NICO ON THE TITLE FIGHT 'It's like five sets in a grand slam final'



## ROSBERG EXCLUSIVE! LOOK OUT BEHIND BEHIND YOU, JOU, LEWIS Why Hamilton can't

Why Hamilton can't keep Nico down

### REVEALED

### BRITAIN'S BEST F1 CHAMPION The UK's ten world

beaters ranked

#### PLUS

**BUTTON PICS EXCLUSIVE** Secret shots of Jenson's F1 weekend

**FEARLESS FERNLEY** Ballsy Bob answers your questions



BlokBerry

ショ

🗱 UBS

#### C70 GRAND PRIX CHRONOMETERS LIMITED EDITIONS

2015's revised and updated collection of four outstanding COSC-certified Chronometers celebrates the first Grand Prix races established during the early pioneering years of motorsport, when courageous drivers in their temperamental machines put life and limb at risk for glory, fame and occasionally, riches.









C70 BELGIUM GP 1925 SPA FRANCORCHAMPS



C70 BRITISH GP 1926 Brooklands

LE MANS

C70 ITALIAN GP 1921 BRESCIA



exclusively available at christopherward.co.uk

### **CONTENTS /** OCTOBER 2015



#### FIRST SECTOR: THE REGULARS

IGNITION NICO ROSBERG'S FIGHTING SPIRIT
PARADES THE BEST PHOTOGRAPHY FROM SPA
F1 INSIDER NEWS, OPINION AND ANALYSIS
TECH MASTERCLASS HYBRID POWER UNITS
PETER WINDSOR A NOSTALGIC LOOK BACK AT 1975
DAMON HILL ON TWO VERY DIFFERENT GRANDS PRIX
DIETER RENCKEN IS THERE ANY WAY OUT FOR RED BULL?

36 NOW THAT WAS A CAR THE COOPER T51
 100 SUBSCRIBE AND GET AN F1 RACING SPORTS BAG

#### SECOND SECTOR: THE FEATURES

- 38 **WATCH OUT LEWIS...** Hamilton might be the favourite for the title, but team-mate Rosberg might just be the faster driver – as we discover
- 48 **ROSBERG VS HAMILTON** A statistical comparison of the two Mercedes team-mates

#### 50 **GO FIGURE**

#### 52 **F1'S GREATEST BRIT** Of Formula 1's ten British world champions, who is the greatest of all time? *Autosport's* Edd Straw investigates

#### 64 A CHAT WITH DANIEL RICCIARDO Red Bull might be lagging, but F1's 'honey badger' is

#### showing his teeth and producing some formidable drives

#### 66 JENSON'S RACE WEEKEND We access all areas at the Hungarian Grand Prix, to

find out how McLaren ace Jenson Button divides his time

#### 72 **MEET ROBERTO MERHI** Can the Spanish youngster use the lifeline cast by Manor

Marussia to prove himself and resurrect his career?

#### 74 YOU ASK THE QUESTIONS Force India's deputy team principal Bob Fernley gets a

Force India's deputy team principal Bob Fernley gets a grilling about his strong views on F1's Strategy Group

#### 78 WHY F1 IS SO BIG IN JAPAN Japan loves F1 and F1 loves Japan. We take a light-hearted look at this most steadfastly eccentric of partnerships

84 **BACK TO SCHOOL WITH ROB WILSON** The master of F1 technique shows Williams development driver Alex Lynn the ropes... in a Vauxhall Astra

#### 90 **LUNCH WITH DAVID BRABHAM** Maurice Hamilton meets the son of Sir Jack Brabham, the former F1 racer who's had to fight to use his family name

#### THIRD SECTOR: FINISHING STRAIGHT

104 BELGIAN GP DEBRIEF ANOTHER MERCEDES ONE-TWO

- 108 SINGAPORE GP PREVIEW TWEAKS AT MARINA BAY
- 110 JAPAN GP PREVIEW DRIVERS' FAVOURITE TRACK
- 112 INBOX READERS SHARE THEIR OPINIONS
- 114 MURRAY WALKER THE DANGER THAT WILL NEVER PASS

# 90

#### BRABHAN

The team-mate to the late Roland Ratzenberger opens up about Imola 1994

## 64

#### RICCIARDO

Still churning out the sterling drives despite an underpowered Red Bull



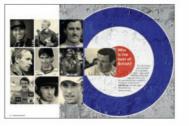


#### 

**COVER STORIES** 



38 NICO ROSBERG He's still got his sights firmly set on winning the title



52 GREATEST BRITS Which of these ten world champs is the best of British?



66 JENSON BUTTON Behind the scenes at the Hungarian Grand Prix weekend



78 JAPAN A selection of the more quirky goings-on at the Japanese Grand Prix

A numerical look at the Formula 1 careers of successful father and son racers, Keke and Nico Rosberg

### 66 button

Our cameras get unlimited access as the McLaren racer gets to work in Budapest

6361

INFONI1



#### BEST OF BRITISH We assess the

TOTAL

ten British world champions in eight different categories





#### 38 Rosberg

The stats show he could be faster than Lewis... and he's still in contention for the championship



## Ignition / Anthony Rowlinson / 10.15 Why Lewis can't crack Nico's sisu



Follow Anthony on Twitter @Rowlinson\_F1 A confession: I've always been a bit of Nico Rosberg fan.

Now I'm well aware that the principles of journalistic impartiality forbid any such allegiance, but I would counter that when you work in a sport that was once your private passion and is now your way of life, it's essential to be able to remember what it was that once

drew you towards it. And it's here that Nico plays his trump card: his dad, Keke, was the first F1 driver who really caught my eye as a star-struck teenager. And given those indelible memories of a Williams-Honda FW10 driven furiously throughout 1985 (with an equally feisty Nigel Mansell as team-mate - dear god, what a line-up!) it's little wonder that the exploits of his offspring, this month's cover star, would be of interest.

The first thing that struck me about Nico, when I was introduced to him at Williams' Grove HQ in early 2006, was just how bright he was. F1 drivers tend to be pretty smart cookies, but this one - phew! Four languages, an academic career in engineering lined up had the racing not worked out, and a sense that he was constantly, coolly, assessing the environment around him. And he's always been quick. In his first race there was a fastest lap; in his second he put his FW28 third on the grid. He beat team-mate Michael Schumacher to Mercedes' first 'works' win of the modern era; and he set 11 pole positions last season.

Contributors

**Maurice Hamilton** 

name from F1 history

Chatting with a legendary

Maurice Hamilton met up

with David Brabham to

discuss the ex-F1 racer's

battle to be able to use his

family name again (p90).

career - and his long

Allied to this there has always been a strong sense that Nico was a bit of a fighter. While his in-car style may lack some of his father's throttle-jockey flamboyance, and while Nico's chosen nationality is German (he's of mixed German-Finnish parentage, so holds dual nationality), there's plenty of Finnish sisu in his blood. This word doesn't translate directly into English, but it's seen as one of the defining aspects of the Finnish national character: bravery, stoicism, determination, resilience. 'Fighting spirit', if you like.

It was clearly in evidence at the conclusion of last year's Abu Dhabi championship showdown, when Rosberg refused to retire his car, despite an ERS failure and creeping electrical gremlins that dropped him out of the points. But he'd insisted to his crew "I want to go to the end", and it's my sneaking suspicion that he'll do just that this year.

As you can read in this month's cover story (p38) he and Lewis Hamilton are incredibly closely matched, and while Lewis unquestionably has the edge (at time of writing, pre-Italian GP, he leads the championship with 227 points to Rosberg's 199) Nico is the man Hamilton just can't put down and it would be no injustice if he did find a way to beat Lewis to the 2015 world title.

Have we just made Hamilton champion-elect? Indeed so, and if he does beat Rosberg to take title number three this year, that would make him only the second Briton, after Sir Jackie Stewart, to have done so.

And where might that achievement place him in a top-ten of British champions? You'll have to turn to page 52 to find out...

# RACING

HAYMARKET CONSUMER MEDIA, TEDDINGTON STUDIOS BROOM ROAD, TEDDINGTON, MIDDLESEX, TW11 9BE, UK

#### THE TEAM

Anthony Rowlinson Managing Editor Stewart Williams Deputy Edito James Attwood Associate Edito James Roberts Executive Edito Stuart Codling Chief Sub-Editor Vanessa Longworth Frank Foster Jack Woolrich Steven Tee Office Manager

Joanne Grove

+44 (0)20 8267 5806

CONTRIBUTORS

Peter Windsor

Dieter Rencken

Murray Walker

Pat Symonds

PUBLISHING

Group Publisher

Stuart Williams

08456 777 818

Missed an issue?

LAT Photographic

Technical Consultant

Editorial Te

ADVERTISING dvertising Director Matthew Witham Head of Global Chris Gowland Partnerships Manas LeAnne Foley LIK Sales Manage Ben Fullick Advertising tel +44 (0)20 8267 5179/5916

#### MANAGEMENT

Haymarket Specialist Media Tim Bulley Group Commercial Director Ben Guynan

#### LICENSING

Licensing Director Alastair Lewis

#### PRODUCTION Production & Publishing Manager

Sunita Davies

#### SUBSCRIPTIONS

Email F1racing@ Servicehelpline.co.uk Fax 01795 414 555 tomer Hotline 0844 848 8826 Marketing Exe Kadie Chanter

xico. Middle East. Philippines. Poland. South Africa. UK. USA. Formula One. Formula 1 and F1 (trademarks of Formula

#### Ltd, Midgate Ho

print. Ltd. 17-21 Factory Road. Upto et. BH16 5SN. Colo art of any photogra from the publisher is content of *F1 Racing* is fully accurate, but the public optimized by the publ ns. F1 Racing is a m the Audit Bureau of Circulations

c**ing Subscriptions** x 326, Sittingbourne, Kent ME9 8FA. Tel: 0844 848 8826 1795 414 555. Overseas: +44 (0)1795 592 990 SN number 74597X) is a up Teddington Studios Broom Road Teddington TW119R i uroup, iedangton studios, Broom Road, Teolang Kingdom, Airlingin the USA by age ess Etd. c/o Worldnet Shipping Inc., 156-15, 146th A ca, NY 11434 USA Periodicals postage paid at Lam ciption records are maintained at Haymarket Medi ngton Studios, Broom Road, Teddington TW11 9BE Air Business Ltd is acting as our mailing agent.

icing is published 12 times a year by Haymarket Consumer Media

haymarket

Edd Straw Autosport's editor has judged the best of British

Edd Straw likes a good argument, so we set him the task of determining Britain's greatest world champion. See what he thinks on page 52.







Steven Tee Shadowing Jenson Button for a grand prix weekend

F1 drivers have little chance to rest over a race weekend – and nor did Tee after trailling Jenson Button's movements in Hungary. More on p66.



James Roberts Interviewing Nico Rosberg in the back seat of a Merc

After interviewing the Merc ace while being driven to Zürich (p38), our man helped Nico Rosberg trash a hotel room - purely for the photoshoot, of course ...

Thanks to Matt Bishop, Stephen Carpenter, Tim Clark, Steve Cooper, Russell Day, Alan Eldridge, Fiona Fallon, Rob Halloway, Paul Harpin, Neale Haynes Will Hings, Jane Holmes, Darren Jones, Bradley Lord, Adrian Myers, Georg Nolte, Carl Price, Darren Prior at A2B Taxis, Steven Tee, Kevin Woods



1-litre to 1.4-litre

## PEUGEOT 308

AVAILABLE WITH JUST 1.9% APR<sup>\*</sup> REPRESENTATIVE

308 GT Line



TOUCHSCREEN WITH SAT NAV & REVERSING CAMERA

FULL LED HEADLIGHTS & FOG LIGHTS

 PURETECH
 PEUGEOT RECOMMENDS TOTAL
 Official Fuel Consumption in MPG (l/100km) and CO2 emissions (g/km) for the 308 Range are: Urban

 38.2 - 80.7 (7.4 - 3.5), Extra Urban 61.4 - 97.4 (4.6 - 2.9), Combined 50.4 - 91.1 (5.6 - 3.1) and CO2 130 - 82 (g/km).
 Second and CO2 is a construction of the second and the second and

MPG figures are achieved under official EU test conditions, intended as a guide for comparative purposes only and may not reflect actual on-the-road driving conditions. 119% APR Representative up to 37 months. Terms and conditions apply, participating dealers only or visit peugeot.co.uk. Peugeot Motor Company PLC is acting as a credit broker and is not a lender. We may introduce you to a limited number of lenders to finance your purchase. Over 18s only. A guarantee may be required. Finance provided by and tritten quotations available from PSA Finance UK tat t/o Peugeot Financial Services, Quadrant House, Princess Way, Redhill, RH1 10A. All Offers available on qualifying vehicles ordered and the tween 01.0715 and 31.215 or until such time as they may be withdrawn by Peugeot at its complete discretion. Excess mileage charges may apply. Model shown is a 308 Hatchback GT Line with metallite navigation and reversing camera, full LED headlights and fog lights are standard on a 308 Hatchback GT Line. All Information correct at time of going to press. Visit peugeot.co.uk for full terms and conditions.



### PEUGEOT 308

MOTION & EMOTION



**Spa sparkle** The weather in the Ardennes forest region, through which the Circuit de Spa-Francorchamps winds, has a reputation for being, well, fickle. But Belgian Grand Prix practice kicked off in brilliant sunshine, adding a dash of vibrant colour to Nico Rosberg's Mercedes

Where Spa-Francorchamps, Belgium When 11.05am, Friday 21 August 2015 Photographer Peter Fox

Details Canon EOS-1DX, 200mm lens, 1/125th at F16





**Redemption** Since 2012, any mention of 'Romain Grosjean' and 'La Source' in the same sentence automatically conjures up images of *that* accident. But the Lotus driver shrugged off those memories, and a tough 18 months for him and his team, with a fine drive to claim third place in Belgium

- states and

V-Power°

-Powe

INFINI

Where Spa-Francorchamps, Belgium When 2.08pm, Sunday 23 August 2015 Photographer Steven Tee/LAT

V-Power V-Power

Details Canon EOS-1DX, 8-15mm Fisheye lens, 1/1000th at F5.6





ome to



The state of the second states of the second states



A welcome result There are few in the F1 paddock who don't enjoy a trip to Spa, but Red Bull headed to Belgium knowing they might struggle due to their Renault power units. Yet that didn't deter Daniil Kvyat, whose tenacious driving was rewarded with a strong fourth-place finish Where Spa-Francorchamps, Belgium When 2.05pm, Friday 21 August 2015 Photographer Glenn Dunbar/LAT Details Canon EOS-1DX, 200mm lens, 1/16th at F2.8

1 1 1 1 . 1 . 1 . 1

plus belle des régions





## Button expected to stay on at McLaren

Alonso-rivalling performances and popularity with sponsors make him a shoo-in for a 2016 seat

Jenson Button is likely to be retained by McLaren as Fernando Alonso's team-mate next season. McLaren have a contractual option on 35-year-old Button for 2016, and it was understood, as *F1 Racing* closed for press, that McLaren were leaning towards taking it up.

Button has been closely matched with Alonso in their first season together, just as he was against Lewis Hamilton in their three seasons together from 2010-12. With Button still performing at a high level, McLaren believe they will benefit from keeping him alongside Alonso and running two experienced world champions for another season.

Button has the added advantage of being extremely attractive to McLaren's sponsors, and the Alonso-Button driver line-up gives the team more pull in negotiations with potential new financial partners than they'd have if they promoted one of their young drivers, Kevin Magnussen or Stoffel Vandoorne, who have lower profiles. This is particularly important given that McLaren have not had a title sponsor since the end of 2013, and especially considering their on-track struggles due to a lack of performance from the Honda engine.

Button has raced for McLaren since 2010, but his seat for this season – at the expense of 2014 team-mate Magnussen – was only confirmed in December last year following a boardroom dispute at McLaren. Chairman Ron Dennis and racing director Eric Boullier had decided to retain Magnussen alongside new signing Alonso, but shareholder Mansour Ojjeh said he wanted to keep hold of Button. Dennis, who has for some time been trying to buy out Ojjeh's 25 per cent stake to take overall control of the McLaren Group, decided that because he needed to keep Ojjeh on-side for business reasons, it was not worth rocking the boat over driver choice.

The potential sticking point for Button is most likely to be money. The 2009 world champion took a pay cut to remain at McLaren for this season, and is guaranteed a pay rise in the second year of his contract. This could prove awkward for McLaren at a time when they are suffering a decrease in external sponsorship revenues. McLaren would prefer not to pay Button the extra money, but sources say that they are able to if they have to.

In many ways, McLaren cannot afford *not* to pay Button the extra money. Any attempt

Button's retention means McLaren's young drivers, Stoffel Vandoorne (right) and Kevin Magnussen (left) are again denied a race seat



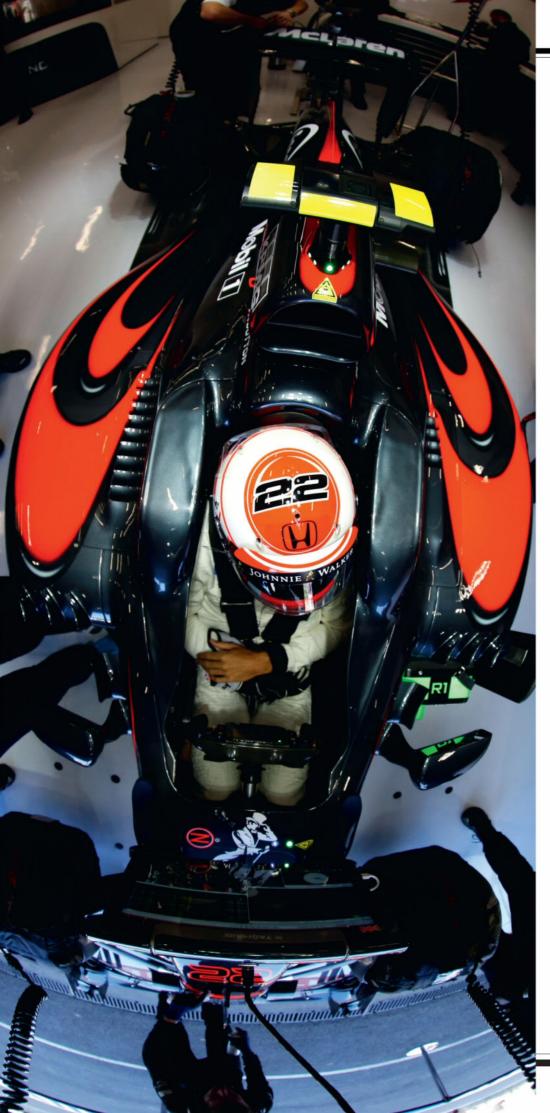
to re-negotiate would constitute a breach of contract that would render Button free to walk away should he so choose.

That could lead to Button moving to another team, or leaving F1 altogether. Publicly, Button maintains that he has not yet thought about his future beyond the end of this season, and that he has not yet had discussions with McLaren about continuing, or with other teams about joining them should he become a free agent. Sources close to Button say he wants to remain in F1 – but only at McLaren-Honda.

Williams, the team with whom Button broke into Formula 1 in 2000, had expressed an interest in him when it still looked possible that they might lose Valtteri Bottas to Ferrari. This now seems far less likely and they are aiming to retain their current line-up of Bottas and Felipe Massa for 2016. In any case, Button was not keen on moving back to Williams.

There have been various newspaper reports claiming that Button might consider a move to rallying next, and it's true that he has long considered trying rallycross when his F1 career ends. His father, John, who died last year, was a big name in the sport in the 1970s. However, for Button, this would only be an occasional bit of fun. A full-time world rally or rallycross programme is not of interest to him.

McLaren are now trying to engineer a 2016 F1 seat at Manor Marussia for Vandoorne, who is dominating the GP2 championship this season.



#### NEWS DIGEST

### The month's big stories at a glance

29.7.15 Singapore GP chiefs reveal track revisions for this year's race, including the widening of the Turn 13 hairpin to encourage overtaking 3.8.15 The governor of Lombardy raises hopes that Monza can retain the Italian GP, saying he is close to striking a deal with Bernie Ecclestone to extend the venue's contract beyond 2016 10.8.15 John Harnden is appointed chairman of the Austalian Grand Prix Corporation, taking over from long-time event chief Ron Walker 19.8.15 Ferrari sign Kimi Räikkönen to a contract extension for 2016 21.8.15 Bernie Ecclestone downplays Monza's chances of staying on the calendar beyond 2016, saying he thinks there is "a good chance" the venue won't be able to agree a new deal

**23.8.15** Russian GP chiefs say their event could run as a night race from 2017, as part of a contract extension to secure its place on the calendar until 2025



This deal will likely involve Manor Marussia switching to Honda engines for 2016.

Magnussen's Formula 1 career, meanwhile, is hanging by a thread. Although McLaren were sufficiently impressed by him in his maiden season last year for them to consider him as a strong contender for a race seat this year, a rift appears to have developed between him and McLaren racing director Eric Boullier, which is hampering his chances of staying in his current role as reserve driver.

Magnussen has made it clear he is determined to find a race seat somewhere, even if it is not in Formula 1, next season. His best hope of remaining in F1 is a seat at new team Haas in 2016. However, there are said to be at least ten drivers in contention for the team's two seats.

## **DINSIDER**

## NEWS Ferrari will retain Räikkönen for 2016

#### Stability is key at the Scuderia as they focus on their car

Kimi Räikkönen's Formula 1 career has been extended by at least one more year after Ferrari decided to keep him alongside Sebastian Vettel for the 2016 season.

The decision came after lengthy deliberation over whether they should drop him due to inconsistent performances. Ferrari entered 2015 intending to take up their option on Räikkönen provided he could recover his lost form after a poor 2014 in which he was comprehensively outperformed by team-mate Fernando Alonso.

The early signs this season were good. Räikkönen, who finds it harder than Alonso to adapt to a car that does not suit him, has been much happier with the handling of the 2015

He's still not consistent, but Räikkönen has

Ferrari. He performed strongly in the first four races of the season, finishing a close second to Lewis Hamilton in Bahrain.

Rocky performances in the next few races put his position in doubt. His qualifying form dipped and there were errors in races, including a spin that cost him third place in Canada and a first-lap collision with Alonso in Austria. This prompted Ferrari to issue a public warning to Räikkönen to up his game, with chairman Sergio Marchionne saying that Räikkönen's future was "in his own hands".

The team began to consider Daniel Ricciardo as their preferred replacement. However, extracting Ricciardo from a Red Bull contract that runs to the end of 2018 would have proved prohibitively expensive. Their second choice was Williams racer Valtteri Bottas.

Like Ricciardo, he was under contract, but unlike Red Bull, Williams were willing to sell. Ferrari opened discussions with Williams, but it became evident that freeing up Bottas would cost over \$10m. They then noted that 25-yearold Bottas was not performing as well against team-mate Felipe Massa as he had in 2014.

With Sebastian Vettel making it clear he was happy with Räikkönen as a team-mate, Ferrari decided stability was best at a time when their focus is on improving their car to a level where they can compete consistently with Mercedes.

Räikkönen said: "I'm very pleased that we can be working together next year again. I really feel that we are going in the right direction and we can do great things in the future."

Williams are now almost certain to keep hold of Bottas and Massa for a third season.



#### QUIZ







#### **GERMAN F1 DRIVERS**

Q1 Who was the first German driver to win a grand prix? Q2 How many times did Michael Schumacher win his home GP? O3 How many German drivers have started more than 100 races? Q4 Where did Jochen Mass claim his sole grand prix victory in 1975? Q5 In which 1984 race did Stefan Bellof claim his sole F1 podium finish for Tyrrell (the team later had their results for that year annulled)?

Q6 In which position did Sebastian Vettel qualify his BMW Sauber on his Formula 1 debut at the 2007 US Grand Prix? O7 Heinz-Harald Frentzen and Ralf Schumacher both claimed their first

F1 victories in which race? Q8 Who was the first German driver to win a grand prix in a German car?

O9 Michael and Ralf Schumacher became the first brothers to claim a one-two finish in which 2001 race? Q10 And which of the Schumacher brothers finished ahead of the other in that event?

Oll What did Nico Rosberg become the first German driver to do on his Formula 1 debut at the 2006 Bahrain GP?

Q12 Four German drivers have taken podium finishes for Williams. Who were they?

Q13 How many podium finishes did Timo Glock score?

Q14 Which German briefly led their sole F1 race, driving for Spyker at the 2007 European GP?

Q15 For which four teams did Hans-Joachim Stuck drive?

22 Heinz-Harald Frentzen, Nick Heidfeld, Nico Rosberg, Ralf Schunacher 13 3 14 Markus Winkelhock 15 March, Brahham, AT 1 Wolfgang von Trips 2 4 3 8 4 Montjuic Park 5 Monaco 6 7th 7 San Marino GP 8 Nico Rosberg 9 Canada 10 Ralf 11 Set fastest lap



# FRESHNESS THAT OUTLASTS THE GAME

Stay fresh throughout the day and stay up to 100% flake free\* with **Head & Shoulders** 2-in-1 range.







2in1 classic

## **INSIDER**

#### NEWS

## Red Bull push hard for switch from Renault to Mercedes engines

## As Red Bull's poor form continues, it is reported that the team have given notice to their engine partner Renault

**Red Bull are aiming** to get out of their Renault engine contract as soon as they can and switch to Mercedes – possibly as early as the start of the 2016 season.

Team principal Christian Horner refused to comment on reports that Red Bull have issued Renault with a letter giving notice of termination of their contract, on the basis that Renault have failed to meet a performance clause.

Horner said this was "speculation", and said: "We've got a contract with Renault and I am not going to disclose its contents. There are obligations on both parties."

Even so, Red Bull are believed to be keen to secure pace-setting Mercedes power units for 2016, although Mercedes have made it clear they won't enter talks with Red Bull while the team are contracted to Renault. Renault's deal with Red Bull runs until the end of 2016.

Mercedes and Renault work together in the road-car marketplace. Each has a five per cent shareholding in the other, and they have collaborated on the new Renault Twingo and jointly work on ten projects.

Mercedes F1 boss Toto Wolff said: "We will not interfere in an existing relationship because legally we don't do this and it is not the way we approach business. Renault and Daimler go back a long way with many co-operations. It is an industrial partnership and until it is resolved between the two parties we will not start discussions. It has not reached that point and the complexity is large."

Renault are evaluating whether to continue as an engine supplier, withdraw from F1 or increase their involvement. They have considered becoming team owners and have held talks about buying Lotus. But at the time of writing, no conclusion had been reached due to concern over Lotus's precarious finances.

At the Belgian Grand Prix, Force India owner Vijay Mallya revealed he had also held talks with Renault about a potential sale of a majority stake in his team.

Red Bull's options are limited if they cannot secure Mercedes engines. Honda are uncompetitive, and McLaren would likely use their contractual veto over Honda signing to another team. So Ferrari are currently the only realistic alternative.

Red Bull and Renault are in ongoing talks over Renault's future as engine supplier to the four-time champions



#### FACT FILE



#### **1** 'GYAKU' BANK CURVE

Translated into English, this means 'opposite bank'. This is because the slight banking of the right-hander slopes away from the direction of the turn, often upsetting a car's balance.

#### 2 DEGNER CURVE

Named after German motorcycle racer Ernst Degner, who crashed his 250cc Suzuki bike here in 1963, suffering burns that required more than 50 skin grafts. Degner returned to the circuit a year later and won the 125cc Japanese GP.

### 3,4 & 5 110R, 200R AND 130R

You likely know about 130R – Suzuka's signature high-speed left-hander (5). The name is derived from the radius of the corner expressed in metres – and 130R is just one of three corners at the circuit to follow the same naming convention. The other two aren't nearly as good though.

#### 6 SPOON CURVE

Most of Suzuka's corners are simply named. First Corner doesn't really need explaining. Nor does Spoon Curve when viewed from above and compared to an item of cutlery...

#### T HITACHI AUTOMOTIVE SYSTEMS CHICANE

Two corners at Suzuka are named after sponsors: the Dunlop Curve and the track's fiddly chicane. Long known as the Casio Triangle, it's currently branded the Hitachi Automotive Systems Chicane – a name nearly as clunky as the turn itself.



WHY F1 GOES CRAZY IN JAPAN turn to page 78

OFFICIAL PARTNER

real watches for real people

Oris Williams Chronograph Automatic mechanical movement Matt-satin stainless steel case Luminescent hands and indices Water resistant to 10 bar/100 m www.oris.ch



## **INSIDER**

#### NEWS

## McLaren-Honda resigned to struggle

Having used up all their development tokens, and with their new PU failing to boost performance, the rest of their year looks grim

**McLaren and Honda** have resigned themselves to making no major performance improvements for the rest of the season.

A new power unit with improved combustion made its debut at the Belgian GP, but its performance disappointed and McLaren produced their least competitive qualifying result since the Spanish GP in May.

Honda F1 boss Yasuhisa Arai had said that he hoped the engine that debuted in Spa would be comparable with Ferrari's. But it remains the least competitive engine in F1 by some margin.

Arai insisted the engine had performed as expected: "It worked well, but unfortunately it did not work effectively here because it is a very tough circuit." Spa and Monza expose the weaknesses of the Honda engine more than any other because cars are raced at full-throttle for most of the lap. The team hope the upgrade will work better on tracks such as Singapore.

The engine's biggest problem is its lack of hybrid performance. Its ERS is particularly weak, and at Spa it was running out of electric

boost halfway through the straights from La Source to Les Combes and from Paul Frère to Blanchimont. This meant the car was deprived of 160bhp for a significant portion of the lap.

In addition to this, the Honda engine is said to be 100-150bhp down on the Mercedes when running at full power. Add these two deficits together, and it's it is easy to see why McLaren were nearly three seconds off the pace at Spa.

The problem cannot be solved without a redesign of the compressor and MGU-H, which recovers energy from the turbo. Honda cannot introduce that this year because they do not have sufficient development tokens.

This lack of performance is causing friction between Honda and McLaren to leak into the public domain, with Arai stating in Hungary that the car itself is also lacking performance.

McLaren racing director Eric Boullier said: "We are happy to have Honda as a partner and Honda is happy with McLaren so far. Maybe we didn't have the maturity to be performing as much as we expected, but we are working very hard as a works team and this is very, very important for us to be a works team."

Out of luck: McLaren-Honda's poor performance is likely to continue for the rest of 2015 due to issues with their MGU-H



#### F1 BANTER

### **PASSNOTES** Your essential F1 briefing #19 Tyres



Name Tyre Age 169 years Appearance Ubiquitous vulcanised ring of contention

I should warn you right now that if you so much as mention the word 'degradation', I'm leaving. Fear not! I bring news of tremendous rancour. Best not ask Nick Heidfeld to try to pronounce that. What word, then?

Sebastian Vettel got himself in a tizzy after the race at Spa, reckoning he could have been killed after his right-rear tyre blew out with the chequered flag almost within sight. He is putting the blame for the incident squarely on Pirelli.

## I do wish we lived in a culture of responsibility not blame. What's his beef?

Well, after Nico Rosberg had a blow-out in practice, Pirelli said his tyre had picked up a cut somewhere.

Sounds reasonable. People do leave stuff lying around. I nearly had to have a piece of Lego surgically removed from my foot last week. As for Sebastian, Pirelli reckoned that his tyre simply wore out because the Ferrari was on a one-stop strategy, and they pointed out that in the past they've proposed formal limits on the number of laps you can run with one set of tyres – but that was rejected.

#### Bet he didn't take that lying down.

Yep, post-race, he ranted into various microphones about the iniquity of it all. "But what's the answer? Same as every time: 'Yeah, there was a cut, debris, maybe something was wrong with the bodywork, maybe the driver went wide,' – bullshit."

Oooh! Handbags. But did my own eyes deceive me, or did young Seb put all four wheels over the white line at Raidillon at least once? You could suggest that via the comments section

of his personal website, if it had one. Why so?

He used his site to issue a statement softening his stance, saying: "We need to talk to each other as it can't happen without prior notice."

What's he suggesting? A tyre that goes ding ding at a useful interval before it goes bang? I'd patent that!

**Do say** Aye, there's the rub(ber) **Don't say** The first cut is the deepest

## **BE ONE WITH IT**

Be one with your tyres, and the road will be one with you.



OFFICIAL Partner



#### ventus S1 evo<sup>2</sup>

Luxury that never compromises safety

With an advanced VAI system that allows drivers to track vehicle alignment and aerodynamic sidewalls that minimise noise and vibration levels, the ventus S1 evo2 delivers the promise of performance and enhanced fuel efficiency.



Hankook Tyre UK Ltd, Fawsley Drive, Heartlands Business Park, Daventry, Northamptonshire NN11 8UG Tel: +44 1327 304 100 Fax: +44 1327 304 110

hankooktyres.co.uk

## **INSIDER**

#### COLUMN

### MOTOR MOUTH What we're talking about

what we're talking about at F1 Racing Towers

#### **KIMI CARRIES ON**

**Ferrari's decision to retain** Kimi Räikkönen for 2016 was the big story heading into the Belgian GP, and it got a positive reaction from followers of our Twitter account (@F1Racing\_mag). In an entirely unscientific survey, 66.6 per cent of respondents gave the decision a thumbs-up.

Craig Hamilton (@hamlyn\_greg) said: "Great news. Too early to write off such a talented driver." Mark Reese (@the\_real\_reesey) added: "Good for fans, good for Kimi and Seb, and good for Ferrari. We all know he's past his best, but he still does a job for them."

Others wanted to see a younger driver in the car. Matt Bailey-Smith (@mattbaileysmith) said: "Can't help being a little surprised, thought Bottas looked a sound bet. Kimi's not looked on it." Angie (@Girlracer1976) responded: "I think they are holding out for someone in a year's time... maybe Ricciardo, so don't want to sign Bottas or Hülkenberg on a longer deal."

James Attwood

Kimi: staying put at Ferrari to the delight of Twitter



Bike: the quickest means of doing Brussels-Spa

#### **BIKE VERSUS MERC**

**Planes, trains and automobiles...** these are obviously the more conventional means of transport for the itinerant Formula 1 massive en route to the Belgian Grand Prix. But the proximity of the sport's greatest circuit to the port towns of northern France (Dieppe, Calais, Caen) – around 200 miles – makes alternative itineraries eminently feasible. Such as London-Brussels by Eurostar, then Brussels-Spa by bike.

I opted for this latter route out to Belgium and back, and my door-to-door journey from the circuit in Spa to my home in Brighton took me just less than 11 hours. Associate editor James Roberts travelled home to Littlehampton, also situated on the south coast of England, via Mercedes S-class, an abortive Channel crossing on Le Shuttle, then the Dieppe-Newhaven ferry. His total journey time? Fourteen hours. Go figure.

Anthony Rowlinson

#### NEWS

## Teams continue to wrestle with 2017 rules revamp

Faster, wider cars with wider tyres have been agreed, but detailed changes have led to dispute

**Teams are still** trying to decide on the detailed concept for the new rules to produce F1 cars in 2017.

The basic concept remains the same, and should create cars that are five seconds a lap faster due to being made wider, with wider tyres. They will also be less sensitive to turbulence in the wake of another car, so will be easier to race with.

But the sport's leading engineers are wrestling with the detail, and time is running out to finalise the rules before the end of this season. After that point, any decisions will be much harder because the unanimous agreement of all the teams will be required.

Pirelli have responded to a call for wider rear tyres from the Strategy Group of leading teams, Bernie Ecclestone and the FIA. This has led to the idea of putting the current 15-inch wide rear tyres on the front, and producing even wider rears. This would prompt another look at the car's design concept.

Bernie Ecclestone still hasn't decided whether to retain Pirelli as F1 tyre supplier for 2017 onwards

Complicating the process is the as-yet-undecided tyre tender process – Bernie Ecclestone has not finalised his decision on whether to appoint Pirelli or Michelin as F1's tyre supplier from 2017 onwards.

Points now agreed include widening the track to two metres, widening the front wing, reducing minimum weight and lowering the car by 10mm by removing the underfloor plank. This will boost the proportion of total downforce of the car provided by the underbody.

There are concerns in some quarters as to whether the major changes are necessary. One leading engineer points to the grands prix in Britain and Hungary this year as evidence that all that is required to produce an entertaining race is a first-corner mix-up.

There is also the issue that any major rule change tends to spread the field as the bigger teams can apply more resources to solving new problems created. It is even possible

> that the changes could be abandoned altogether.



## Come for the race. Stay for the fun.

2015 FORMULA 1 ETIHAD AIRWAYS ABU DHABI GRAND PRIX, 27-29 November.

Experience the thrill of a race weekend when you book a fantastic value Grand Prix package with Etihad Holidays. As well as grandstand tickets for all the race action, our packages include complimentary access to the F1 After Race Concerts and Yas Park Passes for Ferrari World Abu Dhabi and Yas Waterworld.

#### **3 NIGHTS FROM (PER PERSON)**

GRAND MILLENNIUM AL WAHDA 5* DOWNTOWN	£1,259
THE ST. REGIS ABU DHABI 5* CORNICHE	£1,529
RADISSON BLU HOTEL 4* YAS ISLAND	£2,209
YAS VICEROY ABU DHABI 5* YAS ISLAND (MIN 4 NIGHT STAY)	£4,099

Other hotel options are available, please contact us for more details.

#### All packages include:

- Return flights to Abu Dhabi with Etihad Airways
- 3 nights' accommodation with breakfast
- 2 Day Abu Dhabi Hill F1 race tickets
- 2 Day Yas Park Pass
- (Ferrari World and Yas Waterworld) • Complimentary access to the F1 After Race Concerts
- Ruce concerts
- Formula 1 Abu Dhabi Grand Prix 'Race Pack'
  Terms and Conditions apply

For more information or to book, call the Etihad Holidays' F1 team on 0844 557 0646

Or visit etihadholidays.co.uk



The F1 FORMULA 1 Logo, F1, FORMULA 1, FIA FORMULA ONE WORLD CHAMPIONSHIP, ABU DHABI GRAND PRIX and related marks are trade marks of Formula One Licensing BV, a Formula one group company. All rights reserved.



etihad.com

## 



#### OBITUARY

**Justin Wilson** 1978-2015

#### Former F1 racer dies following IndyCar incident in Pennsylvania

**British racing driver Justin Wilson**, who raced in F1 for Minardi and Jaguar in 2003, has died after being struck by debris during an IndyCar Series race. He was 37.

The Sheffield-born racer suffered serious head injuries after being hit by the nose section of rival Sage Karam's car, which broke loose after Karam crashed into the wall on the 2.5-mile Pocono Raceway. Wilson was transported to hospital in a coma, and died the following day.

His family released a statement that said: "With deep sadness, the parents of Justin Wilson, Keith and Lynne, his wife Julia, and his brother Stefan share the news that Justin passed away today after succumbing to injuries suffered during the Verizon IndyCar event at Pocono Raceway on Sunday, August 23. Justin was a loving father and devoted husband, as well as a highly competitive racing driver who was respected by his peers."

Jenson Button was one of many to pay tribute. He wrote on Twitter: "Justin Wilson was a great person and racing driver. My thoughts are with his family, RIP. I raced with Justin as far back as 1989 in karting and remember his smile was infectious, such a lovely guy."

After an impressive karting career, Wilson battled his way up, fighting a perception that his height – he was 6ft 4in – meant he could not succeed in single-seaters. After winning the Formula Palmer Audi title, he earned the backing of former F1 racer Jonathan Palmer, who secured him an F3000 drive and established an innovative funding scheme to help him.

He dominated the 2001 F3000 championship, scoring nearly twice as many points as runnerup Mark Webber, but despite impressing in a test for Jordan he was unable to find an F1 seat. He had a deal set up to race a Minardi in 2002, but couldn't fit in the car. The team were so impressed that they ensured their 2003 machine was designed to accommodate Wilson's frame.

Wilson impressed, outshining veteran teammate Jos Verstappen and earning a promotion to Jaguar Racing for the final five races of the year. He claimed an eighth-place points finish at the US GP, but was sidelined when the team took on Red Bull-backed Christian Klien for 2004.

Wilson switched his focus to the US, establishing himself as a force in CART and, later, the IndyCar Series. Despite spending much of his career with smaller teams, he scored seven wins in the two open-wheel series. He secured a limited deal with top IndyCar team Andretti Autosport this season, and was in contention for a 2016 drive with the squad.

He is survived by his parents, wife, brother and two daughters.

#### OBITUARY

**Guy Ligier** 1930-2015

#### Former owner of French F1 team Ligier dies aged 85

**Guy Ligier**, who died on 23 August 2015, enjoyed a brief career as an F1 racer, but is better known as a constructor. His eponymous team took nine races win from 1976-96.

Vichy-born, Ligier worked as a butcher before making his fortune in construction, primarily from the French motorway system. He played for the French national rugby B team before a career-ending injury.

His racing career started with bikes. He then switched to cars, competing in 12 GPs

in privately entered Cooper and Brabham chassis in 1966-67. Having retired from racing following the death of his friend Jo Schlesser in 1968, Ligier set up as a road- and racing-car constructor. The firm moved into F1 in 1976 after Ligier bought the assets of Matra Sports, with Jacques Laffite claiming their first win in the Matra-powered JS7 in Sweden in 1977.

Ligier enjoyed success in 1979, when Laffite won the frst two races in the Cosworthpowered JS11. But they were unable to match the development of their rivals, falling to third in the constructors' standings. More wins followed in 1980-81, but despite considerable backing from the French government and firms such as Elf and Gitanes, the team began to fade from prominence.

Ligier sold up in 1992, moving into the fertiliser industry. His team claimed a final win at Monaco in 1996, their final season.



## WIN 316 HORSES WITH A MOUSE

## WIN YOUR DREAM CAR FREE £5 WHEN YOU SIGN UP GUARANTEED WINNER EVERY WEEK







bb botb.com

MINI JCW ROADSTER + £10K CASH



SIMON MCCABE ASTON MARTIN VANTAGE + £10K CASH

## CLICK TO WIN AT BOTB.COM





Tel: +44 (0)20 7371 8866 Email: info@botb.com

## **INSIDER**

#### NEWS

## Vettel enraged by Pirelli tyre failure in Spa

The Ferrari driver and Mercedes' Nico Rosberg both suffered blow-outs in Belgium, creating widespread concern among teams

**Drivers have raised concerns** about tyre safety in the wake of a series of rubber-related incidents at the Belgian Grand Prix.

Ferrari's Sebastian Vettel launched an angry tirade at Pirelli following his 200mph tyre blowout on the penultimate lap of the race, which cost him third place. "Things like that are not allowed to happen," Vettel said. "Full stop. If it happens 200 metres earlier, I'm not standing here now."

Vettel's remarks followed a weekend in which Mercedes driver Nico Rosberg suffered a 190mph blow-out in practice. In the wake of that incident, Vettel, Lewis Hamilton and Fernando Alonso were among drivers who expressed their concerns to F1 race director Charlie Whiting.

Pirelli blamed Rosberg's tyre failure on a cut in the tread. Vettel referred to this witheringly after the race: "But what's the answer? Same as every time: 'Yeah, there was a cut, debris, maybe something was wrong with the bodywork, maybe the driver went wide,' – bullshit. If Nico tells us that he didn't go off the track, he didn't go off the track. Why should he lie to us? It is the same with me, I didn't go off the track and out of the blue the tyre exploded." Vettel, who had been on a one-stop strategy, said to Pirelli motorsport director Paul Hembery after the race: "Forty laps, you told us." This refers to the recommended maximum tyre life, the fact Vettel's tyre failed on his 29th lap, and the fact that Pirelli gave Ferrari no warning of risk.

Pirelli blamed the failure on wear. Engineers from other teams said this was "surprising" since there was no major performance drop of the sort that usually accompanies excessive wear.

Pirelli later issued a statement, saying that in 2013 they'd suggested maximum tyre-life limits for the tyres of 50 per cent of race distance for the prime (medium) and 30 per cent for the option (soft), but that the limits were "not accepted".

Had these limits been in place in Spa, Vettel's tyre failure would not have happened. This would not, however, explain Rosberg's accident.

The FIA was due to meet with Pirelli after *F1 Racing* closed to press to try to reach some kind of resolution to the matter.

Vettel's devastating right-rear tyre blow-out, while travelling at 200mph on his penultimate lap at Spa, cost him third place (more on p104)



#### NEWS IN BRIEF



**GUTIÉRREZ LINKED TO NEW HAAS TEAM** Former Sauber racer Esteban Gutiérrez is close to securing a drive with the new Haas F1 team for 2016. The Mexican is a Ferrari reserve driver, making him an obvious choice for Haas, who have very close links with the Scuderia. The team are also said to be seeking a more experienced driver, and have a shortlist of at least ten of them.

#### FIA REJECTS FURTHER NEW TEAMS

Two teams have been unsuccessful in their bids to join the F1 grid in 2016 or 2017. The FIA recently called for hopefuls to submit their interest, but the two applications received did not pass the FIA's 'comprehensive diligence processes'. The identity of these prospective teams has not been made public.



#### MANOR MARUSSIA SCRAP NEW CAR Struggling Manor Marussia have abandoned plans to introduce a new car this season. The backmarkers, who are campaigning with a 2014 car modified to meet the 2015 safety regulations, calculated that it would cost them £9million to introduce the new chassis.

#### LOTUS-PIC CONTRACT ROW

The Lotus team's equipment was impounded after the Belgian Grand Prix by bailiffs acting for lawyers representing their former reserve driver Charles Pic. Pic is claiming breach of contract on the basis that the team did not give him as much time in the car as agreed. As *F1 Racing* closed for press, the team were hoping to reach a settlement that would allow them to race at the Italian Grand Prix.



### INTERNET'S MOST IN-DEPTH FORMULA 1<sup>™</sup> DATABASE IS NOW MOBILE !

≡ ۹. ω	HOME			AUSTRAL	IA - PRACT		0 13	15 36		
Major release of GPGuide Mobile App coming soon with 100+ Statistics Tables II <u>Click here</u>	DRIVERS' STANDINGS			CONSTRUCTORS' STANDINGS			LAST GRAND PR		RIX	
	1 - Hamilton, Lewis	384	1 -	Mercedes		Name:	Abu			
LATEST NEWS	2 - Rosberg, Nico		2 •	Red Bull		Location:	Yas			
Friday 30 Jan 2015	3 - Ricciardo, Daniel		3 -	Williams		Winner:	Har	••••• AIS 🕈	6:58 PM 4 \$ 100%	
Ferrari, Sauber next to reveal 2015 cars	4 😰 Bottas, Valtteri		4 -	Ferrari		Pole:	Ros		HOME	
Ex Ferrari boss points finger at Alonso	5 👅 Vettel, Sebastian		5 -	McLaren		Fastest L	ap: Ric		USTRALIA - PRACTICE 1	
Lynn confirms Red Bull programme split	6 🧵 Alonso, Fernando		6 -	Force India		CAL	NDAR 8	U	40:13:31:50	
Team survival more important than 1000hp - engineer	7 🏦 Massa, Felipe		7 •	Toro Rosso		1 AUS			Latest News	
Raikkonen could stay beyond 2015 - manager	8 🗵 Button, Jenson		8 -	Lotus		2 MYS	Mar-30			
Red Bull and Lotus running late for Jerez	9 - Hülkenberg, Nico		9 -	Marussia		3 BHR	Apr-06	Y	Championship Standings	
debut Sirotkin money key to Force India absence -	10 💼 Pérez Mendoza, Sergio			Sauber		4 CHN	Apr-00	-A AL		
report	11 🚺 Magnussen, Kevín			Caterham		5 ESP	May-11	#X#	Last/Next Grand Prix	
Fans disappointed with 'new' McLaren livery	12 🚺 Räikkönen, Kimi							(III)	Calendar & Results	
Ecclestone doubts Germany to host 2015 race	13 - Vergne, Jean-Éric					6 MCO			ourenaur a riesans	
Ricclardo doubts Vettel quit rumours	14 - Grosjean, Romain					7 CAN	Jun-08	An	Statistics	
Mercedes completes first laps with W06	15 - Kyvat, Daniil					8 AUT	Jun-22			
Thursday 29 Jan 2015	16 - Maldonado, Pastor					9 GBR	Jul-06	$\bigcirc$	Glossary	
Force India denies rumours of financial collapse						10 GER	Jul-20			
McLaren launches silver MP4-30	17 - Bianchi, Jules					11 HUN	Jul-27		ajor release of GPGuide Mobile Ap oming soon with 100+ Statistics	
Pirelli introduces new super-soft for 2015	18 - Sutil, Adrian					12 BEL	Aug-24		ables II <u>Click here</u>	

"The most authoritative and certainly the best guide to Formula 1 data & statistics online." - The New York Times

- News: Latest & most up-to-date global Formula 1 news
- Season Summary: Every season since1950
- World Championships: Every Championship since 1950
- Drivers: 960+ Detailed profiles
- Constructors: 200+ Detailed profiles

- Grands Prix: 820+ Detailed results • Circuits: 67+ Detailed profiles
- Engines: 85+ Manufacturer profiles
- Tyres: 9+ Manufacturer profiles
- **Statistics:** 150+ Dynamically updated tables





Available in SIX languages !





GPGuide.com and GPGuide Mobile Apps are exclusive products of RKadia Partners, Ltd. Copyright © 2014 - All rights reserved F1, FORMULA ONE, FORMULA 1, FIA FORMULA ONE WORLD CHAMPIONSHIP, GRAND PRIX

and related marks are trade marks of Formula One Licensing B.V.



## **INSIDER**



### Pat Symonds explains THE SCIENCE BEHIND... **Hybrids**

#### F1 TECH

There's lot of talk in F1 now of 'power units' and 'hybrids'. What happened to 'engines' and 'KERS'? In 2006 it was decided that the 2.4-litre V8 F1 engine could be improved in the future by adding a system to allow the car to recover energy under braking, and then use that recovered energy to boost acceleration.

While the technology allowed was quite free, all teams chose to use a system whereby an electric motor/generator unit (MGU) was geared onto the engine crankshaft. This unit acted as a generator under braking, producing electricity that was stored in a battery. When additional acceleration was required, the unit acted as a motor and used the electrical energy previously stored. This was called the Kinetic Energy Recovery System (KERS), and it lowered lap times by around 0.3 seconds.

By the time KERS came into use, the FIA and the engine manufacturers were already discussing the next generation of engine. This was to have a more powerful electric motor system and a downsized turbo engine with direct fuel injection. As the electrical part of the system was to produce a substantial part of the total power, it was felt that the term 'power unit' was more appropriate, because it highlighted the fact that the power was not coming from an internal combustion engine alone. In full, the system is known as a hybrid power unit, with the word hybrid suggesting a mix of the two elements.

### Are these hybrids the same as the hybrids we see on the road?

They are not the same as the ones you see on the road today, but they certainly use technology that you will see on the road in the future. The biggest difference between an F1 hybrid and a current road-car hybrid is that the F1 power unit has an additional MGU attached to the turbocharger. This has a double benefit: when acting as a motor it can keep up the turbocharger speed to eliminate turbo lag, and when acting as a generator it can harvest energy that would otherwise be wasted in the exhaust by producing electrical energy for storage and release as and when needed.

#### Why did F1 move in this direction?

It is important that F1 keeps up with the issues of the day to remain relevant. At the time these power units were conceived, the automobile industry was focused on legislation that forced it to reduce the tailpipe  $CO_2$  emissions of its products. There was also no hint of the worldwide recession that was about to hit. It seemed at the time that a more complex (but more expensive) engine was a good way forward and that to ignore the groundswell of climate change opinion could have serious consequences for the business of F1, with sponsors and fans alike potentially turning their backs on an outmoded sport.

#### There have been many complaints about cost. Are these engines expensive?

Yes they are. They are significantly more complex and while they may have fewer pistons and valves, the addition of the turbocharger and compressor, as well as the much more sophisticated fuel-injection system and electrical parts, has pushed up the unit production costs from around £220,000 to closer to £550,000. On the other hand, we now use half the number of engines in a season.

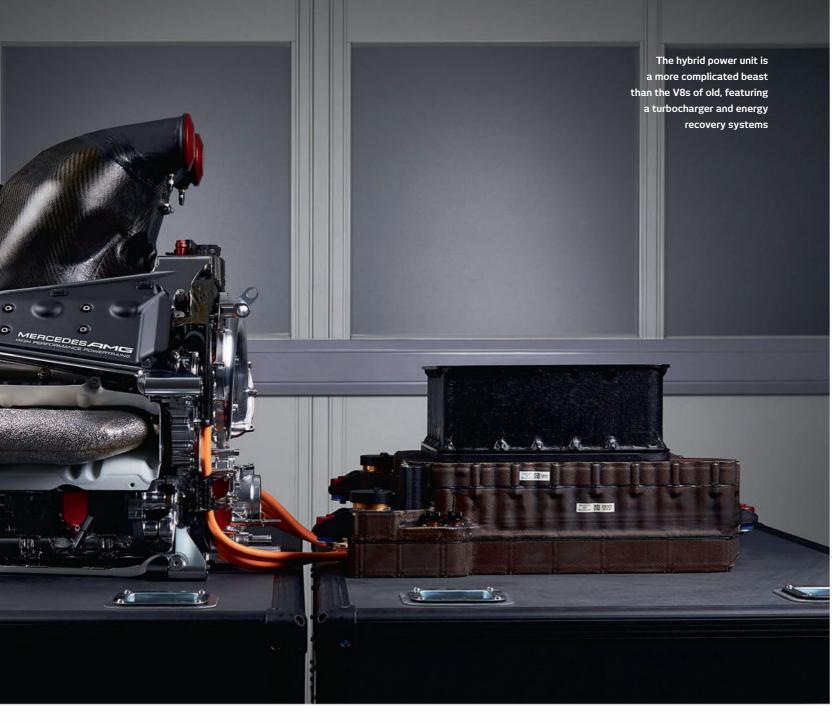
#### It seems the engineers have to help the drivers with managing the power unit. Why is this?

Contrary to popular opinion, we have never run engines flat-out in F1. We have always had to manage fuel because the most efficient way to race was generally to keep down the startline fuel mass. To do this, we estimated the pace of the race and determined when we could save fuel. We still do this today, but with the added burden that at a few circuits we are carrying slightly less than the optimum fuel load. We have also always needed to conserve some performance



in the race for reasons of reliability. The energy store is a slightly more complex matter because it can be thought of as being analogous to a fuel tank that we can empty and refill several times during the course of the race. While much of the management of this system is automatic, there are still times when the engineers want to manage energy consumption in a particular way, and hence will advise the driver on recovery and discharge settings.

What is the difference between the fuel-flow limit and the total fuel allowed for the race? In simple terms, the maximum fuel flow of 100 litres per hour limits the maximum power from the internal combustion engine, while the race fuel limit, of 100kg limits the average power of the engine. If we didn't have the fuel-flow limit the engines could produce much more power. But, of course, if they used that power



continuously they would not complete the race distance using just 100kg.

#### What is meant by 'lift and coast'?

There are many ways to save fuel, but each has a detrimental effect on lap time. The most efficient way to save fuel with least effect on lap time is to lift off the throttle and allow the car to coast for a moment before applying the brakes for a corner so that the aerodynamic drag and engine pumping losses scrub off some speed. Of course, the MGU is also harvesting energy at this time, which not only adds to the speed reduction but charges the battery. This technique is called 'lift and coast'.

### Why are these new engines so much quieter than their predecessors?

Noise is a perception based on both sound intensity (measured in decibels) and tonal

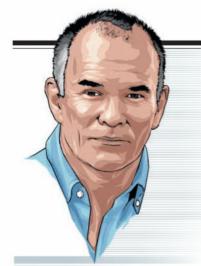
Hybrids seem quieter than their predecessors because their lower rpm means a lower-frequency sound



quality. The old V8 engines produced a very high frequency sound because they attained very high rpm. The new hybrid engines not only run significantly slower but, as they have six cylinders as opposed to eight, at any given engine speed they fire at only three-quarters of the rate of a V8. The new generation of power units are also turbocharged. The turbocharger works by extracting energy from the exhaust gases, some of which would have been dissipated as noise and so a further reduction of sound intensity occurs because of this.

#### We are told the power units are very efficient. How can you quantify this?

Because we can now run a race with the same power we had in 2013, but we use only two-thirds of the fuel – and bear in mind that an F1 car runs with a lot of wide-open throttle, which is not the most efficient operating mode for an engine.



### PETER WINDSOR

## RACER'S EDGE

Authority, wit and intelligence from the voice of *F1Racing* 

#### ime passes; hues change.

So this, for me, is how it was in 1975, 40 years ago: Ferrari dominated the F1 world championship with Niki Lauda. I remember Niki at Monza in '75, straddling a Benelli 750, on the eve of his championship win. The bucktoothed grin was thrown at anyone who asked about forthcoming tactics. In a quiet moment before practice, though, when I chatted to him in the car park, even Lauda admitted to feeling vulnerable: "Ferrari always blame something or someone when they lose. First they blame the driver, then the tyres, and finally, with difficulty, they blame themselves. So I'm trying to be as relaxed as possible. I know the pressure of the championship may cause the team to make mistakes. My job is to remain relaxed."

I recall Ferrari testing for five days at Monza in the build-up to the critical race: Goodyear construction comparisons. Anti-squat. Exhaust cluster shapes. Mixtures. A new cylinder head. Nothing was left to chance. Niki duly finished third on the Sunday, ahead of the only man who could have beaten him to the title – Carlos Reutemann.

We stayed on in Italy, of course, for Enzo Ferrari's celebratory press conference in Maranello on the Tuesday afterwards. *Il Commendatore*, in his customary suit,

## Golden memories from a golden year

tie and dark glasses, penned notes in the immortal purple ink. Luca di Montezemolo, his young team manager, sat on his far right; Franco Gozzi, the evergreen Ferrari PR manager, sat on his left. I'd heard about those new cylinder heads and thus asked Enzo for confirmation. "We took advantage of *Ingegnere* Rocchi [Ferrari's engine chief] being on holiday," he said, straight-faced. "We tried the new engines when he wasn't looking and they worked very well..."

Nigel Roebuck and I celebrated Ferrari's resurgence in 1975 by inviting Chris Amon up to Oulton Park to re-acquaint himself with the delectable, Mauro Forghieridesigned 1967 Ferrari 330 P4 sportscar. We drove laps with Chris on a deserted, leafy circuit. Ten years before, Chris had driven brilliantly to win the Martini Trophy at Silverstone from the back of the grid in the works McLaren Elva Oldsmobile. A McLaren career had seemed likely, but in late 1966 Chris accepted an offer to drive in both sportscars and F1 for Ferrari. The first car he ever raced for them was the 330 P4. He won with it at Daytona and then again at Monza, sharing with Lorenzo Bandini.

Now here we were with the 330 P4 – and with Chris Amon. "Amon was quickly into his overalls," I wrote later. "Ensconced in the larger of the two seats in the P4, it took him a moment or two to familiarise himself with switches and controls that once he operated habitually. Fuel pump on, a churn of the starter motor... and the V12 rasped into life. Kneeling down beside the car, Nigel switched his tape recorder from 'voice' to 'music'..."

I remember sliding around a bit in the other 'seat', for there were no belts (as in 1967). I wedged myself in as best I could between the battery and the fuel pannier tanks. Chris laughed when I commented on the relatively plush upholstery on his side of the car. "Forghieri always reckoned the seat covers were fireproof but one day one of the

"I drove to Watkins Glen; the leaves had turned to gold; the roads were pretty much deserted"



mechanics dropped a cigarette and the thing went up in smoke..."

From where I sat, there was no buffeting; the ride was silky-smooth. I remember Chris's knife-through-butter (right-hand) gear changes, his feet dancing on the pedals as he heel-and-toed down through the gears. The back end broke loose once or twice, but did so with gilt-edged invitation. Chris adopted his trademark oversteer poise, balancing the ensuing drift with throttle, deft fingertips and pin-sharp judgment.

We chatted later, when the pulse rate was lower. "I took it up to 8,000, which is where



The year was 1975: Niki Lauda took the championship for Ferrari, saying "I've been working, working, working towards a goal for so long now. But now I'm there and there's nothing to work for" (above); Chris Amon was reunited with the Ferrari 330 P4 at Oulton Park, with Peter Windsor in the passenger seat (below)

we ran them in '67, and it was so smooth," enthused Chris. "The cornering forces on the slow corners don't feel much different to a modern car's but on the quicker parts, like Clay Hill, it was beginning to get a bit light, which is something you'd never get with wings."

I flew PanAm to New York, climbed the Empire State Building, then drove up to Watkins Glen for the final round of the 1975 championship. The leaves had turned to gold; the roads upstate were pretty much deserted. John Glover, of Champion Spark Plugs, and I cruised at whatever pace we chose; the police were nowhere to be seen. I ate at the Glen Motor Inn, sharing a table with Carlos Reutemann, Eoin Young and Rob Walker. The talk was of CanAm; of the day's golf scores; and of Carlos's affection for John Deere tractors. Afterwards, I drove through the night to my hotel in Corning, my automatic Chev throwing up plumes of dust on the unsealed roads. I was in a different universe. In that crisp moonlight, elated by the evening, everything – suddenly and strangely – seemed connected.

I asked Niki, as he sat in the Ferrari pit on Friday morning, how it felt to be world champion. "As a person, no different," he said, shrugging his shoulders. "I feel a void as a driver. I've been working, working, working towards a goal for so long now. But now I'm there and there's nothing to work for. I can't wait for next year..."

'Next year', even in late 1975, seemed an age away but quickly it arrived, as the seasons do in Formula 1 life. Tyrrell went on to produce a six-wheeler, Ferrari made a revised car with De Dion rear suspension. Niki was very nearly killed at the Nürburgring. James Hunt became world champion.

And 1975, just like that, became the past. Except it wasn't; not for me. All that's happened is still visible with every passing day. <sup>(1)</sup>



#### ULTIMATE DRIVING AT GOODWOOD powered by BMW

## THE UK'S NEWEST DRIVING EXPERIENCE



4x4 OFF ROAD PERFORMANCE TRACK GOODWOOD ACADEMY



Telephone: 01243 216611 Email: circuit@goodwood.com Visit: www.goodwood.com/drive

## DAMON HILL KING OFHILL THE HILL

Cockpit savvy from the 1996 world champ, exclusively in *F1R* 

What it is about October and Russia, I don't know, but there is undeniably a strange affinity. Remember the film *The Hunt for Red October*? Before that was the October Revolution of 1917, which established the Soviet Union. And on 1 October 1939 Churchill famously described Russia as "a riddle, wrapped in a mystery, inside an enigma". So it seems a perfect month to hold the Russian Grand Prix. Churchill might also have added the word 'contrary', since it seems that when the West wants to zig, Russia wants to zag.

But this does not concern us. We are F1 and we will race whatever the political weather. Yet if you wanted to highlight these ideological differences, what better way than to do the Pepski Challenge and have back-to-back Russian and US Grands Prix?

Apparently recession-proof, crisis-proof, politics-proof and sanctions-proof, F1 hops from country to country, bringing its unique take on how life should be lived. I'm always amazed, always baffled, always shocked that it should have this immunity, this passport to anywhere, anytime. It compels me to ask if F1 is not 'The Most Powerful Show on Earth'?

Last year the F1 carnival landed in Sochi for the first time, much to the bemusement of the

# A tale of two countries

locals. You get used to European reactions to the F1 circus coming to town, but with the expansion of the brand across the globe and crossing cultural and political boundaries, we are increasingly arriving in new territories with a small nucleus of keen fans in a sea of curiosity bordering on indifference.

"No matter," they will say. "This is a global sport and we need to venture into new markets and tap into the vast potential just beneath the surface." That may be so, but is there not a danger of appearing to be selling indulgences? Proclaiming political neutrality is a nice idea, but everything is politics and sporting spectaculars have long been the most coveted political devices of power.

In the UK, Silverstone gets limited support from the government, despite bearing the financial risk for providing a national sporting event. This means Formula One Management have to decide how important the British GP is to the overall success of F1, because they will not get the greater sanction fee some nations are prepared to deliver for the kudos that F1 bestows.

But you could convincingly argue that Silverstone (I'm sure this applies to Monza, too) produces more revenue for the

group than all the new venues put together. Not only was it the first F1 grand prix venue, giving tangible reality to the whole concept, but it provides a promotional boost to F1 each time the UK's vast army of fans show up to support the race with their undying enthusiasm and goodwill. Could it be that other countries' political leaders are inspired by these scenes of jubilation and fancy a bit of that kind of love?

Which made me think: could F1 change the course of history by arousing anger towards a leader for ostentatiously flaunting his privileges? Or, by increasing support, enable

"That old political neutrality card can come in handy when you need to race..." him to secure a second, third or ninth term? Naturally, I raise this question for female political leaders, too. Angela, get the German GP back on the calendar! You'll be in power for two more terms. Alternatively, the political backlash will finish you off. Your call, gal!

Last year it was rumoured that Putin would turn up to Sochi, and he didn't disappoint. Everyone was on edge. I was advised by one paddock sage not to accidentally get in a photo with him because the CIA and the Russian secret service would check out everyone in the photo. This was high paranoia. Wasn't it?

But none of that seemed to bother Bernie and Jean Todt one little bit, as they cuddled up to him in the grandstand overlooking the

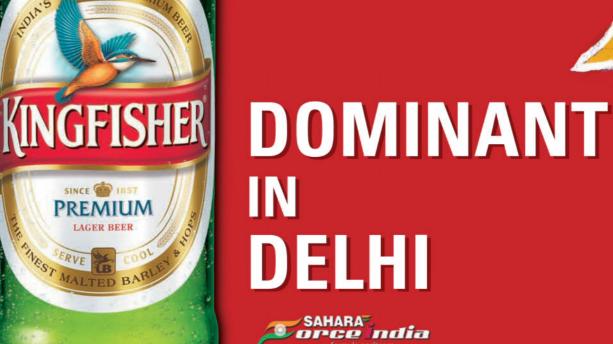


Bernie Ecclestone rubs shoulders with Russian president Vladimir Putin at Sochi's inaugural grand prix in 2014

start, having a joke, and looking relaxed and in power heaven. That old political neutrality card can come in handy when you need to race.

So we go from Russia to their ideological opposite, the USA. If you had to get more American than America, you'd struggle to beat Texas. Yet despite being 'deep in the heart', Austin, host city for the US GP since 2012, is no ordinary Texan town. It bubbles with rebellious youth culture.

Austin is a party town and prides itself on its slogan 'Keep Austin Weird'. It's a liberal redoubt against conservative Texan politics: this is the home of the Bush clan, after all, and Governor Rick Perry's politics are probably closer to those of Putin than he cares to admit. But maybe I should stay neutral on politics, seein' I'm in F1 'n' all? **(1)** 



KINGFISHER

INCE 1857 PREMIUM LAGER BEER

MARCHI

SINCE 1857 PREMIUM LAGER BEER

PINEST MALTED BAS

IDIA'S

O.1 PREMIUM B

🖒 India's No1 📑 Kingfisher UK

THE REAL TASTE OF INDIA

OFFICIAL PARTNER



## DIETER RENCKEN POVER PLAY

## The stories F1's bigwigs would rather you didn't know...

hat Red Bull Racing and Renault are heading for a split has been patently obvious ever since their first hybrid car, the RB10, turned a wheel during Jerez testing in February last year. At the time, few within a partnership cemented by eight world titles in half as many years realised precisely how recalcitrant Renault's power units were, nor the steepness of the challenge that lay ahead.

Back then, both sides made cooing noises and spoke of software interfaces being the root cause, but, as the season progressed, so it became clear that a totally new power unit was required – a route outlawed by the engine homologation regulations Renault and Red Bull had agreed to. Thus, unless Renault pulls off a miraculous recovery against all the odds (and at very high costs), the immediate future outlook for both appears challenging.

True, last year delivered three (somewhat fortuitous) victories, but between those bright spots, both this season and last have been marked by each side pointing out the cracks and then papering over them by reminding us that they are contractually bound together until the end of 2016.

While this may be accurate, it has not prevented F1 folk from speculating about a

## Red Bull's quest for engine options

Red Bull/Renault divorce, instead of allowing the agreement to run its full course – 'for the sake of the kids', so to speak. Red Bull have form in that regard: they effectively annulled their former engine contract with Ferrari to gain Renault power for 2007, by shunting their Italian units towards sister operation Toro Rosso.

The big question, then, is: what power units *will* Red Bull (and Toro Rosso) run in 2016-17? Unless Red Bull owner Dietrich Mateschitz authorises an in-house engine project – unlikely since he recently suggested he would rather exit F1 than go that route – the two main options are either a return to Ferrari, or a deal with Mercedes, on either a shared or split basis. A third possibility has also been mooted: Red Bull takes one of the above options; Toro Rosso goes with Honda.

Already Red Bull are ratcheting up the pressure by alluding to their priority status as 'works team' whenever Renault's future team ownership plans are discussed. This is intended to remind Renault that they are not permitted to prioritise any other team above Red Bull under the terms of the current contract. This would put Renault in an untenable position, were they to proceed with their widely rumoured plan to purchase the Lotus F1 team in the near future.

Perhaps the most interesting aspect of these manoeuvres over motors is the behind-

If Red Bull and Renault are unable to mend their relationship, Red Bull may pursue Mercedes power



"Red Bull's two main options are either a return to Ferrari, or a deal with Mercedes"

the-scenes politicking for the gold-standard Mercedes PU106B hybrid. When *F1 Racing's* sister publications *Autosport* and *Autocar* broke the news that Red Bull were angling for Mercedes engines (via a livery deal with Aston Martin, of which Mercedes holds a five per cent share, granted in return for an AMG engine supply arrangement), the Silverstone paddock was astounded.

Such an airbox/sidepod 'badging deal', is another area that is familiar to Red Bull, since they entered into just such an arrangement with Renault/Nissan alliance brand Infiniti. The deal enables the Japanese luxury brand to be seen to be taking on Mercedes for (allegedly) the cost of engine supply only. That deal was brokered by the very management team now installed at Aston, who are keen to be involved "in any conversation where Ferrari are mentioned..."

While Mercedes initially shrugged off the reports, a fortnight later, Mercedes motorsport chief Toto Wolff spoke of "considering all options" and "leaving doors open". *Autocar* then published renderings of a future AMGpowered Aston Martin road-going supercar – to be designed and built in conjunction with Red Bull Technologies.

As Formula 1 prepared for action at the Belgian Grand Prix, Wolff admitted to being in two minds over what had become a distinct possibility – with or without Aston war paint – adding that: "It's not really ideal to strengthen a competitor who knows how to build winning cars." Asked to comment in Hungary, Red Bull team principal Christian Horner said only that he expected to have greater clarity after the summer break.

Clearly in the interim something had happened on the top floor of Daimler-Benz's palace in Stuttgart, with insiders suggesting that Andy Palmer, Infiniti-executive-turned-Aston-CEO, had called Dieter Zetsche, head of Mercedes-Benz Cars, to apply pressure.

Whether the sight of Red Bull's team(s) bedecked in three-pointed stars comes to pass depends on myriad factors, but the saga proves that no matter how much F1 fancies itself as living in an insulated bubble, that bubble exists within a very real world. <sup>(1)</sup>

## Now that was a car

## No. 43 The Cooper T51

Small and perfectly formed, this car began F1's rear-engined revolution

**Just as a horse pushing** rather than pulling a cart would be a rare sight indeed, until the late 1950s precious few car designers felt that putting the engine at the rear was anything other than sub-optimal. Yes, the likes of Tazio Nuvolari had rampaged through Europe's racetracks in twitchy rear-engined Auto Unions in the 1930s, but few engineers returned to the concept as racing began again after the war.

The revolution brewed in the lower formulae, where the cars were lighter and less pendulous and the races shorter. In 500cc Formula 3, which grew out of a thriving post-war scene for racing home-built cars with motorcycle engines, former race mechanic Charles Cooper and his son John turned a hobby into a growing business. Putting a motorcycle engine behind the driver was a matter of expedience – no need to add complexity by re-engineering the chain-drive transmission – and without a huge weight of fuel to lug around or a great deal of power to put down, the cars handled with a sweetness and predictability unlike the snappiness of those pre-war leviathans.

Stirling Moss and Bernie Ecclestone were early customers, and Moss even lodged an entry for a pre-championship grand prix in 1949. By 1950 Cooper were offering a longer chassis to accommodate larger engines and, for reasons now lost, Moss's F3 sparring partner Harry Schell somehow contrived to start the Monaco GP that year in a Cooper powered by an 1100cc V-twin JAP engine.

The world championship's step down to F2 cars in 1952 and 1953 paved the way for more Coopers to participate in grands prix, but the marque still had little appetite for competing as a factory team in F1. That changed with the arrival of Jack Brabham in 1955. Charles Cooper, designer Owen Maddock and the mechanically astute Brabham formed a potent combination, honing Maddock's new curved-tube spaceframe concept into a competitive Formula 2 car.

In 1957 Rob Walker Racing modified one of Cooper's F2 chassis to accommodate a two-litre Climax engine, and Brabham entered the Monaco Grand Prix – finishing sixth, having pushed the car home after its fuel pump failed. Walker then entered Stirling Moss for the first race of the 1958 F1 season, in Buenos Aires, where he scraped to victory on disintegrating tyres by 2.7s from Ferrari's Luigi Musso. It was the first world championship victory for a rear-engined car.

Maddock's 1959 T51 set the wheels of rear-engined machinery in motion. Now with a Climax engine stretched to the full 2.5 litres allowed, the new Cooper made its rivals look like bloated dinosaurs. Only its Citröen-derived gearbox would let it down, meaning the title chase went down to the wire. Brabham and new team-mate Bruce McLaren took three wins between them and Moss nailed a further two in a Walker-run T51. Brabham won the title at the final round, pushing his out-of-fuel car across the line.

Enzo Ferrari sneered at these British *garagistes* and their dainty rearengined cars. But only one more grand prix would ever be won with a frontmounted engine.





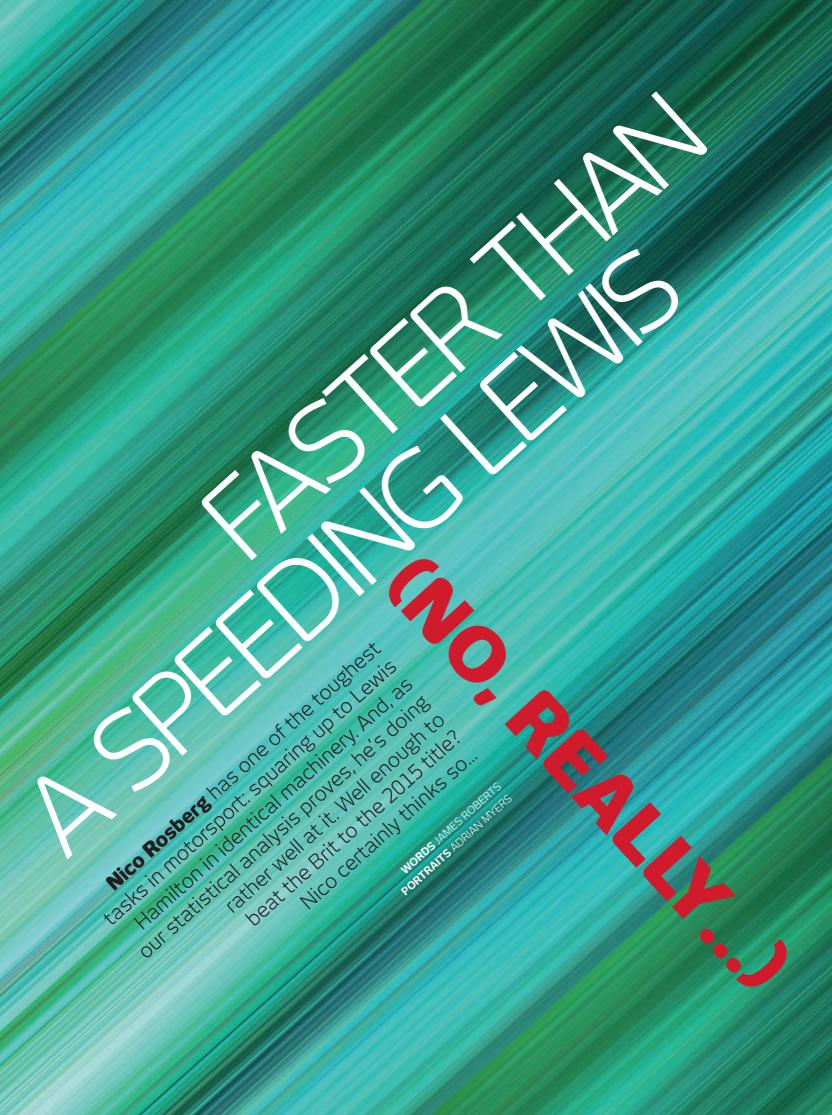




## COOPER T51 TECH SPEC

hassis	Steel spaceframe with
	curved tubes
Suspension	Double wishbones, transverse leaf
	spring (rear) and coil springs (front
	with telescopic shock absorbers
ingine	Climax in-line four
ngine capacity	2,495cc
ower output	240bhp @ 6750rpm (est)
iearbox	4-speed manual
Veight	475kg
Vheelbase	2311mm
yres	Dunlop
lotable drivers	Jack Brabham, Bruce McLaren,
	Stirling Moss, Maurice Trintignant









**It's a fact:** Nico Rosberg is faster than Lewis Hamilton. There, we've said it.

After an extensive statistical analysis of the 48 grands prix they've driven together as team-mates (when they've both had trouble-free races) Rosberg emerges as the quickest driver by just 0.015 seconds – less than a blink of an eye.

It's proof that the duel for the 2015 crown is closer than you might think. Lewis Hamilton can't afford to let up one iota if he wants to achieve a third world championship. "There is less than a race win between us in points," notes Rosberg [as we speak, prior to the Hungarian GP], making him a constant menace in Lewis's mirrors. "So I need to keep pushing. Maybe if I'm lucky in one race and he's not, then it's done. That's it."

#### The engine's running.

A limousine parks directly in front of the doors of the executive jet terminal in Zürich. The driver waits patiently for an incoming private plane en route from Nice. Aside from the crew, the only occupant onboard is a subdued Nico Rosberg. He's flown from the Cathédrale Sainte Réparat where he and his fellow drivers have been paying their respects at the funeral of Jules Bianchi.

He climbs quietly into the back of our car, still struggling to come to terms with the death of one of his fellow racers. "Very intense, very emotional," he offers as the sleek black Mercedes peels into the city traffic.

His father, Keke, raced in an era where death at the wheel was commonplace; did he have any advice for dealing with this tragedy?

"We've spoken only a little," says Nico. "He talked of his friend Elio de Angelis [who was killed in a testing accident in 1986] and he said he did not go to the funeral because he wouldn't have been able to continue driving if he had."

We're heading to the Dolder Grand Hotel, a five-star residence resembling a fairytale castle, which overlooks Lake Zürich. It's a rare chance to catch up with Nico, before F1's summer break and just ahead of the birth of his first child.

Although several more races will have taken place by the time this interview is printed, for now, the title battle is still too close to call. From Singapore on there are seven races to go and 175 points up for grabs and, just as it did last year, this title campaign could go down to the wire.

Given the parity in machinery, Lewis can never discount his team-mate. Just when he thinks a winning serve has knocked his opponent out of the game, back Nico comes with a crosscourt volley to remain in play. Lewis hammers blow after blow, but Rosberg keeps getting back on his feet: undaunted and relentless. Just like a fiveset grudge match between two titans, there is no clear advantage in this fight – indeed, the stats show that Nico actually has the edge.

"Five sets in a grand slam final? Yeah that's how it feels out there sometimes," says Nico, glancing out through the back window of his chauffeur-driven Merc.

In terms of race pace, it's neck and neck between the pair of them. Analysis of their fastest race laps at the mid-point of the season, post-Hungary, shows it's five-five, with Nico an average of 0.067 seconds ahead. Last year he was roughly two tenths slower during races and told *F1 Racing* in pre-season testing at Jerez that it was Sundays he was planning to improve.

Conversely, Hamilton knew he needed to up his game in qualifying and we've seen a reversal between the pair during grand prix weekends. Last year Nico outqualified Lewis 12-7, but up to Spa this year, only once has Nico been quicker on a Saturday – at the Spanish GP back in early May. Still, it's the Sunday when they hand out world championship points.

"This is what I've worked on," says Rosberg in reference to his race pace, while looking through the stats *F1 Racing* has produced as evidence. "It's always a compromise between qualifying and the race, because you have only one car setup. If I tend towards a race setup, that's going to hurt my qualifying a little bit."

Across the board they are extremely close. In the 48 races in which they have both competed (prior to Spa) each has led 29. When they've locked out the front row of the grid, Hamilton has been ahead 12 times to 11. The average time between their best laps in qualifying and races over the past 2.5 years has never been more than 0.2 seconds, and in races in 2013 and qualifying last year Nico was 0.1 secs quicker than Lewis.

In qualifying at Shanghai, the third race of 2015, Nico missed out on pole by just 0.042  $\rightarrow$ 

"It's always a compromise between qualifying and the race, because you have only one car setup"



BlackBern

UBS

ETRONA

1

seconds. On crossing the line, he exclaimed over the radio: "Oh, come on guys!" His frustration was picked up on. "But I did that in a humorous way," he insists now. "It was taken so negatively that I thought: 'I'll just shut up next time."

In China, at the post-race press conference, we witnessed a flare-up between the pair of the sort that had been largely suppressed since their on-track coming-together in Spa last year. It's clear their rivalry still runs deep. More recently, Lewis was quick to blame Nico for his first-lap off in Hungary, before later admitting his mistake.

"Yes, and it's going to be there again, isn't it? It's not the last time... it will come and go."

There is a perception that Lewis is one of the fastest drivers in the sport and he has collected more poles (21-15) and wins (17-10) since they first became F1 team-mates back in 2013. But in terms of raw pace, Nico is right there snapping at Lewis's heels. It's a remarkable display of mental strength; lesser drivers might have capitulated given Hamilton's frequent demonstrations of speed, but Nico is relentless in his quest to hunt him down and to find ways to get one over his opponent.

"Of course, as time goes on I learn more and more about him," says Rosberg. "Yes, I know him well, but it's still quite a unique situation to be fighting in the same team for the race wins – so I do learn more.

"When we were team-mates in karting there wasn't the same amount of media interest and there wasn't all the other life surrounding the racing: it was just karting, that was it. So it was different and, for myself, having had the experience of fighting for the world championship has been a good thing because now it's not new; I've been there before."

It's the "life around racing" that strikes a chord. Lewis is increasingly spending more time across the Atlantic. In the week that our interview with Nico takes place, Lewis tweets a picture of himself in New York City, having another tattoo. Has Nico seen it?

"I don't follow his tweets to tell you the truth, so I haven't seen it," he says. "From what I've seen he hasn't changed this year, he's pretty much the same. All I see is the internal stuff at the track; I don't see what's outside."

The question is whether the "life around racing" means Lewis will take his eye off the ball on Sunday afternoons?

"Hopefully!" is Nico's response. He then jokingly adds: "I didn't say 'Hopefully he'll take his eye off the ball,' so you can't publish it like that. I'll sue..." While spoken lightheartedly, these words show just how much thought Rosberg puts into *everything*. That's demonstrated later as we chat about the situation at Red Bull, Sebastian Vettel's move to Ferrari ("If he can keep Lewis behind him, that's a good thing"), Alonso's contract at McLaren-Honda, Alex Wurz's work at the GPDA and the current state of the sport. Considering the morning he's had, he's compartmentalising his emotions most assuredly.

#### l first had the chance

to interview Nico Rosberg at the 2007 Chinese GP [*F1 Racing*, November 2007]. In his second year in F1 he was one of the darlings of the grid: GP2 champion, points and fastest lap on his F1 debut, and at his second race he'd outqualified established Williams team-mate Mark Webber. Back then, the 22-year-old was already smarter than your average racing driver. He told me that he'd just read the autobiography of Lee Iacocca, the ruthless former president of the Ford Motor Company. His is the story of ambition fulfilled.

Fast-forward eight years and Nico's story is one of ambition *unfulfilled*. He came so close at the season finale in Abu Dhabi last year, but it's only at this stage of his career that he has a car capable of challenging for the title. "Yeah, awesome – such a privilege," he acknowledges. "Compare it to when I joined Mercedes in 2010. Those early years were disastrous, horrible, really tough – for everybody. A big struggle.

"Then it was incredible how the Mercedes board in Stuttgart has made the best team out of it, because, in the end, it's all down to them. They go and buy the team, they decide how

## ROSBERG'S TEAM-MATE TUSSLES

Lewis Hamilton is Nico Rosberg's fifth F1 team-mate to date. Here's how he compared with the first four...

#### MARK WEBBER

Williams, 2006 (18 races)

Williams, 2000 (10 races)		
Qualifying	Rosberg	5
	Webber	13
Race*	Rosberg	0
	Webber	4
Points finishes	Rosberg	2
	Webber	3
Points	Rosberg	4
	Wobbor	7

#### Alex Wurz

Williams.	2007	(16	racae)
vvillanis,	2007	(TO	I ales)

Qualifying	Rosberg	15
	Wurz	1
Race*	Rosberg	6
	Wurz	4
Points finishes	Rosberg	6
	Wurz	3
Points	Rosberg	15
	WUL	13

#### Kazuki Nakajima

Williams, 2007-2009 (36 races)

Qualifying Rosberg 28 Nakajima 8 Rosberg Race\* 21 Nakajima 7 17 **Points finishes** 5 9 Michael Schumacher Mercedes, 2010-2012 (58 races) Rosberg 43 Qualifying Schumacher 15 Race Rosberg 21 Schumacher 15 **Points finishes** Rosberg 39 Schumacher 31 Points Rosberg 324 Schumacher 197

\*Top finisher in races both completed

much to put into it, they decided when to change the leaders and to move on another step.

"Ross Brawn and Norbert Haug did a great job with what they had, so it was limited in one sense because it was difficult to go any further. Mercedes stepped it up as they learnt was what was required in terms of budget. They put in fresh leadership for this next step up and they made the right choices – so it's really down to them in the end. It's good to see, and we are the best in every sector now. Aerodynamics – if you look four years back we were so far behind Red Bull for example, now we're the best in every area. Car build, drivers – you've got to highlight those areas..."

In the new 1.6-litre turbocharged engine formula, the powerplant from Brixworth, in union with the chassis from Brackley, consistently outperforms the opposition, and fans have been rewarded with a close duel between Hamilton and Rosberg. An analysis of their performances highlights how close they are on pace, but it is their different approaches that makes the fight particularly fascinating.

"To run Lewis as close as Nico does, race in, race out, and to take the fight right up to the last race of the year in the same equipment proves what a good driver he is," says a highlevel Mercedes source. "On average, is he better than Lewis? I don't think so, but there are many areas in which he is stronger; his work ethic, for example. He's a calculating driver and he's always got his head buried in a laptop looking for details to help him extract more pace. But then Lewis gets in the car and just pulls out a lap."

Rosberg concurs with the assessment and when quizzed as to whether he could ever drive like Gilles Villeneuve, on the limit every lap, not fussed about titles, admits that isn't his style. It doesn't suit his calculating mind. He chuckles at the thought: "No, I don't agree. That's not how I think. I always focus on the bigger picture and every lap I try to optimise for the win."

On the track he's like a machine. The stats prove he has the pace, work ethic, intellect and discipline. He now also has the experience of battling for a world championship and has the mental resilience to come back fighting when he's been beaten. He's studied Lewis and – whisper it – perhaps with a bit of luck he might yet take this title. But how will he go about achieving his goal of defeating Hamilton?

"How will I do it? I don't know yet. It's still some way off. For now I'm just continuing with my current approach. I just hope it works out with the points and I can close the gap a bit."

And that's all he can do. Keep going, keep chipping away, keep getting up close and keep the pressure on. One slip up from Lewis is all it will take to swing things Nico's way.

As we near the end, we point out that the day before this interview, 20 July, was the 30th  $\rightarrow$ 



## Swiss movement, English heart

#### C1000 TYPHOON FGR4

Made in Switzerland / Self-winding, customised ETA Valjoux 7750 chronograph with hour and minute bi-compax sub-dials / 42 hour power reserve / 42mm, high-tech ceramic case with titanium sub-frame / AR08 coated, museum grade, sapphire crystal / Delta and canard wing shaped stop-second hand / Deep-etched case-back engraving / Military style, high density webbing and leather strap with Bader deployment

EXCLUSIVELY AVAILABLE AT christopherward.co.uk



anniversary of a celebrated F1 lap: Keke's record-setting pole lap of Silverstone, famously achieved after taking a long drag on a cigarette. First on the grid at the 1985 British GP at an average lap speed of 160.925mph. It stood as the fastest lap in F1 history for 17 years, until eclipsed by Juan Pablo Montoya at Monza in 2002.

"Cool!" he exclaims. "Did you know that he set that lap exactly 23 days after my birth, so there is evidence that goes against this idea that drivers who have children lose half a second a lap? I'm having a baby girl in a month's time, and when your story comes out I'll be a father..."

If he can continue his current approach, Nico might soon be looking at Lewis in *his* wing mirrors. Clearly speed has never been an issue for the Rosberg family.

The,

PET Quas Allian EF

"I always focus on the bigger picture and every lap I try to optimise for the win"

BlackBerry

**UBS** 

ONAS

com

SON

TET



## TOM HARTLEY JNR

EXQUISITE CLASSIC & PERFORMANCE CARS



#### A HAND-PICKED SELECTION FROM OUR STOCK

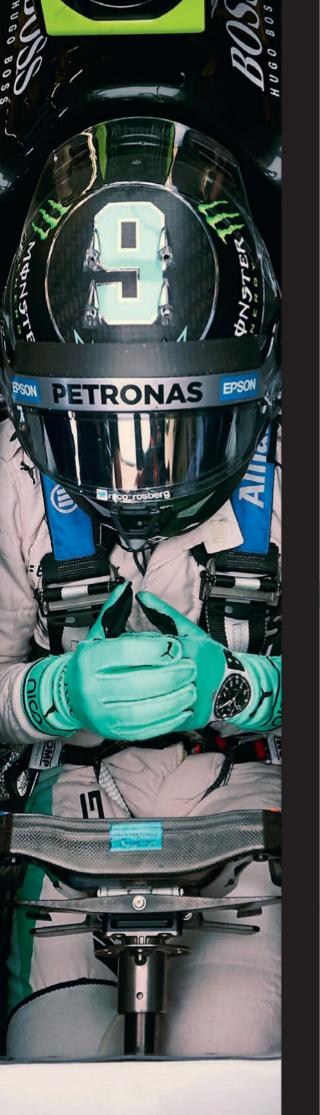
<ul> <li>2013 PAGANI HUAYRA Dubai Red With Visible Carbon/Black Malevic Leather, Many Special Features, Only 1,800 Miles From New,</li> <li>1 Of Only 100 To Be Produced Worldwide, 1 Of Only 19 RHD Examples, Rare Opportunity</li></ul>
<b>2009 FERRARI 16M LHD</b> Rosso Scuderia/Tessuto 3D Fabric, Large Carbon Racing Seats, Carbon Exterior Pk, Italian Racing Livery, Radio Navigation, 640Km From New, 1 Of Only 499 Ever Produced
<b>1967</b> FERRARI 275 GTB/4 RHD Black/Tan, Concours Winning Car, Total Matching Numbers, Original Books & Tools, Ferrari Classiche Certified, 1 Of Only 27 UK RHD Examples, Exemplary
<b>1973 FERRARI DAYTONA SPIDER</b> Silver/Black Leather, Matching Numbers, Exceptional Restoration Throughout, Original Book & Tools, 15,700m From New, Ferrari Classiche Certified, 1 Of Only 121 Ever Produced
<b>1985</b> FERRARI 288 GTO Rosso/Black, Air Con & Electric Windows, 15,000m, Recently Serviced, Original Handbooks, Service Book & Wallet, Only 2 Owners From New, Ferrari Classiche Certified, Faultless Throughout
<b>1973 FERRARI DINO 246 GTS</b> Rosso/Black, Original Books Inc. Warranty Card & Wallet, Original Tools & Jacking Kit, Beautifully Restored Throughout, Ferrari Classiche Certified, Exceptional Example
2004 FERRARI 360 CHALLENGE STRADALE LHD Rosso Corsa/Rosso Carbon Fibre Racing Seats, 4 Point Harnesses, 35,000m, Just Serviced, Fantastic Condition Throughout, Great Value
1988         PORSCHE 959 KOMFORT Grand Prix White/Dark Blue Leather, Heated Sports Seats, 15,800m, Recently Serviced,           Only 2 Owners, Indistinguishable From New, 1 Of Only 292 Ever Produced <b>£POA</b>
1988         PORSCHE 911 3.2 CARRERA Dark Blue/Black Leatherette, 16" Alloy Wheels, Climate Control, Only 6,000km From New,           Original Books & Wallet, Indistinguishable From New
<b>1966</b> ALFA ROMEO GIULIA SPRINT GTA Rosso Alfa/Black Lightweight Seats, Campagnolo Alloys, 1 Of Only Circa 50 RHD Examples Produced, Never Raced, Exceptional£POA

 1960
 MERCEDES-BENZ 190SL ROADSTER White/Blue Leather, Original Colours, Right Hand Drive, Original Matching Numbers

 Engine, Fitted Luggage, Fresh From Restoration
 £144,950

Tel: +44 (0)1283 761119 www.tomhartleyjnr.com WE ARE ALWAYS LOOKING TO BUY SIMILAR VEHICLES Call today for an instant quote and decision

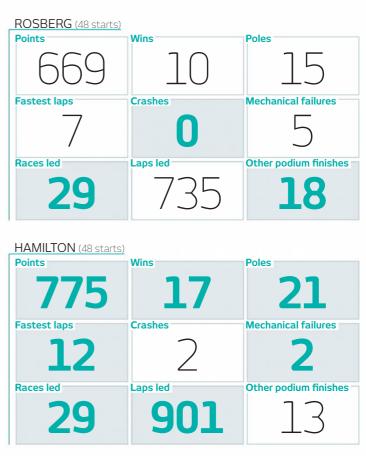




# HEAD TOHEAD

After 48 races as team-mates at Mercedes, there's little to separate Nico Rosberg and Lewis Hamilton WORDS JAMES ROBERTS PICTURES STEVE ETHERINGTON/LAT

### 2013 Australian GP - 2015 Hungarian GP





2014	WINNER
🕮 Malaysia	Hamilton
📕 Bahrain	Hamilton
🕮 China	Hamilton
🚥 Spain	Hamilton
💳 Monaco	Rosberg
🚍 Austria	Rosberg
💶 Italy	Hamilton
🖲 Japan	Hamilton
💳 Russia	Hamilton
📰 USA	Hamilton
🤨 Brazil	Rosberg

2015	WINNER
🎫 Australia	Hamilton
🕮 China	Hamilton
🔤 Spain	Rosberg
🖪 Canada	Hamilton
<b>=</b> Austria	Rosberg
🗮 Great Britain	Hamilton

#### OVERALL

Lewis Hamilton	12
Nico Rosberg	5

## Their one-twos in qualifying (23)

2013	POLE
💶 Spain	Rosberg
🚍 Monaco	Rosberg
💥 Great Britain	Hamilton
2014	POLE
📕 Bahrain	Rosberg
💴 Spain	Hamilton
Monaco	Rosberg
🕒 Canada	Rosberg
Belgium	Rosberg
🚺 Italy	Hamilton
🔚 Singapore	Hamilton
💌 Japan	Rosberg
💳 Russia	Hamilton
III USA	Rosberg
🤨 Brazil	Rosberg
🖿 Abu Dhabi	Rosberg

2015	POLE
🎫 Australia	Hamilton
🕮 China	Hamilton
🔤 Spain	Rosberg
<b>Monaco</b>	Hamilton
🕒 Canada	Hamilton
🚍 Austria	Hamilton
💥 Great Britain	Hamilton
Hungary	Hamilton

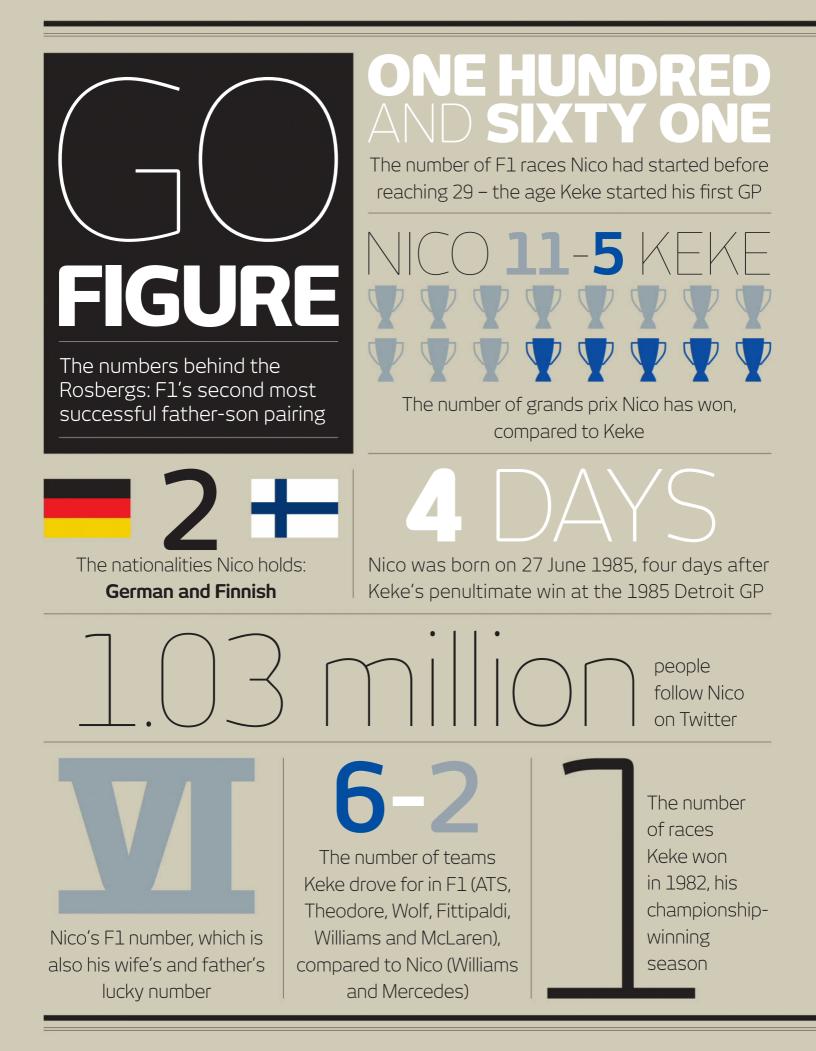
OVERALL	
Lewis Hamilton	12
Nico Rosberg	11

## 💽 Championship standings

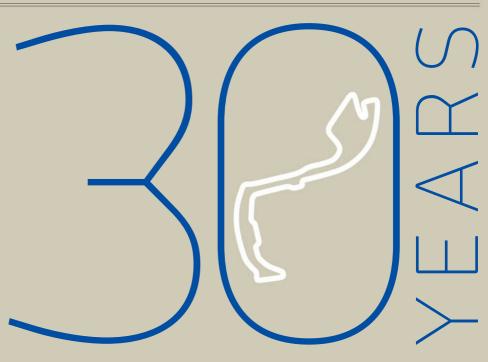
4th	189
6th	171
lst	384
2nd	317
	6th 1st

2015 (up to Hung	gary)	
Lewis Hamilton	lst	202
Nico Rosberg	2nd	181
TOTAL POINT	S	
Lewis Hamilton	775	
Nico Rosberg		669









between Keke and Nico's wins in Monaco. They are the only father and son both to win GPs in the Principality



160.92

The speed in miles per hour of Keke's recordbreaking qualifying lap at Silverstone in 1985

Stockholm in Sweden

Nico has competed in every race that Mercedes have entered since their return to the sport in 2010



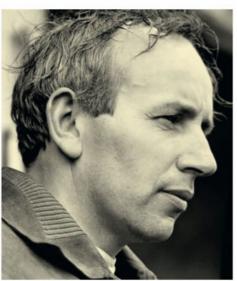
Keke's grid position in his very first race, the 1978 South African GP

FIVE

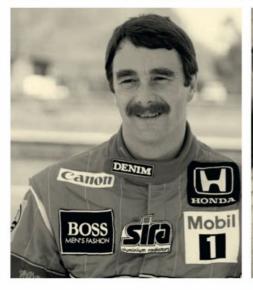
Nico's F1 team-mates: Mark Webber, Alex Wurz, Kazuki Nakajima, Michael Schumacher and Lewis Hamilton



















## Who is the best of British?

Ten UK drivers have claimed F1's ultimate prize – the world championship. But which of them can be considered the country's 'Greatest Of All Time?' Edd Straw sifts through the evidence



## ACHIEVEMENTS

While Hamilton has the advantage in terms of race victories, Sir Jackie Stewart stands above him courtesy of his three world championships – for the next few months, at least, since Hamilton has a strong chance of joining Stewart as a triple champion in 2015. But when considering championship wins, it's also necessary to factor in opportunities to win.

Here, there is a degree of subjectivity, but in the case of Hamilton you can legitimately argue that on top of the 2008 and 2014 titles he *did* win, he also had a car capable of doing so in 2007, 2010 and 2012. In the first two of those, he was in contention in the final race, while in the third he lost an enormous number of points to unreliability and team blunders.

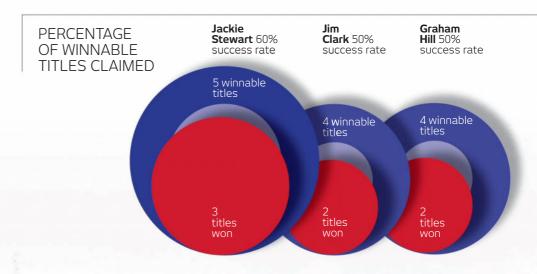
This metric is a flawed one, but Stewart stands out with a 60 per cent win rate. Arguably, he had five shots at the title, missing out only in 1968 and 1972 – and in the first of those years he was a long shot, with two wet-weather wins boosting his tally. he quest to establish the GOAT – the Greatest Of All Time – has an irresistible pull in all sports. F1 is no exception, and those countries lucky enough to have produced multiple champions can also argue over their greatest sons. Ten of the 32 drivers to have been crowned F1 world champion are British, but of those – who is the best?

In many ways, it's a fatuous debate that can never produce a truly objective answer. But that's not the point. Such arguments lie at the heart of the enduring appeal of F1. The answer matters less than the journey required to get there.

In terms of victories, reigning world champion Lewis Hamilton is building a strong case to be considered the best of British. Since winning last year's US GP, where he took his 32nd victory, he has been at the top of the British winners table, and will surely add substantially to his current tally of 38 (prior to the Belgian GP). But that number tells only part of the story, without taking into account factors such as the era and machinery in which different drivers raced. Simply adding up wins could never alone place Hamilton above Mike Hawthorn, Graham Hill, Jim Clark, John Surtees, Jackie Stewart, James Hunt, Nigel Mansell, Damon Hill and Jenson Button. Finding Britain's F1 GOAT is far more complex. But statistical success is the obvious place to start...

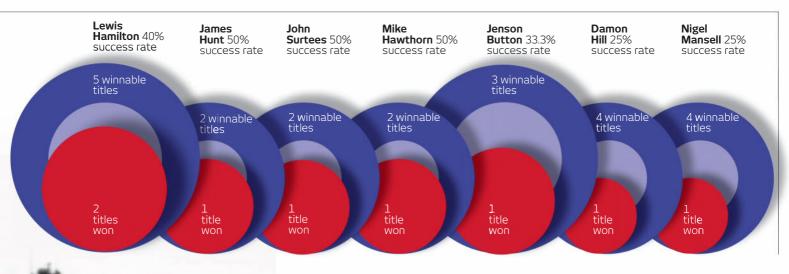
Hamilton is arguably ill-served by this statistic, given that one of his losses was beyond his control and another came during a controversial rookie season. Six of the British champions sit at 50 per cent, with Clark probably the most unfortunate of those, since he would surely have won more than two titles had the reliability of his Lotus machinery been better.

When it comes to wins, both the overall number and the win rates are significant. Hamilton stacks up extremely well, winning almost a quarter of his races. But Clark's record





"Jenson Button is arguably the modern equivalent of Jackie Stewart, thanks to his brilliant ability to grasp his place in a race while it's ongoing"



Mike Hawthorn put in one of F1's greatest drives to win the 1953 French GP at Reims, battling for 60 laps with Juan Manuel Fangio is extraordinary: he won more than a third of the races he started. Even more astonishingly, he won more than half of the races he finished; weighed against his 25 victories is just a single second place, at the Nürburgring in 1963.

Nigel Mansell and James Hunt also come out strongly using this metric, but again this is distorted by the quality of their machinery. John Surtees and Jenson Button, for example, drove cars that were not capable of winning more often, which skews their percentages.

Stewart and Clark must be ranked above Hamilton, although Hamilton can legitimately be regarded as the third-strongest, particularly when you consider that the era in which he races is more competitive than that of Clark.  $\rightarrow$ 

## SPEED

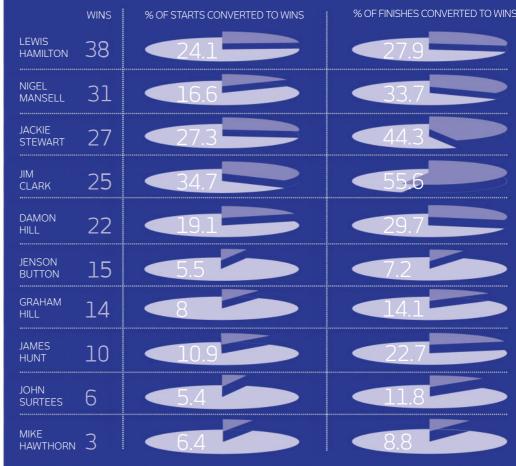
Short of putting the ten British champions in identical cars in their prime, any evaluation of speed is speculative. Qualifying is the most relevant metric and, statistically, Hamilton leads the way with 47 pole positions – a strike rate of more than one in four. Again that puts him near the top, but it pales in comparison to that of Clark, who isn't far off achieving a 50 per cent pole rate, with an average margin of almost a second. This reflects just how dominant he was in the 1960s. What stood out about Clark was his ability to carry speed into the corner, essential in the lower-powered era in which he excelled.

Damon Hill also comes out pretty well in this comparison, and while all of his poles were taken for Williams, his ability to deliver a fast lap under pressure belies his undeserved reputation as a 'lucky' winner of the world championship.

## RACECRAFT

Where Hamilton does have the advantage over Clark is that he is a driver with superior racecraft in terms of wheel-to-wheel battling. This is generally regarded as Clark's main weakness,

## RACE WIN PERCENTAGE



07



His defeat of Michael Schumacher in 1994 at a rain-drenched Suzuka proved his wet-weather prowess



> Embodying the spirit of the seventies, James Hunt lives on in legend, the recent film *Rush* cementing the myth

slipstreamer, has been hailed by many as the greatest race of all time.

## DOMINANCE

The truly great drivers define their era. Throughout the history of the world championship, it's almost possible to go from year to year, picking out the standardsetting drivers of the time. It's a path that starts with Juan Manuel Fangio back in the early 1950s, continuing through to Stirling Moss (who is cruelly ineligible in this particular evaluation of British world champions because he never managed to win the title) all the way through to more recent years and Michael Schumacher and Sebastian Vettel.

Of the British champions, few can be considered to be era-defining. Hamilton may yet become so if he manages to rack up a few more titles, but it's only really Clark and Stewart who tick this box. Mansell was part of the quartet of big beasts that bestrode the 1980s and early 1990s, alongside Alain Prost, Ayrton Senna and Nelson Piquet, but for all his qualities, he was never able to dominate for more than his championship-winning season in 1992. →

although considering he was so often out front, it's fair to say that his speed did the hard work. In other words, he didn't need to battle through the pack all that often.

"He wasn't a fighter," said Clark's 1963 championship-winning mechanic Cedric Selzer. "It wasn't in his character. He was a fast racing driver. He passed cars, but I never saw him actually fighting. He didn't need to."

While Hamilton's overtaking ability is second to none, he is also prone to the occasional error. This year's Hungarian GP was a reminder of that, even though over the past 18 months he has become very consistent. But when balancing a mix of wheel-to-wheel racing ability and minimising errors, it's hard to look past Jackie Stewart, whose mastery of racing situations makes him the stand-out in terms of racecraft.

Button is arguably the modern equivalent of Stewart, with his brilliant ability to grasp his place in a race while it's ongoing. Graham Hill also stands out in this respect.

Mike Hawthorn's finest hour exemplified great racecraft. While most famous for his slightly fortuitous 1958 title, his first world championship race victory at Reims in 1953, beating Juan Manuel Fangio in a wheel-to-wheel



#### JOHN SURTEES

Renowned for his technical brilliance and still the only world champion on two wheels and four GRAHAM HILL Using his superb racecraft, the man known as Mr Monaco won grands prix in the Principality on five occasions

## POLE POSITION STRIKE

POLES SET FROM NUMBER OF GRANDS PRIX ENTERED

RATE	POLES	STRIKE RATE*	AVERAGE MARGIN	
LEWIS HAMILTON	47	29.7	0.262s	
JIM CLARK	33	45.8	0.948s	
NIGEL MANSELL	32	17.1	0.638s	
DAMON HILL	20	17.4	0.301s	
JACKIE STEWART	17	17.2	0.582s	
JAMES HUNT	14	15.2	0.293s	
GRAHAM HILL	13	17.1	0.632s	
JENSON BUTTON	8	2.9	0.222s	
JOHN SURTEES	8	7.2	0.766s	
MIKE HAWTHORN	4	8.8	0.550s	

## WET-WEATHER PERFORMANCES

The legend of so many drivers has been formed in wet races, when they can really show their poise, feel and adaptability. Of the ten British champions, all except Hawthorn won in rain-hit races. Hamilton has six wins in the rain to his name, most famously his dominant victory in the 2008 British GP, which rightly stands out as one of the greatest wet wins in history.

As Stewart himself put it: "Lewis drove almost flawlessly to win by 68 seconds – an enormous margin – and demonstrated that he's unquestionably the best wet-weather driver of this current generation."

You could add "or any other generation" to Stewart's statement, were you to include one caveat. For while Hamilton is a sensational driver in full-wet conditions, a magician seemingly capable of carrying more speed into and through corners in slippery conditions, in mixed conditions he is less impressive.

At the recent British Grand Prix, for example, team-mate Nico Rosberg was catching him at

Mansell memorably conquered the 1992 season with his indomitable spirit NIGEL MANSELL



His peerless mastery of wet conditions at Silverstone in 2008, announced him as an all-time great and future champion

> JE B

LI H

D. H

J/ H

C II

J# S<sup>.</sup> G H

> J( S

> N H

TRES		
Do		
ATG D		
	A PAR	
	A	STY
	E F	
	A. C.S.	

	STATISTICS This takes into account the number of wins in rain-affected races			
	STARTS	WINS	HIT RATE (%)	
ENSON UTTON	36	7	19.4	
EWIS AMILTON	22	6	27.3	
AMON ILL	20	4	20	
AMES UNT	16	3	18.8	
M LARK	11	3	27.3	
ACKIE TEWART	14	3	21.4	
RAHAM ILL	23	2	8.7	
OHN URTEES	15	1	6.7	
IIKE AWTHORN	9	0	0	

WET-WEATHER

two seconds per lap on slicks in the damp when Hamilton headed to the pits. That pattern was also seen when Hamilton and Button were together at McLaren; Button generally had the edge when conditions were changeable.

Almost half of Button's wins (seven out of 15) have come in rain-affected races. Often, sound judgement of when to change tyres has been at the heart of those victories. In Hungary 2011, for example, McLaren tried to call both Button and Hamilton in for wets when rain came; Hamilton obeyed, Button overruled and went on to win.

"It's because I feel more through my body rather than through my eyes to get the feeling of the car on the circuit," says Button of his ability. "It's about feeling it rather than seeing it's wet."

Yet Button doesn't have a dominant fullwet victory that can be considered among the greatest in the history of F1. Stewart's win by more than four minutes at the Nürburgring Nordschleife in 1968 is heralded as one of the great wet drives (Graham Hill was second, but only after spinning his Lotus and stalling while battling to hold off Jochen Rindt). Surtees took a famous win in the rain for Ferrari at Spa in 1966, while among Clark's three wet-race wins are →

#### JIM CLARK

Clark combined natural talent with technical understanding, and his ability to carry speed through a corner sets him apart from the rest



## "Clark was able to connect what the car was doing to its setup and communicate that to the mechanics"

two dominant triumphs in Belgium; the third, at Reims in 1963, was merely hit by showers. And who can forget Damon Hill's defeat of Michael Schumacher at a sodden 1994 Japanese GP?

Mansell lacks trademark wet victories. Binning it while leading the 1984 Monaco GP for Lotus after touching a white line is arguably his most famous wet-weather moment.

## MYTH

This is the most subjective category of all: there is no way to quantify this, save for reflecting on how these drivers are revered today. Clark, taken from motorsport by an accident not of his making in the Deutschland Trophy Formula 2 race at Hockenheim in 1968, still at the height of his powers, is probably second only to Senna in terms of his myth. What would he have achieved had his career played out in full? None of the other drivers in this list can hope to compete with that – save perhaps for one.

As the statistics we've already examined prove, Hunt could hold his own in every category and thanks to his force of personality and the belief that he typified how people thought a racing driver should be in the 1970s, he is still cited as the template. While he survived his career, his loss at the age of just 45 in 1993 is still felt. Neither can the indomitable spirit of Mansell be ignored, while Stewart's legacy in terms of improved safety and raising the bar for professionalism, makes him a significant figure.

It's unfair to assess Hamilton in this category at this stage, but his impact on popular culture cannot be ignored. His celebrity lifestyle earns him criticism, but it gives him a global reach no other British racer has experienced. Surtees also deserves a mention in this category. His success in winning four 500cc motorcycling titles before switching to cars makes him unique as a world championship winner on both two wheels and four.

## WORK ETHIC

Drivers succeed through hard work, even those who appear not to be trying. But it's fair to say that some work harder than others. Hunt, for example, was famous for disappearing for hours on end while supposedly testing.

Clark, despite his reputation as a great 'natural' talent, had a far better technical understanding than he's given credit for. His great ability was to be able to connect what the car was doing to its setup and communicate that to the Lotus mechanics. Graham Hill,  $\rightarrow$ 





OUT ON MONDAY 14TH SEPTEMBER IN HARDBACK



FOR YOUR NEAREST MORRISONS STORE PLEASE VISIT WWW.MORRISONS.COM OR TELEPHONE 0345 611 6111 Available in most stores. Subject to availability. While stocks last. Offer/price may vary at Morrisons.com. Excludes M local and Gibraltar. Available from Monday 14th September 2015. w/c 07/09/15 by contrast, was said to be more effective at indicating how the car should be rather than suggesting a way to achieve that.

Damon Hill earned his unlikely shot with Williams through diligent testing work, while Surtees was a driver with tremendous technical understanding, whose work in creating the famous Hondola with British company Lola – which he took to victory at the Italian Grand Prix at Monza in 1967 – is testament to his force of will and brilliance.

## CAREER SAVVY

This category is all about being in the right place at the right time in order to succeed. Internationally, Juan Manuel Fangio is the driver who is so often hailed as the standout in this regard due to his (often enforced) team-hopping in the 1950s. Hamilton also does particularly well in this category, timing his switch from McLaren (who haven't won a race since he left) to Mercedes to perfection. Stewart also stacks up well, throwing his lot in with Ken Tyrrell after early success with BRM. He was also key to Tyrrell's decision to ditch Matra when the French manufacturer wanted the team to drop Cosworth engines. While that led to a one-season setback with a customer March in 1970, in the long term it allowed Tyrrell to become constructors in their own right and win the 1971 and 1973 titles.

At the other end of the scale is Surtees, whose prodigious ability behind the wheel is all too easy to overlook, thanks to him ending up in the wrong team at the wrong time. His tally of just six wins and one world championship (on four wheels, that is) does his talent little justice. Had things worked out better for him at Ferrari, he had the potential to score far more wins than he actually managed.



## VERDICT

So after assessment in eight categories, which of these ten champions comes out as Britain's F1 GOAT? Each of the factors mentioned above must be taken into account and statistical success weighed against more subjective criteria. Only one driver features in the top three of every category, and that's Jackie Stewart, whose success, speed, virtuosity and cultural impact make him the real deal. There are no weaknesses in Stewart's armoury.

Next up is Clark, who also scores highly in most categories. We'd rank Hamilton third overall, ahead of Mansell. And given that he potentially still has five or more years left at the top level to add to his already incredible tally of wins and championships, and build on his myth and legacy, Hamilton could well move even higher up these rankings, should we revisit this list in future years.

Edd Straw is editor of Autosport magazine







enquiries@bellandcolvill.com 01483 286470 • Epsom Road, West Horsley KT24 6DG Fuel Consumption (mpg [l/100 km]) Urban 20.0 - 20.8 (14.1 - 13.6) Extra Urban 38.7 - 39.8 (7.3-7.1) Combined 29.1 (9.7)CO2 emissions 225 g/km\* \*Fuel and CO2 Emissions subject to confirmation by end of August 2015





# In conversation with Daniel Ricciardo

A show-stopping drive at the Hungarian Grand Prix proved that F1's 'honey badger' hasn't lost his teeth...

#### WORDS ANTHONY ROWLINSON PORTRAIT GLENN DUNBAR/LAT

## You seem to be getting back into the groove after a difficult start to the season...

We're getting there. I had a new chassis for Austria and we've made a lot of changes to the car since Canada to try to get back to what we had last year – a few mechanical tweaks.

We came into this year with a new car and new ways of trying to be quicker. In Canada there were still some unknowns over which way we were going with setup. We weren't rapid at any point over the Austrian GP weekend, but in Hungary we were stronger than we had been since Monaco.

## Your drive in Budapest was remarkable – a highlight of the season.

It was a crazy race! There was contact at Turn 1 - I thought there was a lot of damage, I thought the race was over. Then there was contact on the restart with Lewis and I thought the race was probably over then, too. Then there was contact with Nico, but we were resilient and I left it all on the track. I put my heart into everything. That race was for Jules: whether some competitors like it or not, that's how I wanted to do it and that's how I'll always do it. Watching Jules grow up, that was how he did it - he had amazing racecraft and made some pretty impressive lunges. I drove inspired. That's the way Jules would have wanted it. I was very grateful to be on the podium.

#### Jules Bianchi's death raised questions about safety standards in F1. Did you ever imagine you'd race in an era when a driver might die?

To be honest, no. You forget the risks, but also the sport has developed a lot and safety has come a long way. With something like this not happening for a long time, you sort of forget about it. We do talk about safety a lot in the GPDA meetings. I remember even when I first got to F1, there was a lot of talk about safety. The older drivers would pick out things around the track, like the angle of a barrier being bad if we punctured a tyre and went off there, and as a younger driver you think 'That would never happen, let's just get on with it and race.' But there are a lot of guys going out of their way to make it safer. I think it's really good we've got Alex Wurz as GPDA chairman. His maturity and experience helps us out a lot. We'll just do what we can to make it not happen again.



Age 26 Place of birth Perth, Australia Team Red Bull Role Driver

**2014** Promoted to Red Bull Racing, where he takes three grand prix wins

**2012** Moves up to Toro Rosso, scoring points in his first race for the team. Takes 13 points finishes over his two seasons with them

**2011** Starts the season competing in Formula Renault 3.5 and is handed an HRT F1 race seat for the final 11 grands prix of the season

**2009** Having joined the Red Bull Junior team in 2008, wins the British Formula 3 Championship in his first season in the series

**2005** Makes his car-racing debut in Australian Formula Ford

## The particular circumstances of Jules' accident were very strange...

It was a unique accident, for sure, so you say: "If it was just a tyre barrier, maybe he'd have been okay." But on the other side you say it was such a silly accident for such a strong consequence. With things that happen on track, it's always easy to look back and say it could have been avoided. At least now we know there's never going to be that situation again; they'll never let a race go on like that in those conditions with a tractor on the track. We just have to keep looking ahead and make sure there's not another obstacle like that.

#### Will you be driving for Ferrari next year?

There was obviously a bit of Ferrari talk around Silverstone, but from my side nothing's eventuated. Up to now it's just been rumours through the media. There hasn't been any direct contact.

Will Red Bull have a Renault engine next year?

Not the current one! A significantly better Renault engine, I would accept. But as we are now, I don't think we could go on with this performance again next year. Things have obviously been improving, but we need a significant gain. We'll see what happens.

Is there a deadline for improving the engine situation? It's in the hands of the team. I'm keeping my ears open to what's happening and what's being discussed with the team and with Renault about the future.

I'm putting a lot of my trust in the team. I do that because I know they want to return to the success they had. When they say they're doing all they can to be as competitive as possible for 2016, that's all I need to hear for now. That's important for me to know.

Would you be concerned if Red Bull became a 'customer' engine partner, rather than having number-one status, as they do with Renault? Any situation at the moment isn't perfect. Now we're down on power, but if we were to go with a customer engine, would that let us win? Do you actually have an opportunity to win in the next few years? That's the big question. Speaking to the big guys in the team, they've given me the confidence that I need to understand that they're doing all they can.



## A GP WEEKEND WITH JENSON

WORDS JAMES ROBERTS PICTURES STEVEN TEE/LAT

SINUA

Over the course of a race weekend, countless demands are made on drivers' off-track time, leaving them little opportunity to relax. F1 Racing shadowed McLaren's Jenson Button throughout the Hungarian Grand Prix weekend, to find out exactly how he spent his time FI

#### THURSDAY MORNING

Three weeks after the British GP, the team reconvene in Budapest. Jenson is talking to race engineer Tom Stallard, while chief race engineer Ciaron Pilbeam (on Jenson's left) and trainer Mikey 'Muscles' Collier (opposite Jenson) listen in.

#### THURSDAY AFTERNOON

Another meeting – this time with the boys from Fleet Street, who are grilling JB. *The Times* correspondent Kevin Eason is showing Jenson a picture on his phone, while McLaren's group head of press and public relations, Matt Bishop (bottom right-hand corner), looks on.

#### THURSDAY EVENING

Next up, Jenson is required to attend a PR event at a bar in the centre of Budapest. He arrives in a McLaren 650S Spider, and waves to the fans who have gathered at the special function, which has been arranged by McLaren sponsor Johnnie Walker.

#### FRIDAY MORNING

CAFE NONURI

Jenson gets to enjoy a rare bit of down time in between the two Friday practice sessions. He's shown here on his phone in the massage room on the middle floor of McLaren's Brand Centre in Hungary's paddock.



#### SATURDAY AFTERNOON

Wearing his special golden boots and about to don his headphones for his in-car radio, Jenson is all smiles as he heads to the back of the McLaren garage for qualifying accompanied by Mikey 'Muscles' Collier.

#### FRIDAY AFTERNOON

After posing for photos in the garage, Jenson and Fernando Alonso head for the paddock, with Jenson putting his hand on Alonso's posterior for

#### a laugh. Both drivers are wearing special-edition goldcoloured boots to celebrate the ten-year relationship between McLaren and sponsor Johnnie Walker.

HONG



#### SATURDAY MORNING

After FP3, Jenson and Fernando have an engineering meeting in one of the McLaren trucks. They're accompanied by race and data engineers and talk using headsets so that the performance engineers back at home in Woking can join in.



SATURDAY – QUALIFYING Jenson checks the data the moment he's out of the car after Q2. An ERS deployment problem with his McLaren-Honda has spoiled his final qualifying run, and he's missed his chance to get to Q3, being 0.1s shy of the cut-off point.

### SATURDAY AFTERNOON

The drivers and McLaren racing director Eric Boullier meet the press on the top floor of the team's motorhome. JB has a giggle while Alonso swerves yet another question about the performance of his former team, Ferrari.



H

SUNDAY – DRIVERS' PARADE Racers from every team gather together ahead of their trip around the track for the prerace drivers' parade. Jenson has something amusing on his phone, which he shares with the other drivers. SUNDAY – TRIBUTE Ahead of the start of the race, the drivers gather at the front of the grid for a minute's silence in memory of their late colleague, Jules Bianchi, who died nine days earlier.

> SUNDAY – THE RACE The MCLaren crew are poised, with military precision, to change Jenson's tyres on lap 35 of the race. This will be one of their fastest stops of the year, as all four option Pirellis are swapped to prime rubber in exactly 2.64 seconds.

#### SUNDAY - POST-RACE

Having started 16th, Jenson takes the chequered flag in ninth to give McLaren their first double points finish of the year. "This is a step forward and it's good to see we're making progress," he says afterwards.

#### SUNDAY - THE GRID

Jenson climbs out of his McLaren-Honda MP4-30 having parked up on the eighth row of the grid. He's about to head to the front row along with the other drivers to pay a special tribute.



# BATTLING BACK FROM THE BRINK

Less than a year passed between Spain's Roberto Merhi thinking his racing career was finished and then making his F1 debut for Manor Marussia at the Malaysian GP this year. It was a remarkable turnaround for a driver whose two-year stint with Mercedes in the DTM yielded very little to celebrate over the course of 2012-13. Merhi was subsequently deemed surplus to requirements by Mercedes, and without sponsorship his options looked to have dried up.

But all was not lost. His determined scramble from motorsport scrapheap to a Formula 1 seat started when he was invited to test for Formula Renault 3.5 team Zeta Corse in March 2014. Yet this also started badly. "My first test in a singleseater after two years in DTM was impossible," he says. "My first lap was ten seconds off the pace and I said to the team: 'I cannot go ten seconds faster.' There was too much downforce and I was really surprised by how quick you could go in a single-seater. After that first try I thought I should stop – it was too quick for me."

Driver and team persevered, and after a few races Merhi found himself leading a previously midfield team into title contention. He won three times to make it to the final round as eventual champion Carlos Sainz's closest challenger. It didn't matter that Sainz beat him to the crown; Merhi had restored a reputation that had been languishing in the doldrums since he won the F3 Euro Series championship in 2011.

Merhi had raced for Manor in his F3 days, and this undoubtedly helped him secure an F1 drive with Manor Marussia. In his first full season of F3 in 2009, Merhi finished seventh for Manor in a year dominated by Jules Bianchi, with future Williams star Valtteri Bottas in third. Merhi switched to Mücke Motorsport for the following season, but remained on very good terms with Manor – a relationship he has rekindled at the highest level in 2015. At the start of 2014, Roberto Merhi's motorsport career looked to be over. Now, thanks to his fighting spirit and a dash of good fortune, he's racing in F1 for Manor Marussia

WORDS GLENN FREEMAN PICTURES GLENN DUNBAR/LAT

"It was special to come back to Manor," he says. "The team worked so hard over the winter to be on the grid, and I really like them from the past. The atmosphere is better than anywhere else I have raced. If I make a mistake here, everyone says: 'Don't worry, mistakes can happen.' You feel like you are in a big family."

Merhi's first F1 outings took place towards the end of 2014, in free practice sessions with Caterham at Monza, Suzuka and Sochi, during which he twice outpaced the team's race driver Marcus Ericsson. But his graduation to a race seat seemed unlikely: even before Caterham folded, Merhi's lack of funding seemed certain to prevent him from landing an F1 drive for 2015.

Assistance came from his homeland. Over the winter, Spanish Formula Renault 3.5 team Pons Racing set about sourcing sufficient sponsors to allow them to offer Merhi a free drive. In March 2015, shortly before his Manor F1 deal came together, Merhi signed a deal with Pons. With the exception of Monaco (where Renault 3.5 was on the support bill) there are no clashes between the two schedules, and Merhi has been keen to honour his commitment to Pons. "Pons pushed really hard to have me in the car and to find the sponsors to give me a drive with them," he says. "They have been doing this since November, and it would have been really bad if I had said that I didn't want to drive for them any more."

Doing double duty between the two series is nothing new. Red Bull in particular have a tendency to promote their drivers to F1 midseason and keep them racing in Renault 3.5. But Merhi's motivation is different to the reasoning that led to Sebastian Vettel, Jaime Alguersuari and Daniel Ricciardo taking a similar path, and he believes it can have a positive effect on his season at the back of the field in F1.

"I think that mentally it's better to do both," he says. "In Formula 1 obviously we cannot fight for wins, so if I'm doing another championship with the philosophy of fighting at the front it keeps me performing better, because when you're driving at the back you can feel down."

And that's the biggest challenge for Merhi in F1: keeping his spirits high so he can spend the second half of the year giving team-mate Will Stevens more to think about. Merhi has done as much as he can to address the weight difference between the two, primarily, he says, "by just eating salad", and as the season has progressed Manor have been better equipped to give both drivers equal machinery.

The years between Merhi's F3 title and his Formula 1 debut hardly panned out as he would have expected, but he now believes that the "bad experiences" he endured have all played their part in him being "fully prepared" for F1 when the opportunity finally arose. While driving for Manor isn't easy, Merhi is showing a resilience and determination that could help prolong his career in the future. He fought hard to make it up the ladder to reach F1; expect him to keep on fighting to stay there. **3** 

FACTFILE	Date of birth 22 March 1991	Place of birth Castellón, Sp	oain <b>Team</b> Manor Marussi	a <b>Role</b> Racing driver
2015	2014	2012	2011	2006
Signs for Pons Racing in	Finishes third in Formula	Becomes part of the	In his third season of F3	Starts his car-racing
Formula Renault 3.5, then	Renault 3.5, and takes part	Mercedes-Benz Junior Team,	Euro Series, he wins the	career with outings in
seals last-minute F1 drive	in three practice sessions	and spends two seasons	championship with	Italian Formula Renault
with Manor Marussia	with Caterham in Fl	racing for them in the DTM	Prema Powertrain	and Spanish F3

# YOU ASK THE QUESTIONS

# Bob Fernley

# The vociferous critic of F1's Strategy Group and Vijay Mallya's right-hand man offers forthright views on the future path the sport needs to take

WORDS JAMES ROBERTS PORTRAITS GLENN DUNBAR/LAT

The gates to the Force India factory are closed and there's no one to open them. A little intercom at the side requires you to get out of your car to speak into it. Say the magic words and you can enter the Dadford Road base.

Upstairs in the tiny factory is Bob Fernley's office, where Colin Kolles and, before him, Eddie Jordan used to sit, when this team was known by other names. Fernley is the right-hand man of Force India team owner Vijay Mallya: they've known each other well for the past three decades. Deputy team principal Fernley looks after Force India's day-to-day running, while Vijay is flying the globe in his private plane, or sailing the Med.

Bob regards the stack of question cards before him with glee. The first one deals with a particularly pertinent topic: the current state of the sport. He's got plenty to say about that...

### Why can't we go back to the formula of the late 1980s and early '90s when cars were spectacular and the racing was real?

Matthew Langton, Australia

There were times in the '80s and '90s when the racing was not so good. We have incredible racing today and amazing technology – we should be embracing it. It's important that we're at the forefront of technology; from that will come a different type of racing. The ability of the drivers to master the technical elements of the sport today are different to when they had to master the purely physical side of the sport.

### Did you really used to run a historic F1 team for Vijay in India?

Anthony Donaldson, UK

It's partly true. A long time ago, we set up a company called AMCO and we were one of the first to recognise that F1 cars have historic value. We'd buy redundant cars from F1 teams – McLaren, Ensign, Tyrrell, Williams – at any one time we might have had as many as 20 F1 cars.

Teams at that time didn't know what to do with their old cars and they took up a lot of space, so we bought them. We created the historic F1 market back in the late 1970s and early '80s. Vijay wanted to run an F1 car in India and so we ran an Ensign for him. He was a very competent driver and he won all the trophies he wanted to win, after about five years of trying. *F1R*: What was the racing infrastructure like in India at that time?

**BF:** We raced at a disused airfield called Sholavaram and we'd get crowds of 100,000 people there. It was an incredible event, very basic, but teams would come over from Europe to compete there and Vicky Chandhok [father of former F1 racer Karun] raced against us. There was quite a rivalry between Vijay and Vicky. I was also running a team in the Aurora British F1 series and then moved over to the States to run CanAm and IndyCar teams. Interesting times – so Vijay and I go back 35 years.

### What would you do if you were Bernie? Elizabeth Jones, UK

[Laughs] Bernie is the most amazing man and I have enormous respect for him. We have our disagreements, but they're done in a professional way. I've never found him to be vindictive; he gives it to you straight from the hip and if you can't cope with it, you shouldn't be in F1. What would I do if I was Bernie? Try to emulate him I think [laughs] – but I'm not sure anyone has the capacity to do that: he is unique. →



### YOU ASK THE QUESTIONS

### Why did it take so long for the B-spec Force India to make its debut?

John Nicholls, UK

Because we couldn't conclude the contract with Toyota to use their windtunnel until mid-December. Caterham had the contract and until the administrators released their right to Toyota, we couldn't take it up. So effectively we couldn't get into Toyota until early January. Then we had to correlate programmes and move people across to Germany, it took that long to get it through.

### If you had to invite five people from the F1 paddock for dinner, who would you pick? Anthony Chu, Hong Kong

Bernie, for sure, because he's wonderful entertainment – keeps the party going. I would also invite Eric Boullier, with whom we have a good relationship, and Lotus's Federico Gastaldi. *F1R*: He could play the saxophone after dinner... **BF**: Yes! We'd also invite Monisha Kaltenborn [Sauber team principal], too. One more... probably Adrian Newey as he's good fun.

# What is the future of smaller teams if they don't get more revenue money next year?

*Giorgos Zouppouris, Cyprus* It's well publicised from my side that it's serious for the smaller teams. I was saddened to hear of the Lotus winding-up order that was issued back in July; I hope that will be resolved as there are a lot of families dependent on Lotus surviving. I fear for the future of the smaller teams if it doesn't get resolved. I'm not sure that either CVC or the manufacturer teams are even listening –

or care. And that's my biggest concern.

F1R: What, if anything, can you do? BF: We have to keep the pressure on. We have to work politically to try to resolve it externally. We have to use everything in our means to get the attention of CVC and the big teams. We will continue to do that because for the diversity of F1 it's critical that the independent teams remain in place. We've had so many occasions where at the whim of a board meeting the manufacturer teams have pulled out. In the late 2000s we went through the whole Honda, BMW, Toyota crisis.

5ETS: ANDREW FERRARO/LAT; STEVEN TEE/LAT



"Vijay has been the biggest innovator of sports marketing in India. People recognise how visionary he is, so he's perceived highly"



Fortunately Peter Sauber stepped in and saved BMW, and Ross Brawn did the same with Honda. Toyota closed and everyone there lost their jobs, so it's dangerous to put this sport in the hands of manufacturer teams. For the independents, F1 is their business; they go motor racing and they don't have any other forms of income.

### Should more F1 drivers be allowed to do other events like Nico Hülkenberg did with racing at Le Mans?

#### Heath Richards, New Zealand

Absolutely, as long as it doesn't conflict. If Nico asked to do the Indianapolis 500, then I think Vijay would say no. Nothing against Indy, but we have to assess the risks. Vijay let Nico go and race for the works Porsche team and all credit to him for having the vision and willingness to allow the drivers to develop.

*F1R*: Didn't Bernie give Nico a ticking off for that? **BF**: I didn't hear that. I'm just thrilled for Nico. If F1 drivers are not in a winning car they can lose direction. Nico got an incredible lift winning the Le Mans 24 hours and that shows in his racing for Force India. He's taken a step forward.

### Are you confident of keeping both Nico Hülkenberg and Sergio Pérez for next year – if that is your intention? Rian Hoskins, UK

It clearly is our intention. We have to compete as hard as we can and I think it's quite feasible for us to take fourth place this year. We should make all efforts to do so and by that we limit Nico's opportunities to go somewhere else. Why would he want to drive for a team below us?

# What three things do you miss from the early days of F1 that it lacks today? *Joe McGhee, Bahrain*

I would probably get hauled up for not being politically correct if I was truly honest! When I started racing, it was at the back end of the James Hunt era and we definitely led a different lifestyle to today [laughs]. You know my views on the celebration of excess and as someone who came from that era, I miss some of those elements. However, I'm not as young as I was...

### Is it true you first met Vijay on a platform at Stockport train station in the rain? Peter Johnson, UK

Correct. This goes back to what I was saying about AMCO. The factory was based just outside Stockport. Vijay came for a look at things.

Fernley with his old friend of 35 years standing, Force India owner and team principal Vijay Mallya

### What do you think is stopping Force India from being able to fight for race victories? Matt Bewers, UK

It's predominantly budget. Force India today employees 375 people, Mercedes probably have 800. So just the human resource element speaks for itself. But beyond that there are assets the other teams have that we don't. We need to get costs and regulations under control so that all teams can compete on an even keel. There will never be a level playing field, but the disparity is too extreme and we need to address that. As long as that disparity is there, the smaller teams will never be able to fight for victories.



He came up from London on the train. It was November, the heating had broken on the train and he was freezing. He'd stuffed papers into his jacket to try to keep warm. That's how we first met, 35 years ago, and we became great pals.

### **Paul Di Resta did such a good job for Force India. Why didn't you keep him?** *Helen Drysdale, UK*

I bought Paul into Force India through DTM and he did a good job for us. But there are two aspects to motor racing, both in and out of the car. Paul did a very good job technically in developing the car, but there are times when you become a liability in how you're putting forward the team. Paul overstepped the mark, and regrettably the decision was made to replace him. It was nothing to do with his driving, it was how he was working with the team. If the team lose confidence in a driver, it's not recoverable. I'm sure if you could put the clock back, he'd think in a different way.

### Will F1 go back to India? If not, why not? Philip Brown, UK

Vijay would love it to go back to New Delhi and he's doing everything he can to make it happen. But I don't think the political will is in India to make this happen. So I'm not optimistic, which is a shame because it's a great circuit and India is an amazing country. I don't think we can overcome the political differences in India. The only person who could succeed at that is Vijay.

# How will Sergio Pérez cope with the pressure of his home race in Mexico? *Darren Prior, UK*

He'll be fine, he'll enjoy it. I think he'll rise to the occasion and he's good under pressure, exceptional in race conditions and if we give him the right car, which I hope by the time we get to Mexico we can, he'll show very well. I can't wait to go back to Mexico. We went last year to have a look and I was amazed. Mexico City surprised the hell out of me; it was a wonderful experience. The fans who go there will really enjoy it.

### Is the Formula 1 Strategy Group out of touch with the fans?

#### William Johnson-Smith, UK

I don't think it's out of touch with the fans, I think it's out of touch with where it's going in terms of Formula 1. I think it disregards the fans actually. I'm very critical of the way the Strategy Group thinks and works. It's purely self-interest and Force India isn't innocent in that respect, but the fact that the power of F1 is effectively invested in four teams is wrong. The people who suffer are the other teams and the fans.

### How are Force India perceived in India – and Vijay, given the financial problems he's had with his companies?

#### Ian Sabransky, Australia

Force India is perceived positively in India. Vijay has been the single biggest innovator of sports marketing in India, using sport to promote his products. People recognise how visionary he is, so he's perceived highly. His airline philosophy was ahead of its time – unfortunately he paid a heavy price for that. Sadly it went wrong, but these things happen.

### How can F1 justify racing in Azerbaijan? Julie Bennett, UK

I don't think that it has to justify it. Formula 1 is a global sport and if a country wants to be a part of that programme, it should be given every opportunity to do so. Why should we distinguish between Azerbaijan and India? If a country is ready to embrace F1, then we'll be there to work with them.

### **Does Vijay Mallya's hairstyle scare you?** *Robert Sinfield, UK*

[Laughs] Not as much as losing my own hair. 💷

### JOIN OUR FAN COMMUNITY

Want to put a question to a big name in Formula 1? Visit www.flracing.co.uk and join our Global Fan Community, where you'll get to do just that. We'll let you know which interviews are coming up.



 Scan this code with your smart phone and you'll be taken straight to our reader panel page

# WHY F1 IS BIG IN

For the uninitiated, Japanese culture can seem a little bit, well, bonkers (in a good way, of course). And that endearingly crazy streak has carried over into the country's Formula 1 race...

WORDS JAMES ATTWOOD



### The first ever Japanese GP set the standard for high drama

Held at Fuji Speedway on 24 October 1976, the inaugural Japanese Grand Prix featured many of the elements that would become recurring themes of the race: rain, incidents, a smattering of controversy, and a title showdown so incredible it could be used as the climax of a Hollywood movie. Oh wait, it already has been...

The title battle, of course, was James Hunt vs Niki Lauda. And it very nearly didn't happen: with heavy rain and low fog covering Fuji on race day, there was plenty of debate about whether the event should even go ahead. It did, and while Hunt stormed into an early lead, Lauda – just months after his life-threatening Nürburgring shunt – withdrew early, saying it was too dangerous.

The drama wasn't over. On a drying track Hunt dropped down to fifth with a puncture. But he clawed his way back up to third, winning the title by a single point.

### **2** The flying Dutchman who ensured Suzuka wasn't flat

Honda president Soichiro Honda wasn't happy. The firm had been planning to build a new test track near Suzuka City, but the flat circuit proposed for the rice fields Honda had bought failed to impress him. So he called John Hugenholtz, director of the Zandvoort circuit.

Hugenholtz headed to Japan on a helicopter reconnaissance mission and spotted a range of hills in the middle of the rice fields. He recognised it as the perfect location for a properly challenging circuit, and plans quickly took shape. These included an unusual crossover section to balance the number of left- and right-hand turns, and also to minimise the amount of earth-moving. Suzuka opened in 1962, and was an instant hit. More remarkable is that it took another 25 years for F1 to visit. →



James Hunt and Niki Lauda at Fuji in 1976 prior to the conclusion of their epic title battle (1); A view of Suzuka showing how John Hugenholtz worked the range of hills into its design (2)



PHOTOS:ALASTAIR STALEY/LAT; LAT ARCHIVE



### ■ 3 Nigel Mansell proved just how tough Suzuka is

**Suzuka's reputation as** one of F1's most challenging tracks was underscored by Nigel Mansell in the first competitive session held there, which decided the outcome of the 1987 world championship.

That year's Japanese GP was the penultimate race of the season, with Williams-Honda team-mates Nigel Mansell and Nelson Piquet battling for the title.

Piquet set the pace early in Friday qualifying, and when Mansell attempted to outdo him he spun at the Esses, making heavy contact with the tyre barrier and suffering a neck injury that ruled him out of the final two races of the season. Piquet was champion before the race even began.

After that, the race itself was something of an anticlimax, dominated by the Ferrari of Gerhard Berger – much to the chagrin of Honda's top brass, who were desperate for a home win. And that's actually been something of a recurring theme at Suzuka: Honda-powered cars have won at the circuit only twice.

### Aguri Suzuki claimed Japan's first F1 podium...

Most people remember the 1990 Japanese GP race purely for the first-corner incident, when Ayrton Senna ploughed into Alain Prost to secure his third world championship. It overshadowed the relatively staid race that followed, with Nigel Mansell leading until his Ferrari's gearbox broke, handing the win to Nelson Piquet, with Piquet's Benetton team-mate Roberto Moreno finishing second.

Still, Japanese fans had plenty to celebrate. Aguri Suzuki had endured a fairly anonymous season in his Larrousse team's Lola-Lamborghini, with nine retirements and just two sixth-place finishes. But Suzuki's knowledge of Suzuka helped him qualify in ninth, and the high attrition at the front of the pack pitched him into a battle with Williams-Renault duo Riccardo Patrese and Thierry Boutsen for third. The Williams had the edge on pace, but Suzuki nursed his tyres without stopping, claiming the first F1 podium for a Japanese racer, at his home GP to boot!

## **5** ...and Kamui Kobayashi repeated the trick

**Over the course** of his F1 career, Kamui Kobayashi developed a reputation for being a little bit overexcitable, which meant he was always good value to watch – especially on home turf.

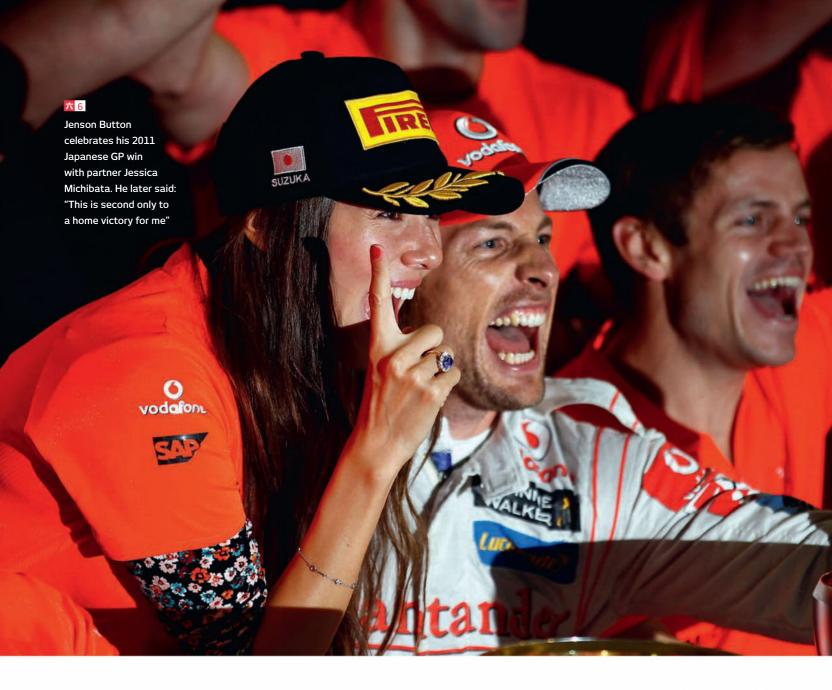
Kobayashi made his F1 race weekend debut in Japan for Toyota, stepping in during practice at Suzuka in 2009 when Timo Glock was taken ill. Glock recovered for FP3 and qualifying, only to be put out of action again after a big crash. Toyota applied for dispensation for Kobayashi to race, but this was rejected by the FIA.

Once Toyota quit F1, Kobayashi secured a 2010 seat with Sauber. He put in several strong drives that year, but his best was at Suzuka, when he charged from 14th on the grid to seventh. His finest hour, however, came in 2012, also at Suzuka. He qualified fourth, and then held off Jenson Button's McLaren to claim his only podium finish.

Remarkably, the 17 Japanese drivers to have started a grand prix have achieved just three podiums; two of those at home.



Mechanics attend Nigel Mansell's damaged Williams after his title-dream-destroying crash at Suzuka's Esses in 1987 (3); Piquet tops the podium at Suzuka in 1990 with Aguri Suzuki scoring Japan's first F1 podium in third (4); Sauber's Kamui Kobayashi takes another third-place podium for Japan at Suzuka in 2012 (5)



### ★ G Japan's most successful 'home hero' is actually a Brit

**Jenson Button** has never had much luck at his home grand prix at Silverstone – but it's been a very different story at his unofficial second 'home race'.

Button's wife, Jessica Michibata, is half-Japanese, and Button spent plenty of time in Japan when he drove for Honda's works team. He demonstrated his affinity with the country at the 2011 Japanese GP, which was the first race held there after the devastating Tohoku earthquake and tsunami in March of that year. Button wore a special helmet, which he later auctioned for charity – and, much to the delight of the appreciative crowd, claimed an impressive victory after an intense battle with Fernando Alonso and Sebastian Vettel. "The Japanese people here have been so supportive of us and hopefully we have planted a small, good memory in their heads as it has been a very difficult year for them," said Button after the race. "It's such an emotional victory; this is second only to a home victory for me."

# **E7** It's a place for F1 rookies to make a punchy debut

Here's how to cause a stir on your F1 debut: qualify eighth in a Jordan-Hart; battle your way up the order; hold up race leader Ayrton Senna when he tries to lap you; briefly unlap yourself; and finish sixth to score points. Oh, and then get punched by Senna for failing to show contrition when he stops by to berate you.



Irvine infamously gets in the way of Senna at Suzuka 1993, with lively consequences...

That's exactly what Eddie Irvine did at Suzuka in 1993. He had plenty of experience of the circuit after three years spent competing in Japanese Formula 3000, and he made it count. That refers both to him demonstrating his on-track potential and in his ability to generate column inches off-track, with memorably pithy lines such as: "When I saw he was going to punch me, I thought 'Okay, here's a few quid coming my way."



## As You can rely on the weather to make the schedule unreliable

**On 9 October 2004,** the imminent arrival of Typhoon Ma-on prompted race organisers to cancel all on-track action at Suzuka on Saturday. Qualifying was held early on Sunday morning after the remnants of the storm had passed, which proved to be an incredibly popular move.

Six years later to the day, on 9 October 2010, heavy rain drenched Suzuka on the Saturday, and organisers were again forced to abandon qualifying and switch it to Sunday morning. Once again the concept proved popular, this time prompting calls for Sunday qualifying to become a regular feature to spice up race weekends.

Of course, it's not just typhoons that have hampered the country's Formula 1 events. In 1994, Japan was handed a second race, the Pacific Grand Prix, due to F1's growing popularity in the country. Held at the remote TI Aida circuit, the 1995 event had to be postponed from April until October because the Kobe region was hit by an earthquake. The revised date was just a week before the Japanese GP, and most fans chose Suzuka: it's estimated that the Aida crowd numbered only around 15,000. The Pacific Grand Prix failed to return to the Formula 1 calendar for 1996.

## 19 Seeds of the Vettel/Webber conflict were sown in Japan

In 2007, F1 returned to the Fuji

Speedway for the first time since 1977. The Safety Car was deployed for the first 19 laps due to rain, then reappeared later on after Fernando Alonso crashed heavily. That incident closed up the pack, with Red Bull's Mark Webber running second, just ahead of Toro Rosso's Sebastian Vettel.

Misjudging his speed as he entered the final corner just before the restart, Vettel slammed into the car in front – the Red Bull of Webber. Both drivers were knocked



Boats replace cars in 2010 (8); Vettel and Webber pre-clash in 2007 (9); Senna celebrates in the Log Cabin in 1990 (10)

out of the race and Lewis Hamilton cruised to victory.

"He did a very good job of hitting me very hard under the Safety Car," fumed Webber afterwards. "I think he will have learnt a very valuable lesson."

It was the first on-track altercation between the two. It wouldn't be the last.

## 1 It usually all ends with a spot of karaoke

**It's only fitting** that a look at Japanese Formula 1 idiosyncrasy ends at Suzuka's Log Cabin. Since entertainment options are limited in the vicinity of the track, the Log Cabin, and associated karaoke establishments, are the venues of choice for post-race celebrations.

Precise details about the often boozefuelled goings-on within the bar tend to be sketchy. But tales include Michael Schumacher ripping off his brother Ralf's Toyota shirt before heading off to hijack a fork-lift truck – when he wasn't busy blasting out karaoke Queen songs.

Then there's the tale of Ayrton Senna celebrating his 1990 world championship in the log cabin, pointedly offering a heartfelt '*Prost*' before downing his drink. See what he did there?

+10



# **TECHNOLOGY** SUPPLIERS BUYERS

GET THE INSIDER TRACK ON ALL THE LATEST TECHNOLOGY & ENGINEERING

**14-17<sup>™</sup> JANUARY 2016\*** NEC BIRMINGHAM



\*14TH & 15TH TRADE DAYS ONLY

# REGISTER NOW

AUTOSPORTINTERNATIONAL.COM 0844 335 1109



# LESSONS FROM THE MASTER

When racing drivers want to hone their considerable skills, there's only one man to call: a grizzled, 62-year-old, chain-smoking Vauxhall Astra driver who works from an old airfield near Rugby...

WORDS JAMES ROBERTS PICTURES NEAL HAYNES

he peace and charm of rural Leicestershire are shattered this Sunday morning by the squeal of tyre scrub and the sharp acceleration of a Vauxhall Astra. Typically, old airfields are bustling places early on weekend mornings, when car boot sales take over. Not in Bruntingthorpe, just off the M1 near Rugby.

This unlikely venue is where aspiring, and current, F1 drivers come to develop their talent. They come to see the master, the man who can unlock their full potential. This is the domain of Rob Wilson, a 62-year-old chain-smoking former racer, who teaches manipulation, weight transfer, feel and rates of input.

Winding around old aircraft is a series of runways, access roads, and the odd battered red cone that denotes an apex point or, more strictly speaking, the point of rotation. There are no fancy racing cars here, nothing 21st century or digital. Just Rob, his briefcase, a packet of fags and – crucially – his old Nokia mobile phone.

Today, Williams F1 development driver and GP2 winner Alex Lynn is having a lesson with Wilson, and *F1 Racing* has been invited to listen in on the tutorial from the back seat of an

ordinary, road-going Vauxhall Astra. "As it's a Sunday we'll often listen to *The Archers* as we go round. It's all very relaxed," says gravel-toned Wilson, in between gulps of tobacco smoke.

Lynn, 21, has travelled to Bruntingthorpe many times over the past couple of years and is typical of the modern breed of racing driver: clean-cut, smart, articulate and super-fit. He's a complete contrast to Wilson, an old-school racer who competed alongside Derek Warwick and Nelson Piquet in British F3 in the late 1970s, and has cut down to *only* 30 cigarettes a day.

Today, Lynn is on his own, but drivers are often accompanied by their race engineers. Recently, Valtteri Bottas visited Wilson with his Williams engineer Jonathan Eddolls. "It's important," says Wilson, "to bridge the gap between the two. Engineers 'see' oversteer on the telemetry, but it's the drivers who *feel* it. That's an important distinction."

Up in Wilson's office overlooking the aerodrome, he pulls out a small laptop, a phone, a few bits of paper and a packet of Rothmans. Waiting outside is a bright red Astra, a GTC coupé, fairly sporty but not heavily tuned-up. "It's such a raw form of driving, in a normal road car at an airfield with a few cones dotted around," says Lynn. "As a result, every piece of input you make with the car is obvious. You can instantly feel if something's gone right or wrong, because a racing car is so finely tuned it masks a lot of things – in a road car, you can't get away from it. So you have to be extremely sensitive with everything you do in this car."

Last season, Lynn won the GP3 series and has already stood on the top step of the podium in GP2 this year. He's clearly talented, so what can he learn from sitting alongside Wilson in a Vauxhall Astra?

"He can teach me how to take my driving to the next level," explains Lynn. "Rob can unlock areas in my driving that I couldn't find in any other way and all of this additional knowledge makes me a better driver."

Wilson, studying his pupil intently, expands: "It's not about making Alex faster because he's born fast and that's the case with most racing drivers. Although," he adds, "there are those who are not racing drivers who drive racing cars. They're the ones you need to speed up.  $\rightarrow$ 

Wilson chats to Lynn in his office above the aerodrome (left); the essential tools of Wilson's trade (below); teacher and pupil take to the track in Wilson's Vauxhall Astra (bottom)



"Rob can unlock areas in my driving that I couldn't find in any other way and all of this additional knowledge makes me a better driver"

"With Alex, I'm teaching him to manipulate a car, not necessarily to corner faster, but to get the weight out of it, reduce tyre scrub and to view an apex as a rotational point rather than a geometric spot on the track – and to drive the car as much with his feet as his hands. Let's do a few laps and you can see what we're talking about."

While we set up for a few photos of the pair of them in front of one of the disused aircraft, Wilson notices part of the concrete surface. "Look at this here," he says enthusiastically, rubbing his foot on it. "We've been driving around here for 15 years or so and look at the effect that's had on the track surface. When the weight is shifted out of the car, the road surface takes that force and look at the impact it's had."

Managing weight transfer is a crucial element in the Rob Wilson school of performance driving, as he's about to demonstrate. He climbs into the driver's seat and does a sighter lap of the aerodrome course. Every conceivable type of corner has been engineered into this lap, from flat-out long-radius turns, to hairpins, chicanes, corners that induce wheelspin and what Wilson calls a 'Middle Eastern' corner, typically a long curve with a difficult-to-pick-out late apex – very common on the newer Tilke-designed tracks.

At the start of the next lap, Lynn is handed Wilson's old Nokia 6310i, not to make a call – but to use as a stopwatch. This phone has timed everyone on this track, from the likes of Heikki Kovalainen and Takuma Sato to members of the current grid, including Nico Rosberg, Kimi Räikkönen, Bottas and Pastor Maldonado. Seemingly effortlessly, Wilson puts in a 1min 48.9sec lap. He dodges a hare on his next tour and casually mentions that while entering a highspeed right-hander, "Pastor once went off here."

"One of the most common questions drivers ask me is how they can improve their qualifying," says Wilson while waiting for the Astra's brakes to cool. "Drivers say they're okay once they've got going, but find it hard to perform on the first or second lap when the tyres are at their peak. So that's something we practice again and again. Stopping. Then doing one lap. Stopping. And doing one lap. Being able to switch yourself on from the word go.

"To do that, you need to get a feel for the slightly different conditions of the road surface or tyre from when you were last in the car, and that's all done in the first five per cent of input," he continues. "If in the first 2.5 per cent you realise you've pushed the brakes too hard, or not hard enough, that's when you start to make that adjustment. Thereby you're able to get the information back to your brain before the mistake has happened. So if you concentrate on that first fraction of weight transfer, you can respond to it before the second bit of weight transfer. It's not about correcting mistakes, it's a form of manipulation."

By retaining a bit of flex in their shoulders, elbows and wrists, a driver can feel what the car is doing as it's transmitted through their whole body. And any abrupt movements on the steering wheel or pedals will create shockwaves throughout the car and force a reaction. When Alex takes to the wheel, he's fractionally faster than Rob's baseline time, but also fractionally less smooth with his steering inputs. Wilson talks him through alternate lines on entry and exit to various corners.

"Feel the weight coming out of the car," Wilson says to him. "Transfer the weight under  $\rightarrow$ 





### Who is **Rob Wilson?**

Rob Wilson was born in a village in New Zealand on 6 September 1952. Despite his keen interest in music, what brought him to England was racing. In the mid-1970s he'd succeeded at the Goodwood Racing School and been rewarded with the chance to compete in a dozen Formula Ford races.

By 1976 he had teamed up with Tim Schenken and Howden Ganley, who founded Tiger, becoming their works Formula Ford driver. Three years later, he competed in British F3 and with a win at Mallory Park finished fourth overall, leading to another season with Ralt in 1980.

After picking up a Formula 1 superlicence he was nearly given a chance to make his debut in F1 at the 1981 Belgian GP by Ken Tyrrell, until Michele Alboreto appeared and bought the drive. Two years later he was finally hired by Ken... but only to play in the band at Alboreto's leaving party.

During the 1980s, Wilson competed in sportscars in the USA and also won the Barber Saab title in 1990. While he was there, he started to coach up-and-coming drivers. He stopped commuting to the US in the late 1990s "when they banned smoking on flights".

Wilson began teaching from the Motor Industry Research Association and Goodwood proving grounds, and has been based at Bruntingthorpe for 15 years, coaching current and future F1 drivers.





Wilson and Lynn take turns behind the wheel, with Wilson putting the emphasis on minor adjustments that will improve overall performance, ultimately leading to a quicker lap time

"Instead of chasing setup, if the driver adjusts how they drive the car and manipulates what the car does, they will create fewer problems"

braking, don't force on the brakes." Through the 'Middle Eastern' corner, Lynn gets on the power, the back steps out slightly and he corrects it. "The natural instinct is to correct it, but next lap don't; use it as a rotation," advises Wilson.

"Often the drivers will return to the pits and tell their engineers that they have oversteer, which will then be dialled out of the car with less wing, which will cause more problems elsewhere on the lap. Instead of chasing setup, if the driver adjusts the way they drive the car and manipulates what the car does, they will create fewer problems."

On another tight right-hander, Wilson spots a further example of where Alex just needs to

introduce just a slight refinement. This isn't a driving lesson, this is about making minute adjustments at the first moment of input. "Coming out of the corner after the hairpin," says Wilson, "he should hold the inside for a bit longer and then get the weight out of it to get a flatter car. Alex is doing that, but I could feel a little bit of wheelspin and a bit of tyre scrub, so I said give up the idea of the line and tease it out – go with the grip instead. So he teased the steering out, straightened it up – these are very subtle things that he understands."

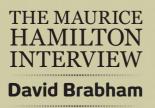
It's not quite a Williams FW37, but Wilson's trusty Astra will help Lynn take his driving to another level



With these pointers, Lynn's next lap around Bruntingthorpe is even quicker, a few tenths across roughly a 100-second lap. Sitting in the rear passenger seat, it's hard to see where the improvement came from, but the incremental inputs at every corner all add up.

Wilson suggests *he* should do one more lap before they retire to the pub to debrief. Lynn clutches the Nokia and turns off the air conditioning. What follows is a masterly display of car control, optimum speed, minimal inputs, control of rotation and forward momentum – at all times. A glance at the Nokia: the lap time is a second quicker than the best time of the day. Wilson shrugs his shoulders and suggests we stop there. Lunch is beckoning. "Plus time is short as I've got to be in Woolwich later," he announces. "I'm playing with my country rock band, Grand Prairie, and we have a gig tonight."

With that, our two protagonists head off for lunch. After this, they will go their separate ways. Lynn will make his way to his next GP2 race thinking of rates of input and weight transfer, while Wilson will don his Crombie and take his bass guitar down south. <sup>(2)</sup>



"That weekend at Imola, people had a strange feeling they were tapping into before all the chaos happened. There was an energy about the place we'd never felt before; as if we were feeling it before it happened"

The son of Sir Jack, **David Brabham**, opens up about the tragic death of his teammate Roland Ratzenberger in 1994, and an unexpected battle to use his own name

### PORTRAITS SAM BLOXHAM/LAT

avid Brabham comes from a family with a rich racing heritage, but he's very much his own man. In fact, he was 17 before actually discovering motorsport and following in the footsteps of his father, triple world champion Sir Jack Brabham.

While elder brothers Geoff and Gary had been busy racing whatever they could lay their hands on, pick-up trucks were the most powerful machines to have come David's way while he worked on the family farm in Australia. It wasn't until he visited Geoff in an IndyCar workshop in the USA that David happened to set eyes on a kart for the first time – and had to ask what it was! The answer must have been the right one, because it triggered an immediate desire to go racing. Making up for lost time in every sense, David became British F3 champion in 1989, won the Macau F3 Grand Prix, the Spa 24 Hours, took class wins at Le Mans, and eventually claimed the Le Mans 24 Hours with Peugeot in 2009.

Throughout all that, F1 was always the goal, although the romance attached to eventually racing for Brabham was not matched by the results from a team that was a sad shadow of the outfit started by David's father 30 years before.



The lowest point had to be Imola 1994, when his Simtek team-mate Roland Ratzenberger was killed in a qualifying accident. This spectrum of motorsport highs and lows has given Brabham the perfect credentials to start up a project that taps into his experience in a unique way. But, before anything could be implemented, David had to wage a seven-year legal battle for the right to use the family name.

It has simply been another fight – albeit an entirely unexpected one – to add to his tally of wins. I get to hear all about it over lunch in the Wykham Arms at Sibford Gower, not far from his home in rural Oxfordshire where he lives with wife Lisa and son Sam. Maurice Hamilton: I can't believe you've actually had to go to great lengths simply to use your own name. When did this happen? **David Brabham:** I got the name back on Christmas Day 2012. It was seven years previously that I heard that someone had registered the Brabham name. We obviously had to find out who this bloke was and what he was doing. That was quite a process even before opening communication and asking questions like: 'What the hell are you doing?' They had absolutely nothing to do with us.

MH: So anyone can register any name they like?
DB: They can. But, in this case, they were using the history of our name – which is a different thing. We couldn't do anything for seven years. In some ways it was a blessing, because seven years ago and all the way through the crash from 2007-09 I would never have been able to do what I'm doing now. If I'd built something up before that, it would have been hammered.
MH: You were obviously thinking of your future beyond racing. What was the plan?
DB: Yeah, you don't make buckets in sportscar racing; you live the dream. So it was a case of 'Okay, now we've got the name, what do



we do with it?' We started with a clean sheet of paper. I got a branding expert to come in to have a look at what Brabham is. He did a 15-month research project and came up with a brand bible, telling us exactly what Brabham is; what people think and feel about it. I wanted to be seen more as a commercial brand than a motorsport brand. **MH:** Are you saying that even though your name is steeped in a motorsport tradition money can't buy, you needed to look beyond that?

**DB:** Yes. If you look at race teams and how they brand themselves, they're a long way from the commercial world outside motorsport. I tried to learn from that. We have to have a consistent brand message: integration; pioneering; innovation; engineering. That's what Brabham means. Everything we do has to have our DNA so the consumer knows exactly what Brabham is. I don't think motorsport brands do a very good job at that because they're generally associated with a race team, and that's all. Our product is very different; it's much more than that.

**MH:** But the basis surely has to be everything that your father did?

**DB:** Up to a point, yes. When my father passed away, the headlines talked about him being an inspiration and a brilliant engineer who was

**DB:** I know. But, at the same time, I've lived it. The reason I've driven for a lot of teams is because they'd run out of money and I had to find someone else to pay me. So the management side didn't really interest me, and yet I felt that for Brabham to be used as a brand in the way that we wanted, we'd really need a race team I could run. It was a case of working out how I could look at this in a different way.

We brought some creative people on board and came up with the idea of using the race team as a tool to provide people with a completely different motorsport experience. Brabham will provide a unique experience. Fans can be involved. They can engage, contribute, vote on stuff; really feel it's their team. Everything we learn, we will share. We came up with a knowledge-sharing and e-learning platform called 'Brabham Digital'. Online, you'll be able to tap into it and get involved whether you're a fan, a driver or an engineer.

MH: I guess there's a subscription of some sort? DB: Yes, a monthly subscription. If, say, you're an engineer somewhere else in the world, you never get close to what goes on behind closed doors within engineering. But if we can inspire young engineers, give them access to become People compared the two and we came out quite favourably; the contributions actually went up quite a bit because all that exposure was going on with Caterham. It brought more people on board. When the campaign closed, we did a research model through the crowdfunding. Two things became clear: people liked the idea that Brabham is coming back. And they also liked the fact that they could buy into these packages at a discounted price when we get it up and running. We did two further surveys within the motorsport community and put the business plan together based on that research. MH: What category of racing are you looking at? **DB:** The World Endurance Championship, starting off with LMP2, which has a cost cap. That will help us keep costs under control until we get everything up and running. Then the idea would be to do LMP1, but we'd have to make sure we get the right partners. Meanwhile, we can use our model to involve people, particularly engineers, in the project.

We've been talking to a CAD software company that's very interested in this collaborative design idea with engineers around the world. That's just one example of a number of people who have come knocking on our door.



at the forefront of a changing F1. But then, of course, the Brabham story continued in a similar vein with Gordon Murray. That's what people remember about Brabham. Dad being a brilliant engineer is one part of Brabham. Inspiration is another. Pioneering thinking another; innovation, yet another. All of this tied in with what the brand research told us, and then the reaction when Dad died confirmed it.

For many years I'd been thinking I'd really like to see Brabham as a race team again. But I'd been in the industry long enough to know how hard it is for teams to survive. People had said I'd make a great team manager. But why would I want to do that? In my head, I was still a driver. **MH:** You guys are all the same. Can't help yourselves, can you? "Dad being a brilliant engineer is one part of Brabham. Inspiration is another. Pioneering thinking yet another"

part of the development of the engineering side of the race team, people will grow with us as we grow. I've looked at it from a completely different angle. We're not just a race team. The race team is a vehicle for our model. **MH:** What stage are you at with this concept? **DB:** Having come up with the idea, it was a case of working out how to take it to market. We did a crowdfunding campaign last September and raised £278,000 over six weeks. At the time we were the biggest sporting crowdfunding campaign ever. Ours was just about to end when Caterham did their own crowdfunding campaign, which was very different and provided an acid test for us. We were about fan involvement, sharing the knowledge, getting involved. Caterham were 'save our race team'.

We're not quite ready yet because we need the funding to put all the people in place to be able to deal with it.

We've done things in reverse. Usually teams start up, race against each other and try to create a fan base in the hope that in a few years' time, they'll have a following to help sell what they're doing. We used crowdfunding, which ended up with more than 3,000 people from 64 countries contributing and being part of it.

MH: What have you learnt about today's fans? DB: People's habits are changing thanks to Twitter, Facebook, mobile phone apps and so on. People can access information really quickly. That's what they expect. With that in mind, racing is an old model. If you're not tapping into this new mindset, then I think you



could be in trouble in years to come. I see it as an opportunity for Brabham to use the latest technology to get people involved and not think of ourselves as just a race team spending loads of money trying to beat another race team. Our aim is to give people around the world a really unique motorsport experience by being part of our team. **MH:** Do you think these findings encapsulate F1's image problem at the moment?

**DB:** Yeah, I think so. F1's been a very successful model for a long time and I'm not here to knock it. All I'm saying is that we can see what's happening in F1. We can see what's happening with the community mindset of wanting to be involved and close to the action, partly because technology is changing our lives. The community's expectation has changed compared

to what it was. Think about when my dad was racing. There were big crowds in the 1960s because what else could they do? Now, the next generation is spoilt for choice; they can do whatever they like – and they can do it online. **MH:** The irony is that the television coverage in the '60s was almost nonexistent; you'd have given anything to see a televised grand prix. Now it's wall-to-wall – and people are not inclined to sit in front of the box for hours on end.

**DB:** Exactly. They can watch our races on TV, but they'll have a second screen, which is part of our race team. They'll be able to see what's going on and there will be a way for them to be involved and vote on stuff as we go along. We will be sharing whatever we learn with people who are part of our community.

**MH:** Fascinating. So has this finally pushed your driving activity into the margins?

DB: As a driver, you're cocooned in that world – which you have to be – but you just don't know how the rest of the world operates. Everyone who reaches the stage of moving from driver to non-driver has said to me: "Don't stop till you absolutely have to, because it's a nightmare on the other side." I can still drive fast and get the job done but I've had to park my career for the past two years to work on this project. MH: The Le Mans connection is interesting because your dad did a bit of that, didn't he? DB: Yeah, he did. With Matra, and in his earlier days, with Stirling Moss in the Aston Martin. Dad hated Le Mans. I've always viewed it quite differently. For me, it's been Mecca. →



MH: I guess winning there must be a big tick in a big box? Allan McNish said: "You win Le Mans and the phone doesn't stop ringing."
DB: Absolutely. I won three in a row, twice with Aston Martin in the GT1 class and then once overall with Peugeot. I had always wondered what was it like to win overall because the feeling when you're a GT driver or a lower-category winner is just amazing, it really is. I remember thinking: 'If it feels this good winning Le Mans in a GT car, what's it like if you win overall?' The following year I got to experience that.

The feeling was exactly the same. But what did change was Monday, because all of a sudden there's all sorts going on. I'd already had a hell of a lead up to Le Mans because I was racing in America for Honda in their LMP1 programme. Then I did three 30-hour tests between February and June. I was knackered by the time I got there. After Le Mans, I had a two-week break before going back for another race in America. I thought I would be able to relax. It didn't



Victory at the 2009 Le Mans 24 Hours, driving for Peugeot, alongside Marc Gené and Alex Wurz

work out that way. We were shipped all over France, going to factories and talking to Peugeot employees about our great win.

**MH:** You've covered a lot of ground in every sense in motorsport. What led to your comparatively brief but eventful time in F1?

**DB:** I got some interest because I'd done very well in F3. Middlebridge approached me about driving for them in F3000 for the 1990 season. I did a deal because they were buying Brabham at the same time and this looked like a great

"In 1990, I was asked to do a grand prix in a Brabham. I just didn't feel prepared. I wasn't fit enough" progression through F3000 and into F1. But then they cancelled the F3000 team and said they were concentrating on F1. The first race was in the USA in Phoenix and they were going there with Stefano Modena and Gregor Foitek.

On the Monday or Tuesday before the race, they rang and asked if I wanted to come and do the grand prix in a Brabham. I just didn't feel prepared. I wasn't fit enough, had never driven the car and I felt I wasn't going to do it justice. So I said no. But it didn't deter them. They were obviously thinking that this guy has his head screwed on and, on top of that, they were obviously hoping the Brabham name would generate PR and bring some added sponsorship. In any case, I no longer had an F3000 seat. I had no option but to become an F1 driver. **MH:** How difficult was that?

**DB:** It wasn't easy. You've got to remember that Brabham were quite an established team. Bernie Ecclestone's people had been there for a while. When I arrived fresh from F3 I got the





impression that half the people wanted me and the other half didn't. They didn't think I was experienced enough and I couldn't argue against that – because I wasn't. At the same time, I hadn't realised that they didn't have any money and that the car was late. I had to try to qualify with 30 cars going for 26 spots. I didn't make all the races – it was as simple as that.

I remember qualifying something like a tenth behind Stefano: he'd be 25th on the grid; I was 27th and out of the race. My idea of what Formula 1 would be like was shattered, because it wasn't like that at all. You see it from a distance and assume everything's rosy and wonderful. Then you get in there and find it's anything but. **MH:** You'd arrived at the wrong moment, I think, because the previous year's Brabham had been pretty competitive at times.

DB: Exactly. The BT58 Martin Brundle drove was a great car. It just worked. I tested it and thought: 'Wow, this is going to be great!' Then we got the BT59 - and it was slower than the 58. But it wasn't just that. I'd turn up at the workshop, thinking the truck would have left for the next race and there's the car still sitting there with no engine in it. The engine bill hadn't been paid. MH: It wasn't doing much for your career, was it? **DB:** No. I had won races and championships. I had been in situations where the whole team would get behind you; that was my environment. Then I went to Brabham and the reality hit home. No money; team politics; all of that. MH: Did your father have any say in all this? **DB:** Even though I had my dad and his experience, he never really got involved. I think he just thought: 'Walk away from this, it's a nightmare.' He could see what was going on but he was helpless to do anything.

**MH:** What happened next?

**DB:** I left. I did a bit of F3000 but, before that, I did the Jaguar XJR-15 race that Tom Walkinshaw was running at Monaco. Those cars looked pretty, but there was no downforce; they were a right handful. You'd be flat-out through the tunnel and the back end would be way out of line. This was someone else's car, worth a quarter of a million quid, but you had to drive it like that. I qualified fourth and finished second, right behind Derek Warwick, and they asked if I'd like to test the XJR-14 prototype sportscar. **MH:** Designed by Ross Brawn. Now that was a proper race car.

**DB:** It was light years ahead of anything else. In fact, I was offered a race seat without the test. I

did the remaining season after Le Mans, driving one car, which might have been Teo Fabi's or Derek's, and then getting out and finishing in the other car. Tom didn't want to pay for four drivers; he'd pay for three!

It was my first proper experience with a professional outfit: good people, good money, great car – one that could win. When I first drove the XJR-14, it blew me away how quick it was. **MH:** You won races and it looked good, but then Jaguar pulled out. That must have been a blow? **DB:** It was. I had an agreement to race again in '92, went on holiday and came back to find it was all over. It left me little time to find anything else. I ended up at Toyota due to tragic circumstances when one of their drivers was killed in Japan. I joined them from Le Mans onwards to do the full programme – which was great.

Saying that, '92 was a difficult year because I lost the hearing in my right ear and then lost my balance completely. I was supposed to be doing an F1 test for Footwork. The next day they rang and said: "Right. Three days in Imola. Let's go." I couldn't walk. I couldn't even lie down without the world spinning. I went to hospital and they said I had an ear infection that should be gone in about ten days. But it wasn't. I didn't tell anyone; you wouldn't be able to get away with that now. But I wasn't going to lose this opportunity with Footwork because I saw it as my last chance of getting back into F1.

I ended up doing a test for them at Silverstone. I couldn't even walk straight. And then, in the car with stiff suspension, everything was all over the place. I was actually really quick in the fast stuff for some reason. But in the slow stuff, as soon as I hit the brakes, the apex was going up and down, up and down. I shouldn't have been driving, but you do desperate things in desperate times. I managed to do enough to convince them that I should continue testing. My hearing came back about 20-30 per cent but my balance was never really back to normal until after 1994.

Simtek. That must have made a difficult season even harder. How did that deal come about in the first place?

**DB:** I was working with a guy called Don Macpherson on sponsorship and stuff and that led to a connection with Nick Wirth. Nick's team, Simtek, were looking for an experienced driver, someone with a name, big ambitions, not much money. It was the last throw at Formula 1, I guess. So you go for it, don't you? →

# Timeline



- 2014 Launches Project Brabham to establish a crowdfunded sportscar team
- 2010 Wins his second straight American Le Mans Series championship in a Patrón Highcroft Racing Acura
- 2009 Claims outright Le Mans 24 Hours victory with Peugeot, after back-to-back GT1 class wins with Aston Martin
- 2004 Founds the Brabham Performance Clinic, which develops the UK Motor Sport Association's young driver development and education programme
- **1997** Returns to prototype sportscars in American Le Mans Series for Panoz
- **1995** Races in the British Touring Car Championship for BMW
- **1994** Completes full season of F1 with Simtek; his best finish is tenth at the Spanish GP
- **1991** Enters World Sportscars with Jaguar, switching to Toyota for 1992
- **1990** Enters F1 driving a Brabham-Judd. Qualifies for eight of 14 races entered; sole finish is 15th at French GP
- 1989 British Formula 3 champion
- 1985
   Makes car-racing debut in Ford Laser

   one-make series in Australia

**MH:** On the surface, it certainly appeared reasonable for a small team. And, to the layman, the car looked half-decent.

**DB:** It wasn't bad, but it wasn't fast. It was a pretty car but the team didn't have the money or the resources to develop it. Nick and I were both 28 at the time and wanted to make the whole thing work. But then we had Imola and losing my team-mate, Roland Ratzenberger; that was a difficult period for us to get through.

MH: I'd say that's an understatement. It must have been particularly difficult for you at Imola because the accident happened during qualifying on the Saturday and you had to deal with the question of whether to race on Sunday in the sister car. On top of that, I'm guessing that this was the first time you'd been so close to a fatality. **DB:** Absolutely. It was my first experience of losing a team-mate. You go through life thinking

# "It was my first experience of losing a team-mate. You just don't know what to do. You really don't"

'It ain't going to happen.' When it does, it shakes you for a while and then it's back to normal soon afterwards. But on Saturday night at Imola, it was the sort of situation where you just don't know what to do. You really don't.
MH: You knew the nose had come off Roland's car and the wing had gone under the front wheels. That must be a driver's worst nightmare.
DB: Yeah, especially at that point at Imola [the fastest part of the track, leading to Tosa]. It was

the worst place for it to happen. So, yes, I knew what had happened. I didn't make a decision until race morning. I saw the modifications they'd done and spoke to the team and to Nick about it. I had to put an element of trust in them. If they'd done all that work and I'd said: "Forget it, I ain't driving," it would have been seen as a way of saying they weren't cutting it.

If I think about my career, all the cars I've driven, and the way I've driven them, I'd never  $\rightarrow$ 





TIMLAYZEL

See the most beautiful, desirable and spectacular cars, including the best British cars ever

# TICKETS ON SALE NOW

WWW.CLASSICANDSPORTSCARSHOW.COM OR CALL 0844 581 1275

PARTNERED BY EFG





### Drivers pay their respects to Ratzenberger and Senna at Monaco in 1994 (left); and Brabham bears the Austrian flag on his roll-hoop in tribute (below)

chicane where Rubens went off, I started to turn the wheel - and nothing. It was: 'Holy shit! Hit the brakes!' I slid into a row of tyres. I didn't damage anything, but I was freaked out at that point. I put my hand up and said: "I've got to get out of this place." I just wanted to go home. When I got back, I saw on Teletext that Ayrton had died. The world turned upside down. I didn't know what to say. I didn't know what to do. MH: Monaco was next - a very subdued weekend - but I do remember seeing the drivers line up at the front of the grid to pay their respects to Roland and Ayrton. We saw the same thing - but done more elaborately - in Hungary in memory of Jules Bianchi. I was wondering how you feel, as a driver, having to go through that sort of thing minutes before a race?

**DB:** Some drivers were more affected than others after Imola. With some, it took a few races to be on the edge again. When you have any mental baggage of that sort, you can't drive as quickly

# "At Imola, my mind was all over the place, but at the same time, it was: 'We're going racing; that's what we do'''

really given much thought to the danger element. I just got on and did it. At Imola, my mind was all over the place both before and during that race, but at the same time it was: 'We're going racing; that's what we do.' For me, it was just a case of 'get on with it'. When we did the warmup, I could see it really lifted the team. That's the reason I drove. It was for the team, not for me. **MH:** You've made this very difficult decision and then a really spooky weekend gets even worse during the race. When Ayrton Senna crashed, were you aware it was him?

**DB:** I thought it was a Tyrrell as I zoomed past. It was a quick corner and we were slowing down because there were yellow flags, but there was a fair amount of dust. I didn't know it was Ayrton until we had stopped back on the grid. **MH:** You must have been glad when that weekend was finally over. **DB:** It certainly raises questions about life, in a way. The thing about that entire weekend at Imola was that people had a strange feeling that they were tapping into before all the chaos happened. It wasn't as if people thought that this was just a normal type of weekend with bad accidents happening. There was an energy about the place that we'd never felt before; as if we were feeling it before it happened – if that makes any sense.

MH: Certainly, a bad feeling grew rapidly, starting with Rubens Barrichello having a massive shunt on the Friday and it seemed to ramp up from there. Perhaps it was noticeable because, normally, Imola was such a fantastic place to be – a weekend we all enjoyed.
DB: I had a steering failure during the race – so that didn't help much, either. I was accelerating out of Rivazza, heading towards the quick



as normal. I think it's a question that needs to be asked because one or two drivers in Hungary made mistakes that you wouldn't normally expect. That's where I think Michael Schumacher was very good because he just didn't let those things affect him. He seemed quite matter of fact about it and didn't allow himself to get too emotionally involved because he was doing what he wanted to do.

**MH:** I guess you'd say you've always managed to do what you wanted to do during a pretty colourful career?

**DB:** It's certainly not been boring. I'm 50 this year. When you get older, you look at things a bit differently. You can't change the past. You've got to take what you can out of it to become a better person in what you do tomorrow.

**MH:** Speaking of which, good luck with the next phase. And thank you. **(**)

# DRIVING INNOVATION FORWARD IN WORKSHOP DESIGN & STORAGE SOLUTIONS

- New race bays
- Machine shops
- Stand-alone workstations
- Mobile storage units
- Workbenches, trolleys & racking for workshops

System Store Solutions are pioneering the latest design and installation of motorsport workshops and transporters to teams in classic/historic racing right through to Formula One.



elf

Providing a total design, layout and installation of storage products from the FAMI range including project management, consultation, technical advice and no obligation site surveys.



SYSTEM STORE SOLUTIONS LTD

aid

Ham Lane, Lenham, Maidstone, Kent ME17 2LH Telephone: 01622 859522



01622 859522 | sales@systemstoresolutions.com | www.system-store.com

Sport

CAPE

# FIRACING SPORTS BAG WHEN YOU SUBSCRIBE TO F1 RACING



ORDER ONLINE AT WWW.themagazineshop.com/tfone-october ORCALL084484888826 Quoting the promotional code M1015P for print only or M1015B for print and digital access. Offer ends 11 October 2015

# **PICK AN EDITION**

# SUBSCRIPTION OFFER



I would like to subscribe to F1 Racing, paying £22.99 every six issues and saving 23% on the cover price. Please send me my FREE F1 Racing sports bag YES

I would like to add digital to my F1 Racing subscription for an additional £2.99 and pay £25.98 every six issues. Please send me my FREE F1 Racing sports bag

### This is a **new subscription** renewal

YOUR DETAILS BLOCK CAPITALS PLEASE (must be completed)

		(moor oo compi	
Mr/Mrs/Ms	First name		
Surname			
Address			
		Postcode	
Telephone			
Email			
Mobile			
	ETAILS bank or building society 1		
To the manager		Banl	
Address			
		Postcode	
Name(s) of accou	Int holder(s)		
Sort code			
			DIRE
Branch/building s	ociety account num	Der	Originators ID No. 8506
Reference numbe	er (for office use only	1)	
Please pay <b>Haymarke</b> instruction, subject to I understand that this	TO YOUR BANK OR E t Media Group Direct Del the safeguards assured instruction may stay with electronically to my bank	bits from the accord by the Direct Deb a <b>Haymarket Me</b> o	ount detailed in this bit Guarantee. <b>dia Group</b> and, if so,
Signature			Date

### PLEASE RETURN THIS FORM TO: F1 Racing, FREEPOST RSBU-TALE-BXJT, PO Box 326 Sittingbourne, Kent ME9 8FA

### For special international rates:

#### Please call +44 (0) 1795 592 990 or visit www.themagazineshop.com Terms and conditions:

This offer is open to UK residents only. Calls cost 7p per minute, plus your phone company's access charge. Overseas rates are available on +44 (0) 1795592 990. Please allow 35 days for delivery of your gift and first issue. The gift will be sent under separate cover from the magazine. Should we run out of gifts, you may be offered an alternative gift – there is no cash alternative. If you subscribe to a bundle offer, you will be emailed instructions on how to access your digital subscriptions within 24 hours of your order being processed. Direct Debit rates are valid for one year after which they are subject to change – should prices change we will inform you in writing. We ask that you enter into a Direct Debit agreement with the intention that your subscription will continue for a minimum period of 12 months, even if the frequency of payment is for a shorter period, however, you will still have the right to cancel your Direct Debit in accordance with Direct Debit Guarantee. Should you wish to cancel your subscription it will be eancelled on expiry of the current term, which will not the gift. Details of the Direct Debit agreement with the is subscription for we reserve the right to request the return of the gift. Details of the Direct Debit (Guarantee are available on request. Savings are based on the standard UK print cover price of £499 and the UK digital cover price of £2.99. Offer ends 11 October 2015. Haymarket Media Group Ltd uses a best-practice layered privacy policy to provide you will details about how we would like to use your presonal information. To read the full privacy policy, please with our website www.hawmarket.com/privacy or call us on 08424 482 800. Please ask if you have any questions as submitting your personal information indicates your consent, for the time being, that we and our partners may contact you about products and services that will be d'interest to you wip post, phone, email and SMS. You can opt out at ANY time by emailing datacontrollereMaymarketcom or by cal

# **PRINT EDITION**

FREE GIFT
 F1 Racing sports bag
 GREAT SAVINGS
 Save 23% on the cover price
 SPREAD THE COST

Pay £22.99 for every six issues

FREE P&P
 Every issue delivered direct to your door
 EXCLUSIVE DEALS

Subscriber-only offers and discounts



# PRINT AND DIGITAL EDITIONS

### • FREE GIFT

F1 Racing sports bag
GREAT SAVINGS

Save 46% on the cover price

### • SPREAD THE COST

Pay £25.98 every six issues

### • UNLIMITED ACCESS

Read wherever and whenever you like

EXCLUSIVE DEALS

Subscribes only offers and discounts

Subscriber-only offers and discounts





# SelectMotorRacing.com

INTERNATIONAL MOTORSPORT EVENTS > RACE TICKETS > HOSPITALITY & TRAVEL

Run by Fans for Fans







0000

UK TRAVEL TEAM:+44 (0) 1451 833 721

BOOK ONLINE: enquiry@selectmotorracing.com





# No post-holiday blues for Lewis

Hamilton's march towards a third championship continues as he comfortably takes his sixth win of the season in a race overshadowed by Pirelli tyre furore

### REPORTS



### **104** BELGIAN GP REPORT Another Mercedes one-two, with Lewis

Hamilton extending his championship lead

### OPINION

**112** INBOX

Continued debate about what could be done to make F1 even better. Some people think it's unimprovable...

### PREVIEWS

00



**108** SINGAPORE GP PREVIEW A revised series of corners, from Turn 10 to Turn 13, could boost overtaking



**110** JAPANESE GP PREVIEW Drivers and fans unite in their love of this classic figure-of-eight challenge



**114** MURRAY WALKER Why we must try to make motorsport safer,

while accepting it can never be totally so

FINISHING STRAIGHT

# RACE DEBRIEF by James Roberts

# **Belgian Grand Prix**

23.08.2015 / Spa-Francor<u>champs</u>



# Vettel's explosion of emotion

The Ferrari racer fumes after a high-speed Pirelli puncture ruins his chances of a podium finish

**It was a weekend of contrasts.** After a lengthy summer break, F1 rolled into the lush Ardennes forest to commence the second half of the championship. Twinned with Monza, Spa signals the end of the European season, before the seven long-haul trips that finish the year.

While the paddock shared tales of their holidays, it was the two Mercedes drivers whose breaks had taken them in the most divergent directions. Lewis Hamilton had been photographed enjoying himself at a Caribbean carnival, dancing and smoking cigars, while meeting Hollywood stars at various celebrity bashes Stateside. In contrast, Nico Rosberg had remained at home with his pregnant wife, Vivian, as they prepared for the birth of their first child.

Clearly the summer break had no detrimental effect on performance, as Hamilton comfortably won the Belgian GP, his sixth victory of the year, to extend his world championship lead. Rosberg recovered from a poor start (the first without any radio advice from engineers) to finish in his team-mate's wheel tracks, 2.058s behind.

On Friday afternoon, watching from the outside of Pouhon, it was clear that Mercedes,

running with a new, distinctive, low-downforce bowed rear wing, were once again the class of the field, with both drivers hugging the inside of the first apex kerb with ease.

On an untypically hot and sunny afternoon at Spa, FP2 was suddenly brought to a halt with the appearance of a red flag. Nico Rosberg had spun violently while heading uphill at almost 200mph

Vettel post-race: "What's upsetting for one thing is the result. We deserved to finish on the podium"



towards the awesomely quick Blanchimont corner. His Mercedes suffered a right-rear puncture and thankfully he came to a halt before he hit the barriers.

Back in the pits, watching on a monitor while strapped into his McLaren, Jenson Button coolly remarked over his team radio "Very Mansellesque," as he watched the replay show rubber fly up into the air in an explosion reminiscent of the title-deciding tyre failure from Adelaide 1986.

After a full investigation, Pirelli revealed there were "no signs of a structural integrity issue" with Rosberg's right-rear and that an "external cut" had been the root cause of the problem. What caused the cut was not known and despite Rosberg's denials, the speculation was that he'd run wide and inflicted kerb damage.

Fast-forward 48 hours and another right-rear failure was to cause even greater controversy. After qualifying eighth, Sebastian Vettel was on a damage-limitation exercise, driving a one-stop strategy – the only driver in the field to attempt such a feat – and after pitting to replace his softs on lap 14, he was planning to run to the finish on medium tyres. On lap 42, running third, his race ended as his right-rear exploded heading along the Kemmel Straight. Had it happened 200 metres earlier, he would have been in the middle of Eau Rouge. Like Rosberg on Friday, he was lucky not to hit anything.

Vettel was fuming afterwards, launching a furious tirade to the TV cameras, and leaving Spa before fulfilling his commitments to the print media. Post-race, a packed Ferrari motorhome didn't get the chance to hear his thoughts. This is what he said to the BBC: "I tell you what's upsetting. What's upsetting for one thing is the result. We deserved to finish on the podium. The other thing, like I said, if this happens earlier...

"But what's the answer [from Pirelli]? Same as every time: 'Yeah, there was a cut, debris, maybe something was wrong with the bodywork, maybe the driver went wide,' ...I didn't go off the track and out of the blue the tyre exploded."

Pirelli's Paul Hembery gave Vettel the benefit of the doubt: "He's angry that he didn't get the result he wanted – he was only one lap away. But the race was pretty straightforward for everybody, apart from one car."

Just before midnight Sunday, Pirelli put out a statement revealing they'd requested a rule change to cap the maximum number of laps that could be driven on one set of tyres. The proposal put forward a maximum distance equivalent to 50 per cent of a race distance for a prime tyre (medium) and 30 per cent for the option (soft). That would have capped the medium compound to 22 laps at Spa. Vettel was attempting 29 laps.

The beneficiary in all of this was Romain Grosjean, who took the final podium spot. An early contender for 'best of the rest' had been Sergio Pérez, who nearly snatched the lead from Hamilton on the opening lap. But he couldn't maintain the pace and faded to fifth at the flag. Williams' Valtteri Bottas started third but was penalised after the team fitted three option tyres and one prime to his car, ending up ninth.

So Grosjean took third – his first podium since the 2013 United States GP. Once again it was a weekend of contrasts for Lotus. On Thursday evening the team were visited by bailiffs looking to impound their cars, due to a legal dispute with former test driver Charles Pic. But the result brought redemption for Grosjean, who was banned after his first-lap shunt here in 2012.

"It's no secret that since that day I've been working with a psychologist specialising in sport," said Grosjean. "I'm working to try to overcome problems, being a racing driver, a father, focusing on the right things. All these things help you to understand and to pull out some performances as we did today."

A happy camp in one corner; fury in the other; Spa never fails to deliver a weekend of mixed, highly-charged emotions. **(2)** 



# FINISHING STRAIGHT **Belgian Grand Prix stats**

The lowdown on everything you need to know from the weekend at Spa-Francorchamps...

### THE GRID





4. PÉREZ FORCE INDIA 1min 48.599secs Q3



WILLIAMS 1min 48.685secs Q3

8. VETTEL FERRARI 1min 48.825secs Q3



10. SAINZ TORO ROSSO 1min 49.771secs Q3



RED BULL 1min 49.228secs Q2

14. NASR SAUBER 1min 49.952secs Q2



NO TIME IN Q2

18. VERSTAPPEN\*\* TORO ROSSO NO TIME IN Q2



\*Includes five-place grid penalty for replacement gearbox \*\*Includes ten-place grid penalty for use of a sixth power unit \*\*\*Includes two 25-place grid penaltif for first time inith and eighth and eighth and seventh, power unit elements are used \*\*\*\*Includes 30- and 25-place grid penalties for first time eighth and seventh, and seventh and sixth, power unit elements are used

### THE RACE

1. HAMILTON MERCEDES 1min 47.197secs Q3

3. BOTTAS

WILLIAMS 1min 48.537secs Q3

5. RICCIARDO RED BULL 1min 48.639secs Q3

7. MALDONADO

LOTUS 1min 48.754secs Q3

9. GROSJEAN\* LOTUS 1min 48.561secs Q3

**11. HÜLKENBERG** FORCE INDIA 1min 49.121secs 02

13. ERICSSON

SAUBER 1min 49.586secs Q2

15. STEVENS MANOR 1min 52.948secs Q1

17. MERHI MANOR 1min 53.099secs Q1

19. BUTTON\*\*\* McI AREN

1min 50.978secs Q1



THE	RESULIS (43 LAPS)	
lst	Lewis Hamilton Mercedes	1h 23m 40.387s
2nd	Nico Rosberg Mercedes	+2.058s
3rd	Romain Grosjean Lotus	+37.988s
4th	Daniil Kvyat Red Bull	+45.692s
5th	Sergio Pérez Force India	+53.997s
6th	Felipe Massa Williams	+55.283s
7th	Kimi Räikkönen Ferrari	+55.703s
8th	Max Verstappen Toro Rosso	+56.076s
9th	Valtteri Bottas Williams	+61.040s
10th	Marcus Ericsson Sauber	+91.234s
11th	Felipe Nasr Sauber	+102.311s
12th	Sebastian Vettel Ferrari	+1 lap – tyre
13th	Fernando Alonso McLaren	+1 lap
14th	Jenson Button McLaren	+1 lap
15th	Roberto Merhi Manor	+1 lap
16th	Will Stevens Manor	+1 lap

### Retirements

Carlos Sainz Toro Rosso	32 laps – power unit
Daniel Ricciardo Red Bull	19 laps – electrical
Pastor Maldonado Lotus	2 laps – transmission

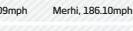
### Did not start

Nico Hülkenberg Force India 0 laps - power unit

### THROUGH SPEED TRAP (QUALIFYING)



Fastest: Nico Rosberg, 197.09mph



Slowest: Roberto

### TYRE COMPOUNDS USED





Medium Intermediate Wet

### CLIMATE

Sunr





Nico Rosberg, Iap 34, 1min 52.416secs



Lewis Hamilton, 22.403secs (entry to exit)

### **DRIVERS' STANDINGS**

lst	Lewis Hamilton Mercedes	227pts
2nd	Nico Rosberg Mercedes	199pts
3rd	Sebastian Vettel Ferrari	160pts
4th	Kimi Räikkönen Ferrari	82pts
5th	Felipe Massa Williams	82pts
6th	Valtteri Bottas Williams	79pts
7th	Daniil Kvyat Red Bull	57pts
8th	Daniel Ricciardo Red Bull	51pts
9th	Romain Grosjean Lotus	38pts
10th	Max Verstappen Toro Rosso	26pts
llth	Sergio Pérez Force India	25pts
12th	Nico Hülkenberg Force India	24pts
13th	Felipe Nasr Sauber	16pts
14th	Pastor Maldonado Lotus	12pts
15th	Fernando Alonso McLaren	llpts
16th	Carlos Sainz Toro Rosso	9pts
17th	Marcus Ericsson Sauber	6pts
18th	Jenson Button McLaren	6pts
19th	Roberto Merhi Manor	Opts
20th	Will Stevens Manor	Opts
21st	Kevin Magnussen McLaren	Opts

### CONSTRUCTORS' STANDINGS

lst	Mercedes	426pts	9th McLaren	17pts
2nd	Ferrari	242pts	10th Manor	Opts
3rd	Williams	161pts		
4th	Red Bull	108pts		
5th	Lotus	50pts	FORIX	
6th	Force India	49pts	For comprehens	sivo
7th	Toro Rosso	35pts	F1 statistics vis	
8th	Sauber	23pts	www.forix.com	



# Ever thought about the morning after?

If you drank 4 pints between 9pm and midnight, you could still be over the limit until 11am the following day\*. That's why almost 1 in 5 drink drive accidents happen the "morning after"\*\*.

AlcoSense quickly and accurately shows your alcohol level, so you know when you're clear. Keep you and your loved ones safe this season, order yours today.



Available nationwide at Halfords & in selected Boots Stores. Find your local outlet at alcosense.co.uk/dealer-location/



### \*\* 17.1% of drink drive accidents are between hours of 5am and 1pm (Source: Dept. for Transport, Road Accidents and Safety Annual Report 2010)

\* 4 Pints of Abbot Reserve contain 14.8 units of alcohol (Source: Greene King) and each unit takes 1 hour to leave the body (Source: NHS). Therefore 14.8 hours after 9pm the alcohol will have passed from the body.

FINISHING STRAIGHT

6...

# The Singapore GP preview

Round 13 / 18-20 September 2015 / Marina Bay, Singapore



# RACE NOTES: BRIGHT LIGHTS AND THE HEAT OF THE NIGHT

A challenge in its own right, the Marina Bay Street Circuit piles pressure on its competitors by having them race in artificial light

Now in its eighth year, Formula 1's original night race has become a popular and well-established fixture on the calendar, and poses a different sort of test for the drivers.

Mastering the Marina Bay Street Circuit's 23 corners and avoiding the unforgiving walls is already a massive challenge, but the extreme humidity and the unforgiving flare from the artificial lights that illuminate the track put Singapore in a league of its own. Precision and the ability to keep calm under pressure are key.

Just three drivers have won in Singapore: Sebastian Vettel has a hat trick of victories, and Fernando Alonso and Lewis Hamilton each have a pair. And that trio have led 387 of the 424 racing laps in the seven previous races.

Predictably for such a tight street circuit, overtaking is tricky, and five of the races have been won from pole.



Sebastian Vettel has won at the Marina Bay Street Circuit on three occasions

### SINGAPORE GP RACE DATA

Circuit Name Marina Bay Street Circuit First GP 2008 F1 races held 7 Circuit length 3.147 miles Race distance 191.896 miles (61 laps) Direction Anticlockwise Winners from pole 5

### TV TIMETABLE (UK TIME)

Friday 18 September Practice 1 11:00-12:30 Practice 2 14:30-16:00 Saturday 19 September Practice 3 11:00-12:00 Qualifying 14:00-15:00 Sunday 20 September Race 13:00 Live coverage Sky Sports F1 Highlights BBC

### PACE NOTES: THE KEYS TO SUCCESS

### It's a scorcher

High humidity in Singapore makes this a real test for drivers and teams. However, the low-grip surface means tyre degredation isn't an issue.

### Pity the fuel

The stop-start nature of the circuit means high fuel consumption, an issue heightened by the race usually running close to the two-hour time limit.

### Get set to slow down

The Safety Car has been used in all seven races here, so teams must base strategies around it – and be prepared for their plans to be disrupted.

### Key corner

Redevelopment of Singapore's civic district means Turns 10, 11, 12 and 13 have been tweaked this year. That includes the widening of the Turn 13 hairpin, potentially creating more overtaking.

### WHAT HAPPENED IN LAST YEAR'S RACE ...?

Winner Lewis Hamilton Margin of victory 13.534s Fastest lap 1m 50.417s, L Hamilton Safety Cars 1 Race leaders 3 Pitstops 54 Overtakes 39

108



An electronics failure on Nico Rosberg's Mercedes should have allowed Lewis Hamilton to cruise to victory, but a late Safety Car made things that little bit more difficult for him as he was forced to overtake Sebastian Vettel on track to take the honours. Vettel's Red Bull team-mate Daniel Ricciardo edged Fernando Alonso for third.





### **Racing Car Simulator Hire / Sales**

Corporate Events | Product Launches | Trade Shows | Team Building | Driver Training | and more



# Start your engines!

ye a th e

Radical Simulation literally puts you, your employees, colleagues and clients in the driving seat for the most exhilarating and enjoyable car racing simulation you'll ever experience.

# Bringing the action to you!

www.radicalsimulation.com

(E) info@radicalsimulation.com

(T) +44 (0)7891 235475



# The Japanese GP preview

Round 14 / 25-27 September 2015 / Suzuka, Japan

### JAPANESE GP RACE DATA

Circuit Name Suzuka International Racing Course First GP 1987 F1 races held 26 Circuit length 3.608 miles Race distance 191.053 miles (53 laps) Direction Clockwise and anticlockwise Winners from pole 12

### TV TIMETABLE (UK TIME)

Friday 25 September Practice 1 02:00-03:30 Practice 2 06:00-07:30 Saturday 26 September Practice 3 04:00-05:00 Qualifying 07:00-08:00 Sunday 27 September Race 06:00 Live coverage BBC and Sky Sports F1

# RACE NOTES: THE PRESSURE IS ON HONDA AT THEIR HOME RACE

The enthusiastic home fans will have high hopes of McLaren's engine partner Honda as F1 heads to the popular Suzuka circuit

With its daunting figure-of-eight circuit, much loved by drivers, and some of the most passionate fans of the year packing the grandstands, the Japanese GP at Suzuka is usually one of the most eagerly anticipated races of the season. But this year's event is likely to be a subdued affair following Jules Bianchi's death in July, a result of the injuries he sustained in a crash at Suzuka last year.

This is a fast, flowing circuit, which rewards cars with strong, stable aerodynamics and good engine power. With overtaking proving very difficult here, qualifying and race strategy are the keys to success.

The focus of the home crowd this year will be firmly on McLaren-Honda, and there will be plenty of pressure on the returning Japanese engine manufacturer to pull out a good result at the circuit they own.



Honda are set to make their first F1 race appearance at Suzuka since 2008

### PACE NOTES: THE KEYS TO SUCCESS

18

### Lateral thinking

A string of fast, flowing corners and only short straights puts tyres under constant and severe lateral loads. Even after a recent track resurfacing, this will still be a tough test for the rubber.

### Soaring stress levels

This high-speed circuit also emphasises engine power. Cars must be set up with high downforce and stiff suspension to make them stable and responsive in corners – especially the first sector.

### Overtaking isn't easy

The lack of straights and limited heavy braking, means DRS is less effective here and overtaking is tough. Qualifying and race strategy are key.

### Key corner

T1 is a tricky right-hander, but as Lewis proved in 2014, overtaking is possible here if you're brave.

### WHAT HAPPENED IN LAST YEAR'S RACE ...?

Winner Lewis Hamilton Margin of victory 9.180 secs Fastest lap 1m 51.600s, L Hamilton Safety Cars 2 Race leaders 2 Pitstops 79 Overtakes 23



The race was overshadowed by Jules Bianchi's tragic accident on lap 42. The Marussia racer went off the road in heavy rain, striking a crane recovering Adrian Sutil's car. Bianchi was severely injured, and died from his injuries in July this year. Lewis Hamilton won a subdued race, having passed team-mate Nico Rosberg around the outside of Turn 1.

# NEW CAR PROTECTION



### Ordering a new car this September?

Book a new car protection service with one of our skilled, proven, and insured detailers in advance. Our members use the latest products and methods to ensure your paintwork, wheels, leather, and fabrics stay looking showroom fresh and resist stains for the future. Our independent detailers usually charge less than main dealers, and as they are car care experts, do a much better job. Many of our members can also liaise directly with your dealer

to organise the treatments prior to taking delivery.

### Find your nearest Pro Valeters & Detailers





@F1Racing\_mag

facebook.com/flracingmag

letters.f1racing@haymarket.com

F1 Racing, Teddington Studios, Broom Road, Teddington Middlesex TW11 9BE



### What's everyone complaining about?

Having just finished last month's F1 Racing magazine, I have to say there seems to be a variety of differing opinions over the so-called problems in F1 – financial, social media, fuel stops, etc.

It all leaves me perplexed. I succumbed to a dish on my house only once the BBC lost the all-live coverage. I returned from Silverstone this year, elated from the weekend, and watched the race I'd recorded again later in the week. I then watched the whole Hungarian GP weekend live on Sky TV, with world champions and British legends as pundits, my laptop showing live timing and an iPad showing driver cams.

I compare this to the first GP I went to, which was Brands Hatch in 1976. There were no big screens and it was too loud to hear a commentary – although the sweet sound of the Ferrari made up for this.

I can't describe what makes me follow F1, but I say this: there isn't much wrong with it. Long live F1!

### **Gary Brooks** By email





Gary Brooks wins a Silverstone Single-Seater Experience. For more details, visit www.silverstone.co.uk/ experiences. Hotline number: 0844 3728 270



### How to attract the other half

There's been a lot of talk about F1's various problems, including the desire to attract new fans.

Well, there's one huge group of people who aren't being attracted to F1: women make up about 50 per cent of the population, yet only 7.8 per cent of the respondents in your global fan survey (*F1 Racing*, August) were female. There's no reason women shouldn't enjoy this exciting and fascinating sport. So why aren't they watching it?

It might have something to do with the fact that at every race, conventionally attractive women are expected to stand, heavily made-up, in tiny skirts, applauding the achievements of men, then wait on a podium for these same men to soak their already skimpy clothing in champagne.

The best way to attract more female fans would be to have more women in the sport. But to have the skill and the passion to compete at the highest levels, you have to have been a fan from a young age and you have to be driven to succeed and to excel in the sport. So until there are more female fans, there won't be more women involved.

The best thing that could be done right now to encourage the other 50 per cent of the population to join in the fun is to get rid of the grid girls – or at least use equal numbers of men and women for this rather bizarre and superfluous job. Juliette Harrisson By email

### What's happening at the back?

We know quite a lot about the 'top' drivers, and we see much from the 'top' teams but we rarely hear the mutterings that emanate from within Lotus, Force India, Sauber, Manor Marussia, or Toro Rosso. I appreciate that these guys may be further down the track (and clearly considered less important by some), but we seldom even see their cars during a race unless they are moving off the racing line and allowing the front-runners to scream past.

Correct me if I'm wrong, but these cars are still running, and are indeed fighting for potential points in the same race. Why is it then that by the time the leaders want to get past, these racers are assumed to be insignificant to those watching?

I appreciate that advertisers might not yet entirely agree, but racing among players further down the field is actually often more interesting to watch. Cars and drivers are generally more evenly matched and just as exciting. If they were given more coverage, it might lead to more outside sponsorship if they are seen to be getting a fairer proportion of the air time.

As Jules Bianchi proved before we lost him, every point is valuable to every driver and critical to every team. We will never see, and can only imagine, what his true potential would have been. Clearly, from the tributes that flooded in, many knew he was destined for greatness. Had we concentrated more time on those fighting further down the track, more of us would have been aware of that. **Mike Caddick-Adams By email** 

### **Magical Monza**

I've never been to Monza, I've never been to Italy, but I found Richard Williams' piece on Monza in your September issue, 'Why F1 Needs Monza', evocative and compelling.

Monza exudes emotion. It has a history and heritage that is in danger of being stripped from Formula 1 in the pursuit of money, something Bernie and CVC have quite enough of as it is. Monza deserves a special seat at F1's top table in much the same way that Monaco does. Jon Wills Hampshire, UK

### GET F1 RACING WHEREVER YOU ARE

### Book of the month

I thoroughly enjoyed Peter Windsor's August column about Mark Donohue. And, since I greatly respect Mr Windsor's insights both in print and previously on US television, I paid attention when he stated that Mark's autobiography, *The Unfair Advantage*, is "the best book ever written about our sport".

It is a terrific read. If you enjoy auto racing in many forms, this book is positively fascinating. There is very little personal information; it's all about the cars Mark drove, and the people he encountered. Great stuff! Thank you, Peter. **Tom Guilfoyle** 

Pennsylvania, USA

### Mixing it with the stars

There's been a lot of discussion about what we can do to improve the F1 show, with ideas ranging from bringing in louder engines to reintroducing refuelling and wider tyres. All these ideas may help to increase interest in F1 but I think we are missing the point of what real fans want. Fans simply want to see the stars and their cars.

I have followed this great sport for nearly 40 years and what I think is missing is the access to the drivers and the cars. What about opening up the pits to certain people before and after each session at a race weekend? When you buy a ticket for the race weekend your number should be put into a draw, and if your name is pulled out you get to meet the drivers and cars in the pits. Would this not be a great way of encouraging more ticket sales if it were promoted correctly?

Also, how about having specific autograph sessions with the drivers at every race? I refer to the May edition of *F1 Racing* where Daniel Riccardo was posing for selfies and signing autographs with the fans – how great was that?

So please F1, let the real fans get up close and personal. Paul Bishop Bristol, UK

### A few quick fixes

It's no secret that F1 needs fixing. Most races are now fuel- and tyremanagement exercises. Costs are impossibly out of control. Imagine the differences if Formula 1 were to:

1) Eliminate all fuel restrictions. Allow cars to carry enough fuel to race flat-out on every lap. Fans want to see drivers on the limit, not carefully managing fuel or tyres.

2) Eliminate all aero attachments except for a single-plane wing front and rear. Aerodynamic devices have little or no impact on road cars and as Niki Lauda has stated: "Aerodynamics have ruined F1."

3) Ban windtunnels. This will reduce costs.

4) Design tyres that will last an entire race, but require one mandatory pitstop after the first third of the race.

5) Allow 40 days of testing per season. The current regulations prevent car development, which stagnates competition. Scott Probst California, USA



Fans care most about the drivers and the cars. So why not grant fans greater access to their heroes and hold autograph sessions at every race?

### Exclusive stories, unrivalled F1 coverage – wherever you are in the world



- Read it on your PC, Mac or iPad
- Identical to print edition
- On sale the same day as the print edition

FULL

DIGITAL

EDITION

ON SALE

GO TO www.flracing.co.uk/digital-edition/

# NEXT MONTH...



### FERNANDO ALONSO

Exclusive interview: we talk to the double world champion about his ongoing passion for Formula 1

> Sergio Pérez in Mexico: the Force India ace on his home GP

- > Lotus racer Pastor Maldonado answers your questions
- > Maurice Hamilton chats to ex-Williams man Thierry Boutsen

**SSUE ON SALE 8 OCTOBER\*** 

CHEQUERED FLAG

MURRAY

### UNLESS I'M VERY MUCH MISTAKEN...

# "Jules Bianchi's death is a tragic reminder that motorsport is dangerous. Always has been; always will be."

I need no reminding of this for, as a child, I used to accompany my parents to the notoriously demanding TT motorcycle races on the Isle of Man, where I regarded the stars who stayed with us at the Castle Mona Hotel as my uncles.

It was not unknown for one of them to come down to breakfast in his leathers, and then fail to return from that day's racing. More than 200 riders have lost their lives at the TT since it began 108 years ago and, according to my research, at least 50 drivers have perished in Formula 1 since the world championship began at Silverstone in 1950. Over the course of his racing career, Sir Jackie Stewart lost many of his racing friends and colleagues, including two of the greatest world champions, Jim Clark and Jochen Rindt, and Stewart's Tyrrell team-mate, the charismatic Frenchman François Cevert.

How can anyone cope with that? Why do they so enthusiastically compete in a sport that can have such severe consequences? Why do they even return after suffering serious injuries? The simple answer is that they are a very special breed, quite unlike the rest of us. They are ultra-



"With Jules and all his predecessors who paid the ultimate price in mind, let us continue to strive to make motorsport ever safer" competitive achievers who believe that they are the best and who devote themselves to doing whatever it takes to prove it, regardless of the potential consequences. The charge they get from striving to win, coupled with the satisfaction of getting the best out of the machinery and beating their rivals is addictive.

WALKER

Yes, if they reach the top the money is massive, but that isn't why they started out. It was the desire to compete, to win and to be the best. None of them do so in the belief that they will die in the process, although all must accept that it is a possibility. But that is something that happens to other people, not to you, isn't it? The lure of success is greater than the fear of death.

Motorsport in general, and F1 in particular, is infinitely safer than it used to be. Gone are the days of flimsy deathtraps of cars and drivers who didn't wear fireproof clothing, helmets, safety belts or HANS devices. Gone are inadequate medical facilities and circuits with no run-off areas or barriers. In the old days, when the attitude was 'the throttle works both ways and if you can't take the heat keep out of the kitchen', it was Jackie Stewart who fought for increased safety in F1 and was vilified for his efforts.

Over the years, the FIA, pushed by Bernie Ecclestone, Max Mosley and the late Professor Sid Watkins, generated safety changes that have improved things beyond recognition. But even so, with determined men fighting for supremacy, wheel-to-wheel in 200mph projectiles, there will be times when something goes wrong and when all the precautions in the world are not enough.

The wisdom of hindsight screams out that the recovery vehicle Bianchi collided with at Suzuka should never have been there, so thank heavens that possibility has been reduced thanks to the introduction of the Virtual Safety Car.

There are those who say that motor racing should be stopped because it is dangerous. To them I say that the time when we cease to do things because they are dangerous is the time for us all to give up. Would they stop people climbing mountains? Cycling? Fishing? Crossing the road? Motorsport will always be dangerous so, with Jules and all his predecessors who paid the ultimate price in mind, let us continue to strive to make it ever safer, with the knowledge and acceptance that it can never be totally so. **(2)** 

# James Anderson England's No.1 wicket taker of all time\*

"Wellman" Skin Technology keeps my skin refreshed, energised and protected."

James

# NUTRIENT SKIN THERAPY

### Wellman<sup>®</sup> Skin Technology

- Dynamic performance for male skin
- Formulated by Vitabiotics scientific experts using Advanced Research in Male Skincare (ARMS<sup>®</sup>)
- Concentrated nutrient and botanical skin complexes
- Energise and rejuvenate your skin



anti-ageing moisturiser under eye serum

vellmai

Advanced Research Male Skincar vitaBiotics

facial scrub

wellman

face scrub

TRAS



Invigorate & hydrate

wellman

body wash

Male Skincare

face wash



Nutrient Skin Therapy available from<sup>†</sup>

\*England's all time highest international wicket-taker, 384 test wickets correct at 17 Apr 2015. Source: www.jamesanderson613.com \*\*UK's No1 men's supplement brand. Source: Nielsen GB ScanTrack Total Coverage Value Sales 52 w/e 25th April 2015. †Available from larger Boots stores, subject to availability.



# THE ALL NEW LEON ST CUPRA 280 CAPABLE, WHICHEVER WAY YOU LOOK AT IT

TECHNOLOGY TO ENJOY

4590 GVA



Standard EU test figures for comparative purposes and may not reflect real driving results. Model shown is a Leon ST CUPRA 280 with optional Sub8 Performance Pack, CUPRA Black-Line and Nevada white metallic paint.

Official fuel consumption for the SEAT Leon ST CUPRA in mpg (litres per 100km); urban 32.1 (8.8) - 33.6 (8.4); extra-urban 50.4 (5.6) - 49.6 (6.6); combined 42.2 (6.7) - 42.8 (6.6).  $CO_2$  emissions 157 - 154 g/km.

FOLLOW US ON: E SEAT.CO.UK