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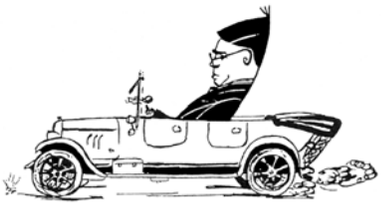
The Story of '62

BRM vs Lotus and the all-British duel that would kickstart racing's favourite decade

By Doug Nye

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Cover illustration: Guy Allen; GP Library

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LAT

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Matters of Moment

On the Friday ahead of the Chinese Grand Prix a collective groan rose from the *Motor Sport* office: Jean Todt had confirmed that the Bahrain Grand Prix was on. Wrong decision, we thought, and most of you seemed to agree. Beyond altruistic sentiments, it also gave us a practical problem. I write as we close for press, after the Chinese GP – but before Bahrain. Oh, the frustrations of deadlines on a monthly magazine.

So before I go any further, I must invite you to log on to our website to read Nigel Roebuck's reflections on the events in Bahrain. Ahead of the race, we can only hold our breath…

What I can state here is why *Motor Sport* objects to the Bahrain GP and how this episode has been handled. In the week ahead of the Shanghai race, the world's media turned its attention on the storm F1 was diving into, and we listened as motor sport's leaders and British MPs stated that sport and politics don't mix, and never should. Nonsense. Ideally, that should be the case, but in modern F1 it's impossible to separate the two. Governments in the Far and Middle East finance the creation of race circuits and pay Bernie Ecclestone millions for F1 to visit, as a showcase for their economic strength. How much more political can you get?

The troubled Kingdom of Bahrain was determined to use F1 to prove to the world it's business as usual in the religiously divided state. Since the first GP at Sakhir in 2004, the country has brought welcome investment into the sport and is considered a 'friend' to F1. But such factors shouldn't have influenced the decision to race. By pressing on regardless, in the face of so many objectors, Todt and Ecclestone have, if anything, politicised F1 more than ever before.

Whatever the events in Bahrain, the agenda has been set. F1 chases the money, from China to India, and in the future to 'new markets' such as Russia, and the consequence is clear: Grand Prix racing cannot exist in a vacuum. You'd have to be deluded to think otherwise.



Damien Smith
Editor

In this issue, Nigel reflects on the long-awaited breakthrough of Nico Rosberg, following that terrific performance in Shanghai. It's always good to witness a new Grand Prix winner make the grade.

I first met Keke's boy in the Zolder paddock when he was a precocious teenager racing for his old man's Formula BMW team. He'd go on to win the title in his rookie season and he was clearly talented. But what struck me most about him was the confidence, the ease in which he carried himself. Hardly your average awkward, painfully self-aware teen. He'd clearly enjoyed a privileged upbringing and I remember thinking his ascent to Formula 1, which looked inevitable, would be far less arduous than his father's. So it would prove.

But still, Rosberg Jr earned his place on merit, simply because he was good enough, and since the promise of his debut, with Williams in 2006, he's been forced to toil in largely uncompetitive cars. Consider too that racing drivers compete to win, and that until Shanghai Nico hadn't stood on the top step of a podium since his final GP2 race way back in 2005. Seven years. That's an awful long time for a racing driver to wait. No one can say he's had it easy since his graduation to F1.

Credit too must go to Mercedes-Benz. Honda, Toyota, Renault, BMW – they all quit F1 as times got tough, but the three-pointed star has been a constant presence in F1 for nearly 20 years now. A breakthrough victory as a standalone works team is some reward for that commitment. Mercedes plays a huge role in F1, not least because it appears to be a single dissenting voice to the terms of the new Concorde Agreement. It's an F1 powerhouse, and now it has a quick car to reflect that.

As for its 'Double DRS' wing that has divided opinion in the paddock (see p15), well, »»

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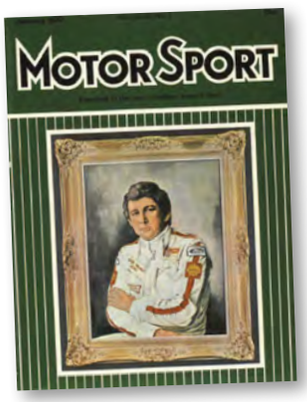
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Matters of Moment

that's exactly what great F1 teams should do. Clever stuff. It's helped give the team an edge, although exactly how much remains to be seen. Now it has been declared legal once and for all, its rivals must react and how well they do so is likely to be a factor in the outcome of the 2012 World Championship.

F1 is so much more than a battle between drivers – which is just as it should be.

Like the best racing teams, here at *Motor Sport* we're never afraid to try something different and this month we've experimented with a novel approach to our front page. 'Art' has graced the cover before, of course. Remember Gordon Murray's sketch showing his prediction of the F1 car of the future back in 2000? Then there was the portrait of new Lotus recruit Dave Walker that was used in January 1972, commissioned by proprietor Wesley J Tee as the Australian's prize for winning the *Motor Sport*-backed F3 Championship. Bizarre, even by this magazine's often puzzling standards.



This month, to illustrate the duel between Jimmy Clark and Graham Hill for the 1962 F1 World Championship – half a century ago – we commissioned Guy Allen to come up with something special. As Ron Howard told Ed Foster on the set of his *Rush* movie (p122), a degree of creative licence is sometimes unavoidable, but we think Guy has captured the spirit of that pivotal F1 season 50 years ago.

To mark our departure from the norm this month, we're giving away a single and unique print of the artwork signed by the artist. Log on to the website (www.motorsportmagazine.com) to enter the competition, where you'll also find details of how to win a trip to Le Mans Classic (as mentioned on p17).

And there's more on offer. The Cholmondeley Pageant of Power has established itself as a picturesque and action-packed highlight of the motoring summer season. *Motor Sport* is delighted to be supporting this year's event, which takes place in the grounds of Cholmondeley Castle on June 15-17. If you're planning a visit, do take advantage of our special ticket offer for *Motor Sport* readers. Tickets can be purchased at www.cpop.co.uk and there are two codes you must enter to make a saving: MOTPT for single-day tickets (£6 discount) and MOT3DT for three-day passes including the fireworks concert (£13 discount).

Next month we'll be looking ahead to another season highlight, the incomparable Goodwood Festival of Speed. Following the news that reigning World Champion Sebastian Vettel will attend for the first time, we can reveal that Alain Prost will also be making his Goodwood debut (see p18).

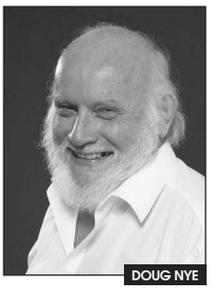
Prost is a major coup for the Earl of March, who has been trying to entice the four-time champion to the festival for years. Ever polite, Alain would smile in response, but never commit himself – until now!

The cult of Ayrton Senna has tended to overshadow how Prost is remembered by too many people. But from 1982 to '88 the Frenchman with the crooked nose and the big mop of curly hair was head and shoulders above his rivals, in all-round terms – which is exactly why Senna focused on him so intensely as the man he had to beat. Their three-year duel between '88 and '90 came to define the careers of both men, for better and for worse. It was 2-1 to Senna in terms of World Championships in those years, but in reality there was little between them week in, week out.

Perhaps 'the Professor' didn't capture the imagination in the way mercurial Senna did. And perhaps he's less popular because he survived… Whatever, Goodwood's crowds should give Prost a hero's welcome this summer. Who knows? If he sees what he's been missing, perhaps he'll come back for more.

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DOUG NYE


GUY ALLEN


GORDON CRUICKSHANK


GARY WATKINS

CONTRIBUTORS

DOUG NYE has been extra busy recently, setting up the sensational Silver Arrows demo-race for Goodwood Revival, filming for a possible TV history of motor racing, and preparing a huge Lotus collection for sale at the Festival of Speed. That meant a trip to Holland, where he managed his first visit to Zandvoort since 1966. In his words, "Coo!" Same applies to one trip from Farnham to Goodwood: Doug drove the Jack Sears Willment Cobra, pursuing Paul Vestey's 250GTO. Secretly, he'd rather work in a call centre…

GUY ALLEN, who painted our ground-breaking cover this month, is planning a Dutch trip, too. He illustrates posters for the Concours at Paleis Het Loo, so he'll soon be heading south, though not in the Honda S800 coupé he hasn't been restoring for some years.

Despite 20-plus years on the sports car trail, **GARY WATKINS** reckons he has rarely been so excited by a new season. Not only has the world championship been reborn, but as he explains this month a new era of high-technology has dawned. Personally, he doesn't like venturing too far north when he goes racing himself. Set-up changes on his VW Golf are limited to juggling tyre pressures…

With a secret history of half a dozen Alfa Romeos in his past, and despite struggling with Bill Boddy's six-carburettor Alfa Six during the 1980s, **GORDON CRUICKSHANK'S** soft spot for Italian curves made him a sucker for the pretty Dino 206SP story. Theoretically, it could be road-registered – and probably wouldn't get much worse fuel consumption than GC racks up driving into Chelsea every day.



FORMULA 1

New muddle for Lotus as race team thrives

With its novel side exhaust consigned to history the former Renault team, that we now know as Lotus, has made a huge step forward this year, and has a package that could give Kimi Räikkönen a genuine shot at winning a GP.

Meanwhile there have been major changes behind the scenes in terms of the race team's relationship with the troubled Group Lotus.

In the course of the legal battle with Tony Fernandes over the use of the name it was made clear that the Enstone team would be the 'genuine' Lotus with a direct association with the road car company, which had signed up to be a long-term sponsor. Its CEO Dany Bahar became a director of the team, and ties between the two appeared to be set to grow even closer.

It later emerged that Group Lotus could not meet that financial commitment and the sponsorship deal was terminated. Bahar is no longer a director, and in effect Lotus F1 is a third party that has a licence to use the name in Grand Prix racing until 2017 in much the same way that Fernandes had in his team's first season – no money is changing hands but the team can use a famous brand to attract sponsors.

However, on paper there remains a connection between the entities in the unusual form of a three-year £30m loan from Proton/Group Lotus to the team.

Details of the arrangement emerged in a bizarre press release sent out by Lotus Cars just before the Malaysian GP. It attacked Fernandes and others who had hinted at trouble in the camp, insisted that the company still had an ongoing involvement in F1 – and suggested that it might gain ownership of the team should the loan not be repaid, since Enstone's assets were collateral.

Inevitably talk of loans and lost sponsorship has not cast a good light on Lotus F1. In fact the reality is less dramatic than it might seem. When Genii took over the team it had a lot of debt, and in effect the £30m represents existing loans from Lithuanian bank AB Snoras to Renault Group that were transferred to Group Lotus in a deal that suited Genii. In addition the assets pledged do not include the actual entry, sponsor contracts and other key elements of the Lotus F1 entity.

"IF THE NEW OWNERS OF GROUP LOTUS DECIDE TO SELL, WE ARE THE LOTUS BRAND IN F1"
GERARD LOPEZ

"It's not like the company has more debt, and it's not like all the assets pledged," Genii owner Gerard Lopez told *Motor Sport*. "There's nothing less and nothing more than there was before. That's why the whole commotion doesn't make a whole lot of sense. You can refinance it, you can repay it. It becomes a big story, even though it's not."

Meanwhile Lopez plays down suggestions that Genii might one day reunite the two users of the Lotus name by taking over the car company.

"If Proton and their new owners decide to continue pushing Lotus as a car brand and work with us, there's a very good status quo. If they decide to sell, we are the Lotus brand in F1, and if there is a deal to be made that makes sense, we would probably look at it. But we've never gone out and said we want to buy Group Lotus."
Adam Cooper

■ ROAD CARS

The future of Group Lotus has been thrown into doubt following the sale of its parent company Proton.

It is understood that Proton's, and therefore Lotus', new owner DRB-Hicom is conducting a full-scale review of activities that could result in the loss-making car manufacturer being sold off. DRB-Hicom's managing director has said that he is keeping his options open regarding the potential sale of the company. A Lotus spokesperson told *Motor Sport*: "It's no secret that we are going through a very difficult time at the moment due to the change in ownership but we're doing everything we can to get through this period and come out the other side stronger than before." He went on to categorically deny rumours that production had stopped or that CEO Dany Bahar had left the company.

In recent years Group Lotus has been subject to relentless scrutiny, stemming from the appointment in 2009 of ex-Ferrari marketing man Bahar and the five-year recovery plan he announced the following year. That called for five new models to be produced in that time, including a new Esprit and Elise, a front-engined GT using the Elite name and a four-door supersaloon called the Eterne. The fifth car is a small city car named Ethos.

In the meantime the fortunes of Lotus Cars have been hit hard by the mixed critical reception of the Evora and resulting slow sales plus the age of the Elise and its Exige spin off, the original design of which is already some distance past its 15th birthday.

Lotus is known to have accrued considerable debts thanks to money spent on the new car programmes and the transformation of its Hethel track into a modern FIA-specification testing facility. It is that sum that is likely to be the biggest stumbling block to any potential future sale of the company.

Of the new cars, only the Esprit is believed to be in an advanced state of development, with the final production version scheduled to be shown this time next year.





■ FORMULA 1

Williams test role for Wolff

Susie Wolff has joined Williams as a development driver, and the Mercedes DTM veteran will undertake some aerodynamic running – as well as a full test – in the current car, the FW34.

The former Susie Stoddart has been in the DTM for seven seasons, and her last single-seater experience came in British F3 in 2005.

The 29-year-old Scot is married to Williams shareholder Toto Wolff. Sir Frank Williams insisted that "her appointment was carefully considered and then approved by the board, with Toto excusing himself from the process".

Wolff joins Marussia's Maria de Villota, who is expected to take part in the F1 rookie test later this year, at the sport's top level.



LAT

■ FORMULA 1

'Double DRS' declared legal

Nico Rosberg's victory in the Chinese GP put a renewed focus on Mercedes GP's so-called Double DRS system, which gives the W03 an advantage in qualifying.

At the start of the Shanghai weekend the Mercedes system was declared legal by the FIA after Lotus submitted an official protest in order to prompt a formal clarification. The basis of the protest was that driver movement was triggering an aerodynamic effect, which – with the exception of the DRS operation – is not permitted.

In essence the FIA stewards decreed that its operation was a secondary consequence of the DRS wing flap being opened, and accepted the Mercedes argument that it was a way of making the DRS do the job it is intended to do more effectively.

Inevitably rival teams have been looking closely at their own versions of the Mercedes system since it first became public knowledge during winter testing. Now that it has been declared legal – and China underlined its value – they will have to step up a gear to create their own.

As with other recent examples such as the double diffuser or the original F-Duct, teams have to not only find a way to get the system to work on their cars, they also have to manage finite R&D resources. They all have other development programmes underway that might have to be compromised. There is also a question of whether the loophole might be closed for the 2013 season.

McLaren's Martin Whitmarsh told *Motor Sport*: "You not only have to get the biggest bang for your buck, ie apply it where you get the biggest benefit in terms of lap time, you also have to apply it where you can have the most sustained benefit – where a good idea remains legal for a period of time."

Meanwhile until someone else gets a system on track, Mercedes will continue to reap the rewards the system provides on the W03.

■ FORMULA 1

Parr doesn't stay the course as Rose moves in

The ongoing management shuffle at Williams Grand Prix Holdings took an unexpected turn when Adam Parr resigned from his role as chairman – just days after Sir Frank Williams had reiterated in the media that he saw Parr as his natural successor.

The team has offered few details, although inevitably there has been speculation that a disagreement in negotiations with Bernie Ecclestone over the Concorde Agreement may have played a role. Parr was known to have a difficult relationship with the Formula 1 boss.

Former Diageo man Nick Rose has been appointed as non-executive chairman of WGPH, having previously been a director.

Meanwhile, as had already been planned as of April 1, Sir Frank has relinquished his place on the board, while retaining his overall role as team principal. His daughter Claire has taken up a seat on the board as director of marketing and communications, replacing previous incumbent Dominic Reilly.

SPORTS CARS

Chrysler to race new Viper

Chrysler is to take on Ferrari, Porsche and Chevrolet with the new-generation Dodge Viper in the American Le Mans Series.

The US manufacturer announced the race programme when it launched the road-going SRT Dodge Viper at the New York Auto Show in April. The GTE class racing version, to be known as the SRT Viper GTS-R, is already under development by Riley Technologies and is scheduled to race before the end of the season.

Development started at Riley, best known for its racing programmes with General Motors, in October. The first car has already run without its definitive Roush Industries-built V10 powerplant and was due to begin proper testing in May. No date has been set for the car's first race appearance.

Riley tech boss Bill Riley said of the first race: "It will be this year and it will be with two cars straight away."

Drivers already signed include long-time Riley driver Marc Goossens and Allan Simonsen.

Chrysler has yet to commit to taking the Viper to Le Mans. Johnson said: "That is one of our goals, but right now it is not our primary focus, which is to get the car competitive in the ALMS. The Le Mans decision hasn't been made, but it would make sense to go back."

Chrysler developed the original Viper coupe for racing for the 1996 season. The car went on to score a trio of class victories at Le Mans and notch up major titles in the FIA GT Championship and the ALMS.





SPORTS CARS

Testing crash punts Toyota out of debut

The race debut of the all-new Toyota TS030 Hybrid has been delayed until the Le Mans 24 Hours following a major accident in testing.

The petrol-electric LMP1 coupe had been due to race for the first time in the Spa 6 Hours on May 5, round two of the FIA World Endurance Championship, but the monocoque of the first TS030 was damaged in the crash at Paul Ricard in April, forcing the car's debut to be delayed because the second car was not due to come on stream until the Le Mans Test Day at the start of June.

Toyota Racing team president Yoshiaki Kinoshita said: "Since the accident we have looked into all options but unfortunately there is no alternative course of action open to us. Toyota Racing will now urgently prepare a new monocoque to allow it to resume testing as soon as possible and prepare itself for the Le Mans 24 Hours."

The accident happened when Nicolas Lapierre went off in wet conditions as a result of water contamination of the engine management system. Toyota stressed that the driver was not to blame.

Toyota was undertaking performance testing with the TS030 in its definitive 2012 aerodynamic configuration when Lapierre crashed. The Toyota Motorsport GmbH squad had been due to begin its second 30-hour endurance simulation the day after.

The accident is likely to have a major effect on Toyota's pre-Le Mans preparations. It had two tests planned for the end of April, at the EuroSpeedway Lausitz and MotorLand Aragon.

Toyota has revealed that it will run at Le Mans with kinetic energy recovery on the rear wheels. The rules allow hybrid systems at the front or the rear, and Toyota has experimented with both.

Two TS030s are on the entry list for Le Mans on June 16/17. It appears likely to run just one car, as was planned at Spa, in the other WEC rounds it contests this season.

To read more on the Le Mans hybrids see page 72



Nine-time motorbike world champion Valentino Rossi made his second international race start on four wheels at the opening round of the Blancpain Endurance Series at Monza in April. The Italian, who was sharing a Kessel-run Ferrari 458 Italia with friend Alessio Salucci, ended up 18th overall and ninth in the Pro-Am class.

■ SPORTS CARS

Honda NSX to ride again

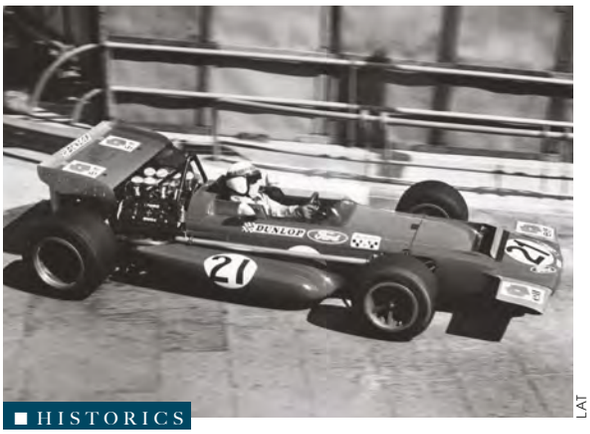
Honda is set to pitch the new-generation NSX against Chrysler in the GTE class.

Honda Performance Development, American Honda's competition arm, has revealed that it will be developing the new petrol-electric hybrid for racing. It is most likely that it will be developed for the GTE class, making it eligible for the Le Mans 24 Hours, the new FIA World Endurance Championship and the American Le Mans Series.

Outgoing HPD president Erik Berkman said: "The new NSX is being designed and built in America [at its facility in Ohio] and will be developed into a race car in the US by HPD.

"I think it will be raced in GTE, but that is being studied right now. We are looking to see how many variations of the car we can do for the various classes."

The new NSX, which was shown with a 3.5-litre V6 at the Detroit Auto Show earlier this year, is due to go on sale in 2014 and Berkman said he hoped that it would be racing some time the following year.



LAT

■ HISTORICS

Stewart March for Monaco

Over 250 of the world's most celebrated racing cars will take on the Monte Carlo street circuit during the 2012 Monaco Grand Prix Historique on May 11-13.

The cream of historic racers packs out the entry for the eight races: seven for single-seaters and one for pre-52 sports cars. Priority of entry goes to cars with a Monaco history and one of the most significant of all will be the ex-Stirling Moss Lotus 18. For the first time since Moss famously won at Monaco in 1961, the car will return to the Principality.

Three grids of rear-engined Formula 1 cars, split at 1966, '73 and '78, will put up to 50 Cosworth DFV-powered cars onto the circuit. In action will be the ex-Jackie Stewart March 701 (pictured), racing for the first time in 40 years in the hands of Andrew Smith, and prolific racer Roger Wills in his latest acquisition, a six-wheeled Tyrrell P34.

Monaco resident Frank Sytner will return to racing on the streets of his home town, a year after surviving a major heart attack while racing at Donington. Sytner will campaign his Grand Prix Lotus 24, and a 1978 March 783 in the Formula 3 race.

Other star names include Dieter Quester in a BMW 328 sports car and former F3 ace Eje Elgh, who will be back in a Chevron B38, while Richard Eyre will race the Ralt RT3 driven by Ayrton Senna on his F3 debut.

■ HISTORICS

Group C headlines Festival

The European debut of the unique Veskanda Group C car will be one of the features of the second Donington Historic Festival (May 5/6). The Chevrolet-powered car raced in the World Championship round at Sandown in 1988 and has now been restored for UK-based Aussie Paul Stubber to race in the Group C/GTP series this summer.

The grid for the hour-long Group C race on Sunday could include three Lancia LC2s for Rupert Clevely, Henrik Lindberg and Roger Wills, while Gareth Evans fields the Sauber Mercedes C11 of Bob Berridge.

Another highlight of the event will be Sir Stirling Moss back at the wheel of Jaguar C-type chassis 005 for some demonstration laps, 60 years after he took the car to a famous victory in the Reims Grand Prix for sports cars in June 1952. In the car entered by Tommy Wisdom and registered MDU 212, Moss scored the first victory for a car running with disc brakes.

■ HISTORICS

Silverstone to honour Gethin



LAT

Peter Gethin, who died last year, will be remembered at Silverstone in both May and July this year. At the Silverstone Classic (July 20-22), the new Formula 2/Formula 5000 races will run for the Peter Gethin Trophy.

Meanwhile, there will be a memorial celebration of his life and racing career at the BRDC Clubhouse at Silverstone on Friday May 18 from 3pm. Some of the cars Gethin raced will be on display and the circuit will be busy with testing prior to the HSCC's International Trophy meeting that weekend. Anyone planning to attend is asked to contact the HSCC office on 01327 858 400.

WIN A PACKAGE TRIP TO THE 2012 LE MANS CLASSIC

Win a trip of a lifetime to one of Europe's most popular classic motor sport events: the Le Mans Classic, from July 6-8. *Motor Sport* has teamed up with Speed Chills to offer one lucky reader a self-drive package for up to four people to the 2012 race, staying at the Speed Chills Bleu Sud Private Camping site, a mere 10-minute walk from the action.

SPEED CHILLS

The prize includes ferry crossing, camping at Speed Chills Bleu Sud Private Camping site, Speed Chills Club Membership and up to four general admission tickets for the races. Club Membership will give the winners access to the Speed Chills private bar, restaurant and entertainment. With this prize our winner will be at the heart of the action for the Le Mans Classic 2012.

To be in with a chance of winning the package please go to the competitions area under 'The Magazine' tab at

www.motorsportmagazine.com

The deadline for entries is midnight Thursday May 17, 2012. The winner will be contacted on Friday May 18, 2012 and the winner will need to have contacted Speed Chills by Tuesday May 22, 2012. If no contact is made by this date the prize will be null and void. Full terms and conditions can be found on the website.

MOTOR SPORT SINCE 1924
HALL OF FAME 2013

The build up to the 2013 *Motor Sport* magazine Hall of Fame begins here! Each year we host a star-studded night in which we honour the great names of our sport and invite a selection from the past and present to join our exclusive club of heroes. Between now and the 2013 event we will be asking some of the great names who are already members of the *Motor Sport* magazine Hall of Fame who they would choose to join them. We begin with Hall of Fame founding member and three-time World Champion Sir Jackie Stewart:



"Who would I choose? Mike Costin. He built the most successful Grand Prix engine in the history of the sport, the Cosworth DFV. He and Keith Duckworth did it together. He's a wonderful man, who carries the dignity of the sport to the highest levels. More credit has tended to go to Keith, but nevertheless he is one of the two men responsible for the engine."

Mike Costin began his working life as an apprentice at De Havilland before joining Colin Chapman and Lotus, where he met Keith Duckworth. The pair co-founded engine tuner Cosworth in 1958. In 1967, in collaboration with Lotus and Ford, the company introduced the Double Four-Valve V8 to Formula 1. It would go on to win 155 Grands Prix. Cosworth engines would also win the Le Mans 24 Hours and the Indianapolis 500.

For more on Costin, read Simon Taylor's 'Lunch with' interview in the February 2012 issue.

So who would you include in the Hall of Fame? Go to www.motorsportmagazine.com and tell us who we should make a member in 2013



LAT

HISTORICS

Prost to star at Goodwood

Alain Prost will take top billing when he makes his first appearance at the Goodwood Festival of Speed on June 28-July 1.

The four-time World Champion and more recently ice racing star, drove for Renault, McLaren, Ferrari and Williams in F1 and has been high on the Earl of March's wish-list for years, but until now been has unable to attend the Festival. Currently a Grand Prix commentator for French television, Prost also oversees the racing career of his son Nicolas as well as competing in the Andros Trophy ice racing series where he is a triple champion. He also contests cycle races – on the Etape du Tour event he finished 42nd out of 5000 riders.

Prost is an ambassador for TAG Heuer, and it is the Swiss watchmaker which has helped facilitate the long-overdue visit. He also represents Renault and will drive up the hillclimb in the RE30 he raced to his maiden F1 victory, the French GP, in 1981. It is thought it will be the first time he has driven an F1 car on British soil since testing for McLaren at Silverstone in 1995. It is also hoped he will drive a McLaren over the weekend, and Festival organisers are working to display as many of his racing cars as possible.

He will also drive his Dacia Lodgy ice racing car, marking the first time an Andros Trophy machine has appeared at Goodwood.

Over the Festival weekend the 51-time GP winner will be the subject of a spectacular exhibition of photographs covering his impressive career. Prost's appearance is expected to draw many fans keen to add a rare autograph to their albums.

HISTORICS

Top British rallies trim routes in costs drive

Both Tour Britannia and the Roger Albert Clark Rally will run with condensed routes in 2012, aimed at reducing costs for competitors while retaining the unique challenge of the two disparate events.

Tour Britannia, which starts in Harrogate on June 6, will run over two and a half days rather three in a bid to trim costs for competitors. Instead of running into Saturday, the route will now finish at Harrogate on Friday evening after races at Croft and Cadwell Park on Thursday and Friday.

Meanwhile, November's Roger Albert Clark Rally is set to feature a dramatically revised route, including finishing on Sunday evening instead of Monday afternoon, in order to contain costs.

"I'm asking our customers what they want," said rally manager Colin Heppenstall.

The proposed changes could trim £500 per crew from the cost of competing, but would still offer the same amount of competitive miles.



Coterie Press

Alan Mann
1936-2012

This team owner, who made a memorable impact on British saloon and sports car racing with his red and gold Fords throughout the 1960s, died in April aged 75.

After early outings in the 1950s driving an HWM, C-type and Elite, Mann concentrated on the Ford dealership he ran with saloon champion Roy Pierpoint, but it was when he decided that racing would boost the new Cortina that his era as a team owner began. After good results in British saloons with Jimmy Blumer driving, Mann entered two cars in a US race, where the results impressed John Holman of Holman Moody and led to an offer from Ford to run their cars in Europe. Mann set up Alan Mann Racing to enter Falcons in the 1964 Monte Carlo Rally, Bo Ljungfeldt posting fastest times on every stage, though handicapping placed him second. Soon Mann was running Mustangs and Lotus Cortinas, with Sir John Whitmore taking the 1965 European Touring Car title and Frank Gardner the '67 British saloon title in a Falcon, while also developing a lightweight GT40 and overseeing Carroll Shelby's European GT-title winning Daytona Cobra project.

Now involved in endurance racing, Mann commissioned the beautiful but flawed DFV-powered Ford P68 or F3L which through 1968-69 failed to deliver on high expectations. The compensation was further back-to-back BSCC titles in the same years as Ford's official entrant with the glorious wheel-waving red and gold Escorts piloted by Whitmore or Gardner – and not infrequently by Mann himself, who found a fresh spurt as a driver. Other figures to race the immaculately prepared Mann cars included Jackie Stewart, Graham Hill, Jacky Ickx and Bruce McLaren.

At the same time Mann was tasked to build three cars which would become far more famous than any Escort, though never credited to him at the time – they were for the film *Chitty Chitty Bang Bang*, and included a lightweight version for the 'flying' sequences.

When at the end of 1969 Ford announced it was radically scaling back its motor sport activities, Mann simply stepped sideways, selling his operation to Gardner and abandoning racing altogether. Instead he operated a trawler before buying Fairoaks airfield and starting a hugely successful helicopter leasing business.

After selling his business in 2008 he decided to restart his team to go historic racing, once again with red and gold Fords, driven by his son Henry and Jackie Oliver.

■ OBITUARIES

Bill Stone

Bill Stone, who has died after a long illness, was an accomplished racer but he will be best remembered as the first employee at March, Reynard and British American Racing.

Kiwi Stone raced in the Tasman series in 1968, before heading for the UK to race in Formula 3. After the money ran out, he joined March, then established Sabre Engineering, which would build Adrian Reynard's eponymous Formula Fords.

Stone ran his own Formula Renault team, running Jason Plato in 1990, and then became team manager at Andy Rouse Engineering. Reynard re-hired Stone to run his Chrysler touring car team in the US, and then moved him over to BAR for '99.

Ted Cutting

The designer of the 1959 Le Mans-winning Aston Martin DBR1 has died at the age of 85.

Cutting became chief designer at Aston's competitions department from 1955 and drew the DBR1 almost single-handed. It was his most successful design, winning eight major events, Le Mans included, in 1956-59.

He was also responsible for Aston's DBR4 and DBR5 grand prix cars and the DB4GT-based 'Project' sportscars of 1962-63 prior to his departure from the Newport Pagnell marque.



Ferdinand Porsche

Ferdinand Alexander 'Butzi' Porsche has died at the age of 76.

The eldest son of Ferry and grandson of company founder Ferdinand Porsche, he was born in 1935. Butzi, as he was known, joined the family business in '57, becoming head of the styling studio in '61. In his autobiography his father wrote the shape of the 911 "was entirely his [Butzi's] idea".

But it was another car, the Carrera GTS or 904 road racer that Butzi always cited as his favourite. Conceived at short notice, its sleek lines showed Butzi's talent for styling at its absolute best.

But any hope that the reins of the family firm might be handed down evaporated when Butzi left in '72 to found his own design company, Porsche Design, producing everything from wrist watches to sunglasses and pens. He retired in 2005 because of ill health, but remained an honorary member of its supervisory board until his death. He had left the board of Porsche itself in '93 when the arrival of Wendelin Weideking transferred the balance of power to the Piech side of the Porsche family.

His legacy is obvious. Though not an engineer like his father and grandfather, it is for creating the greatest, most enduring sports car in history that he will always be remembered. His idea of a compact, rear-engined coupe seems as fresh now as it did over half a century ago when he first started sketching the 911.

Long Beach Grand Prix



Will Power, above and left, was on form and now leads the IZOD IndyCar series, but Dario Franchitti (below, 10) had another poor day

California, USA

This year's 38th running of the Long Beach Grand Prix produced victories for Team Penske and **Will Power** in Sunday's IndyCar race and for Greg Pickett's HPD ARX-03a driven in Saturday's ALMS race by **Lucas Luhr** and **Klaus Graf**. Power took IndyCar's championship lead after beating **Simon Pagenaud** by less than a second, while Luhr and Graf dominated the ALMS race, winning easily from Rob Dyson's Lola-Mazda driven by **Chris Dyson** and **Guy Smith**.

This was round three of the IndyCar series, and the ALMS's second race of 2012. Power scored his second IndyCar win in a row following his victory in Alabama and took the lead of the IZOD IndyCar championship from Penske team-mate **Helio Castroneves**, winner of the season-opener in St Petersburg. Three races in and Team Penske was in dominant form as was the team's Ilmor-Chevrolet 2.2-litre twin-turbo engine which seems to have the legs on the Honda and Lotus/Judd competition.

At Long Beach the 11 Chevrolet-powered entries in the field were all compelled to change engines following a failure in testing the previous week and therefore accept a penalty of 10 places on the grid from wherever they qualified. That meant all the Chevrolet teams started outside the top 10, with pole winner Power starting 12th, yet they were able to come through to take six of the top seven places.

"This was a very sweet victory because I've been on pole here in '09, '10 and '11 and it frustrated me that every year something would happen and I couldn't win," Power said. "Starting 12th I felt it was impossible, but I pushed hard all the time, made no mistakes and had great strategy. A great team effort. Compliments to Chevrolet on a great engine."

Simon Pagenaud drove a fine race to finish second, leading 26 laps and closing fast on a fuel-conserving Power in the final laps to finish on his tail. Driving for Sam Schmidt's Honda-powered team Pagenaud has made a strong start to the season and was third in points after Long Beach.

Meanwhile, defending four-time IndyCar champion **Dario Franchitti** has not started the season well and had a terrible day at Long Beach. Starting from the pole he led the opening laps but his car looked terrible, struggling with understeer and generally poor handling. He fell deeply down the field as the race wore on, eventually finishing 15th, three laps down.





All images LAT



Lucas Luhr and Klaus Graf took a decisive ALMS victory in the Pickett HPD ARX-03a

Round two of the ALMS series followed its traditional Sebring season-opener in March. Without any serious factory teams the ALMS is struggling these days with its prototype field and depends on a still-thriving GT category for much of its interest. Only three LMP1 and four LMP2 cars run regularly in the ALMS this year and the field is made up of half a dozen LMPC cars, a dozen GT cars and another half-dozen GTC cars.

Fortunately, this season's GT field is very competitive, with factory-backed teams from Corvette, Porsche, BMW, Ferrari and Aston Martin. At Long Beach the GT class was won after a fierce battle by **Oliver Gavin** in his Corvette C6-ZR1 with **Joey Hand** taking second for Bobby Rahal's championship-defending BMW team. *Gordon Kirby*

FORTHCOMING EVENTS

APR 27-29	WRC Rally Argentina
APR 29	INDYCAR Sao Paulo Indy 300
MAY 5	WEC 6 Hours of Spa-Francorchamps
MAY 5/6	HISTORICS Grand Prix de Pau Historique, France
MAY 5/6	HISTORICS Donington Historic Festival
MAY 10-12	ALMS 6 Hours of Monterey
MAY 11-13	F1 Catalunya, Spain
MAY 11-13	HISTORICS Grand Prix de Monaco Historique, Monte Carlo
MAY 17-20	HISTORICS Mille Miglia, Italy
MAY 24-27	F1 Monte Carlo, Monaco
MAY 26	GT1 Navarra, Spain
MAY 27	INDYCAR Indianapolis 500
MAY 25-27	WRC Acropolis Rally

Nigel Roebuck



REFLECTIONS
– For Rosberg, China win could be the first of many
– Jean-Pierre Beltoise's only F1 victory, 40 years on

During his very first Grand Prix, at Bahrain in 2006, Nico Rosberg – then just 20 – set the fastest lap of the race, and did it, what's more, in a Williams-Cosworth. No disrespect to Frank's team, but this was long after its golden age had ended; no disrespect, either, to Cosworth's V8, but it was designed and built to a very different budget from those available to such as Mercedes and Ferrari. At Rosberg's second race, in Malaysia, he qualified third, one place up on Michael Schumacher's Ferrari.

A fair start to his Formula 1 career, you'd have to say, and evidence of abundant nascent talent, but in the press room over time Nico has been considered something of an enigma, some always rating him extremely highly, others less convinced – even when, after four seasons with largely uncompetitive Williams, he was invited for 2010 to join the newly constituted Mercedes team, and proceeded consummately to outpace the returning Schumacher.

His detractors shrugged this off, arguing that Michael was not the driver he had been, that it was only to be expected that Nico should be quicker. As well as that, while Mercedes struggled for a couple of years, another young German – S Vettel – was winning World Championships.

If some were unconvinced that Rosberg had the right stuff, though, others were not. Once the Mercedes GP team was being put together, for example, Ross Brawn was determined that Nico should be part of it, and in Shanghai driver and team put together the performance many long believed was on the cards. Rosberg utterly dominated in China, taking pole position – from team-mate Schumacher – by a clear half-second, and then winning the race by 20 seconds.

Rosberg took pole position from Schumacher in China and managed his tyres perfectly during the race



Had Jenson Button not been delayed by a botched pit stop, he might well have been able to pressure Rosberg into hurting his tyres in the closing laps; as it was, Nico was untroubled, his first victory coming from what a clearly emotional Brawn called, "A stunning drive".

That was beyond dispute. In this 'Pirelli' era, success or failure in a Grand Prix is dependent on how you manage your tyres, and at the first two races, in Australia and Malaysia, the Mercedes, having promised much in qualifying, fell away on Sunday, suffering from excessive tyre degradation. Even though Rosberg and Schumacher started one-two in China, many in the paddock expected them to fade in the race.

Most surprising of all was that, with the majority favouring a three-stop strategy, Mercedes went for only two – yet still had no problems. "We made changes to the car that helped the situation," said Brawn, "but still Nico had to manage his tyres, and he did it perfectly…"

The criticism invariably aimed at Rosberg over the years has been that he is somehow too… cerebral in his approach. In the face of disappointments, he remained resolutely unruffled and polite, and some felt he should show more emotion, more *frustration*, reveal more of himself – as his father invariably did.

It is nearly 10 years ago – December 2002 – since Nico, a mere 17, first drove an F1 car, this a Williams with 3-litre V10 BMW engine, at Barcelona. For 2003 he was planning to do F3, but to that point had been competing in Formula BMW, so it was some leap from 140 horsepower to around 900, but in 38 laps he set a time seven-tenths away from Schumacher's lap record, set in that year's Spanish Grand Prix.

Nelson Piquet Jr was also invited to test for Williams at the same time, and it was hardly surprising that both fathers should have been present: hardly surprising, »»

LAT

Nigel Roebuck

either – knowing them – that they behaved very differently. A Williams man told me at the time that while Keke kept well away from the pit, preferring to sit unobtrusively in the grandstand, Nelson Sr insisted on being present at all times, constantly demanding this, that and the other for his kid: they all decided fairly swiftly, I was told, whose approach they preferred.

In 2005, when Nico was appointed test driver for Williams, and later confirmed as a team driver for '06, I asked Patrick Head about that first test. "Well, of course," he said, "both Keke and Nelson had driven for Williams, so I knew both of them of old. It's certainly true that Nelson was rather more… overt than Keke when their sons did the test with us, demanding an extra run for his kid, another new set of tyres, that sort of thing…

"My impression at the time was that both were talented – but I rather felt that Nelson Jr needed to go through a few more hard knocks before he'd actually make it in F1, whereas Nico already had a discipline. Nelson Jr gave the impression that the path to F1 was going to be on steps already laid out for him; Nico wasn't like that, and of course that registered with us.

"Some time before that, I remember Keke once asking me for some advice. He said that although Nico was karting at that time, he was actually more interested in becoming an engineer, and wanted to come and study engineering at a university in England. I said, 'Well, I can't actually get him a place, but if I can give him any help, I will'. I think he went some way towards studying aerodynamics at Imperial College, and was offered a place there, but then, because his racing career progressed the way it did, he didn't take it up. Keke's always very self-deprecating, as you know. He says that all Nico's strengths – his intelligence, his calmness – come from his mother! I don't think that's quite the case, although maybe the calmness…"

Before joining the race team, Nico took what amounted to a Williams 'exam', this being a test paper – a team-developed questionnaire – aimed at determining whether or not a driver has a good understanding of his car and tyres. "It had the odd trick question in it," Head grinned, "and also questions to tell you whether or not he's able to take in a certain amount of information – and to make good judgements from that information. Various drivers have done the questionnaire over the years, and there's a very big spread of results. Nico got an exceptionally high score."







At his first test both Rosberg and his father (below left) impressed; the Piquets (left) did not

When Nick Heidfeld left Williams to join BMW, at the end of 2005, Nico got the job as Mark Webber's team-mate.

"We had," said Head, "been very impressed with Nico's speed in the car, his consistency, his intelligence, and his remarkable calmness and judgement – and all this at 20! Mind you, it wasn't that he was inexperienced in terms of racing – by the time of his first F1 race he'd already started in more than 500 races…"

On the face of it, the Rosbergs, *père et fils*, are very different in temperament, but Head says that the better he got to know Nico, the more of Keke he could see in him. "He was very young when he joined Williams, but he quickly gained confidence in himself, and related well to other people – he's certainly thoughtful and analytical. As you know, Keke could be quite… demonstrative and excitable, although that shouldn't really be criticised – Juan Pablo [Montoya] was the same – because that's part of the attraction of that sort of driver, the fact that they could drive an entire race as if it were a qualifying lap. I think that same sort of emotional level may be there in Nico, but perhaps he's got it more under control than his old man!"

All the way through Keke has continued to play very much a background role in his son's career, to give advice when asked, always to support him, but absolutely not to be 'the racing father from hell'.

"I always tried at all costs to avoid that," he says, "but sometimes it's not easy. I remember when Nico had his first F3 test, someone asked me how it went, and I said, 'Well, I have to be very careful now, so that I don't sound like every other father on this planet – but how do I describe it *without* sounding like that? I mean, it was *brilliant*!' Then I said to the guy, 'Did I sound like every other father?' He said, 'Very close...'

"All those years ago, before he had the first Williams test, he went to the factory for the seat fitting, and I'm sure they were disappointed I didn't go with him, but I just didn't want to be sort of sitting on top of him, like some racing fathers do. I just said to him, 'Enjoy your day. I was 32 when I was allowed in that factory for the first time – you're 17...' I knew it would be a very big day for him, meeting people like Frank and Patrick.

"It was the same with his first test at Barcelona. Nico wasn't going there to impress anyone, to set amazing times – the main thing was that it was a fantastic opportunity to smell the air in F1, to see what it was all about. If he could impress people with his approach, being such a young lad, well, so much the better, but that wasn't the main object of the exercise. If one day he was invited to do a serious F1 test, he would have some experience of what it was all about.

"I wouldn't have missed it for anything, but I wasn't going to get in his way. Not that he'd have let me, anyway – when he did his first F3 test he banned me from the garage! I said to him, 'You're absolutely right – that's exactly what I said to my dad when I had my first Grand Prix…'"

> "They are close, the Rosbergs, but not in a cloying sense"

Grand Prix racing's newest winner was born the day after the 1985 Detroit Grand Prix, which his father won, and I remember it well, for I was on the same flight as Keke back to London – indeed, he was sitting near me in 'steerage'. With all your money, I asked him once, why do you fly economy? "Listen," he said, "what do I need on an aeroplane? I need to be able to sleep, which I do most of the time, and when I'm awake I need to be able to smoke – I can do both wherever I'm sitting, so why the hell pay a fortune for it?" Always a straight answer from Keijo.

"Whenever I hear drivers today complaining about their hectic schedules," he said, "I always remember that time. I won the race, flew overnight back from Detroit, and went straight to Silverstone – or was it Brands? – to test."

On the flight there was a brief stopover in Montréal, and there Rosberg was somehow able to disembark, and to make his way to a freight hangar, where he persuaded them to allow him to make a call to Wiesbaden to see if there was any news of the birth. No, he said when he got back on board, nothing yet.

"Next morning I got off the 'plane, and went testing until lunchtime – some people seemed to think that was strange, but to me it was completely normal. I wasn't one of those dads who needed to be in the delivery room, thank you – to be honest, I'd rather have been testing! I got a call that morning to say that Nico had been born, and then I flew to Germany to say hello to my son…"

They are close, the Rosbergs, but not in a cloying sense. Keke is proud of his son, but when he goes to a Grand Prix he is happy to hang out in the Mercedes motorhome, leaving Nico to get on with his job.

"It's going to be interesting," Ross Brawn observed in Shanghai, "to watch Nico develop, now he's won his race…" It is indeed. For some time I have felt that Rosberg was perhaps akin to Mika Häkkinen or Jenson Button, in the sense that the first victory might be a long time coming, but that, once won, it would be the first of many.

Certainly Nico has been around long enough to understand the slings and arrows of F1, and – admitted or not – it must have been frustrating, these last two or three years, to watch another young German rack up the wins and championships, to be hailed as the Second Messiah. Suddenly being without the best car appears to be something of a shock to Vettel; six years in, Rosberg has yet to experience it.

Behind Nico in China were the McLarens of Button and Lewis Hamilton, and it's interesting now to reflect on that fact that Rosberg himself could have been a McLaren driver for some years, had Williams agreed to release him in »»



Rosberg's long-awaited first F1 win could be the first of many

LAT

Nigel Roebuck

return for Mercedes engines and a considerable quantity of cash. It was frustrating for Nico that the offer was declined, of course – but it says much for the team's opinion of its driver, does it not? Messrs Brawn and Haug evidently feel the same way now.

Last month, in writing about Gilles Villeneuve, I railed against the statisticians in our sport – those whose opinions are shaped, more than anything else, by numbers. Through the history of motor racing, it seems to me, there has been many a defeat more glorious than many a victory, but for some such things – emotion, legend – count for little, and these people tend, too, to consider the almighty World Championship as the only matter of real consequence.

Villeneuve never won one, and for some that automatically downgrades him, but, as I suggested, surely any list which omits Stirling Moss – while including many others of consummately less gift – can hardly be considered an absolute arbiter of anything.

There is also the question of race victories, and while these have always had for me a greater resonance than championships, there is in many ways little point in considering statistics from different epochs. For one thing, in today's world of virtually bullet-proof reliability – FIA-imposed rev limits, long-life engines and gearboxes and the like – mechanical failures, such as Pastor Maldonado's blown Renault V8 in Sepang, raise eyebrows, but that's a relatively recent phenomenon in Formula 1: drivers from times past had to reckon on a 50/50 chance of making the finish, and often it wasn't as high as that.

Then there is the sheer quantity of Grands Prix in this era. Time was when there were umpteen non-championship F1 races on the calendar – sometimes six or seven a year in England alone – but only a small number of what used to be known as *Grandes Epreuves*, events counting towards the World Championship. In 1950 there were just seven, increasing by 1958 to ten, and although – in the Ecclestone era – the non-championship races swiftly evaporated, and the number of Grands Prix ballooned, in the late '90s Bernie told me he would 'never, *ever*, put on more than 16…' These days – give or take Bahrain – we have 20, and there are those who would like yet more.

Whatever, it's clear that we cannot truly compare the records of drivers from different times. According to the bloodless record book, after all, Fangio won 24 Grands Prix, one more than Piquet. About even, right? Not really. Juan Manuel's victories came from 51 starts, Nelson's from exactly four times that number, 204.

One of Fangio's great gifts was contriving invariably to be in the right car at the right time. In the 'Formula 2' era of the World Championship, 1952-53, he struggled a bit with his Maserati against the might of Ascari and Ferrari, but otherwise he always had the tools to do the job, and it goes without saying that he made the most of them, driving with matchless pace and panache when he had to – as at the Nürburgring in 1957 – but more usually holding to his dictum of 'winning the race at the slowest possible speed'. It wasn't only by chance that over time his cars let him down less frequently than those of his rivals.

When I interviewed Fangio in 1979 we chatted for a while about the drivers of the day, and his eyes lit up when we got on to Villeneuve. He was concerned, he said, that Gilles might be 'too brave', in the manner of his one-time Maserati team-mate Jean Behra, but he thought his natural ability on another level from the rest. "I just hope he lives…" he said.

From his 67 Grand Prix starts, Villeneuve won six times, and while that wouldn't raise a blip in the F1 of today, it puts him in company with such as Jochen Rindt, John Surtees and Tony Brooks, all members of the deity as far as I'm concerned.

It is all too easy to be seduced by numbers. By virtue of the fact, for example,



that he won 91 Grands Prix – 40 more than Prost, 50 more than Senna – and seven World Championships – two more even than Fangio – Michael Schumacher is genuinely reckoned by some to be the greatest driver who ever lived.

I think it unlikely that a set of circumstances such as Schumacher had going for so many years – Ferrari, Todt, Brawn, Byrne, bespoke Bridgestones, unlimited testing, bottomless budget, slave team-mate – will ever come the way of an F1 driver again. No one could reasonably dispute that Michael invariably made the best of what he had (nor, for that matter, that he was responsible for creating much of it), but – Vettel last season notwithstanding – it would astonish me ever again to see victories stacked on trays the way they were for five years, from 2000 on. Even before leaving home for the next Grand Prix, one knew who would win it.



In terms of absolute domination, that period in Ferrari's history eclipsed even the Ascari era, for it went on so much longer, and many have been the drivers down the years – Brooks, Surtees, Villeneuve *et al* – who must have wished the team had been that way when they were there. Iron man he may be, but perhaps even Alonso looks occasionally at old posters in Maranello, and thinks wistful thoughts.

Arguably the man most entitled to feel that way is Chris Amon, who was pitched at the age of 23 into the Ferrari team leadership after the death of Lorenzo Bandini at Monaco in 1967. For three seasons Chris was a front runner, setting pole positions, leading races, so often having the car fail under him when victory looked assured.

Glorious as it may have sounded, Ferrari's V12 was no match for a Cosworth DFV, and as well as that, however hard it may be to believe now, money – in that pre-Fiat era – was in short supply at Maranello, and the F1 budget was dwarfed by those of the major British teams. "It's a fact," said technical director Mauro Forghieri, "that we never gave Chris a car worthy of him. For me, he was as good as Jim Clark…"

> "Beltoise won because he simply drove faster than anyone else"

A nice tribute, but it didn't help. Just as Moss is eternally regarded as 'the greatest driver never to win the World Championship', so the world remembers Amon as 'the greatest driver never to win a Grand Prix'. Such is the way of it, and both long ago learned to live with the tags – Stirling, indeed, rather relishes it now: "At least it's different, isn't it?! I mean, if I'd won the championship once… some pretty ordinary drivers won it once, didn't they?"

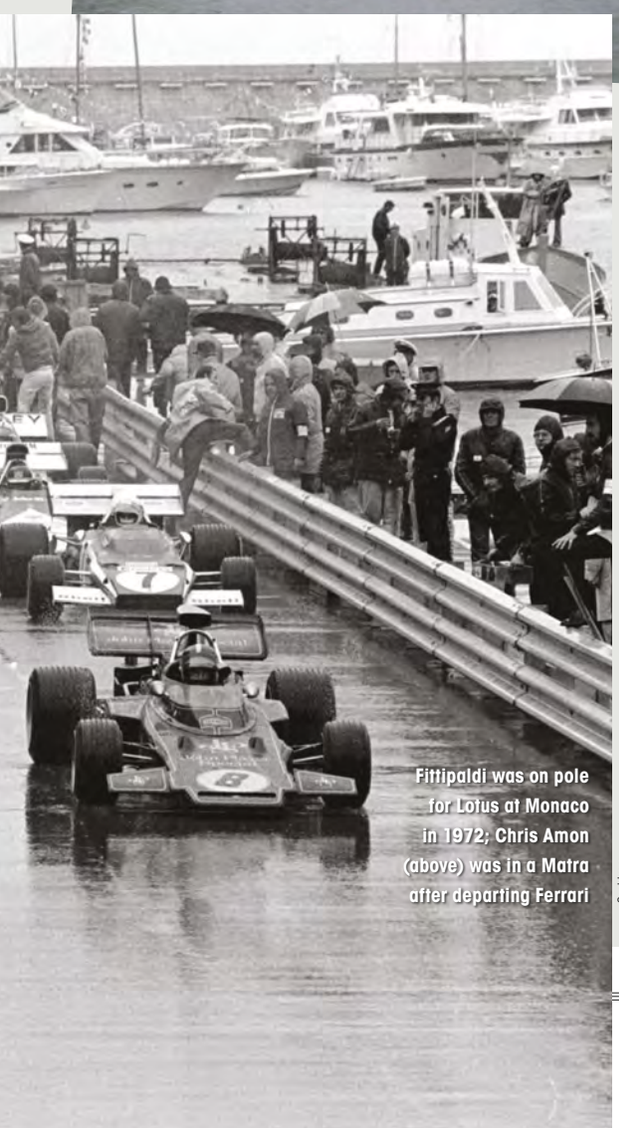
The same goes for some who won a single Grand Prix. Plainly there were those – Ireland, Alesi, Trulli – who should have had more against their names, and others – Cevert, Pace, Nilsson – who doubtless would have had, but on occasion a good journeyman, be it by good fortune or momentary inspiration, has taken the flag first, as when Richie Ginther won in Mexico in 1965, Peter Gethin at Monza in '71, Sandro Nannini at Suzuka in '89, or Olivier Panis at Monaco in 1996.

For me it is not inappropriate that Panis's sole victory came where it did, for I always thought of him in much the same way I thought of Jean-Pierre Beltoise, whose only win also came in Monte Carlo. While Olivier happily allowed that his triumph owed much to luck, however, Beltoise won his Grand Prix because that day he simply drove faster than anyone else. Forty years ago this month.

Thinking back, it was an odd race, the 1972 Monaco Grand Prix, and not only because it produced a most unexpected winner. The weather, for a start, was foul, not at all what one expects; the pits were nowhere near the start/finish area; and only days before the race there looked to be a possibility that it would be called off…

Since the beginning of time the number of starters permitted at the Monaco Grand Prix, given the tight confines of the track, had been 16, but in 1971 this was increased to 18, and for '72 the organisers put it up to 20.

Not enough, according to FOCA, the newly formed association of teams masterminded by B C Ecclestone, then the owner of the Brabham team, and a man beginning to exert some muscle in the paddock. Bernie had long before learned that a dog won't howl if you beat him with a bone, and that philosophy translated itself readily



Fittipaldi was on pole for Lotus at Monaco in 1972; Chris Amon (above) was in a Matra after departing Ferrari

Sutton

Nigel Roebuck

into the language of Formula 1. After years of acting individually, of being taken for a financial ride by Grand Prix organisers, the team owners had now embarked on an adventure which would bring them – most of them, anyway – wealth beyond imagining. They found they liked it.

"God forgive me for saying it," Frank Williams said to me once, "but FOCA was essentially a union…" For a bunch of resolute independents, this notion didn't sit well in itself, but whatever you chose to call it, there was no denying it worked.

What FOCA required was not 20 starters, but 25, and the organisers indicated that this would be acceptable – until, that is, the teams had actually arrived in town, and installed themselves in the paddock, whereupon they declared that, no, the grid would remain at 20.

Before the days of Mr E, probably there would have been a grumbling acceptance of the situation, but now the world of F1 was changing, even if the Monegasque officials had failed to spot it. Not until it was agreed that 25 cars would start, FOCA said, would their cars take to the track.

Everyone knew you didn't treat Grand Prix organisers – let alone the *Monaco* Grand Prix organisers – like that, and the response from the Automobile Club was typically calm and measured: the police were sent in to impound all the F1 cars, that year housed in an underground car park. It was no surprise that the mechanics took this development ill: angry scenes ensued.

For a time it looked like deadlock, but fortunately the French delegate of the CSI (then the sporting arm of the FIA), was able to prevail upon the Monegasques to honour their original undertaking – to permit 25 starters, after all. By now we were into Thursday, and much of the opening practice session – on what was a revised circuit – had been lost.





Ickx (above) was quick on the Saturday, but Beltoise's BRM prevailed on Sunday

Sutton

Although major alterations to the track, including a loop around the swimming pool area, were still a year away, there were some changes in 1972 – and for that year only, as it turned out. These were introduced because there had long been concerns about a possible accident in the pits, which were situated at trackside – completely unprotected – in the start/finish area.

In response to the teams' request, the organisers agreed to a resiting of the pits, but a month before the race – *quelle surprise* – said it wouldn't be possible. Fine, said the teams: it doesn't matter, anyway – because we're not coming. And lo, it became possible to move the pits, after all. The blazers, though, were distinctly unsettled by these exhibitions of insubordination: one way and another, the atmosphere was frosty that year.

The pits, it transpired, had been repositioned on the harbourside, on what had previously been part of the circuit – the stretch between the exit of the chicane and the left-handed Tabac. The revised track now went straight on down what had been the chicane escape road, then through another chicane much further down, immediately before Tabac. Rejoining from the pits was mighty hazardous, for you emerged into the middle of this new chicane: Vic Elford, fortunately, was selected as the man to decide if it were safe for you to do so.

Back in the day the times from every practice session were 'official', and counted for the grid. Back in the day, too, there was a session in Monte Carlo early on Friday morning. Very early – in fact, I remember in 1969, before I was working in F1, going straight to it after a long and sociable evening in Nice. As John Wyer once said of Mike Hailwood, "Amazingly, he was at the track before we were – one wasn't sure if he was up very early or up very late…"

This pre-breakfast session in 1972 was to settle the grid, for it alone was run in the dry. Fittipaldi's Lotus 72 set the best time, and therefore took pole position, followed by the Ferraris of Ickx and Regazzoni, the BRMs of Beltoise and Gethin, and the Matra of Amon.

Chris was feeling decidedly below par that weekend, still on antibiotics after minor surgery, and not at his best, »»

Nigel Roebuck

either, was Stewart, only eighth fastest in his Tyrrell. As one who traditionally excelled at Monaco, Jackie admitted that he felt short of energy, and simply wasn't on his game. A few days later he was found to have a bleeding duodenal ulcer, which obliged him to miss the next GP, at Nivelles.

There was heavy rain on the Saturday and no one could touch Ickx, who marked himself down as race favourite for Sunday's forecast was for more of the same. From Beltoise, four seconds slower, there was little indication of what was to come.

The weather on race day was dreadful – worse even than in the red-flagged Grand Prix of 1984, for as well as lashing rain all day there was also a raw wind blowing hard in from the sea. In today's world starting a race in such conditions would be out of the question.

So as to allow the Royal Family time to take a leisurely Sunday lunch, traditionally the Grand Prix did not get underway until 3.30, and this time there was a piece of impromptu comedy which might have had decidedly unfunny consequences. Given the appalling conditions, it was decided to allow the drivers an additional 'acclimatisation' session. A sensible plan, and it would have been better yet if someone had thought to inform the palace, for when the Rainiers arrived for their lap of honour, their car took to the circuit at Portiers and found itself jostling for position with… a gaggle of F1 cars. Accident was mercifully averted; embarrassment was not.

The start was also theatrical, for as the drivers arrived from the dummy grid (on the harbourfront, where the pits now were) to the grid proper (in its traditional location), they were shown a '10 second' board – whereupon the flag was immediately dropped, and the race was on.

None of your 'safety car' starts in 1972, of course: it was a flat-out blast to Ste Devote, and while Beltoise and Regazzoni may have been on the second row, they made a better job of it than front row starters Fittipaldi and Ickx. As they splashed their way up the hill to Casino Square Beltoise, hell-bent on leading – and thus being the only man who could see – was where he wished to be.

We thought it only a matter of time before others, notably Ickx, reeled in the BRM, but J-PB was on a mission. Three laps in he had pulled out five seconds on Regazzoni, who temporarily held up Fittipaldi and Ickx before taking to the escape road at the chicane on lap five. Emerson, who could see little but Clay's red rear light, followed him in there…

Now Ickx was in an uncluttered second place, and all expected to see the Ferrari swiftly close on Beltoise. As it was, though, the gap barely changed, and most astonishing of all was that as and when they went through lapped traffic – which was often – the BRM actually increased its advantage. Jean-Pierre, not normally the most assertive of drivers, was this day unassailable. It was as if he had concluded that this would probably be his one shot at winning a Grand Prix, and no one was going to take it from him.

> "It was barely credible that there were only six accidents"

I confess, though, that as I stood there near the old Gasworks Hairpin, frozen to the bone, struggling to keep some kind of soggy lap chart, still I favoured Ickx eventually to overhaul Beltoise. It was going to be a very long afternoon, that much was clear, for there was no question of halting the race early – which Jacky, as Race Director, would himself do a dozen years later – and nor was there yet the 'two hour' rule, when a race is declared over. The Monaco Grand Prix was scheduled for 80 laps, and 80 laps it would be.

When they were finally up – after two hours and 27 minutes – 18 of the 25 starters were still mobile, which was remarkable. Indeed, given the unforgiving nature of the circuit and the daunting weather, it was barely credible that there were only six accidents, one of which involved Regazzoni on lap 52.

After stepping from his damaged Ferrari, Clay thought to make his way back to the pits, and took it ill when some gendarmes sought to prevent him from doing so: after taking a swing at one of them he was instantly arrested!

One thought of Peter Ustinov's *Grand Prix of Gibraltar*, wherein the same fate befell World Champion Jose Julio Fandango, after going down an escape road and inadvertently crossing the Spanish frontier. "Of course," the commentator noted, "he didn't have his passport with him – they like to travel as light as possible…"

So completely did Beltoise hold sway that Ickx, 38 seconds behind at the flag, was the only driver not lapped by the BRM, which averaged just 63.85mph in the atrocious conditions. Fittipaldi made it through in third place, followed by the subdued Stewart (two laps behind), the McLaren of perennially underrated Brian Redman (subbing for Peter Revson, who was at Indianapolis), and Amon, sixth in spite of coming in four times – no planned pitstops in those days, remember – to have a misting visor cleaned.

Undoubtedly the treacherous track surface worked in Beltoise's favour that day, for an accident at Reims in 1963 had left him with a permanently weakened left arm, and in a dry race he would often tire towards the end. Power steering was unknown in F1 in those days, although Matra, Jean-Pierre's previous team, had already experimented unsuccessfully with a system in an attempt to alleviate his problem.

At Monaco, though, with far less grip available, and correspondingly less steering effort required, Beltoise had no such problems. There were those who murmured that he had been fortunate to have behind him a V12, with smoother power delivery than a Cosworth V8, but that argument can be swept aside by the fact that Ickx – perhaps as good in the wet as the sport has known – also had a 'twelve' to work with, and could make no impression on Beltoise.

It was dank and frigid in Monaco that day, and it was also Jean-Pierre's day in the sun. Neither he nor BRM were to win another Grand Prix.

• *Don't miss our podcasts with Nigel and the team – plus special guests – on www.motorsportmagazine.com*

Rob Widdows

DISPATCHES



Jim Houlgrave

ESTORIL'S F1 REPRISE

FORMULA 1 RETURNS TO ESTORIL! HOW ABOUT THAT FOR A headline? As with all good headlines, it is the smaller print that tells the real story. And this is a story that will interest anyone who loves historic racing, and who likes to sunbathe on the beach at the end of a long season.

Contemporary F1 cars have not raced at Autódromo do Estoril since the demise of the Portuguese Grand Prix in 1996. Jacques Villeneuve won that September day, leading home Damon Hill in a Williams one-two, with Michael Schumacher in third. The race will be remembered for Villeneuve's audacious move on Schumacher round the outside of the long, curling right-hander that leads onto the main straight, the first and last time anyone would see such a daring manoeuvre in what is now called the Senna corner.

You will recall that Senna won his first Grand Prix at Estoril in 1985, dancing and sliding his Lotus-Renault through torrential rain to take a victory that further pumped up his burgeoning reputation as the fastest man in Formula 1. Raining in southern Portugal? Do not worry, the Grand Prix was held that year not in its usual September slot, but in April, whereas the Estoril Historic Festival will be staged in October when the weather is decidedly warmer.

Historic racing is growing in popularity in Spain and Portugal, and the first to sign up for this new event is the FIA Historic Formula One Championship, which last travelled to Estoril four years ago. The series caters for F1 cars of 1966-85, which means there's little crossover with the Estoril Grand Prix years of 1984-96. But just so you know, guys, the lap record is held by David Coulthard in a Williams at 1min 22.446sec, set in 1994. This time was set after a hairpin was added at Turn Nine but before the re-profiling of the aforementioned Senna corner. So we should not get too excited.

Bobby Verdon-Roe will be out in his ex-Niki Lauda McLaren MP4/1B, a car that has not raced at Estoril before, and the former British Touring Car racer always spices up a historic F1 encounter. He's happy the HFO has chosen to end its season at the Estoril Historic Festival in preference to the Portimão meeting, which is scheduled for October 18-21. Originally, it appeared the Estoril races would take place on the same weekend, an irritating and senseless clash. But there are now moves afoot for Estoril to run a week later, on October 27/28.

"The two events on the same weekend would be far from ideal," Bobby agrees, "but I can't wait to drive the McLaren at Estoril. We already have Monaco and Silverstone (supporting the British GP), and now Estoril to look forward to as well."

It's been an unseasonably stormy winter on the Portuguese racing scene, with rumour and counter-rumour surrounding the future of the Portimão circuit. Allegations of financial problems, disaffected staff, and doubts about its ability to survive have all done the rounds. But survive it has, and Motor Racing Legends will be supporting a newly named Algarve Classic Festival there, as will Carol Spagg, who runs the 1000km 1964-71 sports car series and the U2TC tin-tops. Circuit Director Paulo Pinheiro says this is a firm fixture and will be an annual event in future.

Meanwhile, the ever-enthusiastic Portuguese racing promoter Francisco Santos, a stalwart of the historic racing scene, has moved his allegiance along the coast to Cascais and is lining up support races for the headline F1 cars at Estoril. Local fans will be drawn to races for 'Iberian Gentleman Drivers', there's a feature race for pre-92 Minis and also a classic rally slalom, reviving memories of the Rally of Portugal.

"The move to Estoril is very positive," Santos told me. "This is a great circuit and it will be exciting to see F1 cars there again. Also, it is a beautiful part of Portugal, with wonderful beaches and just 20 minutes from Lisbon. Everybody will have a great time."

Undoubtedly, they will. Estoril is a fantastic circuit in a beautiful part of the world. It's good to see it back on the calendar.

ON TWO WHEELS



Mortons

DIFFERENT STROKES

THIS YEAR MOTOGP HAS SOME NEW TECHNICAL RULES written to encourage smaller engineering outfits to create cheaper machines. The idea of these CRT bikes (for Claiming Rule Team) is to help free MotoGP from the stranglehold of the major manufacturers. Cosworth already has engineers looking into the possibility of creating a CRT engine.

If the renowned British firm does get back into bikes, let's hope it's learned from its previous adventures on two wheels about the perils of attempting to translate car technology to motorcycles.

Forty years ago Cosworth had a rather grim episode with Norton. The already struggling British marque was desperate for a new engine to replace its ageing Commando twin that had its origins way back in the 1940s. Norton owner Dennis Poore – a WWII RAF pilot and sometime racing driver who drove an ex-Nuvolari Alfa Romeo – thought he had found the answer in Cosworth's hugely successful DFV Formula 1 engine.

This was the plan: take two cylinders from the 3-litre V8 to create a 115-horsepower 750cc parallel twin that would give the booming Japanese industry what for. Easy, in theory at least. The four-valve top end might have been a winner but the rest of the engine was not. Norton christened its Cosworth 750 the Challenge, and it was certainly that. Despite personal input from DFV designer Keith Duckworth the engine turned out to be too big and too heavy and was beset with all manner of problems.

The project began in 1971 but it was autumn 1975 before the Challenge made its race debut, at the season-ending Brands Hatch international. Dave Croxford – who had campaigned the Commando-powered John Player Norton with some success – had a horrible time on the lardy contraption (above).

"It was just a bloody nightmare, one and a half seconds slower than the old bike," recalls Crox, a loquacious Londoner and one of bike racing's greatest characters. "It was rideable out of the box and quick in a straight line, but then you got to the corners… When you shut it off, the thing would lock the back wheel. It nearly had me off a couple of times, so when we went testing at Snetterton I went out in the wet and said to the guys, look, I'll go past the start/finish, come up to the first corner and I'll roll it off and you'll see what happens. So I roll it off, it locks the back wheel and I go down the road. Told you!"

Norton went bust in November 1975, the Challenge struggling into the following season funded by little more than contributions from patriotic enthusiasts. But after three more disastrous outings at Imola, Brands and the Isle of Man TT, the venture was over.

Twenty six years later Cosworth was back in bikes, at the dawn of the four-stroke MotoGP era. This time the firm's expertise had been sought by Italian factory Aprilia, best known for its successful Grand Prix two-strokes. Aprilia wanted Cosworth to create a three-cylinder 990cc engine – to set it apart from the Japanese fours – packed with F1 technology. And that is exactly what it got.

Aprilia's RS3 Cube was the first MotoGP engine to feature pneumatic valves, ride-by-wire throttle, dry-sump lubrication and a tiny F1-style carbon clutch. Like the Challenge, the Cube was fast in a straight line – at the 2002 Italian GP it became the first MotoGP bike to crack 200mph – but was otherwise hard to handle. Good part-throttle performance is vital in bike racing and this is what the somewhat brutal engine lacked. Texan Colin Edwards, who raced the Cube in 2003, gave this graphic description of what it was like to ride. "You take a bull, you cut off its balls, dangle them in front of its face, then you climb on its back…"

During its three seasons in MotoGP the Aprilia never even got close to the podium. A new bike was tested in 2004 but, as with Norton before, Aprilia was struggling financially and when the company was bought by the vast Piaggio concern the MotoGP project was shut down.

THE US SCENE



LAT

REVOLUTION AT LE MANS

A HIGHLIGHT OF THIS YEAR'S LE MANS 24 HOURS WILL BE the competition debut of the Nissan-powered Delta Wing that will start the race from a special 56th grid position for experimental or technically innovative cars.

Without driver or fuel the Delta Wing weighs 475kg and has an extreme rearwards bias with 72 per cent of the weight on the back wheels. The car has a very narrow front track with two four-inch-wide Michelin front tyres housed within the needle nose. Nor does the Delta Wing wear any wings, since all the downforce is generated through the underbody and controlled by a Gurney flap and an aircraft-like vertical tail fin.

Conceived two years ago by former Lola Indy and sports car designer Ben Bowlby, the Delta Wing was greeted with ridicule and doubt by many race fans. But from its first test laps in California in March the car has looked good and it will be intriguing to see how it performs at Le Mans, where it will be driven by Marino Franchitti and Michael Krumm and run by Duncan Dayton's Highcroft team in partnership with Ray Mallock's RML Group.

At its first test Bowlby was delighted to see the car turn perfectly without any understeer and also display excellent straightline stability. "It was actually better than we thought," Bowlby says. "The tyre temperature balance, the brake bias and temperature balance, the traction, the braking and straightline stability, the high-speed grip – in all those areas it did what we thought it was going to do. From a dynamic standpoint we haven't come across one element that isn't what we expected. In fact, it's even better."

The Delta Wing, powered by a turbocharged 1.6-litre direct injection four-cylinder Nissan engine making 300bhp at 7500rpm, is designed to produce competitive lap times using half the power and half the fuel of a conventional car.

The Delta Wing prototype was built at All American Racers in California. "I've had faith in the concept since the beginning when I had a very thorough conversation with Ben," says AAR boss Dan Gurney. "As we've watched it evolve we only gained more faith and it's been a big thrill to be involved in and be able to add a little of our All American Racers DNA into it."

Assuming the concept is proven at Le Mans, Don Panoz hopes to begin building cars at Elan Motorsports Technology in Braselton, Georgia. ALMS boss Scott Atherton hopes the prototype will run in some ALMS races later this year, with Panoz production cars racing regularly in the ALMS in the coming years. Panoz stresses that the goal at Le Mans is not to win the race but to prove the functionality of the Delta Wing concept.

"After we've done that," Panoz says, "we have to decide whether that's interesting new technology and goodbye, or we're going to find a way to integrate it into racing. That's the dream and the objective that we're working on."

Scott Atherton echoes Panoz's hopes of introducing the Delta Wing to the ALMS. "If its competition debut at Le Mans is deemed a success," Atherton says, "we would love to have the car committed as fast as possible to the ALMS. We would welcome it with open arms. Initially, our intention would be to allow the car to compete unclassified so as to not upset the current status quo.

"At a minimum for 2012 we expect the car to be at Petit Le Mans," he adds. "I want to nail down as many ALMS dates as we can – more than just Petit Le Mans at the end of the season."

Don Panoz believes the lessons of the Delta Wing will enjoy wide application. "It goes beyond racing," he says. "There's a lot of stuff with this car that can be applied to road cars. There's improved efficiency, aerodynamics and construction techniques. There are a lot of things this car can showcase which can be used across the automotive industry."

Depending on how it performs at Le Mans the Delta Wing may prove to be motor racing's story of the year.

Desirables









Modern gear…

Clockwise from top left:

LOTUS F1 Team rain jacket, £110
www.lotusoriginals.com

RED BULL RACING Teamline functional T-shirt, €54.95
www.redbullshop.com

MARUSSIA Sweater, £59.99
www.marussiaf1teamshop.com

AUDI Le Mans baseball cap, £23
merchandise.audi.co.uk

FORCE INDIA Polo shirt, £POA
www.formula1.com

FERRARI Polo shirt £71
www.store.ferrari.com

McLAREN Sweatshirt, £69.95
www.mclarenshop.com







Desirables







…Retro gear

Clockwise from top left:

PORSCHE Martini ladies' jacket, £175, and Martini racing cap, £20
shop1.porsche.com/uk

CHAPAL Le Mans 1950s overalls, £399.99
www.grandprixlegends.com

RETRO FORMULA 1 Cosworth DFV T-shirt, £26.95
www.retroformula1.com

LOTUS HERITAGE Racing leather jacket in chestnut, £897
www.lotusoriginals.com

SUIXTIL Modena pants, from £65.83
www.demon-tweeks.co.uk





Letters

Gilles: the greatest...

Sir,

I thoroughly enjoyed the May issue and the marking of the tragic day in 1982 when we lost Gilles. While Nigel Roebuck's feelings for Gilles are well documented, I was fascinated to read the opinions of the many greats who raced alongside Gilles and who worked with him. It was notable that the great drivers such as Mario Andretti, Niki Lauda and Alan Jones were gracious and reverent whereas such as Derek Warwick and John Watson chose to denigrate a man whose talent and success they could only aspire to.

Possibly Mr Watson should be a little circumspect when criticising the "hyper-active child". After all, his win at Silverstone in 1981 would never have happened had Gilles not taken himself and Jones out of the race early on. I also remember the same Mr Watson failing to overtake Gilles in a palpably superior car at Jarama that same year.

Derek Warwick's comments were also disappointing, although possibly more understandable considering the family tragedy he has experienced. To suggest that Gilles wanted to die in a racing car is to wholly misrepresent the facts. Gilles did not want to die at all. He had a thirst for life that was unquenchable. He expected to die in a racing car because he was a highly intelligent man who understood the risks he was taking. Those same risks made him who he was.

To suggest that Gilles was not a great because he did not win multiple world championships is palpably absurd. Is Stirling Moss not a great of the sport? In today's world we have had to make a rule to prevent people weaving down the straights to avoid being overtaken. Gilles didn't seem to need that rule to prevent him putting other drivers at risk. In some ways Derek Warwick is right – I wouldn't compare Gilles to the greats such as Senna, Prost and Schumacher: he was much better than that!

Martin Barclay, Cumbernauld, Glasgow

...or just human?

Sir,

A most interesting review of the truly extraordinary Gilles Villeneuve; coming from a race school background myself what he had to say about the influence of aerodynamics on the sport was precisely my own belief at that time. It unquestionably dumbed it down. A price worth paying? It certainly allowed more drivers to take corners faster than their natural ability could cope with; it also obliged circuit owners to create increased run off areas that led to improved driver-safety margins. In turn, though, spectators had to be pushed back from the action, so beginning the erosion of the spectacle Gilles was so keen to provide. Land, of course, unlike the sky, is a finite resource… Aerodynamics is perhaps a mixed blessing to a ground-based sport.

I was equally intrigued by the differing drivers' opinions of the 1979 French GP at Dijon. I was there that day. A few of our former pupils were too, amongst them René Arnoux, battling away as everyone knows! At the time I wondered what the reaction would have been had a Renault cartwheeled into the spectators on one side and a Ferrari on the other. The reason it did not happen was either luck or that these two guys were that good they simply avoided interlocking wheels... But it looked crazy to me! However, I remember Andretti's take after the race when he was asked about it. "Just a couple of young bucks testing each other!" But I still believe John Watson's comments were spot on.

Mike Knight, Ascot, Berks

Rear mirror view

Sir,

A few years ago at Goodwood I found myself at lunch in the same sponsor's box as Alan Jones; being rather above his fighting weight, he apparently hadn't squeezed into his FW07 for the advertised run up the hill, and was grumpy and still in his overalls as he sat down.

I am sure no one in the box knew who he was, as I sat opposite him, and – courtesy always works – asked if he minded talking about the old days. "What else is there to talk about?", he replied.

Over a two-hour lunch, during which we both became increasingly relaxed, we chatted through his career. What stood out was Alan's utter respect for Gilles – perhaps that of the honest journeyman for the true artisan – and his recollection of the 1979 Canadian GP. His story was that Gilles jumped him at the start, and after a few laps the Ferrari's tyres were going off, so he took him into the hairpin. I can remember the next few sentences as if it was yesterday: "I turned the rear-view mirrors down and then put in six or seven fastest laps. When I turned the mirrors up again that crazy little lunatic was still sat there". Alan won by exactly one second. "I'd been following him, mate, for 10 laps. I knew how shit that car was."

Simon Arbuthnot, London SE3

Principled player

Sir,

Just received my April copy of *Motor Sport* and was delighted and surprised to read about Mike Thackwell. It's been years since I had heard or read anything about him. I do remember the white 'T' on the red helmet as well as his ability to drive very well just about anything he laid his hands on.

How refreshing to learn he is a man of principle. It's quite rare to find someone like him in the world we live in today. Almost anything or anyone is for sale given the right opportunity and the right amount of money.

Great to hear that he is doing well in his present endeavours.

Joe Machado, Miami, Florida

Thackwell's guardian

Sir,

I read the article on Mike Thackwell with great interest, and it brought back fond memories of the trip I made with Mike from Montréal to Watkins Glen. Mike, myself, Bob Skene and Harry Mendel travelled from the Canadian Grand Prix to Watkins Glen by car, as did our other Tyrrell team members that year. This was a trip undertaken many times – leisurely, stunning scenery and a chance to recharge our batteries after the eventful race that year. Unfortunately it was not that straightforward on this occasion. Ken had checked with Mike that he had the necessary visa for the States, which he confirmed he had. When we arrived at the Niagara Falls US border we discovered he had a Transit Visa. They wouldn't let him in! We were directed to the nearest US Embassy to obtain the correct one. Although he had already become the youngest Grand Prix driver at 19, he could not have the visa without someone over 21 signing his application as a guardian – me. This meant I became his temporary

LETTERS TO THE EDITOR

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or e-mail: editorial@motorsportmagazine.co.uk
(Please include your full name and postal area)

Letters

guardian and responsible for him for the duration of the GP weekend at Watkins Glen. There was more to being a race mechanic than just working on race cars in those days!

Mike was a joy to work with; none of the pretentious manners and attitude of some of today's modern-day drivers. He says in the article that "things I saw in F1, and the people, they were not for me". Let's hope some of the F1 people were!

Steve Leyshon, Dubai UAE

Alan Mann

Sir,

I have just read about Alan Mann's death, and I would ask you to pass on my condolences to his family and friends. I never had a great association with him – our only race together was, I think, the Liège marathon at the Nürburgring in 1966. (The car broke when leading after 76 hours; not his fault, it was the engine which came from Lotus.)

We worked together a couple of times on Ford rally recce and test programs and I always had a great respect and liking for him. The last time I saw him was at the Goodwood Festival of Speed a few years ago when, although I had not seen him, he came running after me to say hello.

Vic Elford, Florida, USA

Enough is never enough

Sir,

I was fascinated by Simon Taylor's visit to the proposed race circuit in Derbyshire, but when I drive it I find the long straight, the A515, very boring, especially at today's speed limits. There was, however, a proposal in 1955 to increase the length of this circuit to a total of 14 miles by adding a loop to the west of the main road using the B5054 down Hand Dale before turning up Long Dale and eventually coming back to the A515 at Endmore, thus cutting out the long straight.

Maybe worth another visit and article?

Rob Lyall, Ettington, Warks

Hillclimb history

Sir,

I have just received the May issue of *Motor Sport*. Good as ever, and the iPad facility is a really excellent innovation.

Could I correct a couple of errors in your Race Retro report? Peter Lawson (not Lawton) won the British Hill Climb Championship only once, in 1968. Tony Marsh had won it for the sixth time in 1967. Lawson used the 4WD BRM P67 with 2.1-litre V8 which had briefly and unsuccessfully raced in F1 as a factory car. Lawson won 11 rounds out of 13, a dominating performance with six records for good measure.

He sold the car in 1969 to John Cussins who did not get on well with it and had a huge crash at Prescott. The next year Cussins exchanged the remains with Roy Lane, taking Roy's TechCraft Buick in its place. Roy subsequently installed the engine and transmission system into a new TechCraft chassis to create the TechCraft BRM. Another example of Roy's engineering skill, which, combined with his remarkable driving ability, was to bring him four championships in subsequent years.

John Moody, Bredicot, Worcestershire

Eyeing up the iPad

Sir,

Just wanted to thank *Motor Sport* for making the magazine available on the iPad. As I've gotten older my eyesight is not what it used to be, but with the iPad's ability to resize the page reading *Motor Sport* is once again a monthly joy.

John Hastings, New York, USA

Tracking Rudi

Sir,

For a number of years I had been needing an excuse to stop at Remagen on the Rhine and see what history remained of a favourite son of theirs, Rudi Caracciola.

Located on the Rhine in a picture-postcard spot, Remegan has recently begun a celebration of the Caracciola family's ties to the town.

Otto, Rudi's father, was a very successful businessman in the town having introduced steam boats to the area to transport the wine farther and quicker, making himself very wealthy, and then turning his attention to the hotel business which was also a great success. Obviously this made for a very comfortable upbringing for Rudi, and his family home is still there and can be seen from the street. It is easy to find as at the top of the street is a large wall mural to Rudi and Otto.

Just down from his home the town has erected a statue to him celebrating what would have been his 100th birthday, and walking along the riverside you arrive at Caracciola Platz which is in front of what remains of the family hotel, now a large pizza restaurant.

Strolling into the centre of town we enquired at the tourist office to see what, if anything, we had missed. A young lady explained that there was a room in the local cinema dedicated to him but it was closed at this time of year (March), at which point a gentleman next door strolled in and suggested a phone call to see if the key holder was free, if we could wait five minutes.

Luckily our friend arranged for us to have access and as we strolled with him to the cinema he explained a little more about Caracciola's relationship with Remagen. Yes, he grew up here but he was not a frequent visitor once he became his own man; a fight with a Belgian military officer over a lady resulted in him leaving the area for his well-being, and from then on he was very much an ex-pat! The room at the cinema had some mementos and reminders of Rudi's racing history, but was very much in the second person rather than actual possessions, etc, but it was a charming stop and the conversation with the key holder very entertaining and informative.

Sadly I have to report there are no pre-war Mercedes or any such thing hiding away undiscovered, and for most UK visitors the famous bridge of WWII fame is the primary draw, but if you are in the neighbourhood take an hour and stroll. If the sun is shining, you may wonder why Rudi did not visit more often!

The perfect motor sport fan's day out is easily found. Start at Kerpen for the Schumachers' kart centre and museum, on to Horrem to visit the 'Villa Von Trips' which has a large number of lovely mementos and history to the racing Count Wolfgang, and after Remagen pop back into Bad Neuenahr for a meal at the Restaurant Cafe Le Mans which is a homage to Gulf Porsche and the McQueen movie. A great day in a great part of the world – but obviously then come back to Spa!

Neil Leigh, Spa, Belgium

KEEP IN TOUCH

The new-look *Motor Sport* website is *the* place to discuss motor racing past, present and future. Don't miss the opportunity to comment on blogs, video and audio podcasts, and read Nigel Roebuck's newsletter and the editor's monthly letter. To get involved in the discussion simply log on to **www.motorsportmagazine.com** and tell our writers exactly what you think!

Also, don't forget that if you have any images which would be suitable for our You Were There feature in the magazine, please send them to the office (address on p44).

The Story of '62

Hill vs Clark:
British Racing Gold

50 years ago a new order broke through to challenge Formula 1's established stars. Jim Clark and Graham Hill, with an innovative Lotus and a BRM finally delivering on its promise, took centre stage

BY DOUG NYE





LAT

Alan Brinton was a good old-school journalist. He was 1950s Fleet Street personified. He addressed everyone as "old boy" or "my dear", could actually touch-type but, cast adrift by the closure of *The News Chronicle* national newspaper, he had become a leading motoring writer, edited *Motor Racing* magazine and was a radio broadcaster. Fifty years ago, late in 1962, he sat down with that year's two British Formula 1 World Championship protagonists, Jim Clark and Graham Hill. Wreathed in tobacco smoke from his ever-present pipe, he would have clicked the 'record' button on his briefcase-sized Uher portable tape machine, and began their discussion by asking Jim Clark about his revolutionary monocoque-chassis Lotus 25…

Jim Clark: "Colin Chapman is always one for trying new ideas, and he argued that with monocoque construction he could give a more rigid structure for less weight and more compact size. I know that it had been thought about quite a bit towards the end of last season [1961].

"There was something brewing around last year's Earl's Court Motor Show, but Colin wouldn't tell me then what it was, as I hadn't actually signed up for 1962. All he did say was that he had something radically different that he wanted to try.

"It wasn't until I got back from the South African races that I became fairly well aware of what was going on. We then had the Lotus 24 in hand, but as yet no V8 Coventry Climax for it. But when I returned from South Africa the initial work started on the 25, with the plumbing and fittings being laid out.

"At that time it was intended having a steering column gearchange. I couldn't get the pendulum pedals working to my liking, and there were a lot of conferences about that. Colin eventually managed to find enough room for a conventional gearchange, but in fact the whole job took longer than was originally intended, and it was May before the car was ready. When the Lotus 25 was taken to Zandvoort for the first Championship race I had done absolutely no testing at all…

"Frankly, I was very doubtful about using the new car. I wanted to run the 24 which was going very well, and the original idea was that Trevor [Taylor] would drive the 25 in the race. In the end it was decided that I should have a bash with the 25 in the race. Not surprisingly, we ran into trouble, but I suppose it taught us a thing or two.

"One of the problems with the 25 at first was the very reclined driving position, which made visibility difficult, particularly on sharp corners. We made some slight modifications later, and of course I gradually got used to it."

Graham Hill: "We'd expected to have our BRM V8 engine for 1961, but it didn't turn out that way. The car was hanging around for a long time, waiting for bits for the engine. I was all in favour of putting a Climax 1.5-litre 'four' in the V8 chassis for 1961 – it might have



Hill's BRM (right) was bulkier than the Lotus, but Clark (below) had to get used to the 25's reclined driving position



Cahier LAT

INSIGHT

A JAM-PACKED SEASON…

OWEN RACING ORGANISATION BRM VERSUS TEAM LOTUS

For the two drivers who battled out the 1962 Formula 1 World Championship to its nail-biting last-round conclusion, the year had started very differently. While Jimmy Clark was dominating a South African Formula 1 tour in baking sunshine, Graham Hill and his equally roustabout friend Peter Jopp were slithering down to Monaco over ice and snow in the Monte Carlo Rally, placing tenth in a works Sunbeam Rapier. Here we follow the jam-packed '62 season, race-by-race, Team Lotus versus BRM, Clark versus Hill…

JANUARY 2: CAPE GRAND PRIX, KILLARNEY, SOUTH AFRICA

Fourth and final round of the 1961-62 Springbok Formula 1 series. Team Lotus drivers Jim Clark and Trevor Taylor dominate with 1½-litre 4-cylinder Lotus 21s, Jimmy winning the first three races. Trevor wins the finale by 0.6sec from his delayed team leader.



LAT

APRIL 1: BRUSSELS GRAND PRIX, HEYSEL, BELGIUM

Clark starts from pole in Team Lotus's brand-new Climax V8-powered Type 24 tube-frame car but it breaks a tappet on its first race lap. Graham Hill wins Heat One comfortably after Moss overshoots the first corner. But, owing to a push-start for Heat Two, Graham is disqualified. 'Wild Willy' Mairesse wins in his works 'Sharknose' Ferrari.

Back home on the following



LAT

taught us something, and helped with development on the handling side.

"The V8 eventually turned up at Monza [1961]. What few people realised was the terrific effort which was made at Bourne to get them [out there at all]. We didn't use the V8s in the race, but… we put in some more useful testing after the race.

"I certainly realised that I would have a better chance in 1962 than in the previous four years. But I had no idea at all that it would turn out as it has. At that time I hadn't seen either Porsche or Ferrari – remember Porsche were coming out with their eight-cylinder, and Ferrari were promising their four-valve-per-cylinder job… I just thought we would be there with something of a chance, but frankly I didn't think we'd done enough development during the winter. I felt, consequently, that we should have been further ahead than we were.

"At Goodwood on Easter Monday I had complained that my car did not seem to be as quick as the Lola or the Lotus. The BRM weighs nearly 1100lbs without fuel, but with oil and water. It has a slightly bigger frontal area than the Lotus, and is bigger all round."

Jimmy told Graham: "I thought that your BRM – and Richie's [Ginther's] too – really had a lot more steam at Monza." Graham: "And I was pretty certain that you had more than I did at Watkins Glen. I certainly thought your Lotus was quicker in a straight line there…"

Jimmy: "That's interesting, because I felt that at Watkins Glen my car was getting out of the corners a trifle quicker than yours, but by the end of the straight you were beginning to catch me again."

When asked how Graham's BRM had left Jimmy's Lotus 25 for dead right from the start of the French GP at Rouen, Jimmy explained: "First of all, I didn't really feel up to driving very brilliantly that day after the mishap I had during the first practice session, when the steering went wrong. Secondly, I ended up with a brand-new car which hadn't been bedded in. It hadn't got the right ratios and I hadn't run the car with a full tank before the race. In addition I had to slip the clutch from time to time; a lot of oil had been dropped. The 25 is not a good car on oil, and my short-lived lead went for a burton…"

Graham agreed that the French race had been quite dramatic: "After I had my tangle with Jack Lewis's Cooper, and got going again, I thought I could catch you again. Then, when you went out, it seemed that all I had to do was to keep going. Of course, I didn't; the fuel injection linkage packed up and I had to retire. It was a very disappointing day for us both."

Graham added: "I reckon Surtees's Lola at Reims was the quickest we have seen this year." Jimmy agreed: "Yes, he was going like a bomb that day. When he decided to go he just »»

Tuesday morning, in a Rubery Owen boardroom meeting at Darlaston in the industrial Midlands, Peter Berthon is replaced by Tony Rudd as BRM Chief Engineer. As Tony leaves the room, Sir Alfred Owen declares absolute confidence in him, plus a 50 per cent pay rise. Tony drives home digesting the revelation that virtually all of BRM's £90,000 1962 budget has already been spent or committed. He will run the team on its start, prize and bonus money…

APRIL 14: LOMBANK TROPHY, SNETTERTON

Hill qualifies second-fastest to Clark's


LAT

Lotus 24 V8, Moss third in the UDT-Laystall/Walker 18/21 V8 car. Graham leads for five laps before Moss comes past, then Clark follows. Moss stops to clear sticking throttles, and Graham's engine loses a spark plug but he finishes second as Jimmy scores the Lotus 24 V8's first victory.

APRIL 23: INTERNATIONAL '100', GOODWOOD

BRM choose Goodwood, Team Lotus that same day's Pau GP. Richie Ginther, fit to race after pre-season testing burns, makes his BRM P578 debut.

Graham passes Bruce McLaren's Cooper-Climax V8 to score his first outright F1 race win. Moss – again delayed by sticking throttles in the hybrid V8 Lotus 18/21 – crashes while unlapping himself from Graham, ending his frontline career.


GP Library

dashed away from all of us. And that is a difficult thing to do on a circuit like Reims, because you get a tow effect even when you are a long way behind."

In terms of assessing one another's performance, the Belgian GP which gave Jimmy his maiden World Championship win at Spa proved inconclusive.

Jimmy: "Graham's BRM had an intermittent misfire. My car went probably as well as it has ever done. I was particularly pleased with this, because a spare engine had been popped in overnight, and the car was untried." He admitted to a personal fright there: "Going down the Masta Straight I found that the rush of air was getting under the peak of my helmet and threatening to force it up. I decided that the only thing to do was to throw the peak away, so I caught hold of the strap at the back and gave it a yank. I'd got hold of the wrong strap though, and pulled my goggles off by mistake! Fortunately, I had another pair round my neck, and managed to get them in place. Then I tugged at the peak, and eventually, after a lot of effort, it ripped off. I suppose it has something to do with the airflow round the cockpit of the Lotus 25, but since then I haven't worn a peak on my helmet."

Asked about rev ranges used in BRM and Climax V8 engines, Graham replied: "I don't like to see the BRM rev counter drop below 8000... At the beginning of the year we were using up to 10,000rpm, and later on this was stepped up to 10,500 – though I have occasionally used higher. Later in the season the useful rev range was somewhat widened, but I still didn't like to see the needle fall below 9000. It doesn't matter so much in second gear, though, when I don't worry if it is around 8000rpm."

Jimmy confided he was frightened by Graham's talk of so many revs: "With the Coventry Climax V8 we started off with an 8500rpm maximum. Eventually we used 9000rpm, but never over that... 9200rpm has either blown up the engine or appeared about to. In the higher gears the Climax has something quite useful from 7000 to 7500rpm, but I find it can be used as low down as 6000..."

Both Hill and Clark believed that if a car was any good it would be good on any circuit. Jimmy: "Most would have said that the Lotus 25 was not the ideal car for Monaco, and yet it went there like a bomb, until it retired".

Graham had never been to the East London circuit where the championship-deciding South



Hill took the first of his 14 World Championship wins at Zandvoort. Clark (opposite page) led throughout the British GP at Aintree

APRIL 23: PAU GRAND PRIX, FRANCE

Jimmy qualifies on pole from Ricardo Rodriguez's works 'Sharknose' Ferrari. Jimmy leads until his 24's gearchange linkage fails. Maurice Trintignant in Walker's Lotus 18/21 4-cylinder wins from Rodriguez's Ferrari.

APRIL 28: AINTREE '200', LIVERPOOL

Jimmy's pole Lotus 24 is led initially by Ginther and Graham before he passes both BRMs and draws away at 0.5sec per lap. Richie repasses Graham before engine bearing failure, and Graham retires from second place when an oil pipe breaks. It is the Clark Lotus 24's second race win.

MAY 12: BRDC INTERNATIONAL TROPHY, SILVERSTONE

Graham qualifies on pole 0.2sec quicker than Clark, but Jimmy simply flies into a 7sec lead after only five race laps. Both BRMs make poor starts. Ginther writes off his new BRM at Club Corner. On lap 20 Vaccarella's Lotus 18/21 baulks Hill's second-placed BRM at Woodcote, Graham losing 7sec. He rips back, 28sec behind Clark on lap 29 yet by lap 35 the gap is 20sec. By



Sutton

lap 42 Graham is gaining two seconds per lap. In the rain he tears 4sec per lap from Jimmy's lead, finally careering round him on the outside at Woodcote to win by inches in one of F1's most sensational finishes ever.

MAY 20: DUTCH GRAND PRIX, ZANDVOORT

This World Championship overture features Clark leading in the startling new monocoque Lotus 25 but it fails at 11 laps. Graham outpaces the field to the finish. Trevor Taylor drives superbly to finish second in the works Lotus 24.

JUNE 3: MONACO GRAND PRIX, MONTE CARLO

Hill dominates, McLaren's Cooper runs second to lap 26 when displaced by Clark's Lotus 25. A great Hill/Clark duel ensues until clutch trouble slows the Lotus, its engine then failing at 56 laps.

African GP was due, and was concerned its two hairpins might favour Jimmy's Lotus more than his BRM. Asked if he might feel advantaged by having raced – and won – there before, Jimmy grinned: "To my mind a Grand Prix driver should be able to learn a circuit in the time allowed for practice, and I know that Graham will. Of course I'd be perfectly happy to show him the way round in the race itself…"

Reviewing the season thus far, Graham admitted: "The Dutch Grand Prix" – at which he took his first World Championship win – "…was terribly important, but I don't think it was my best race. For my money the best dice with you, Jim, was the Monaco GP, even though I retired later".

Jimmy agreed: "…because that was a race I really enjoyed too. Everything seemed to be coming to a climax when I was pressing Graham, and I was wondering how to get by; indeed I was debating whether in fact it would be possible because unfortunately I had lost fourth gear. I would certainly have liked my race to have gone on at least five more laps, just to see whether I could have got into the lead."

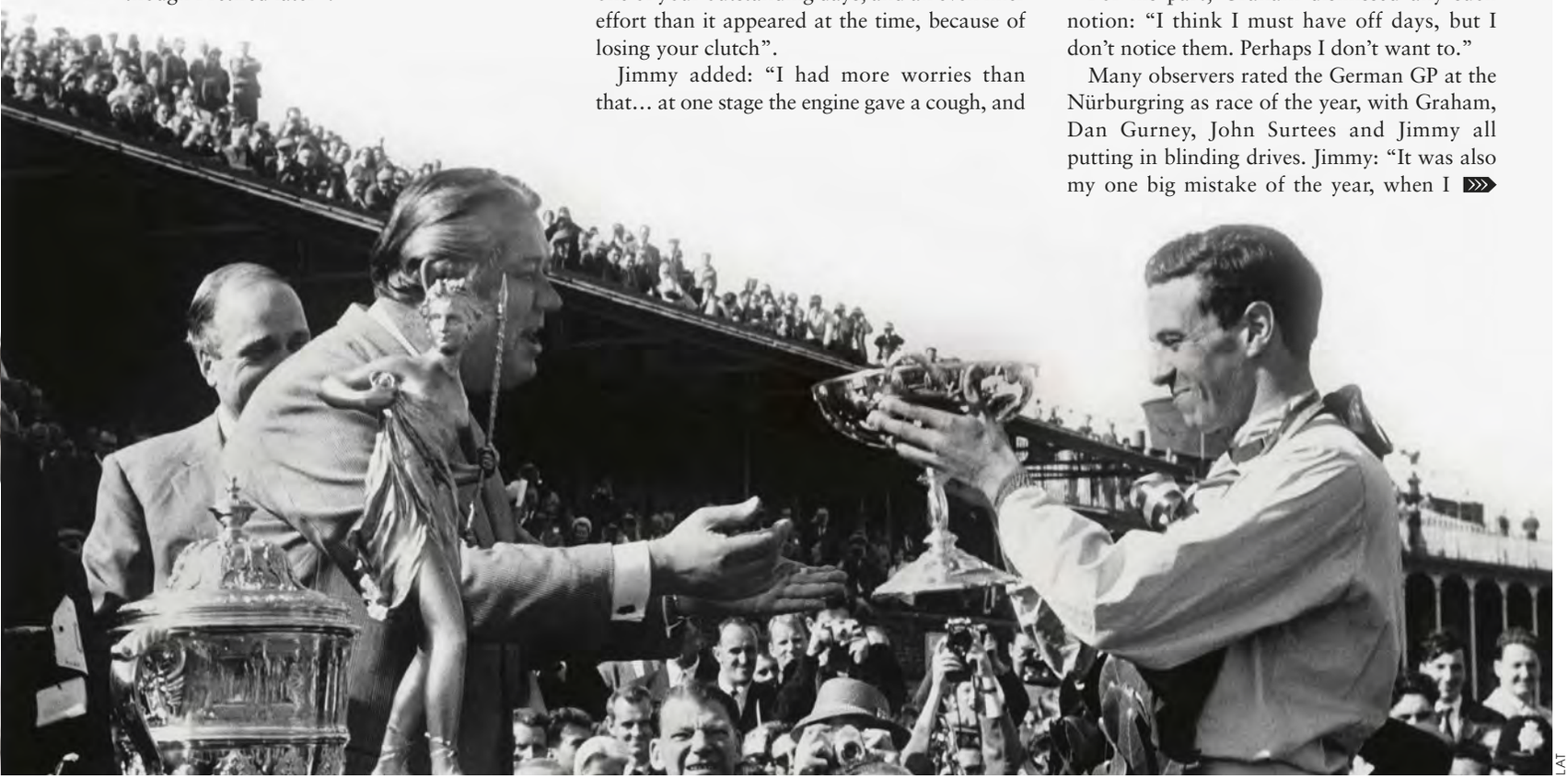
Graham remarked that they had seldom raced in close contact except at Watkins Glen: "…where I thought I was a bit outclassed. You drew out a lead and sat on it. No matter what I did I couldn't get within striking distance." He added graciously, and accurately: "That was one of your outstanding days, and an even finer effort than it appeared at the time, because of losing your clutch".

Jimmy added: "I had more worries than that… at one stage the engine gave a cough, and I thought the gearbox was going. I heard a noise from one of the carburettor intakes, and that set me thinking that perhaps a valve had gone. I thrashed on, but though I couldn't get the rev counter above 8000 it didn't seem to make any difference to my lap times. Then, towards the end, the synchromesh started tightening up. I was very relieved when the end came."

On the thorny topic of having had any off days, Jimmy instantly confessed: "Rouen – but this had a special reason – the fright I had in practice. In fact I think I could have got with it if only I had got going at the start".

For his part, Graham dismissed any such notion: "I think I must have off days, but I don't notice them. Perhaps I don't want to."

Many observers rated the German GP at the Nürburgring as race of the year, with Graham, Dan Gurney, John Surtees and Jimmy all putting in blinding drives. Jimmy: "It was also my one big mistake of the year, when I »»



LAT

Hill holds a big lead until the engine runs dry of oil and seizes on the 93rd lap – leaving Bruce to win for Cooper. Ginther crashes hybrid P57 V8 heavily in a first-corner multiple collision.



LAT

JUNE 11: INTERNATIONAL 2000 GUINEAS, MALLORY PARK

While BRM ignores this Whit-Monday race, Clark delays investigating low oil pressure in the Lotus 25 before retiring to preserve the V8 engine. Graham drives Rob Walker's 4-cylinder Lotus-Climax 18/21 to finish third while John Surtees scores the Bowmaker Lola-Climax V8's maiden F1 win.

JUNE 11: CRYSTAL PALACE TROPHY, LONDON

Team Lotus splits this day to run Trevor Taylor 's Type 24 here, only to retire '949' with clutch trouble.



LAT

JUNE 17: BELGIAN GRAND PRIX, SPA-FRANCORCHAMPS

Clark notches up his maiden World Championship Grand Prix win and the first for a monocoque-chassis F1 car. Trevor Taylor survives a huge collision with Mairesse's Ferrari. Graham starts on pole but can only finish second. Ginther's Colotti gearbox fails in replacement '578' car for his Silverstone wreck.

JULY 1: GRAND PRIX DE REIMS, FRANCE

Clark qualifies on pole, Hill second and Surtees's Lola third. Jimmy's Lotus 25 soon splits its header tank. Surtees builds a commanding lead before valve and ignition trouble, leaving Graham battling Bruce McLaren's Cooper and Jack Brabham's Lotus-Climax 24 for the lead. McLaren breaks away, Graham settling for second. »



"I didn't feel up to driving brilliantly that day after the mishap I had in the first practice session"

JIM CLARK

The Story of '62

Rouen, 1962: Clark (left), off-song after a steering failure fright in practice, is about to lose the lead to Hill (centre), with McLaren's V8 Cooper alongside

JULY 8: FRENCH GRAND PRIX, ROUEN-LES-ESSARTS

Jim qualifies on pole but a steering failure scares him badly pre-race. Graham is second quickest then takes an immediate race lead, dropping Clark by half a second per lap. On lap 34 Graham laps Jack Lewis's Cooper for the second time, and as the Welshman slipstreams him into the braking area he rams the BRM's tail which spins Graham round, costing him 35 seconds. He then gains 2-3secs per lap on Jimmy's leading Lotus 25 until the Lotus's front suspension breaks. Graham leads until his engine jams on idle. Ginther finishes third while Dan Gurney wins in his Porsche 804. Trevor Taylor, unsighted, crashes into Trintignant's Walker Lotus 24 after the finish, writing off Lotus 25 'R1'.



LAT

JULY 15: SOLITUDE GRAND PRIX, STUTTGART, GERMANY

Team Lotus confronted by Porsche in BRM's absence. Jimmy starts on pole from the works Porsche 804s of Gurney and Bonnier, with Trevor fourth-fastest. Dan leads throughout, while Jimmy spins and crushes 'R2's exhaust pipes. Trevor finishes third behind Bonnier.

JULY 21: BRITISH GRAND PRIX, AINTREE

Jimmy turns this sun-soaked race into a procession, leading throughout. Graham makes steady progress but settles for fourth place because of tyre wear concerns.



LAT

AUGUST 5: GERMAN GRAND PRIX, NÜRBURGRING

Brilliant Hill in fine-handling '5781' wins on a treacherously wet Nürburgring after race-long duel with Surtees and

LAT

Gurney. Jimmy forgets to switch on his electric fuel pumps at the start, losing an instant 20 seconds. He fights back before spinning twice on lap 12 and settles for fourth. Ginther finishes eighth. On the opening lap Trevor Taylor's engine is on six or seven cylinders before suddenly chiming in on all eight, poking his Lotus 24 off the road.

AUGUST 12: KANONLOPPET, KARLSKOGA, SWEDEN

Neither Team Lotus nor BRM enter, but Graham Hill drives Rob Walker's Lotus-Climax V8-engined 24, failing to finish but learning a little…

AUGUST 25-26: GROTE PRIJS VAN DANSKE, ROSKILDERING, COPENHAGEN, DENMARK

Team Lotus fields Trevor Taylor but after practice troubles he finishes only 10th in Heat One and fifth in Heats Two and Three for sixth overall on aggregate.

SEPTEMBER 1: INTERNATIONAL GOLD CUP, OULTON PARK

BRM fields three cars including the latest '5785' – rebuilt after a practice crash at the Nürburgring – for South African cadet driver Bruce Johnstone. Ginther qualifies on pole from Clark, Hill and McLaren. Jimmy leads from Graham and Richie, who is gaining on the leading duo until his engine's No 6 con-rod bolt fails. Clark wins from Hill, Johnstone finishes fourth.

SEPTEMBER 16: ITALIAN GRAND PRIX, MONZA

Graham makes a bad start, over-revving his engine to almost 12,000rpm before getting away. It just seems to enjoy the experience and goes like a rocket thereafter. He passes Clark's Lotus on the approach to the Ascari Curve and goes on to win. Clark and Taylor both have ZF transmission problems. Ginther is able to control the pace of all BRM's pursuers and finishes second in a dominant BRM 1-2. Tyre wear is 3mm rear and 2mm front on both cars. The BRM mechanics drain 1.5 gallons of fuel from Graham's car post-race, but find just one pint left in Richie's...



LAT



LAT

forgot to switch on my fuel pump on the start line, and got away well behind the others. Because of torrential rain before the race, we had been allowed a warming-up lap to look at the state of the circuit. During that lap my goggles got extremely wet. They were steaming up terribly when the two-minute signal was given. At the start of the Monaco GP I had got away on only seven cylinders because a plug wetted on the line. So after that I have always started the engine with the pumps off, and switched them on afterwards.

"I carried out this procedure at the Nürburgring. I stopped the engine, and made a quick check to see if the mirrors were correctly set. Then I started cleaning my goggles. Because of the conditions there was a danger of them steaming up again, so I held them off my face to prevent this. I was so absorbed that I completely forgot to switch on the fuel when it was time, and the engine died just as I let the clutch in. I've kicked myself many times since! It was a ghastly error. I don't know what would have happened if I had moved off with the others, but at least it would have made things interesting…"

Graham admitted that "it would have been an even harder race if Jimmy had been up with us at the start". He rated that drive as being his "best of the season and it was certainly the hardest. I had to steel myself to drive fast enough to win, but no faster. The 'Ring is no place for pressing on regardless, particularly when it is damp, and the slightest mistake would have put paid to any chance of winning. So far as having anything in hand is concerned, you really never know quite how much extra you may have. I certainly didn't that day… There was one time when I eased back a little too much where some oil had been dropped, and the other two closed right up. That was a bit too close, and I had to concentrate like mad in an effort to draw out three or four seconds on them again."

Asked which race he deemed his best, Jimmy considered: "I have driven harder for longer in some of the races I haven't won. The Nürburgring still makes me shudder to think of it! I suppose I was reacting from being annoyed with myself, but that day I attempted things with the Lotus I didn't think were possible before. I think my car is probably a little trickier in the damp than some… but I think the main reason I had such a go in that race was because I knew there were no puddles on the circuit – owing to the gradients all the puddles drain away pretty quickly."

Graham didn't realise at the time that Jimmy had been delayed, confessing he didn't know where he was, "…and I was having enough trouble with Surtees and Gurney!"

Jim cut in: "If you had known how far I was behind you, you would probably have thought it was just the Lotus handling in the wet…" To which Graham responded: "I realised later on that you were coming up fast, because I got a 15-second signal. Judging by the way you were going there was no problem about a Lotus on a damp track."

Graham, meanwhile, had driven Rob Walker's Lotus 24 in the non-Championship race at Karlskoga, so he had a little experience of what the Lotuses might be like in contrast to his BRM: "I thought it weaved a bit, and seemed a bit unstable under braking". Jimmy: "Now you realise what we have to put up with!" Graham: "You seem to manage all right… I thought the traction of the Lotus was very good, though." To which Clark countered: "That was probably because you were not used to an under-powered car…"

While they both rated Dan Gurney as having driven extremely well all year, Jimmy also rated John Surtees and Monaco and Reims winner Bruce McLaren.

Asked if Stirling Moss had been in contention – instead of having had his career ended by his



LAT

OCTOBER 7: UNITED STATES GRAND PRIX, WATKINS GLEN

Jimmy qualifies his 25 on pole, Ginther and Hill second- and third-fastest, Taylor eighth. Jimmy leads from Graham. Gurney's Porsche displaces Richie for third and on lap 12 Graham takes the lead before Clark repasses on lap 19. Richie's engine fails after 35 laps. With Jimmy winning and Graham second, the World Championship will be decided in South Africa.

NOVEMBER 4: MEXICAN GRAND PRIX, MAGDALENA MIXHUCA, MEXICO CITY

BRM absent as Team Lotus fields 25s 'R2' and 'R3' for Clark and Taylor. Ricardo Rodriguez dies in practice in Walker Lotus. Jimmy takes pole with Trevor third-fastest, but Jimmy is black-flagged for a push-start, so Trevor is called in for Jim to take over his car, sharing joint victory from Jack's Brabham-Climax BT3 V8.

DECEMBER 15: RAND GRAND PRIX, KYALAMI, SOUTH AFRICA

Clark dominates in 'R3' from Taylor's sister 'R2'. Both BRMs retire, Graham's with ignition and Richie's gearbox trouble.

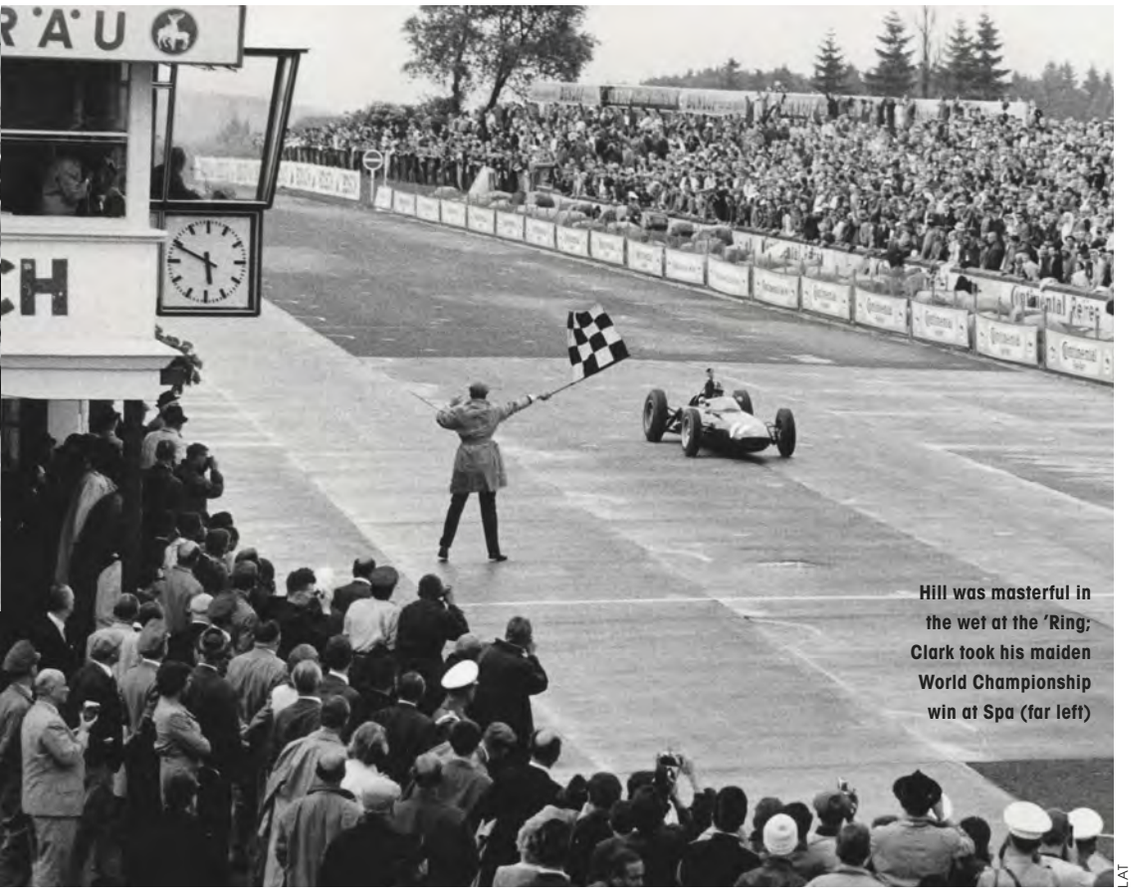
DECEMBER 22: NATAL GRAND PRIX, WESTMEAD, SOUTH AFRICA

Run in two heats and a final, this last preliminary to the World Championship-deciding South African GP is marred by the death of Honda motorcycle star Gary Hocking in Rob Walker's Lotus 24. Ginther wins Heat One ahead of Bruce Johnstone. Jimmy hits trouble and is classified 12th.

Heat Two falls to Taylor's 25 ahead of Graham's BRM. The final proves another Team Lotus 1-2, with Trevor winning from Clark by five seconds, Ginther is third for BRM and Graham 15th. Johnstone retires.

DECEMBER 29: SOUTH AFRICAN GRAND PRIX, EAST LONDON

The World Championship finale (see page 58). New champion Graham is then off to New Zealand to drive Rob Walker's Ferguson P99 in the Tasman series. He flies first with Sir Alfred Owen to Nairobi, where one of the Christian industrialist's many charitable



Hill was masterful in the wet at the 'Ring; Clark took his maiden World Championship win at Spa (far left)

LAT



GP Library

Easter Monday Goodwood accident – Graham admitted: "A great deal would have depended on his having a reliable car. But if he had, then I think he would be in the lead for the championship." He added: "Certainly if Stirling had been on the circuits the situation would have been different for both of us. Don't you agree, Jim?"

Jimmy did: "Neither of us has any illusions about Stirling's tremendous skill and determination. Of course, a great deal would have depended on what car he would have used for the Grandes Epreuves, and how well it behaved. But from past experience we know what Stirling can do in a car that is not potentially a race-winner – look at Monaco and the Nürburgring last year…"

In fact Stirling's injuries set up that 1962 season as an open goal, yawning wide before the best new blood the contemporary F1 cast could offer. And in that historic season's Formula 1 World Championship decider at East London, South Africa, both Jim Clark and Graham Hill (and their respective teams) simply went for it – one hundred per cent, pulling out all the stops in their Lotus-Climax 25 and BRM P578 respectively.



LAT

concerns is Dr Barnardo's children's home. He and Graham then stay overnight in the Nairobi Barnardo's, the new World Champion finding himself "…sleeping in a cot surrounded by teddy bears, dolls and toys," surely putting F1 into proper perspective...



INSIGHT

JENKS ON...
CLARK vs HILL

Motor Sport, March 1963

The sort of motoring journalist who would be best employed on a woman's magazine has a tendency to ask a new World Champion if he intends to retire now that he has achieved the crown. While I did not ask Graham Hill this question, I did not conceal the fact from him that I consider Jimmy Clark to be a faster (and per se, a better) driver, to which Graham replied that he intended to rectify that situation in 1963. That is the sort of fighting talk I like to hear from Grand Prix drivers; heart-searching, psychological, sob-stuff leaves me a bit sick.

Nobody could be more satisfied with BRM than Hill, and they could not wish for a better driver, and honestly do not wish for better. Clark in anything but a pencil-slim Lotus car looks out of place, so we shall enjoy many more races watching the Scotsman's effortless high-speed driving, a worthy replacement for Moss on any circuit, although he cannot yet match his experience. Both Hill and Clark are worthy team leaders, having nothing to fear from in their team as regards ability, and both are accepted as natural leaders.

Denis Jenkinson was our famed Continental Correspondent for more than 40 years.

The Story of '62

December 29, 1962 – South African GP, East London

Jimmy Clark dominated practice, out-qualifying Graham's BRM with Jack Brabham third in his Brabham BT3. Richie Ginther's BRM qualified seventh and Trevor Taylor's Lotus 25 ninth. Jimmy dominated the race; by lap 60 his lead was 28 seconds and there was nothing Graham could do about it, until Jimmy began trailing a thin stream of oil smoke. Next lap the plume was worse. Ending lap 63, Jimmy pulled in to his pit. Ostensibly an oil gallery plug had dropped out of his Climax V8 engine, and all the lubricant had pumped away…

When Graham came by, BRM Chief Engineer Tony Rudd stood out in the road with his signal and pointed at the stricken Lotus. Graham nodded. Jimmy levered himself out of the Lotus, disconsolate. Colin Chapman walked over to Sir Alfred Owen and Tony Rudd to shake their hands. Now, even if he did not finish, Graham was 1962 World Champion Driver and BRM World Champion Constructor. Graham cruised home to his victory, 50 seconds ahead of Bruce McLaren's Cooper in second place. Richie finished seventh, and Bruce Johnstone in the third BRM entry, ninth.

On Graham's victory lap, with applauding spectators flooding the track, 14-year old David Wrigley tried to take a photo with a camera he'd just been given for Christmas. Looking in the view finder he misjudged how close the BRM would pass and its rear wheel trapped his leg, breaking it. Next day Graham visited him in East London's Frere Hospital. He'd been told David was a keen tennis player. He gave him a tennis racket and also sent him a Christmas card every year for the next ten years. The last I heard – in 2002 – David Wrigley was living in New Zealand, father of two, and still bearing the scars of his too-close encounter on the day 50 years ago that the World titles were won…

TOOLS FOR THE JOB…

Team Lotus's first 1962 race – the Cape Grand Prix – was the finale of the 1961 Springbok series. Jim Clark and Trevor Taylor drove their svelte little spaceframe Lotus 21s with 1½-litre Climax FPF 4-cylinder engines. They would later campaign three spaceframe Type 24s, '948', '949' and '950' with assorted 4-cylinder Climax FPF, V8 Climax and V8 BRM engines.

Jimmy used the V8 in every race from Brussels forward, and in Type 24 '948' won at Snetterton and Aintree. He gave Colin Chapman's masterly Type 25 its debut at Zandvoort. Five 25s would be deployed – 'R1' winning the Belgian GP before being demolished in Trevor Taylor's Type 25 debut at the French GP. In 'R2' Jimmy won the British GP and Oulton Park Gold Cup. Using 'R3' from Monza forward, Jimmy won at Watkins Glen and Kyalami, introducing 'R5' – lucklessly – in the South African GP.

Graham Hill drove BRM P578 chassis '5781' – the legendary 'Old Faithful' – in every race bar the South African GP clincher, when lightweight '5785' replaced it. In 'Old Faithful' he won Heat One at Brussels, then at Goodwood, Silverstone, and in the Dutch, German and Italian GPs.



Hill had the lighter chassis '5785' for East London, and cruised to victory after Clark's retirement

LAT

The Story of '62

What we lost

Stirling Moss, racing a Formula 1 Ferrari in Rob Walker's colours? The events at Goodwood on April 23, 1962 robbed us of a truly fascinating possibility

BY NIGEL ROEBUCK

Anyone can tell you that a Formula 1 Ferrari is red, but there have been occasional exceptions. Sometimes at the Belgian Grand Prix there would be an extra car in the yellow of Equipe Nationale Belge for such as Olivier Gendebien, and at the last couple of races of 1964, at Watkins Glen and Mexico City, the factory cars raced in the white and blue of the USA – indeed they were entered by Luigi Chinetti's North American Racing Team – because Enzo Ferrari was having one of his periodic spats with the Italian racing authorities. In a typically theatrical outburst, the Old Man had decreed that his cars would never race on home soil again, nor wear the colours of Italy. As usual, his threat worked, and he got his way: by the beginning of 1965 Ferraris were red again.

In May 1962, at the *Daily Express* International Trophy at Silverstone, the sole Ferrari present was also red – but with a difference, for along the length of it was a pale green stripe. As well as that, it was driven not by one of the regular drivers, but by Innes Ireland, and it was entered not by Sefac Ferrari, but by the UDT-Laystall Racing Team.

Anyone coming upon a photograph of Ireland's Ferrari at Silverstone, while unaware of the circumstances of the moment, might reasonably wonder how and why it came to be – indeed, from contemporary reports of the race meeting one might surmise that most members of the press were similarly in the dark. The conclusion reached by most was that Enzo Ferrari had sent over a car to honour Stirling Moss, grievously injured – in a Lotus entered by UDT-Laystall – at Goodwood three weeks before. Ireland was a UDT-contracted driver, so it was logical he should drive the Ferrari and… there you are, mystery solved.

"In fact," says Moss, "the press got that completely wrong – that was to have been *my* car. It had been entered originally for me to drive – my first race in the new association with Ferrari. Innes drove it, because he and I were also going to share a 246 sports car that season."

In today's world of round-the-clock rolling news stories of the goings-on in F1, it rather beggars belief that the world's greatest driver had reached agreement to drive for the world's most celebrated team – and apparently no one, save those directly involved, knew about it.

Moss's accident occurred on Easter Monday. Thirteen days earlier, on April 10, he had flown to Milan, from where he was driven to Maranello. A three-hour discussion with Ferrari followed. 'Met Enzo, and had a very interesting meeting,' his diary reads. 'Shown *all*.' Indeed he was. Ferrari, traditionally so secretive, threw the place open to his guest.

"I went simply because I had an invitation from the Commendatore," says Stirling. "He asked me to tell him exactly what I wanted from a Formula 1 car, and he would build it for me. Incredible…

"I'm the sort of person who does stupid things sometimes, and I'd always vowed that I would never drive for Ferrari. That went back to a time in Bari, early in my career, when he offered me a car, then changed his mind. I got there and found it had been assigned to Villoresi, which really pissed me off. Subsequently, though, I often drove other people's Ferrari sports and GT cars, and I built up enormous admiration and respect for the man, and what he had done."

Undoubtedly Ferrari later regretted his decision to treat Moss so dismissively, and over time came to the belief – held to the day he died – that only Stirling belonged on a plateau with Tazio Nuvolari. In 1961 Ferrari's glorious 'sharknose' cars had dominated the Grand Prix season, losing only two races, at Monaco and the Nürburgring, circuits at which genius could have its own reward, at which they had no answer to Moss and Rob Walker's Lotus. The time had come, the Old Man had decided: Stirling had to drive for him.

"Of course he wanted me to drive for the factory," Moss says, "but before I went to see him I spoke to Fangio, and asked his advice…"

The great Juan Manuel had spent only one season of his career with Ferrari, 1956, ➤➤➤



with Moss

Rhapsody in blue: our creation of what might have been in 1962. Stirling Moss, his trademark number seven, on a Ferrari in Rob Walker's colours. A tantalising recipe

LAT

and although he had won the World Championship, it was not a year he savoured. "I never felt comfortable there," he told me, "and I didn't like the way Ferrari tried to stir things up between his drivers. As it happened, I was on very good terms with them – Castellotti, Musso, Collins – but within two years they were all dead, poor boys…"

Fangio's counsel to Moss was therefore wary. "He said to me, 'By all means drive a Ferrari – but don't drive for the factory…' I wasn't surprised, quite honestly. I'd been around long enough to know that Enzo played his drivers off against each other. I'd seen people like Hawthorn, Collins, Musso and Castellotti – all people of a similar standard – being messed around there, so I told him I would drive one of his cars, but only in Rob Walker's colours. And, rather to my surprise, he immediately agreed!"

This willingness to prepare a separate car – in dark blue! – for Stirling leaves no doubt as to the extent of Ferrari's desire to have him inside the Maranello tent. Five years later he would accept a similar, albeit less radical, proposition from Jackie Stewart, agreeing that JYS's car, should he partner Chris Amon in the 1968 factory team, would be half red, half the blue of Scotland.

In the end that came to nought, of course, but Moss shook hands with Ferrari, and all seemed set for the campaign of 1962. Amazing, is it not, that the discussion with Ferrari should have come up as late as April, a matter of six weeks before the first Grand Prix, at Zandvoort?

"It was all arranged," Stirling says. "I was to have a factory car, prepared at Maranello, but entered and transported to the races by Rob Walker. Looking back, I suppose it was a fairly astonishing concession.

"Then I went and nearly killed myself, so it didn't happen, but it was all looking great from my point of view: I could race for Rob, which I always enjoyed because he was such a nice bloke, race as a privateer – and yet have a factory Ferrari!"

April 1962

SATURDAY 21

Week 16 (111-254) Birthday of Queen Elizabeth II

Up at 10.00. Work and off to Goodwood. Wet all day. Ferrari fab D9s. Lotus feels fair and 19 good. Got 8200 on F1. Dukes for cocktails. Collected Angela and to Tessa and Bobs for party. Bed at 3am.

F1 SM 1.34.4
Hill 1.36.0 etc

Sports SM 1.34.2) Lotus
Innes 1.35.0)

GT Parkes 1.36.8 D12
SM 1.37.2) D9
Innes 1.39.4)

April 1962

SUNDAY 22

Week 17 (112-253) Easter Day

Up latish (9.30) and to garage. On to Bill McCowans and A.O. Lunch, croquet and then to Paul Bates. Cocktail with Dorothy and Clay at Midhurst. Home, met George and Mrs de Cavallo and food. Chat and bed at 12.30.

April 1962

MONDAY 23

Week 17 (113-252) Easter Monday St. George

29.5.62

Got up and went to Goodwood. Unfortunately I can not remember any details. Had a big shunt in the Lotus at St Marys after getting lap record. Smashed my left ankle, hip, arm and ribs, and also bashed the left hand side of my face up. Had stitches etc and unfortunately was unconscious for a few weeks, so anything I did that was naughty was not prompted by indecent thoughts

April 1962

TUESDAY 24

Week 17 (114-251)

Unconscious completely to Wimbledon

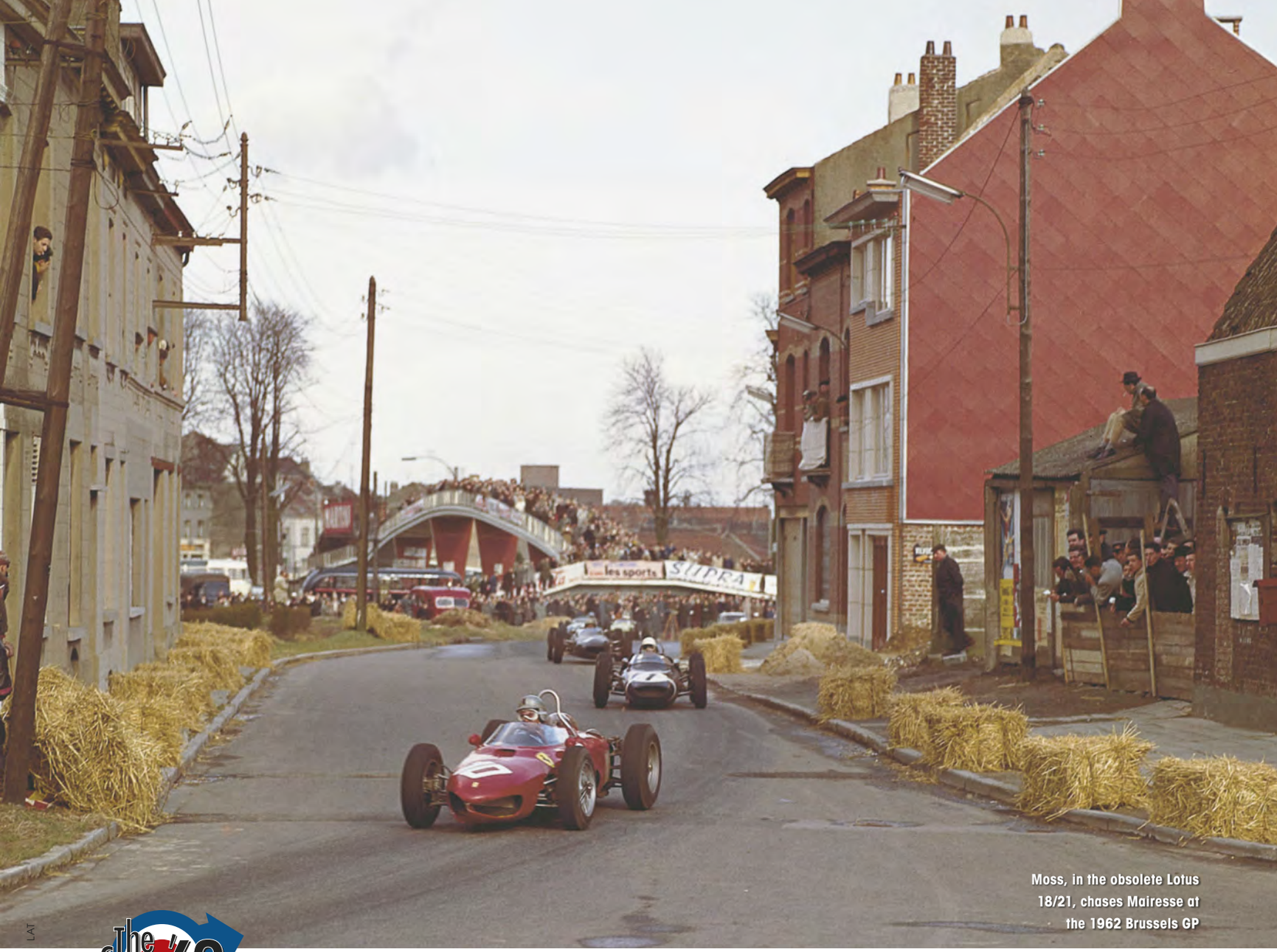
May 1962

TUESDAY 15

Week 20 (135-230) Whitsunday (Scotland)

Came to about now

Recreated from the original Stirling Moss diaries



Moss, in the obsolete Lotus 18/21, chases Mairesse at the 1962 Brussels GP

LAT

The Story of '62

And no one knew. Indeed, after the Goodwood accident, *Motor Racing* magazine suggested that, 'Moss in a Lotus, with a V8 Climax engine, could well have brought off the World Championship this year…'

Undoubtedly true – but *which* Lotus might Stirling have been driving? Back in 1960, when the team had yet to win a Grand Prix, Colin Chapman, recognising that Moss was more likely to achieve that than any of his team drivers, had been more than happy to sell a new Lotus 18 to Rob Walker, and Stirling duly delivered that first victory, at Monaco, following it up with another at Riverside.

By 1961, though, Chapman's ambitions had moved on apace. Lotus were winners now, at last considered part of the F1 hierarchy, and Colin knew that in Jim Clark he had a potentially great driver on his books. The team competed that season with the 21, while Moss had to make to do with 21 bodywork on his old 18. In his hands it was still good enough to beat the Ferraris at Monaco and the 'Ring, but down the road it was clear that Walker's team, necessarily buying 'customer cars' from Chapman, would always be at a disadvantage.

While there was no question that Moss remained the best, he was quite aware of the coming threat from Clark: "Very well, in more or less equal cars I'd beat him," he said of the 1961 season, "but already it was becoming clear that you wouldn't want to take him on with a car disadvantage…"

At the first European F1 race of 1962, the Brussels GP, the Lotus 24 made its debut, and Clark beat Moss – still in Walker's 18/21 – to pole position. At Snetterton a fortnight later Stirling had the upper hand in practice, but had problems in the race, which Jimmy won.

"We at least had the V8 Climax engine for '62," Moss says, "but the new Lotus 24 was obviously a much quicker car, and I told Rob we had to have one. Chapman was typically evasive – he might sell one, he might not, and if he did he wasn't sure when it would be…

"As it turned out, I think Colin would probably have sold a 24 to Rob some time after Zandvoort – because there, of course, he introduced the 'monocoque' 25, which was quicker again!"

Faced with the prospect of always racing obsolete customer Lotuses, it seemed to Moss and Walker like a no-brainer to reach agreement with Ferrari. While the Old Man would assuredly have preferred to have Stirling in the factory team, he was prepared to accommodate him on any terms, for – famously indifferent as to which driver was in the car – all he fundamentally cared about was that a Ferrari should win. If it were blue, well, so be it.

"Of course," says Moss, "the big thing would have been to try to beat the factory cars! I think the drivers might have objected, but I don't believe Ferrari himself would have minded at all. All he cared about was his cars, and so long as a Ferrari had been winning, I don't think he would have cared about its colour or its driver, quite honestly. If I'd beaten the factory drivers, he would

have been able to use that against them! He always wanted to give the impression that it was his car that won a race, not its driver.

"Enzo promised me the absolute best – he said that was in his interests, as well as mine, and I believed him. My Ferrari would have been at least as competitive and up-to-date as the factory cars, and clearly that would never have been the case with Chapman and Lotus."

Then came Goodwood, and the accident which remains unexplained half a century on, and presumably will stay that way. "At one time I kept trying to piece together what could have led to that set of circumstances," says Moss, "but absolutely nothing has come back.

"Obviously I've seen the movie of the shunt, though, and formed one or two theories. It was quite late in the race, and I'd made a couple of lengthy stops earlier on because of a gearchange problem. I was laps behind, but running quickly, presumably going for the lap record. Approaching Fordwater and St Mary's, I was behind Graham Hill's BRM. Graham was leading easily, and I was no threat to him.

"I think it possible that Graham got a flag signal and acknowledged it, which was something I always used to do. We had completely different lines at that point, and I think maybe I saw his acknowledgement of the signal, and interpreted it as a sign for me to go through. Going on from there, I reckon it's possible that Graham moved over to the left, not realising I was there.



Getty Images

Rex Features

"It was definitely not a normal overtaking point, and it would have been out of character for me to try it there. If I had high-speed shunts, it tended to be because wheels fell off or something. If I was really chancing my arm, I always reckoned to do it on slow or medium-speed corners, and the run up to St Mary's is very quick. I doubt that I would have tried to overtake there unless the guy ahead was a lot slower, or had waved me through…"

At the time Hill said that he clearly remembered Stirling's Lotus overtaking him on the left, the Lotus already on the grass. It then plunged onward towards the bank, Moss making no attempt either to brake or to spin the car.

"That wasn't like me, either. When I had the wheel come off at Spa, a couple of years earlier, I deliberately spun the car so as to go into the bank backwards, and spread the load of the impact.

"That theory about Graham's signal is just that, a theory. I must say I've always believed that something broke, and I reckon the most likely failure was in the front suspension or steering. If I'd had brake failure or a jammed throttle I could still have spun the thing, but I appear to have done nothing…"

Another theory, put forward by Ken Gregory, Moss's manager of the time, has credibility too. At the point at which Stirling went off the road, Gregory pointed out, there was a drainage gulley, six or nine inches deep, and running at right angles to the track. An amateur cine film of the accident suggested that the Lotus was pitched into the air when it hit the gulley, and Moss was almost thrown out. Gregory's belief was that Stirling didn't brake because his feet were away from the pedals, and didn't flick the car into a spin because his immediate



The last race. Moss was charging after a delay when disaster struck (above)

GP Library

need was simply to cling on to the wheel, as evidenced by its twisted shape afterwards. Significantly the wheel rim was pushed back towards the driver, rather than forward from impact with the bank.

Whatever the cause, the outcome was disastrous, and photographs reveal its full horror. Fifty years ago F1 cars were not strong, and the front of the spaceframe Lotus simply folded back on itself like the blade of a penknife, trapping Moss in the cockpit. Procedures for rescuing an injured driver were, to put it politely, primitive. There was no Safety Car, and no question of stopping the race. It was left to two of the UDT-Laystall team mechanics to drive out through the paddock, on to the circuit and round to St Mary's – with the race going on around them…

Once there, they set to work, and dangerous work it was. In the F1 car of that era a driver was literally surrounded by fuel tanks, one of which they removed, together with the battery – only too aware that undoing the leads might produce a spark. Then, using hacksaws, they set about cutting the four tubes of the chassis, so as to enable Stirling's removal from the car. Again there was the fear of causing a spark, but, as chief mechanic Tony Robinson remembered, "We knew the tubes were only mild steel, and we wouldn't get much of a spark from such soft material…"

By the time Moss was taken out of the car, 40 minutes had gone by. He had suffered multiple injuries, by far the worst of which were to his head. The accident happened on April 23, and, looking at his diary of the time, there is something eerie about the great white void of the succeeding days. On May 15 there is an entry, written some time later: 'Came to about now'.

"I got a big shock when they told me the date, I remember that – and I couldn't move my left arm, which I assumed was broken. In fact, the whole of my left side was paralysed, because my brain was bruised from the bang on the head. A friend of mine told me, and the full impact of his words didn't dawn on me. Still, it wasn't like being told I'd lost a leg or something – everything was still there, and I had something to work on. If it was simply a matter of my head sending the wrong messages to my body then I'd change the messages!"

In those days there was a multitude of non-championship F1 races, not least in England. Only five days after Goodwood came the Aintree 200, a race I never missed. The entry was almost of Grand Prix quality, with two Ferraris – for World Champion Phil Hill and Giancarlo Baghetti – dispatched to Liverpool to take on the usual British contingent, and only Porsche absent.

On pole position, by a street, was Clark's Lotus 24, and in the race he duly disappeared, pulling away at a second a lap in the effortless manner that would become his calling card for the next six years. Overwhelmingly, though, my memories of that day lie elsewhere: while it had been apparent for some time that Clark was destined to become 'the next great driver', all the talk was of the one who wasn't there. In the programme, against car number 7, it said simply, 'Withdrawn'.



The Story of '62

At Silverstone, Innes Ireland drove the Ferrari Moss would have raced

LAT

"There was no Safety Car and of course no question of stopping the race"

My parents took me to Aintree, but I remember that my mother – a fervent fan of 'the boy' – had been so distressed by his accident that she didn't really want to go. Many of the spectators around us felt similarly equivocal: they cheered Jimmy, but their thoughts were with Stirling. That Saturday morning, as in previous days, the front page lead in all the papers had been of Britain's greatest racing driver and his 'fight for life'.

For some time there had been the delicious prospect of Moss versus Clark, just as – until May 1, 1994 – everyone anticipated with relish the coming battles between Senna and Schumacher. As it turned out, these were seminal moments in motor racing history, an era ending, another beginning.

A year after his accident Stirling felt sufficiently physically recovered to undertake a day in a racing car again, with a Lotus 19 sports car at – strangely, it has always seemed to me – Goodwood. It was a decision he came bitterly to regret.

"I did the times all right that day, but it was purely by experience and know-how. When you're racing, everything – where you brake, turn in, get on the throttle and so on – has to be automatic. It had always been that way for me, and now, suddenly, it wasn't.

"I'd come into a corner, and everything was all right because I still had the ability to handle it, but then I'd get out on a straight, and find that I was looking at the side of the road or something – and then I'd look back ahead and, my God, here's a corner! The times I did that day were in spite of the problem, not because the problem was sorted out. At that time my concentration had completely gone, to the point that I could be having a conversation with someone, and completely forget what we were discussing.

"That's what forced me to retire. To fight something you have to confront it, concentrate on it – which is precisely what I couldn't do. By the end of 1964 my concentration had come back completely, and there's no doubt that I should have left the test until much later. By then, though, it was nearly two years after deciding to retire, and I concluded that a comeback wasn't feasible. I'd made up my mind, and I think that you should always stick by a decision."

So it was that Moss's career ended, at the age of only 32. He says that, without the debacle at Goodwood, he would have continued to race into his late forties, and how tantalising it is to consider what he might have achieved.

When Innes Ireland went to the grid at Silverstone in 'his' Ferrari that day in May 1962, Stirling knew nothing of it, of course, for his coma still had days to run. Ireland finished fourth in a wet race dominated by a duel between Jim Clark and Graham Hill, and that rather set the scene for the World Championship season to come – a season abruptly deprived of its greatest star, and one which should always be remembered in that context.

"As I was thundering round in the rain that day," said Ireland, "I couldn't help thinking to myself, 'If only Stirling were in the cockpit instead of me, golly, he'd certainly have made it go…"

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THE SPARK OF



INNOVATION

Sports car racing could be on the verge of something that Formula 1 has so far failed to do: offering engineers a fascinatingly open-ended platform to explore the new generation of fuel-efficient technologies

BY GARY WATKINS

The future has finally arrived. The Audi and Toyota LMP1 prototypes that grace the entry list for this year's 80th running of the Le Mans 24 Hours offer a glimpse of a high-tech future in which the cars at the sharp end of the grid for the sports car blue-riband are bristling with avant-garde technology.

That future takes the form of Audi's R18 e-tron quattro and the Toyota TS030 Hybrid. These factory machines, underpinned by multi-year and multi-million dollar development programmes, are much more than the bit players fielded by previous contenders running what in Formula 1 parlance are called Kinetic Energy Recovery Systems (KERS). The Audi and Toyota hybrids are genuine contenders at Le Mans.

The hybrid Audi and Toyota LMP1s signal the start of an era for Le Mans, as the big race and the series that run to the same rulebook, including the new-for-2012 FIA World Endurance Championship, seek a new relevance. Long-distance sports car racing is aiming to re-establish itself as a true laboratory for future developments that could revolutionise the automotive world. That process should only accelerate when a new LMP1 rulebook, designed to encourage new and environmentally friendly technologies, comes into force in 2014. The amount of recovered energy that can be released back through the wheels will be approximately doubled and the scope of the systems allowed will be widened. The aim is that the next generation of Le Mans front-runner will achieve similar levels of performance to today's cars but using 35 per cent less fuel.



Modular concept enables Audi to convert the R18 e-tron into non-hybrid trim if necessary

THE HISTORY

Hybrids are not entirely new to the scene, of course. The world's first hybrid racing car, the Panoz Q9, nicknamed 'Old Sparky' by marque boss Don Panoz, attempted to pre-qualify for Le Mans way back in 1998. It didn't make the cut, but it did race in that year's Petit Le Mans 1000-mile enduro at Road Atlanta.

Toyota, which has been selling Prius hybrid road cars since 1997, has even won a 24-hour race with this technology, triumphing with a modified Super GT Supra at the minor Tokachi event back in 2007. More recently, a distant descendant of the system developed by Zytek for 'Old Sparky' contested five American Le Mans Series races in 2009 in one of Zytek's LMP1 chassis fielded by the US Corsa Motorsports squad. And last year, a hybrid finally raced at Le Mans when the British-developed Flybrid system ran in the Swiss Hope Racing team's Lehmann-powered ORECA 01 chassis (pictured below).



But 2012 truly is the watershed year for hybrid technology in long-distance sports car racing, because after unfeasibly long gestation periods, it is the manufacturers who are now taking the lead in development.

THE BASICS

The term hybrid isn't a technical one. It simply means that a car is driven by a combination of powerplants. The Toyota is a petrol-electric hybrid, the Audi a diesel-electric, while the privateer Hope ORECA that ran the fully mechanical Flybrid system should perhaps be correctly called a petrol-mechanical hybrid.

Formula 1, predictably, found it necessary to re-invent the terminology and came up with a catchy acronym in the form of KERS when it announced that it would be going down the hybrid route from 2009. The men in blazers who rule sports car racing have come up with Rechargeable Energy Storage System (along with a counter-intuitive acronym, STSY), which doesn't quite trip off the tongue in the same way, but between them the two terms just about describe what hybrid technology is designed to achieve.

A hybrid racer turns braking energy that would otherwise be wasted in heating up the brakes into kinetic energy, which in the majority of systems drives a motor-generator unit. Put simply, the braking resistance slowing down the car is converted into electrical energy that can then be stored, whether it be in a battery pack, a series of super-capacitors or a flywheel. This energy is later recycled back through the wheels to give extra power.

That's the explanation for the current breed of hybrids, but that could and should change when the new rules come into force. There's also the somewhat less catchy term ERS, which will feature in both the F1 and P1 rulebooks from 2014. Not all energy that will be retrieved on the future breed of P1 sports car will be of the kinetic variety harvested from the braking system. Heat recovery from elsewhere is just one of the areas that F1 teams and sports car manufacturers are known to be investigating.

SPORTS CARS v FORMULA 1

The way the stored energy is returned to the track is not the same in sports car racing as in F1. Recovered energy in F1 is used to spice up the racing along with another technology with a snazzy acronym, DRS (Drag Reduction System), in a push-to-pass scenario. The hybrid systems on P1 prototypes are not activated by the driver because the sports car rulemakers, a combination of the FIA and the Automobile Club de l'Ouest at Le Mans, have an altogether more altruistic motivation: to save fuel.

There are also subtle differences in the rules governing energy release for hybrids between F1 and LMP1. F1 limits the release of energy to 400kJ per lap; in prototypes the figure is 500kJ between what are known as two 'braking events', so around the 8.47-mile Circuit de la Sarthe that means seven or eight times a lap. The F1 regulations limit the power delivery to 6.6 seconds through a motor-generator unit rated at 60kW, the equivalent of 81bhp.





There is no limit on the power of the motors in P1 for the moment. Audi has revealed that its e-tron quattro has two 75kW motors, the equivalent of 200bhp. If used at full power, they would use up the allowable 500kJ in a shade over three seconds, though it is likely that the Audi will spread its power burst over five or six.

Toyota has yet to state a power output for its single motor, while Peugeot published an 80kW figure for the hybrid 908 (pictured far left), and Zytek's off-the-shelf system, used in the privateer P1 car fielded by MIK Corse in the Le Mans Series last year, is rated at 50kW (67bhp).

WHO IS USING WHAT

The racing hybrids that have hit the track so far have stored energy in one of three ways. Zytek, which is a world leader in electric car technology, has always used batteries, a choice Peugeot followed on its stillborn 908 HYbrid4. Toyota has opted for super-capacitors, while Audi's storage system is a flywheel, which it calls an accumulator but is probably best described as a mechanical battery. Electrical energy is converted into mechanical energy to spin up the flywheel and back to electrical energy to drive the motor-generator unit. The Flybrid system also stores its energy in a high-speed flywheel, but unlike the Audi system it shouldn't be called a battery because there is a direct mechanical link, via a system of gears and clutches, through the gearbox to the wheels.

BATTERIES

There are question marks over the suitability of batteries in racing. They have the capability to store a lot of energy, which makes them the best option for electric road vehicles, but have disadvantages in the rate at which that energy can be stored and released. Or that's what the proponents of the alternatives claim.

Battery detractors also argue that the constant use at Le Mans – Audi has come up with a figure of about 4000 energy cycles – means that a battery of a suitable size for racing would lose efficiency over the race distance. They also claim that there are substantial cooling issues with batteries.

"In F1, the batteries lose about 10 per cent in performance over the race, so at Le Mans the degradation would be enormous," says Flybrid boss Jon Hilton, who investigated the options when he was working for the Renault F1 team. "A battery of a suitable size would not do the distance at Le Mans."

Doubts about the suitability of batteries have been fuelled by a change in the rules from those originally proposed for 2012. Early drafts allowed for a one-megajoule energy release, but after lobbying from one manufacturer, almost certainly Peugeot, this was halved to 500kJ. The suggestion is that the French manufacturer had doubts that it could make its battery last at the higher power level.

Zytek founder Bill Gibson counters the arguments that batteries, lithium-ion in the case of his system, are not the way forward. "Then why is every F1 system based on batteries?" he says. "It is all a question of how you control it. That's what determines the life of the battery. It's no different to the battery in your phone: never let it go flat and always charge it properly. Batteries need a bit of TLC."

He claims that the arguments put forward for flywheels are because "racing cars are designed by mechanical engineers and they don't understand electronics". And that is why they have sought a mechanical solution.

SUPER-CAPACITORS

The super-capacitor can store less energy than a battery, but offers a big punch of power.



Think of the flash on a camera, which is typically driven by a capacitor.

"Racing means a big power delivery in a short time," says Hisatake Murata, Toyota's hybrid project leader. "A lithium battery has a big storage capacity, but the power ratio is very low. A capacitor has a small storage capacity but a high power ratio."

Some of the disadvantages of batteries also apply to super-capacitors. Weight is one, though Toyota has not disclosed the weight of the pack of super-capacitors that sit alongside the driver in the TS030; and another is cooling, which can have a substantial impact on aerodynamics.

FLYWHEELS

A flywheel spinning at high speed in a vacuum offers the same advantage as a super-capacitor: a rapid surge of power.

"The reason flywheels are being chosen is that they are the lightest system for the required power density," says the boss of the company building the flywheel for the Audi, Williams Hybrid Power managing director Ian Foley. "If you need more than 100kW and to cycle that many times over a lap, which means multiple cycles over the course of a 24-hour race, then a flywheel is a lighter way of doing it than either a battery or a super-capacitor. I am sure that if we tried to make a capacitor with the same power as our flywheel, it would be bigger and heavier."



The increase in power for 2014 will only further increase the advantages of a flywheel, according to Foley.

There have been inevitable questions about the reliability of a flywheel that spins at 45,000rpm, but the Williams system built for Porsche's 911 GT3-R Hybrid has come close to winning the 24-hour race at the Nürburgring in 2010 (engine failure put it out with two hours to go), and finished the race in 2011.

The rhetoric from Audi suggests that the primary reason for its decision to go the flywheel route was based on reliability and sustained performance.

"In our opinion it offers the most stable platform at the moment," says Christopher Reinke, technical project leader for the LMP at Audi Sport. "We believe it is the best way to achieve full performance for 24 hours."

ALL-MECHANICAL SYSTEMS

The Flybrid system used in the Hope Racing ORECA last year and which will be used by another LMP1 privateer at some point this year has several key advantages, according to Flybrid's Jon Hilton. He has no doubts that it is the best system out there.

"It is the lightest and offers the most power for the weight," he says of his system, which hits the scales at 38kg and gives 100kW or approximately 135bhp. Hilton believes his system is substantially lighter than that in the Audi.

Hilton claims that the Flybrid system achieves 64 per cent efficiency, or in layman's terms the percentage of the energy retrieved under braking to be retransmitted to the wheels. He suggests that's a higher number than the Audi system because of the conversion losses, though that's something disputed by Foley at Williams.

The existing Flybrid system can only work on the rear wheels (it sits in the bellhousing between the engine and gearbox), but the company is already working on a system for the front axle for 2014.

FRONT OR REAR DRIVE?

The Le Mans rules, as they stand, allow energy recovery on the front or rear axle, but not both, although that is going to change for 2014. There are clearly advantages to each approach.



Toyota TS030 will make its race debut at Le Mans after a testing shunt forced it to miss the Spa WEC round

Harvesting power from the front axle is more efficient as a result of the high braking loads. There could be benefits for overall tyre wear, too, by putting the regenerated energy through the front wheels.

The other advantage is in terms of traction, as indicated by the use of the quattro monicker on the hybrid R18, though the significance has been reduced by another rule change, also believed to have been driven by Peugeot, which means that energy release is not allowed to the front wheels until the car has reached 120km/h (75mph).

There are clearly weight and packaging advantages to be had in using the rear axle. There is no need for additional driveshafts, which could also impinge on the front aerodynamics, and the motor-generator unit can be sited in the bell-housing as on the Toyota system.

These are the reasons cited by Toyota for opting to retrieve power from the rear wheels, though it clearly sees the merits of both. It was experimenting with two systems (with motor units supplied by different companies) in January and February.

Audi's reasons for opting for front drive are complex, according to Reinke. Despite the marketing hype around the revival of the quattro name in racing, he says the traction benefit was never the primary reason for its choice. He says it went from "priority number two or three" to "priority four or five" in the wake of the rule change.

A key reason for its decision (though Reinke stops short of saying it was the primary reason) is Audi's strategy of splitting its Le Mans attack between two e-tron quattros and two non-hybrid turbodiesels, known as ultras.

"The two types of car will be identical apart from the hybrid systems," he explains. "Using the front axle allowed us to take this flexible, modular approach. We can change the car overnight from hybrid to non-hybrid."

Reinke says that balance also came into the equation. "It is definitely beneficial for weight distribution," he says, "especially with a diesel car having more weight at the rear."

HOW THE POWER IS USED

The intention is that recovered energy is used to save fuel, hence a fuel tank capacity reduced by two litres for hybrids, but it is clear that an extra 200bhp on each straight could offer a significant benefit in lap time. Of course, it could also offer a significant fuel saving because the conventional engine could be backed off when the recovered energy is being released.

Many believe that Toyota will use its extra electrical horses for sheer performance, a suspicion backed up by the stated targets of the Japanese manufacturer for its first Le Mans since 1999.

"We think it is realistic to be the fastest hybrid," says Toyota Motorsport technical director Pascal Vasselon. "As racers we will go to Le Mans to win. That is passion talking, but when reason is talking it may not be realistic to last 24 hours at the first attempt."

> "Many believe that Toyota will use its extra electrical horses for sheer performance"

WILL A HYBRID WIN LE MANS?

That's the big question. The hybrid R18s and TS030s should be quicker, over one lap and over a stint, but no one can be sure of their reliability, Audi and Toyota included.

Audi didn't race the e-tron quattro at Sebring, the first round of the WEC, instead relying on a revised 2011 R18 TDI. The quattro and the conventional version of the 2012 car were present at the Florida track, both taking part in a four-day endurance test that was interrupted by a major shunt for one of the ultras.

Toyota's preparations have also been hit by a major accident. The first TS030 was badly damaged ahead of what should have been Toyota's second endurance run at Paul Ricard in April. With the second car not yet ready, the accident forced Toyota to withdraw from the Spa WEC round, meaning the TS030 will be making its race debut at Le Mans.

THE FUTURE

It's looking much less bold than originally envisaged. The new LMP1 rulebook is based on giving each car an energy allocation for each racing lap, measured in megajoule content rather than volume or litres, and then allowing the engineers, team and drivers to make the best of that. Recovered energy, kinetic or otherwise, was not going to be part of that allocation because it was, in effect, 'free' energy.

That's changed since the rule-making process for 2014 began in earnest last summer. The original plan to leave a way open for privateers to be competitive was to allow them to build an ultra-lightweight non-hybrid car tipping the scales at just 750kg, or 150kg under the existing minimum. That's all changed.

The draft version of the 2014 regulations distributed to competitors now allows independents running without any kind of energy recovery a larger allocation of fuel or energy. In fact, the rules make a distinction between "intermediate ERS" and "large ERS", the former being a car running one recovery system, the latter a car running a maximum of two. Then there's the so-called "no ERS" sub-class open only to P1 privateers.

The shift in philosophy of the rules has been designed to protect the privateers. The ACO has stated that it wants private teams to be able to still "compete at a high level".

The change of direction appears unpopular with the manufacturers, or at least with Audi. Ulrich Baretzky, the head of engine technology at Audi Sport, reckons it will stifle innovation.

"The question I am asking is, do you want to have efficiency in motorsport?" he says. "We should be given the opportunity to showcase what we can really do. If you screw everything down, it will make Le Mans uninteresting for manufacturers like Audi."

For the moment, the challenge for Audi, Toyota and anyone else choosing to run a hybrid this season is immense. But that's why they are part of the future, not just for racing but also for the road, as an accelerator for the kind of technologies we may come to take for granted tomorrow.

NEW FEATURE

No 1
Graham Hill's trophy timepiece

At the Daytona 24 Hours meeting, racing drivers covet the Rolex wristwatch awarded to each winner. Back in 1963, Graham Hill was presented with his own special timepiece, at the Le Mans 24 Hours. But he'd have struggled to wear it on his wrist.

This was the year the reigning Formula 1 World Champion drove the Rover-BRM gas turbine at La Sarthe, as an extra 'experimental' entry – a special grid slot reprised this year for the Nissan-powered Delta Wing. Hill shared the car with F1 team-mate Richie Ginther, the pair achieving impressive fuel efficiency figures and a decent turn of speed. Had it been allowed to be classified in the results, the prototype would have finished eighth. The elegant clock on the left, presented by the Conseil Général de la Sarthe, was the least Graham deserved.

The clock is one of a selection of Hill's trophies on display at the Donington Grand Prix Collection. Others include the handsome cup he was awarded for winning the 28th Tourist Trophy, at Goodwood on August 24, 1963, and a bronze by Drogo depicting Hill's familiar London Rowing Club crash helmet, commemorating his five Monaco victories.



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Dom Romney



History revived on the streets of Monaco

With its harbourside setting and aura of glamour, the Principality's Grand Prix Historique is unmatched

BY ALAIN DE CADENET

The first Monaco GP was run on April 14, 1929 so that the Principality could establish an event that would enable the Automobile Club de Monaco to attain full International status. Although the Monte Carlo Rally had been run since 1911, little of it took place within Monaco itself and the ACM only held National status. Antony Noghès, the son of the club's founder Alexandre Noghès, instigated the race and took charge of the myriad of organisational duties.

The first event was won by British driver William Grover-Williams (a.k.a. 'Williams') driving a Bugatti T35B car that was painted in a dark green colour to represent his nationality. A white Mercedes SSK was thrown around the track with great precision by German ace Rudolph Caracciola, finishing third behind Georges Bouriano's Bugatti.

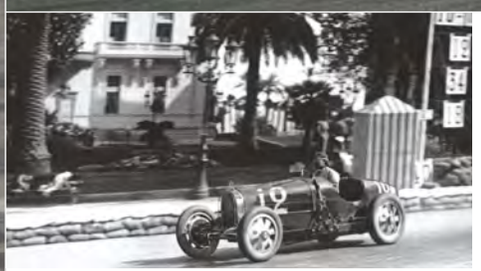


The crowd, which had turned out in force, loved it and the event became a regular highlight on the calendar while also introducing some much-needed income to the Principality. By 1933 the race had been elevated in status to a full International GP and counted for the-then European Championship. The course used was and still is a convenient two-mile circuit that starts on a straight by the ACM building, climbs the steep hill into Casino square and then falls downhill twisting and turning, goes through a fast right-hand tunnel, down to the harbour front and then around a tight right-hand bend back on to the start straight. Sounds simple? It isn't!

It has always been a very demanding track for both drivers and cars. There is no let up in concentration whatsoever as the slightest mistake will most likely result in contact with something unforgiving.



Watch iconic racers such as JPS Lotus, Ferrari Dino (left) and Bugatti T35 (below) battle for victory





Traditionally the race always had considerable attrition due to mechanical failure, especially gearboxes with countless changes needed per lap. Today's technology has helped to overcome many of the problems.

When the World Championship for drivers was first established in 1950, the Monaco GP was included as a qualifying race and since 1955 the Monaco GP has been run every year. It is without doubt the most popular of all GPs for both spectators and TV.

Traditionally the only other way to race at Monaco other than by being a Grand Prix driver was to take part in the Formula 3 race that used to be run alongside the Formula 1 race. This was also the most important race in the F3 calendar, as it gave an upcoming driver the chance to showcase his talent in front of the very people he hoped to drive for one day. True to form, success in F3 has often led to success in F1, and today on Grand Prix weekend showcase events for the GP2 and Formula Renault 3.5 junior categories are the modern equivalent.

So what about everybody else who fancies a race around the Monaco GP circuit? It was round about 1976 that a gentleman called Uwe Hucke finally managed to convince the ACM that a support race for vintage GP cars, to take place just before the real GP on the Sunday, would be a good idea. It was indeed a great race with a Mercedes W125 chasing down Bugattis, Alfa-Romeos, ERAs and other pre-war machinery. However, that was a one-off event and another vintage race did not take place until 1984 when a Bugatti-only event was run, in the wet, before the GP proper. But in 1997 the ACM decided to run an event every two years with several races for types of cars that had raced in the Principality in the past. Initially this fresh event took place a week before the real GP and latterly two weeks before.

The formula for the races changes slightly from, say, F3 to Formula Junior so more runners can participate. The 1970s 3-litre F1 cars are very popular and the front-runners put up some excellent times. They also run a race for front-engined GP cars only, which are considered the cream of the crop with the likes of Maserati 250Fs, BRM P25s, Ferrari 500s and Connaught B-types all battling it out for honours.

The Grand Prix de Monaco Historique, sponsored by Credit Suisse for the second time, is now established as the most prestigious and glamorous event on the calendar. This year, on May 11-13, the streets of Monaco will once again resound to the growl and bark of the great Grand Prix cars of the past.



The Credit Suisse Drivers Club

The on-track action at the Grand Prix de Monaco Historique remains as enthralling as it's always been; what has decidedly changed for the better is the attention to detail concerning the facilities and comfort offered to competitors. Credit Suisse provides the most excellent Drivers Club in conjunction with the Yacht Club de Monaco, right in the harbour. It's a sanctuary where drivers can get away from the noise and din to enjoy a peaceful drink or a bite to eat in civilized surroundings. It's also the place to get practice results and watch the racing on TV.

The opening party on Friday night is also hosted in the Credit Suisse Drivers Club and provides VIP guests and selected competitors, as well as the officials from both the ACM and the Yacht Club, the chance to meet and greet each other. This year the bank will also host a 'Media Breakfast' in the Club which gives the press a chance to get some inside information.

If any further doubt exists as to Credit Suisse's commitment to historic racing, it also hosts the Credit Suisse Classic Car Rally Parade for three laps around the track on Saturday. And my favourite bit is when Jochen Mass and I conduct Paddock Tours with guests to tell the history of the Monaco GP through competing cars.

Phew! It's all a very tasty prospect which adds up to what will be an exceptional racing occasion for both drivers and spectators.

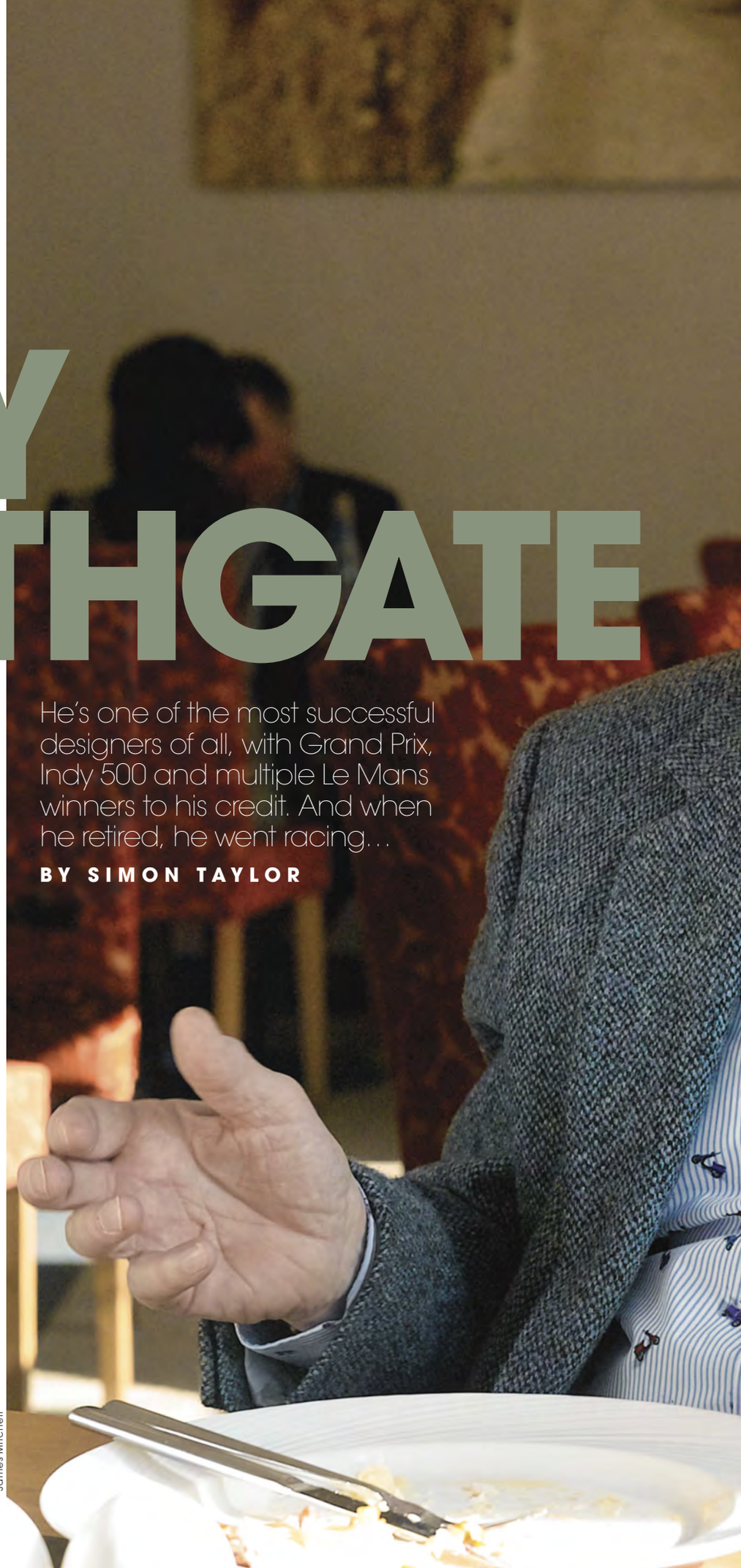
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Lunch with... TONY SOUTHGATE

He's one of the most successful designers of all, with Grand Prix, Indy 500 and multiple Le Mans winners to his credit. And when he retired, he went racing...

BY SIMON TAYLOR



James Mitchell

It's progressively harder these days for racing car designers to demonstrate true versatility. Formula 1 has greedily made itself the centre of everything, yet the very strictures of its regulations seem to stifle original thinking. As the permissible solutions to each problem become ever more confined, so today's F1 cars become ever more identical – witness this year's unlovely stepped noses. If you painted a Ferrari and a Williams plain grey, could anyone but an expert tell the difference?

But in considering the career of Tony Southgate, versatility is the first word that springs to mind. He is surely the only single designer to have created cars that have won the Monaco Grand Prix, the Indianapolis 500 and the Le Mans 24 Hours: and then gone through the complete change of mind-set needed to design a championship-winning four-wheel-drive rally car. In 40 years he worked for some 20 different teams, from Germany to Japan, from Lincolnshire to California. And always he relished any challenge that required, metaphorically as well as actually, a clean sheet of paper.

We eat in the excellent Albero restaurant attached to Northampton College, close to Tony's home: he chooses manchego cheese tortilla, crisp sea bream on spinach and a glass of chardonnay. He was born in Coventry in 1940, when the British motor industry's home town was being regularly bombed by the Luftwaffe. His boyhood passions were art and engineering, and when he left Technical College at 16 his ambition was to land a Jaguar apprenticeship. He failed – which, 30 years



later, made the Le Mans victories by the cars he'd created for Jaguar all the sweeter. Instead, while serving a five-year engineering design apprenticeship in a non-automotive company, he nurtured his motor-racing ambitions by joining the 750 Motor Club and building an Austin 7 Special. Very small and low for its day, it was raced three times before a broken crank and no money to mend it spelt the end of his racing career. Undaunted, he vowed to find a job designing racing cars. Colin Chapman was his hero, so he wrote to Lotus. A brief reply told him there were no vacancies. He was to be head-hunted by Chapman 20 years later…



1


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All images LAT

Tony admired the Mk1 Lola-Climax – "proper twin-link suspension, offset engine, and it won everything" – so he wrote to Lola. Back came a letter from Eric Broadley himself, summoning him for an interview. "I arrived at this tiny building behind a little garage in Bromley, armed with drawings of an 1172 Formula car I'd dreamed up: transverse engine behind the cockpit, driving a Mini gearbox by chain. Eric asked me how I'd arrived at the suspension geometry. I hadn't a clue about geometry then, so I flannelled – I told him I had to work within the dictates of the fixed-length Mini driveshafts. That seemed to satisfy him, so he offered me a job at £13 a week. I found some dodgy lodgings nearby and, at 20 years old, I was in heaven.

"At that time Lola consisted of six people. Eric would sketch out the concept and work out all the geometry of each new design, and I'd draw it up and fill in the gaps. Then I'd make the jigs, and start fabricating the parts of the car itself. After the Mk3 Formula Junior and the F1 Mk4 for Surtees and Salvadori we set about the Mk6, Eric's trend-setting vision of a V8 mid-engined GT. It took six months to design and draw. John Frayling, working freelance, did the shape in a quarter-scale model and it looked fabulous, although it never went near a wind-tunnel.

"So we enter the first car for the Le Mans 24 Hours. After several all-nighters we're running really late, and we finish it just in time for Eric to catch the ferry. We've painted on trade plates back and front. Eric climbs into the driver's seat, race mechanic Don Beresford gets into the passenger seat with his tool-box on his knees, bloody great unsilenced V8 starts up, Eric tries to drive out of the workshop, and there isn't enough steering lock to get through the door. I get a saw and chop away at the front arches with Eric saying, 'Hurry up, Hurry up' and then he's gone, blasting off down the A2 to Dover. On the way the throttle jams open, so he gets to the ferry driving on the ignition switch, and as they cross the channel Don works away in the hold rigging up a repair. Down the French roads among the *camions* to Le Mans, and after a few scrutineering dramas David Hobbs and Richard Attwood run really well in the race – until the cable linkage to the Colotti gearbox gets a bit loose. On Sunday morning Hobbo arrives at the Esses in neutral and thumps it, and that's that.

"The car really impressed Ford, and all these heavies in shiny suits arrived from Detroit, poked around in our little workshop in Bromley and took the project over, moved it to a big new factory in Slough to become the GT40. That didn't look good for me: I'd done all the work with Eric and now, as the young lad among all these big-timers, I'd be lucky if I ended up making the tea. So I jumped ship to Brabham. Ron Tauranac was the best production race engineer there was. Very practical, knew what the customer wanted, but not easy to work for. He didn't draw, but he'd look over my shoulder and say, 'Nah, don't like that.' After 10 months Eric Broadley called. A year into his two-year contract with Ford he'd had enough, he wanted his independence back. So I went back to him.

"At Lola I started in on the T70, the big Can-Am car, and we did the Mk3 coupé version too. John Frayling did the styling again. The T60 F2/F3 car was Lola's first monocoque single-seater, made of folded steel sheet spot-welded together, and the T80 and T90 were Indycars. Graham Hill won the 1966 Indy 500 in a T90. The T100 was F2 again, sometimes using the very tall Apfelbeck BMW engine, and I did a one-off sports-racer for BMW, the T120. When Formula A started in the States I had the idea of using up our stock of T70 suspension parts to make a simple, affordable tube-frame single-seater, the T140. It sold well in America, and over here in the early days of Formula 5000.

"John Surtees was effectively the works Lola driver, very demanding, but everybody respected him. When he started his relationship with Honda he needed an F1 chassis double-quick. In six weeks we did the T130, which Honda called the RA300: effectively the Indycar with symmetrical suspension, smaller tank, different brakes, and that massive great lump of a V12 hung on the back. First time out it won the Italian Grand Prix, and everybody was gobsmacked. It











[1] Pivotal Lola Mk6 was early project [2] 1972 Monaco win was final flourish for both Beltoise and BRM [3] Tony with John Watson at TWR [4] First victory at Le Mans for Jaguar, 1988 [5] Invitation to join Lotus meant working with revered Chapman [6] Ferrari employed Tony to oversee successful 333SP [7] Wingless Arrows A2 had great downforce… [8]…but soon grew rear wing due to handling quirks [9] Southgate was in pitlane as much as design office [10] Audis in echelon: 2000 brought first LM win [11] Free hand for Ford's GpB car brought RS200

was a bit lucky, because Hill's Lotus 49 blew up and Clark had fuel starvation, but a win is a win.

"Lola was like a family to me, but I knew I'd always be No 2 to Eric in design terms, and I wanted to do my own thing. Pete Wilkins, a brilliant Australian fabricator I'd known at Brabham, was now in California working for Dan Gurney, and when Dan wanted a designer for his new F1 Eagle Pete mentioned me. I assumed the job was in Eagle's F1 base in Sussex, next to Weslake's where the V12 engines were built. Within minutes of accepting I realised it was at Gurney's HQ in Santa Ana. I went over on a visitor's visa, started work, came back to the UK to get married, and it took three months to get a visa for Sue before she could join me.

"I started work on quite a radical F1 car, small, with a flat nose to gain downforce and a very low centre of gravity. Then – whether for funding reasons or because Dan had a change of heart I never quite knew – the F1 programme got cancelled, so we concentrated on the Indycar. This shared some features with the still-born F1, with a Coke bottle-shaped monocoque. The Indianapolis 500 was a huge event: I stood on the grid looking up at that great cliff of people in the stands and thought, this really is a big deal. And we won it. Into the final laps the Eagles were 1-2-3: Bobby Unser with a turbocharged Offy engine leading, Dan second with the pushrod Ford V8 with three-valve Gurney heads, Denny Hulme third using the four-cam Ford V8. Then Denny got a puncture and slipped to fourth, but it was still a huge victory for us. The Formula A version won the SCCA title in '68 and '69, too. The '69 Indycar wasn't such a big step forward, but Dan still came second in that year's 500.

"I loved my two years in California. I'd been getting £37 a week at Lola; at Eagle I got £75 a week, and everything was cheaper than in Slough. We saved money, I bought myself a new Pontiac Firebird, and we'd go to the mountains at the weekend. But Sue found it all very brash and she missed England dreadfully, so when an offer came through to join BRM as head of chassis design I said yes, straight away. I wanted to be in F1. So we swapped Santa Ana, California for Bourne, Lincolnshire, and Sue was delighted.

"BRM was something else: as many characters as a stage play. Big Lou, Louis Stanley, reckoned he was the boss because he was married to Jean Owen, sister of industrialist Sir Alfred Owen who owned the team. Stanley liked to think of himself as England's Enzo Ferrari. He was fine as long as everything was going his way and making him look good. But what I liked about BRM was that everything was made in-house: car, engine, gearbox, the lot. There were about 20 people in the drawing office. Aubrey Woods – everybody called him Strawberry – was the engine man. Alec Stokes, who did the gearboxes, was called Budgie because his hobby was breeding budgerigars. He'd been there since 1948. Raymond Mays was still around, just being Raymond Mays. Tim Parnell was the team manager, with down-to-earth common sense and a great sense of humour.

"When John Surtees left to form his own team, Pedro Rodriguez joined as No1 driver for 1970. The P153 was my first BRM design, and the muddy BRM green was replaced by the colours of our new sponsor, Yardley: white with black, brown and gold stripes. The V12 engine was the same weight as a DFV and had the same power, about 430bhp, but with less torque. It revved higher and was thirstier, so we had to carry 48 gallons when the Cosworths managed with less, giving us a heavier startline weight. At first we had some reliability problems, which we solved with a better oil system. In the Belgian GP Pedro took the lead from Chris Amon's March and held him off to the end, averaging 149.9mph around the old Spa. Chris sat behind him waiting for the BRM to blow up, and it never did. Afterwards Robin Herd of March put it about that Pedro had a 3.3-litre engine, which upset me a bit. We'd never have done that: for one thing, we didn't have the budget. As it was, we'd take each engine to bits after every race and, if the pistons and valves looked OK, we'd put them back in again.

"Pedro was popular with everyone. He had this air of mystique about him: small, dapper, quiet, he'd wear English tweeds and a deerstalker hat, and never talk to anyone until he'd combed his hair. He wasn't a technical driver, he'd just get in and drive his heart out. Alongside the P153 I got sucked into doing a Can-Am car, the P154. There was no time, and it was thrown together and sent to America for the mechanics to sort out on the hoof. It didn't go very well in George Eaton's hands, so for the last two

races we put Pedro in it. After coming third at Riverside, he told me it was the worst car he'd ever driven. That really embarrassed me. He was always so brave and uncomplaining, so it must have been really bad. For 1971 I re-engineered it as the P167, and it was much better. Pedro wanted to race it in July at the Norisring, but at the last minute we had an engine problem. We only had one engine, so I phoned Pedro to tell him we'd be non-starters. 'Don't worry,' he said, 'I've been offered £1500 to drive one of Herbie Müller's Ferraris.' That was the car he died in.

"Jo Siffert had joined BRM for 1971. We didn't treat Pedro and Jo as No 1 and No 2, but as Pedro was there first he felt like the team leader. But when he was killed Jo rose to the occasion at once and seemed to go quicker. He qualified in the top three for every remaining race that season except one. He won the Austrian GP from pole, and he was second at Watkins Glen." Then tragedy struck again. In the end-of-season race at Brands Hatch Siffert veered off the track in the dip before Hawthorn Bend and hit the bank. The car turned over and caught fire: almost uninjured, Siffert was burned to death. Later it was found that a tyre had moved on the wheel rim and abruptly deflated.

"The 1971 car, the P160, was a refined version of the P153. With Siffert's win in Austria, Peter Gethin's win at Monza and our podiums at Zandvoort and Watkins Glen, we ended up second in the Constructors Championship, ahead of Ferrari. For 1972 Big Lou had us running five cars, which was a pain in the neck, and during the year we used 10 different drivers. As well as being the designer during the week, I was race engineer at weekends – on all five cars. The sponsor was Marlboro now, and we ran the P160B, the old P153, and the new P180. The DFV had moved on and had more power, but we'd stood still. To make up for our lack of horsepower I pushed the boundaries with the P180, and decided we needed front/rear weight distribution of 33/67. But I went too far, it was 30/70, and with its wide track it was slower than the P160 in a straight line.

"Jean-Pierre Beltoise had joined us from Matra, and he scored a stunning victory in the pouring rain at Monaco. JPB was always easy to work with, no prima donna stuff. He had limited movement in one arm, legacy of a bad shunt in his motorbike racing days, and we had to shape the monocoque in the cockpit to clear his elbow. He led the race from start to finish, lapped everybody at least once except the acknowledged rainmaster Jacky Ickx in the Ferrari – and Ickx was nearly 40sec behind at the flag. To do that around Monaco was nothing short of brilliant.

"At the end of 1972 the writing was on the wall for BRM, because there was no budget for a badly needed new engine. Jackie Oliver, whom I'd worked with at BRM in '69/70, had been driving for Don Nichols' Shadow team in Can-Am, and he persuaded Don to move into F1. He suggested I come on board and design the car, the DN1. I got on fine with Don, but he was always a mysterious, you could say Shadowy, character. He sported a black beard and a black Spanish hat, and liked to tell you about his time in the CIA. George Follmer joined Jackie as No2 driver. George was 39 and had never done F1, but he just got in the car and got on with it. In our first race, at Kyalami, he finished in the points, and in our second at Barcelona he got on the podium. That rather pissed Ollie off. From then on we had various problems and crashes, and didn't score another point until Jackie was third in Canada. Don also insisted I did the DN2 Can-Am car. His engine man came up with a 1200hp twin-turbo Chevy V8 which he said was going to win everything, but my sums said it'd do 2mpg. I drew a big car with fuel stuffed in every corner, and massive drive shafts to cope with the power. But that engine blew up every time you looked at it. We had to run with a normal V8 and it was just too big and heavy. For 1974 I said to Don, 'let's do Can-Am right', and I did the DN4: smaller, neater, better-packaged, and Oliver won the title."

> "Chapman fascinated me; for me he was the ultimate designer"

To drive the 1974 F1 car, the DN3 – "much better, much nicer than the DN1" – Shadow hired Peter Revson and Jean-Pierre Jarier. "Revvie was a fabulous easy-going guy, fitted in well, and a very good driver. But tragically he wasn't with us for long. He qualified on row 2 for Argentina and row 3 for Brazil. Then he and I, our chief mechanic Pete Kerr and two other mechanics went down to Kyalami for testing before the South African GP. Revvie was going well, very happy with the car, and then he didn't come round. We rushed out to the back of the circuit and found the car buried under the Armco on the outside of a quick corner. Peter was already in the ambulance and gone. I phoned the hospital, and they told me I had to go to the morgue and identify him. When the news got out all hell let loose, journalists banging on my hotel door, then the Revson family lawyer arrived and took over.

"We were using titanium quite a lot on the DN3, which was quite a new material then. Titanium is finicky, it has to be machined smooth and the surface polished, and a ball joint which had some coarse machining on it had failed. There was only one layer of Armco and the car, instead of being deflected or stopped, had gone right under as far as the cockpit. I felt personally responsible. It was a very difficult time. The glamour of Formula 1 had gone, replaced by a sort of loneliness. You just had to work on. Of course I replaced all the titanium components with steel before the next race.

"Jarier oozed natural talent, but he was lazy. He'd do his quickest lap straight away, then he'd want to go home. In testing you had to suss out what was needed within the first five laps, because after that he'd adapt to whatever the car was doing. At Dijon he came in and said, 'not bad, but it's understeering on the long right-hander.' Next time he came in I said, 'how's the understeer?' 'It's fine.' In the debrief I asked him why he'd said it was understeering, then he said it wasn't. 'Oh, I just gave it half a turn on the rear brakes' – making the car slide under braking to cancel out the understeer. I was impressed he could do that, but it would have been better if we'd just dialled out the understeer.

"Tom Pryce joined us after Brian Redman decided not to do any more F1. Tom was young and inexperienced, but always quick: in his second race for us, at Zandvoort, he qualified third ahead of Regazzoni's Ferrari and Fittipaldi's McLaren. In 1975 with the DN5 he had pole at Monaco until Niki Lauda pipped him right at the end. Then, for the British Grand Prix, he got pole and kept it – and was leading the race until he hit the rain and went off. He made mistakes, but he learned fast. Just an ordinary bloke, quite shy. Instead of going back to the hotel at the end of the day he'd stay in the garages with the guys doing the work. Everybody liked him. If he'd switched to another team he could have ended up World Champion. But he was so loyal to Shadow: he stayed with them for his entire F1 career until he was killed in that bizarre accident at Kyalami. Two marshals ran across the road with fire extinguishers. Tom, unsighted, came over the brow at full chat and hit one of them, got the extinguisher in the face. A dreadful waste.

"Early in 1976 Colin Chapman summoned me to a meeting at Ketteringham Hall. With everything else he had on his plate, the road cars and the boats, he wanted somebody to sort out the race cars. I was fascinated by Chapman. For me he was the ultimate designer; still is. The chance to work with him was something I couldn't refuse. Hugely intelligent, way superior to any other designer I've ever come across, but always on the ragged edge. Barking mad, really. That seemed to be a Lotus requirement – team manager Peter Warr was pretty mad as well.

"I was the chief engineer. I didn't draw while I was at Lotus: they had Martin Ogilvie, who was a beautiful draughtsman and a bloody good designer, plus Ralph Bellamy and Geoff Aldridge, and Peter Wright doing aerodynamics. ➤➤➤

That year's F1 Lotus, the 77, was a bit messy, but we nibbled away at its problems, and Mario Andretti won the last race of the year in Japan. Mario was just wonderful. Everything you hear about him is true. He liked Lotus, he liked Chapman, and he always gave ten-tenths without question. He won in Japan by staying on wets when everybody else changed to slicks. There was canvas showing all round the left-hand front tyre, but he just went for it. Brave: as they say in America, 'balls on the hood.'

"For 1977 we had the 78, with all its massive downforce. Skirts took over my life: first we had nylon brushes, then hinged polypropylene, then sliding panels. At the races Colin engineered Mario's car himself, and Mario won four Grands Prix; I engineered Gunnar Nilsson's, and he won at Zolder. In the cockpit, poor Gunnar hated having his crotch straps done up too tight. He was in pain, but there was no way he was going off to a doctor in the middle of his season. Unknown to him and us, he was developing testicular cancer. Once it was diagnosed he bore it with immense courage and good humour, but very sadly he died the following year.

"My contract with Lotus was just for 18 months. Soon Don Nichols was telling me that Shadow had a load of money now, James Hunt was going to drive for the team, all that. So I rejoined Don, Jackie Oliver and Alan Rees and started drawing the 1978 F1 car, the DN9. Within weeks I realised it was a lot of waffle and nothing had changed. Then Ollie said, 'This is no good. I'm going to start my own team. Reesie is coming too, why don't you join us?'"

Arrows was set up at the end of November. Riccardo Patrese moved across from Shadow too, bringing his Italian sponsor Franco Ambrosio. Within 53 days the first Arrows FA1 was being flown to the test at Rio, and barely a week later Patrese raced, and finished, in the Brazilian Grand Prix. For the South African GP at Kyalami there were two cars for Riccardo and Rolf Stommelen, and Riccardo was leading when his engine failed with 15 laps to go.

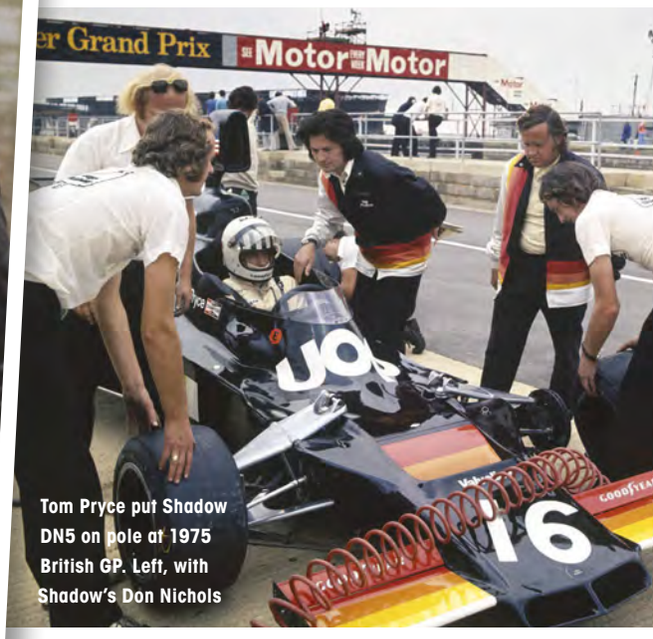
Having already done much of the design work on the Shadow DN9, Tony had produced the FA1 very fast, and inevitably there were similarities, particularly in the suspension and hub assemblies. So Don Nichols – who had lost most of his staff when Arrows was set up – sued for breach of copyright. Meanwhile the Arrows was going well: Patrese finished second in the Swedish Grand Prix to Niki Lauda in the notorious Brabham fan car.

While the Shadow/Arrows litigation dragged on, as a contingency Tony started on another design, slightly different in every dimension. In great secrecy two cars, called A1s, were built, sharing no interchangeable parts with the FA1. The court verdict was due just before the German GP, so the two A1s were taken to Germany in a plain van and hidden in a lockup close to Hockenheim, ready to be used if a losing verdict came before the race. As it was, the verdict came on the Monday after. A court injunction prevented Arrows from using the FA1, so the A1s were brought out of their German hiding place and taken straight to the Zandvoort test on the Tuesday. Seeing them there, Nichols assumed they were the FA1s and the injunction was being flouted. Back at the factory a posse of lawyers arrived – only to retire meekly when they realised the A1 was different in every key respect from the FA1. "All Don Nichols got was £1000 for the breach of copyright and £25,000 for loss of earnings. But Arrows' legal costs were £250,000, so we were in the red from the start. Then Ambrosio was jailed for various financial misdeeds. Arrows didn't have an easy birth.

"All this time I couldn't fault Riccardo Patrese. He ticked all the boxes: fast, intelligent, brave. People said he was arrogant, but he wasn't: he was shy. James Hunt blamed him for Ronnie Peterson's fatal crash at Monza in 1978, and everybody believed Hunt. But a long time later I saw a sequence of photos of the start. Riccardo was coming up on the extreme right, and didn't touch anybody. Ronnie, who was moving diagonally across the grid after a bad start, collided with Hunt. They stopped the race, and when Riccardo came back to our pit we put fresh rubber on for the restart. Emerson Fittipaldi saw this and put it about that we'd changed the wheels because they showed signs of a collision with Hunt. That is absolutely untrue. There wasn't a mark on them. But, totally unjustly, Patrese was demonised, and actually banned from the next race.

"With the A2 I tried to be really different. I did some serious wind-tunnel work and it was producing massive downforce, 50 per cent more than a normal car without using a rear wing. But to get the shape underneath I had to tilt the engine, and that made the centre of gravity too high. It didn't like rapid changes of ➤➤➤





Tom Pryce put Shadow DN5 on pole at 1975 British GP. Left, with Shadow's Don Nichols

direction, quick left-rights. If we'd put very stiff springs on, like Williams did later, it might have worked. The A3 for 1980 was conventional, nice and neat, and Riccardo was second at Long Beach. But the problem was just as it had been at Shadow – no development money. Jackie Oliver was desperate to keep the German sponsors, Warsteiner, and he suddenly announced he was hiring Gustav Brunner and some German engineers. I said if he did that he'd be doing it without me, and he said, 'Fine.' So I picked up my briefcase and left. Gustav did go there but didn't stay long, and Ollie lost the Warsteiner sponsorship anyway. I had a 10 per cent shareholding in Arrows: Jackie managed to get the whole team valued at just £50,000, so I only got £5000 for my shares. Looking back, I regard the whole Arrows thing as a wasted period in my life. It was a great relief to be out of it."



Tony spent the next two F1 seasons with Teddy Yip's little Theodore team, working with Patrick Tambay, Marc Surer and Derek Daly. Then he made his first move into sports cars, designing the Mk3 version of Ford's C100 Group C car with turbocharged Cosworth DFL. Internal Ford politics axed it before it had raced, but it led to an invitation from Stuart Turner to pitch for a Group B rally car. "He said I could do anything I liked, put a DFV in it if I wanted. I went for an aluminium honeycomb chassis, turbo BDA mounted in the middle but offset to the left, transmission alongside the engine and four-wheel-drive. I'd never been involved in rallying, and all the criteria were different – manoeuvrability, ground clearance, suspension travel, the need to carry two people and change parts very fast at service points. I loved the challenge of all that. I won the contract and my design became the Ford RS200. The first eight were made at Auto Racing Technology, the company I set up with John Thompson in Wellingborough, and Reliant built the 200 production cars for homologation. At the end of 1986 the FIA killed Group B, but Mark Lovell used an RS200 to win the British Championship.

"By then I'd moved on to TWR. Tom Walkinshaw asked me to design a Le Mans car for Jaguar – a real Jaguar because it had a proper road-car engine, that big lump of a V12 which you can find in any old XJS. The way to get more power was to bore it out. We started with 6.0 litres, then 7.0 and eventually 7.4, and got 740bhp. It was always two valves per cylinder; we tried four-valve heads, but because of the extra weight it was slower. The car we had to beat was the Porsche 962. Porsche had reliability, but to me their chassis weren't very strong. The Jaguar was designed as a hugely rigid carbonfibre structure, with the roof part of the chassis. When Win Percy went end-over-end at 200mph, he undid his seat belts and got out unhurt.

"It took us three years to get our first Le Mans win. It was all a massive learning curve. To get down that Mulsanne Straight quicker than anybody else we needed 240mph, and once we got it we had to retain it as brake ducting and oil radiators got bigger. Among the drivers Martin Brundle felt he was the No 1, and he was always quick. But allocating three drivers to each car we had to make sure they suited each other. In 1988 Jan Lammers/Andy Wallace/Johnny Dumfries were the fun team, jokey characters but serious underneath. In the closing stages Jan, in the lead, felt the transmission go funny. He managed to select fourth gear, and radioed in telling us he wanted to stay in the car to the end. But he didn't say what the problem was, in case the Porsche guys were monitoring our radios and might speed up Stuck in the second-placed car. He left it in fourth for the rest of the race, even chugging out of the pits after a stop, slipping the clutch and with everybody pushing. He made it to the end, and we'd won Le Mans at last. When we took the gearbox to bits the pinion shaft was completely broken, but fortunately in the middle of a hub with about 15mm of engagement on the splines both sides, so it still drove.

"I did the XJR10 and XJR11 with twin-turbo V6, and at Le Mans in 1990, with the V12 XJR12 and the modified circuit with chicanes, Brundle/John Nielsen/Price Cobb led home a Jaguar 1-2. Then I went to Toyota for three years until the end of Group C, dividing my time between Japan and England." In 1992 the V10 Toyota TS010 was second at Le Mans first time out, but the transmission was the car's Achilles heel. Tony was then hired by Luca di Montezemolo as design consultant on the Ferrari 333SP customer sports-racer, before helping the ebullient Laurence Pearce take the Lister Storm to Le Mans. Next it was back to Tom Walkinshaw on the Nissan R390 Le Mans programme. When Nissan's financial troubles and subsequent amalgamation with Renault wound that up, Tony's now considerable Le Mans experience was taken on board by Audi. He became deeply involved with Ingolstadt's parallel R8C and R8R development, which brought third and fourth places at Le Mans in 1999. In 2000 came the magnificent 1-2-3 for the R8, the first of Audi's string of Le Mans victories. And after that Tony, now 60, retired.

> "When I was in F1 I could always tell a car's designer, like a signature on a painting"

But he couldn't stay away from motor sport. He rejoined the 750MC, and went club racing with a Sylva kit car. "It cost me £15,000 – about the same as a front upright for an Audi R8! I had a lot of fun, doing the Six-Hour Relay five times. Motor sport has changed so much, yet the camaraderie in the club is just as I remember it. I've sold the Sylva now, but the 750MC has done me the honour of making me club president, succeeding the late Bill Boddy.

"When I was in F1, I could always tell a car's designer: like a signature on a painting, a Brabham would say to me Gordon Murray, a Tyrrell would be all Derek Gardner, I'd look at a Lotus and see Maurice Philippe. You don't get that with CAD [computer-aided design]. CAD's great, but it's only a tool. Now the individuality is gone, because everybody uses that same tool – apart from Adrian Newey. Adrian still puts pencil to paper: he probably has the last drawing board left in F1.

"I'm lucky to have been working in that magic period started by Chapman and Broadley. You'd pick up a pencil, put a sheet of paper on a board, and draw a car. The thinking went straight from your brain through the pencil to the paper: the car came to life as you drew. And, good or bad, it was your car. Nobody else's."



The Colonel's little trooper

Ferrari's Dino-badged 'F2 sports car' fired Col Ronnie Hoare's enthusiasm, but this battle was lost before it began

BY GORDON CRUICKSHANK





Nissan has one. Toyota has one. Mercedes has one. Sub-brands, we call them now, where the manufacturer can create a fresh image for one section of its produce. Ferrari too had one, long before Infiniti, Lexus and Maybach were created (or revived in the latter case). Only Ferrari's sub-brand wasn't designed to upscale the name, but the opposite. 'Dino', the diminutive of Alfredino, for Enzo's beloved but doomed son Alfredo, was applied to the small stuff – V6 and V8 instead of V12, smaller, lighter, cuter than big brother, destroyers to Maranello's battleships. When it came to the later road car Dino's was the only name visible – the word Ferrari took a back seat. And there was no back seat. This parallel line of second-rank machinery bore the Dino name from the Fifties into the Seventies, but perhaps the most exquisite embodiment of it was in the mid-Sixties, when the car on these pages was created, the 206SP. A car which was intended to wrest trophies away from Stuttgart, but which through no fault of its own found itself up against tougher competition than it was meant to handle.

To Enzo, anything less than a V12 seemed only half a car. But Dino, the son he was grooming to take on the Ferrari mantle, saw wider opportunities. Trained in engineering and now in his twenties, Dino suggested to his father during 1955 that to contest the 1.5-litre Formula 2 due to begin in two years they needed a smaller, lighter engine, and despite its inherent balance problems a V6 would be ideal. How much involvement Dino had in the actual design is unclear, as the detail work is credited to Vittorio Jano, the brilliant Hungarian engineer whose career had intertwined with Enzo Ferrari's since the Twenties. The original unit probably also owed a certain amount to Aurelio Lampredi who had recently left Ferrari. In the meantime, though, Dino was diagnosed with a form of muscular dystrophy for which there was no cure. A stricken Enzo Ferrari would later write that he and Jano sat by Dino's hospital bed discussing the design, so the new engines and the cars they powered became known as Dinos, though Dino himself never saw this expression of paternal affection; he died in June 1956, aged 24.

Dino's name would gain a new glory through the succeeding years. Conceived for Formula 2 racing, the compact V6 would expand, contract and mature, garnering trophies and world championships not only in F2 but in Grands Prix and sports cars. Enlarged by stages, it brought Mike Hawthorn a world title during the 2.5-litre years; reduced once more it proved to

be the only power plant fully developed in time for the 1961 introduction of the 1500cc cap in Formula 1. Cue another championship. Whether it's fair to view it as the same engine is debatable: no racing team stands still, Maranello least of all, and the V6 in Phil Hill's title-winning 156 had moved a long way from its conception. Right at the beginning new engineering arrival Carlo Chiti opened it out from 60deg to 65 to improve airflow down the inlets, and then in '61 introduced a shorter, lower 120deg engine which was 10hp stronger.

But the nomenclature stuck with the layout as smaller V6s appeared in Maranello's first rear-engined car, the shark-nosed 246P sports-racer of 1960, Enzo's tentative way of trying out this reversal of good sense, which added Targa Florio and Nürburgring 1000Kms victories to the Dino story. Once the V6 had test-driven the layout the V12 stepped in, and through the Sixties the battle with Ford in the Prototype classes meant that the 12-cylinder sports-racers overshadowed the smaller cars. But when a 2-litre prototype called 206P romped up Germany's Freiburg hillclimb in 1965 ahead of its Porsche and Lotus rivals, the junior Ferrari was about to take off again.



LAT

There were two angles to this. First, the FIA planned to simplify its regulations for 1966, with a new Group 6 which was perfect for Ferrari and other racing manufacturers – make as few as you like and as big as you can go. But to slot in below came Group 4, with a 2-litre limit and its own championship – an arena where with some high-profile victories Ferrari could sell cars to privateers, gaining glory and cash flow. Second, 1967 would bring a new 1.6-litre 'production-based' Formula 2 into being. Both of these new classes required a degree of production: 50 of the Gp4 machines, and 500 of the F2 engine. Ferrari would need to contrive both angles to gain homologation.

Ah, homologation – the trickiest game in racing, where the poker face and the double-bluff can see off a straight production run. Enzo was the biggest bluffer of them all, often threatening not to play if he didn't get his way: he'd claimed the GTO was just a rebodied 250GT, but that was a bluff the FIA called when presented with the 250LM, whose very name was sleight-of-hand to obscure its too-large engine. So for the new Dino, Enzo had to play it straight. He contracted with Fiat to build at least 500 small V6 engines which the huge combine could also use in a car under its own badge, and he buckled down to building the 50 Dinos that Gp4 demanded.

He didn't make his half-century, but this time it wasn't light-fingered book-keeping but industrial strife which curtailed the run in '65. Both Fiat and Ferrari suffered through that summer of discontent, so both engines and chassis were affected and only 18 found their way to Drogo's Carrozzeria Sports Cars in Modena. Instead of privateers swamping Gp4 grids with a model called 206S, showing up all those Porsches which had had their own way in the 2-litre classes, Maranello was forced to run the car itself as a prototype, labelled SP. What a difference a 'P' makes. Now, instead of contesting the International Championship for Sportscars, the trophy for the new 'production' 2-litre Gp4 cars, the dainty Dino was squaring up to the unlimited engines and minimal build requirements of the prototypes, cars built for victory at Le Mans and the Nürburgring.

Built in traditional style of tubes skinned with alloy sheet, the 206 was hardly a technical advance, and nor was the double-cam 12-valve motor fed through three twin downdraught carbs, which claimed 218bhp. It was pretty, though. Styled by Pininfarina, it was clearly from the same stable as the 330P3, but slimmer, slighter and smoother, with scarcely an extraneous slot on its alloy and glassfibre curves. With its optional roof panel it could be a spider or a coupé, depending on which event the eager buyer planned to enter. Some buyers, though, were rather too eager.

In prototype form with both 2-litre and 1.6 versions, the revived Dino looked promising: one placed fourth in the '65 Nürburgring 1000Kms, and Lodovico Scarfiotti lifted that year's European hillclimb title, so it looked a good prospect when Col Ronnie Hoare wanted a car for the new Gp4 trophy. The car he ordered was the one in these photos, chassis 006, third to be produced. Ferrari has always had enthusiastic agents, and Hoare's Maranello Concessionaires was one of the keenest, not only selling the cars in the UK but employing top names to race them. Once 006 had gained the distinctive pale blue stripe sweeping off the nose, Hoare booked Mike Parkes to contest the Tourist Trophy at Oulton Park – where trouble in the final drive halted it. But it was ready for the Nürburgring 1000Kms, so Hoare rang up David Piper and Richard Attwood to see if they were free.

David Piper remembers the car with mixed feelings. "It handled beautifully but it was a bit of a disappointment, really. It was one of the first and it only had the two-valve engine because the three-valve wasn't available and it just wasn't competitive against the works car with three valves and fuel injection; there was a huge difference in performance. The works version was virtually half a P4 unit, and frankly it was nearly as quick as a P4."

Nearly as quick as a Chaparral 2D, too: the works Dino was beaten only by the Texan technical tour de force. Suddenly being made to run among the prototypes didn't seem such a no-hope prospect for little brother, especially as it also had a remarkable second place in the Targa Florio to boast about. For Piper and Attwood at the 'Ring, however, the pain didn't last too long; the blue and red machine broke a half-shaft.

For Attwood it was a relief: "I hated driving it. It just wasn't fast enough. Very underpowered for its handling. It looked great, yes, but I wasn't after 2-litre titles. I wanted the top prize, so I suppose I was rather against it from the start."

Once again chassis 006 went back to the shop, but its next outing would be more fruitful, with Parkes finally taking the 2-litre class in a support race at the British GP that year. And Attwood got to experience how it should have felt: "Spa was my best result in a Dino – sixth – but that was a works car and it just felt very different. Typical of the day: Concessionaires was dealt with shoddily. NART and Ecurie Belge got better spec cars. I think Ronnie Hoare just went along with what the factory wanted him to have. As long as he was representing them he was happy. One year we went to Le Mans to drive a P2. It had just been sitting in storage and they sent it to the track without putting a spanner on it. It didn't last long."

Nor did the Dino project. Ferrari came out of that year cowed, beaten in the small category by Porsche but, much worse, seen off in the big class by Ford. From that point it concentrated on snatching Le Mans laurels from the US firm. The Dino, and the privateers who had bought one, would have to look after themselves.







Maranello Concessionaires' Ronnie Hoare hired quick drivers to race chassis 006 but two-valve V6 lacked power compared to three-valve injected engines in factory cars. Opposite: Mike Parkes by Oulton lake in 006 during 1965 Tourist Trophy



There was another chance of glory for the little car, though. For 1967 the Targa Florio course had been resurfaced, and on the smoother surface the nimble machine had a real chance of victory against the 2-litre Porsches. Backing the works car were four private examples, but again Porsche swept the board, a 2.2 eight-cylinder 906 heading a pair of sixes. Stuttgart was gearing up for next year's 3-litre rules, when there would be nowhere for the junior Ferrari to play – or at least nowhere Maranello was interested in. The works Dinos were sold off, and for the next few years appeared in events around Europe and even the US. Notable over here was Tony Dean, whose ex-works car won many smaller events.

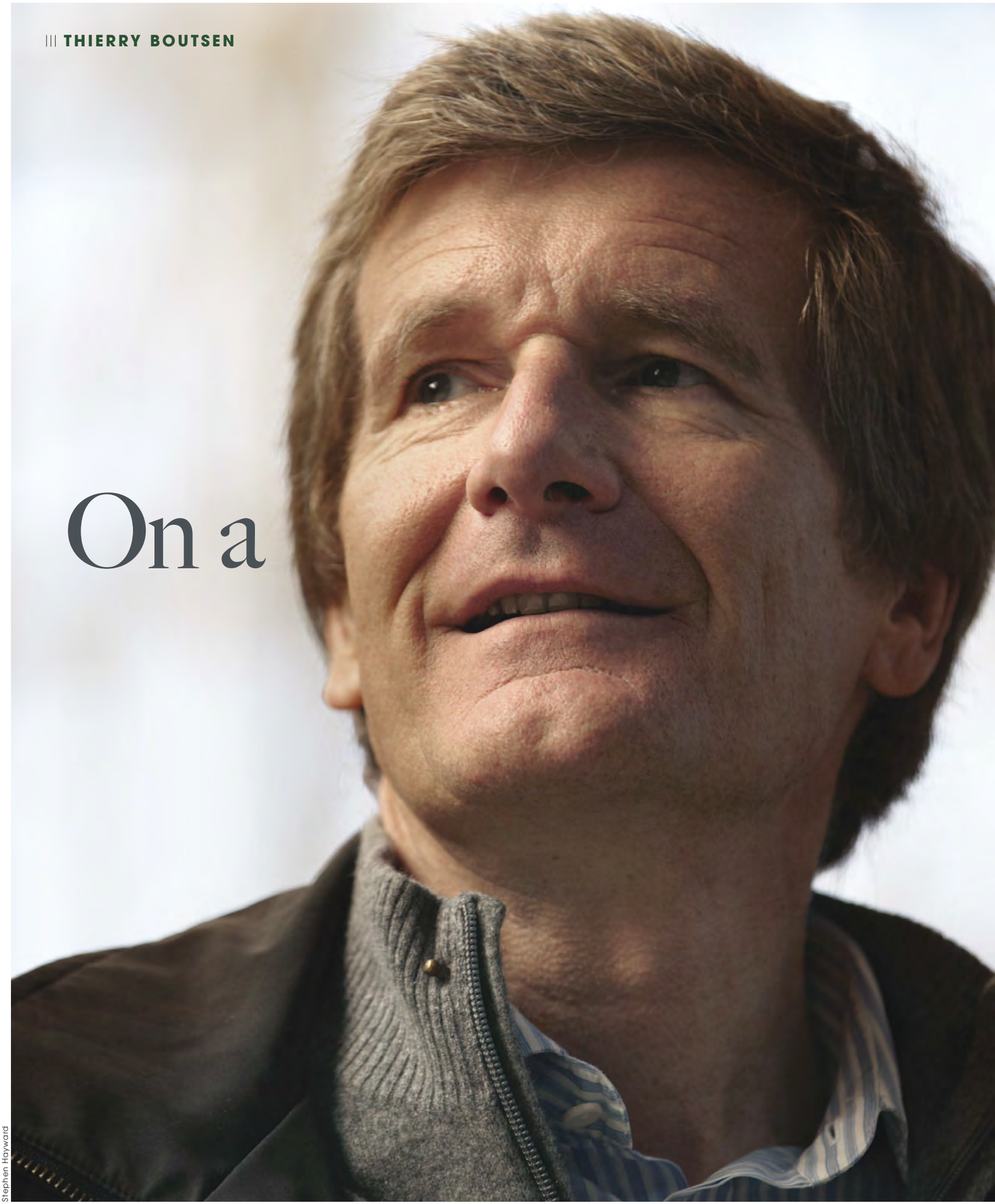
Ronnie Hoare's car went to Gustaf Dieden, a Swede who raced it in Sweden and Denmark before sending it back to the factory after a minor accident. Next it was bought by Hans Wangstre who for the next year used it in some of the major sports car races, achieving a finish in the Targa Florio and 15th at Oulton Park. Wangstre, who entered races under the banner 'Team Bam Bam', had previously raced Volvos, which may account for what happened in 1969 when the Dino's ageing block finally gave way under the vibration that a 65deg V6 inevitably creates. Unable to afford a factory replacement, Wangstre fitted a Volvo four instead, just to keep the car mobile. There would be no more racing for the eager little brother.

A year later 006 found a new owner, and it hasn't changed hands since. For much of that time it patiently awaited its heart transplant, but no affordable donor turned up. Instead, its guardian acquired another Dino 206S with another damaged crankcase, which persuaded him to invest in casting four new blocks at Ferrari's foundry. To conclude its long restoration 006 arrived at Tim Samways' workshops, and has finally re-appeared looking as it did at the 'Ring in 1966, complete with race number 14 and Concessionaires' pale blue swathe.

Dino might have remained insider shorthand for a historical by-way if two Pininfarina concept cars on the 206 chassis had not caused a motor show stir in 1965 and '66. They would sire the 206GT and 246GT, the mid-engined road car that most people think of when they hear the word Dino, a car that did not carry the Ferrari name. Fiat, too, would extol Alfredo's nickname in the public domain with two cars called Dino. But those four letters also appear inside all these cars, cast into the cam covers, on the heart of the machine. That's where the story began, and its finest expression must surely be the simple and beautiful 206SP.

Our thanks to RM Auctions; the car shown here will be auctioned at its Grand Prix de Monaco Historique sale on May 11-12.

On a



Stephen Hayward

different plane

Thierry Boutsen spent 10 years as a Grand Prix driver. But today, jet power dominates over downforce for a man who beat Ayrton Senna

BY ROB WIDDOWS



Boutsen Aviation

When compiling a list of famous Belgians, I think instantly of Georges Prosper Remi, better known as Hergé, whose Tintin stories have long been favourites of mine. Then there's Eddy Merckx, five times winner of the Tour de France. Or the surrealist painter René Magritte. As motor racing fans, we would surely include Jacky Ickx, six times winner of the *Vingt-Quatre Heures du Mans*.

More recently, a quiet man from Brussels came along, raced for five Grand Prix teams, won three races, and impressed a great many people with his speed and skill in the rain. His Formula 1 career began, and ended, on home turf at Spa-Francorchamps. In 1983 his Arrows suspension broke after four laps and, 10 years later, the gearbox on his Jordan-Hart gave up before he could complete a single lap.

In 1997 he put his mind to running what has become a successful business. Thierry



1



2



3



4



5

LAT

[1] Four F1 seasons with underfunded Arrows yielded one podium [2] Heavy Lambo-engined 1991 Ligier must have been a beast to hustle around Monaco [3] Wet-weather virtuosity in the FW12C at Montréal in 1989 [4] Boutsen enjoyed working with Rory Byrne and Pat Symonds at Benetton [5] Last GP, in Belgium in '93, ended with failure of 'old' gearbox

Boutsen is president of Boutsen Aviation, purveyor of private jets, and based in Monte Carlo's Rue Grimaldi. Mounted on the wall of the president's office is the Williams in which he won the Canadian Grand Prix in 1989, but more of that later.

Despite the woes of the global economy, Boutsen Aviation goes from strength to strength, selling more than 220 aircraft thus far. He still has an interest in motor sport through Ginion Boutsen Racing, which is about to take him back to Le Mans, as a team owner, for the first time since the crash that ended his driving career – and almost so much more – in 1999. But private jets are the day job these days.

Thierry is a busy man, constantly on the move. I finally pin him down, but not for long.

I first speak to him on the phone. He is in America. Too far to go. Now he's back in Monaco. Too many meetings. Azerbaijan is in the diary. Hamburg is next. Then he's off to London. Getting warmer. So I head for Heathrow where we will relax with coffee. Wrong. The plane is late. Now we're off to Paddington. So we talk as we take our subterranean journey into the capital.

"I must tell you," he leans back in his seat, resigned to the train journey, "I went racing because I liked the sport. I liked driving race cars – I hate driving road cars – but most of all I liked the technical part. I was educated as a technical engineer, so I had a lot of input in setting up my car. I knew exactly what I wanted from the car, and always I had long talks with my engineers." The English is perfect, the accent slips between Brussels and Boston. "I was lucky, I worked with many great engineers. Sometimes the cars I was given did not work very well – but between us we managed to make them much better. I liked the engineering side of it.

"I never had any doubts about my ability as a driver because, by the time I went to F1, I had been successful in Formula Ford, F3 and F2. I knew I could be fast. But I didn't have money. For my first Grand Prix at Spa in '83 I had to find a great many sponsors and somehow I had to look after them all. I was busy. I never found one big sponsor so I took many smaller ones with me to Arrows, and they came to Spa. I think there were 22 different sponsors… I needed half a million dollars for the year, and Spa was the best place to start for the publicity I needed. That was the last time I ever paid to drive an F1 car, and in the future I would play musical chairs, five teams in 10 years, never one big backer to keep me in a top team.

"That first race was a big weekend for me, to be in front of my home crowd, and of course I was aware of the history – Willy Mairesse, Olivier Gendebien, the Pilettes, Patrick Nève and most of all Jacky Ickx of course. Remember, we came from a very small country."

As we talk, engineering is a subject Thierry returns to. In that 10-year period he raced for Arrows, Benetton, Williams, Ligier and Jordan, none of whose cars were at their peak when he was there. He was rarely in the right place at the right time.

"My first engineer, at Arrows, was Dave Wass, a very good man, but he had… shall we say, limited access to funds… so it was hard for us to produce anything really competitive. Then it was Rory Byrne and Pat Symonds at Benetton, they were absolutely great people, wonderful to work with on the car. At



Williams I worked with Patrick Head, a totally different character, and this was at a time when the cars were not working well and we were always searching for the answer. They'd been overtaken in speed by McLaren and Benetton and it took them time to recover. Adrian Newey arrived too late for me but I did the suspension development on the FW14 that Nigel [Mansell] used to win the championship in 1992. I was very proud of my work as a test driver there but unfortunately I was not the one to take advantage of it…" He smiles, a little ruefully.

"Ligier was not a good time, we had many different engineers, then at Jordan the car was very good, lots of potential, but I could never use it because of my physique, my physical proportions. I was never comfortable in the cockpit, I was too tall, and they never did anything about it because I was only there for a year. In my last race for them at Spa the gearbox broke before I could even do one lap – Eddie knew I was leaving and the gearbox was… well, not a very new one." He chuckles in the way that Jordan drivers sometimes do.

Two of Thierry's three Grand Prix victories, Montréal and Adelaide in 1989, came in very wet conditions. Like Ickx before him, he excelled in the rain, racing as if the track was dry, barely putting a wheel off the asphalt while others wiped his spray from their visors. So what was it about the rain?

"In Belgium you can practice every day in the rain," he laughs, but he means it. "It rains every day in Belgium – no, I mean I had raced a lot in the wet, and it was never a big problem for me. I was good in wet conditions because it's all a matter of concentration and attitude. Also, I *like* driving in the rain very much, because it's difficult, because it's a challenge. If you make a mistake, you spin and you are off the track. There is no room for a mistake, and the limits are much more difficult to reach. And then to stay on the limit, lap after lap, is much more demanding than in the dry. It's a big challenge. You have to know the limits of the car and you have to know your own limits, while staying as close as possible to these limits. You must never let your concentration fade away, you have to be focused and not pay attention to anything else, not the fog on your visor, not the water in your overalls, nothing. It must be total focus.

"You must follow the evolution of the track, you pass the same place every 90 seconds or so, and conditions can change. You have to adapt to how much faster, or slower, you can go. This is a very complex exercise over 70 or 80 laps, and not many people are able to do that. You must accept that driving in the rain can be a nice thing and that it can give you advantages over those who don't like it. Then you get good at it. This is not instinct, this is like a neck exercise, something you have to do and have to accept. Then you are more at ease with it.

> "Ayrton Senna was my best friend in Formula 1, in my life"

"The wet races helped to prove I was good enough to be in F1 – because most of the time I was driving cars that were not the most competitive – so the rain gave me an opportunity to show what I could do with a car. This was how I could win in Canada and in Australia, I could set the car up for the wet with my engineer, and I knew…," he smiles broadly, "…I knew I had the ability."

Rightly or wrongly Boutsen is best known for his victory in the Hungarian Grand Prix on a hot – *and dry* – day in August 1990. Starting from pole in the Williams-Renault FW13B he led the entire race, inch-perfect over 77 laps and nearly two hours of racing. What made this special was that he kept none other than Ayrton Senna behind him, winning by a mere 0.288 seconds. Nelson Piquet in the Benetton and Riccardo Patrese in the other Williams were half a minute up the road in third and fourth.

"I knew the car was good. The Hungaroring was the only place where the car was performing well so I got a clear lap in qualifying and put it on pole. When I say the car was good, I mean it was good up to a certain level. Not as fast in race conditions as the others – but I could drive it in such a way that the tyre wear was not as high as the other cars – so my tactic was to stay out the *whole* race, no pitstops for tyres at all. And it worked. But at the end I was right on the limit, there was just no rubber left on the inside of the rear tyres, none at all.

"For me, this was a big achievement because it was not easy at all, and I made no mistakes under big pressure. You have to understand Ayrton Senna was my best friend in F1, in my life actually, but we were fighting each other that day, both of us 100 per cent, so I was pretty happy at the end. He could have tried to push me off but he didn't do that… I wouldn't have minded if he had tried," he holds up his hands and laughs, "but there was no room to pass and I was *never* going to give him any room. Absolutely no way. He was my friend, yes, but I had the race under control.





Boutsen kept Senna at bay to claim 1990 Hungarian GP win

LAT

"We first met in Detroit in 1984 when we raced each other in uncompetitive cars, he in the Toleman and me in the Arrows, but we had a good battle. Later we became very close friends. He was the strongest man I ever met, I admired the way he dealt with life and with racing. He was different to anyone else: nobody could match his commitment, nobody. And he had the skills to drive the car at the limit more often, and for longer, than anyone else."

We are nearly at journey's end. He checks his watch, checks his phone, tidies his immaculate haircut (the same as it ever was), flicks dust off sharply-pressed black trousers, and slips on the company jacket. Just time to ask him about the end of his career and that horrendous crash at Le Mans in 1999 when a backmarker strayed into the path of his Toyota GT-One and left him with serious back and leg injuries.

"It was going to be my last race anyway, I'd already decided to stop," he tells me, "but this was a more brutal stop than I was expecting, not the nice soft one I had planned. I was very lucky to escape from that crash. It took me a long, long time to recover, to be able to live a normal life again. It was two years learning to walk normally and four years to be able to sleep without any pain. The crash was absolutely nothing to do with me, but that is motor racing; anything can happen when you are out on a racetrack. In most accidents, you are the victim of something beyond your control, but I was lucky to be in good hands afterwards and my wife Daniela supported me very strongly, every minute of the time, every step of the way back.

"It was a nasty crash, yes, and bad luck, but I was also lucky – to survive and to recover."

Earlier he mentioned musical chairs – five teams in 10 years. Maybe that had held back his career in some way. Or not?

"Some choices I made, others were made for me," he explains patiently. "I decided to move from Benetton to Williams in '89 and that was a good decision. Williams had huge experience, huge potential, and Flavio [Briatore] was not yet at Benetton to bring all the good things together. The cars were competitive, nice to drive, and with Riccardo [Patrese] we had a really good atmosphere in the team. I'm not saying I *liked* him – I mean, he was my biggest competitor and I had to beat him, you had to *hate* your team-mate, you know," he laughs. "Frank [Williams] made it clear that the drivers' championship was not important to him, he wanted the constructors' titles, and that can de-stabilise the drivers a little bit. He was never really behind his drivers because who won the race was less important to him than his car winning the race. You could feel that.

"But it was not my choice to leave; this was made for me, because the team could make more money with Nigel [Mansell] than with me. It is not only a sport, it is a business, and a business to make money. A driver can lose his self-belief so it is really important, all the time, to be fit, physically and mentally, because once you sit in the car you are alone. You must cope with many things, technical things, all the paddock gossip, and mental challenges, so you must be fit to stay at the top."

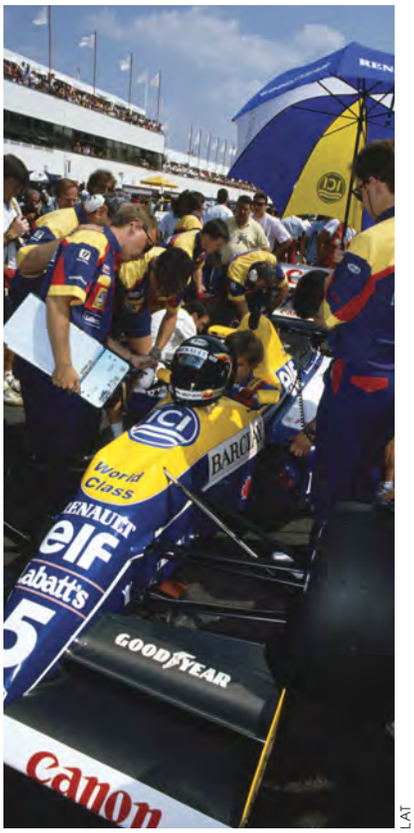
After his retirement, had his passion for aviation ever tempted him to start his own airline. Air Boutsen, perhaps? I am thinking of Niki Lauda who so famously… but I get no further. "Absolutely not, no," he interrupts, laughing, "Niki has many more problems than me, many more… No, I'm not interested in flying passengers. My passion is for the aeroplanes. I've always loved them – I bought one when I first got some decent prize money in F1. Not just for the technical side, they are works of art also, the small business jets. Now my wife is designing the interiors, a new business that gives our clients a complete service in the acquisition of business jets. And it's going pretty well."

> "It was four years before I could sleep without any pain"

So, how does he look back on his decade in the heady world of F1? How does he reflect on that chapter of his life, I wonder?

"I think about it a lot, you know," he smiles. "They are good memories because I came from nothing, pushed my parents into letting me sit in my first race car, went to racing school, won championships, made it to F1, so I'm quite proud of what I achieved. I never thought about F1 when I started and I was always aware that it could stop at any moment. But I put pressure on myself, took it seriously, and I was extremely lucky to be in F1 for 10 years, and to win three races, and I enjoyed every minute of it. Not many drivers can say that, and I know that, so I am happy to look back in this way."

Happy sums him up. Serious, yes, but contented, not burdened by baggage or regret, ego or facade. Nice man, is Thierry Boutsen. He knows he's not a superstar but he also knows he made a lot of not-so-quick cars very much quicker during his decade in F1. When he goes to work in Rue Grimaldi, there's that Williams-Renault on the wall, and a glinting Gulfstream G550 model on his desk. From here, Thierry Boutsen can survey the past, and the future, with some satisfaction.



LAT

INSIGHT

PATRICK HEAD ON BOUTSEN

Williams engineer recalls his driver's three Grand Prix wins

"Thierry was a very smooth and stylish driver, a quiet man, not that forceful, and a very gentlemanly person who was always a pleasure to have in the team.

He came to us at the end of 1988, when we'd rather fallen from grace after winning the championship in 1987. We were using the Judd engine, we'd tried to run the active ride before we were truly ready to do so, and (Nigel) Mansell had moved on to Ferrari.

When Thierry came to us, he had a complete bug in his head about running an incredibly stiff car – he'd come from Benetton where he'd had a very stiff car, and perhaps we'd have done better with him if he hadn't insisted on such a stiff set-up. The problem was that he didn't like to have any roll in the car. To be fair, most drivers think they know the best way to go on set-up.

But he won three good races, in the wet at Montréal and Adelaide, and an impressive win in Hungary. Ayrton Senna was all over him for most of that race and Thierry never made a single mistake, which was remarkable and showed just what a very tidy driver he was. That was a clever drive."

"When reading the fascinating story about Dick Seaman, how in my wildest dreams could I have imagined that in 1958 I would become the first Englishman to win the German Grand Prix since Seaman 20 years earlier?"

Some call him the most under-rated British driver of all. Stirling Moss considered him one of his toughest rivals. Now Tony Brooks has written his autobiography, and we are proud to present this extract describing the eventful road to his racing debut

It was books and magazines that sparked the young Tony Brooks's interest in motor sport. With his enthusiasm boosted by visits to Prescott and Shelsley Walsh, Brooks practiced his craft on the road with a BSA and then a 650cc Triumph Thunderbird motorbike, teaching himself to anticipate traffic, assess grip and take the neatest line through a corner. But two wheels were never going to be enough…

The Triumph had its limitations, but I learned to ride within them and I had some wonderful runs in the High Peak area over the Snake Pass to Hathersage, Baslow, Buxton and Whaley Bridge, with little or no traffic on challenging roads with a great variety of bends. I learnt a great deal about riding both quickly and safely on those roads and would look forward to the weekends when I would do circular tours just for the pleasure of the ride. It was when I returned from these that my father spotted more squashed insects on my goggles and person than he thought advisable.

Dad resolved to get me off my bike and into a car, but I had told myself that I didn't want to make the transition until it was to a car as fast as my bike – an unrealistic ambition as in those days only a handful of extremely expensive road cars could match the Triumph's 0-100mph time. Fortunately, although my motorcycling experience had heightened my enjoyment of speed and the thrill of cornering, I had come to accept that the public roads were not the place to explore the limit of myself or the machinery I was in charge of. At about this time I read Charles Mortimer's book *Racing a Sports Car*. It ran to only 138 pages but I absorbed every sentence. I was in a fantasy world, reliving his experiences and that of his wife, Jean, who was the real novice. The car Charles had bought to go racing was a Healey Silverstone.

As Dad wanted to get me off my motorcycle and Mum was a good sport I suggested they read Mortimer's book, which they did. Again I adopted a gentle 'constant drip' approach and in time Dad bought my idea of selling my Triumph and Mum's MG TC to purchase a car suitable for some low-key club motor racing, the MG not being suitable for this purpose.

Which car to buy? Charles' Healey had cost £1256 11s 8d (£1256.58 in modern currency), much more than our funds could stretch to. But the Healey had proved to be a reliable car with its 2½-litre four-cylinder Riley engine and had provided some very enjoyable motor racing. It seemed to be the ideal car, the only problem being to find one we could afford.

Only 105 Silverstones had been built so I had quite a challenge to find one at a suitable



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EIGHTH
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(SPORTS CARS ONLY)

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SATURDAY, 22nd MARCH, 1952
First Race 2 p.m.

Organized by
British Automobile Racing Club
55 PARK LANE, LONDON, W.1

EVENT 3 — 5-Lap Scratch Race (C) — 2.50 p.m.
1500-3000 C.C. NON-S/C.
Starting positions by ballot

No.	Entrant and Driver	Car	Colour	c.c.
36	T. A. D. Crook	Frazer-Nash	Red	1971
37	J. R. Stoop	Frazer-Nash	Green	1971
38	A. M. H. Bryde	Ferrari Saloon	Maroon/Black	2561
39	A. E. Hely	Frazer-Nash	Blue	1971
40	H. A. Mitchell	Frazer-Nash	Green	1971
47	J. B. de Edwards	Healey	Green	2443
48	A. D. Tasker	Healey	Green	2443
49	C. A. S. Brooks	Healey	Blue	2443
50	D. H. Sessions	Healey	Blue	2443
51	D. A. W. Jacobs	Healey	Red	2443
74	J. A. Brunner	S.S.100	Blue	2664
76	R. F. Collinson	Aston Martin	Green	1950
85	L. K. Holdaway	Alvis	Green	2511

RESULT

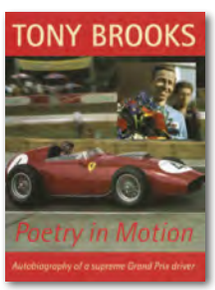
1st..... 2nd..... 3rd..... 4th.....

Winner's Speed.....*m.p.h.* *Won by*.....*secs.*

Fastest Lap: Car No.....*at*.....*m.p.h.*



"Driving my mother's Healey Silverstone at Goodwood in the first race of my career (and also above). I am side-by-side with Mr Arthur Hely in his Le Mans Replica Frazer Nash, which he was so generously to invite me to drive the following year"



TONY BROOKS
POETRY IN MOTION
by Tony Brooks

Published by Motor Racing Publications, £49.50
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price. I scoured the classified adverts in the motoring magazines and found one owned by a lady living in the West Country. It was first registered by her in December 1949 and with 10,700 miles on the odometer we managed to buy it for £740. Dad and I drove it home with great joy and I resolved to keep a racing journal detailing all work on the car, the races and the results. The first entry was: 'Arrived home 5th December 1951, mileage 11,093'. I had shown Mum a photograph of a Healey Silverstone as part of the selling process, so she knew that with its mudguard wings and primitive hood it was not exactly an ideal shopping car, but she had entered into the spirit of the venture with remarkable enthusiasm. Charles Mortimer encouraged us by recording that the first season's racing, excluding the purchase of the car, had cost a total of only £291 1s 7d (£291.08) after deducting bonus and prize money and it included competing in the RAC TT, the Jersey International Road Race, the Silverstone Production Car Race, six Goodwood Club meetings and some sprints.

Although it was 250 miles away from Dukinfield, Goodwood was the obvious choice for my racing debut because it had been the focus of the Mortimers and looked to be an interesting circuit with character. Charles had recorded his Goodwood lap times in the book which I thought would be very useful in providing a yardstick for my performance. Imagine my disappointment to find that a new chicane had since been incorporated in the circuit between Woodcote and Madgwick Corners, making any comparison of lap times invalid!

The Goodwood events were run by the British Automobile Racing Club so I applied for membership of the BARC and completed an entry form for a club meeting on Saturday, March 22, 1952, entering a scratch and a handicap race, both of five laps. [Local mechanic] Jim Critchlow and I carefully prepared the Healey. The cylinder head was removed and we found three bent pushrods and a flaw in the No2 inlet valve. The plugs were changed, the pushrods and valves replaced, stronger valve springs fitted and the ports polished. There were no individual brands of petrol at the time, all pumps dispensing low-grade 'Pool' petrol of around 75-octane, so we advanced the ignition because we had managed to obtain six gallons of 80-octane for the event, which we had to take with us in the Healey in two- and four-gallon drums.

Dad finished surgery at 3.30pm on the Friday afternoon and I left University early, aiming to catch up the following week on whatever I missed with the help of friends like Gerry Hartley. We set off together in the Silverstone on our voyage of discovery. Roads out of town were derestricted in those days and we were able to average 50mph and 26mpg for the 248 miles to the seaside resort of Bognor Regis, where we stayed overnight in a bed & breakfast guest house. Then the following morning we set off early for the circuit in some trepidation.

> "Was I about to be proven wrong? Would I make an idiot of myself?"

We had nobody to initiate us into the procedure of signing-on, scrutineering, etc, but we fumbled our way through the various steps, conscious that our notional 'L' plates must have been very evident, but the officials and other competitors were very friendly, which eased our discomfort. At just 20 years of age I had reached the moment of truth.

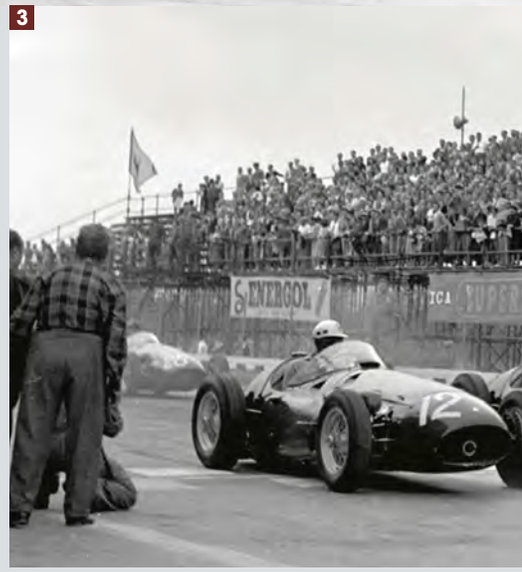
My desire to race had been built up steadily over the years and haring over the Snake Pass with my motorcycles and cars had given me a great thrill so I was absolutely certain that I would enjoy testing the car and myself to the limit. I was confident about my driving ability, but so presumably were the other drivers, so was I about to be proven wrong? Would I make an idiot of myself? Would I overdo it, spin and bend the car, or cause another competitor to have a moment? Would I be some way behind at the end of five laps? I had no means of knowing without the benefit of any comparable lap times. My realistic concerns were in sharp contrast to the attitude of too many young drivers today, who appear to think it necessary to have self-confidence oozing out of every pore and seem unable to recognise where confidence spills over into arrogance and cockiness. Lap times, race results and the way they behave on and off the track will reveal the truth and all that everyone needs to know about them.

Goodwood had been an aerodrome during the war and was built on land

1



3





TONY BROOKS: MY CAREER IN PICTURES



2



[1] What a pleasure to have my first drive in Arthur Hely's Frazer Nash (in 1953), finishing third in the scratch race after losing the silencer on the last lap, and first in the handicap event. The 2-litre Bristol engine was unmodified, but the car's power to weight ratio gave it a performance much superior to the Healey. I was thrilled with the step I felt I had taken up the tall ladder.

[2] The Goodwood Trophy on September 8 1956 was my first win for Aston Martin. My helmet seems to be drifting as much as the car and either I had carelessly not tightened the strap enough or I was sitting too high in relation to the windscreen, allowing the wind to lift the peak.

[3] I had sat in an F1 car for the first time 24 hours before, but on the front row alongside the 'works' Maseratis of Villoresi and Musso at the start of the 1955 Syracuse Grand Prix I was concentrating so hard on the job I had to do that I had no time to fully appreciate the thrill of starting in my first F1 Grand Prix. Despite my intense concentration I botched the start. (Tony recovered to score the first post-war GP win for a British constructor, in his Connaught.)

[4] Stirling and I look very satisfied with our day's work. We both hold on to the TT trophy (1958)!

[5] Although I felt like a chick on a spit revolving over a charcoal fire I look deceptively cool on cruising into the pit lane at the end of the '59 French Grand Prix to be greeted by some delighted Ferrari mechanics, their enthusiasm being infectious.

[6] Finding myself in a racing car for the first time on the grid at Crystal Palace alongside Mike Hawthorn driving Stirling Moss's F1 Maserati 250F, who had already won an F1 World Championship GP, gave me a great sense of elation and a feeling my career was really progressing (in '55). I was in a Maserati 250F sandwich with Horace Gould on my left. The flag has fallen and I have edged ahead of Mike.


4


5



6

owned by the Duke of Richmond and Gordon, a former racing driver, team manager and President of the BARC. It was known as RAF Westhampnett, was an ancillary to the main Fighter Command station at Tangmere, and was used almost exclusively for Spitfires. To provide access for their large refuelling tankers a perimeter track was laid, which by sheer chance produced an extremely good 2.4-mile circuit when it was tried out by some of the RAF pilots. In fact in retrospect I cannot recall a circuit with such a variety of challenging, double-apex, varying camber corners in so few miles, so unwittingly I could not have found a better one on which to make my debut. Although the short practice period would allow me only five laps, I had adopted an approach which would stand me in good stead in the future, carefully studying the circuit map, clearly identifying every corner and getting at least some idea of their radii. So learning which way the Goodwood circuit went was not a great problem, and having clearly in my mind what was coming up next helped me to make the most of the meagre five laps. The first practice lap time my father recorded for me was 2min 21sec.

The Silverstone was not a serious competitor in a scratch race, but what I was after was as much experience as possible in as short a time as possible and it was fast enough to get a sense of what motor racing was all about. Sitting on the grid, some way back, staring fixedly at the raised Union Jack, all doubts were banished from my mind and I was determined to at least be the first of those on my row into the first corner, Madgwick.

Holding the engine revs constant at 1750rpm I let the clutch pedal up at the drop of the flag, inducing the little bit of wheelspin I wanted to ensure the revs were kept in the torque range, then eased back on the accelerator to kill the wheelspin and gain maximum acceleration. My first race start was good – better than some I made later in my career – and I edged ahead of the rest of my row, which was the first little racing 'kick' I enjoyed. We jostled our way around Madgwick and started to string out a bit before Fordwater, which became flat-out with more experience, and by the time I reached the right-hander before St Mary's I was able to use the whole road, taking the correct line and hanging on to it.

> "I was elated and utterly convinced that motor racing was what I wanted to do"

Through both St Mary's and Lavant I was still able to hold the best, tight line, with someone optimistically trying to go round me on the outside, and then I was into the straight, clocking just 100mph and charging towards Woodcote Corner. I had a fast car on my inside so I had to give way to it on braking, swinging through its two apexes on the right line, braking as late as possible into the new tight chicane and rushing up the straight past the pits. I had safely completed my first-ever racing lap, and the exhilaration was something I remember to this day.

Apart from that first lap there was little wheel-to-wheel racing and I was pleased to be able to concentrate on learning everything I could about the corners and the best line through them. The five laps flashed by and I hardly had a chance to fully savour the pleasure I had in trying to push myself and the car to the limit that my experience permitted, but I had to be satisfied with sixth position and the great thrill of my first race.

I couldn't wait for my second event, the five-lap handicap. Dad timed my standing-start lap at 2min 12sec, but although I reduced my lap time to 2min 8.5sec by the end of the race it was not good enough for the handicapper and I finished in eighth position. I might have done better if the car hadn't begun to splutter due to petrol surge. I had learned another lesson: a minimum of three gallons must be maintained in the tank.

The results of my first two races might appear disappointing, but I was elated and utterly convinced that motor racing was what I wanted to do. I had improved on my first timed practice lap by 12.5 seconds and at this stage of my career I would have to be satisfied with measuring my progress in these terms, not by results.

All things considered it was a successful debut. Most importantly, I had not damaged the car mechanically or reshaped it, a philosophy I would cling to which would earn me a reputation for having a safe pair of hands and lead to invitations to drive the cars of others. The fact that any contretemps would mean us going back on the train, apart from the expense of repairs, was justification in itself for my philosophy and reinforced my commitment to it. Most of all I had really caught the racing bug and lit a burning ambition which kept me smiling on the drive home immediately after my last race, the Silverstone seemingly running more sweetly than ever, averaging 26mpg for the weekend trip, including the racing. Ⓜ



Tony's apprenticeship in his mother's Healey would continue at Goodwood later in 1952

Vive l'Ecosse!

Scotland's greatest race team lives again, and the target is a return to Le Mans. But first

Ecurie Ecosse, the Scottish team with the French name, is on the road back to Le Mans. Fifty-five years after it won the *Vingt-Quatre Heures* for the second time running, the team is back and, wherever else it might venture between now and then, there is no doubting its ultimate destination.

"It's stepping stones at the moment," says team boss Hugh McCaig, "and we have to make sure we don't step on one that sinks, but the ultimate aim is, of course, Le Mans." A date has yet to be fixed but 2014 is where the sights are being aimed. "Despite all Ecurie Ecosse has done over the years, it's those 48 hours in 1956 and '57 that have been branded on our history, so although I have mixed feelings about the place, of course that's the plan."

Those other achievements since McCaig took over the team founded by David Murray include winning the 1986 C2 Championship and proving that privateers could beat the manufacturers in the BTCC with David Leslie and Ray Mallock-run Cavaliers in '93. Even so, if you think of Ecurie Ecosse, you think of those privately entered D-types, the one that beat all comers including the Jaguar works team to victory in 1956, and those that came first and second the following year.

More than half a century later Ecurie Ecosse is back at the start of a long and winding road that it is hoped will take it to Le Mans. The renewed team first dipped its toes back into competitive waters at the Spa 24 Hours last year, with McCaig's son Alasdair being joined by Joe Twyman, Andrew Smith and Oliver Bryant, driving an Aston Martin DBRS9. "The aim was just to finish the race," recalls Twyman, "which is what we managed." The car ran reliably and well, but its five-year-old design showed very clearly how quickly GT3 cars have developed in the interim. It qualified 10 seconds off the pace of the pole-sitter, coming home a respectable 20th overall (out of 62 starters) and ninth in the ProAm class.

But it must have been hard for the boys not to look on in envy at the BMW Z4 GT3 that took that pole position and finished in second, beaten only by a single factory Audi R8 LMS. They need gaze no longer. That car is this car, acquired by Ecurie Ecosse to be used this year



Ecurie Ecosse must prove itself with this BMW Z4 **BY ANDREW FRANKEL**

to compete in the entire British GT and Blancpain Endurance Series and, of course, return to Spa, hopefully this time at the sharp end of the grid. "There are no excuses this year," says Twyman. "We have the equipment, we need now to get the job done."

To me, GT3 racing currently represents all that is good about sports car racing. Indeed it reminds me of the BPR championship of the mid-1990s where showroom-based supercars developed by the works but run by private teams breathed new life into GT racing. Then, of course, the money turned up with works teams that had no interest in the spirit of the sport but only the letter of the law, and within a remarkably short period of time it was all ruined.



But, for now, if you want to see a massive array of different machines from manufacturers including Porsche, Ferrari, BMW, Mercedes, McLaren, Nissan, Aston Martin, Ginetta and even Chevron in action, all of these will be contesting the GT3 category of the British GT Championship this year.

McCaig makes no secret of the fact that, ideally, he'd like Ecurie Ecosse to be running a British car but, as he puts it, "the Aston sounded good, looked good and had a great name, but ultimately the BMW is a lot quicker and a lot cheaper." When the name of the game is to win races to attract sponsors to raise money to get the team back to Le Mans, there seems little doubt which car represents the better value for money.

So what are we dealing with here? Any suggestion that it's just a stripped out road car with some fancy bodywork can be dispelled right away. In fact the list of what it shares with the road car (its basic structure) is short compared with what it does not (everything else). So while the street Z4 has a four- or six-cylinder engine, a manual or automatic gearbox and part-steel, part-aluminium bodywork, the racer has a V8 motor, a six-speed sequential paddle-shift transmission and a carbon-fibre body. And



Flash of blue hints at Ecosse team history involving the famous transporter, behind, with Tojeiro Coupé

as for the aero package, you can see by the size of the rear wing, the complex rear diffuser and the deep front splitter with its little winglets that BMW means serious business with this car.

With its long bonnet, longer wheelbase and rearward seating position, there is something decidedly Gotham City about this low-slung bullet. It looks extremely fast, but more than that it looks like fantastic fun.

Mercifully it's a very easy car to climb aboard, and once behind the wheel there's nothing here you wouldn't expect to see in a state-of-the-art GT racer. The steering wheel is a mass of buttons and switches allowing you to control the traction and stability control, engine map, pitlane speed limiter and so on, beyond which is an LCD dash whose readouts you tend to ignore unless you have reason not to. Mounted above are the all-important bank of change-up lights. The 4.4-litre V8 gives better than 515bhp at 8300rpm, after which the entire bank turns bright red before you hit the 8600rpm limiter.

GT3 cars are an unpredictable bunch. You'd think that over the past five years or so a certain formula for success would have emerged, and that as a result most might feel somewhat similar. Not so. Although their lap times are often separated by mere tenths, those times are arrived at in dramatically different ways.

Nor do their configurations give any clue to how they'll behave. The Aston DBRS9 and the Mercedes SLS GT3 are both large-capacity, long-wheelbase machines with gearboxes slung between the rear wheels, but while the Aston is a very physical and quite difficult car to drive, the Mercedes is so easy and forgiving it doesn't seem quite right for such a brutally fast racing car.

> "I was expecting a maniac, but in fact the Z4 flicks onto line like a mid-engined car"

Where would the BMW sit? The 4.4-litre V8 is very loud and menacing, if not particularly tuneful, but it is simplicity itself to tug the right paddle, hear the 'box thunk noisily into first, lift the remarkably gentle and progressive clutch and ease out of the pit garage, trundle down the pitlane and onto the track beyond.

There's a huge amount of assistance in here which I'm not sure I like. Clearly you have to have all the electronic safety nets and the paddles because the car would be slower and less reliable without them, but if the rule makers banned them all and made the cars effectively analogue machines, that would tip the balance of performance back towards the driver. The cars would be better to watch because they'd slide more and they'd place a far higher premium on driver skill. If a long distance race is to become anything more than a drawn-out sprint, it must include other ingredients such as a driver's ability to look after his tyres, transmissions and traction all by himself.



Team line-up: Joe Twyman, Ollie Bryant, Hugh McCaig, Andrew Smith, Alasdair McCaig



Jakob Ebrey

Then again in a category full of wealthy amateurs, the appeal of a car that can make you look better than you are is clear to see. Besides I'm not complaining: I have the honour of driving the Ecurie Ecosse Z4 GT3 on the very first occasion it has run in public, and the thought of getting it wrong in the middle of an official test and media day in a car that must contest two entirely independent series this year really doesn't bear thinking about.

Happily for me the car is run by two-time British GT champions Barwell Motorsport, who've been kind enough to bake the slicks in tyre blankets before bolting them onto the car, so it's ready to roll from the first corner. I do a couple of laps to bed in some new discs, pit, have a quick chat to make sure I'm happy with everything (I am, very) and then head out on the Silverstone Grand Prix circuit to find out more.

It's always the performance you notice first, because that's the easy bit. Any old fool can plant their foot on the floor and, with clutchless flat shifts, just tug the right-hand lever every time the dash turns red. I was expecting a maniac, but in fact the Z4 is extremely measured in how it delivers its punch. There's no bang in the back, not even much of a sense of the car coming onto the cam. It just offers hard but hardly ferocious acceleration from almost any point in the rev range. Compared to an SLS GT3, which positively throws you up the road on a mighty wave of torque, it feels quite sedate – which, given that it's giving away almost two whole litres of displacement to the big Benz, it probably is. Five years ago I raced one of Richard Lloyd's GT3 Jaguar XKRs here and, overweight and underdeveloped though it was, it still felt fairly unhinged in a straight line. The BMW does not.

But not only did this Z4 score that pole at Spa last year as well, others also won the Dubai 24 Hours outright plus a couple of rounds of the FIA GT3 Championship. It must be getting its lap time from somewhere.

It doesn't take long to figure where that might be. For a start its brakes are absolutely monstrous. I am 6ft 4in and reasonably robustly constructed yet my right leg did not possess the power to activate the ABS at the end of Hangar Straight. So no need to think about how hard to hit the pedal because you can stamp with all your might with complete impunity, at least until some of the downforce has gone.

But that's just the start of its talents. The only comparable car I've driven that gets into a corner like the Z4 is the GT3R Porsche. It flicks onto line like a mid-engined car and when you see how far back in the chassis the V8 lies, you'll not wonder why this is.





Frankel (far left) found Z4's impressive lap times came from downforce and brakes. MS is supporting team for 2012

And the sheer corner speed it can generate is where it appears to have the greatest advantage. On some of Silverstone's slower corners the nose will push frustratingly wide, though I later learn the tyres on the front of the car are well past their best. But through medium/fast corners such as Stowe, Club and the entire Becketts complex, it is simply mighty. In deference to those kind enough to put me in the car I kept it off the kerbs altogether, but it would still reel in everything it came across. On a fresh set of slicks it must be simply scintillating.

Its final weapon is traction: not content with barrelling you into the corner at a speed few other GT3s appear able to muster, the BMW is just as keen to ensure you can get back on the power the instant or slightly before the instant the apex arrives.

Just occasionally if you're a bit too bright and early with the reapplication of power it will slide quite quickly, enough to remind you this is no recreational plaything. But you cannot have it all: if it's front-running performance you want, it rarely comes complete with puppy-dog subservience.

As ever, there is not enough time in the car, and a few laps later when it's time to come in I'm still trying to understand how much downforce is available through Copse and the right hand flick at Abbey. Far more than I was using, that's for sure.

Driving the Z4 GT3 was more than just a fun few laps in a quick and capable car. It reaffirmed to me the fact that all those cars out there really are as different as they look, and that their talents lie in varied areas.

But to the boys of Ecurie Ecosse all that will really matter is whether the Z4 GT3 will provide them with that stepping stone on the road to Le Mans. This season they will be charged with bringing it home as far towards the front of each race as possible, but bringing it home regardless. It has been lost on no one that the 2011 British GT Championship was won by a team that didn't win a single race. That said, the campaign has started well, with a last-lap win at Oulton Park.

If all goes to plan, 2013 will involve a step up to two cars and racing in both Europe and America. And if that all goes well, there's an appointment with a track in France the following year. For the Scottish team with the French name, everywhere else is just a waypoint on the route. The final destination is never in doubt. Ⓜ

Many thanks to all at Ecurie Ecosse, Barwell Motorsport, SRO and Silverstone Circuits. If you'd like to support the team, £250 buys membership of the Ecurie Ecosse Association. You will receive a team jacket, sticker and newsletter, and also your name on their front splitter. To pledge your support, e-mail: team@ecurieecosse.com

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Road cars



by Andrew Frankel

It's not just the Eurozone that's trying to get used to a two-speed Europe. The European car industry is in very much the same boat. On the one hand you have the premium German brands such as BMW, Audi and Mercedes, to which you can add aspirational marques such as Land-Rover, Mini and Rolls-Royce. At present and in no small part thanks to booming Asian economies and the resurgence of the American market, these companies are working flat out to keep up with demand for their products.

And then there are the others, such as Vauxhall/Opel, Peugeot/Citroën, Renault and Fiat who currently face the invidious choice between keeping factories busy building cars that cannot then be sold, paying for these factories to be left idle and making their workers redundant, or selling them off altogether so they cannot be used again if and when the good times return.

In the UK there are more contrasts. Take the Nissan plant in Sunderland: in the past month it's been announced that not only will a new small hatch called Invitation be built there, but it will also make the car that will re-introduce Nissan to the family hatch market. Between them these two will create over 3000 jobs and will take car production on Tyneside far past 550,000 units per year. Before Nissan, no UK car factory had ever produced 400,000 cars in one year. So now they're putting on a third shift, running the facility right around the clock for the first time in its 26-year history.

Now turn your attention to Ellesmere Port in Cheshire. General Motors is widely believed to need to close two facilities in Europe to deal with its overcapacity problem, and by the time you read this it may already have decided whether its Cheshire factory will be one of them, therefore ending over a century of UK car production by Vauxhall.

The fear is that all car manufacturers with this problem are just waiting for someone to make the first move. Carlos Ghosn, CEO of both booming Nissan and struggling Renault, has said that "if someone restructures, it's going to force everyone to restructure".



Nissan's Sunderland plant will set new production records, while Terrafugia claims 100 orders for its 'roadable plane' (below)



But it seems there is little else in the way of options – and if we think we've got it bad in the UK with the threat to Ellesmere Port, spare a thought for the French. Here Peugeot, Citroën and Renault suffer from falling demand, some of Europe's highest wage rates and a lack of global reach for their products. Soon something has to give and the only remaining questions are what, and by how much?

The idea of a flying car is almost as old as the automobile itself, and various contraptions capable of travel by both land and air have been wobbling around the skies since the 1920s. But the dream of a commercially viable craft has remained elusive. Now that may all be about to change.

The Terrafugia Transition is, in the words of founder Carl Dietrich, "a roadable airplane" that will fly for five hours at a cruising speed of over 100mph, or drive along the Interstate at the same 65mph as everyone else for a similar period of time. It is, in very basic terms, an aircraft with folding wings and a 1.3-litre Rotax engine capable of powering a rear-facing prop or, at the push of a lever, the two rear wheels via a continuously variable transmission.

Why should the Transition work when all others have failed? According to its test pilot Phil Meteer, it's all down to its weight. "Trying to package all you need to make a vehicle work properly both on the road and in the sky has always made the resulting craft too heavy. But by using a carbon-fibre structure, we've been able to keep our vehicle's weight to a minimum." He's not joking: the Transition may be longer than a Rolls but it's lighter than a Caterham.

But its use is not for driving up to and then hopping over traffic jams. Unless you're in the remotest parts of Alaska, where you're allowed

to take off and land on roads, you'll still need an airstrip. But with 5200 airstrips in the US alone, the nearest on average less than half an hour away from any given citizen, Dietrich hopes it will appeal to traditional flyers who hate landing somewhere and then having to figure out how to get to their final destination.

Terrafugia already holds over 100 orders for its £175,000 craft, which will start to be filled about a year from now if the Transition gets through around 100 test flights required for certification. Sadly there are as yet no plans to bring it to Europe.

There was plenty to look at on the stands of the New York Auto Show, proving car manufacturers now pay more attention to this East Coast event than its LA rival held in the autumn. The new Dodge Viper was an obvious crowd pleaser, not just because of its 8.4-litre, 631bhp motor, but also because its unveiling came with the reveal of a race version designed to compete in the American Le Mans Series. I thought it didn't look quite as good as the old Viper, but when they fired up the mighty V10 the roof nearly came off the building.

Almost as much power (621bhp) can be found under the bonnet of the Mercedes-Benz SL65 AMG, thanks to a mild reworking of its aged 6-litre, twin-turbo V12 engine. Ask Mercedes why it persists with this powerplant when its new generation of 5.5-litre V8s are better in every important regard and the simple response is "because we have customers who want it."

Not to be outdone, BMW showed the convertible version of its new M6 while Fisker finally revealed the mid-sized saloon which it hopes will establish it as a serious player in the executive car market. Called Atlantic, it's an electric car with a range-extending petrol engine, tipped to be priced at around £40,000 when sales start next year.

But the big news of the show wasn't a car at all, but a name: Jaguar finally confirmed what we all already new, which is that the new E-type has been given the green light for production. And as most also suspected, it will indeed be called F-type.

And finally, Carroll Shelby used New York to reveal his latest limited-edition take on the Shelby Mustang. By completely re-engineering its 5.4-litre supercharged motor, a brain-boggling 950bhp has been achieved for the street-legal version. The race car will put 1100bhp under the right foot of its driver. How all this can be effectively deployed through the somewhat restrictive medium of the Mustang's live rear axle is not yet clear, though it is anticipated that the 50 owners who will take delivery of one for a price of around £125,000 will have a great deal of fun finding out.

MY MOTORING MONTH



WHY THE TURBO IS THE BEST LONG-DISTANCE 911

SPENT SOME OF THE MONTH careening around the place in a Porsche 911 Turbo. I have never liked forced-induction 911s as much as their cheaper, lighter, better sounding, more responsive normally aspirated stable-mates, but I wonder if I've been looking at them from an unfair perspective. Since Turbos are the fastest 911s of all, the temptation is to view them as the most sporting. In fact they're the least.

Instead, the 911 Turbo is a businessman's express. It's the only 911 I've driven capable of making you forget you're in a 911, which, if all you're doing is tooling along a motorway at 80mph, is not necessarily a bad thing. It's usually quiet and comfortable and were it not for the tyre roar on certain surfaces, and the fact that Porsche has still yet to get around to fitting a DAB radio even on a car with a six-figure tag such as this, it would make the perfect long-distance companion. Even the fuel consumption is far better than you'd expect: on a gentle 120-mile troll up to London it did 28mpg and I'd like to meet another 500bhp car capable of that.

It made me realise how well suited the new 991 generation of 911 will likely be in the long distance, continent-crushing role of the Turbo. The extended wheelbase and quieter and more comfortable suspension will all play to Turbo-specific strengths, while the 991's chief weakness – its electric steering – will be far less irksome in this least sporting 911.

PROUD TO BE A PRESS CAR NUMBER PLATE BORE

AS EVER THE PORSCHE CARS GB press 911 Turbo came wearing the 911 HUL plate. This is so famous among 911 bores (among whose number I count myself) that people come up to you and tell tales of the Turbo they saw it on in the 1970s. This and OPR 911 (always on a rear-drive Carrera) are two of few constant threads through my childhood, adolescence, adulthood and life as a motoring journalist. I'll get my anorak.



BRITISH GT USHERS IN AN EXCITING NEW ERA

TOOK THE TURBO TO SILVERSTONE to attend the media day for the British GT series. Also managed a few laps in one of the very fastest cars out there, a tale you can read elsewhere in this issue (p108). As you'll gather, I can't help being enthusiastic about this increasingly popular category of racing.

You can always tell when a set of regulations have hit the sweet spot because car manufacturers start piling in. Remember the heady days of the BPR back in the early-to-mid-1990s, when the regs made an outright Le Mans win possible for a GT? Suddenly there were Porsches, Ferraris, McLarens, Bugattis, Jaguars and Hondas, all based on machinery that, given the funds, anyone could buy and drive on the road.

In fact there was a lot more road car in the Le Mans-winning McLaren F1 GTR of 1995 than any front-running GT3 today. Today's regulations mean only the basic platform of the car has to be retained, allowing you to use carbon panels, race transmissions, very sophisticated aerodynamics and all sorts of electronic trickery to control traction and stability. You don't even need to use an engine from the road car.

The result is a series that allows a lot of creativity and engineering latitude but still provides cars clearly based on those you can go out and buy. This year British GTs will boast cars of front-, mid- and rear-engine configuration, with normal or forced induction and four, six, eight or 12 cylinders.

So from a state-of-the-art McLaren MP4-12C GT3 to the venerable Aston Martin DBRS9, there is a sight and sound for anyone who's ever felt the smallest pang of interest in sports car racing. And they're quick, as lap times close to the two-minute mark around the Silverstone GP circuit attest. To see when they're racing near you, visit www.britishgt.com.

THE JOY OF JUST WATCHING HISTORIC MOTOR RACING

AT THE GRASSIER END OF THE racing spectrum, I stood in the rain at Castle Combe on Easter Monday to watch my 16-year-old nephew make his race debut. Having never raced so much as a kart before and having to start the Alfa Giulia Super from the back of the grid due to a problem in practice, by the end of the race he'd picked his way past around 10 of his fellow competitors and not put so much as a tyre out of line.

But my pride was mixed with shame, for I shudder to think how long it's been since I last attended a historic race meeting other than to compete. I had a ball just watching, and I'll not be leaving it so long until the next time.



BMW 320D

There was a time when it appeared BMW could do no wrong. In fact for most of the past 25 years, most of its cars have led most of the classes in which they have competed.

But recently it has come under sustained pressure from Audi, Mercedes and Jaguar. And just as they were sharpening up their products, so it seemed several BMWs started to lose their edge. It may just be my perception, but I seem to have been more critical of more BMWs in the past five years than the previous 20. I have even been accused of being "the most negative journalist in Europe" towards the brand, though that was by a BMW employee just after I'd had the temerity to rank a rival car a fraction ahead of one of theirs in a comparison test.

The suggestion is, of course, nonsense. But it is true that when BMW gets it wrong, you do tend to dwell on it more than you might a lesser manufacturer making a similar mistake, because the slip up is more notable, surprising and worthy of attention. It is precisely because such stratospherically high standards are expected of BMW that when it fails to reach them, alarm bells start to ring.

Yet through all its highs and lows, the one constant has been the brilliance of the 3-series. Since its introduction in 1975, not once has it faced a consistent challenge to its class leadership. If BMW's credibility as the world's leading manufacturer of aspirational saloons is to survive, it is a lead this new 3-series simply must maintain.

If it has a problem it is that the previous 3-series scarcely seemed in need of replacement. Designed back in the period when BMW could do no wrong, it made the Audi A4s and Mercedes C-classes against which it was launched look almost inept. Even today, the new generation C-class is the only car you could even start to argue might have its measure.

But replaced the 3-series has been, not by an artfully crafted update, but an entirely new car, longer in both length and wheelbase to create more interior room and place some clear air between it and the smaller, strong-selling 1-series.

It looks reasonable – prettier and more distinctive than the old Three, but still not a



FACTFILE

ENGINE: 2.0 litres, four cylinders, diesel
TOP SPEED: 146mph
PRICE: £28.080
POWER: 184bhp at 4000rpm
FUEL/CO2: 61.4mpg, 120g/km
www.bmw.co.uk

patch on the effortless style of the latest A4 or the simple handsomeness of the latest C-class. Inside lies further disappointment. The cabin is proficiently executed and ergonomically sound as you might expect from any BMW, but the sense of class and occasion you'll now find in the Mercedes remains absent. BMW provides you with an effective working environment while Mercedes delivers a home from home.

But that is just about the only mistake this 3-series makes, at least in the 320d form I tried.

Its most striking single strength is the envelope of performance it has to offer. When I edited this magazine around the turn of the century I used to go on nostalgia tours to disused racetracks all over Europe in a new 328i, and can remember marvelling that it was



New Beetle is mediocre in comparison with other VWs

VOLKSWAGEN BEETLE

I WAS FASCINATED TO discover that the new Volkswagen Beetle, while perhaps not quite so terrible as its predecessor, is still by a comfortable margin the worst car VW makes. We're only in the Spring but it's still the worst car I've driven this year.

My interest springs from two sources. First I wonder if being useless is part of Beetle DNA. The original was a terrible car with no performance, no brakes, no anything of much use in fact, save sadly indestructible build quality which meant they lasted forever. When VW decided to revive the name in 1998 it was obvious it could not build a car that was so thoroughly lousy again, so instead it designed one so boring that the only thing more likely to send you to sleep was having a piano dropped on your head. Is it really a coincidence that the new Beetle follows in these traditions?

But the other reason I'm fascinated by this Beetle is that I really didn't know that Volkswagen in 2012 still knew how to build cars like this. From the company responsible for the class-leading Up!, Polo and Golf comes a car lacking not only any charm but, more shockingly still, any trace of its stable-mates' abilities.

To be fair it's not disastrous in any specific way, but that's hardly a recommendation. The Beetle feels slow, has mediocre handling, poor ride quality and a shape optimised for providing discomfort to those travelling in the back.

The question is, why is it this way? I am quite confident that it is not because it's the best Volkswagen can do. You only have to look at other models it makes for similar money to know that. Which leaves the slightly sour-tasting suspicion that the Beetle has been made to be only as good as it needs to be.

Let's face it, this is not a car that's going to be bought by serious drivers. Nor, I would venture, anyone with even a passing interest in how well a car gets from one place to the next. It is a car bought for its looks alone and in the presumption that the customer will care little or less about anything else. But I still think VW could, and should, have tried a little harder with it. As it stands it appears to be taking advantage of a fashion victim clientèle, which, for a company capable of scaling death-defying heights of engineering excellence, is perhaps a little inelegant.

FACTFILE

ENGINE: 1.4 litres, four cylinders, petrol
TOP SPEED: 129mph
PRICE: £19,470
POWER: 156bhp at 5800rpm
FUEL/CO2: 42.8mpg, 153g/km
www.volkswagen.co.uk



Styling of the new 3-series is a trifle disappointing, but nothing else is

capable of 30mpg when driven gently and 150mph when not. A dozen years later, the 320d is scarcely any slower yet if you ease off the gas, it really will do over 60mpg. And that's not relying on some cooked up official claim, I've done it myself over 150 miles of country and motorway roads, driving in a gentle but hardly saintly fashion.



Meanwhile its performance is quite beyond anything you may expect from a 2-litre diesel, four-cylinder, four-door saloon. It delivers acceleration you'd have been pleased to receive from a 3-litre petrol six not that long ago, aided by an excellent standard six-speed gearbox with ratios matched perfectly to make the most of the engine's quite narrow powerband.

Still, BMW could have squandered this advantage by making a lesser effort in other areas. It hasn't. The 320d isn't merely fast and frugal, it is a genuine delight to drive. In fact it has the most sophisticated chassis ever fitted to a small saloon, and in the era of the outstanding standards now reached by the C-class, that really is saying something. In fact I'd say the Mercedes still has fractionally superior steering, but in every other regard, it is BMW that once more leads the way.

Just as BMW has been able to address the seemingly opposing issues of performance and economy, so it has with handling and ride.



Indeed, so capable is the 320d in both these regards, you're not aware of any compromise being made. In normal driving and across all speed ranges, the 320d ably sponges away the lumps and bumps of everyday life on the road. Meanwhile superior damping means that when sterner challenges are set, it doesn't lurch, heave or wallow its way over dips and crests, but instead exercises an iron will over its ride height, leaving its occupants blissfully unaware of just how hard it's working for them.

And this little diesel saloon is properly fun to drive, offering all the balance, precision and poise upon which BMW built its reputation. Unlike many of its more recent offerings the 3-series is actually lighter than the car it replaces despite its extra size, and it feels it too.

In fact, looks aside, the 3-series is as damnably hard a car to criticise as I've driven in a long time. Like all the best BMWs, its strength lies not in individual areas but an ability to compete across the board. And that only comes from an engineering philosophy which does not single out certain disciplines for special effort and attention, but expects the same standards throughout. The result is a car that puts BMW firmly back in control of the most important class in which it competes.

But one important question remains to be answered. Regulars will remember a couple of months ago my disappointment in discovering the new, more powerful but substantially heavier M5, while outstandingly civilised, was substantially less fun to drive than the outgoing car. It spoke to me of misplaced priorities. BMW has now proven with a humble 320d that it can make a new car lighter, quicker, more frugal and fun than the last, so I'd like to hope we'll be saying the same of the new M3 when it appears in a year or two from now.

Indeed it is BMW's M division that seems in need of greater definition. Forty years after it was founded, it is hard to know exactly what the letter means these days other than 'fast BMW'. Until three years ago, every M car was a rear-drive saloon, coupé or estate, powered by a high-revving, normally aspirated



engine. Now just one, the current M3, still subscribes to these founding values. In their place have come four-wheel drive and even diesel SUV M-cars.

To be fair, the need to reduce emissions has probably killed the normally aspirated M-car stone dead, but BMW still has the opportunity to make the new M3 lighter and more fun than the already overweight current car. With a world-class platform such as this to build upon, nothing less should be expected.


Ride and refinement is lacking in the diesel SLK

MERCEDES-BENZ SLK

WHILE THE NEWS wires continue to be dominated by electric cars, plug-in hybrids and range extenders, out there in the real world it is the small diesel that continues to prove itself the most adaptable and therefore relevant engine type, at least to the European buyer. Ten years ago the idea of a four-cylinder diesel limousine would have sounded as oxymoronic as a Ferrari off-roader, but now Mercedes offers just such an engine in its S-class flagship, and when the new model arrives here next year, we'll get one too.

Small diesels don't just pop up in saloons, estates and SUVs these days, they've permeated every class of car bar supercars. But there's one category in which they remain an uncomfortable fit.

I'd hoped that this new SLK 250CDI would be the first diesel convertible I'd like; in fact it runs into the same old problems as all the others and adds a few of its own.

The chief issue is refinement. An SLK is meant to be a sophisticate, a relaxed and suave conveyance capable of generating the right image when you are in public and taking you effortlessly about your business when you're not. Neither of these objectives is helped by the coarse, charmless voice brought by its 2.2-litre, 201bhp four-cylinder motor. Frustratingly, in other applications such as the CLS coupé this exact same engine is exceptionally refined, so it is the installation and sound proofing that's at fault here rather than the engine *per se*. But the means hardly matters, it is the result that counts and that result is just not good enough despite outstanding economy, undeniably strong performance, and a slick transmission.

FACTFILE

ENGINE: 2.2 litres, four cylinders, diesel
TOP SPEED: 151mph
PRICE: £32,250
POWER: 201bhp at 4000rpm
FUEL/CO_2: 56.5mpg, 132g/km
www.mercedes-benz.co.uk



The SLK's problems are compounded by displaying some uncompromising chassis settings. It's been set up to be very stiff, and while the car steers well and possesses unlikely levels of grip, the pay off in ride quality is not worth paying. As recently as last month, my assessment of the new Porsche Boxster illustrated that there is no need to make a car uncomfortable just to make it handle, but it seems this is a lesson Mercedes has yet to apply to the SLK.

The result is a car with a split personality: the SLK has the look of a comfortable cruiser but neither the ride nor the refinement make it stick. The quest for a convincing diesel roadster continues.


US-market Hyundai Genesis looks good, drives badly

HYUNDAI GENESIS COUPÉ R

HYUNDAI IS A COMPANY that is fascinating to me. Bigger than Ford, there's probably not a brand in the land that's tried harder to haul its products out of the mire and into respectability over the past 20 years. And yet, as a quick trip to New York State has revealed, the Hyundais sold on that side of the pond march to the beat of a less well-tuned drum.

I drove three, and one I quite liked. It is called Equus and is a large, V8-powered saloon designed as a more affordable answer to a big limo from Mercedes, Audi or Lexus. It would never sell in the UK because we're a nation of badge snobs, but it was quiet, comfortable and effective.

Which are not adjectives I'd use to describe the Sonata hybrid. This Mondeo-sized saloon offers zero driving pleasure and a poor drivetrain which serves to remind that the sooner the Americans embrace diesel, the better off they're all going to be.

But the shock was the so-called Genesis Coupé R. On paper it should be a hoot: it's a great-looking sports car that uses a fine-sounding 3.8-litre V6 motor to direct 348bhp to the rear wheels alone via a six-speed manual gearbox. What could possibly go wrong?

Quite a lot, as it happens. This is a car which provides immense performance with one hand, while removing all motive for using it with the other. The chassis appears to have been tied down by roll bars made of railway track, the car tramlines, the ride quality is terrible even on smooth American asphalt while the steering is devoid of feel. Within 10 miles I'd given up trying to drive it fast, turned around and returned the car to its creators.

Yet I reckon that if you gave it to the team responsible for the supple, controlled chassis that underpin almost every Hyundai sold in Europe, the car could be transformed in a week.

It was once mooted that the Genesis might be sold over here, but the idea was rejected. On this evidence it is not hard to see why.

FACTFILE

ENGINE: 3.8 litres, six cylinders, petrol
TOP SPEED: 170mph (estimated)
PRICE: not on sale
POWER: 348bhp at 6400rpm
FUEL/CO_2: n/a
www.hyundaiusa.com



AND THAT REMINDS ME...

Saab's end brings back memories of a record-breaking run

The recent sad demise of Saab reminds me of happier times testing these once eclectic and interesting cars latterly made tedious and derivative by General Motors' hopeless management of the brand.

Testing Saabs was always a fraught process. Despite their reputation for strength and reliability, under the rigours of formal test procedures, Saabs broke more regularly than any other car. The 900s simply ate their gearboxes if you attempted the kind of quick shift required to extract a representative acceleration run, while another breed – the 9000 I think – placed its distributor so close to the underside of the bonnet that when you dropped the clutch to make a necessarily brutal getaway, said distributor would be forced up into the bonnet and smash itself to pieces.

But my happiest memory of testing Saabs actually turned out rather well. In 1996 Saab decided to drive a 900 Turbo around the Talladega Super Speedway for a week. It was a crazy stunt, not least for its choice of location: a 900 Turbo was a quick car and a lap of Talladega at its top speed of over 150mph was less than straightforward. If it was dry at least one of the corners was on the limit and if you wanted any margin at all, it helped to take a line across the lanes of its banked turns. By the time I got there they'd already lost one car.

Happily they'd had the sense to take two so I was duly strapped into the survivor and sent out. The cars were completely standard in every respect, selected at random from the line by FIA officials and then mechanically sealed. Erik Carlsson was our crew chief.

That Saab eventually ran for 25,000 miles at an average of over 140mph inclusive of all stops. The record still stands 16 years later. Now Saab has gone, I'm proud to have played even a microscopic part in that success.



Sidetracked
WITH ED FOSTER





Mirage Engineering made the replica of Lauda's 1973 BRM for *Rush*

Nicola Aigner

MODELLING IS A RUSH JOB

The new Ron Howard Formula 1 movie *Rush* is using replica cars for filming, but for Mirage Engineering it's not been an easy task to make them

"I'm not making a documentary, I'm making a drama," Academy Award-winning director Ron Howard tells me as we walk back from lunch at Crystal Palace where he is directing the new film *Rush* on Niki Lauda and James Hunt.

It's a surreal experience talking to Richie Cunningham from *Happy Days*, and his enthusiasm for his latest project – due out in cinemas in February/March 2013 – is infectious. Many Formula 1 aficionados have already started picking holes in various scenes having seen photos of them on the internet, and some have asked how Ron Howard can make a film about a sport he has never really been a fan of. "Well," he says to a Sky reporter while I'm waiting for my turn, "I've never been to the Moon and I made *Apollo 13*."

Ron Howard may not be a lifelong fan of F1, but he has surrounded himself with people who know the sport and know what looks right. The plan is to tell the story of Hunt and Lauda's relationship between 1973 and '76, but Howard doesn't want to get caught up on details. Yes – it will be based on fact, but there will be drama added. That's no bad thing so long as it doesn't resemble *Driven*, the dreadful Sylvester Stallone film based (very) loosely on Champ Cars. Howard is adamant this won't be the case: "I know what would annoy me if someone made a film about the sports that I love," he tells me.

One of the men working behind the scenes is Darren Stone of Mirage Engineering. He has been tasked with building some of the replica F1 cars for the film, which he is well placed to do, as Mirage Engineering's day job is to run customer cars in the FIA Historic Formula One Championship. "I guess that's why we were approached [in October last year]. Special effects companies probably could have built the replica cars, but they haven't got the knowledge. The fact that this car would have revved higher than that one, this would have been a V12, which would have sounded different to this one…"

Many of the cars that raced in period are still in running order today, but the cost of using those in filming, and getting proud owners to allow precision drivers – ones used to working with cameras – behind the wheel was a step too far. The decision was made to build replicas and use these alongside the available historic cars for the close-ups. Rob Austin – of British Touring Car fame – was given the job of building the Ferrari 312Ts, while WDK Motorsport took on the McLaren M23s and the Hesketh 308B and 308D. The BRM that Lauda used in 1973, though, was given to Mirage Engineering.

However, it wasn't just a case of copying the sole surviving car – which currently rests in the Donington Collection – because the powers-that-be wanted Mirage's pair of BRMs to have interchangeable bodywork so they could also be a Ligier JS5, a Shadow DN5 or a March 761. The filmmakers could not source the correct Ligier at all, so rather than erase it from history they will use the replica.

"When we first got the brief," says Stone at his base in Norfolk, with a cup of tea in hand,

"the cars just had to trundle up and down. By the time we were building them [a task for which they had only three months] they were saying 'we need to do some standing starts'. Luckily we had made the right move by using a Rover V8, but we did have to uprate the clutch. In the end we went with Sierra Cosworth driveshafts so they can wheelspin them all day if they want."

I can imagine some of you wincing as you read 'Rover V8'. The BRM P160 had a V12. The sound, though, will be dubbed on later, and what Mirage Engineering needed to build was something that *looked* right.



BRM replica also serves as a base for Shadow, March and Ligier

After a trip to the Donington Collection with a tape measure (I'm not joking) and a camera, they had a starting point. "We did do a scan, but the trouble was using all that information and interpreting it in the short time frame we had. We didn't have time to do drawings so we just went with 'this looks right, make it'. We trawled through Google and looked at every BRM picture we could find and we also found some scale drawings from a modelling site, which were really helpful. The geometry of the suspension (below) is spot on, for example, but we needed to use as many stock parts as possible so that it would be reliable. The radiator? That's off a BMW 535i – it just happened to fit the space…

"The guys at WDK and Rob Austin's place have managed to base their cars on existing chassis, but we realised very early on that we were going to have to build one from scratch because the thing that concerned me was that the BRM's rear end is so exposed. They didn't have the bodywork to cover all that like the Ferrari [312T] and so we had to do something a little more accurate."





A spaceframe chassis was soon made and the task of fitting different bodywork – made out of MDF and fibreglass – onto the same car was refined. "With a team of four guys we can change the BRMs into a Ligier or a Shadow in half a day," says Stone, "but one of the biggest problems we had was that they needed silencers on the exhausts so that they could run on 'quiet days' at circuits. We've got big silencers in the sidepods and with the other cars – like the March – we couldn't get the right sized bodywork to fit. We had to stretch the sidepods a bit! Also, the BRM is a shorter chassis than the Ligier so when we made up that huge air box off the JS5 it looked ridiculous! We had to shave it down and it still looks too big. They must have been on drugs when they made it – it's madness."

The attention to detail is impressive, and when you see the cars from a distance they look just as they should. Of course, the cars were changed from race to race, but as Stone points out they just had to choose a moment in time and build that particular version. The BRM P160E in the Donington Collection was chosen as the 'moment in time' for the replica.

"Even with all the work that's gone into these it's a lot cheaper than running the real thing. I suppose in the scheme of things it's quite big money [the pair of BRMs came in at just over £100,000], but that was starting from scratch and building two working cars in a short timescale. There are lots of things that I would have liked to do better, but it's all down to time." The team at Mirage has been working flat out and trainee mechanic John Denmark pointed out "there are a surprising number of hours in the day when you work for 23 of them".

As I'm leaving talk turns to the other possible motor racing films that have been mentioned of late, such as the Dick Seaman movie (for details, see the May issue). A replica Auto Union – surely that would be a nightmare? "Oh I'd *love* to make one of those! I'm already thinking about which engine I'd use, what chassis I would base it on. I can see a Special Vehicles arm of Mirage Engineering being born…"


Business minister Mark Prisk attended the MIA exhibition

PUSHED BY THE WHEELS OF **INDUSTRY**

The government has recognised the UK motor sport industry's plans to boost the number of young engineers

FROM JUNE 30 TO JULY 8 this year the Motor Sports Association (MSA) and the Motorsport Industry Association (MIA) will team up for another National Motorsport Week.

It's an initiative that will help six promising young racing drivers and six young engineers – chosen by the MSA – to get a leg up in the sport with visits to the Goodwood Festival of Speed, the British Grand Prix, various Formula 1 factories and World Rally Championship teams.

"National Motorsport Week is about raising awareness of the UK's leading position in world motor sport," said MSA chief executive Colin Hilton. "We may have produced more F1 World Champions than any other country, but we face increasingly strong competition from other nations, so we cannot afford to be complacent."

Chris Aylett, the CEO of the MIA, was of a similar opinion: "The UK motor sport industry is booming, during uncertain times. But we do need more young, well-trained engineers and technicians so we stay ahead in this race for business."

So what is the motor sport industry worth to the UK? At a recent exhibition – created by the MIA and its members – at the Department for Business Innovation and Skills I caught up with Mark Prisk, the

Minister of State for Business and Enterprise. His figures make for impressive reading.

The British motor sport industry invests over £1 billion in research and development every year and employs 40,000 full and part-time staff. Formula 1 teams and suppliers create over £2 billion worth of business in the UK, while total motor sport sales, from the UK's motor sport valley, exceed £7 billion every year. Impressive figures, I'm sure you will agree.

"The automotive industry as a whole is a real success story," Prisk told me. "Motor sport is crucial to that process and as you can see here (where the likes of Williams Hybrid Power and Lola were exhibiting) we've got real innovators.

"One or two of the companies here were saying that they've got good growth opportunities, but they have a squeeze for engineers and that's where the government can help."

"The government understands that engineering is an incredibly important skill," added Culture Minister Ed Vaizey. "People should be learning it at school, they should be going to study it at university, and to have motor sport at the front end to say 'this is what you could be doing' is fantastic."

So what is the government doing? Well, there's already the Research and Development tax credit for small to medium-sized businesses. The automotive sector is one of the main beneficiaries of the Regional Growth Fund – a £2.4 billion pot which supports projects that encourage private sector investment and economic growth. There is also the Technology Strategy Board, another government funding scheme.

Whatever you think about the current government it can only be good news that it has recognised the motor sport industry as one in which Britain excels. As one industry insider said to Vaizey: "Motor sport is the most innovative sector outside wartime."



Government minister Ed Vaizey recognises motor sport's economic value



THOSE WHO CAN, DO... THOSE **WHO CAN'T...**

Jaime Alguersuari, dropped by Toro Rosso at the end of 2011, has opted to 'stay in F1' by becoming a commentator

WHEN JAIME ALGUERSUARI AND Sebastien Buemi were dropped by Red Bull's 'development team' Toro Rosso at the end of last year, the Spaniard sent an email out to the press saying that Red Bull had hurt him and that the sacking was "unnecessary".

Sebastien Buemi took a more conservative approach to Red Bull's bombshell and remained silent. At the start of 2012 Buemi is the Red Bull reserve driver – and Alguersuari is Pirelli's test driver and commentator on Radio Five Live with James Allen and Jennie Gow (above)...



Buemi (right) has been less vociferous about his former team

Still, when I met up with Alguersuari at the BBC's 2012 media launch it was clear that he hadn't given up on racing in Formula 1 again. "I got told that I wasn't continuing with the last team I raced for (Toro Rosso) in December," he told me. "By then it was too late to do anything with the other teams because everyone was signed for them. I did have some proposals, but they were asking for a lot of money and I'm not really the type of driver who will pay.

"I did have some thoughts about going to do the World Endurance Championship, but that's avoiding Formula 1. The situation with Radio Five Live is very interesting. It's a new world for me, but the fact that I am going to be at all the races means that I am still alive in Formula 1. It's better to be there than not, you know?

"It's very difficult for people – not just in the UK, but all over the world – to know what is happening in a Formula 1 race if you're just watching it on the TV or listening to it on the radio. I can understand it as I have been racing in F1 and I know exactly why people are sometimes slow. So many times there are things happening (behind the scenes) and the press know nothing. It's normal...

"I'm going to be doing some karting this year for physical training, but going outside the world of F1, in terms of Le Mans or DTM... it's going in a different way. I talked to some of the top teams about it.

"A lot of people were asking me why I didn't go to America, or why I haven't done another series, but that would be making another career. I'm only 21 and I think that would be going somewhere I shouldn't (at this stage of my career)."

He's not one to pull his punches, Alguersuari, and many will question just how he could secure a race seat while also commentating. Anthony Davidson, who started commentating part-time for BBC Radio Five Live in 2006 when he was Honda's Friday driver, did go on to race for Super Aguri in 2007 and 2008. But Bruno Senna managed to go and race in the Le Mans Series in 2010, after parting ways with HRT, and came back to put the 2011 Lotus Renault sixth on the grid at Spa. He's now at Williams and despite being labelled 'one of the pay drivers', he's showing that he does deserve a seat in F1.

So will Alguersuari race again in Grands Prix? It won't be for Red Bull or Toro Rosso after that post-sacking email, and if he doesn't want to bring money then that also rules out much of the second half of the grid. Can you see McLaren or Ferrari taking him? No, I thought not. Now that the WEC is attracting the likes of Toyota and Porsche you've got to question why a racing driver won't at least give it a try for a year. Ⓜ



Historic Scene
WITH GORDON CRUICKSHANK



Historic kart racing is on the up – but it's hit a few kerbs on the way...

THE KARTING OF THE WAYS

It can be hard work having fun, as a group of historic kart enthusiasts have found

We've seen it before: you own a historic machine, you want to preserve but also race it, you can't compete without modern safety features so you run your own races but some owners resort to inappropriate mods to win... No, not cars but karts. The Donington Historic Festival's plans to run a historic kart demonstration put the subject in mind. Karts have a 50-year UK history so there are hundreds of old karts in existence – and naturally, plenty of owners who'd love to race.

I met some of those enthusiasts during Race Retro at Stoneleigh. Originally the British Historic Kart Club planned to run a race meeting at the Festival rather than a demo, but the MSA wants historic karts to carry the same safety equipment as modern machines – side protection, bodywork, etc – which is unacceptable to the owners. It's led to an estrangement from the MSA and now to a separate racing organisation.

Peter Brinkworth, the club's treasurer, made the point: "we formed this club to preserve these machines and show present-day karters that their sport has a history." To that end the club ran a dozen demos last year. Racing wasn't the initial aim, but with 320 members owning 1000 karts this group of a few enthusiasts soon found itself organising races. Just as with the early days of old car racing the club had to formulate age groupings and decide which safety mods to allow. And just like cars, Britain has been a prime mover, with six races last year.

But after friction with the FIA-CIK, the sport's sanctioning body which organises its own historic events, and with our own MSA, the club has left the MSA. "We can't race within it and we can't race outside it..." says Brinkworth. Now a separate group – Retro Racer – will run races, while the BHKC reverts to its original purpose, arranging demos at kart and car meets.

Of course, cars and karts don't always mix happily: even though Graham Hill won the first UK kart race and it's now the fast-track to F1, karting and cars have stayed resolutely divided – witness events at Shelsley Walsh in the 1970s, when Dud Moseley's Motus kart went absurdly quickly up the hill and caused a lot of grumbling. When it was pointed out that the rules required suspension, one karter inserted rubber washers in his kart's kingpins. But once rumours leaked out of a suspension kart the regs were redrawn to exclude anything that looked like a kart. Today's winged and bodied 250 superkart will match an F3 car round a circuit, but there's no overlap between the two worlds. Somehow, beating a car with a kart seems like cheating.

Karts are far simpler to restore than cars, and with manufacturers now making parts for old chassis this branch of racing is expanding fast. But inevitably that will to win means non-period mods creeping in; last year the club had to ban sticky tyres and mandate control rubber. So the newish sport of historic karting is already growing up: politics, divisions and 'unfair advantages'. It's only meant to be fun...

FERRARI'S SHORT, SHARP STRIKE

Britain's car industry was once a byword for dispute; our Latin cousins were more laid-back

WRITING ABOUT FERRARI ELSEWHERE IN THIS issue I mention industrial unrest. When I visited Ferrari in the 1980s only Britain could rival Italy in this area – but as ever the Italian version was smaller and faster. After a night in Modena our posse of excited motor noters was driven to Maranello, only to be told we could not get in – the men were on strike. And there they were, standing outside the plant puffing cigarettes. Was this the end of our tour? 'No, ees a small strike – 30 minutes only, and ees going already 10 minutes.' Sure enough, 20 minutes later the men stubbed out their fags and went back inside, the gates opened and we were escorted in. A pleasantly relaxed way to make a point...



Pre-war Atalantas were rare and costly; revived version twins old looks with new tech



CARBON **UPDATING**

Do we need a new word? This is neither replica nor restoration, yet it looks defiantly pre-war

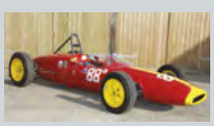
INTERESTING SLANT ON MARQUE revivals with the recent news that Atalanta, which built handsome sporting cars before WWII, is being restarted. Normally this sort of resuscitation involves pure replication, but in this case Martyn Corfield, the man behind the wheel who owns original Atalantas, has chosen to use modern technology within a period outline. Which you might argue is appropriate, since Atalantas boasted advanced thinking, with adjustable damping, all-independent suspension, light chassis and epicyclic gearbox. They went and handled extremely well, but struggled with the under-developed Gough four-cylinder, and even a switch to a cheap, reliable Lincoln Zephyr V12 generated more road tests than sales. When war came Atalanta folded, with 21 cars built.

Corfield tells me his new design copies the chassis rails but stiffens the structure with a composite sandwich, so unlike Morgan's new carbon monococque hiding under a Plus 8 shape, this looks convincingly like traditional construction. Suspension sticks to the twin-trailing arms route back and front, but machined in alloy with coils in place of the horizontal rear springs. Similarly the vintage-look dash conceals modern electrics, and while the body is handbuilt alloy on an ash frame, the timber patterns have been digitised and can be cut by machine. Like the original, the new car plumps for torque over revs with a US-sourced long-stroke four, packing variable valve timing and emissions equipment.

Is it a replica? Not exactly, but Corfield clearly believes it can be better than that. Is it going to happen? Corfield has built up a successful food company and was behind the project which got a Healey 100/4 up to 153mph, so he has a record. Finally, is it an Atalanta? There's a 70-year gap, but Corfield reckons his conception is "faithful to the core ideals". And after all, the new Bugatti has damn-all to do with Molsheim…

DREAM GARAGE

WHAT WE'D BLOW THE BUDGET ON THIS MONTH



WILLIAM I'ANSON

LOTUS 20 FORMULA JUNIOR

Formula Junior is buzzing right now, and this 20 has all the right credentials to provide great racing, including drum brakes and a fresh 1100cc Richardson engine

£48,500
www.williamianson.com



ASTON WORKSHOP

FIAT 500

It's not an Abarth and it hasn't even been tuned, but this powder-blue baby is a lovely example of the tiny Torinese transport. It even has air con (the roof opens...)

£9950
www.aston.co.uk



WILLIAM LOUGHRAN

ASTON MARTIN DB5

Aston is officially the coolest brand in the world, and a silver DB5 is the cherry on the iceberg. With 4.2-litre Aston Workshop engine, power steering and '6OND' plate...

£POA
www.williamlughran.co.uk



HILTON AND MOSS

BMW 3.0 CSL

Yes, the bat-wings look impressive, but without them the purity of the shape shows through. Great blend of poise and performance – and only one owner from new!

£54,590
www.hiltonandmoss.com



IN THE WORKSHOP

Robin Lackford Engineering

WHAT'S YOUR HISTORY?

I started the business in the mid-1980s, but I'd been in motor sport since the 1970s, racing in Special Saloons with an Anglia, Escort and a Fiat 850 Sport with a BDA engine. Then I thought, I'm spending a lot of time helping others so why don't I make it a business? Now I have built up to seven employees.

WHAT'S YOUR RANGE OF SKILLS?

We can tackle anything from changing a light bulb to a complete engine and body rebuild. We have a full mechanical, fabrication and race preparation shop, paint booth, assembly area and a trimmer, and ash frames for bodywork are handled by a joinery shop on the same site. Also we offer a transport service across Europe.

DO YOU HAVE A SPECIALISATION?

Race-prepping MGs, especially Midgets and A-H Sprites, and Formula Juniors. We're the leading MG Owners Club repairer in Sussex, although we handle Healeys, Astons, Jaguars and many classic road cars. We're also doing a lot more classic rally preparation nowadays. We sponsor the MDOC Sprite/Midget championship this year, too.

WHAT'S IN THE WORKSHOP NOW?

Two S-type Jaguars and a Mk2, a couple of racing Sprites, Daimler 420, MG PA four-seater, Volvo P1800, DB-Panhard sports-racer. And my racers – an Elva 100 FJ, a Sprite and an MGB.

WHAT PROJECTS ARE YOU PROUD OF?

All of them! I mean that – you're only as good as the last car out of the shop. But we were pleased with the Autosud Formula Junior and the F3 Tecno we prepared. And an Imp van which was a Rootes works vehicle: we restored it to just how it was in the factory, even replicating the Rootes stickers on it.

GC was talking to Robin Lackford
www.robinlackford.co.uk



Ex-Senna Toleman is expected to fetch a six-figure sum

Around the houses

NEWS FROM THE MAIN AUCTION HOUSES AROUND THE WORLD

– SILVERSTONE AUCTIONS –

In its Spring Sale on May 16, Silverstone Auctions will offer a key part of Formula 1's rich history for sale. Alongside Ayrton Senna's 1982 Ralt RT3 F3 machine (£110-125,000), the Northamptonshire-based auction house has included the Toleman car the three-time World Champion drove in his first F1 season.

This particular chassis (TG184-2) is the one that carried him to second place in that year's wet Monaco Grand Prix. The young Brazilian – who had turned down testing contacts with McLaren and Brabham – overtook 11 cars in 19 laps and was closing in on Prost's McLaren at a rate of nearly four seconds a lap before the race was stopped on lap 31 because of the worsening conditions. The estimate is available on request, but expect this particular F1 car to reach well into six figures.

Other interesting racers in the sale include a Fiat 500 Abarth that was the 2011 European Championship runner-up (£15-20,000), an original 1965 Morris Mini Cooper S 970 (£25-30,000) and even a 1965 Chevrolet Corvette 396 Big Block racer (£70-80,000).

– ARTCURIAL –

The French auction house has confirmed several lots for its July 7 sale at La Sarthe on the Le Mans Classic weekend. Most interesting to *Motor Sport* readers will be a 1991 Peugeot 905 (£580-990,000) – which won at Silverstone in 1992 with Derek Warwick and Yannick Dalmas driving, and a 1968 Porsche 908 (£1-1.3m) that was raced by Jo Siffert in period.

There's also an interesting piece of history in the shape of a 1988 WM P88 (£120-200,000). This particular car, which is one of two that raced at that year's Le Mans 24 Hours, was driven by Roger Dorchy, Claude Haldi and Jean-Daniel Raulet, and achieved a top speed of 405kph (251mph) on the Mulsanne straight. That speed (aided by taping over the air intakes) has never been beaten following the introduction of chicanes before the 1990 race.

– BONHAMS –

On June 29 – at its annual Festival of Speed sale – Bonhams will sell the Olav Glasius collection of Lotus cars. Glasius has been a fan of the marque since he watched Jim Clark aboard the Lotus 25 in the 1963 Dutch Grand Prix.

There will be 24 cars offered for sale – which together are expected to fetch over £1.5 million – and among these is the ex-Cliff Allison and Keith Hall Lotus-Climax Mk XI, entered by Team Lotus at Le Mans in 1956 (£135-175,000), the ex-Team Camoradi, Ian Burgess 1961 Lotus-Climax Type 18 (£175-225,000) and the ex-Rod Carveth 1962 Lotus-Buick type 19 (£150-200,000).

For Rolling Stones fans out there Bonhams is selling a 1950 Pontiac Chieftain Silver Streak Convertible, which was owned by Keith Richards in the 1970s, at its Hendon sale on April 30. It is expected to reach £18-22,000.

– RM AUCTIONS –

The lots keep coming in for RM's Monaco sale on May 11-12 and the latest to be announced include a 1957 Ferrari 625 TRC Spider, a 1966 206SP Dino Spider, a 1953 Ferrari 375 MM Spider and an ex-Schumacher Ferrari F1-2000.

Chassis number 0680 MDTR is one of only two 625 TRC Scaglietti Spiders ever built and was raced by Richie Ginther in period. The Dino you may recognise from page 90, where Gordon Cruickshank has discussed the car in detail. It carries an estimate of £1.8-2.3m.

Seven-time F1 World Champion Michael Schumacher raced the final car in the list – the F1-2000 – at the 2000 Hungarian Grand Prix. The Ferrari factory has recently restored it, but anyone who fancies owning and driving it will need to find £560-700,000.

On August 12 RM will sell a selection of vehicles from the Aalholm Automobile Museum in Denmark. Included in the 175 lots is a 1938 Bugatti 57C Stelvio Drophead Coupé by Gangloff (£200-230,000), and a rare 1938 Maybach Zeppelin DS8 Roadster (£80-100,000). And if you're in the market for swish railway rolling stock, there is also an 1890s Danish royal carriage with an estimate of £35-40,000. Ⓜ

FORTHCOMING AUCTIONS

APR 26-28 AUCTIONS AMERICA *Spring Carlisle Auction,* Carlisle Expo Center, Pennsylvania Tel: 001 954 566 2209

APR 28 OLDTIMER GALERIE *100 Classic Cars & Motorcycles,* Toffen, Switzerland Tel: 0041 31 819 6161

APR 30 BONHAMS *Collectors' Cars and Automobilia,* RAF Museum, Hendon, London Tel: 020 7447 7440

MAY 5-6 WORLDWIDE AUCTIONEERS *The Houston Classic Weekend,* Houston, Texas Tel: 001 260 925 6789

MAY 11-12 RM AUCTIONS *Monaco Sale,* The Grimaldi Forum, Monte Carlo Tel: 001 519 352 4575

MAY 12 COYS *Legende et Passion,* Espace Fontvieille, Monaco Tel: 020 8614 7888

MAY 15-20 MECUM *Muscle Cars & More,* Indiana State Fairgrounds, Indianapolis Tel: 001 262 275 5050

MAY 16 SILVERSTONE AUCTIONS *The Spring Sale,* The Wing Building, Silverstone Circuit, Northamptonshire Tel: 01926 691 141

MAY 16 BRIGHTWELLS *Classic Cars and Motorcycles,* Easters Court, Leominster, Herefordshire Tel: 01568 611 122

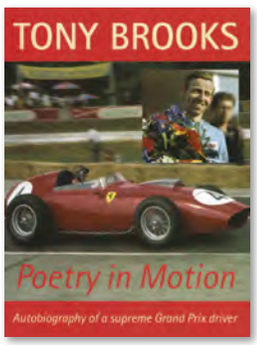
MAY 19 BONHAMS *Collectors' Cars and Automobilia,* Aston Martin Works Service, Newport Pagnell Tel: 020 7447 7440

MAY 26 HISTORICS AT BROOKLANDS *Collectors Cars and Automobilia,* Brooklands Museum, Weybridge, Surrey Tel: 01753 639 172

MAY 29 BARONS *Annual Jaguar Heritage Auction,* Sandown Park Exhibition Complex, Surrey Tel: 023 8066 8413

FOR FULL AUCTION LISTINGS AND RESULTS VISIT
www.motorsportmagazine.com





TONY BROOKS

POETRY IN MOTION

It's been long awaited, this autobiography of the man Moss would have in his ideal team, yet Brooks has extraordinary recall not only of his own races but also what everyone else was doing on the track. Perhaps this was part of his innate talent.

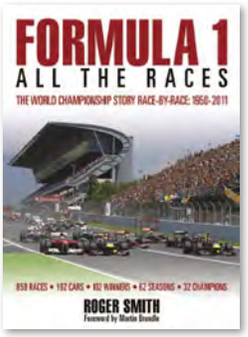
It's clear the young dental student knew he had skill – after only two seasons of sports car racing he wrote to John Wyer, who after testing offered him a Le Mans drive – but he talks about luck and leaves the verdict to others, quoting reports rather than blowing his own trumpet. Typical of this diffident man, who dislikes fuss so much he didn't feel he deserved to wear race overalls until after he had joined the BRDC.

Sometimes he lets his own excitement bubble up, as when he receives the call to drive the Connaught at Syracuse – but he still recalls which dentistry books he packed to study on the trip. And after that breakthrough Brooks is more worried about a speech than being the hero of the day. It's the polar opposite of Duncan Hamilton's *Touch Wood:* you trust every detail, there's no scandal, and the nearest Tony gets to a booze-up is drinking 15 cups of tea after a bruising race at the 'Ring.

This is as well-researched as any history and says almost as much about rivals as about himself. Brooks is not too saintly to criticise, but there's not an unpleasant word even over his dispiriting 1961 BRM season. And having decided to retire he goes without real regrets – not even over missing out on the World Championship.

There is another moment when his emotions shine through – a lyrical passage when he describes driving an Aston round Spa. It illustrates why the book's title fits; the satisfaction of exercising a rare talent for the pure joy of what he calls an 'ethereal' experience. It completes the warm picture of a satisfying life. **GC**

Published by Motor Racing Publications, ISBN 978 1 899870 83 7, £49.50



FORMULA 1 ALL THE RACES

THE WORLD CHAMPIONSHIP STORY RACE-BY-RACE: 1950-2011

by Roger Smith

The problem with books carrying lots of information is that they are usually massive. That's all very well if it is just to sit on a shelf at home, but less useful if you want to take it anywhere.

This offering by Smith is small compared with most books of this type, but he still manages to pack in a huge amount of data. Every race is covered, with top-six tables, statistics and even a short summary of the action. As well as this there are useful pre-season summaries of the racing and full championship standings.

OK, the book is not going to win any design awards. The images are colour drawings by Alain Baudouin rather than photos and – understandably – with this much information to pack into a small space, it's a very dense proposition to flick through. Also, it's inevitably already out of date! **EF**

Published by Haynes Publishing, ISBN 978 0 857330 58 1, £30



DALLARA

IT'S A BEAUTIFUL STORY

by Guido Schittone

Part biography, part corporate brochure, part homage to the corner of rural Italy where Dallara is based, Guido Schittone's dual-language tome is an interesting oddity. It begins not with the man but with the place – Varano de' Melegari in the region of Emilia-Romagna – and seeks to set what follows in the context of the area's unique character.

F1 doyen Pino Allievi contributes an interesting biographical interview with Dallara himself, ranging from his early days as an apprentice to Carlo Chiti at Ferrari to becoming a multi-disciplined race car constructor in his own right. After running through all of Dallara's cars the book goes behind the scenes at the factory for its second half.

This is a charmingly scattershot book, though the spatial constraints imposed by the dual-language format mean it is perhaps less detailed than completists would like. **SC**

Published by Automobilia, ISBN 978 8 890601 31 6, €50



THE FAST STUFF

TWENTY YEARS OF TOP BIKE RACING TALES FROM THE WORLD'S MADDEST MOTORSPORT

Mat Oxley

This collection of memories, interviews and experiences – first published in 2008 – is a feast of biking stories on characters such as Wayne Rainey and Valentino Rossi.

Our columnist, who won the 250cc production TT in 1985, has been writing about bikes and bikers for over 20 years and has gathered together a selection of pieces he has written for magazines. The result is a must for any bike enthusiast. When *Motor Sport* first reviewed the book we described it as "a crackingly entertaining book" that was "full of great stories". It still is, and the mixture of interviews and personal experiences makes for a well-balanced read.

If only Formula 1 drivers were as mad as some of the bikers past and present – it would certainly make F1 books more colourful. **EF**

Published by Haynes Publishing, ISBN 978 0 857331 44 1, £12.99

YOU WERE THERE

A selection of British circuits but this time they are all from the lens of one man, a keen spectator and later participant in the finest sport of all



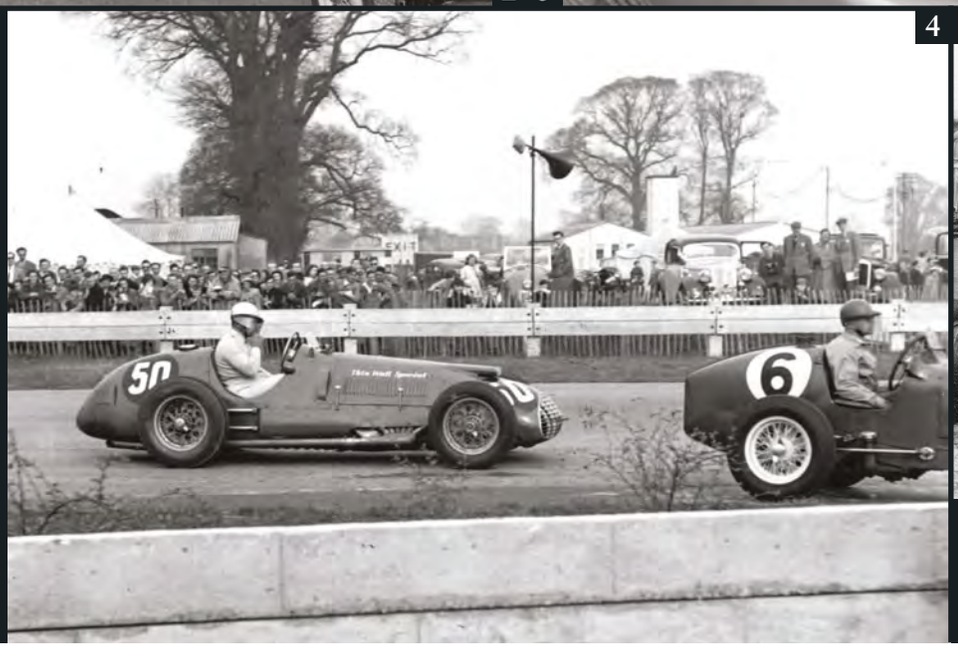
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6 7

BEN COX

With a father who worked for the Attwood family garage, Ben Cox was friends with Richard and got passes for many Silverstone meets, using a Nikon F for these atmospheric shots. Later he raced a Healey Silverstone and was mechanic to David Hobbs with the autobox Elite. {1} 'Modernised' ERAs of Bob Gerard and Cuth Harrison at 1950 Jersey races. Ben and his father flew over and hired a Bond minicar! {2} Gerard again, at Castle Combe {3} Lovely image of Bira in Gordini, with wife Ceril and Chula at '52 British GP{4} Froilan Gonzalez prepares to win '52 Richmond Trophy in Thin Wall Spl {5} Maurice Trintignant buckled up against the Silverstone wind {6} Cooper team, Goodwood '52: Fangio flanked by new boy Hawthorn and Eric Brandon, John and Charlie behind {7} Alfred and Stirling Moss with Ken Gregory {8} Alan Brown in Cooper-Bristol {9} Ben went to most Silverstone International Trophy meets {10} Taruffi would take fourth for Ferrari in '52 British GP



8

9 10







The Itala as it is today. Compare with Piacenza's car in 1908 GP, below

LAT

A GRAND PRIX SURVIVOR

The famous 1908 Itala, liberated from decay in a pub shed in the 1930s by an RAF pilot, comes up for auction in its 104th year

On Sunday, May 17,1936 the infant Vintage Sports Car Club ran a speed trial at Aston Clinton which is memorable for the fact that it included an Edwardian class which was won by a serving Royal Air Force officer named John Pole – driving the "12-litre 1908 Grand Prix Itala".

This great car lived on to become the apple of VSCC founding member 'Sam' Clutton's eye, together with his friend Jack Williamson – who cared for the great car's well-being over many years – and in more recent times that great connoisseur, watch-maker George Daniels.

During its 104-year life 'Floretta', as the big Itala is known, has been one of the defining VSCC vehicles, encapsulating so much about what this great club, at its heart, should be.

The old lady is coming up for sale by auction following George's recent death, and it's to be offered by Bonhams at the Goodwood Festival of Speed.

Inevitably the question will be, "What's it worth?" and the answer – equally inevitably – is, "Whatever the market decides on the day," or as we are sometimes inclined to put it, "Definitely several Pounds 10…" More helpfully, it should certainly be in seven figures…

The old lady is one of three 12-litre four-cylinder Grand Prix Italas built by the Torinese company for the 1908 Grand Prix de l'ACF at Dieppe. It has for much of its life been considered to be the car driven to 11th place in that great race by Alessandro Cagno, sometime chauffeur to Queen Margherita, and winner of the 1906 Targa Florio in a smaller Itala. Carefully comparing high-quality photographs of the 1908 team cars against Floretta's sturdy chassis frame as she survives today suggest that she is more likely to have been Giovanni Piacenza's sister long-wheelbase entry in the French contest.

She came to England as early as 1909, after having been raced for the factory at Brescia and in the '08 American Grand Prize at Savannah, Georgia. She was then campaigned at Brooklands by a cinema proprietor reported as 'Wildgose' or 'Wildgoose' but whose business card styled his name 'R. Wil-de-Gose'.



GP Library

After World War I the great car – fitted with four-seat touring bodywork – fell into obscurity, but in a highly entertaining 'Cars I Have Owned' article published here in *Motor Sport* in 1960, her rescuer John Pole wrote: "In 1927 I stopped for lunch one day at the Scole Inn at Diss, on the Norwich-London road. After lunch I happened to wander round the back of the inn… and I saw a gigantic old touring car filling a shed, and covered with crates, bottles, chicken muck, dead weeds – everything.

"The proprietor of the inn told me it was a 1908 racing Itala, given to him by a friend, driven up from London in 1920 and never used since.

"In 1936 an interest in old cars started," referring to the foundation of the VSCC, "and I remembered the Itala. I went to Scole one



'Floretta' has become one of the Vintage Sports Car Club's defining vehicles

Sunday and sure enough the car was still there in the same old shed and looking dirtier and vaster than ever. I bought it for £25, and a week later I went with two friends and a 30cwt Morris truck with tools and equipment to bring the car away, under its own power if possible.

"It took us three days to make it drivable. A lot of wiring and water tubing had to be replaced and the old tyres cut off the rims. The low-tension ignition system was a mystery to me, as was the petrol feed which appeared to be maintained by pressure from the exhaust pipe.

"However, we got petrol to the carburettor, and I then thought we had better tow the car around for a few miles in gear to free everything up before trying to start the engine. We had a solid tow bar on the Morris, and this was hitched on and the Itala towed out on to the main London road in neutral.

"When we were in position, I put it in second gear and with the clutch out we started rolling. At about ten miles an hour I cautiously let the clutch in.

"There was a shuddering, convulsive earthquake beneath me as four ancient pistons started to sweep 12 litres of cobwebs and dead spiders out into the silencer. And then, without a trace of warning, the great engine burst into life with a shattering roar. The hand throttle had been left half open and the Itala surged forward against the solid tow bar before I had a chance to depress the clutch, which anyway nearly required two feet to it.

"It was too much for the poor 30cwt Morris. The kick in the pants from the Itala sprung the chassis and the bottom fell out of the cast aluminium gearbox. My own exultation was something I'll never forget. We had not put the bonnet on, and clouds of dust and dirt swept over me as I kept the engine revving. The tow bar was unhitched and I drove the car back into the yard. The next morning a ceremonial farewell drive was arranged, and all the Scole Inn staff; chambermaids, waiters, the cook, everybody, climbed onto the car and I drove them up the main London-Norwich road about a mile and then back. There were about twenty people clinging on somehow and amidst the screams of the females we probably did about 70 or 80mph. Nothing and nobody was licensed or insured [but] nobody fell off and got killed."

John Pole was an RAF pilot with the illustrious 'Treble-One' Squadron (No 111) based at Duxford around that time, and he'd previously indulged his enthusiasm for really big, meaty racing machinery in partnership with fellow Treble-One pilot John Noel, who ran a 105mph Mercedes-Benz SS as his road car. One day in the Mercedes depot at Grosvenor Road, London, they found an immense racing car fitted with a 1919 17.6-litre six-cylinder Mercedes aero engine, dust-covered in a corner. The car had been taken in by Mercedes as part-payment for a debt, and it was up for sale since it took up the space of two normal cars…

Noel bought it and had it delivered to RAF Hornchurch where he and Pole were stationed at that time. They tried it out on the sands at Skegness, before running it at Brooklands, where Noel lapped at 122mph and Pole at 115 before Dunlop warned them to restrict their pace to 100mph for fear of bursting a tyre. Thus handicapped, they still finished 11th with it in the 1929 BRDC 500-Mile race. John Pole reminisced: "If you stood right behind the car as it accelerated hard you could see it twist through about five degrees as the power tried to fling the chassis round the crankshaft. But the white Mercedes was viceless and thoroughly lovable…". It seems that the car had originated as Count Zborowski's 'Chitty III', which had passed after the Count's death in the 1926 Italian GP to JEP 'Johnny' Howey, creator of the Romney, Hythe and Dymchurch railway…

But I particularly savour John Pole's memory of one day in 1931, when piloting a Cambridge University Air Squadron Avro "…along the Newmarket Road".

He wrote: "I saw a large Rolls tourer, chauffeur-driven, an elderly gentleman with a white beard in front, well wrapped up in a rug, and two elderly ladies in the rear also well tucked up behind the raised screen. It was a lovely piece of old-fashioned 'grand tourisme'. The hood was neatly tucked away and they were bowling along towards Cambridge. I throttled the Avro back and slid down alongside the Rolls, just off the hedge. Tremendous interest in the car, and the elderly gentleman leans over and speaks to the chauffeur. The Rolls starts to pull away and I open up and keep level in the Avro. We got up to a steady 80mph and held it for a couple of miles before I had to pull up and away for some trees…"

Just the kind of colourful owner one would expect Floretta, the Grand Prix Itala, to have attracted – an owner with his heart, absolutely, in the right place.

Doug Nye

Resolving the mystery of the cog

SIFTING THROUGH SOME NUTSY-BOLTSY HAPPY SNAPS RECENTLY I CAME ACROSS something I had long forgotten. I'd taken the shot of a 1994 McLaren-Peugeot, one of the largely unloved MP4/9 cars campaigned by Martin Brundle and Mika Häkkinen. Martin finished second in one at Monaco – where the Finn had qualified second-fastest. Mika also finished third at Imola and had a couple of fourth places, so the cars were perhaps not quite as poor as many might recall.

Formula 1 engineering is so often beautiful – sculptured intricacy always conceived, designed and crafted against the clock. But on the right side of the MP4/9's transverse gearbox was an attachment I didn't recall, and could not understand. Mounted there, out in the breeze, heat and quite likely flying grit and spray, was what a Devonian special-building pal of mine would have called "a girt big cog".

This mystifying mechanism bugged the hell out of me, so at the British Racing Mechanic Club's Brooklands bash I showed the photo to McLaren veteran Neil Trundle, who instantly put me out of my misery. "Ah", he said, "No mystery, Doug – that's the reverse gear!"

The smaller gear the photo shows is also the layshaft nut which was torqued-up with a specially made pin socket engaging the gear teeth. The layshaft also had a coarse spline machined within this end to engage a long external starter probe which had to be inserted from behind, under the car's tail. The probe had a small 90-degree drive at its tip which engaged with the layshaft splines – so it had to be inserted from the rear and then jiggled left to mate up. "Quite a delicate operation," Neil recalls. "The reason for the compact 90-degree drive was because of the car's stepped floor, which also eventually killed off the transverse 'box or we might still be using them today."



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Curious external cog on the MP4/9 gearbox turned out to be its reverse gear

The larger external gear wheel visible was on the end of the transverse gearbox's mainshaft with its driven gears and final-drive pinion, which drove straight-cut to the final drive and diff.

These two outer wheels didn't engage each other, a small third gear obviously being needed between them to achieve change of direction for reverse. This was a small external gear mounted in a hydraulic actuator which slid it into engagement when required. "The whole mechanism relied on a patient driver to gently ease in the clutch to back out of a slip road (which Mika managed to do) or it would destroy the gears. It's the same now with all Formula 1 car reverses – ask Jenson."

Well, well – we never cease to learn.

Chasing the truth

AMONGST LONG-TERM RACING JOURNALISTS, VERY few ever set out to be nasty or unkind. We do, however, try to tell it the way it was…or the way that available evidence indicates it was. Occasionally this causes hurt. If the evidence stacks up, I'm afraid that's tough upon those upset. If it doesn't, then somebody plainly owes them an apology.

In the April issue I drew attention to this Easter's 60th anniversary of Mike Hawthorn's stunning debut at Goodwood, 1952, in the Cooper-Bristol owned by Bob Chase and prepared under Mike's father, Leslie. I described Bob Chase as being a "colourful, alcoholic dealer in military surplus and marine diesel engines who ran an ex-Coastal Forces motor launch and who'd reputedly had several close calls with the revenue men while 'trading' cross-channel".

Peter Golding – whose late father-in-law Joe Spoors was a great ex-RN Coastal Forces friend of Bob Chase – assures me this portrayal is quite wrong. He writes: "During the Second World War (Bob) volunteered and was commissioned as a Lieutenant-Commander in the Navy working out of Lymington on the MTB fleet. After the war was over he was awarded the 'St Olav Medal', by King Olav of Norway for his wartime exploits. He then, through his wartime experiences with GM Marine Diesels (became one of their) main distributors for the UK. His company, RJC Motors at Saltdean, had extensive testing, engineering and spares facilities (in) their large factory."

He confirms that Chase's racing interest began pre-war, and he had known Leslie Hawthorn for years before he bought the Cooper-Bristol. Peter says: "He was never an alcoholic, or loud and colourful; in fact I always found him a quiet, reserved charming man, and generous to a fault."

So close was the friendship between Bob Chase and Joe Spoors that Peter "…was dispatched with Joe's daughter whom I was 'courting' (nice old expression that shows my age) to be approved of by Bob. With a great interest in cars and racing I was on a winner! We married in '59. Yes, they did drink, but everyone in that era of motor racing and business drank, and it was mainly whisky, and they had a great time, as many of the reminiscences in your magazine confirm, but alcoholic they certainly were not."

He also recalls Bob Chase's "large pleasure boat called the Mae McCloud (his wife's maiden name), that was used with the family and friends, and ended up in the South of France in the summer for holidays. My wife remembers holidays in Cannes with Bob and his family on the boat in the harbour, certainly not 'evading the Revenue men while trading cross-channel'". Being a charitable chap Peter concludes his letter by wondering "…if perhaps Doug Nye got him mixed up with someone else!"

Well, I can't claim that I did. But none of the personal sources of my first version are still with us: John Cooper, Hawthorn mechanic Brit Pearce, Eric Brandon, Alan Brown and Guy Griffiths (from whom came the revenue story). Some still recall Bob Chase as being one of the few men capable of drinking Leslie Hawthorn under the table – which evidently took some doing – but over 50 years of tall stories do tend to caricature people, and to enhance old yarns, while I admit we mere reporters sometimes just flat get it wrong. Frankly, in this case I'm not sure which one applies, but Peter Golding's account comes first-hand, mine did not. Regardless, let's just celebrate what Mike Hawthorn achieved thanks to Bob Chase's undoubted generosity.



Doug Nye

Mike Hawthorn's humpie Cooper-Bristol holds off factory Ferrari 500 at Zandvoort in 1952 Dutch GP

'MICK' HAWTHORN HITS THE HEADLINES

That's what the papers at first called the blond kid from Farnham when he swapped a pre-war Riley for one of Cooper's latest single-seaters and began to make waves

This year marks the 50th anniversary of Graham Hill's Formula 1 World Championship title win in the determinedly all-British BRM. It also sees the 50th anniversary of Jim Clark's first World Championship-qualifying Grand Prix wins in Colin Chapman's determinedly brilliant (and utterly beautiful) Lotus-Climax Type 25. And then there's also the 50th anniversary of Carroll Shelby's determinedly agricultural – but admittedly effective – Cobra…

But let's add another 10 years, and not forget that 2012 also marks the 60th anniversary of Mike Hawthorn's emergence upon the international motor racing stage as a startling new driver talent.

During 1951 the Farnham garage owner's lanky blond son had shown serious promise at club level in pre-war Rileys, including winning the *Motor Sport* Championship at BARC Goodwood meetings. A logical step up seemed to be the single-seater 2-litre Formula 2 class. Father Leslie wangled Mike a Winter-time trial drive with Connaught at Goodwood. He promptly tried too hard and spun. John Heath of HWM was another to give him a trial, needing a replacement for Moss who was leaving the team. Heath also tried fellow garage-owner's son Peter Collins, who proved as quick and who also had single-seater experience, which Mike did not. So Collins got the drive instead.

Leslie had talked to his old friend and enthusiastic fellow drinker Bob Chase about finding Mike a Formula 2 drive for '52. Chase, from the south coast, was in his late 50s; a colourful, alcoholic dealer in military surplus and marine diesel engines who ran a powerful ex-Coastal Forces motor launch and who'd reputedly had several close calls with the Revenue men while 'trading' cross-Channel…

Bob Chase had been in bed suffering from 'flu when he read about the Cooper Car Co's latest model – a conventionally front-engined F2 open-wheeler, with 2-litre Bristol six. The price would be around £1800. He'd enjoyed some profitable recent deals and decided on the spur of the moment to ask Leslie Hawthorn if buying one for Mike might be a good idea.

The Hawthorns jumped at the offer, so Chase telephoned John Cooper in the Surbiton factory. John recalled: "I knew about young Mike Hawthorn because in a meeting at Goodwood where I was driving my Cooper-MG this blond-headed bloke in a bloody old pre-war Riley had absolutely murdered me!" John had already done a deal with Jimmy Richmond to supply two Cooper-Bristols to him as semi-works cars, to be driven by Alan Brown and John's old school friend – and effectively co-founder of Cooper Cars – Eric Brandon, with himself as third driver of a works-owned extra car. He called them to suggest they might consider Hawthorn joining Ecurie Richmond in his place. Their reaction was a dismissive "who the hell is Mike Hawthorn?".

John accepted the Chase order largely to the disgust of Richmond, Brandon and Brown. Eric once told me: "The deal we finally did was for our mechanics, Ginger Devlin and Bernie Rodger, to assemble our cars plus Mike's at Cooper's, and we could have ours for £1200 apiece. Our blokes progressed our cars as quick as they could. If some shortage meant a car was going to lag behind, it was obvious which it would be…".

So while the Chase-Hawthorn rolling chassis was delayed, Leslie Hawthorn played his trump card, visiting Bristol at Filton to ensure early delivery of a third F2 engine. He specified a special unit, with high-compression head, tuned to burn nitro-laced fuel.

The two new Ecurie Richmond Cooper-Bristols, plus a third car for John Cooper and this fourth for Chase-Hawthorn were all entered

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Parting Shot

BARC 200, Aintree, April 18, 1964

Jim Clark's Lotus 33 disintegrates after his duel for the lead with Jack Brabham's BT7 comes to grief over a backmarker. Clark walked away unhurt, while Brabham won from Graham Hill's BRM P261

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