever from his parents. But now he had an opportunity to get behind the wheel on a regular basis while working as a mechanic and later instructor at the school. "His parents were 100 per cent against me," Lechner says. "Because I was the one who helped to get him into racing! From day one he was very confident, he was sure he would make it. He was very hungry and very focused.

"The only problem was that he was underfinanced like hell. Gerhard Berger was with us in FF2000, and it might even be possible that Roland worked on his car. Gerhard was a wealthy son from a big transport company, and it was much, much harder for Roland..."

It was indeed a slog. Roland took any opportunity to further a stop-start Formula Ford career, working at the Jim Russell school in Italy, as a mechanic for a German team and later at engine tuner Gatmo. He was always helped by his networking skills, easy-going charm and a big, winning smile.

Everything finally came together in 1986, when he tackled the British FF1600 series on a shoestring. There was a level playing field for the one-off Race of Champions event at Brands Hatch, where Van Diemen provided 25 identical cars and Roland beat a strong field. Back in his own machine he did a brilliant job to win the Festival at the end of the year.

He was already 26 – although he told the world he was 24 – but his success finally propelled him upwards. Via an introduction from Gerhard Berger's manager Burghard Hummel, who helped out as a favour, he landed a works BMW drive with Schnitzer in the new World Touring Car Championship. Despite his inexperience he held his own alongside Roberto Ravaglia, Emanuele Pirro and Ivan Capelli, and logged a string of podium finishes.

Hummel also helped Roland to find ATS funding for British F3, and he earned a couple of thirds with West Surrey. Combining two parallel programmes had not been easy, and for 1988 he focused on F3, this time with Madgwick. It was a difficult season, and his career seemed to have stalled. His only way forward in single-seaters in 1989 was the second-string British F3000 series.

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NEW DOORS WERE OPENING, HOWEVER. That year he also took his first steps in sports car racing having landed a Toyota seat with SARD, rival to the works TOM'S team in Japan. He dovetailed that with some World Championship races with Brun, sharing with old mentor Lechner on his aforementioned Le Mans debut.

The racing scene was booming in the Far East and Japan would become Roland's second home, his SARD job leading to opportunities in F3000 and Group A. He finally began to earn good money, enough to justify setting up a European base in Monaco. Despite his success in Japan, however, he always kept his options open. He was one of many drivers hoping to get into Jordan for its F1 first season in 1991, and later he had an impressive Champ Car test with Dick Simon at Willow Springs.

In the winter of 1991-92 his life briefly changed, when he quietly married the former long-time partner of another driver. The arrangement lasted a matter of weeks and he soon discovered that he wasn't ready to settle. His greatest regret was that to show his initial commitment he had thrown away his little black book, losing a lifetime of carefully stored phone numbers. Not that finding new lady friends was ever a problem. "It was like his driving, he would just go for it," says sports car team-mate Eje Elgh. "That was his personality."

On track he continued to amass huge experience with the sheer volume of races and test days that he undertook in Japan. "He was extremely competitive," says F3000 and touring car team-mate Andrew Gilbert-Scott. "He was entertaining and very amusing. He was fit, strong and I think he could muscle Group C cars fairly easily. And he was quick and determined – as good as anybody on his day."

## "WITH A NEW TEAM, NEW CARS AND THE PRESSURE OF THE BATTLE TO QUALIFY, F1 WAS A STEEP LEARNING CURVE"

When the local Group C series was canned for 1993, leaving Roland with just F3000 and touring cars, Japan's appeal began to wane. He was now 33, and with the clock ticking he began to look again at a way into F1. Irvine's spectacular debut with Jordan at the end of that season gave him an extra impetus.

Back in Monaco he'd got to know Barbara Behlau, a wealthy German art collector and entrepreneur, and she was willing to put up some money to help get him into F1. Meanwhile, Max Mosley had introduced Hummel to Simtek founder Nick Wirth – and that contact led to Roland landing a drive alongside David Brabham, financed by Behlau. However, it was only guaranteed for the first few races. "He was very driven and I just liked him," says Wirth. "From what we could tell he seemed to have the credentials. He was the ultimate charmer, just a wonderful guy."

With Pacific also joining the grid, two drivers were always going to miss out and Roland was devastated when he failed to make the cut in Brazil after a misfire, damper problems and rain in final qualifying conspired against him.

Second time out in Aida, he made the grid after outpacing both Pacifics and kept out of






SUTTON




ALL IMAGES LAT

trouble to bring the car home 11th. He was delighted to have completed a race distance, but for a guy so used to running at the front it wasn't easy to adjust.

"It was all in his ability to get the slow corners right, which just drove him nuts," says Wirth. "In the high-speed corners he was bang on the pace with David, and sometimes quicker. But he couldn't get his head around the best way to get an F1 car to tackle a slow corner, and that's really what held him back. With a new team, new cars and then the pressures of the battle with Pacific to qualify, it was a bloody steep learning curve."

Knowing that his seat wasn't guaranteed for the season just added to that pressure.

Roland drove from Monaco to the next race, Imola, in his recently acquired Porsche, giving Benetton driver JJ Lehto a lift. The car wasn't the only novelty as he adjusted to his full-time return to Europe – he'd also bought an apartment in central Salzburg. Having overseen the renovations on Roland's behalf, sports car racer Ernst Franzmeier delivered the keys to him at Imola.

On track, meanwhile, he continued to try to come to terms with the Simtek. "It was not the best scenario for either us, trying to do F1 with a small team and very few resources," Brabham says. "He was struggling a bit in terms of getting the best out of the brakes. He didn't feel they were working properly. On the Friday I jumped in his car just to verify what was being said, because I had more experience with that kind of system. And they were shite, basically – he was absolutely right."

On Saturday morning, with the brake issue addressed, Roland found some performance.

"All of a sudden he was where he should be," Brabham says. "He was happier with the car, and happier with the brakes. You felt like his momentum was going to build, and he was going to push me, which would have been good for me, too."

Come the afternoon qualifying session, Roland's target was to beat the Pacifics and get onto the grid. "If you look at the circumstances now, he was just so desperate," Wirth says. "He had his sponsors there; Japan was the first time he'd got into a race and he wanted to do it again. There was unbelievable pressure."

"We were all very much on the edge," says Pacific's Bertrand Gachot, a friend from FF1600 days. "We knew we had cars that were difficult to drive. He tried his best and got unlucky."

Simtek's data would indicate that Roland hit a kerb before slowing and tweaking the steering wheel, as if checking the car for damage. With tyres at a premium, he went for another lap.

"I would have done exactly that," says his engineer Humphrey Corbett. "You're on a roll, it feels quite good, so go for it again."

Roland was heading from Tamburello into Villeneuve when his front wing came adrift, seemingly the result of its mountings working loose. He left the track at unabated speed and struck the wall with sickening force.

"I remember coming around the first corner and seeing bits of bodywork on the ground," says Brabham. "I immediately thought it was Roland. By the time I got there the ambulance had arrived. I can remember looking back at the car and seeing the way his head was positioned. I immediately thought he was gone, there didn't seem to be any life in the car."

Back in Salzburg Roland's parents had just returned from holiday. They switched their TV on just in time to see the accident on Eurosport, although initially they were unaware that it involved their son.

"It's a set of emotions I wouldn't want anyone to experience," says Wirth. "When you are as responsible as I was... It is an indescribable feeling, the world falling away beneath your feet. It was so difficult, a feeling of numbness – it's still tough talking about it today. The hardest bit was when Bernie came and told us Roland had died."

Roland was on his own in Imola, so Hummel went to the hospital and later returned to Simtek's hotel to pack his friend's bags. He then drove the Porsche to Austria, eventually handing it over to his parents, along with the new apartment keys. The latter would become their home and they packed it with the memorabilia of a career they hardly knew.

We'll never be sure how Roland's F1 career might have panned out, but at 53 he would probably still be racing something, somewhere, in 2014. "He was a bloody good driver, and very determined," says Irvine. "And those two things are very important. You've got the super-talented drivers, but there aren't many of those around. And then you've got the next crowd – he would have been part of that."

# Mallory spark




**Jim Clark had yet to etch his name on the broader racing conscience by the spring of 1959, but four victories in one afternoon were a hint of greatness to come**

**writer** RICHARD WILLIAMS

ITS PAINTWORK SO DARK THAT on a murky day the green could have been taken for black, the big Lister-Jaguar appeared to flex its shoulders as it powered through the downhill left-hand kink before the pit straight. The 3.4-litre straight-six engine blared as the young driver, his dark helmet and goggles visible above the Perspex screen, held the throttle to the floor, his hands barely moving on the wheel as he balanced the car against the awkward camber.

The kink was called Devil's Elbow, and it had almost caught him out once already that day when he and a rival – both of them in identical Lotus Elites – touched as they went for the same patch of Tarmac during practice. In time they would become close friends, but now the other man came off worse, shedding a wheel and losing bits of pale-blue fibreglass as his car slewed across the track into the earth bank. No more racing for him that day. But the driver in the other Elite, the white one, slid through unscathed.

It was March 30, 1959, the Easter Monday meeting at Mallory Park, a day on which Jim Clark, less than a month past his 23rd birthday, would go on to win four races, three in the Lister and one in the Lotus. Four wins in a single day: not so unusual back then, when even Grand Prix aces could be seen competing in the lesser formulae at circuits around the country. But something about the presence of Clark at the wheel, not least the contrast between the fuss-free way he let the delicate little Elite find the best route around the track and his willingness to take on the burly Lister in a battle of strength and will, was enough to make an impression on the spectators, including a 12-year-old boy attending his first motor race.

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WE HAD ARRIVED AT THE CIRCUIT IN my father's 1936 Rover 14 saloon, just in time to witness the crash that sent John Whitmore's damaged Elite home on its trailer. I was already a fan of motor racing, with a deep devotion to Stirling Moss, but had never heard of Jim Clark. The events of that day were to lay the foundation of a second and equal enthusiasm, one that would feel more personal even when it came to be shared by countless enthusiasts around the world.

So I was unaware that this was Clark's fourth season of motor sport, although only his second with a full programme of club racing, and that he was already coming under the pressure of parental disapproval. The one son among four children, he was now expected to renounce the frivolity of motor sport and take increased responsibility for the family's sheep farm on the Scottish borders. But having graduated from a DKW saloon via a Triumph TR3 and a Porsche 356 to a D-type Jaguar, he was moving closer towards his goal. The Lister and the Lotus were the cars that would finally carry him to the brink of the big time.

His friend, neighbour and fellow farmer Ian Scott Watson, a founder of the Border Motor Racing Club, had lent him the DKW and the Porsche to race and then sold him the latter in order to raise the £1600 necessary to buy the brand-new Elite, which he planned to use as a road car between Clark's competition activities. They had driven down together in the white 356 from Duns to Mallory, while the cars were transported in a converted Bedford coach (the Lister) and on a trailer behind a farm van (the Lotus) by the mechanics of Border Reivers, the team founded and sponsored by Jock McBain, a Ford dealer with a garage near the Clark farm.

It was while Clark had been buying farm equipment from McBain that the two men chatted about their mutual obsession and forged the link that would provide the young driver with the first significant platform for his talent. Border Reivers had been set up to rival David Murray's Ecurie Ecosse, and after Clark had spent the 1958 season at the wheel of the team's D-type Jaguar, McBain bought the Lister as an upgrade for his protégé.

The car had begun life four years earlier with a Bristol engine. First owned by Austin Nurse, a Birmingham garage owner, it enjoyed success in the hands of various drivers, including Roy Salvadori. After a bad crash with Nurse at the wheel during the support race for the 1956 British GP at Silverstone, it was rebuilt for the following year with a new frame, a Jaguar engine and blunt-nosed, chopped-tailed bodywork drawn up by Thom Lucas, Brian Lister's in-house designer: the burly shape, fabricated in Byfleet by Maurice Gomm, led it to become known as 'the flat-iron Lister'. It was raced by Bruce Halford, its new owner, and Archie Scott Brown, the legendary Lister exponent. At Le Mans in 1958, in the hands of Halford and Brian Naylor, it was running promisingly in sixth place as night fell before a succession of problems dropped it to 15th at the finish.

McBain paid Halford about £1500 for the car, and Clark went down to Luton (with Ian Scott Watson in the Porsche) to pick it up. He drove the Lister the 280 miles back to Duns in his stockinged feet, since the pedals were too close to permit the wearing of shoes. It was a Sunday morning and, near the USAF base at Huntingdon, he put his foot down to overtake a serviceman in a Ford Thunderbird. This was six years before the imposition of an overall 70mph limit, and anyway the car had no speedometer, but he saw 5500 on the rev counter and calculated that it meant he must have been doing 150mph.

**"NEAR HUNTINGDON, HE PUT HIS FOOT DOWN AND SAW 5500 ON THE REV COUNTER. IT MEANT HE MUST HAVE BEEN DOING 150MPH"**

He had also discovered that the cockpit was far too cramped. "I honestly don't know how Bruce managed to drive it," he would recall. "We managed to carve a bit out of the bulkhead behind the seats to push the seat back."

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THE NOTTINGHAM SPORTS CAR CLUB'S Easter Monday meeting would be his first outing in the car, as well as his first visit to Mallory Park. The 1.35-mile circuit, laid out on land used during the Second World War as a stand-by landing ground for the RAF, had opened for motor racing in 1956, with only rudimentary facilities. Now, at the season's opening event, competitors were greeted by a brand-new tower for timekeepers and commentators, with a members' bar at ground level and a new grandstand at Shaw's Hairpin, the track's only slow corner.

The programme of races started at 1.30pm with a couple of 20-lappers for series-production sports cars, up to 1000cc (won by Bob Gerard in a Turner-BMC) and 1000-1200cc, in which Clark and the white Elite, lacking the competition that another Elite would have provided, cruised to an untroubled win ahead of Pat Fergusson in the fastest of the quartet of Elva Couriers which, with a gaggle of MGAs, made up the field. One down, three to go.

Next for Clark came the 20-lap race for sports cars over 1200cc, in which he and the Lister – with road registration, HCH 736, on its battered nose – led from pole position and comfortably beat John Dalton's Aston Martin DB3S, Mike Bond's Ecurie Chiltern DB3S and the Hon Edward Greenall's Lotus XV. A pattern had been set for the rest of the day. He won the second of two heats of the day's Formula Libre event, ahead of the 1100cc Lotuses of Jim Blumer and Lewis Bramley, and after a pause for a 500cc Formula Three race, won by Jack Pitcher in a Cooper-Norton, he lined up, again in pole position, for the final.

A battle had been anticipated between the Lister and the 1500cc Formula 2 Cooper-Climax of Chris Summers, the winner of the first heat. But on lap two, with the Cooper following almost in the Lister's shadow, its driver missed a gear under braking for the hairpin and bent a valve. That was the end of the contest for the lead, but it was not the last noteworthy incident. We were standing at Devil's Elbow, in order to admire Clark's handling of a car that seemed too big for the circuit, when Ken Flint, a Liverpool garage owner, lost control of his handsome British racing green B-type Connaught, the only pukka Formula 1 car in the race, which spun into the bank and rolled over. The uninjured driver was able to scramble out, while we craned our necks and marvelled at the car's steering wheel, which had been bent into a Dali-esque shape.

With no one else able to challenge Clark, who won at an average speed of 80.99mph, Bramley and Blumer took second and third places, with Dalton fourth.




Right car, wrong day: Clark racing the Lister at Mallory later in the 1959 season. Below, preparing to tackle Le Mans in the Elite

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So ended the first meeting of a memorable year for Clark: "a field day", as he would remember it. That season he would compete in 53 races at 21 different meetings, winning 23 of them. Of 26 races in the Lister between March and October, he won exactly half. Perhaps his best day in the car came in July at Aintree, where he came second to Graham Hill's works 2.5-litre Lotus XV in the sports-car support race to the British Grand Prix. There would also be another win at Mallory in September, followed by two victories in a day in his farewell to the car at Charterhall, his home circuit.

The big machine had taught him a great deal about racing. "It was a beast of a thing, really vicious, but it was fun to drive," he would tell a biographer. "It was a lively car and you could drive it on the throttle. At Gerard's you could set the car up going into the bend hard, and get around the corner without touching the steering again. If you wanted to come out tight you just put your boot in it: the tail came around and it was a matter of driving it on the throttle the whole way."

It also taught him quite a bit about brakes – "in that I couldn't rely on them". Scott Watson remembers that the inboard rear discs were particularly prone to overheating. Not only did they fade, but they transmitted their heat along the driveshafts to the differential, whose bearings had to be replaced after every meeting as a result. "We cut holes in the bodywork, but never cured it." Last year, now with a 3.8-litre engine and in good condition




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after 30 years of loving ownership by an Italian family, it was sold by Kidston's to Steve Boultbee Brooks, a British property developer and adventurer, for about £750,000.

By the time Clark completed his fourth victory, the 21-year-old Whitmore was practically home, having headed back to his father's farm in Essex with his Elite, a former Paris Show car now somewhat the worse for wear. It had been a disappointing day for him, but his earlier performances in the car at Snetterton and Silverstone had caught the attention of Colin Chapman.

The Lotus boss was also already aware of Clark's talent, having given the Scot a test in a Formula 2 car at Brands Hatch in October 1958 and only narrowly beaten him, thanks to a fumbling backmarker, when both men raced Elites on Boxing Day at the Kentish circuit.

In his introduction to *Jim Clark at the Wheel*, published to mark the Scot's first world title in 1963, Chapman recalled his reaction when the virtually unknown Scot passed him for the lead: "Good God, what's happening here?"

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SHORTLY AFTER THE MALLORY meeting Chapman would contact Whitmore, inviting him to share an Elite with Clark at Le Mans that June, to be entered by Border Reivers and run with works support.

"I couldn't believe it," Whitmore remembers. "In practice at Mallory, before the crash, Jim was a second or so quicker than me. I thought, 'This guy is good'. It was exactly the same at Le Mans. We were very much controlling our driving, getting the maximum fuel efficiency and trying not to use up the tyres. But every time we had a pitstop the starter wouldn't work. We had to keep changing it, which we had to conceal from the scrutineers, and every stop took 12 or 15 minutes." Nevertheless they were able to finish 10th overall, two places behind Peter Lumsden and Peter Riley in their class-winning sister car, which enjoyed an untroubled race. (A few weeks later Whitmore's own Elite would be written off at Monza, when brake failure at 140mph sent it cartwheeling over the bank and into the trees on the outside of the Parabolica; again the driver was unhurt.)

The two farmers formed such a friendship that Clark often stayed at Whitmore's Mayfair *pied-à-terre* on his visits to London. "Jimmy was funny because he could never make a decision," Whitmore says. "He was very astute in a car, but outside it he was so difficult. I'd say, 'Let's go out to eat – which restaurant would you like to go to?' He'd say, 'It's up to you'. I'd say, 'Shall we go to a movie?' He'd say, 'Yes, but you choose'. He had a very lovely girlfriend, Sally Stokes, for a long time, and everyone said, 'Why aren't you marrying her?' They were very good together and she wanted to get married. But he couldn't do it. He never made any decisions. Until he got in a racing car."

As we got back into the Rover and prepared to leave Mallory Park late in the afternoon, I know I told my father, with all the conviction a 12-year-old could muster, that Jim Clark would be world champion one day. From that moment on, the hitherto incomparable Moss would have to share my affections.

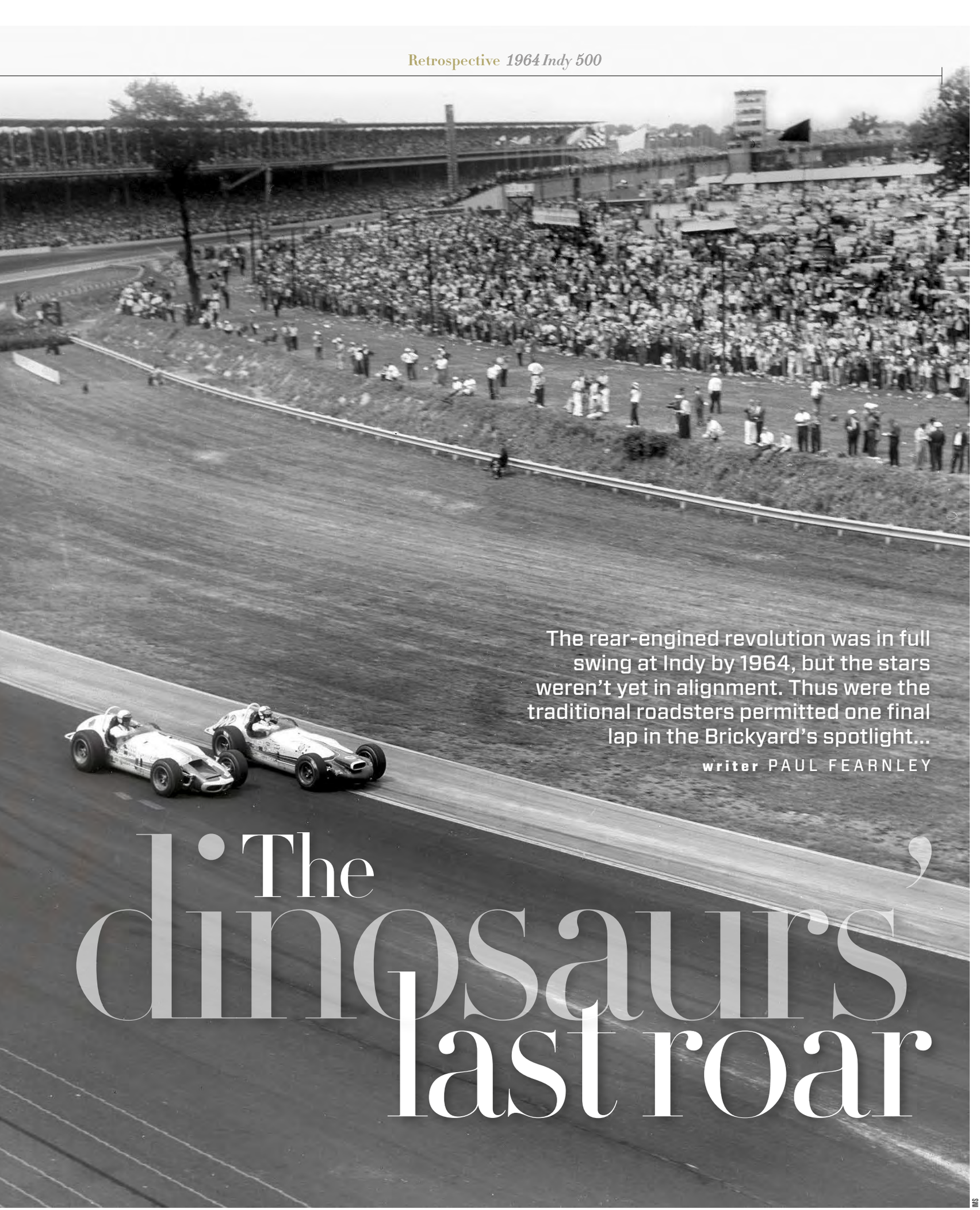
By the start of the following year Clark would be testing an Aston Martin GP car for Reg Parnell at Goodwood, shortly before embarking on a successful season in Chapman's Formula Junior Lotus 18: the last stepping-stone to F1 and the two world titles he was to claim before the Hockenheim accident that took his life on April 7, 1968. Many people can remember their grief on hearing of that tragedy. For me, it was some comfort to think back and cherish the memory of the big Lister hurtling through Devil's Elbow, on the very edge of control, at the dawning of a legend. M






Oval and out: AJ Foyt (left) and Parnelli Jones tussle in the final Indy won by a front-engined car. Left, Foyt toasts his second Brickyard success

GETTY



The rear-engined revolution was in full swing at Indy by 1964, but the stars weren't yet in alignment. Thus were the traditional roadsters permitted one final lap in the Brickyard's spotlight...

**writer** PAUL FEARNLEY

# The dinosaurs' last roar

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TWO-FIFTHS OF THE American population watched *The Ed Sullivan Show* on February 9, 1964. Beatlemania had turned transatlantic: John, Paul, George and Ringo – plus Jim Clark.

More than 200,000 attended Indianapolis Motor Speedway on May 16 to watch the shy Scot – hair fashionably lengthening, horizons rapidly expanding – claim pole for the 48th International 500-Mile Sweepstakes, his spindly, low-riding, British 'funny car' flirting with the 160mph barrier with minimum fuss.

That's how it seemed, at least.

Lotus Powered by Ford was in its second year at Indy: staid Motown combine seeks hip British combo with attitude and all-new tunes. The first year had been relatively low key and encouraging. The second was an all-out assault, with extra demands and pressures.

Ford, long dismissive of the Brickyard, was suddenly acting like it owned the joint. Mustang, its most important launch since Model T, was prevalent, and corporate blue was pre-eminent – albeit with a splash of green and a yellow stripe.

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COLIN CHAPMAN HAD NO TIME FOR convention. The quirks of Indy's interminable Month of May were anathema to Lotus's charismatic, quixotic boss. The opportunity to prove his superiority – and the resultant prize money – he loved; the rest he could leave. Abrasive, he tended to rub people up the wrong way – not least his own chief designer.

"We formed a good team, bounced ideas off each other and had mutual respect, but Colin and I never had a good personal relationship," Len Terry says. "At Indy in 1963, he plumbed new depths in that respect."

He refers to Chapman's heartless, self-serving decision to send him home, via waiting helicopter, moments after Clark finished second.

Terry: "I was an unknown, even though I did most of the work [on Type 29]. Colin was the figurehead. He liked to think of himself as the key person, which he was to a very great extent, but that was detrimental to some employees.

"I had worked every hour God sent in 1963, but in '64, because of his shabby treatment, I didn't put in the same effort. I wasn't paid on results, I wasn't paid overtime; I was on a substandard salary."

Fortunately, Type 34 was an evolution of the 29's 'bathtub' monocoque, modified to accept Ford's new engine and a ZF gearbox in place of the Colotti. Unfortunately, disenchanted Terry, usually meticulous and fast, took it upon



Clark took pole, at 158.828mph, while Foyt (below) lined up fifth

IMS

## "CHAPMAN CHOSE DUNLOPS... BALLSY CONSIDERING FIRESTONE'S EXPERIENCE"



IMS

himself to draw every part. The programme ran late. The build didn't begin until mid-Feb; the engine spec was not signed off until three weeks before May; and the first car arrived in the US on April 27. As usual, the mechanics copped it.

"We were better-prepared in 1963 and ran the car in the UK before going to America," says Dave Lazenby. "In '64, we were still building it at the airport."

Despite this disarray, Lotus was years ahead of its American opposition. Fast, front-engined cars had been extinct in Grand Prix racing since 1960 – yet they roamed Indy still. Though beautifully built and presented, these 'roadsters' were archaic: simple tube-frames on solid axles, with a Ford Model A-based gearbox and, in the main, an engine designed in the '30s. Although Parnelli Jones fended off the British invasion in controversial circumstances in '63, the asteroid was looming. The roadsters' time was up.

So millionaire team owner JC Agajanian had Dick Troutman and Tom Barnes of Scarab and Chaparral fame build a rear-engine car for Jones. A spaceframe powered by the legendary Offenhauser 'four', it lapped at more than 150mph during practice. Its driver, however, was not persuaded. "We knew it was the way to go, but ours didn't handle well," Jones says. "We took it to Trenton after Indy to test and something broke and I hit the wall. Caught a little fire, too. I said, 'Take the f***** away!' We'd tried to make it work, but there was a lot to learn and we hadn't had time."

For a fourth Indy 500 in succession, he would use the roadster that might also have won in 1961 and '62, given better reliability. Its nickname was 'Ol' Calhoun' – with increasing emphasis on 'Ol'. "It wasn't a decision as such: we had no choice," Jones admits. "But at least we had developed a bigger, better tyre. Stock cars had been using smaller, wider (10in) tyres for a while, whereas Firestone had been encouraging us to use taller, narrower (8in) tyres – for aerodynamic benefits, I guess.

"They showed me on paper how it had a longer and, therefore, bigger contact patch. But I didn't buy that. That might have provided grip going forward, but I wanted side grip, too. It was only when the little Lotus turned up in 1963 that they made the tyres I'd been asking for. I was like, 'Hey, they're mine!'"

Rubber was a bugbear of Lotus in 1964. Having ruled out Goodyear's overheating Blue Streaks, its choice lay between old lag Firestone and newcomer Dunlop. Though softer, stickier and faster over a lap, the latter's wares showed worrying signs of stress during testing.

"They put too much rubber on them, which was then difficult to keep attached at high speed: they were chunking," Jones says. "They would have been better off on Firestones."

Yet Chapman chose Dunlops, an incredibly ballsy decision considering Firestone's experience and clout – Henry Ford and Harvey Firestone were related by marriage. That he stood up Firestone representatives at a last-minute secret meeting compounded his sin.

"It was a major source of conflict," says Dan Gurney, Clark's team-mate. "There was the usual tug of war between England and Detroit, but Colin was no slouch when it came to politics. It was still a good team."

Lazenby: "The car ran pretty reliably. There were problems, however. Getting the engine in was one. New regulations required a larger gap between it and the driver – a quarter-inch aluminium sheet – and a mesh underneath to catch bits from any blow-ups. Another was the throttle linkage: a rod running down the centre of the engine, which stiffened when it got hot and the clearances altered.

"But these were Ford things. They were like a mother hen with that engine; we weren't



Clark leads the field early on, but suspension failure put him out as Ford's challenge fell apart

allowed to touch it. Ford had good engineers, but they were nine-to-five people, whereas we'd carry on until a job was finished."

Simplistically, the quad-cam V8 was the Fairlane-sourced aluminium bottom end used by the pushrod Indy engine of 1963 mated to a copy of the four-cylinder Offy's four-valve, twin-cam heads. Terry was not impressed.

"The valve openings were too big for the cylinders," he says. "Because of that we didn't generate the gas velocity we needed. Ford wasn't really *au fait* with racing at that time."

He reckons 500bhp-plus should have been achievable on modified Hilborn mechanical fuel injection. The programme fell 75bhp short – yet that was sufficient for its cars to lock out the front row. Clark's four-lap average on a brand new surface – and using nitro-spiked methanol rather than gasoline – was 158.828mph: a five per cent increase on Jones's 1963 mark. Alongside him were Bobby Marshman, joint Rookie of the Year with Jones in '61, and two-time winner Rodger Ward.

The former was driving a Lotus 29 for Lindsey Hopkins. Chapman had been reluctant to release this year-old design to a privateer, but Ford insisted so that Marshman could conduct engine testing. The talented 27-year-old used this experience to hustle Clark all month.

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WARD'S WAS THE FIRST REAR-ENGINED car from the most successful builder of roadsters. Prematurely grey like Chapman, but far more even-tempered, AJ Watson was a fabricator rather than designer. His roadsters, chalked on the floor of his cinder-block HQ at 421 West Palmer, Glendale, a northern satellite of LA, had followed the same pattern since a victorious debut in 1956. Their Offys were upright – 'Head' never felt the need to lay them over to lower CoG and reduce frontal area – and offset so that the driveline skirted the driver's left hip. Sharky noses and shapely tails, a 6ft hood, sweeping cowl, 9ft exhaust pipe and Plexiglass screen were other winning motifs.

"Actually, I don't think a Watson was necessarily the best," Jones says. "The 'laydown' Epperly I first drove at Indy [in late 1960] was real good. I told [crew chief Johnny] Pouelsen that I could go straight out and beat the record. But I was told off for going too fast too soon. So they put [two-time champion] Tony Bettenhausen in it. He got near the record and told Hopkins to buy it for him. Or else!

"My Watson was good, but didn't handle as well as the Epperly, which felt more of a piece."

Watson roadsters, however, had steered into Victory Lane from 1959-60 and 1962-63 – the missing year was filled by AJ Foyt's copycat Trevis – and remained the most popular choice: 11, plus four facsimiles, made the grid in '64. Despite a down-on-power replacement engine, Jones was fastest of them at 155.099mph, good enough for the inside of row two. Foyt's sister machine was alongside. Like Jones, the Texan had sampled a rear-engine car – a Huffaker-Offy fitted with BMC Hydrolastic suspension – during testing, before settling for the devil he knew. Tough, quick and smart, they formed a formidable threat to rear-engined success.

"I knew a roadster could win," says Gurney, who qualified sixth. "Rear-engined cars had rendered front-engined GP cars obsolete long since, but that didn't automatically mean a rear-engined Indycar was as close to its limit as an Indy roadster. The roadster guys hadn't been stood still during those five years, whereas we were new to it. Indy doesn't give up its secrets readily and the regulars weren't handing out knowledge for free. I felt sure AJ and Parnelli had tricks up their sleeves."

It looked as though they were going to need them. Of the 12 funny cars in the field, seven had qualified within the top 10. Not everything, however, was rosy in their camp. The switch was not a quick fix, and the handling of the non-Lotuses was not all it might be. Oregon's inveterate innovator Rolla Vollstedt coped best with repackaging the taller, heavier Offy – veteran Len Sutton qualified eighth – and Watson was thankful that he had copied his bulbous spaceframe design; Don Branson's Watson-Offy lined up ninth.

Some Ford cars were struggling. Ted Halibrand, at Indy's hub since WWII as a supplier of wheels, brakes, axles, suspension and steering assemblies, plus final drives, used this changing of the guard to become a constructor. His machine, a neat monocoque with magnesium bulkheads and panels, was driven by Eddie Sachs, who knew zip about

cars except how to drive them fast. Twice a pole-sitter in roadsters, he stuck with his funny car and qualified 17th thanks to the fastest time of the second day; he'd tagged the wall on the first. Directly ahead of him, therefore, was the 'funniest' of them all. (Bearing in mind that Smokey Yunick's bizarre Offy-sidecar combination had crashed in qualifying.)

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MICKEY THOMPSON WAS A TALENTED engineer who'd made his name on drag strips and salt flats. With the confidence and chutzpah of a snake oil salesman, he persuaded Ford to provide quad cams for his outlandish design. The previous year he had worked similar magic on Firestone, who made low-profile tyres for the 12in wheels on the Chevy-engined 'rollerskate' that defeated Graham Hill.

Thompson's updated contender for 1964 featured enveloping bodywork and ran on unproven General tyres, badged as Allstate as part of a sponsorship deal with Sears, America's largest retailer. It proved a handful, even more so after USAC insisted it use 15in wheels, and rookie Dave MacDonald, a rising star from Corvettes and Cobras, did well to qualify 14th.

Running hard on full tanks, he was battling for seventh when he spun exiting Turn 4 on lap two. The car's progress was graceful – until it struck the inside wall with sickening ferocity. The blazing wreck rebounded into the pack and left Sachs nowhere to go.

The heat from the gasoline/magnesium fireball forced a large section of the record 250,000 crowd to reel. The acrid mushroom cloud caused tens of thousands of cinema-goers – the race was being shown live across America for the first time – to gasp. For the first time, a 500 was red-flagged because of an accident.

During the two-hour delay it was announced that Sachs, Indy's adored 'Clown Prince', was dead, killed on impact. MacDonald, burned and poisoned, succumbed in hospital two hours later. Clark, resting against the front wheel of his Lotus, did what he could to calm nerves: "Don't look so worried… it's only a sport."

Gurney: "There was a lot of talk about the [Ford] decision to race using gasoline rather than [Indy standard] methanol. Methanol was better at looking after the engine; gasoline gave better mpg. I didn't think about it much, other than considering that methanol was capable of cooking you, too. Would I continue? Yes."

The restart was undertaken in race order and single file, Clark leading the 26 remaining runners over the line. He maintained that position until Marshman, on Firestones, made a bold move on lap seven. The privateer then motored away at a second per lap, while Clark and Gurney provided a brief Lotus 1-2-3.

On lap 37, the aggressive Marshman dived` very low onto the apron to pass a backmarker, and immediately began to trail oil smoke. The line was that he'd ripped out the gearbox's (or engine's) drain plug. Lazenby is adamant that an oil pipe rerouted by the Hopkins team had been snagged. Whatever the cause, Marshman retired after 39 laps.

Clark led again – but not for long. A vibration caused by a chunking Dunlop caused his left-rear suspension to collapse and he tricycled into retirement on lap 48. The team had lived under threat of this since the previous October. Prior to qualifying (no switch of brand was allowed thereafter), Dunlop spoke of a rogue batch and promised improvements, but a busy Whit weekend in the UK – Clark dashed home to win in F2, Lotus 30 and Lotus Cortina, at Mallory Park and Crystal Palace – left the firm unable to respond effectively.

"I guess there was enough chance that they would be okay," Gurney says. "We didn't know. No one really knew. Dunlop had sensed there was trouble on the horizon and assured us it was all under control. Without hindsight, we had to presume they were sincere."

Both Lazenby and Terry, though not privy to Chapman's decision, believe there was a monetary motivation.

"The tyre testing that should have been done, wasn't," Terry says. "That could be laid at my door. The jack's failure was partly my fault, too. My heart just wasn't in it."

## "JUST ABOUT EVERY DECISION TAKEN HAD COME BACK TO HAUNT THE PROGRAMME"

Lazenby: "That bloody jack [a platform raised by air pressure]! It was just 3in high but the car wouldn't go over it; perhaps because Dan was heavy with fuel. It was a pantomime. Ford went ballistic. We were doomed from the start."

It was immediately after a later, scheduled stop that Chapman decided to withdraw Gurney from fifth when he noticed that his Dunlops were showing signs of fatigue.

"I don't recall exactly, but I suspect I felt a little something [with the tyres]," Gurney says. "Anytime you don't win you can be excused for being a little peeved. But we had concerns and made a sensible decision. I didn't dwell on it. Only afterwards did people, not directly connected to it, pontificate."

With Lotus out of the equation, Jones and Foyt enacted another roaring roadster dice for the lead, passing and repassing for six laps. "I had AJ covered, and he knew it," Jones says. "We were only going back and forth because of my problem. We'd fitted an aluminium tail section that wasn't strong enough, and the flexing caused the fuel pick-up to work loose; I was misfiring by the end of the straights. If we'd stuck with steel, we would have won. Sometimes you can engineer yourself out of business.

"The only good thing about the aluminium was that it was easier to blow up."

A spark from the hot exhaust, at the moment Pouelsen snapped the filler shut, ended Jones's race at his first stop. Though it looked comical – methanol burns invisibly – an undignified bale-out was his only option. He would listen to the remainder of the race on radio, in hospital, while sharing a few unwise beers with Ronnie Duman, a burns victim of the pile-up.

After leading unchallenged for 146 laps, Foyt rumbled down Victory Lane in his "dinosaur", mischievously flicking a finger at Ford bigwigs as he did so. Despite his roadster being at least 100lb heavier than a Lotus, it had gone the distance on a single set of Firestones; Foyt, unlike inflexible Chapman, had made a late switch. So late that he hadn't changed the Goodyear patch on his overalls!

Ward's Watson was the only rear-engined car – ditto Ford – in the top 10. It finished second... and might have won but for an oversight that caused Ward to richen its mixture when he believed he was weakening it. Despite using methanol, he made five stops to Foyt's two.

Ford's mood could be imagined. Just about every decision taken had come back to haunt the programme. Two of its drivers had been killed, and dramatic photos were large in every paper. Chapman was summoned to Dearborn, and at the mid-point of a chastening meeting there was a real possibility that Ford would wrest control from him. At which point he launched a bold attack and earned a reprieve. Jones was drafted and won the 200-milers at Milwaukee and Trenton in August-September.

Foyt, too, drove a Lotus at Milwaukee. Though he retired with a broken gearchange it was clear that the roadsters' final line of defence had been breached. Only six would contest the 1965 Indy 500 – a race dominated by Clark in a brand new, brilliant Lotus designed by a remotivated Terry; contract up, he was happily clearing his desk on race day. Completed early and tested before shipping, Type 38 ran on Firestones and featured an improved Ford V8 slurping methanol; gasoline had been banned. Harsh lessons had been learned. Ⓜ

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NEW!

{ JACKY ICKX • LE MANS 24 HOURS, 1969 }

# PROTEST MARCH

**It might have been distinctive and spectacular, but the traditional Le Mans start had its critics. The time had come to take a stance...**

**writer** SIMON ARRON **illustrator** GUY ALLEN

CLAIRVOYANTS MIGHT have had trouble with this one... Jacky Ickx would become known for his stance against the perceived sanitisation of motor racing: at the 1975 Spanish Grand Prix, for instance, he was the first dissenter to venture out while rivals debated whether or not to boycott the race because they considered Montjuïc Park's safety installations inadequate.

At Le Mans six years earlier, Ickx had been the lone objector to the traditional Le Mans sprint start, which he felt exposed drivers to compromise when it came to fastening doors and harnesses correctly. In 1968, his compatriot Willy Mairesse had been seriously injured after his door blew open on the opening lap, causing him to crash violently: Mairesse lay in a coma for a fortnight, his racing career over.

One year on, Ickx's response was to stroll to his Ford GT40 as rivals made their customary, smoke-shrouded getaways, then make sure he was securely belted in – with door properly affixed – before being last of the 45 cars away.

The race began dramatically – Porsche 917 privateer John Woolfe crashing fatally at Maison Blanche before the first lap was run – but Ickx and co-driver Jackie Oliver gradually made their way up the order, moving into the top three after 15 hours and taking the lead with three to go. They eventually beat the Porsche 908 of Hans Herrmann and Gérard Larrousse by just 120 metres – the closest competitive finish in Le Mans history. Things had been tighter still three years beforehand, but that was a consequence of Ford stage management.

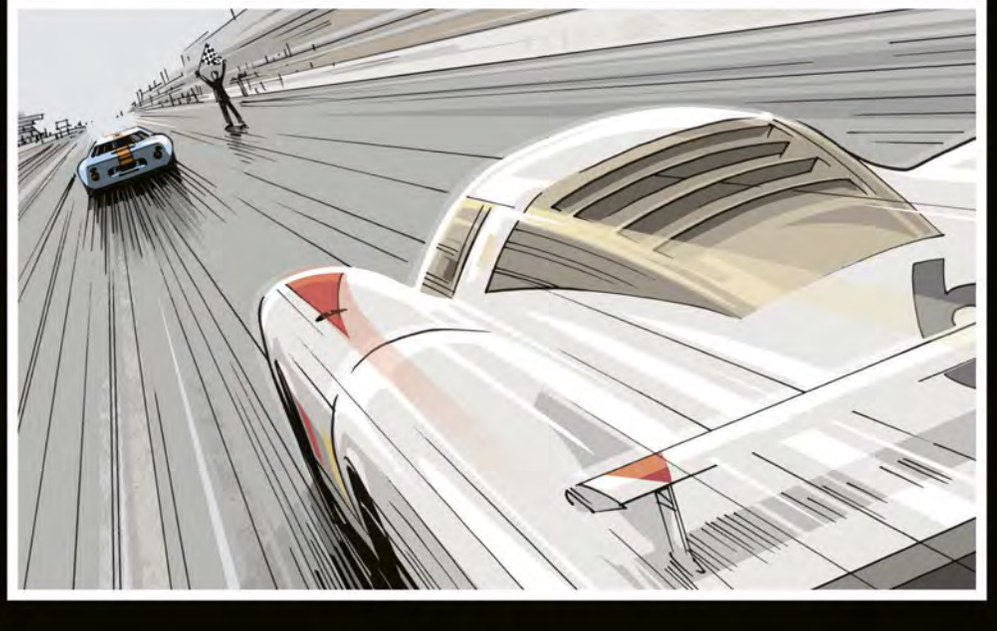
It would be the last time Le Mans began with a traditional running start. In 1970, cars lined up opposite the main pit straight grandstand, as before, but with drivers tightly strapped in by their teams.

For Ickx, Le Mans 1969 proved to be a multi-faceted triumph. M

Guy Allen
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# Anniversary waltz

**The *Motor Sport* 90th Anniversary Trophy will be a feature of the Donington Historic Festival in May. As the event approaches, we gathered a select group of eligible, inter-war cars**

**writer** GORDON CRUICKSHANK **photographer** MITCH PASHAVAIR

WE HAD A FLAG TO wave and had to decide where to wave it. This magazine has been reporting on cars and racing for nine decades, during which progress in performance, sophistication and efficiency has brought the automobile to a pitch our editorial team could never have imagined as they assessed the latest Ballot or stood in the Brooklands paddock, scribbling notes on the new works Delage.

Remarkably, the Surrey speedbowl still exists, but racing there is long past. Brands Hatch, Silverstone, Oulton Park – all of these came later than the *Brooklands Gazette*, which is how we started out. But there is still a circuit our founding fathers would know, even if it doesn't date from '24 – Donington Park. That's where, at the Historic meeting from May 3-5, we will present the Motor Sport 90th Anniversary Trophy, a double-header for pre-war sports cars, the type our forebears enjoyed on both road and track.

To introduce it there was no better place than Donington Park itself, where on the historic Melbourne loop we assembled a spread of machinery that would have been familiar to MS readers in the 1920s and '30s, from an unsophisticated mass-produced two-seater every young man could aspire to, through to a Grand Prix car only a very few would even contemplate.

I used two phrases above that would need clarifying to any of the tiny and fluctuating staff who kept this magazine afloat in the '20s:

'pre-war' is shorthand to us for whom WWII is the more recent landmark. To them it was 'post-war', as 'the war to end all wars' faded behind them.

And I said 'on the track'. We see Donington as a pure race circuit, but for *Motor Sport*'s staffers Mason, Twelvetrees and 'Baladeur' it wasn't that. It was a road-racing course, whose varying bends and slopes offered challenges much closer to everyday driving than the banking and constant radius bends of speedways such as Indianapolis, Montlhèry and our own Brooklands. Fashioned from the drives to Donington House and the estate roads, it was an exciting home-grown version of the open-road racing happening on the continent but barred in Britain, and it offered a more realistic test of the sporting cars the enthusiast could buy than Brooklands' bump-ridden concrete.

❖

AND THE CAR MOST OF THOSE enthusiasts aspired to was a Bentley. In 1924 that still meant a 3-litre, so it's very appropriate that we have a '24 example here. Graham Carr has owned it for 20 years, though he didn't mean to buy one. "I hadn't had Bentleys before; I was looking for a vintage car and went to see an Alvis I didn't fancy, but was told about a chap nearby selling a couple of Bentleys and thought we'd drop in and waste his time for an hour or two. Ended up buying it." For a change this one is maroon, not green, and though it has a light sporting body it doesn't carry all the Le Mans extras beloved of the marque. And Graham arrived with the hood up – eminently suitable as touring car races of the time often required at least some laps to be run like this.

"It was a saloon," says Graham, "a very light Gurney-Nutting – possibly the GTi of its day! Oddly enough the original saloon body still survives, too. Peter Paige built that Le Mans replica body on it in the 1960s, and made a nice job of it. I've not even painted it."

Many Bentleys have received all the well-known upgrades over the years, but not this one. "It's very original," Graham says. "It still has the original crank, heavy flywheel, cone clutch, ML magnetos and it still runs on an Autovac.

"I have changed the gearbox, though. It had a C box, the favourite for racing 4½s, but I came across an A box that the team cars ran at Le Mans, had some new gears made and it's been in ever since. The A has a closer spread of gears with a higher first, so it's better for everything except trialling."

Useability matters to Graham, because this is no display item. "I drive it everywhere. I've raced it, sprinted, hill-climbed it, even trialled it last year, though that wasn't a success. It's just too high geared. I did a Pyrénean tour, too. It boiled off a lot of water but I just carried a jerry can."

For the wealthy young man of 1924, this is very likely just what he would do with his Bentley, too – the epitome of the sporting motor. And hopefully his family would be as keen as Graham's: his wife goes trialling, his son Robert races an AC-GN and his daughter Gillian, who helped us assemble today's quartet, was the VSCC press officer for a long time and now works for the HGPCA, among others. "As a child I used to fall asleep in that back seat on the way home from events," she remembers, looking in over the vestigial rear door. Meantime Graham resists the usual Bentley upgrades. "A lot of people have tried to convince me that putting in a 4½ engine would be better, but this is how I bought it and how I like it. It's much rarer now."

❖

IF INSTEAD OF BENTLEY'S HEAVYWEIGHT engineering he hankered after something lighter, trading comfort and prestige for abrasive urgency, the inter-war enthusiast might have unclipped his fountain pen and written a cheque for a Frazer Nash. Throwing convention to the dogs, Archie Frazer-Nash ignored the usual box of gears and instead fitted four chains driving four sprockets on the rear axle, one per ratio. All the chains turn constantly, making a glorious racket, though only one at a time is keyed to the intermediate cross-shaft, itself driven from the prop shaft by a bevel gear. As the French said of the bicycle derailleur, "*C'est brutale, mais ça marche...*" With four sprockets spaced across the rear axle there's no place for a diff, of course – so Archie gave his machine the most limited-slip of all – a solid axle about as wide as a lawn mower. Although the Anzani and Meadows engines these machines utilised weren't the biggest hitters – most of them only 1 ½ litres – the fantastic traction of a solid axle and their skimpy structure brought impressive performance. If racing was higher up your priority than mere transport, you'd be trotting along to AFN Ltd in Isleworth to bag one of these raw devices.

You'll find various engines in various 'Nashes including six-cylinder Blackburnes and AC units. But the lean, green 1930 example we've invited along is a bit special even for these rare beasts. Hidden under all those louvres is the rectilinear profile of a Bugatti engine. And it's no mere 1½ but the powerful 3.3-litre eight from a Type 49. Chris Batty, cradling a hot cup of coffee in his chilled hands after a bracing drive to the track, is the machine's handler. "Duncan Pittaway fitted the engine in the '90s," he says, "but I've had it five or six years and race it in a number of VSCC events. I did the Pomeroy Trophy in it and performed quite well… except they zeroed me on a brake test."

How does the chain-gang set-up handle Molsheim muscle?

"It's still running on a bevel box, though I've got heavier chains on as it tends to snap them. At Donington Park a couple of years ago it stripped the pinion gear off the shaft, so I've re-machined that with extra keyways so it can take the power, and I haven't had a problem since – although it makes your head hurt a bit when you're setting up the timing. It runs twin sparks, so that's 16 plugs off a double-ended distributor rotor arm."

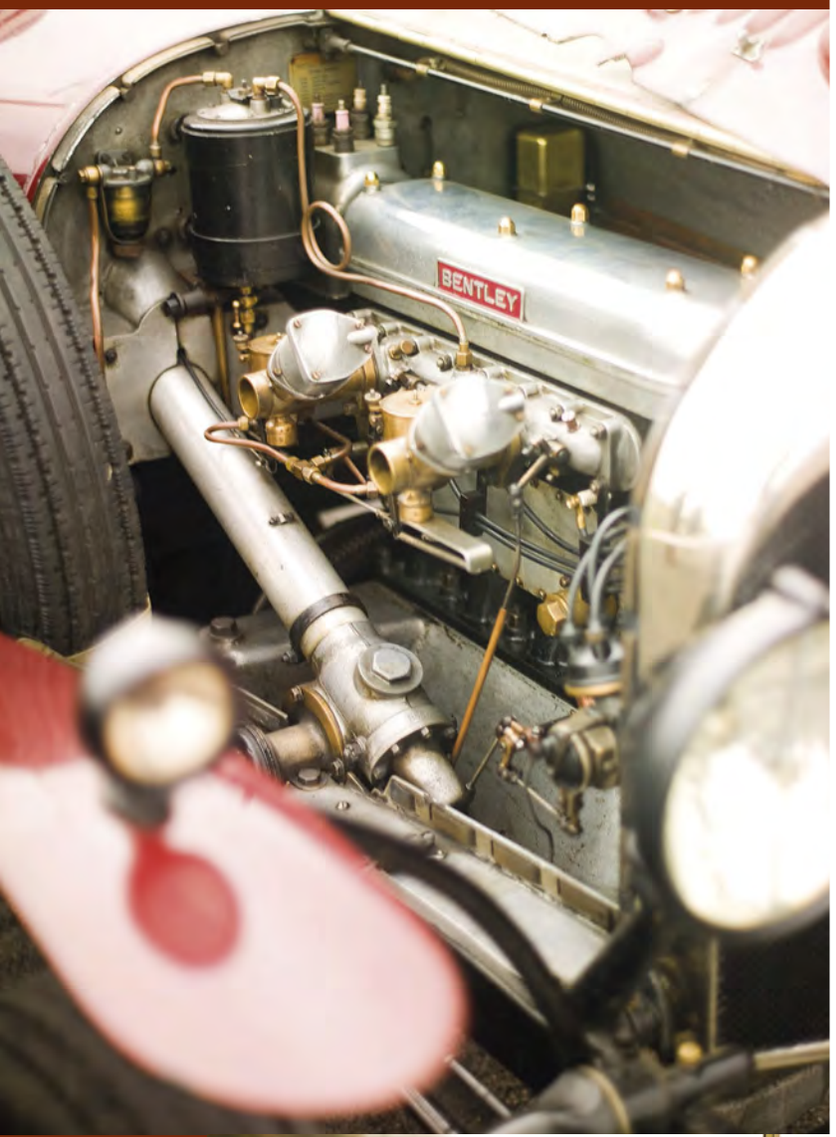
As Chris owns an investment casting foundry, a bit of engineering is no problem. And here's a nice connection – his firm casts the bonnet badges for today's Bentleys. Mind you, Chris has always had oily fingers. "I bought my first car when I was 13 – an Austin 7. I'd saved up since I was six! An open two-seater, but a wreck. In crates, really. I'd get a tyre for my birthday and another for Christmas, I built up the body myself, made the doors, everything. I've just always been keen on old cars.

"But it's just a brilliant car. I use it a lot on the road – I went to the pub in it last night. Although the engine is a lot bigger there's a lot of aluminium in there. It's heavier than the Meadows engine but I wouldn't have thought it was a lot heavier than the 2-litre AC. It's surprising that this engine fitted straight into the engine bay without any alteration to the chassis or engine. It's a perfect fit."

He lifts the bonnet and we admire the angular powerplant. "It looks so good inside," Chris says, "and the noise! The sound from the exhaust is wonderful. I can leave most modern cars at the traffic lights. Going into Melton yesterday I overtook about five cars in one go. For an old car it's a brilliant thing – it has so much poke, it's a two-seater and is just so useable. The ride is fine and it's just a really nice car to drive."

As far as I know no one did insert Bug power in a 'Nash in the '30s, but it's a perfectly plausible conceit for that era of simple ▶

## "I DRIVE IT EVERYWHERE. IT DID A PYRÉNEAN TOUR, TOO. IT BOILED OFF A LOT OF WATER BUT I JUST CARRIED A JERRY CAN"





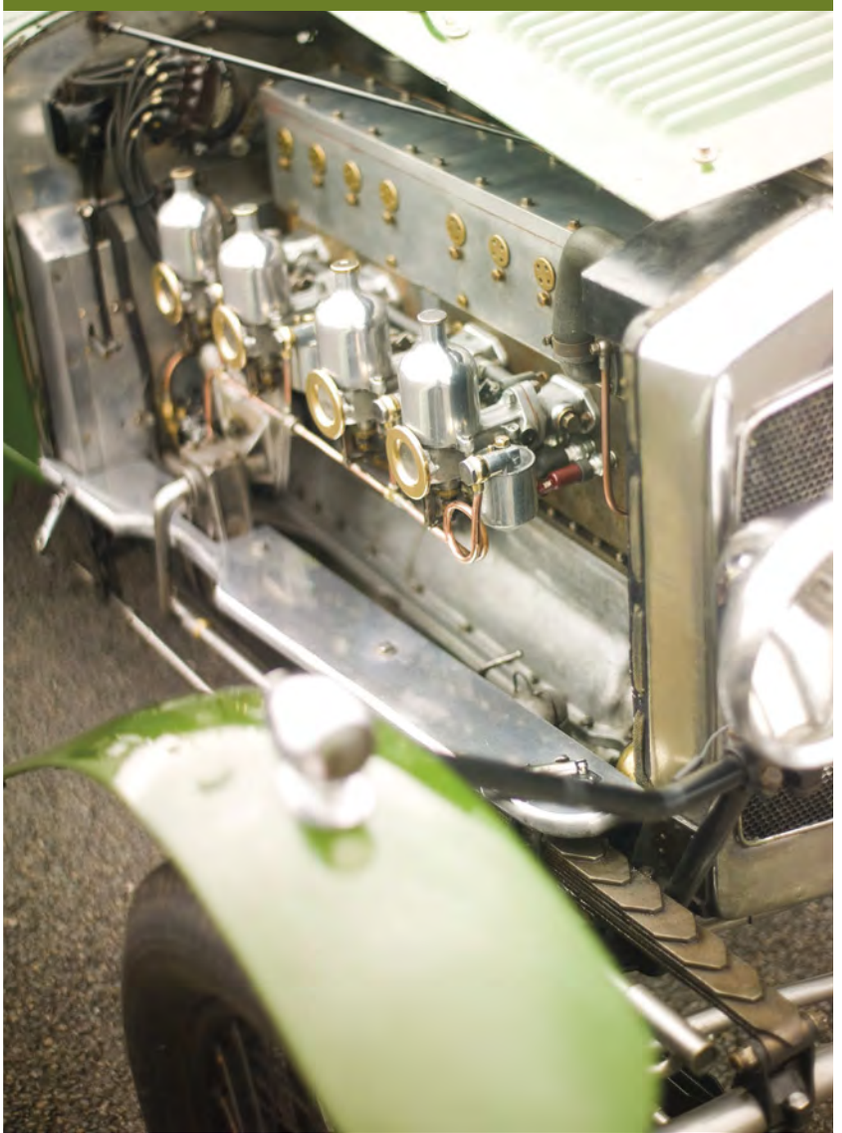






## 1930 Frazer Nash

Chris Batty's Frazer Nash has the distinction of a 3.3-litre Bugatti straight eight... which fitted without any alteration being required to motor or chassis










## 1924 Bentley 3-litre

Owner Graham Carr has resisted fitting the usual Bentley mods to a car he's used for almost everything during the past 20 years

engineering, especially against a back story of the big-engined specials being constructed to bellow around Brooklands. Typically for VSCC people this isn't Chris's only old car: he's restoring a Willys jeep and has a 3/4½ Bentley, a Hyper Lea-Francis and a supercharged MG J2 that he's built into a J4. That's why he is bending over our next machine and swapping MG talk with the owner.

❖

MG. A BADGE THAT HAS BEEN AROUND as long as *Motor Sport*. There's a bit of debate about the actual founding, but the first distinct model to bear the octagon appeared, like us, in 1924 and MG soon became a by-word for small, reliable, affordable sports cars. Combining mass-produced Morris parts with attractive, compact bodies, the names Midget and Magnette soon peppered results sheets and record lists across Britain and farther afield – witness the remarkable team prize for Earl Howe's trio of supercharged K3s in the 1933 Mille Miglia.

Among a constant evolution of new models with the distinctive radiator shell, 1935 produced the PB – a little bigger than its J2 predecessor with larger brakes and three-bearing 939cc OHC engine of a restrained 43bhp. But by now founder Cecil Kimber had sold out to the Morris company, which immediately cut back on all this expensive racing nonsense. Trialling, though, was hugely popular – period photos show hundreds of spectators lining some climbs – and was the scene of serious rivalry among Singer, Riley and MG. And it wasn't so costly, especially if you were merely supporting a privateer. That's how the Cream Cracker team (founded in '34 and named for the firm's cream and brown livery) came to have rather hot supercharged PBs prepared by the works but sold to the Cracker trio, Maurice Toulmin, J E S 'Jesus' Jones and Ken Crawford, with the agreement that they would be bought back later. The three cars were almost unbeatable in late '35 and '36, and one of those very cars sits before us right now.

"I've had it for about 10 years," says Richard Frankel. "My father had a PB – called Phoebe – and I always wanted a Cream Cracker. This one is Jones's. I got it from the States where it had been restored after being found derelict in a barn, but we've had to do a lot to it. I don't think they realised what a works PB was. The detailing is superb – much better than the production cars."

He points to the chunky Marshall supercharger, heavily finned with a long snout to its drive pulley. "Almost doubles the horsepower, to about 90bhp. You can't believe the performance; at four and half thousand it sounds as if it's about to break, but it doesn't. It's a beauty on the road. A wonderful friend."

Unlike the sophisticated R-type and Q-type racers the factory had developed, there was nothing clever about these works PBs beyond straight-cut gears and Telecontrol rear shock absorbers. But that was why they were so valuable to MG sales: here was a more-or-less production car, much cheaper than a Continental exotic, which was fun on the road and had a winning pedigree. In 1935 a three-car team of PBs crewed by women finished Le Mans, garnering immense publicity for the make.

"I do race it, but as I have other cars it doesn't get used as often as it should," says Richard, "but on high days and holidays we take it to the pub. It's Mille Miglia-eligible as well, so it ticks all the boxes. Apart from the fact that I'm a large man in a very small car...

"I used to have a copy of it that I took trialling," Richard adds, "and I'm thinking of buying it back to do some more. It's identical, but worth a third as much as this one, so I won't feel so guilty." But this Cream Cracker does have one definite date this season: Richard has entered it in the *Motor Sport* Anniversary race at Donington, sharing it and his TT Bentley 3-litre with his brother, our own Andrew Frankel. And being built in 1921, the Bentley will be the only car in the race that pre-dates the magazine...

❖

COMPLETING OUR SWEEP OF INTER-WAR machinery is the exotic one, the one small boys in school caps would crowd around in the paddock and later dream of themselves as its heroic driver. This is the pure racing car, Italian, red and raucous. A Maserati Type 26, the first individual product of the Maserati brothers. This one belongs to Roland Duce, who happens to be at a meeting nearby and zips over in a McLaren 12C to say hello, but looking after it is Mickey Hudson. This one came by trailer, but it doesn't take much to wake it up once it's down the ramps. A little underbonnet tickling, a prod of the button (yes, it has electric start) and it breaks into a cheerful crackle. Mickey wipes his hands and stands back regarding the engine. "A lot of fuss for 1½ litres," he grins. It's true: although the Type 26 has a sizeable eight-cylinder block with widely splayed twin overhead camshafts and a supercharger on the crankshaft nose, it conforms to the 1926 championship regulation limit of 1500cc, smaller than the 2-litre Diatto engine from which the brothers developed it. Yet it produces 120 horsepower, a remarkable yield per litre for the time.

This one breathes through a good old SU carb, though Mickey says they have the original Memini too. "It's just that conventional wisdom says that for useability the SU is a good bet." Which is important even for this car: it has lights and a tax disc, "And we always obtained an MoT until we no longer had to do that." Built for an era of riding mechanics and road races, this is a one-and-a-half seater that could contest a road event as easily as a Grand Prix. And the 1926 Targa Florio was the model's debut, Alfieri Maserati finishing ninth and taking the 1500cc class. Not that any of those becapped schoolboys would be British: the Type 26 did not make it to either of the RAC Grands Prix at Brooklands, in 1926 and '27. Maserati would have worked through several variants – the 2-litre 26B, roller-bearing 26M and 2.5-litre 26M – before the trident was a regular sight on these shores.

Meanwhile Mickey is wiping up any oil drips ready for photographer's orders. No, it's not temperamental, he says. "The boost isn't very extreme. We run it on pump fuel with a bit of octane booster. To be honest it does about 100 miles per year so it's not critical. It only does short events like Prescott and Shelsley so we don't have any cooling problems there.

"It's quite a handful at slow speed. The steering is stiff and it feels very solid; it's a hard ride, definitely a racing car not a touring car. I'm sure it's fantastic at 6000 revs around Copse Corner but I've never tried that!"

I comment on the massive brakes, almost the size of the wheel. "They're fantastic," says Mickey. "It just stands on its nose. It's a Perrot shaft system so they're not brilliant halfway through a corner – you tend to do your braking before the corner and make sure you're back on the throttle in the bend."

It's time to test that: we want some action shots. One by one the cars fire up and run down towards the old Melbourne hairpin, ease around and surge back up the hill, gently at first, then with right foot well planted, the Bentley thump a bass line to the Bugatti bark, sizzling whine of MG blower rivalling the Maserati snarl as they pound up the slope. This surging rise would be the setting of some of the most dramatic images in British motor racing, when German engineering in the shape of Auto Union and Mercedes soared over the crest, flying high over anything Britain, France or Italy could proffer before a different machine, the Wehrmacht, ground into action elsewhere.

But those events are at the far end of our time window. As our drivers refine their cornering lines and gearchange points, grins getting wider, we're setting our Tardis co-ordinates for a few years before, when Donington Park and *Motor Sport* magazine were both young. M

MOTOR SPORT 90

The *Motor Sport 90th Anniversary Trophy* for pre-war sports cars will be run over two half-hour races on May 4 and 5. To book tickets for the Donington Historic Festival, call 0844 873 7355 or go to www.donington-park.co.uk





### 1935 MG PB

Richard Frankel admits Cream Cracker doesn't get used as much as it should, but will share it with brother Andrew at Donington Park








### 1926 Maserati Type 26

The first individual product from the Maserati brothers, this 26 belongs to Roland Duce. Despite its age, it runs sweetly on modern pump fuel... with a mild octane boost










# *We got ourselves a convoy*

## The *Motor Sport* 90th Anniversary Cavalcade will add extra flavour to a Le Mans Classic trip. We invite you to join us

THE GROWING anticipation, the familiarity of the route, the gathering of motor racing clans… the journey is as integral to any Le Mans experience as actually being there. This year we'll make the trip twice, for the 24 Hours in June and, a few weeks later, on July 4-6, for the biennial historic meeting. And it is for this, the Le Mans Classic, that we have chosen to indulge in true pilgrimage tradition with the *Motor Sport* 90th Anniversary Cavalcade.

The 24 Hours remains central to our motor sporting year, the single most important race in our world. But for many *Motor Sport* readers, the historic meeting – featuring an astounding line-up of bygone Le Mans cars in a series of races over a 24-hour period – is the real highlight. It's just a shame we have to wait for every 'even' year to enjoy it.

The cavalcade will be a central part of our year-long celebrations for the magazine's big 9-0. Cars of all ages are welcome (just as they are in these pages!) and pilgrims can choose to join us for the journey down or stay with us for the whole weekend, either in the *Motor Sport* campsite at the circuit's popular Bleu Sud area or in a hotel, all provided by our friends at Speed Chills. (Magazine staff will most certainly choose the sleeping-under-nylon option, following the fun we had at the *Motor Sport* campsite at last year's 24 Hours…).

Those in the cavalcade will gather on Thursday July 3 at the Eurotunnel for the 8.50am train, although Wednesday night accommodation at the nearby Cheriton Park Hotel is an option. Upon arrival in France, we'll set off along the familiar E402/A28 route, stopping for a picnic lunch at Rouen. Suitably, we'll then explore the roads of the glorious old Rouen-les-Essarts race circuit that hosted the French Grand Prix five times between 1952 and '68.

From there, the Cavalcade might split for those who want to take the autoroute and the more adventurous who wish to explore the local roads – although we're hoping that everyone will choose the latter, more scenic option. A late afternoon/early evening arrival at Le Mans will leave time enough for pitching tents and retiring to the *Motor Sport* campsite clubhouse for refreshments.

It's the perfect prologue to a great weekend of racing. We do hope you can join us.

### Win a package trip to the 2014 Le Mans Classic

Win a trip of a lifetime to one of Europe's most popular events – the Le Mans Classic on July 4-6. *Motor Sport* has teamed up with Speed Chills to offer one lucky reader a self-drive package for up to two people, staying at the Speed Chills Bleu Sud private camping site, a 10-minute walk from the track. The prize includes P&O Dover ferry crossing, camping at Speed Chills Bleu Sud, Speed Chills Club Membership with private bar, restaurant and entertainment, plus up to two general admission tickets. Your prize also gives you privileged access to the on-site *Motor Sport* Clubhouse, where you'll be able to meet the *Motor Sport* team.

**To be in with a chance of winning the package, go to the competition area under 'The Magazine' tab at www.motorsportmagazine.com. The deadline for entries is midnight April 30**

*Full terms and conditions can be found at www.motorsportmagazine.com*

To book your place on the *Motor Sport 90th Anniversary* cavalcade, or to pick your travel package for Le Mans Classic, contact Anne-Marie at tours@speedchills.com or on 01252 717871

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{ LUNCH WITH }

# JOHN FORCE

**He's raced, and talked, his way from the bottom to the top, and after 16 titles he is still drag racing's most spectacular and celebrated performer**

**writer** SIMON TAYLOR | **photographer** MICHAEL RUTT

AS MOTOR SPORT AT ALL levels becomes ever more complex, you could argue (somewhat controversially, I grant you) that the purest form of pitting car against car, driver against driver, is drag racing. It's very simple: just two cars running side by side from a standing start, in a straight line, for a quarter of a mile. At the end there is a winner and a loser. The winner goes on to the next race, the loser goes home.

That might sound less than thrilling; monotonous even. But go to a major American drag meet, and you are confronted by a spectacle that is awe-inspiring, hugely exciting and often frightening, with cars that require very high levels of talent to prepare and drive. The quickest are in one of two categories, Top Fuel and Funny Car. Top Fuel cars are 25 feet long, and in shape are what we think of as a traditional dragster: long nose carried by tiny front wheels, narrow cockpit, monstrous engine behind the driver, immense rear tyres with soft sidewalls that wrinkle to increase traction and grow to larger diameter as speeds rise. Funny Cars have wafer-thin one-piece carbonfibre bodies that are a parody of a current closed production car, with painted-on headlights and grille. When that body is lifted to access the works or the cockpit a shorter version of a Top Fuel car is revealed, but with the engine in front of the driver.

And what an engine! Following the familiar philosophy of the traditional American stock-block, it is nothing more exotic than a pushrod two-valve V8. But it is all-aluminium, displacing just under 8.2 litres to stay within the NHRA [National Hot Rod Association] limit of 500 cubic inches. Sitting within the vee is an immense supercharger, and above that a fuel injection system supplying a mix of nitro-methane and alcohol under high pressure. Horsepower? Although some claim even higher figures, the normally accepted output is 8000bhp. Yes, that's eight thousand – more than all the cars on the front five rows of a Formula 1 grid put together.

Even if you find that hard to digest, you have to believe the times, and the speeds. After some well publicised fatal accidents, and with

terminal speeds climbing higher and higher, the NHRA reduced the length of drag race courses for the fastest classes by 320 feet, from the traditional quarter-mile to 1000 feet. But in that distance a Top Fueller or a Funny Car can go from a standing start to more than 300mph – in less than four seconds. Zero to 100mph has been calculated to occupy 0.8sec. The driver's body will, for a split second, sustain up to 8*g*: 4*g* under acceleration, and then 4*g* the other way when he deploys the double parachutes to slow the car at the end of the course.

Conspicuous consumption isn't a worry here. A single run, including starting and warming up the engine, burn-out (spinning the wheels to heat the tyres), staging (bringing the car into position on the start line) and then racing for 1000 feet, will use up about 23 gallons of nitro-alcohol mix – say about 0.01mpg. And that single run will represent the total life of most of the engine's moving parts. Between each run, therefore, a team of eight mechanics will totally strip and rebuild the engine, replacing pistons, rods, bearings, valves and plugs. Depending on schedule they can do that in 40 minutes, and they might have to do it four times a day, during which time their car will run flat out for a total of less than one mile. A final statistic: a dragster engine at full noise creates 150 decibels, enough to cause severe pain and permanent ear damage. When two Top Fuellers or Funny Cars leave the start line side by side, anyone standing within 100 yards will feel the ground shake.

SO THE WORLD OF DRAG RACING IS pretty unusual, populated by some pretty unusual people, and I decided it was time to persuade a big figure from that world to sit down to lunch. While Top Fuel cars are fractionally faster than Funny Cars, it is the Funny Cars that tend to be the stars of the show. And the star of the Funny Car show, for the past 20 years or more, has been a larger-than-life Californian called John Force. Born on the wrong side of the tracks, he used to sleep in his truck when he couldn't afford rent. He ducked and dived from deal to deal until finally his fast talk, more than his fast times, garnered him some sponsorship and his cars began to get better. Now a gravelly-voiced, unstoppably loquacious 64-year-old, he has been NHRA Funny Car Champion an astonishing 16 times in 24 seasons. And he's winning still.

But John Force Racing isn't just about an individual: it's a whole family. John's three daughters Ashley, Brittany and Courtney are all drag racers. Ashley was Funny Car Rookie of the Year in 2007, beating her father to score an outright win at Atlanta. She is now married to JFR staffer Daniel Hood, and since starting a family has hung up her helmet. Courtney began drag racing at 17, and was 2009 champion in Top Alcohol – those are non-nitro rails that develop a mere 3500bhp and post sub-6sec runs. Then she moved up to Funny Car, and was 2012 Rookie of the Year. Her boyfriend is Indycar racer Graham Rahal, son of Bobby.






## JOHN FORCE
## CAREER IN BRIEF

**Born:** 4/5/49, Bell Gardens, California **1978:** Begins competing in Funny Car events, finishes 23rd in the final NHRA standings **1979:** Moves up to 8th – but respite from relative anonymity is brief **1983:** Best campaign yet, 4th overall **1986:** Castrol steps in as sponsor **1990-91:** Back-to-back NHRA titles **1993-2002:** Takes 10 championships on the bounce **2003:** Second to Tony Pedregon **2004:** NHRA champion again... **2006:** ...and again **2010:** ...and again **2013:** Takes 16th NHRA title **2014:** Still winning, at 64

Meanwhile Brittany decided to buck the family trend and become a teacher. But she started drag racing anyway, and while studying at university she moved into the unblown Super Comp class. Having taken her degree she turned professional and, in 2013, she turned to the most extreme cars, the Top Fuel dragsters. She too won Rookie of the Year, and her best so far is a 3.78sec run with a terminal speed of 324mph. That makes her the fastest Force of all. John's daughter by his first marriage, Adria, is the team's chief financial officer and is married to Team Force racer Robert Hight, who beat John to the Funny Car title in 2009.

The whole clan has become even better known across the USA as the subject of an American TV reality show, *Driving Force*, which depicted the highs and lows of this extraordinary family with its extrovert, volatile father, three glamorous young daughters and long-suffering mother Laurie. It ran for two series until the death of Team Force driver Eric Medlen made the wrong sort of headlines in 2007, and nervous TV execs pulled it from the schedules. Now it is returning, and John suggested I take lunch with him on the Hollywood set during gaps between filming.

I've enjoyed these *Lunch With…* features in a variety of unusual locations around the world, but this had to be the strangest. At Universal Studios, next to the make-believe suburban house that provides the exterior and interior for the programme, is a dusty street of weathered wooden buildings that down the years has been the scene of countless cowboy movies. Sitting outside the pseudo frontage of a 19th century western saloon, snacking on film-set catering, somehow seemed an entirely appropriate place to learn more about the world of drag racing.

John's beginnings weren't easy. As a child he contracted polio, which left him with one leg shorter than the other. His father was an itinerant truck driver, his mother a Native American short-order cook. During the strawberry season they would pick in the fields, having tied toddler John to a tree so he wouldn't wander off. "We lived on bologna sandwiches without the bologna, just the mustard. That's still my favourite food today. When I got to school and tried to play football I couldn't run too well, but realised that if I couldn't catch them I could at least run into them. I used to bullshit even then: I told the other kids my dad drove the elephant truck for Barnum & Bailey's Circus, when in fact he just hauled logs and hay.

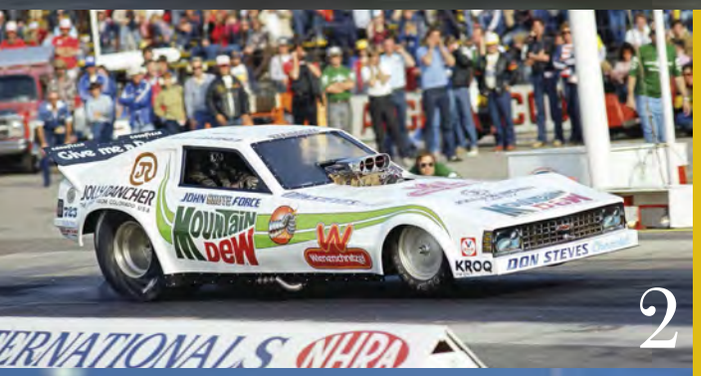
"At 16 I somehow got myself an old wreck of a Chevy, cracked windshield, little six-cylinder engine. I took the mufflers off to make it sound good. I lived and slept in that car, schoolbooks on the back seat, copy of *Playboy* magazine under the front seat. I'd hang out at Harvey's Broiler, the big drive-in that featured in the movie *American Graffiti*. You'd get 1000 cars there on a Saturday night. I became a truck driver like my dad, got married at 19, had a baby at 20. But all I wanted to do was race."

He took a succession of tired bangers to the strip, "held together with baler twine and tank tape," and then lucked into another racer's cast-off Oldsmobile that he got for $150. "I bought a block that had been blown, it was full of holes we welded up. But the cheque I wrote to buy it bounced, and they came looking for me. They said, 'You think that block's got holes in it, there'll be more holes in you if you don't cover that cheque'. More than once I've spent the night in a tree in our backyard with a shotgun across my knees, because I owed

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1




2




3

Can you feel the Force? An American hero captured in action across five decades **1** Customary start-line pyrotechnics in 2011 **2** Rudimentary clothing and a slight absence of torsional rigidity in 1982 **3** Lighting up Indianapolis Raceway Park, 2002 **4** Cradling his most recent title trophy, October 2013 **5** Getting it stopped after this year's record run at Pomona **6** Early days with Corvette-shaped challenger, 1979




4




5




6

somebody and I thought they'd come after me."

In the early days John's driving skills didn't impress anyone, either. One NHRA official said, "We tried to ban him because we were afraid he'd kill himself. He hit everything but the tower." But when an Australian promoter wanted to put together a group of American drag racers to entertain the Oz crowds, and two established stars dropped out at the last minute, John talked his way in. He had never been on a plane before, never been out of California. "We turned up wearing cowboy hats and boots, talking big, but I didn't even have a proper licence. The first run I did my engine exploded, kicked all the rods out through the block, big fire. The crowds loved it. Sorted that somehow, but other things kept breaking, and most times I didn't get to the end of the strip. In the end the promoter said, 'You're the worst racer I've ever seen. I'm not paying you. For all I care, you can swim back to America'."

John has many more lurid stories about his earlier efforts to make it as a drag racer, but in the end, with hustle following hustle, he managed to find a few sponsors. One of his first was hamburger chain Wendy's. "I painted the car up with their logos to make it look like a big deal, but just about all we got was free burgers and a bit of appearance money at different Wendy's outlets. I wasn't too proud to

## "WHAT WAS LEFT HIT THE WALL AT 280MPH. EVERYONE WAS SURE I WAS DEAD"

shave my legs, take the car to a Wendy's, put on a dress and a red wig with pigtails, and pose with the Wendy's girls." His race shop was just the forecourt of his local gas station and his cars weren't well prepared. Some promoters didn't want to accept his entries because of his reputation as a leaker – someone who strewed oil and engine parts over the track.

But he never, ever gave up on his dream. Somehow he found enough deals, scrounged enough money and begged enough favours to keep going. He was always a showman in and out of the car, doing more lurid burnouts than anyone else, and always talking big into the nearest TV camera or microphone.

But he realised that to find greater success than just being the top talker he needed a crew chief that could help him raise his game. He found that man in Austin Coil: calm, quietly spoken, as different from Force as he could be.

"Coil had already built championship-winning cars, so I went up to him in the paddock – he was sitting in the back of his truck eating his lunch – and I said straight out, 'I want to hire you'. He looked at me and said, 'Why would I ever want to work for you?' I said, 'Because I got a million bucks'. I didn't, of course. Anyway, I promised Coil I'd give him a million if he won me the championship, and Coil said he'd win me the championship if I promised him a million. At the end of that season neither of us could deliver. But we kept at it. It took us five years. He got the car right and also taught me how to drive a dragster, how to use the car properly. In the end we won 15 championships together. The man is a genius. And his loyalty was amazing: during the winter, when I had no money to pay the wages, he'd give me back his salary so I could make sure the guys didn't leave."

Coil came on board for the 1986 season, but it was a while before the results started to come, helped by a new sponsorship deal with Castrol that began at $5000, grew to be a major part of Force racing's budget and was still going 28 seasons later. In 1990, still chasing his first title, he scored seven back-to-back wins: then at Brainerd during Saturday's runs a massive engine blow-up sent him to hospital with burns and left the car a smoking ruin. On Sunday morning, bandaged up and in fresh overalls, Force was back. The crew had somehow rebuilt the car overnight around a new engine, and he won a crucial victory that took him on to that maiden championship. "That was when I knew we'd put together the best team in the business."

Over the next 13 seasons Force won the Funny Car title 12 more times, only slipping to second place in 1992. That was the year he had a big accident at Memphis. "I've always been a big Elvis fan. One of my cars is in the museum at Graceland, and Priscilla Presley gave me an Elvis TCB [Takin' Care of Business] ring. Well, that time at Memphis I had a big one. The engine exploded, we went on fire, blew the body off, what was left of the car hit the wall at 280mph and disappeared way off into the dirt. Everybody was sure I was dead. Up come the fire truck and the ambulance, with the TV guys chasing them, and as I crawl out of the wreck on my hands and knees I see the TV cameras and the first thing I say is, 'I saw Elvis!' Well, you know, lots of people claim Elvis sightings, and because everyone said I'd come back from near-death that went all over. But I have to tell ya, I didn't really see Elvis. I made that up.

"After that a promoter at a strip up in New England had the idea to fly me into the track in a little Cessna in a coffin, so I could get out of the coffin dressed as Elvis with a wig and all,



**Force en route to title number 16 last year. Below, Brittany Force in Top Fueller action and, right, with her father and Simon Taylor**

but in my racing overalls. Then the guy flying the plane nearly flew into the power cables running across the track. I was thinking about Buddy Holly and Ritchie Valens and The Big Bopper [musicians who died together in a notorious light plane crash in 1959]. I was wondering who they'd get to play me in the movie of my life. That was the life we led, do anything for the crowds and for the dollars. And I loved every minute of it."

INEVITABLY, AS WITH ANY CLASS OF motor sport, there were disputes and accusations. Traction control is outlawed in drag racing, but in 1994, as Force had his fourth title in his sights, a long-running battle on and off the track between Force and fellow Funny Car racer Al Hofmann came to the boil. Hofmann relished his image as a scowling rough-tongued redneck who never missed an opportunity to bad-mouth Force – which of course the promoters loved. But it got serious when Hofmann accused Force of hiding a traction control device somewhere on his car. The scrutineers tore down Force's car countless times but nothing was found, whereupon Hofmann claimed that Force must be wearing it hidden under his fire suit. "When he said that, I stripped down right there on the track in front of everybody, showing my truck driver's belly and my saggy old man's underpants. And I was younger then. The pictures went everywhere,









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and my wife said, 'If you ever embarrass me like that again, you'll be in worse trouble than you got with Hofmann'.

"It was hard for Laurie. In the early days, when the girls were little, I was always on the road, I was never home. She says we called them Ashley, Brittany and Courtney – A, B, C in age order – so I could remember which was which. Either I'd come home all happy because I'd won, so I'd take the kids to Disneyland and they'd miss school. Or I'd come home drinking too much because I'd lost, be on the phone screaming and swearing at the team and knocking holes in the walls. In the end she'd had enough. She packed my bags and threw me out. Later on, when Ashley first started racing, she said to her mom, 'Now I know why Dad's crazy. It's the gut-ache of losing, it's the high of winning. You ought to give him another chance'. That was when Laurie took me back, and we've been together ever since. She has more patience than Mother Teresa."

Into the new century the times continued to come down, the speeds continued to rise and the titles continued to pile up. John Force Racing expanded to two and then three cars, with Tony Pedregon and Gary Densham driving, and Pedregon won the 2003 title when John hit a run of mechanical problems. When Pedregon left Eric Medlen, one of the JFR team and son of the No2 car crew chief, stepped up to drive. In 2007, during a test session at Gainesville, a tyre deflated on Medlen's car and it developed a massive shake. "It was a very high-speed harmonic oscillation that can happen when the tyre bounces the car about 18 inches up and down repeatedly at 300mph. The HANS device was mandatory by then, but still Eric's helmet was banged against the roll cage from side to side at high frequency and he sustained severe brain injuries from the battering. He never recovered, and we lost him four days later.

"That started us on a major safety programme. We missed the next round while we figured out what wasn't right with these cars. We looked at everything. We altered the seat belts and the head restraints, and we redesigned the padding on the roll-cage, so that however many times the driver's helmet hits it, the padding will stand up to it." Then six months later at Dallas, after suffering a cut tyre, Force's car veered across into Kenny Bernstein's racing alongside and broke in half. "The front half, engine, front tyres, all that just kept on going. I stayed in the back half. I'd popped the parachutes and by the grace of God it didn't roll, the chutes slowed it and then when it settled down it just flopped over onto its side. I was OK, just had some leg injuries." In fact he needed six hours of reconstructive surgery, eventually spending a month in hospital. He joked that it was the nearest he'd had to a vacation in 35 years.

"The typical dragster chassis hadn't changed much over three decades. It was just a place to put the motor and hang the tyres. After that we did a lot of work. Ford's development people helped us, and we even got the military involved. We now make our own chassis, of stronger chrome-moly tubing, and we moved away from heat-treating it. We call it the Eric Medlen chassis.

"We had some other ideas, too. Like Funny Car drivers were getting burned because the fire was filling the body inside and you couldn't breathe from the smoke, even with on-board extinguisher systems and fire blankets around the engine. So we came up with a system operated by a button that allowed you to eject the body completely. But NHRA outlawed it, because at high speed it sent the body way up in the air, and they didn't want it ending up in the stands and hurting spectators."

Austin Coil retired at the end of the 2010 season, after 24 seasons as John's crew chief. Mike Neff, who had gone from wrench to driver and back to wrench, was promoted to crew chief for 2013. John's 2013 Funny Car title was his 16th as a driver and his 18th as an owner,

because in 2009 son-in-law Robert Hight had added to Tony Pedregon's 2003 win. And John started 2014 still winning. He took victory in the opening round, the Winternationals at Pomona, with a 3.965sec run at 323.58mph – an all-time Funny Car record.

NOW WE'RE JOINED OUTSIDE THE western saloon by Brittany Force, who out of her race suit, helmet and face mask is slim, very attractive and totally feminine. I ask her to take me, an ignorant Limey, through the procedure of going down the strip from a standing start to over 320mph in less than four seconds. The first point to understand is that the winner of each duel is the driver who gets to the finish line first, but the published ET (elapsed time) is measured from when the car starts to move. So a slower ET can still win a race if the other driver's reaction time has been worse.

"Yes, races are won and lost by reaction time. We call the starting lights the Christmas tree. It's a vertical column with staging lights, three amber lights, then a green and a red. The time between the stage lights and the amber lights coming on is random, but the time between the amber and the green, 0.4sec, doesn't vary. If you wait until the green and then go, you'll be done for. So you go on the amber. By the time you have reacted it will be green. But if you go too soon, you trigger the red light and you're disqualified. I have a little portable tree I take around with me for practice.

"When you're sitting waiting for the lights to change it feels like forever. My foot will be just resting on the throttle pedal, and I'm holding the car on the brake lever. There is no gearshift, and you have a six-disc centrifugal clutch that feeds the power to the tyres. So when I want to go, I just throw everything at the throttle. You don't need to think about the brake lever: that's torn right out of your hand when you tread on the throttle. Our cars run pretty straight, but if you get more grip one side than the other, or if it starts to shake, you need to steer quite a lot. At some tracks, if there's a cross-wind blowing, it can be screened from the first part of the track by the bleacher stands. Then, after you pass the bleachers, the cross-wind can hit you and you really feel that. If you get out of the groove [the line of rubber progressively laid by repeated runs down the strip] you can go all over the place, which of course means you're slower.

"At 1000ft there's a big yellow line and orange flags, or amber lights if you're racing at a night-time event. You pull your foot out of the throttle, push forward the big handle that sets off your parachutes, shut off your fuel and pull on the brake. So there's plenty to do. The whole run has lasted less than four seconds, and when everything goes right it's hard to




Drag racing's first family: John, Laura, Ashley plus Noah, Brittany, Courtney and Robert Hight. Below, Brittany expounds, John (for a change) listens

"JOHN STARTED THIS SEASON STILL WINNING, WITH A 3.965SEC RUN AT 323.58MPH – AN ALL-TIME FUNNY CAR RECORD"



analyse because it all happens so fast. But when something goes wrong everything seems to slow right down, because you have to think about what's going on, you have to make some decisions about what to do, and then it seems to be happening in slow motion. It's really weird. I've blown a few engines, but in Top Fuel that happens behind you, you just feel rather than hear this big boom, and the tug of it, because as the acceleration stops you are thrown forward against your belts. Blow an engine in a Funny Car and it's all happening in front, it's inside the car with you.

"People ask me whether turning professional in drag racing with John Force as my father has brought its own special pressures and problems. I don't see it that way. No one's ever going to fill his shoes. I have my own goals and what I want to achieve, and I hope to make him proud of me. It was only last season that I felt I was getting a proper grip on it all, and learning how to listen to the car.

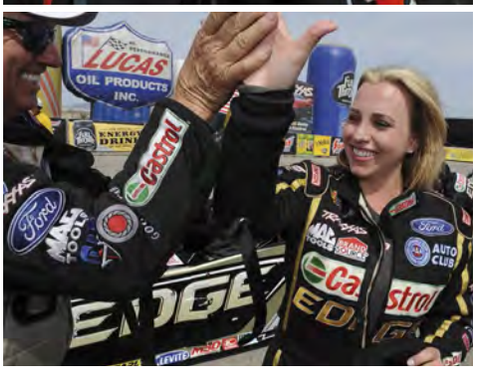
"As for going into Top Fuel, John Force Racing had always been about Funny Car, and I wanted to do something different. My sisters and I grew up with drag racing all around us, packing our bags every weekend to go and watch Dad race, living on the road. His crew were like older brothers to us, and everyone in drag racing is like a second family anyway. Then Ashley got into the Super Comp class and started to work up, and I realised it was something that I could do, too. But when I was in Super Comp, if you'd told me I'd be driving in Top Fuel one day I'd have said, 'No way. No way you'll get me in one of those things'. Then I thought, 'Try anything once'. And as soon as I tested a Top Fuel car I was hooked.

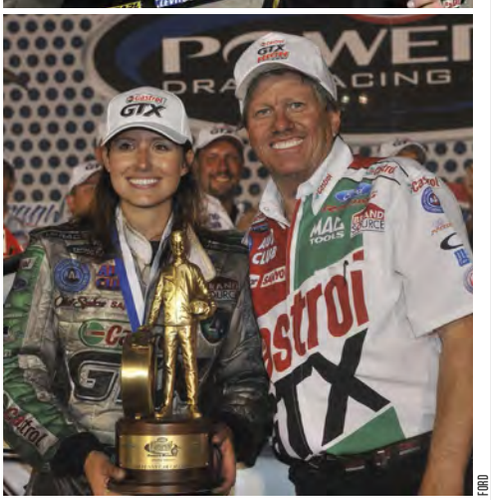
"When I was in Super Comp I had a crash in Las Vegas, hit the wall. That would have been at 250mph plus. I think it was a mix of the crosswind hitting me as I passed the end of the bleachers, and my own inexperience. The thing that scared me was that I had concussion. In hospital the doctors were asking me all these questions and I didn't know where I was, couldn't say how old I was or what I'd been doing. I still don't remember the accident itself. But when I got myself back together I knew that if I didn't get straight back on it I never would. So I ran the next day, and after one run I was perfectly fine."

I've already heard more than enough to realise that racing dragsters at a professional level is extremely hazardous. So how does John feel about watching his daughters?

"I have to wear three hats. As a parent I don't want any of them ever to get hurt, any more than their mom does. Then as a team chief, if one of them is in a crash, I want to get them back in the car right away, so they can go straight back to being quick. If you fall off a horse, you gotta get straight back on. And as a competitor – and I've come up against Ashley and Courtney a few times, and been beaten by them too – they're my kids, I love 'em, but I want to beat 'em."







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Following in their father's tyre tracks: from the top, Courtney, Brittany and the now-retired Ashley Force have all shown themselves to be highly accomplished drag racers

From his humble beginnings as a leaker trying to stay one step ahead of his creditors, John Force has won a raft of awards, including in 1996 the Driver of the Year across all American motor sport – the first drag racer to receive that honour. He now employs 140 people at his race shop in Brownsburg, Indiana. Before each event a fleet of 18-wheel trucks rolls into the paddock to disgorge six Funny Cars, two Top Fuel cars and the parts and crew to run them: the Funny Cars for John, Robert and Courtney, the Top Fuel cars for Brittany. So, at 64 years old, with his daughters to carry on the Force legend, how long does John see himself continuing?

"I never want to stop. I've won 1,161 races, I've won 225 finals, but I don't look at it that way. When you start to think you're the best, when you think you've done it all, then where's the motivation? My heroes are still Prudhomme and Garlits." Don Prudhomme was the top Funny Car racer from the 1970s through to the 1990s. Don Garlits, known as 'Big Daddy', was the leading light in the sport from the 1950s until well into this century, and is thought of as the father of modern drag racing. "Plus, I have to tell you, I'm frightened of stopping, because I'm frightened it'll all go away. I can't relax, because if I do I might go back to being the kid with no money, sleeping in his car."

MOTOR SPORT IS A VARIED TAPESTRY, from endurance racing to autocross, from rallying to karting, from Piaggio Apes on kart tracks to hill climbs and mud-plugging trials. None of those enjoy the advantages of F1's television exposure, but every thread in the tapestry contributes to its richness and colour. And the thread of drag racing, with its over-the-top machinery and its over-the-top characters, makes its own unique contribution to the mix. At its lower levels, it can be a very cheap way to compete: in the USA there are more than 200 classes in the NHRA rule book, and you can drag-race virtually any two-wheeled or four-wheeled vehicle, including your daily driver. In Britain drag racing's following is much smaller, but the sport is alive and well, with the Santa Pod and Shakespeare County strips running regular events.

As for the big Stateside meets, they continue to make a gloriously spectacular show, and the crowds remain healthy when Indycar and even NASCAR have felt the cold wind of recession. A driver arriving in a coffin wearing an Elvis Presley wig might not be to everybody's taste, but there are few motor sporting sights, or sounds, that can rival the 16,000bhp, 300mph thunder of a pair of Top Fuellers or Funny Cars duelling down the strip. As long as top-level drag racing continues to throw up larger-than-life characters like John Force and his remarkable family, it will surely thrive. Ⓜ

*Watch John Force win his 16th Funny Car championship – then listen to him talk about it in his own inimitable style*

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# Marc Hynes

**One of the sport's forgotten stars is making a comeback, 15 years after winning the British F3 title. By Alex Harmer**

HE WAS ONCE REGARDED AS A young driver of exceptional promise, part of Britain's new wave alongside Jenson Button and others. But while Williams swooped to sign Button for its 2000 Formula 1 campaign, Hynes – who had beaten his rival to the 1999 British F3 title – slipped from the radar. He returns to the track this year in the British Touring Car Championship, his first full season since he contested the Porsche Supercup in 2007.

For the past five years he has worked on driver development with Marussia in F1. Hynes won two single-seater titles with Marussia boss John Booth's Manor Motorsport and past credits also include working as a fledgling Lewis Hamilton's driver coach. "Once you're a Manor lad, you're always a Manor lad," Hynes says. "We had a good plan for F1 and I felt I could add something useful to the project. I've had five years of discovering a whole new side of motor sport, setting up a business and learning. But it's definitely time to stick a helmet back on and go racing. For a while I hadn't even thought about getting a licence again, let alone sitting in a racing car."



**CAREER IN BRIEF**

**Born:** 26/02/1978, Guildford, Surrey **1995:** Formula Vauxhall Junior champion, MDR **1996:** Formula Vauxhall, MDR **1997:** UK Formula Renault, Manor **1998:** British F3 **1999:** British F3 champion, Manor **2000-08:** Appearances in F3000, ALMS, V8 Supercars **2007:** Porsche Supercup **2014:** BTCC

Putting together sponsorship for his rookie BTCC season reminded Hynes of his career's derailment – triggered by a lack of finance – in 2000. "The effort it took to get this up and running was so much less," he says. "It literally took three minutes to put it in motion. Trying to do a UK-based series is a no-brainer commercially – not many companies are geared up for a worldwide sponsorship campaign. But in the late '90s I never felt that I lost any momentum, because it wasn't particularly normal to go from F3 to F1. It was a surprise to everybody when Jenson did it."

Hynes had been monitoring the BTCC and the series got his competitive juices flowing. "I don't watch a lot of racing on TV," he says. "I have lots of F1 races recorded, but never get around to seeing them. But I'll switch the touring cars on and stay glued all day, which is a good enough indicator for me. You're only minutes away from something exciting.

"It's accessible to everyone with the colossal amount of airtime it gets on ITV4. The production is the first thing that drew me in and made me think, 'Bloody hell, this is a proper series'.

"The BTCC looks like a commercially viable formula and there aren't many around any more. The F1 world is tiring and the pressures are different from what most people are used to, so this is a good opportunity to rekindle my enthusiasm for competition."

Hynes has put himself in a position to succeed by signing for two years with MG factory team Triple Eight, for whom he previously drove in Australia's V8 Supercar series. And with Jason Plato and 2013 rookie charger Sam Tordoff as team-mates, he has solid yardsticks.

"If there's anything I learned from the F1 experience," he says, "it's that the only way to go racing is with the best kit. It isn't the car that's going to be slow, so I'll just have to keep pushing until I'm quick enough.

"The door-bashing tin-top style is new to me, but it looks like fun. I think any racer would love to get stuck in. In single-seaters you tend to race three or four top people all year – with the occasional flying lap from someone farther down the grid – but here you're racing everybody."

Hynes finds the nostalgic value of national racing hard to ignore, but this is far from a farewell tour. "I've been having a ball," he says, "so we might be here for a fair bit yet after the first two years. It's so cool to be back at British venues again, proper circuits. Coming up through the junior formulae, you don't realise how lucky you are."



# More than just a tall story

**Once a bright British prospect whose F1 career was equal parts bafflement and brevity, Justin Wilson has now spent more than a decade in America. He's forged a fine reputation in his adopted home, thanks in part to his habit of conjuring victories for unfancied teams...**

**writer** SIMON ARRON

IT IS ALMOST 20 YEARS SINCE Justin Wilson created a piece of history that will forever be his. He was one of the first to capitalise on looser licensing rules that allowed younger drivers to graduate to cars – and in October 1994 became the first 16-year-old to win a UK single-seater race (and on his debut, too), the opening round of the Vauxhall Junior winter series at Pembrey. It was symbolic of rich promise so often apparent during his formative years, yet there were also niggling setbacks.

He was supposed to make a full-time switch to cars in 1995, for instance, but missed the start of the campaign after breaking his left wrist and ankle in a testing accident at Brands Hatch.

He was soon back at the helm and four victories earned him a 1996 seat with Paul Stewart Racing's crack Formula Vauxhall team. More wins followed, but the title proved elusive and patron Sir Jackie Stewart concluded that Wilson's height – he's 6ft 4in – would be a barrier to single-seater progress. He suggested Justin look to sports or touring cars instead. That became a motivational tool – and remains so. "It was a spur to prove I could do what I set out to do," Wilson says.

❖

IN 1998 HE SWITCHED TO THE NEW Formula Palmer Audi series, whose creator Jonathan Palmer promised a fully sponsored FIA F3000 drive to his inaugural champion. Wilson took the title and moved to within a stone's throw of the Grand Prix paddock. He joined Belgium-based Astromega and scored a point on his F3000 debut at Imola, one of only two accumulated during the campaign, but it was an impressive season nonetheless.

This was the first time F3000 had been a full-time F1 support series: more than 40 drivers were challenging for 26 places on the grid and they had only half an hour in which to acclimatise and set a qualifying time. Despite the unfamiliar surroundings, Wilson was one of only a select handful to make the cut every time.

He switched to Englishman Derek Mower's Nordic Racing in 2000, notching up a few podiums and finishing fifth in the standings, then stayed put for 2001. That season began with a spin at Interlagos… but only because he was celebrating wildly after securing his maiden win and subsequently forgot about the first corner. "People still remind me about that," he says.

He and Mark Webber were that year's stand-outs, with three wins apiece, but Wilson's superior consistency – he was on the podium for 10 of the 12 races, and failed to score only once – gave him the title. He subsequently made an impressive F1 test debut for Jordan, at Silverstone, but wasn't really on anybody's

LAT

radar in terms of a full-time seat. That height thing, again…. While Webber graduated with Minardi, Wilson stepped sideways into the Nissan World Series, where he met Eric Boullier – the man recently appointed as McLaren's racing director. "I had Franck Montagny as a team-mate and Eric running things," he says, "so it was all a bit French. I wondered how it would work out, but Eric was scrupulously fair. He's a really good guy: I was chuffed when he got his first F1 job, with Renault, and am not surprised by his success."

Montagny and Wilson finished second and fourth in the series, behind F1 refugee Ricardo Zonta, but during the summer there was a chance the Englishman might head in the other direction. Minardi needed a stand-in, after Alex Yoong was rested for two Grands Prix, but Wilson didn't fit the cockpit and the drive went instead to jockey-sized Anthony Davidson.

❖

MINARDI OWNER PAUL STODDART HAD faith in Wilson, though, and for 2003 insisted his cars should accommodate somebody of taller stature. Money remained an obstacle, but Palmer – Wilson's manager since that FPA success – hit upon the idea of a share issue and Justin Wilson plc was launched.

That raised enough to fund a Minardi seat and early-season performances were impressive. He and team-mate Jos Verstappen invariably qualified at the back, but Wilson's consistently brisk starts and instinctive eye for first-lap gaps allowed him to put the Minardi in places it had no right being. And he frequently kept it there, until pit strategies breached his defence. By July Jaguar had swooped to sign him as replacement for the axed Antonio Pizzonia, as team-mate to former sparring partner Webber, and that's when his F1 career lost impetus.

"I feel I could have done a better job if I'd had more seat time," he says, "but I joined Jaguar in the middle of a test ban. I did about 10 laps on Silverstone's South Circuit, to make sure the seat fitted, then headed off to race in the German GP at Hockenheim.

"The first couple of times I drove the car, everything felt very natural… but then it suddenly became pitch-sensitive. I couldn't turn and brake simultaneously at all and was never able to get the car properly balanced for corner entries. And then, when I was asked to test at the season's end, everything felt normal again. I never did get to the bottom of that. I don't know what I was doing wrong. Perhaps I just forgot how to drive for a few months…"

In the background, meanwhile, Red Bull had for several months been poised with a wad of cash to place F3 graduate Christian Klien in a Jaguar for 2004. Wilson left with a single point to his name and jetted off to the States. "It's frustrating that I didn't do more in F1," he says, "but I guess it just wasn't meant to be."



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1 En route to the FPA title, 1998 2 Wilson won the FIA F3000 crown in 2001 3 F1 form was bright in 2003, until he switched from Minardi… 4 …to Jaguar 5 Right place, wrong time: NHL's fortunes ebbed in 2008 6 Houston pitstop in 2013 – an area that needs work 7 First victory for Coyne, Watkins Glen 2009 8 Sharing the spoils, Daytona 2012 9 At Daytona in 2014: post-Indycar, Wilson is eyeing a lengthy sports car future


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JEFF FLOYHAM, LAT

HE LANDED A CART SEAT WITH Conquest Racing in 2004, then switched to RuSport and took a first series victory at Toronto the following year. He was a consistent front-runner, but this was the time of Newman-Haas-Lanigan dominance, with Sébastien Bourdais, and Wilson emerged as runner-up to the Frenchman in both 2006 and 2007. Then Bourdais switched to F1 with Toro Rosso and NHL signed Wilson… just as America's warring single-seater factions unified. He qualified on pole for the last-ever CART race, at Long Beach in 2008, but retired with engine failure and spent the rest of the campaign adjusting to Indycars and ovals. A late-season victory on the streets of Detroit was the only real highlight and, with NHL entering a period of financial decline, Wilson had to seek a new home.

He found it with previous backmarker Dale Coyne Racing, whose fortunes he helped transform. He finished third first time out at St Petersburg and scored a memorable victory at Watkins Glen in July 2009.

"That was really special," he says, "because nobody expected it or even believed it possible. We had a fuel problem that whole race. The tank was supposed to hold 22 gallons but we could only put in 19.5. The car was very quick, but I constantly had to save fuel in order to do a two-stopper. I was thinking, 'If ever I have the opportunity to go flat out, I know I'll be able to drive away'. The others were sat behind me the whole time, but I was lifting on the straights and hardly braked for two-thirds of each lap. I'd coast into the corners, then get a good exit, but it was all about saving fuel. It was only with seven laps to go that I was told we had enough to make the finish. At that point I did a couple of quick laps, built up a lead of about four seconds and cruised to the flag."

Was that the best win of his career?

"Possibly," he says. "It was either that or the Daytona 24 Hours in 2012. That was special, as the 50th anniversary race, but they stand out for different reasons."

That Daytona win – with Michael Shank Racing – was a perfect comeback tonic, for Wilson had been sidelined by a fractured back since the previous August, when he crashed during practice for the Indycar race at Mid-Ohio – his final event with Dreyer & Reinbold after 18 months that yielded two podiums, but no wins.

Since then he has been back in the Coyne fold, running at the front and scoring his most recent victory at Texas in 2012 – his first on an oval – while also dabbling in sports car racing with Shank. After fracturing his pelvis in the 2013 Indycar finale at Fontana, he hoped history might repeat itself with another comeback victory at Daytona this year, but transmission trouble put paid to that.




## "I STILL FEEL WITHDRAWAL SYMPTOMS AWAY FROM THE RACETRACK"

His main target for 2014 is to ensure Coyne's team remains a thorn in the side of its wealthier rivals. Does he relish the underdog role?

"I've been in this position for so long," he says, "that I wonder if I'd be able to adjust my mindset if I had a target on my back, as the guy everybody had to beat. But with the way Indycar racing is right now, if you have a good engineer and a solid crew behind you, as I do, you can still achieve a lot. For the past couple of years we might have been underdogs as far as the wider world was concerned, but that's not how it felt to me. If we got everything right, I always believed I had an opportunity.

"Dale wants to build his team. Our weakest area last year was pitstops. We should have won at Sonoma (Sears Point), but lost two seconds during a stop and got stuck in traffic. The other front-runners pulled out right ahead of me when I should have been a few seconds up the road. Dale has been working hard, pushing the team and practising stops all winter. If we can improve that and make sure everything else is as good as it was, we should be OK. But there's so much to it when every team is using the same chassis and we're chasing thousandths rather than tenths."

It didn't help that his team-mate changed from race to race. "With some of the bigger teams running four cars, they have one guy working on shocks, another on springs and bars, another on aero settings and the fourth on the diff. At the end of a session you just need one solid bit of information from each driver and you put the pieces together to create a fast car. With a one-car set-up, or a changing roster of team-mates, you have a relatively limited amount of information. That's something else we need – two consistently competitive cars."

One of the upsides was an opportunity to race alongside brother Stefan, 11 years his junior, in Baltimore. "It was fun," he says, "because we'd never raced on the same track – I was already in F3000 when he started karting. Unfortunately, he had an opportunity to do one race and it happened to be at the toughest track. Baltimore is incredibly bumpy – it's basically a motocross track for Indycars…"

Time spent in America has buffed a few edges from his Sheffield accent and he admits he's in no rush to head home. "You do pick up a certain way of speaking," he says, "but there are some things I won't accept. I prefer tomatoes to to-may-toes, for example, but sometimes it's just easier to adopt the American way.

"Will I stay? I'm not sure. My wife Julia would like to return eventually to the UK, but there's a good standard of living where we're based in Colorado, it's a nice environment for our two young daughters and I'm far from done with racing.

"I'm 35 now and feel I can be competitive in Indycars for at least five or six more seasons. After that, I don't see why I can't race in sports cars for another 15 or so. I'm as enthusiastic as I've ever been and still feel withdrawal symptoms when I'm away from the racetrack.

"Indycar is a bit like Formula Ford, in a way, in that the racing is hugely serious but off the track the drivers all chat and muck around together. It's a friendly environment and things are much more relaxed than they are in Europe, where people seem to age really quickly in the cut-throat atmosphere.

"Just look at Scott Pruett – he's still going strong here in sports cars at the age of 54."

*Our magazine's electronic siblings feature footage of Justin Wilson's 2012 Indycar victory in Texas*
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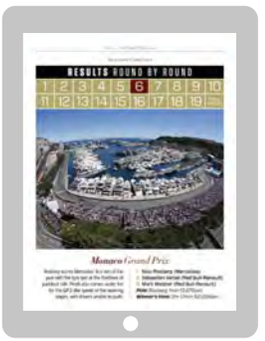





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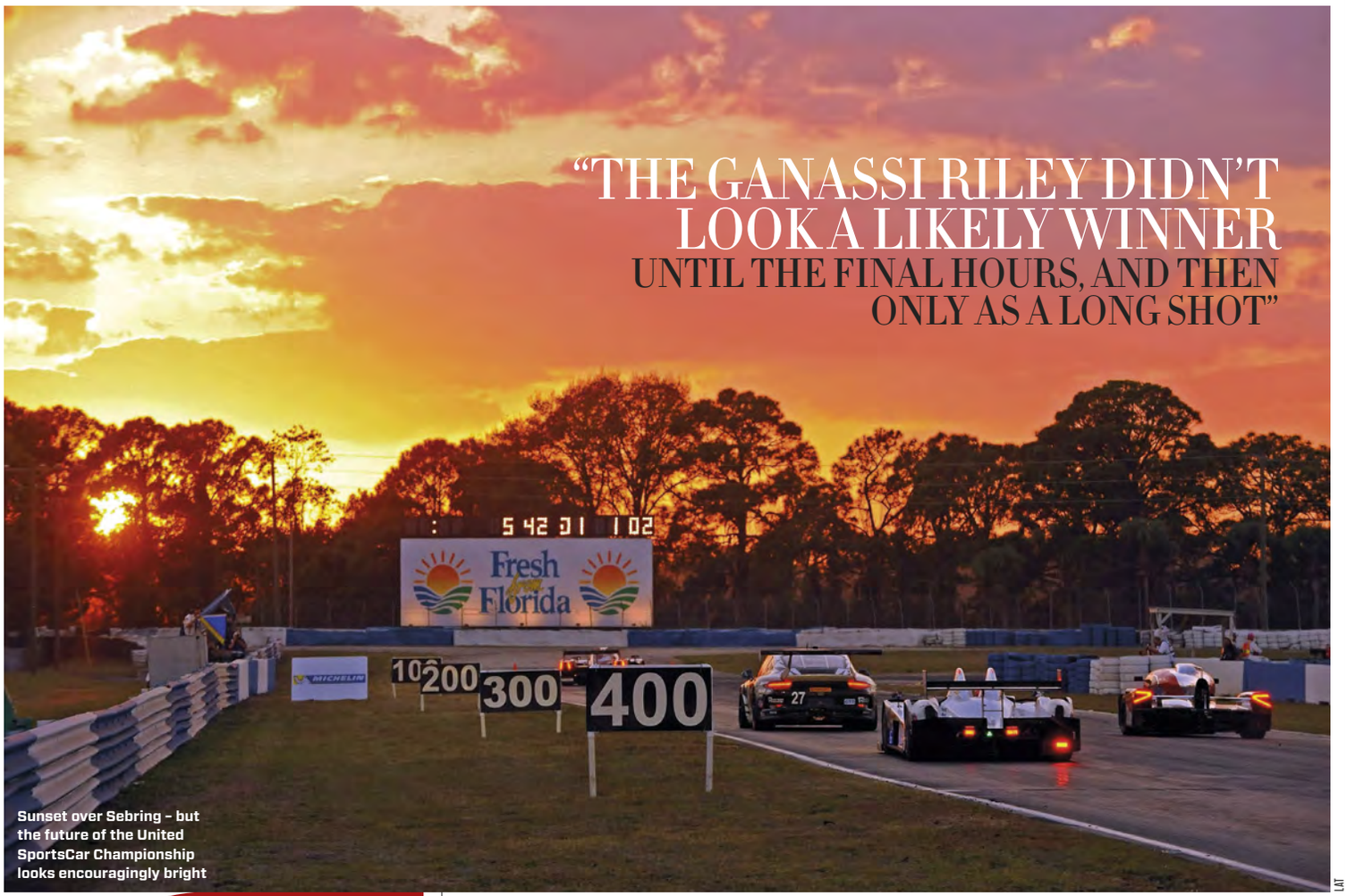
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# EVENTS
## OF THE MONTH

SEBRING 12 HOURS ❖ ORIS RALLY CLÁSICO ❖ PADDY HOPKIRK GALA ❖ RACE RETRO




"THE GANASSI RILEY DIDN'T LOOK A LIKELY WINNER UNTIL THE FINAL HOURS, AND THEN ONLY AS A LAT ONG SHOT"

Sunset over Sebring – but the future of the United SportsCar Championship looks encouragingly bright

# Sebring 12 Hours
## Florida, USA

AT THE FIRST TIME OF ASKING, CHIP GANASSI has added victory in the Sebring 12 Hours to his triumphs as an entrant in the other blue-riband American motor races — the Indy 500, Daytona 500, Daytona 24 Hours and Brickyard 400. His team came out on top at the end of a thrilling second round of the United SportsCar Championship, in which no fewer than nine cars finished on the lead lap.

The #01 Ganassi Riley Ford EcoBoost DP of Scott Pruett, Memo Rojas and Marino Franchitti didn't look a likely winner until the closing stages, and then only as a long shot. But when the safety car came out for the 11th time, during the last hour, Franchitti had already made his final stop. That put him at the front of the queue when the green flags signalled the beginning of a 20-minute sprint to the finish.




Franchitti, who again joined full-season drivers Pruett and Rojas, proved equal to the task and was able to exploit the advantage of four slower cars between him and the chasing Extreme Speed Motorsports HPD ARX-03b LMP2 driven by Ryan Dalziel. Franchitti raced into a six-second lead within a couple of laps. He was powerless to prevent his fellow Scot closing to within three seconds, but finally prevailed by a shade under five.

The winning Riley wasn't the fastest car at Sebring, although the oversteering machine picked up pace as grip levels increased in the latter stages of the race. It never truly looked like a contender, certainly not when Franchitti was facing the wrong way at the hairpin late in the penultimate hour, but the tactical call to make a final fuel stop at the earliest possible moment proved crucial.

The fastest cars for much of the race were the second Ganassi Riley, driven by Scott Dixon, Tony Kanaan and Sage Karam, and the Action Express Coyote-Chevrolet Corvette DP shared by the Daytona 24 Hours-winning crew of João Barbosa, Sébastien Bourdais and Christian Fittipaldi.









The victors, top and left. Daytona-winning Corvette leads at the start, above. Long/Christensen/Bergmeister Porsche (below) beat Bell/Bomarito/Wittmer Viper (far left) to GTLM honours, in 12th overall




The Action Express car led more laps than any of its rivals and appeared set for victory in the penultimate hour, as Bourdais closed down on Dalziel (sharing the lead ESM car with Scott Sharp and David Brabham). He more than halved a 20-second deficit to the leader, but found himself fourth in line when the sprint to the chequered flag began.

Bourdais nipped ahead of Olivier Pla's Oak Racing Morgan-Nissan at the restart, but was unable to find a way past Dalziel and had to settle for third. The second Ganassi Riley's chance of victory disappeared when Dixon spun after being pushed wide at the hairpin ahead of the final yellow-flag period, leaving the car only sixth.

The second race of the new USC suggested that sanctioning body IMSA had found the correct balance of performance between the DP and P2 machinery. The second ESM HPD ended up fifth in the hands of Simon Pagenaud, Johannes van Overbeek and Ed Brown, making it three DPs and three P2s in the top six. The DPs had the edge early in the race, but the P2 cars picked up speed as more rubber went down, the ESM cars and the Oak Morgan setting their fastest race laps during the closing stages. *Gary Watkins*

# Oris Rally Clásico




THE STATISTICS WILL RELATE THAT THE 2014 Oris Rally Clásico was won by local hero Nadal Galiana in his tightly prepared Ford Escort, the Mallorcan beating the more powerful Porsche 911 RS of German Michael Eschmann in a duel that lasted until the penultimate stage.

Mallorcans also won the more sedate 'regularity' category, the Castaners (father and son) taking the top step of the podium in their Porsche 911 Targa after a rally-long battle with another 911.

For me, however, the winner was the beguiling Balearic island itself. And this is all part of the plan, because the rally is sponsored not only by Oris but by the swanky coastal town of Puerto Portals. From here the event covers more than 400 kilometres of challenging roads and 14 special stages, through spectacular scenery from Andratx in the south to the beautiful Cap Formentor in the mountainous north.

In its 10th anniversary year, the rally attracted a record entry of 100 cars, ranging from fully-prepped AC Cobra, Porsche 911 and Lancia Stratos to ancient MGA, Seat 124 and a 1974 Volkswagen Karmann Ghia, belonging to organiser Antonio Dezcallar.

I shared this with fellow scribe Simon de Burton for two days and a night on the road. Well, he flung it around while I tried to decipher the hieroglyphics and arrows of the roadbook. Between us we somehow completed the task, finishing not quite at the bottom of the timesheets.

This eclectic mix of classic cars is one of the great attractions and this year's field was spiced up nicely by the appearance of genuine rally star Jean Ragnotti in an ex-works Renault 5 Turbo complete with service crew. The Frenchman spent a lot of time signing autographs, having his picture taken and hurling the little Renault around hairpins. He slid into some solid scenery on day one, sadly, but re-appeared the next morning, his crew having replaced the crunched bits courtesy of a local dealer. "Amazing, good as new, no?" Jean said. "Maybe I go not so fast today..."

Had there been a prize for best-presented car it would surely have gone to local residents Ali and Sally Ashworth, who brought their immaculate blue and white Metro 6R4. The chunky Metro looked and sounded as good as ever it did in its heyday and was a stirring sight on the mountain passes. The Ashworths clearly had a lot of fun and that, after all, is part of the attraction.

The true beauty and magic of Mallorca is to be found in the north, where the ravages of modern tourism have so far failed to disturb the peace. On the first day we successfully negotiated a helter-skelter of a road down to the bay of Sa Calobra, a 12-kilometre Tarmac snake described as "one of the most dangerous roads in the world". Returning uphill, our Karmann Ghia's powertrain (sic) struggled a little for breath through near-vertical hairpins, beyond which are sheer drops to the Mediterranean.







Jean Ragnotti – possibly a touch more famous than de Burton/Widdows (top)

The Oris Rally Clásico combines some serious competition with equally serious meals in some beautiful places. For enthusiasts, it is an opportunity to exercise some great cars between stone walls and rock faces.

The winners were given some handsome wristwatches, while Simon and I were simply happy to finish and return the little VW to its proud, trusting owner. *Rob Widdows*




The Lohmann/Lohmann Porsche 911 T and, left, the Oris 356 of Dominguez/Estaras



## Paddy Hopkirk Gala

THE 50TH ANNIVERSARY OF Belfast-born Mini legend Paddy Hopkirk's historic Monte Carlo Rally victory was appropriately celebrated in Northern Ireland.

The 80-year-old, dubbed the 'Belfast Boy' by city mayor Máirtín Ó Muilleoir, headed 200 cars – mainly Minis – through the capital's streets, collecting the title of city ambassador during a City Hall stop-off.

Hopkirk received the keys to the city in 1964, but only received official documentation half a century later. "It is really wonderful," Hopkirk said. "Who would have thought this might happen? I am very flattered."

He admitted it was an emotional day. "I broke down in tears as I was driving through Belfast," he said. "It was very moving."

Also in the cavalcade were Ari Vatanen (in the Ford Fiesta he drove to fourth in the 1979 Monte Carlo Rally), Jimmy McRae (reunited with the Vauxhall Chevette he took to victory in the 1980 Circuit of Ireland) and the likes of five-time Grand Prix winner John Watson, 1970s competitor Rosemary Smith and former Northern Ireland rally champion Cathal Curley.

Former Mini WRC driver Kris Meeke was pleased to be involved. He said: "Having finished on the podium in Monte Carlo, I have a fair idea how tough it was for him to make it to the top step in one of the most challenging events in the world." *William Neill*




## FORTHCOMING EVENTS

### APRIL 2014

| | | |
|---|---|---|
| 3-6 | **WRC** | Portugal |
| 4-6 | **Masters Barcelona Festival** | |
| 6 | **F1** | Bahrain |
| 6 | **HSCC** | Donington |
| 7-12 | **Tour Auto** | |
| 8 | **F3** | Donington |
| 12-13 | **VSCC** | Spring Start |
| 13 | **MotoGP** | USA |
| 13 | **IndyCar/TUSC** | Long Beach |
| 13 | **Blancpain** | Monza |
| 13 | **WTCC** | Marrakech |
| 13 | **WSBK** | Aragon |
| 17-19 | **ERC** | Ireland |
| 19-20 | **European F3** | Silverstone |
| 19-20 | **HSCC** | Thruxton |
| 20 | **F1** | China |
| 20 | **WEC** | Silverstone 6Hrs |
| 20 | **WTCC** | Paul Ricard |
| 20 | **BTCC** | Donington |
| 20-21 | **British GT** | Oulton Park |
| 20-21 | **BSB** | Brands Hatch |
| 21 | **Blancpain** | Nogaro |
| 27 | **MotoGP** | Argentina |
| 27 | **WSBK** | Assen |
| 27 | **IndyCar** | Alabama |

### MAY 2014

| | | |
|---|---|---|
| 3 | **WEC** | Spa 6 Hours |
| 3-4 | **BRC** | Carlisle Rally |
| 3-4 | **World RX** | Portugal |
| 3-5 | **Donington Historic Festival** | |
| 4 | **TUSC** | Laguna Seca |
| 4 | **MotoGP** | Spain |
| 4 | **WTCC** | Hungaroring |
| 4 | **BTCC** | Thruxton |
| 4 | **DTM/Euro F3** | Hockenheim |
| 4-5 | **British GT/F3** | Rockingham |
| 5 | **BSB** | Oulton Park |
| 5 | **British GT/F3** | Rockingham |
| 8-11 | **WRC** | Argentina |
| 9-11 | **GP de Monaco Historique** | |
| 10 | **IndyCar** | Indianapolis |
| 10-11 | **European F3** | Pau |
| 11 | **F1** | Spain |
| 11 | **WTCC** | Slovakia |
| 11 | **WSBK** | Imola |
| 15-17 | **ERC** | Açores |
| 15-18 | **Mille Miglia** | |
| 17-18 | **HSCC** | Int'l Trophy |
| 17-18 | **Pau Historique** | |
| 18 | **MotoGP** | France |
| 18 | **DTM** | Oschersleben |
| 18 | **Blancpain** | Brands Hatch |
| 24-25 | **F3** | Silverstone |
| 24-26 | **Masters Festival** | Brands Hatch |
| 24-25 | **World RX** | GB |
| 25 | **F1** | Monaco |
| 25 | **Indianapolis 500** | |
| 25 | **WTCC** | Salzburgring |
| 25 | **WSBK** | Donington |
| 25 | **Blancpain** | Silverstone |
| 30-31 | **BRC** | Jim Clark Rally |
| 31 | **TUSC** | Detroit |
| 31-1 | **IndyCar** | Detroit |
| 31-1 | **DTM/European F3** | Hungaroring |

### JUNE 2014

| | | |
|---|---|---|
| 1 | **MotoGP** | Italy |
| 1 | **British GT** | Silverstone |
| 5-8 | **WRC** | Italy |
| 7 | **IndyCar** | Texas |
| 7 | **TUSC** | Kansas |
| 8 | **F1** | Canada |
| 8 | **WSBK** | Sepang |
| 8 | **WTCC** | Moscow |
| 8 | **BTCC** | Oulton Park |
| 13-14 | **Le Mans Legends** | |
| 13-15 | **Cholmondeley Pageant of Power** | |
| 14-15 | **WEC** | Le Mans 24 Hr |
| 14-15 | **World RX** | Norway |
| 14-15 | **Brooklands Double 12** | |
| 15 | **MotoGP** | Catalunya |
| 15 | **BSB** | Snetterton |
| 19-21 | **ERC** | Ypres |
| 21-22 | **WTCC/Euro F3** | Spa |
| 21-22 | **British GT/F3** | Snetterton |
| 22 | **F1** | Austria |
| 22 | **WSBK** | Misano |
| 22 | **WTCC** | Spa |
| 26-29 | **Goodwood Festival of Speed** | |
| 27-28 | **BRC** | Scotland |
| 27-29 | **WRC** | Poland |
| 28 | **MotoGP** | Assen |
| 28-29 | **IndyCar** | Houston |
| 28-29 | **DTM/Euro F3** | Norisring |
| 28-29 | **World RX** | Finland |
| 29 | **TUSC** | Watkins Glen |
| 29 | **Blancpain** | Paul Ricard |
| 29 | **BTCC** | Croft |
| 29 | **BSB** | Knockhill |




Ever a show for enthusiasts, Race Retro was diverse and beguiling in equal measure

JEFF BLOXHAM



## Race Retro Stoneleigh Park

THE PARISIAN RÉTROMOBILE HAS the flair, manufacturer support and big-budget displays, but our own International Historic Motorsport Show has a home-spun charm that is hard to match. Somehow, Stoneleigh Park's agricultural centre in the rolling fields of Warwickshire seems the perfect setting for the particular breed of hard-worn old car enthusiasts who flock there each February – and it's so much more pleasant than the spirit-sapping caverns of the NEC.

More than 29,000 passed through Race Retro's halls this year, as the show cast its net to appeal to as many as possible. The 50th Anniversary of McLaren theme was a year too late, but never mind. Any excuse is fine if it allows us another chance to gaze at Hunt and Fittipaldi M23s, Can-Am behemoths and chisel-featured M16C Indycars.

Rallying is always a draw here and the in-vogue Group B theme featured in both static displays and out on the live stage. Instead of prize cattle, Audi Quattros, a Lancia Delta S4, Metro 6R4 and rare Mazda RX-7 mixed with all manner of mudslingers on the showground. And when the rally cars were resting, the British Historic Kart Club members entertained, buzzing around on machines dating from 1956 to '82.

Star guests were interviewed on stage, their number including Sir Stirling Moss, Norman Dewis, Win Percy and Barry Lee. Meanwhile, Silverstone Auctions hosted its annual sale with lots amounting to £1.6million, including an ex-Ayrton Senna Honda NSX that went for £85,000. *Damien Smith*



ON THE ROAD WITH

# SIMON ARRON



Possibly the only man with both F1 and Mallory Park media passes. Next stop..?

www.motorsportmagazine.com/author/simonarron/




No racing, but plenty of interest: and Mallory became busier still after these were taken...

SIMON ARRON



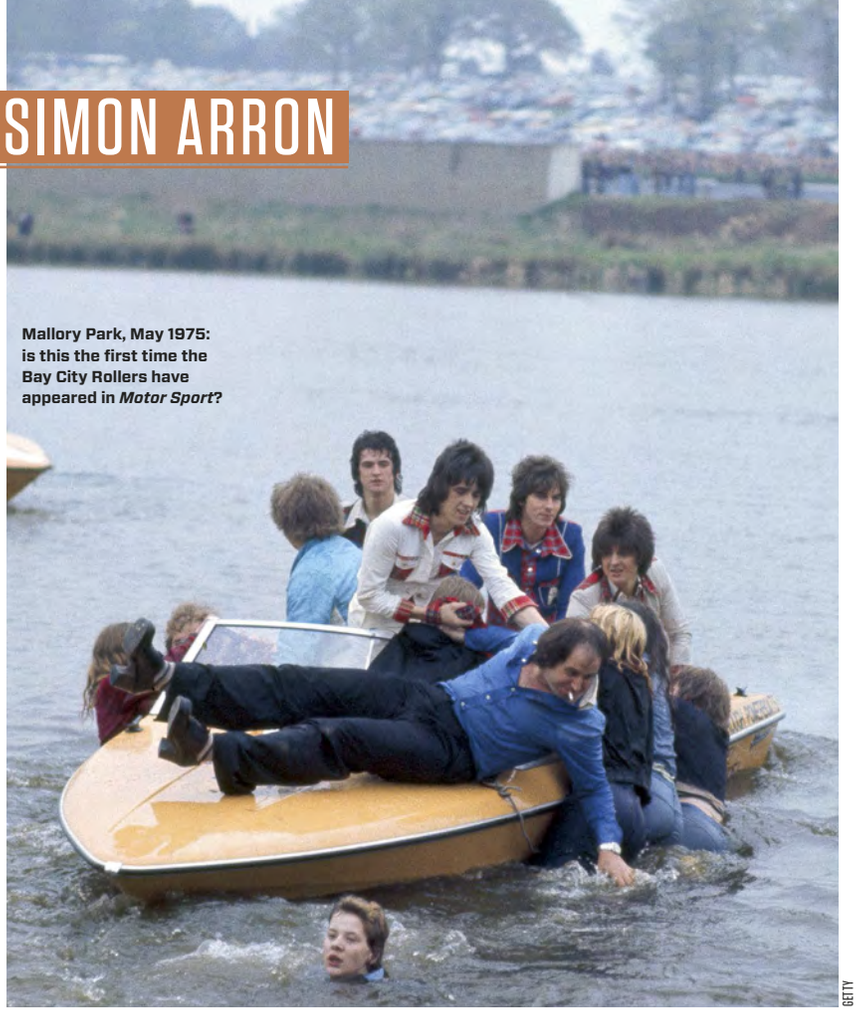
## THE SOUND OF THE CROWD

Mallory Park, March 1: months of doubt finally subside as a grass-roots paradise is reborn

THE CIRCUIT HAD BEEN open perhaps half an hour when we arrived, but space was already at a premium. By noon, visitors were being directed onto the track and instructed to park on the Stebbe Straight – and even that was swiftly brimming.

I can't recall Mallory Park ever looking so busy, but I wasn't present in the late 1950s... nor in 1975, when the Bay City Rollers turned up for a BBC Radio 1 Fun Day. That drew a crowd of more than 45,000, forcing the circuit to close its gates and issue bulletins urging everybody else to stay away. Oh, and a bunch of possessed teens invaded the lake in a bid to get closer to their heartthrobs, who had been helicoptered in to a base on a small island. They don't make chaos like that nowadays.

Things were a little more civilised when the circuit officially reopened on March 1. There were no races, nor even any demonstration runs, but it was buzzing with static exhibits and there was no admission fee – a showcase to reinforce the message that the circuit, inactive since last summer and threatened with closure because of a dispute over noise levels, was not



Mallory Park, May 1975: is this the first time the Bay City Rollers have appeared in *Motor Sport*?

GETTY

about to morph into a housing complex complete with 24-hour Asda.

As reported by Paul Lawrence in previous issues, the venue will henceforth be run and managed by Real Motorsport, a joint venture set up by local businessmen Eddie Roberts and Stuart Hicken, former motorcycle racers both.

By the time all relevant paperwork was finalised, it was too late for them to accommodate much in the way of car racing for the year ahead, simply because calendars had already been settled: at the time of writing, the schedule featured 10 bike meetings, plus one for cars (run by the CSCC, on July 20) and a single-venue rally (June 20/21), but the fixture list is expected to evolve in coming seasons.



As a pleasing aside, the popular paddock diner is back in business with no change in personnel. "Cup of tea with that, mi'duck?" – it has to be one of the most popular questions in the whole of British motor sport. And in this context, "that" is likely to involve chips and beans.

Public response underlined the wave of goodwill towards the circuit, although the day was slightly soured by one small knot of motorcyclists: they gathered together upon leaving, exhausts pointing towards Kirkby Mallory village, and revved their engines until they were bouncing against the limiter, aural vandalism of the kind that risks undoing weeks of delicate but productive politics. As Roberts later made clear via social media, visitors of this calibre simply aren't welcome.

For the most part the exercise was positive – and the popular mid-week test sessions resumed four days later. Cars and bikes will no longer share Wednesdays, as they did in the past, but will alternate from week to week. "In real terms doing half a day used to take up the whole day," Hicken said, "and if you had any kind of problem there was rarely an opportunity to put it right. It was all a bit rushed, but the new system gives teams a chance to do some proper testing."

There are plans, too, to lure more motor sport companies into the business units located close to the circuit's hairpin, to make Mallory more of a specialised industrial hive.

Had Hicken expected a turn-out on this scale?

"We were rather caught by surprise," he said, "but the trick will be getting them all to come back when they have to pay to get in. I did wonder whether I should perhaps start charging everybody £10 to leave…"

# FAREWELL TO A FRIEND

## Wrexham & Bala, February 28: a tribute to one of our sport's unsung characters

IT WAS AN ASSOCIATION THAT BEGAN when my mate Phil offered David Winstanley a biscuit, while we were perched on the wonderfully rickety planks once loosely described as the Lodge Corner grandstand.

This would have been the mid 1970s, when David was racing Formula Atlantic cars in various events. He stood among the paying punters, still in racing overalls: he didn't regard them as a status symbol, but had simply dashed from the paddock to watch practice after his own session finished.

Enthusiasm was his motif.

His recent passing, aged just 61, touched many people – and his send-off was equal parts sunshine and sorrow. Nice touches included an unattended pint of mild on his behalf, at The Bryntirion Inn, Bala (his local), and a collection made in one of his 1970s crash helmets.

In recent times he had become a familiar face within the historic rallying community as both competitor and broadcaster, but past credits include Lodge Corner Agencies (a used





racing car dealership, in Crewe), the Sports Seen automotive video company (with a diverse, interesting catalogue, including many official Ford films) and, between times, the foundation of Agent Racing Cars.

The David Rendell-designed Agent DR1 was a ground-effect FF2000 chassis, advanced for its day, while the DR2 was a reworked FF1600 Hawke that scored a few victories (notably in the hands of the Atkinson twins, Gregg and Tim) during an all-too-brief early Eighties heyday. The company didn't last long, for finance was an almost permanent hurdle in the Winstanley world. As he once put it, "I seemed to spend five of every pound I had."

It's a little-known fact that David set the FF2000 lap record at Aintree (in August 1980, at the wheel of a Royale RP27) – and indeed holds it still, as it remained unbroken when the circuit staged its most recent car meeting in July 1982.

For all the twists and turns his life took, he remained one of the most resolutely positive people I have ever met. Not widely known, perhaps, but he will be greatly missed.




David Winstanley racing his Royale RP27 and, above, in the short-lived Agent DR1

LAT




Leslie and Senna at a chilly Silverstone in '83 and, below, a sunny Brands Hatch 31 years later

SUTTON

# CHANGING LANDSCAPES

## Brands Hatch, March 8-9: mainland circuit racing resumes... on two wheels only

IT WASN'T ALWAYS THUS. THE DAWN OF March was once a symbol of winter's completion: time to don gloves, scarf and stout walking boots, then set co-ordinates for Silverstone and the opening round of the British F3 Championship (when it spanned the whole season, rather than merely four months).

This would be the classic, triangular Silverstone club circuit, whose paddock could be accessed only by driving across the track between practice sessions. If you arrived a little late, you'd sit on the Grand Prix loop, close to the Woodcote chicane, watching F3 or Clubmans cars flash by a few metres ahead. I first attended such a meeting in 1983, when David Leslie qualified his Magnum 833 on pole and Ayrton Senna beat Martin Brundle in the race, setting the scene for an epic, year-long tussle. At the time I was a *Motoring News* staffer and that week's paper carried a photograph of the Brazilian spinning during practice, the only error he'd made all day: he wasn't best pleased by such a selection, if memory serves.



SIMON ARRON

Back then the circuit's press box was situated in the old Dunlop Tower, to the outside of Woodcote. In the intervening years, reality and atmosphere have been sacrificed for the sake of televised convenience and few modern media centres offer any view at all over circuits – that in the Silverstone Wing among them. Progress? Not really.

Silverstone is windswept at the best of times, but those early F3 meetings always seemed to have extra bite... up until 1986, when the event – scheduled for March 2 – had to be cancelled due to the area being snowbound. In 1987 the campaign began a couple of weekends later, at Thruxton: it was still reassuringly cold, but didn't feel quite the same.

In 2014 there was no car racing scheduled for the UK mainland until March 22 (Donington Park), but the bike brigade kicked off a couple of weeks beforehand at Brands Hatch, with the opening Thundersport GB meeting of the year. It would have been rude not to pop in, really, to watch an object lesson in how race meetings should be run – 34 races over two days, several of them featuring Barry Sheene's son Freddie (making his mainstream UK debut in a pleasingly low-key manner, bereft of tiresome media fanfare). The balmy heat was unexpected, the ferocity of competition less so.

It felt good to be back.

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HISTORIC SCENE WITH

# GORDON CRUICKSHANK



One wheel in the past: searching out what's new in the old car world

www.motorsportmagazine.com/author/gordon-cruickshank



Bensport plans to build its La Sarthe in small numbers, each of which costs about £425,000

## SWEEPING BEAUTY

This is no Bentley thoroughbred, but Crewe provided the inspiration... and a fair few parts

BENTLEY HAS BEEN offering up multiple versions of its Continental and Arnage models lately, but here's one you won't find in their current catalogue, even though it's a 'production' Bentley. But it's not a shape you've ever seen before. The La Sarthe is – what's the right word? An invocation, perhaps, of a car that Bentley thought of building in the early 1950s but didn't – a sporting coupé on the R-type platform. Derby's code name for its new sporting Bentleys in the 1930s was 'Bensport', and that's the name of the firm behind the car you see here.

Of course Bentley did build the magnificent R-type Continental, maybe the finest Grand Tourer of all, but seeing the success of Jaguar's XK120 some of the Crewe crew wondered if there was a market for a shorter, lighter, more sporting device. Nothing came of that, but a couple of years back Bensport got underway with its version of the idea when a happy chance connected it with Tony Hunter, an automotive designer with a plan to build his own R-type special. Coming from the studios of Land-Rover and Jaguar, Hunter had the skills to refine the shape and construct

the CAD model they needed to produce a body buck, over which a small run of bodies will be wheeled and hammered.

I saw the newly completed first example at Vintage & Prestige Cars, where Richard Biddulph specialises in Rolls-Royce and Bentley, and it certainly exudes the quality of a production car. Low, slash-backed and cowl-nosed, the La Sarthe (which has the same definite article problem as the LaFerrari) has the solidity and finish you'd hope for in a high-class vehicle, though the new shell is considerably lighter than the standard steel R-type body. The plan is to build three to five examples a year, the shells built in Coventry by a well-known body firm and married to R-type chassis prepared by Bensport in Somerset, whose owner Bob Perry says it's still possible to find sound chassis. These they strip and refettle, revising suspension, brakes, cooling and exhaust, with an engine uprated to your spec. The R-type frame is especially suitable, with its rigid X-frame, independent front suspension and very smooth six-cylinder engine. It goes without saying that this car will be a luxury item, trimmed to the customer's requirements in leather and veneer and equipped with anything from air-con to sat-nav to fitted luggage, though rear seats aren't on the option list. This is an unequivocal two-seater.

When I saw the prototype it sported a painted dash in the same battleship grey as the exterior, which I rather liked, but it seems customers want walnut, so several trees were skinned and new timber trim installed in time for the big launch at the Essen show. At £425,000 a time, it's a shot the customer gets to call. If R-type Continentals hadn't already crossed this mark that price might look implausible, but they have, and as classic car values rise there might be enough customers around who want a rare, sleek, fast coupé with a pedigree.

Hunter showed me the CAD model on his iPad, and how the system can output direct to a CNC machine to cut the ply shapes that slot together to form the full-size buck. Cleverly, the buck contracts so it can be removed from within a completed shell even with undercuts, instead of forming individual panels over the buck and joining them together on a separate subframe. The CAD model also allowed the team to shape a subframe and confirm that the designed shell would clear all the components of the Bentley chassis, avoiding those complications of bolting things together and finding the fuel filler pipe wants to occupy the same space as a boot hinge. It's exciting to see new technologies married to traditional coach-building skills like this, and it makes repeat builds more viable. Even so, Bob Perry reckons a shell will take 16 weeks to form, with up to 10 months to complete each car.





Classically styled modern couture sits on an original Bentley R-type chassis, sound examples of which can still be found

Sourcing glass for a special project can be a problem, but Hunter tells me they use a Bentley S1 front screen and a Continental rear. Hard to find? Apparently not – just ring Bentley. Ditto the elegant Continental door handles: Hunter tells me that Bentley itself still has stocks left from the short build run of just 207 Continentals, most of which went abroad during Britain's 'export or die' dollar scramble of the '50s.

It's details like this door handle that elevate the result above the ordinary. Until 3D metal printing is common it would be ferociously expensive to cast new ones, and you would be faced with the same question Bentley had in the 1950s – how many to order. Luckily they erred on the generous side.

Bensport still has to refine the damping and springs of the prototype before potential customers can experience just what their substantial investment will buy them, but Biddulph and Perry are confident of finding the orders they need. Meanwhile Tony Hunter has another job to finish – the convertible R-type special he was planning for himself when the La Sarthe distracted him. The difference? He's only going to build one of those.

## DREAM GARAGE

What we'd blow the budget on this month



**Graeme Hunt**
Fiat 130 Coupé

Not all 1970s Fiats have endured, but this is an immaculate example of one of the company's finest style statements, with only 16,000 miles covered in 36 years from new.

**£32,750, www.graemehunt.com**



**Speedmaster**
March 79B

Currently in Formula Atlantic trim. Recently raced (and successfully so) by motor sport perennial Ian Ashley. Classic period styling with BDA power, but can be converted to F2.

**£59,000, www.speedmastercars.com**



**DK Engineering**
Ferrari 275GTB/C

GGJ 5C was originally owned by club racer Harry Napier, who took delivery in '65. Passed through DK founder David Cottingham's hands in 1977 and now he offers it again.

**POA, www.dgeng.co.uk**

# RED RAGS AND RED BULL

What stirs air racers' thoughts at 250mph? Laundry, apparently

READING THE LATEST ISSUE OF THE FJ Newsletter, which Duncan Rabagliati handed me at Race Retro, I was interested to see that the club is responding to a perceived decline in driving standards in historic racing. Not FJ people, the mag hastens to point out, but to preserve the club's friendly atmosphere the management has decided to take action before anything unpleasant happens.

It has appointed Bob Birrell as a driving standards observer, who will investigate any car contact and has "appropriate sanctions" up his sleeve. Sad that this has to happen – but certainly better to watch for the spark than beat down flames later. Some historic racing has become so serious you'd think there was a world title at stake.

In the same issue, FJ racer Steve Jones talks about his other life as a 747 captain and aerobatic flyer. One of the Red Bull Matadors, he does terrifying things in air races when not flying Spitfires and Mustangs. His display oppo is double Red Bull champion Paul Bonhomme, whom I sat beside at the Segrave awards (he won the 2009 trophy). We discussed the split-second decisions that go with roof-level 12g dicing at 250mph and I asked about the mental strain of thinking so fast with disaster only a hiccup away. "It becomes second nature," said Paul. "In my last race I was lining up for the next air gate and caught myself thinking, 'Did I collect my laundry from the hotel?'"

Now that's cool.



# MAXIMUM ATTACK

How to assess your fellow road users, a bygone system revisited

LOOKING FOR SOME INFORMATION AMONG WB'S WRITINGS, I WAS TICKLED TO COME across his explanation of the Birkett Dicing Analysis, invented by his friend and co-car enthusiast Holly Birkett, a central figure in Boddy and Jenks's motoring coterie. I believe it was Jenks who codified the 'tenths' system of racing driver effort, but Holly's is more entertaining. It reads as follows:

**1/10th** Elderly dodderer taking it easy.
**2/10ths** Elderly dodderer going somewhere.
**3/10ths** Commercial traveller concerned mainly with mileage between overhauls.
**4/10ths** Most leisurely progression practised by One of Us.
**5/10ths** Slowest form of rally driving, when right on time.
**6/10ths** Everyday motoring when a trifle late or getting time-in-hand on a rally.
**7/10ths** No risks taken and could maintain all day, but glad Elderly Dodderer is not on back seat.
**8/10ths** Keen type taking editor of motoring journal for demonstration run. *(This constitutes the main risk in this profession)*
**9/10ths** Racing driver doing his desperate best under a 'faster' signal from his pit.
**10/10ths** Dangerous motor-bandit hotly pursued by entire CID in Ferraris. Inevitably results in an accident.



Percy Mitchell at Indy in 1914, in front of the pole-sitting Sunbeam

# MITCHELL'S PLACE IN INDY HISTORY

In 1914, a Sunbeam engineer became the first Brit to compete in the fledgling 500

IF YOU FOLLOWED F5000 IN ITS EARLY days, you might remember Ian Mitchell who raced a BRM P261 during the 1969 season. But he wasn't the first member of his family to make a mark in racing. He tells us his grandfather was the first Englishman to race at Indianapolis, 100 years ago in the fourth '500' Sweepstake Race.

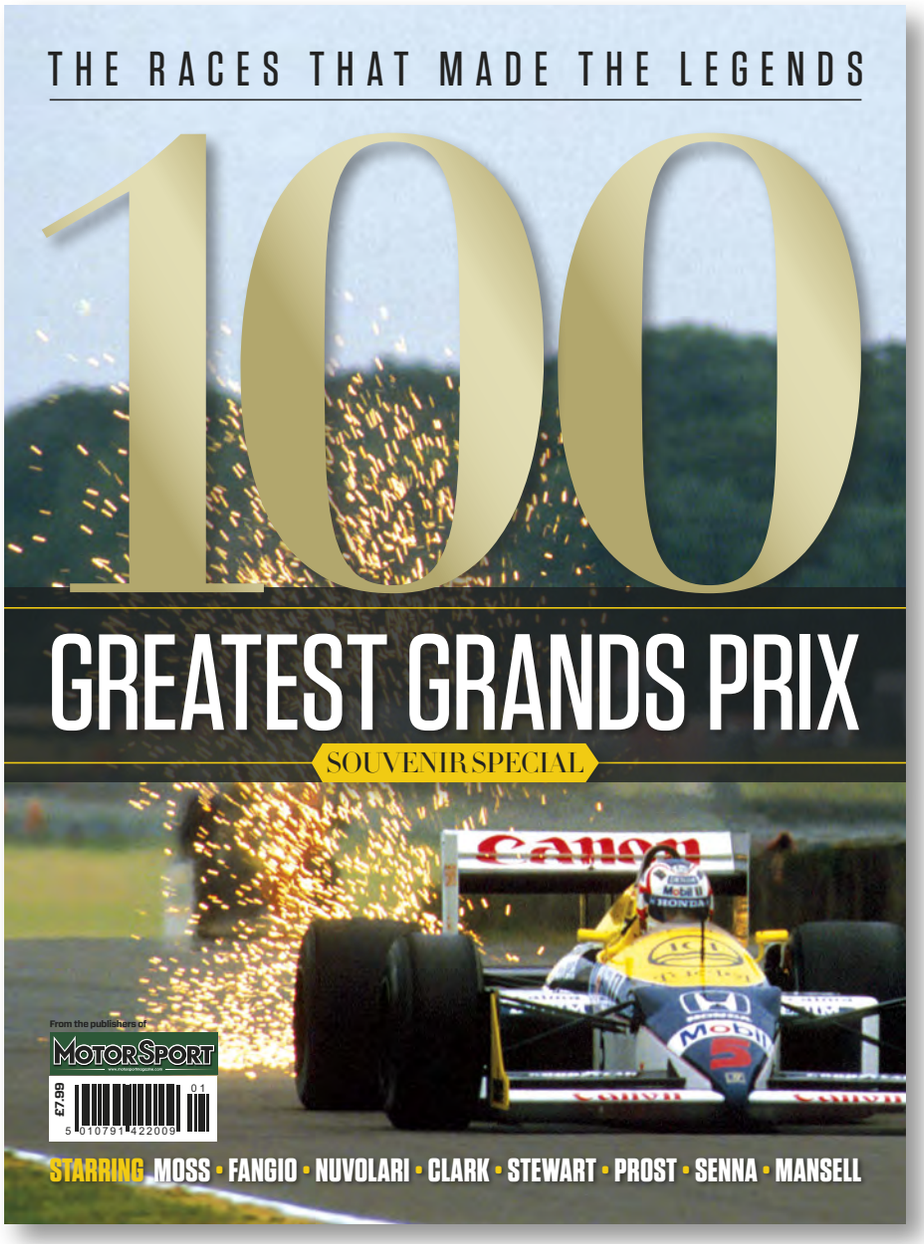
Percy Mitchell was a development engineer for Sunbeam. As he had been involved in developing the team's Grand Prix cars, he was asked to take the scary seat as Jean Chasssagne's riding mechanic when, after the cessation of racing in Europe due to war, the firm sent a pair of cars to The Brickyard. The other had an American crew. Although Chassagne claimed pole, in the event a puncture caused the car to roll, throwing Mitchell out and giving him a broken arm though his driver was uninjured.

Harry Grant's fifth place in the other car was not much compensation for Britain's first attempt at the classic event.

Later in the war Percy went on to join the Air Ministry and helped design the interrupter gear that allowed a fighter's machine gun to fire through the propeller, radically increasing accuracy.

Ian adds his own historic landmark – it's 50 years since his own first race win, although a UK saloon race isn't quite as glamorous as his grandfather's debut...

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FROM THE ARCHIVES WITH

# DOUG NYE



**Our eminent historian dips into the past to uncover the fascinating, quirky and curious**




BROOKLANDS

## MATERIAL WEALTH

**The pioneering Brooklands spirit that served motorists and aviators so well**

LAST HALF-TERM I TOOK three of my grandchildren to the marvellous Brooklands Museum. Quite apart from seeing its cars – including my beloved Napier-Railton – one grandson in particular is utterly besotted by aeroplanes and the Museum displays many Brooklands-built aircraft. The volunteer staff and guides are simply terrific. The kids oohed and aahed at the displays, were shown 'Uncle Jenks's' Duesenberg, then a guided missile and Barnes Wallis's bouncing bomb. While one grandson adored sitting in Ayrton Senna's McLaren MP4/6, our aerophile preferred the captain's controls in the Sultan of Oman's royal VC10. And then it was time for 'the Concorde Experience' – in the Museum's 'Delta-Golf' – the fastest, highest-flying supersonic civilian airliner of all (above).

Visitors settle themselves into the slimline Concorde cabin's 2x2 seats, former BA Concorde chief pilot Mike Bannister addresses them on video and we take off on an incredibly convincing 'Mach 2' flight – with sound effects and remarkably realistic vibrations. Indeed, the take-off was so convincing that upon throttle-back my much-travelled

two-year-old granddaughter glanced around, clearly felt this was the time when cabin service commences and asked her mum "When do we eat?" Told there wouldn't be any grub, Charlotte's face crumpled and, my, how she bawled. Mum briskly removed her to the rear cabin, to avoid spoiling 'The Experience' for our fellow passengers.

Back there, Delta-Golf's fuselage is unlined, showing off Concorde's heat-resisting structural skin, machined from solid Hiduminium 'RR58' alloy. Not only was 30 per cent of each Concorde airframe built by the British Aircraft Corporation at Brooklands, using this material, but Hiduminium itself has another historic link with the old Motor Course.

The Hiduminium or 'RR' alloys were high-strength, high-temperature aluminium mixes developed for aeronautical use by Rolls-Royce before the Second World War. They were manufactured and later co-developed by High Duty Alloys Ltd of Farnham Road, Slough. The trade name was derived – self-evidently – by combining the maker's name and 'aluminium'.

In the early days of racing, Brooklands commonly echoed to the thump of large-capacity engines using hefty cast-iron pistons. Their weight limited engine speed. Dr Fred Lanchester – for one – had pioneered lighter pistons in machined steel, gaining rpm and horsepower. In 1907, when Brooklands opened, Maurice Sizaire's Coupe de l'Auto-winning single-cylinder Voiturette used a lighter, thin-walled piston machined from a solid steel billet.

In 1911 German metallurgist Alfred Wilm had a tough new aluminium that he alloyed with four per cent copper brand-named 'Duralumin' after his then employer, the Durener Metallwerke. In 1912 Italian engineer Giulio Cesare Cappa used light alloy – apparently duralumin – pistons in his racing Aquila-Italiana. In 1913-14 genius Harry Miller in California adopted aluminium-copper-nickel light-alloy pistons in the 1914 GP Peugeot that finished second in the 1915 Indy 500 and won the 1916 race. Miller 'Alloyanum' pistons would then feature postwar in the 1921 French GP-winning Duesenberg. I believe Mercedes successfully tested duralumin pistons for its 1914 GP car, but conservatively raced cast-iron and still finished 1-2-3.

At Brooklands, WO Bentley's French DFP class record-breaker ran alloy pistons cast by the Corbin foundry, reliably permitting higher revs and power. Bentley advised aero engine manufacturers Rolls-Royce and Sunbeam of his Corbin piston experiences and alloy pistons were widely adopted. In wartime the National Physical Laboratory's Y-Alloy then entered production, in effect duralumin with two per cent nickel and 1.5 per cent magnesium added, to great benefit.

WWI-era aero engine builder, Peter Hooker Ltd of Walthamstow – which traded as The British Gnôme and Le Rhône Engine Co – gained particular expertise in manufacture and use of Y-Alloy pistons. But orders dried up in the recession and, after voluntary liquidation, the company was wound up in 1927. Ironically, just too late for



JEFF BLOXHAM

Hooker, a major alloy pistons order then arrived from Armstrong Siddeley.

It was to equip later-variant Jaguar 14-cylinder twin-row radial aero engines – and was accepted instead by Hooker's departing works manager, the forceful Colonel Walter Charles Devereux.

John Siddeley loaned him the money to buy Hooker's necessary equipment and to re-employ some of its specialist staff, and Devereux established High Duty Alloys Ltd at Slough to do the job. Production quickly commenced and HDA became very successful. The 'RR Alloys' or Hiduminium were developed from four per cent copper/two per cent nickel, halving both constituents before adding one per cent iron, then pinches of magnesium, silicon and titanium to taste. In 1969 HDA won the Queen's Award to Industry for its innovative Concorde skin material. In 2000, HDA was acquired by the Mettis Group which remains a leading aerospace materials supplier today.

Back in the 1930s, Devereux had recognised the value of motor racing as a testing ground, and he helped back a Brooklands racing project emphasising the shared demands of motor racing and aeronautics – the Multi-Union.

# MORE THAN A FAIREY TALE

**How ingenuity turned an elderly Alfa Romeo into an unlikely, high-speed star of the 1930s**

CHRIS STANILAND RACED BOTH motorcycles and cars while working as chief test pilot for Fairey Aviation. He drove an elderly 2.9 Alfa Romeo Tipo B Monoposto cared for by Chertsey motor engineer J S Worters.

Staniland knew High Duty Alloys and Col Devereux (see left) through both flying and racing, and in 1936 he and Worters, backed by Jack Emmott of Lockheed and using HDA light alloys, modernised the Alfa.

Worters reworked the straight-eight supercharged engine, a new four-speed gearbox replaced Alfa's original, Lockheed hydraulic brakes were fitted and a new body was modelled after the contemporary Mercedes-Benz W25's. Staniland christened the silver-painted projectile the Multi-Union.

In 1938 he drove it to win Dublin's Phoenix Park road race at more than 97mph. On the

# FRAME ACADEMY

**How road and racing cars used to be built, a world away from CAD systems and wind tunnels**

THE AUTOMOBILE PER SE IS ARGUABLY the most transformative agent in modern history. In America the Revs Institute for Automotive Research is a new educational foundation dedicated to advance the scholarly study of automotive history. The Institute provides access to the magazine, book and photographic library holdings of the formidable Collier Collection.




Despite its Alfa Romeo Tipo B underpinnings, the Multi-Union came to look ever more like a Mercedes

Brooklands Outer Circuit he won a couple of handicap races, one at 127.77mph and the other at 133.26.

For 1939 the car was further modified as the Multi-Union II, with much larger superchargers, changed carburetion and much more power. It was described as retaining the Alfa Romeo Tipo B chassis side-rails and split drive – though probably remade by Worters. Tecnauto independent front suspension replaced the Alfa front axle, located by trailing links and coil sprung.

The rear axle was now suspended on coils instead of leaf springs. Even bigger hydraulic brakes and driver-adjustable hydraulic dampers were added. The body was remade and lowered, and if anything now looked even more 'Mercedes'.

Staniland already held the Brooklands Class D Outer Circuit lap record in Multi-Union I at 141.45mph – impressively close to John Cobb's 143.44mph outright record in the eight-times larger engined Napier-Railton...

He looked set to break Cobb's record in the final August 1939 meeting – only for a piston to fail. Staniland ran the car regardless in a handicap race that day, finishing fourth and still lapping at 140mph with a hole in one piston. The car's pace on just under three litres dismayed the stuffiest Brooklands habitués, who adored the notion that you needed 10-tonners and at least eight litres to do the business. That such a road racer should be so fast really upset some of them, rather like the Indy railbirds' reaction to the rear-engined 'funny cars' from Lotus in 1963-65.

Chris Staniland died in June 1942, when testing a Fairey Firefly that disintegrated in mid-air over Sindlesham, Berkshire. His wonderful Multi-Union survived the war in poor condition, its engine metallurgy having suffered badly from damp storage. It was owned into the 1970s by the Hon Patrick Lindsay, but in more recent years has been cannibalised as the basis of a (financially more valuable) Alfa Romeo Tipo B look-alike. The unique second-fastest car ever around the Brooklands Outer Circuit had been sacrificed. Of course, any car owner is free to do whatever he likes with his own property. But don't expect applause. The Multi-Union project embodied much more than one might think about what made Brooklands so significant for broad-spectrum British engineering.

It has been set up in conjunction with Stanford University and its Revs Digital Library is currently being developed online in conjunction with the Californian body.

Photos that will become available online already exceed 166,000 images scanned from 12 collections, including the former Karl Ludvigsen library, *Autosport* photographer George Phillips's major work, Ted Eves, Max le Grand and many more. I have been captioning some of the racing coverage, and one Ferrari factory shot by Rudolfo Mailander really appealed. It was taken in Ferrari's Maranello factory in 1952 and shows a stack of some 20 chassis frames, ready for assembly into finished Ferraris, just supplied by Gilco, Ferrari's specialist sub-contractor in period.

At the end of World War II, 24-year-old Gilberto Colombo was production director of his father's metalworking company in Milan. He became friendly with the Ruggeri brothers whose re-emergent Scuderia Milano team was one of the first to campaign Maserati GP cars internationally postwar. Encouraged by them, Colombo set up Gilco Autotelaio as a company specializing in small-series production of innovative and experimental chassis frames. When Enzo Ferrari considered car production under his own name, he invited Gilberto Colombo – no close relation to Ferrari's chosen designer Gioachino Colombo – to tender for chassis supply. Gilco must have been cheap, as well as good, for The Old Man accepted its tender. From 1947-57 Gilco competition-car chassis frames would underpin Ferrari's progress. Gilco's use of oval-section thinwall steel tubing maximised rigidity of the otherwise rather sketchy contemporary frame designs, and Gilco later diversified into light-alloy boat hulls and built a fine reputation in racing bicycle frame design and production.



A cocktail of tubes to the naked eye, but soon these would morph into Ferraris

While Mr Ferrari died aged 90 in August 1988, Gilberto Colombo outlived him by only three months, dying that November at the early age of 67. But their cars, and chassis frames, live on. M


9

# PARTING SHOT




## MAY 1
# 1967

### SPA-FRANCORCHAMPS

The Mike Parkes/Lodovico Scarfiotti Ferrari 330 P4 heads for fifth place in the Spa 1000Kms, fourth round of the World Sports Car Championship. Jacky Ickx and Dick Thompson (JWA Mirage M1) won by a lap, from Jo Siffert/Hans Herrmann (Porsche 910). We wonder what the FIA would say if we tried taking photos from such a vantage point in this day and age...

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