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AUTOSPORT

F1 2018

CAN ANYONE STOP MERCEDES?

**What we learned
from the chaotic
first test**

**Red Bull's fear of
Renault let-down**

**Ferrari fighting
with new concept**

**Honda's nightmare
may finally be over**





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Will Ferrari or Red Bull catch Hamilton's Merc?

THANKS TO THE WEATHER, THE FIRST PRE-SEASON

Formula 1 test at Barcelona proved even more difficult to read than usual. Autosport's technical expert Gary Anderson thinks it could be the hardest test he's ever known.

We've nevertheless done our best to piece together a picture of how the 2018 field is shaping up. It's no surprise that Mercedes looks strong. As the benchmark of the turbo-hybrid era, it would be a major shock if the Silver Arrows were to miss the target. The main interest is who looks best-placed to challenge them.

Ferrari and Red Bull are the most obvious candidates, but both have question marks. The Italian team didn't make as much progress during the first test as you might expect and didn't show the flashes of pace that we all hope to see in the second test this week.

As Anderson shows with his adjusted lap times (page 24), Red Bull's pace looked more impressive, but Renault could still be a limiting factor. On page 26, Edd Straw delves more deeply into the engine that Red Bull, McLaren and the Renault factory squad will be using.

Outside of F1, there are impressive new cars from IndyCar and Formula E. Both categories are keen not to get carried away with chasing too much downforce, which the DTM has decided to cut back for this season too (p9). Major championships are looking at cutting pace to improve the show at just the time F1 has probably produced the fastest racing cars in history. Let's just hope the efforts of the top teams to catch Mercedes mean we get good competition anyway.



KEVIN TURNER EDITOR

kevin.turner@autosport.com

@KRT917



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Andy Hone/LAT Images

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FORMULAE

Gen2 'Batmobile' raises

FORMULA E'S NEW GEN2 CAR, WHICH launched earlier this week at the Geneva International Motor Show and will make its debut in the 2018/19 season, has been labelled the 'Batmobile' because of its dramatic looks. But its most significant developments have taken place beneath the aggressively-styled bodywork.

Foremost among these is the increase in size, capacity and efficiency of the car's battery, which will allow events to be run without the need for a mid-race car swap. The new energy store has been designed by McLaren Applied Technologies to a strict FIA specification and will replace the Williams Advanced Engineering pack that has been used since the start of the championship.

Weighing 385kg, it is both larger and heavier than the current energy store and remains positioned behind the driver. Its peak output of 900 volts is an increase of 200 over the existing technology and it will permit peak qualifying power of 250kW – approximately 330bhp.

More significant than the energy figures themselves, however, is the effect that a full-race battery will have on the racing and the future participation of certain car manufacturers.

While car swaps have become something of

a crowd-pleaser and have added a degree of unpredictability to each ePrix, critics have argued that they highlight existing public 'range anxiety' with regard to electric cars. That has made a number of 'premium' manufacturers hesitant about joining the series – among them BMW. Despite supporting the championship from the outset with its i3 and i8 models being used as FE's medical and safety cars, it has so far declined to enter a works team – although it has been a technical partner of the Andretti squad since the 2016/17 season. That hesitancy is about to end, however, thanks to the longer-life battery and it will enter for season five, to be followed by Porsche in season six, with Mercedes also committed to enter that year. Nissan also confirmed its entry for season five in Geneva and it will replace its alliance partner Renault, which is leaving to focus on its works Formula 1 team.

FIA technical director Gilles Simon, who wrote the season-five technical template, said: "One limitation of electric vehicle technology is battery capacity, so evolving the capacity seems to be very logical – we will be tracking the industry with Formula E's own evolution."

Simon added that a key aspect of MAT's



A robot arm from FE sponsor ABB helped remove the covers from the Gen2 car



Nissan revealed its season-five livery in Geneva



The new car's halo will give race info

electric game

successful tender was its familiarity with the particular demands of motorsport, especially in the areas of packaging and the need for components to be robust enough to survive competition use.

"The lithium cells that are used are very sensitive to temperature," Simon added, "so temperature control is very important. If the batteries are too cool then efficiency is not optimised; too hot and the output life and efficiency are not so good. Homogeneous cooling of the cells is a big challenge."

And that's where the aerodynamic aspects of the Gen2 car come to the fore. While the visual appeal of a clever styling exercise is extremely important for a race series that's trying to grow its fan base, the technical efficacy of the surface areas [for cooling] and underbody [for downforce] are paramount.

Techeetah team boss Mark Preston, an ex-senior F1 engineer, said the logic of the low-drag aerodynamic thinking inherent to the Gen2 design should be applauded. "This is a car that has downforce largely from the floor and rear diffuser," he said, "and minimal frontal area. That's the way to go for an electric

vehicle — there's almost no drag and you have high aerodynamic efficiency. And they've done an amazing job — it looks really good."

The chassis — the SRT05e — will be built by Spark Racing Technology, in collaboration with Italian chassis manufacturers Dallara and other technical partners. Michelin will continue to supply the all-weather tyres that are another of the series' hallmarks, while Brembo is the brake supplier.

Another immediately apparent development for Gen2 is the incorporation of a halo device, of identical specification to those already seen in F1 and Formula 2. On the show car launched in Geneva, a strip of LED lights had been built into the halo's leading edge and these are likely to be used to indicate battery status during races.

Elsewhere around the chassis, existing safety components such as rear and side-impact structures have been carried over from the original car. Audi team boss Allan McNish said they will continue to provide much-needed driver protection for a street-circuit-only series.

"These are 900kg cars with a potential top speed of more than 170mph," he explained. "So in a crash that's a lot of energy to disperse. We

know that this is a championship where the drivers like to get up close and personal when they're racing and that inevitably leads to contact. And a concrete wall is always going to be a concrete wall when you hit it."

Jaguar driver and inaugural Formula E champion Nelson Piquet Jr cautioned that whatever the aesthetic benefits of the Gen2 bodywork, the sheer extent of elaborately-shaped carbon parts attached to the chassis could lead to problems during races.

"It's a contact sport," he said, "and we're always running really close to each other. With the huge diffuser at the back and a bunch of bodywork on the side of the car, we might find aero pieces flying everywhere. The car looks very good, but are we going to have a safety car every three laps to remove track debris?"

The first shakedown tests for the car are scheduled for later this month, with more to follow in April.

Formula E CEO Alejandro Agag could scarcely hold higher ambition for what it represents. "This is more than a car," he said. "This is a weapon against climate change."

ANTHONY ROWLINSON

FORMULA 1

WHAT F1 CAN LEARN FROM ENGLISH FOOTBALL

IT'S ALWAYS INTERESTING TO hear different points of view from outside the sport on what's good and bad in the world of Formula 1. Recently, during a Sports Industry Breakfast Club event in London, Steve Parish, the chairman of English Premier League football club Crystal Palace FC, spelled out why the EPL must maintain its current distribution model of commercial revenues.

This has small increments between the winners and the team finishing in 20th – and Parish used F1 as a case study of how a competitive organisation should not be run commercially.

The EPL is in the middle of its richest-ever TV rights deal and a new round of negotiation, for rights due to start in the 2019/20 season, was recently concluded with Sky and BT Sport paying £4.46billion for three seasons for domestic UK rights alone. At £1.6bn a season, that's almost three times as much as the global TV rights F1 yields annually.

Arguing that the relatively level playing field in payments has helped make the Premier League exciting – it's not uncommon for a team like Crystal Palace to beat a Manchester United or an Arsenal once in a while – Parish said: "It has to stay competitive. Nobody wants to watch someone destroy a club 7-0, it's not intoxicating.

"Take F1, for example. The big teams got all the power, demanded more and more money. Now there's a spectacle where there's one or two teams with a chance of winning a race, and people are switching off."

JAMES ALLEN



S. BLOXHAM/LAT



FORMULA 1

Infiniti Academy finals set to take place at six F1 GPs

THE FINALS OF THE INFINITI ENGINEERING Academy will be held during six Formula 1 grand prix events this year for the first time.

The Academy selects seven student engineers through seven regional competitions – Asia/Oceania, the Middle East, Canada, Mexico, Europe, China and the USA – with the winners being given six-month placements with both the Renault F1 team and at the Infiniti European Engineering Centre at Cranfield.

Applications are now open for the next Infiniti Engineering Academy, and although April's Chinese Grand Prix is too early in the process to stage the China final, the second day of the other six finals will be held on the Thursdays of grands prix using the Renault

garage, motorhome and pitlane.

"This programme brings diversity to Formula 1, which is pretty much a European industry," said Tommaso Volpe, Infiniti's global motorsport director. "We take talent from all over the world and the new owner is interested in this."

The Infiniti Engineering Academy will also be boosted by the involvement of Harvard University, which will be involved in the pre-screening of applicants and study the selection process in depth.

The European final second day will be held on the Thursday of the British Grand Prix at Silverstone. Canada, Singapore, Austin, Mexico and Abu Dhabi are the race venues for the other finals.

EDD STRAW



Dreyer & Reinbold last contested a full IndyCar season in 2012

THRASHER/LAT

INDYCAR SERIES

IndyCar set to increase power

INDYCAR IS EVALUATING ADDING between 100 and 150bhp to its engine power of between 550-700bhp, depending on the track, by 2020.

The series is using a 2.2-litre turbo at the moment, having introduced the format in 2012.

IndyCar's president of competition and operations Jay Frye is now navigating the series' five-year plan to improve its health, introducing a new universal aero kit this season

as the first major step.

A new engine formula is also a key part of the plan, and a significant engine upgrade could arrive as soon as 2020. "Making more power is our next step and just as we reverse-engineered the car, starting with its aesthetics first, then it's the same for the engine," said Frye.

Honda is known to be against any hybrid power in IndyCar and the series could extend the current

engines to 2021 – the deadline for the existing chassis.

The new aero kit has been key to luring new teams to the series – four have joined in 2018. Dreyer & Reinbold Racing could become the fifth new team after confirming its intention to rejoin the series full-time in the near future.

TOM ERRINGTON

P32 INDYCAR PREVIEW



P49 ADELAIDE REPORT

AUSTRALIAN SUPERCARS Holden's new ZB Commodore scored a double on its debut at Adelaide last weekend, with Triple Eight driver Shane van Gisbergen at the wheel. Rivals Ford and Nissan have expressed concern at the car's use of composite panels. This potentially allows the Holden to weigh less than the 1410kg minimum, with teams then able to place ballast to help weight distribution. DJR Penske Ford team principal Ryan Story believes the series will have to let others follow suit, but Nissan's Todd Kelly argued that could push up costs. Triple Eight's Mark Dutton said the panels were not the only things that made the ZB lighter than its predecessor. **Photo by Klynsmith/LAT**

WORLD RALLYCROSS CHAMPIONSHIP

Gronholm and son launch new Hyundai team

MARCUS GRONHOLM WILL HEAD UP a two-car team in the World Rallycross Championship this season. GRX Taneco will field a pair of ex-World Rally Hyundai i20 Supercars for triple European Champion Timur Timerzyanov and Gronholm's son, Niclas.

Based on Hyundai Motorsport's 2016 i20 WRC platform, the Finn's outfit has adapted the machines for rallycross use and will run as a private effort this year. The new cars are being developed between GRX and the SET Promotion team, led by Jussi Pinomaki, who will act as team manager.

GRX expects to begin testing the car within the next two weeks, with Gronholm senior conducting the development driving.

"So far the car looks very good," said the double WRC title winner. "I will be surprised if we can't be fighting with the big boys at least sometimes. The

first target is semi-finals, then the final and podium. I think that's fully possible."

Peugeot Sport has confirmed a three-car line-up for its rebranded Team Peugeot Total World Rallycross programme. Timmy and Kevin Hansen have been retained alongside Sebastien Loeb. Loeb and Timmy Hansen will race a new 2018-spec 208 WRX. Having terminated its Dakar programme, Peugeot has moved its rallycross operations in-house, ending the joint venture with Hansen Motorsport.

The GCK team has also announced its full line-up. The second Prodrive-built Renault Megane RS RX will be raced by Jerome Grosset-Janin, alongside team owner Guerlain Chicherit.

Double DTM champion Timo Scheider is conducting pre-season development in the new car, which began testing two weeks ago at a private facility.

HAL RIDGE





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DTM

DTM cuts downforce for 2018

THE DTM HAS MADE RULE CHANGES aimed at reducing downforce for 2018.

The series lowered downforce levels for 2017, but has faced calls to go further. It will now mandate a simplification of aero for '18, the final season in which outgoing manufacturer Mercedes will compete against BMW and Audi.

The three manufacturers had agreed to changes to the technical rulebook as part of talks over abolishing the series' performance weights system, which was dropped before the final two rounds of 2017.

The tweaks, as demonstrated in comparison shots released by BMW of its 2017 and '18-spec M4 DTM challengers

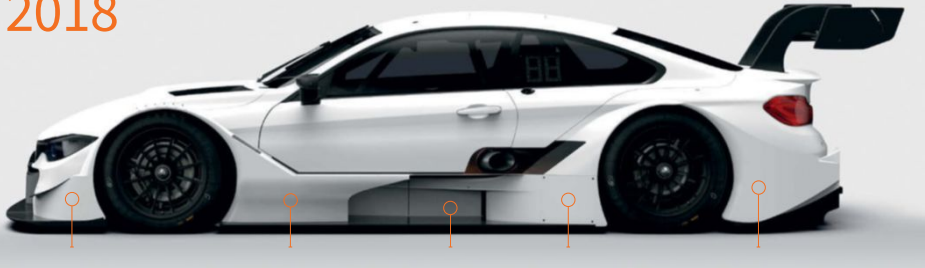
(below), include a reduction in the number and size of front aero flicks as well as the removal of the side endplate. The DTM estimates the changes should lead to the downforce being reduced "by about a third".

The championship has also announced an increase in the yearly engine allocation per car and a minimum weight of 1115kg – 10kg lower than the base weight used last year.

The series will introduce restrictions on pitboard communication in order to further curb "the tactical measures of the teams". Squads will only be allowed to use pitboards to request a stop and in cases of emergency.

VALENTIN KHOROUNZHIY

2018



2017



MOTOGP

Tech3 leaves Yamaha for KTM

THE TECH3 MOTOGP TEAM WILL JOIN with KTM from 2019 onwards following its split with long-time partner Yamaha.

Herve Poncharal's squad, a customer of Yamaha since it joined the premier class in 2001, has entered into a three-year agreement with KTM that gives it parity with the Austrian marque's works machines.

Poncharal explained that a lack of a similar offer from Yamaha in the wake of Johann Zarco's exceptional rookie season last year was partly why he chose to defect to KTM. Double Moto2 champion Zarco was sixth in the standings and scored three podium finishes in 2017.

"Everybody was expecting something a bit special coming from Yamaha to support Johann, like Honda did with Cal Crutchlow or Ducati with Danilo

Petrucchi," said Poncharal. "It didn't come.

"We always tried to be the official Yamaha junior team, but it was never really the case. That will be the case where we are going [KTM]."

The move leaves Yamaha needing to find an alternative customer team in order to maintain its four-bike presence on the MotoGP grid, with Ducati squads Angel Nieto (formerly Aspar) and Avintia having expressed interest in taking Tech3's place.

Zarco (still Yamaha-mounted), meanwhile, set the pace as pre-season testing came to an end in Qatar last week, beating works Yamaha rider Valentino Rossi by 0.247 seconds. Andrea Dovizioso was third for Ducati, while reigning champion Marc Marquez was sixth for Honda.

JAMIE KLEIN

IN THE HEADLINES

MERCEDES DENIES CUSTOMER DISPARITY

Mercedes Formula 1 boss Toto Wolff has denied that the FIA's push to ensure equal treatment for engine customers was aimed at Mercedes, insisting Force India and Williams have always had parity. "I don't think any of our customers was pushing for it," Wolff told Autosport. "Identical modes for the customers and us. There has never been any difference."

WILLIAMS' MARTINI DEAL TO END

Martini will not extend its title sponsorship of Williams when it expires at the end of this season. The brand's famous white, blue and red colour scheme returned to F1 in 2014 under a multi-year deal. Autosport understands that Martini discussed an extension with Williams, as well as speaking to other teams, before deciding to quit F1 altogether.

F1 TO GET 'FAST AND FURIOUS' THEME

F1 has commissioned leading Hollywood composer Brian Tyler to write new official theme music for the championship. The composer's CV includes five episodes of *The Fast and the Furious* franchise, the *Expendables* series, *The Mummy*, *Rambo*, and *Teenage Mutant Ninja Turtles*, as well as Marvel films *Iron Man 3*, *Thor: The Dark World* and *Avengers: Age of Ultron*.

SUZUKA ENTRY GROWING

Twelve manufacturers in a field of 27 cars have signed up for the Suzuka 10 Hours in August. Four of the five manufacturers to register for the Intercontinental GT3 Challenge are confirmed, with Porsche bringing its factory Manthey team, although McLaren is yet to announce its plans for Suzuka.

ROSSI READY FOR MORE

Valentino Rossi has clarified that his VR46 team will not be joining MotoGP until at least 2021, dropping the clearest hint yet of his intention to carry on racing. An announcement that the 39-year-old Italian is to stay at Yamaha for two more seasons appears to be imminent.

MULLER'S NEPHEW JOINS WTCR

Yann Ehrlacher joining Munnich Motorsport means he will line-up on the WTCR grid with his uncle Yvan Muller, who is racing for his own team. Ehrlacher will now race one of the latest Honda Civics alongside Esteban Guerrieri, while Pepe Oriola has also joined the WTCR pack in a Campos Racing SEAT Cupra, taking the total number of drivers confirmed to 18.

COLE REPLACES JACKSON

James Cole has been announced as Mat Jackson's replacement at the Motorbase Performance British Touring Car Championship squad for the 2018 season. The 29-year-old, who won a race at Rockingham last season at the wheel of a BMR Subaru Levorg, will take Jackson's place in one of the team's Ford Focus RS cars.



NIGEL ROEBUCK

When racing didn't stop for snow...

Pre-season testing was interrupted by some unexpected weather, but there were times when the show had to go on – even in snow

[@autosport](#)

I HAVE KNOWN SOME TRUE RACING FANATICS

in my time, but none more so than McLaren director of design and development Neil Oatley. Regularly Neil emails photographs from the past that take his fancy, and last week – in the midst of a largely wasted pre-season test session at Barcelona – he chose pictures of the 1933 Pau Grand Prix, complete with pithy comment: 'Just get on with it.'

Among the other recipients was David Coulthard, who emailed me thus: 'Interesting reminder from Neil Oatley of how we have gone soft in modern racing!'

The surprise factor common to Pau '33 and Barcelona last week was snow, but there have been other occasions, too, when it has unexpectedly figured in our sport. Soon after leaving school, for example, I went in April

1966 to practice for the BARC 200, a Formula 2 race at Oulton Park, saw Jimmy Clark beat Jack Brabham to pole position, and keenly anticipated the following day's race.

Given that overnight it started snowing, common sense should have told me to stay at home, but I had little of it, and after a decidedly treacherous drive got to Oulton to find that – surprise! – the meeting had been called off.

Seven years later, at Silverstone's *Daily Express* International Trophy, snow again had a part to play, this

time coming down after the race had started. I was spectating at Becketts that frigid day, and in front of me Ronnie Peterson spun, handing the lead – and the race – to Jackie Stewart.

There have been other times, too, when snow fell during a race – one thinks of the Formula 2 Eifelrennen at the Nurburgring in 1967, won by Jochen Rindt from John Surtees – but all these events were run in April, when snow might reasonably not have been anticipated, and the same was true last week in Barcelona, where it had not fallen for 10 years.

In 1933, the inaugural Pau Grand Prix, though, was run on February 19, and if that sounds like pushing it, the place was known as a winter health resort, and the organisers had no concerns about the

weather. Through the streets a 2.6-mile circuit was drawn up, incorporating parts still used today.

Prior to 1958, the Pau Grand Prix was always for grand prix cars, and this first one was run immediately before the start of the era dominated by Mercedes and Auto Union, so the entrants were virtually all privateers, most driving Bugattis.

Through the previous week the weather was fine, but Saturday turned wet and cold, and during the night it began to snow heavily, so that on race morning the track was

"In those days races were never cancelled because of weather conditions"



Moll in inaugural Pau Grand Prix in February 1933



Clark in April 1967 F2 race at Nurburgring



Snow stopped
play at testing
in Barcelona



HONE/LAT

completely covered. Given that the city needed to be operational again on Monday, there was no question of postponement – and, anyway, as one of the leading drivers, Rene Dreyfus, pointed out, in those days races were never cancelled because of weather conditions.

Dreyfus, who would spend the second half of his life as a New York restaurateur, was a delightful man, whom I came to know well over many a dinner in Manhattan. Rene had amazing powers of recall, not least of Pau '33, which he also discussed in his book, *My Two Lives*. "Pau," he wrote, "is in the Pyrenees, where the weather is never anything but mild. When I arrived, it snowed.

"This took the organisers by surprise, not to mention the townspeople, many of whom had never seen snow before. There was the further complication of the circuit having recently been resurfaced, with the gravel and tar laid less than a week before. However, races were never cancelled because of weather conditions, and the Pau people were reluctant to call it off..."

Inclement weather or not, a sizeable crowd turned out for this new event in their town, and, after discussion with the organisers, the drivers agreed to race, at which point snow was cleared from the streets as much as possible, and the track salted!

Problem was, by the time of the start, it was still snowing hard. When they got going, Guy Moll – whom Enzo Ferrari included, with Tazio Nuvolari and Stirling Moss, in his top three of all time – took the lead, but the conditions, with icy slush flying high in the air

from the open-wheel cars, were beyond dreadful.

"After a few laps," Dreyfus said, "the road was a thick soup of gravel mixed with tar mixed with snow mixed with salt. Tossed up by competitors immediately ahead, this godawful mixture pelted the small windscreens of the cars. Goggles were quickly encrusted, and useless, and we all took them off – the drivers who fared best were those who pushed their screens down, and stuck their heads into whatever might be coming their way.

"[Philippe] Etancelin could drive without goggles at 100mph, but my eyes were too sensitive, and I could not, so I was left to crouch behind the dirty screen, and peering out every once in a while to make sure I wasn't about to hit something. In the end I finished fourth, and afterwards all of us – even Etancelin – had to go to the clinic to have the debris removed from our eyes, and that night, at dinner, we all had to wear sunglasses..."

In the course of the race Dreyfus had to make several stops for attention to his eyes, while Etancelin pitted to have snow removed from his Alfa's plug leads! Moll, too, needed to come in, and, after two hours and 54 minutes of purgatory, the three of them finished behind Marcel Lehoux, an underrated driver who three years later would die in the one-off Deauville Grand Prix, after being pushed off the road by Giuseppe Farina, later to become the sport's first world champion.

"If I remember it rightly," Dreyfus said to me, "Lehoux's average speed at Pau was just under 50mph. It doesn't sound much, I know, but if you had been there that day..." ❧

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Statute of livery

F1 teams have unveiled their new cars, which look virtually the same as last year's. Is it time for the sport to loosen its rules on liveries?

By Scott Mitchell, Autosport Plus Editor

[@ScottAutosport](#)

ALL 10 FORMULA 1 LIVERIES HAVE NOW BEEN

revealed and launch season has confirmed two things. First, it will be a colourful grid this year. Second, getting excited about how new cars look almost always ends in disappointment.

Seeing the new challengers get unveiled is such an intriguing part of the season, even for years like this when a stable rulebook means the fundamental look of the cars stays the same. Yet F1 teams fail to deliver time and time again. There are some nice surprises, chief being Red Bull's special camouflage launch livery – but, as if to sum up the problem, it reverted to the same design as previously come testing.

This can't be the best F1 can do, even ignoring red herrings like the myriad concept liveries professional designers like to flood their social media channels with. There must be a middle ground between such bold ideas and the perfectly fine (but nothing more) offerings that end up being used.

To be fair to those creating the look of cars that end up being a bit same-old, same-old, the need for teams to reflect corporate identities means precious little flexibility. There are good reasons for this,

chiefly the enormous investment made by sponsors and corporate boards. As 2018 shows, a Ferrari or a Mercedes or a Renault can have a smart livery (if not outstanding), but some independent

teams seem to struggle for inspiration. And when a giant like McLaren, which looks good in papaya orange again, is struggling for sponsorship, surely opening up how the teams' 200mph billboards can be used is a no-brainer?

F1 would be in a win-win position if teams weren't forced to make both cars look the same. BAR's attempt at split liveries in 1999 is the infamous example of an F1 team trying to do something different. Where BAR went wrong was having two totally different designs. The F1 sporting regulations still state that "both cars entered by a competitor must be presented in substantially the same livery at each event". This is open to interpretation, though – does it simply cover the basic design? The colours? Both?

Making F1 car design a free-for-all is dangerous, but the solution seems simple: F1's rulemakers and teams should follow the lead of their counterparts at Formula E and encourage split liveries. FE's sporting regs have the same command as F1's but, crucially, with this prefix: "So that the competitor's cars may be easily distinguished from one another, each can have specific colours as long as the livery is common."

Dragon, one of the few FE teams without a major manufacturer behind it, has had split liveries for the past two seasons. The team has no real brand identity within FE, given it is small-fry compared to Renault, Audi, Jaguar and the like. But by going bold with its design it's arguably the most recognisable.

That's something for F1 to ponder given it is currently trying to think of lots of new ways to make people pay attention. And it's not like F1's never been willing to budge: David Coulthard ran the Wings for Life livery in his final grand prix, for example, with team-mate Mark Webber's car in traditional Red Bull garb.

Imagine if Force India rolled out two cars with the BWT 'bubble' design, one on pink and one on black? It creates excitement at the launch and would guarantee coverage on an international scale. And that will be even better because if the liveries are deliberately designed to reflect/complement one another, they will almost certainly look good.

Perhaps more importantly, split liveries would also make drivers instantly recognisable. Given F1 has adopted the halo, it is worthwhile considering that drivers are even more cocooned

from the public eye than ever before. It's just not as easy to spot which driver is flashing past anymore – and that goes for those watching trackside, or from their sofa, or from a commentary booth trying to call the race.

That problem is so severe that F1's ended up in a needless tail-chasing situation of clamping down on changing helmet designs and enforcing bigger, clearer race numbers and driver abbreviations on engine covers, all to help distinguish between drivers. So it seems counter-productive to keep constraining the most visually impressive element of grand prix racing.

It's also good from a sponsor perspective. While the maths alone suggest that it would be unlikely for a sponsor to willingly reduce the number of cars branded in its colours, this misses the point. If a team can deck its cars out in different colours, that presents it with the potential for a completely different marketing strategy.

This isn't a call to let teams roll out art cars on a regular basis. There should be some kind of cohesion in the design – the freedom IndyCar and NASCAR teams have to introduce special liveries is great, but creating a virtue of car identification has most value.

It's simply a request for a little bit of common sense. If F1 wants more people to pay attention, it needs to give them something to look at. 🏎️

“Opening up how F1's 200mph billboards can be used is a no-brainer”



Big-name game

The return of WRC legend Sebastien Loeb on Rally Mexico is great for generating headlines, but it's a retrograde ploy for the Citroen team

By David Evans, Rallies Editor

[@daviddevansrally](#)

IT'S FIVE YEARS SINCE HE DROVE A WORLD RALLY

Car on gravel and three years since he drove in the World Rally Championship. A day of testing on dirt last year; two this year. Let's face it, he's got no chance when he starts Rally Mexico this week.

And that would be absolutely true, were the 'he' in question not the same one who won 78 rounds of the World Rally Championship and nine successive WRC titles. More specifically, the last six Rally Mexicos he started.

Sebastien Loeb. What are his chances?

Objectively, you'd have to say he's likely to be shown the way home. Trouble is, every argument you come up with to support that has a counter-argument.

You could, for example, talk about the precise requirements of driving this latest generation of World Rally Car — and the necessary familiarity with both big power and plenty of aero.

But you could also talk about Loeb's past two years reining in 600 not 400 horses in World Rallycross. And being down with downforce? The Frenchman seemed fairly au fait with his wings when he was dancing Peugeot's 208 T16 up a mountain in Colorado a few years ago. What was it again? Oh yeah, 156 corners and 12.42 miles in eight and a bit minutes — a Pikes Peak record.

Rally Mexico relies on a hardcore of stages — such as Guanajuatito, Otates and Ortega — all of which were in place in 2012, his last time there. No doubt Loeb and co-driver Daniel Elena will have forked out the necessary €8.99 per month on a WRC+ subscription and watched their team-mate Kris Meeke's winning onboard from last year. These roads haven't evolved sufficiently for a base set-up to change dramatically, not even in the past six years.

So, he's going to win then.

No, not a chance. Unfortunately for Loeb, as we might have mentioned, six years have passed since he was last in Leon. His brain's been getting smaller for a while now; that's no reflection on him, it happens to everybody once they hit their thirties, but the loss of up to 50,000 neurons per day won't help him compute everything as quickly as he once did.

But the biggest hindrance will be the lack of match practice. There's nothing like being in the car week in, week out and that's what'll tell for Loeb. Testing's great, but nothing puts you to the sword like competition and it's when the champ is pushed to put the car on the limit that he'll be found

wanting. And when the car's on the edge, that's when you really need confidence, knowledge, experience and faith in the four wheels below you. And that's where the seconds will slip away.

Thierry Neuville and Ott Tanak, for example, are at the top of their games right now. Confidence has never been higher for the pair of them and when a driver's in that kind of place, they can sit at 99.9%. Loeb knows that. He spent a decade in that zone.

Day one and the running order will be kind to him. Eleventh on the road will gift him half a minute or so and, possibly, that will be enough to put him at or near the front of the field. But come the weekend, when the classification is reversed and those who had started day one just ahead of him — Jari-Matti Latvala and Meeke — come into play, he's going to struggle more on the levelled-off playing field.

There are those who still believe in the nine-time champion's mighty power. There are Alsatian disciples unshakable in their conviction that their man will come

back and walk over everybody else in the service park. His last 'one-off' return (Monte, 2015) serves only to add weight to that expectation: he stormed into a mighty 22-second lead on

the opening stage (admittedly enjoying the best of the conditions), but he stayed out front for a further seven stages. Then dropped to second. Then knocked a wheel off.

In terms of sheer pace, I simply can't see Loeb winning in Mexico. He was struggling to contain Sebastien Ogier six years ago and Ogier's now struggling to contain Neuville, Tanak and the rest. No, if Loeb comes and wins, it reflects pretty badly on the state of pace in the world championship.

That's not to say we don't want him. Of course we do. His return is another fascinating tale to be told in the story that is the 2018 WRC. What really vexes me is the ridiculous decision to bring Loeb back at the expense of Craig Breen.

The Irishman's just come off the rally of his life in Sweden last month; he's riding the crest of a wave of confidence right now. What does he need next? Another rally. Then another. What he doesn't need now is a couple of months on the bench while Loeb has fun in his car.

Citroen has saved the cost of a third car and will bag plenty of exposure on the back of Loeb's return but, as far as I can see, this is the very definition of short-termism. ❄

“If Loeb wins, it reflects pretty badly on the state of the championship”

FEEDBACK

British fans deserve better from F1 OTT

The Formula 1 OTT service was the big announcement last week. Video showed what it would be like, what it would cost and the markets it would be available in, along with financial projections and take-up. But for fans in the UK, it left us empty. No reference to the UK market was made, not even that it was coming or they were working on it, leaving loyal fans guessing and feeling left out.

It took Autosport's coverage online to advise that F1 was working with Sky on how they could offer customers in the UK access to this content. Sky's coverage in the UK is fantastic, and while appreciating complications arising from the renewed TV deal, to take the money and sign the deal with Sky, yet not to have a solution with Sky sorted ahead of the announcement, shows an arrogant position that UK fans will remain loyal regardless. We deserve better.

Richard Venner
Ashford, Kent



GILLHAM

Motorsport under pressure

Motorsport fans and participants are under pressure from all sides, from trackday venues being sold by the MoD and others having permits withdrawn because of small pressure groups.

Even at the pinnacle, decisions are taken that detract from the fans' enjoyment. Over-reliance on aerodynamics spoils the racing for both fans and drivers. As for the halo, why not ban tank-like recovery vehicles, or at least make them fit skirts. It is time for fans and participants to push back before our sport and in many cases employment is damaged beyond repair.

Bob Bull
Portishead, Bristol

Halo slipped

I bonked my head when I fell asleep while reading the nine-millionth blather about the halo.

Johnnie Crean
Kamuela, Hawaii

Sigma was 'raced'

I was interested to read the article on the Pininfarina Sigma F1 project in last week's Engineering supplement. In addition to the safety aspects mentioned, the design also incorporated bodywork to prevent wheels interlocking with other cars and to help reduce spray and debris.

Spanish Scalextric produced a model of this car in 1973 (left). Five colours were



Reader Binns is not surprised at Martini's plan to split with Williams

offered. It was not available in the UK, but many enthusiasts imported it.

Roger Gillham
Byemail

Archive inspiration

Can I congratulate you on your choice of 'From the archive' picture last week. The simple, clean lines of Lauda's BRM P160E compare very favourably with this season's appendage-laden horrors masquerading as F1 cars! We can't turn the clock back to the 1970s, but there is surely a compromise. Over to you Ross!

Rob Barnett,
Hurst Green, East Sussex

No surprise Martini called time

Sadly I am unsurprised that Martini is to ditch Williams. With drivers such as Massa and Bottas and Mercedes engines, it's underperformed. Now with two pay drivers and a culture of nostalgia, it's become like Tyrrell in the 1980s and '90s.

Nicholas Binns
Wirksworth, Derbyshire

F5000 shows how it's done

Will someone bring that Chase chap to Goodwood in two weeks' time and let him see the sight and sound of F5000. That should show him what 'we' want.

Peter Allen
Awbridge, Hampshire

HAVE YOUR SAY, GET IN TOUCH

Autosport editorial
Autosport Media UK Ltd
1 Eton Street
Richmond
TW9 1AG

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F1 2018 TEST WAR

BIG T



THREE BATTLE





S. BLOKHAM/AT

Mercedes steals an early march

Although the first F1 test of 2018 was hit by bad weather, the early indications suggest Mercedes remains the team to beat. But it's less clear which of Ferrari or Red Bull is second best at this stage

By Edd Straw, Grand Prix Editor

LAST WEEK'S OPENING PRE-SEASON TEST WAS CLOUDED by the uncertainty of low track temperatures and regular interruptions from rain and, on day three, snow, but based on the early running there's nothing to suggest Mercedes has lost its status as pre-season favourite with its new W09 machine.

Lewis Hamilton set the fastest time of the test overall, setting a 1m19.333s using the medium-compound Pirellis on the final day of running. Clearer answers will emerge during the second and final four-day test at Barcelona that is due to finish tomorrow (Friday), but the early signs suggest Mercedes looks both to have the pace and the reliability to let Hamilton bid for a fifth drivers' championship.

Mercedes has taken an evolutionary approach with the car, eschewing a move to a high-rake concept as used by Red Bull and, increasingly, Ferrari. While it has slightly raised the rake, Mercedes has not made any massive changes in direction for a car that, after all, won 12 grands prix in 2017. Hamilton was certainly confident in the car, while sounding a note of caution that more representative conditions might change things.

"It's an evolution of last year's car, we've got better tyres and particular here we've got a new surface, so that might make things seem even better than they really are," he said after setting the pace. "So far, it's been really good. Normally, I'm not someone who likes testing, but today I was really keen to get out because we haven't had many laps.

"It's difficult to say whether the car is that much better,

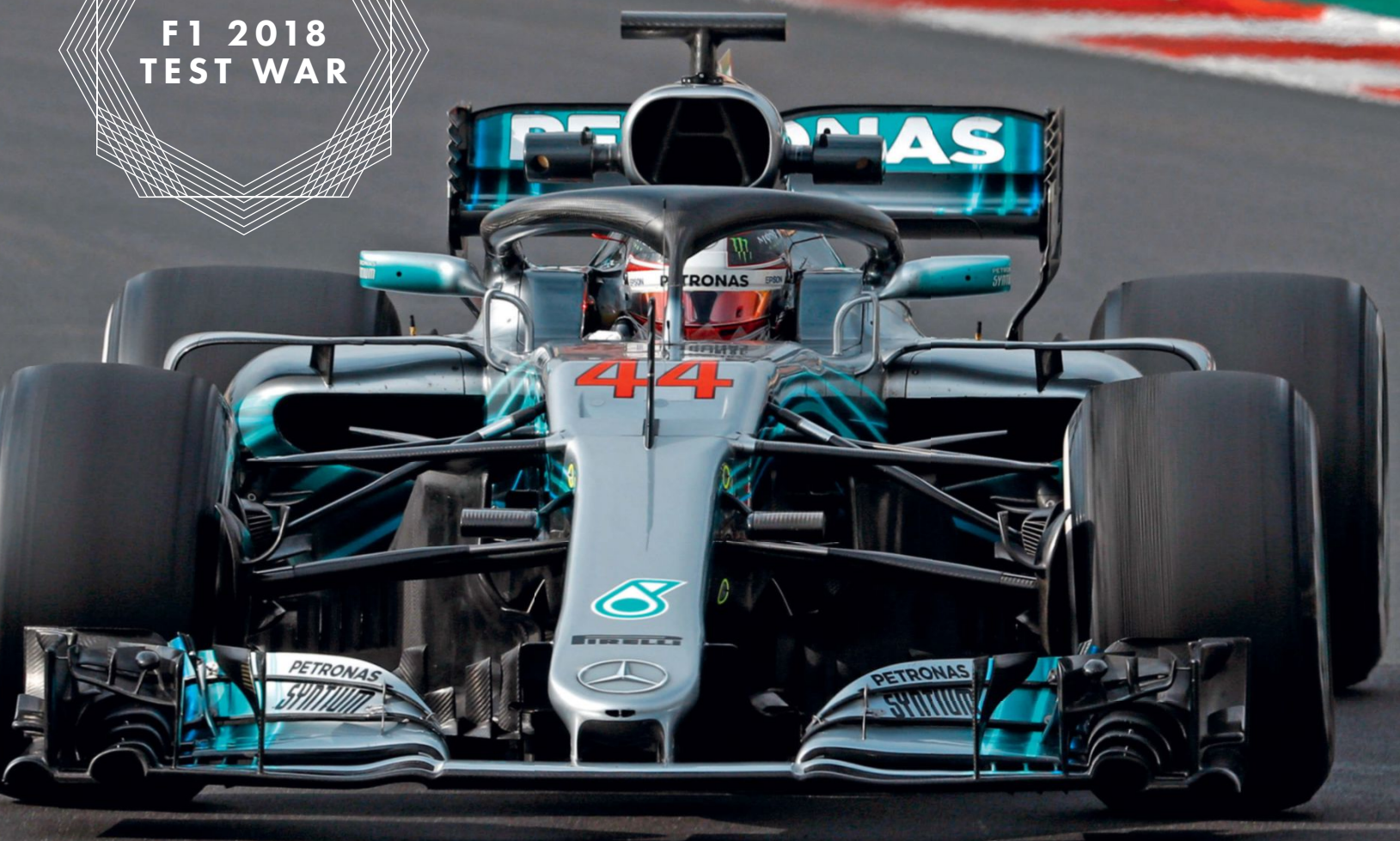
[or] how much of it is the track and the grip and the tyres. Next week we'll get a better understanding. But it definitely feels like a faster car compared to last year's car, so that's positive."

But which of Ferrari and Red Bull is looking best placed to challenge Mercedes is less clear. Sebastian Vettel set the second fastest time of the test overall with a 1m19.673s using softs. Daniel Ricciardo was the pacesetter for Red Bull, with his time of 1m20.179s using mediums set on the 30th lap of a long-run on day one. While the Renault engine package was running conservatively, and still thought to be giving away 40-50bhp to Mercedes, the RB14 chassis looks promising. Autosport technical expert Gary Anderson's adjusted times even suggested it might have set the most impressive time when all factors are taken into account (see page 24).

The Red Bull certainly looked good on track, and is understood to represent a step forward over 2017 in terms of downforce, with none of the early-season problems that blunted its challenge last year.

"It's a big difference, the way the car is handling, and I think it's in a positive way," said Max Verstappen following the final day of running, during which he beached his car in the gravel after suffering a gear-selection glitch. "We didn't do any performance laps but when you have conditions like this, which are not ideal, it's good to make sure everything is working well in terms of the data you get from the car compared to what is happening in the windtunnel."

F1 2018 TEST WAR



DUNBAR/LAT



HONE/LAT

The Ferrari also looked good on track, as it did last season. But it does appear the team has yet to get on top of the higher-rake concept it has adopted for this season. The second test will give a clearer read on whether it has the potential to get closer to Mercedes this season.

“Obviously the limiting factor was the weather,” said Vettel. “It’s difficult to judge, knowing how difficult it was out there just to stay on the track with the cool conditions; I think others were facing the same issues.

“We should not get into details too much because it’s a bit pointless. I hope next week we will know more.”

The resurfacing of the entire Barcelona circuit over the winter, at the behest of MotoGP riders who have complained about the track’s ever-increasing bumpiness, also threw a curveball into the mix. It’s anticipated that the circuit could easily be one second faster because of this resurfacing work, although the conditions last week made it difficult to evaluate this. The oils working their way out of the surface made the >>

grip levels lower in damp conditions, although it's hoped the track will be more settled this week.

This move has drawn criticism from Hamilton, who described the track as easier to drive than he has ever known it, despite the conditions.

"I'm not quite sure why they resurface. The older the surface, the more character there is in a surface. If you smooth the thing out, you lose a lot of the character that a track like Barcelona has.

"I always relate it to a house. A brand new house has got no character, but if you go and buy an old house, it'll always have a little bit more history and a little bit more character.

"It's harder, it's trickier [when a track is bumpy]," he added. "You're going through a corner and the car starts moving a bit more, you have to be a bit more responsive and I like that challenge.

"When you smooth it out, you make it easier and in all honesty, this track has got easier. Driving it [in the first test] has been the easiest it's been in the whole 10 years I've been driving."

In the serious performance running the teams have been conducting in the second test, it is expected that last year's fastest time of 1m18.634s, set by Kimi Raikkonen, will be beaten. The first test pace was four-tenths faster than in 2017, and some have predicted it could be possible for the quickest cars to dip into the 1m16s bracket.

There were attempts during the test to modify the schedule to allow Wednesday's running, which was compromised first by snow and then wet conditions, to be abandoned with an extra day then added. These talks were complicated by the fact that Williams and Ferrari had the track booked for filming days on Friday and Saturday respectively, and the regulations only allow four consecutive days of running in a test. This prevented a day being added to the second test.

In the end, only 17 laps were completed on Wednesday – 11 of those by McLaren's Fernando Alonso. This made it the least successful day of a group test since a day in Bahrain in February 2009, which was attended by Ferrari, BMW Sauber and Toyota, that was ruined by sandstorms.



"We now have one-eighth less testing available to us," said Mercedes technical director James Allison. "So we shuffle our programme around and try to fit all the work we need to do into seven days instead of eight. Winter testing is always tight, but this is only because you're trying to achieve as much as possible in the time available. There's just slightly less time available now. It's the same challenge for all the teams, so we take it on the chin and move on."

This is what makes this week's test so crucial, not just in terms of assessing the competitive order heading to the season-opening Australian Grand Prix later this month, but for the teams to ensure they are ready. //

Conservative engine settings may have held back Red Bull, but the new car looks poised on track



THE BATTLE TO BE BEST OF THE REST

While the top three teams appear to have an advantage over the rest of the field based on the first test, the battle in the midfield looks too close to call.

McLaren set the fastest overall time outside of the established top three of Mercedes, Ferrari and Red Bull courtesy of Stoffel Vandoorne's final-day pace using the hypersoft Pirellis. But the Renault team that finished last season with the fourth-fastest

car looked to have taken a big step forward to the point where the new RS18 could potentially have the edge in the battle for fourth in the constructors' championship.

Its best time was set by Nico Hulkenberg (above) on day one using the medium-compound Pirellis, which took time to warm up but offered strong durability once they were 'switched on'.

Inevitably, this led to

suggestions McLaren was using the fastest tyre compound for glory runs, given it did a lot of work using the hypersoft and the supersofts in particular, but this is also down to the fact that the softer the compound the lower the temperature they work well in. But while there's a reason behind it, the anticipated difference in grip more than covers the seven-tenths gap between McLaren and Renault

and hints the Enstone squad could have the upper hand.

Force India has yet to show its pace, spending the first test focused on proving the car is working as hoped and not focusing on set-up. With upgrades arriving at this weekend's test, and another package for the season-opening Australian Grand Prix that's hoped to be worth half a second, we might not have a clear read

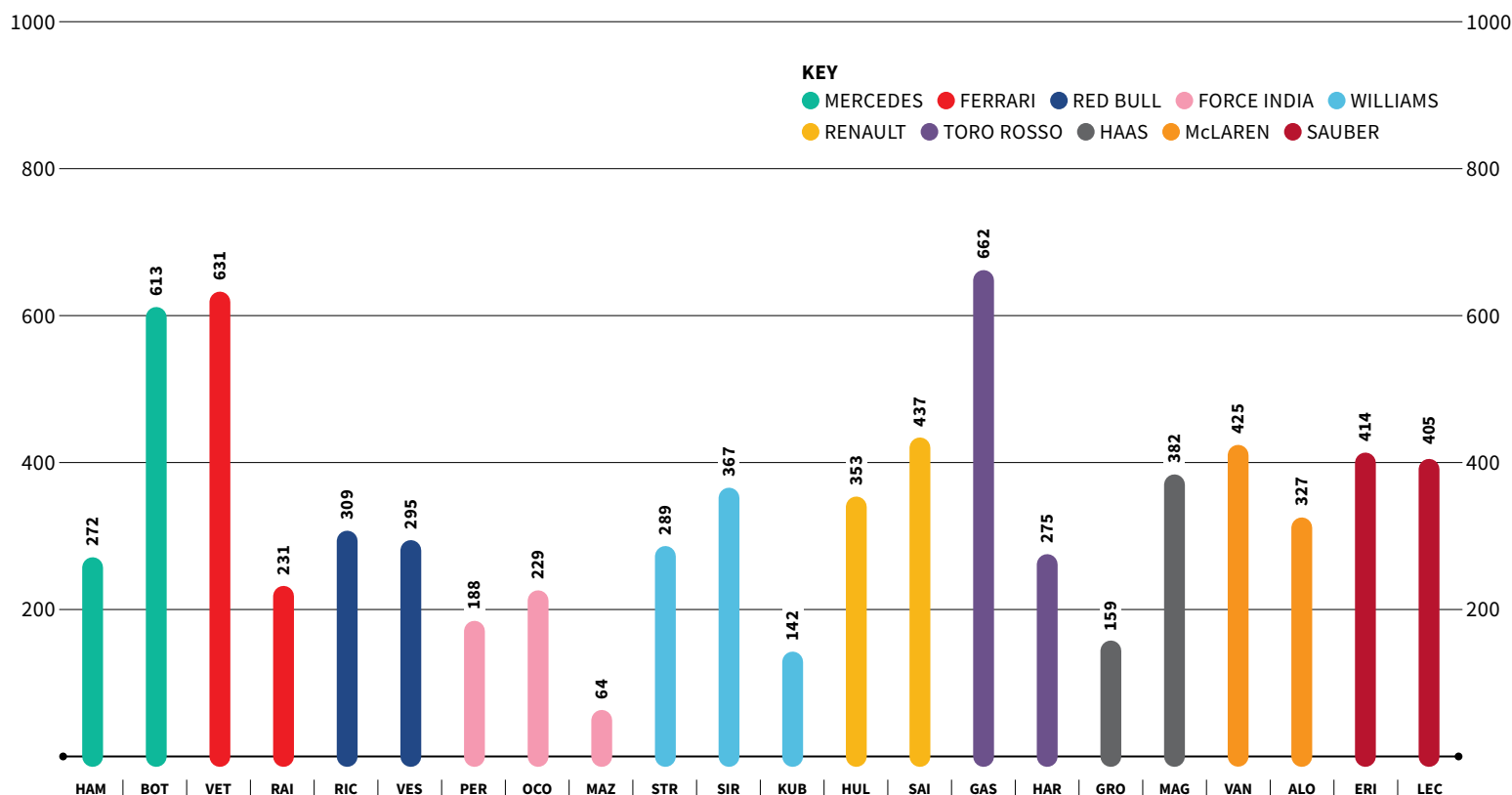
on whether it can compete to finish fourth in the points for a third consecutive year.

Haas showed promising pace and the Toro Rosso-Honda admirable reliability, while the dramatically changed Williams FW41 is another still to have performance in the locker. And Sauber doesn't look to be a fourth-place threat given a difficult test with its new car concept.

TESTING DATA BARCELONA, FEBRUARY 26-MARCH 1

TOTAL LAPS COMPLETED BY ALL CARS TOGETHER 2582 RED FLAGS 7

MILES COMPLETED BY DRIVER



BARCELONA TEST TIMES FEBRUARY 26-MARCH 1

POS	DRIVER	CAR	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	LAPS
1	Lewis Hamilton	Mercedes F1 W09	1m22.327s	-	-	1m19.333s	94
2	Sebastian Vettel	Ferrari SF71H	-	1m19.673s	-	1m20.241s	218
3	Stoffel Vandoorne	McLaren-Renault MCL33	-	1m20.325s	-	1m19.854s	147
4	Valtteri Bottas	Mercedes F1 W09	1m20.349s	1m19.976s	-	1m22.789s	212
5	Daniel Ricciardo	Red Bull-Renault RB14	1m20.179s	-	no time	-	107
6	Kevin Magnussen	Haas-Ferrari VF-18	-	1m22.727s	-	1m20.317s	132
7	Max Verstappen	Red Bull-Renault RB14	-	1m20.326s	-	1m22.058s	102
8	Kimi Raikkonen	Ferrari SF71H	1m20.506s	-	-	-	80
9	Nico Hulkenberg	Renault RS18	1m20.547s	-	-	1m22.507s	122
10	Fernando Alonso	McLaren-Renault MCL33	1m22.354s	-	2m18.545s	1m20.929s	113
11	Carlos Sainz	Renault RS18	1m22.168s	1m21.212s	-	1m20.940s	151
12	Lance Stroll	Williams-Mercedes FW41	1m22.452s	-	-	1m21.142s	100
13	Pierre Gasly	Toro Rosso-Honda STR13	-	1m21.318s	-	1m22.134s	229
14	Robert Kubica	Williams-Mercedes FW41	-	1m21.495s	no time	-	49
15	Sergey Sirotkin	Williams-Mercedes FW41	1m44.148s	1m21.822s	-	1m31.979s	127
16	Esteban Ocon	Force India-Mercedes VJM11	-	1m21.841s	-	-	79
17	Sergio Perez	Force India-Mercedes VJM11	-	-	-	1m21.973s	65
18	Brendon Hartley	Toro Rosso-Honda STR13	1m22.371s	-	no time	-	95
19	Romain Grosjean	Haas-Ferrari VF-18	-	1m22.578s	-	-	55
20	Charles Leclerc	Sauber-Ferrari C37	-	1m22.721s	-	1m22.808s	140
21	Marcus Ericsson	Sauber-Ferrari C37	1m23.408s	-	no time	1m23.825s	143
22	Nikita Mazepin	Force India-Mercedes VJM11	1m25.628s	-	-	-	22

The fastest time for each driver is marked in bold, with fastest time of the day in red.

MILES COMPLETED BY TEAM

POS	TEAM	MILES
1	Toro Rosso	937
2	Mercedes	885
3	Ferrari	862
4	Sauber	819
5	Williams	798
6	Renault	790
7	McLaren	752
8	Red Bull	605
9	Haas	541
10	Force India	480

MILES COMPLETED BY ENGINE

POS	TEAM	MILES
1	Ferrari	2221
2	Mercedes	2164
3	Renault	2146
4	Honda	937



Technical focus

By Gary Anderson and Giorgio Piola

FERRARI AND MERCEDES CONVERGE TO GREAT LENGTHS

Because wheelbase lengths, and how different teams went about adapting to the new aerodynamic regulations for 2017, became a key feature of last season's development battle, Giorgio Piola has carried out some in-depth analysis of the Mercedes and Ferrari wheelbases for '18. Ferrari has gone longer, by some 128mm.

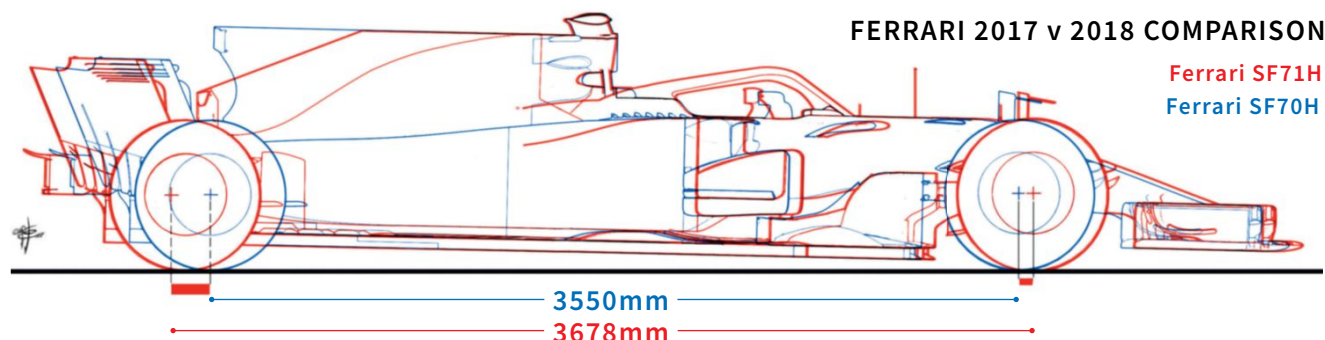
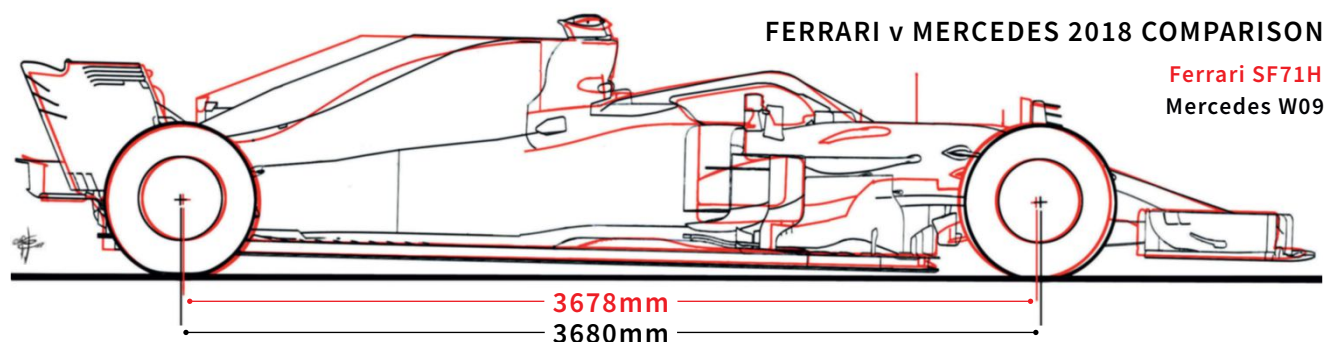
Interestingly, they have ended up within a couple of millimetres of each other, and as the reference point is based on the air intake/driver's head position, it can be seen who moved which axle.

Ferrari has moved the front axle forward and the sidepod leading-edge detail has moved with it. But the biggest change has been in moving the rear axle rearwards. This change will mean Ferrari has a bigger underfloor plan area than it had in 2017, which in turn should allow it to generate more downforce from this area of the car.

Underneath the car the floor is at a lower pressure than the air pressure above it – that's what generates the downforce. Having a larger floor area means you have that same low pressure value over a bigger area, hence more downforce.

It will also help reduce the blockage created by the gearbox, allowing the Coke-bottle area to be just that little bit more compactly detailed, which in turn will allow more airflow over the top of the diffuser surface, which in turn helps draw the airflow out from underneath the car.

We need to take all this with a pinch of salt because it is only a comparison from two very detailed pictures, and Mercedes has also stated explicitly that it has kept its long wheelbase for 2018 – but then again, the big question is what is long and what is short? **GA**





HOW MERCEDES IS MEETING F1'S LATEST SUSPENSION CLAMPDOWN

The FIA has given a technical directive to the teams saying it will now consider any change in front rideheight when steering lock is applied to be moveable aerodynamics, which is illegal. However, understanding that zero would be more or less impossible, the governing body will accept up to a maximum of five millimetres.

By issuing this and putting a number on it, the FIA has now given the teams something to shoot at. In my opinion, a five-millimetre front-rideheight change with steering lock is a huge amount; one or two millimetres will have a significant difference on the aerodynamic balance of the cars.

Normally, a current Formula 1 car, if balanced well for the high-speed corners, will have some degree of understeer in medium and slow-speed corners, so to counteract this lowering the front rideheight with increased steering lock will move the centre of pressure forward and reduce that understeer.

Teams will go about this in different ways and the picture (above) of the Mercedes front suspension – with its castor and king-pin axis moved rearwards relative to the tyre contact patch – is a typical example of one of the ways of achieving some of this rideheight change the FIA now accepts. Last year, Red Bull went about it with a lower outer pushrod pickup position.

A lot of care needs to be taken not to contaminate the actual steering loads. The driver uses these loads, and more importantly the change in them, to feel the balance of the car, so any load change that isn't directly from tyre contact patch load change will be a little confusing. **GA**

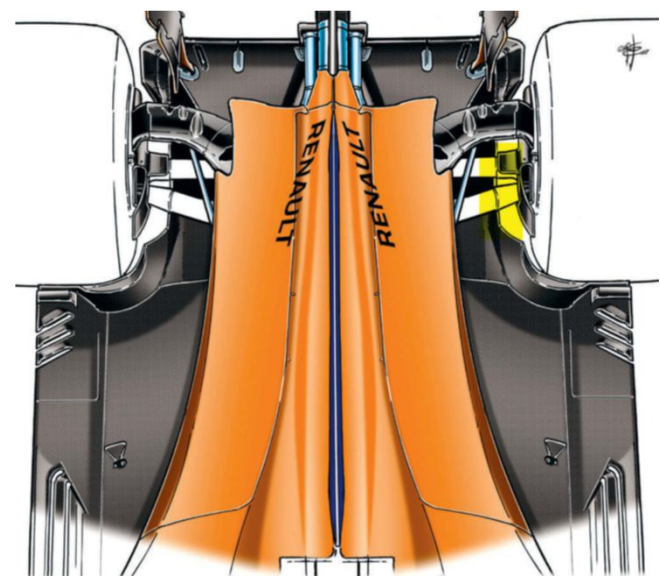
McLAREN'S REAR-SUSPENSION INNOVATION BENEFITS DUCTS

McLaren has put a lot of effort into its rear suspension. Its outer pullrod to upper wishbone pickup is now well inboard of the top wishbone's outer joint area. Normally, the most mechanically efficient location for the pickup is in line with the outer top wishbone pickup point, as it reduces any bending moments in the top wishbone, but aerodynamics now dictate most of these cars' layout detail.

By moving this point inboard, McLaren has opened up another area of rear brake duct to increased development. Brake ducts are not just used to cool the brakes these days, they also have a major influence on the overall aerodynamic specification of the car.

With all the turning vanes mounted directly on the rear brake ducts, they improve the performance of the diffuser and underfloor and actually produce downforce in their own right. Downforce produced directly on the unsprung mass of the car – ie the upright and wheel assembly – is very important as it is a direct load on the tyre contact patch and it doesn't have any sort of time lag as the car's suspension moves.

Expect to see more elaborate rear brake ducts on the McLaren soon. **GA**



F1 2018
TEST WAR

Gary Anderson's testing verdict

It's been a tough start to testing, but our technical expert does his best to make sense of the first four days in Spain



LAT IMAGES

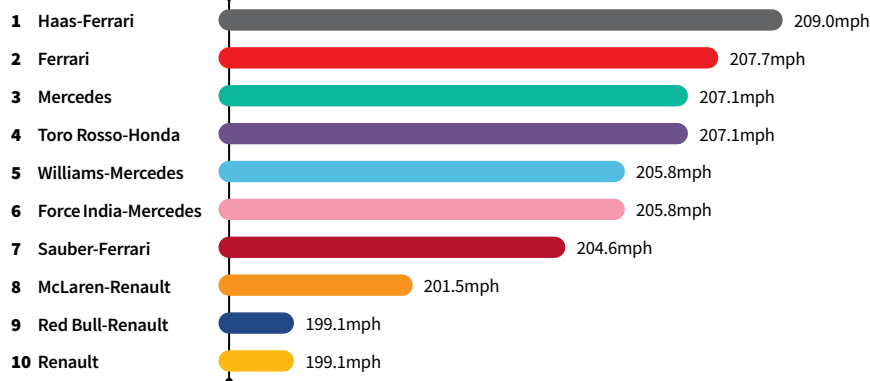
DUNBAR/LAT

THIS HAS BEEN THE MOST DIFFICULT PRE-SEASON Formula 1 test to read I've ever known, mainly thanks to the cold, often wet and sometimes snowy conditions that have hit the resurfaced Barcelona circuit.

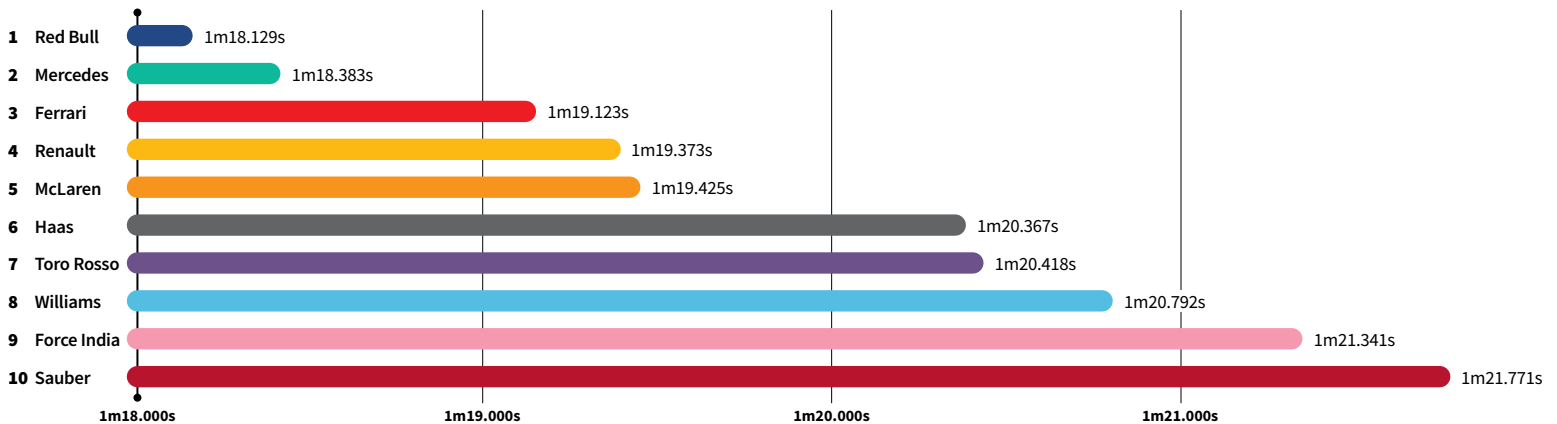
But you can always learn something. So, despite those problems on top of the usual question marks over fuel loads, run plans, tyre choices and how hard drivers are pushing, I've attempted to produce a car ranking that at least will give a pointer to how the season is shaping up.

We'll learn a lot more in the coming weeks, so none of this can be taken as gospel. But by looking at the fastest lap times set by each team, adjusting it for what we know about fuel load based on how many laps were completed on the run that they did their fastest lap on and what the teams have tended to run with in recent years, and then put in an adjustment factor for the tyre compound being used, we can extrapolate what time might have been possible.

SPEED TRAP



ADJUSTED FASTEST LAP TIMES (NORMALISED FOR SOFT COMPOUND TYRE)

**1 RED BULL** 1m18.129s

Red Bull had, in some ways, a bit of a torrid time in the first test. Apart from day one, when the car looked good, there were too many problems.

It spent a lot of time playing around with the vertical bargeboards on the front edge of the sidepods. I'm not sure if they were falling off or the team wasn't happy with them, but there's clearly something going on there.

Max Verstappen never had a great run, with fuel leaks on one day and an off on Thursday, so it's been very messy.

But I'm still hopeful that the adjusted pace reflects the fact that Red Bull can latch onto the top teams; if you look at modified lap times it's right up there with Mercedes. With engine supplier Renault still looking to be a bit behind, it might not be quite enough, but the car does look very good when it's working.

2 MERCEDES 1m18.383s

There's no reason to believe Mercedes has lost its way or done anything other than build on its successful 2017 car. It's an evolution that seems to be working well.

It did have the tendency for the rear to give up when the driver pushed a little bit above the limit of the car, but that is not unusual. It's interesting to watch the car when the tyres are still warming up as the drivers seem to have more hassle with oversteer.

Looking at the attitude of the car on the straight on the run into the braking zone for Turn 1, the rear rideheight is significantly lower than cars like the Ferrari, Red Bull and McLaren. This is because Mercedes has not gone down the high-rake path, even though it has slightly increased that this year.

By effectively optimising all the little bits from last year, it looks like the team is confident the avenue it has chosen still has potential.

3 FERRARI 1m19.123s

Given that the final day of the test was effectively day three, I was surprised not to see a better Ferrari on track than we did earlier in the week. On day one, I felt it had made up ground because the car looked very good, but it looks like the only car not to have significantly improved.

On that first day, the car looked very stable and the drivers were comfortable, but when they tried to go quicker later on the rear end was giving up on corner entry, and I'm surprised Ferrari didn't get on top of that.

Ferrari is running relatively high rake, and I'm surprised that the rear rideheight is still pretty high at the end of the straight under load. For straightline speed, you want the rear as low as possible and the high-rake is there to give a strong front end for corner entry.

Perhaps Ferrari is focusing too much on this high-rake set-up to get the aerodynamic advantage and has forgotten about the mechanical platform, but I suppose that's what testing is all about.

Overall, the Ferrari still looks strong but not as strong as perhaps it did initially. And the adjusted time gap to the front – a whole second – is maybe a concern.

4 RENAULT 1m19.373s

I'd say the works Renault team is just ahead of McLaren, but it's pretty close. The RS18 certainly looked better at the end of the test than at the start, and seemed to allow the drivers to turn in with confidence and carry speed into the corner.

Based on what we've seen so far, there's nothing to suggest Renault has leaped up to be in the area of Red Bull, but it could easily be at the front of the midfield.

5 McLAREN 1m19.425s

You would expect McLaren to be close to the Renault team, and visually the car did look very good on track. The only problem is that it was often running on softer tyres than the other cars, and you can't change the visual impression of the car on track to compensate for that.

Over the years, McLaren has probably had a less productive development hit rate than a team like Red Bull, and we will be able to see this year what level its chassis is really at.

6 HAAS 1m20.367s

You'd have to say that Haas appears to have done a fairly strong job, even though the car does look like one that's lacking in overall downforce because when the driver starts pushing, it moves around at the rear a lot.

The thing confusing the judgement is that it was also often on softer tyre compounds, and that could be helping camouflage weaknesses. I don't think Haas is going to be challenging for fourth in the championship, but it at least looks to have a consistent car to build from.

The VF-18 is probably the least sophisticated car on the grid, but that's not necessarily a problem if everything works and the team can understand how to get the best out of it.

7 TORO ROSSO 1m20.418s

I would like to congratulate Toro Rosso for what it has done, along with Honda. They've really worked together to be able to build the package, and technical director James Key is content with how the relationship is building up. The engine appears to have run reliably, which is very different to what we saw last year.

On day one, the front end was washing out very badly but the team seems to have solved this. The car didn't set any stunning lap times but it is in the mix and the important thing is to have a solid package that both team and engine supplier can work from.

8 WILLIAMS 1m20.792s

The FW41 does look a little nervous on track. It looks very stiff and jumps around a lot, whereas some other cars appear more docile. When it does step out it goes quickly.

But I am very impressed with the direction Williams has taken and the step in terms of detail and sophistication, which make it a combination of Ferrari and Mercedes philosophy. The downside is that it could take a while to understand that complexity and get the most out of the package. What's crucial is that all these parts work together properly and there's still some work to be done on that.

9 FORCE INDIA 1m21.341s

Force India is putting all its eggs in the basket of upgrades to be introduced in the second test and the season-opening Australian GP. What we saw in the first test was a release car to get the systems working and the mechanical platform sorted.

The drivers seemed to have a lot of trouble getting the tyres switched on, but that could just be down to downforce levels and may be solved with the upgrades.

Force India is a great team but it needs to do a lot of work to develop this package and get the best out of it to have a chance of defending fourth place in the constructors' championship.

10 SAUBER 1m21.771s

Sorry to say it, but Sauber still appears to be where it was last season – at the back. The car just doesn't look like it's got the grip.

Sauber has followed the Ferrari-style concept and there's no reason with a technical relationship that Ferrari can't give it some direction.

The car is more complex, so maybe it will take time to understand. Right now there's no reason to put Sauber anywhere other than the back. ❧



F1 2018
TEST WAR

The truth about Renault's engine

Three teams — Red Bull, McLaren and Renault — are relying on the French firm to get it right in 2018. It could be the biggest factor determining who is at the front, so what's the score?

By Edd Straw, Grand Prix Editor

THE RED BULL RB14 CHASSIS IS AT LEAST VERY GOOD, but the weak link in the package remains the Renault power unit. Renault heads into the year focused on reliability, which means no big hike in performance and the odds of Red Bull being able to beat Mercedes and Ferrari lengthening. So what's the truth about Renault's situation?

"Last year we made an enormous improvement on performance, which has been overshadowed by our reliability level," says Renault Sport F1 managing director Cyril Abiteboul. "Firstly, because we've suffered a number of failures that have been detrimental for the overall performance of our team, but also simply due to the fact that we had to massively, in certain cases, turn down the performance for the sake of protecting the engine.

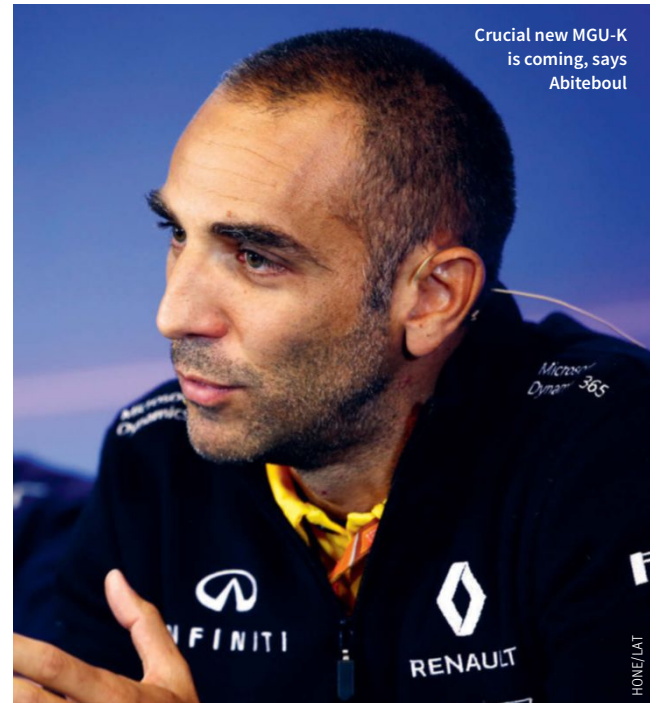
"Between that and the sporting regulations, we had to

review our strategy and we've decided to focus on reliability. That's the starting point, and we also know we are doing that with the knowledge and the confidence that we have in the pipeline of innovation a number of developments that will bring performance to the engine."

So the engine package in use at the start of this season is similar to the one in the car at the end of last season. It's not without some minor gains, so it would be wrong to say Renault has stood still, but it is not a giant stride.

Using the works Renault as a case in point, the packaging under the surface has changed significantly and that's partly been facilitated by some tweaks to the power-unit design. Presumably, Red Bull, with its tight sidepods, has been helped by the same thing.

That performance gain is marginal, particularly given



Will focus on reliability hamper Red Bull, McLaren and the works Renault team?

Ferrari and, in particular, Mercedes will also have gained over the winter. In Abu Dhabi last year, the Renault power units were sacrificing about 0.3 seconds per lap in the name of reliability that should now be available. That plus a sundry tenth probably adds up to the performance gain so far, and an engine that's still perhaps 40-50bhp down.

Focusing on reliability is all well and good, but it's still not ideal if you're having to be conservative to avoid problems that are inhibiting performance and preventing full power from being exploited. On paper, the Renault power unit — meaning both internal combustion engine and ERS package — genuinely does have very good performance potential. In reality, be it on the dyno or track, it's not accessible without the reliability falling away.

Late last year, Renault started to phase in its G-spec V6 engine, which featured improved combustion-chamber technology. This went well, and what might be termed the 'conventional' side of the game is at least close to where Mercedes and Ferrari are. But the potential for disparity in ERS performance is greater. This is where Renault's main problems lie.

At the heart of the problem is the MGU-K. The first-generation Renault MGU-K was produced in association with Italian company Magneti Marelli. Renault decided to go it alone for the second generation, which was supposed to be introduced at the start of last season. It was postponed because of reliability problems, and it remains postponed. Abiteboul

won't confirm when it should be ready to race, but Renault is hopeful it will be this year.

"That's coming," says Abiteboul of the new MGU-K. "I don't want to say too much, but we have an important development programme in-season that should see the change of energy recovery related elements. The second generation of ERS is still a little bit in gestation. It's taking a bit more time than we planned — we were originally planning to start using that MGU-K in the course of last season."

"It has been postponed and is now part of a much more complete and exhaustive package that could come at some point over the course of the season. But before imposing targets on ourselves, I want to see where we stand in terms of reliability with that configuration, and also where we stand in terms of competitiveness."

The MGU-K is at the heart of everything the ERS does and faces a very demanding duty cycle. If the second-generation design is unreliable, that limits the whole ERS package. And Renault already had problems with turbo and MGU-H cooling last year. But if this ERS upgrade is as good as Abiteboul hints, then it could be a game changer. That's a big 'if'.

If, and it's still too early to be certain, Red Bull has the chassis to take on Mercedes and Ferrari, it desperately needs the Renault engine package to be up to the task. If not, unlike last year when Red Bull did have chassis problems at the start of the year, it might well now have a title-winning car that can't fight for the championship. Add to that several years of aggro between Renault and Red Bull and uncertainty over whether the alliance will continue in 2019, with Honda waiting in the wings, and it's a difficult situation.

But the key question is this: can Renault get its MGU-K, and therefore its wider ERS package, to work reliably and without sacrificing performance? However you spin it, this is a part that has been postponed for a year now and has to be considered a problem. Plus, Renault has not been as effective as Mercedes and Ferrari in terms of pushing the limits of the regulations over the past few years, so does it have the same performance potential as its rivals even if all does go well on development?

And even if, as Renault hopes, the combination of the regulations requiring power units to last even longer and further restrictions on burning oil pulls back the 'magic' engine modes Mercedes deployed in qualifying, there's still going to be a deficit to make up. Focusing on making the package reliable isn't necessarily a bad thing, but what will decide if things are going well or badly for Renault this year will be the steepness of the upward curve of performance built upon that foundation. ❧



TORO ROSSO



What can we expect from F1's newest 'works' team?

Based on last season, not much is expected of the Toro Rosso-Honda partnership, but the early signs are that things are looking promising

By Lawrence Barretto, F1 Correspondent

FOR THE 2018 FORMULA 1 SEASON, TORO ROSSO ONCE again finds itself in the familiar role of guinea pig. This time, however, it's not about drivers. Red Bull's junior team has been tasked with running Honda power.

Red Bull is evaluating its engine options for the future and Toro Rosso offers a perfect test bed to assess whether Honda is up to the task after three miserable years with McLaren.

Being a guinea pig isn't ideal. But at least in this case, it is the only one. It also gives Toro Rosso the chance to work with one of the world's biggest manufacturers.

With each of its three previous engine suppliers – Cosworth, Ferrari and Renault – Toro Rosso was simply a customer. It had little to no option of refining that package.

The Honda arrangement is different. It represents a massive opportunity for a team that has largely existed in the shadows of its senior outfit since it joined the grid in 2006. The Honda partnership might not be a full works deal, since the Japanese giant is not pumping any money directly into the team, but Toro Rosso is the priority in the eyes of its engine partner.

It won't be easy. McLaren-Honda finished ninth, sixth and



ninth in the constructors' championship since reuniting, with Toro Rosso picking up a trio of seventh places in that period. Honda also remains last in the engine-manufacturer pecking order. However, Honda is desperate to prove it has what it takes to return to winning ways. It wants to rebuild its reputation after three years of hurt, during which both reliability and performance were poor. Toro Rosso offers it the chance to heal those wounds in a calmer environment that's a world away from the McLaren pressure cooker.

So far, it's a case of happy families, with Toro Rosso completing more laps at the first Barcelona test than any other team. Toro Rosso appears to have learned lessons from Honda's failed marriage with its F1 rival, starting with teaching its staff how to bridge the cultural differences and improve communication with its new Japanese colleagues.

"We have a real fantastic working relationship with Honda," says team principal Franz Tost. "We had very busy months in November, December, January and February. There were no problems from the communication side. We at Toro Rosso started to prepare ourselves for this cooperation.

"We had some lessons in Faenza focused on how to communicate with Japanese companies. I think this was useful to get an idea of the way of thinking because it's a completely different culture. These seminars had a really positive result.

"It is a completely new start from Toro Rosso. It is a big advantage to work with such a big company as Honda. We are kind of a works team. We're the only team working with Honda."

Honda has also enjoyed arguably its best pre-season since its return in 2015. The fire-up in the factory was successful and

completed a day ahead of schedule, while the filming day ran smoothly, with the team completing its programme with time to spare. It even began the first pre-season test with a trouble-free opening day. Brendon Hartley completed 93 laps; only Red Bull and Renault managed more. Tost is convinced Honda will be a success this season.

"We won't have any troubles because the power unit is working quite well," he says. "I am convinced Honda has the capacity and the know-how to develop the engine on a level that we all expect to be. I see it very, very positively because Honda made a lot of progress in the past months from the reliability side and from the performance side."

The chance to work with an engine manufacturer that is purely focused on you, no matter the difficulties that it has faced in the past, has so far proved to have been a huge benefit to Toro Rosso.

"Having only ever been a customer, it's great to have that level of cooperation and collaboration," says technical director James Key. "It means we can very much tune the package as one, whereas when you're a customer you can't do that. We are very flexible towards Honda, they are the same towards us – it's a kind of one-team approach where we want to make the quickest package ultimately.

"It wasn't possible this year because it was a September agreement, but we are able next year to start very early on having an integrated chassis/engine-type approach, which allows us to maximise both and play to the strengths of both as well. This is something you can't do as a customer.

"The other thing we recognise but is maybe very new to us >>

is the responsibility you hold as a works team – it's quite considerable. Being the only team that works with Honda, we have a responsibility to them as well. That's with our combined success, but also in terms of the technical solaces you need to provide as a team, the support for certain aspects of design, for dyno operations, gearboxes and combined efforts on control systems where it's relevant between chassis and power unit.

"That's something you definitely don't do as a customer and I think that's been a really good experience for us to have and something we've always wanted to do, but a very big responsibility to deal with too."

The lateness of the deal coming together has proved a challenge. Toro Rosso has experience in reacting to a late engine supplier change, having only found out in December 2015 that it would run year-old-spec Ferrari power the following season. This time, Toro Rosso found out for certain last September and had been preparing before that in anticipation of the deal going through.

"It's not new territory," confirms Key. "There was a certain anticipation of this happening, so on that basis we prepared ourselves for a reschedule of our production deadlines. We have a design area within the company that can quickly turn around a car architecture, so in that respect we were prepared. Then it was a case of really getting into contact with Honda. We had an initial meeting in their base in Milton Keynes,

"What's new to us is the responsibility you hold as a works team – it's quite considerable"

over two days, just to get the ball rolling.

"There were a lot of new faces for us to learn and the same for Honda. From that point, everyone calibrated very well to get the design process underway and the essential data transferred as early as possible between us and our colleagues at Honda.

"Luckily the Honda is a very tidy installation indeed, so the implications and architecture weren't particularly significant. There was a lot of engineering work to do, but it didn't fundamentally change the architecture of the car. We were able to take some of what we had already done and transfer it to a Honda installation."

The STR13 looks different to its predecessor, particularly the front of the car, and Key says to expect further changes for the opening races of the season, followed by additional upgrades at the subsequent grands prix as it develops the base car it brought to testing.



"The car you saw at testing is very much a launch-spec car, there's certainly more to come," he says. "Melbourne, race two, race four, etc, we'll see changes from what we see now. I'm sure that's going to be the case with many of the cars out there."

Toro Rosso struggled with aerodynamic development last season and made some changes to the department over the winter that included Brendan Gilhome leaving his role as head of aerodynamics. Key feels that Toro Rosso has identified and found solutions for some of the problems it faced last year, but other areas remain a "work in progress".

He adds: "Towards the end of the year we recognised we had some issues on the aero side that needed to be addressed. At the moment, the areas around the front are an evolution of what we had last year to a certain extent, and areas around the back are generally quite new.

"The aero as a package, the whole thing connects together. The work we're doing at the moment for these initial races, our development in all those areas is to make changes as required."

Tost has been one to set bold targets in recent years and he has done so again. Though he concedes Mercedes, Ferrari and Red Bull will be clear of the field, he predicts a closer midfield battle where he expects his team to figure towards the front, despite an inexperienced driver line-up of Hartley and Pierre Gasly, who boast a total of nine grand prix starts between them.

"I said once in an interview the first three places are gone because as we know there is Ferrari, Mercedes and Red Bull and then from the fourth place onwards there's an open fight between Force India, Williams, hopefully Toro Rosso, McLaren, Renault and so on," says Tost. "I have to get a clearer picture about our performance – for this I need the tests and maybe the first two or three races – but the target from Toro Rosso is to be in the front part of the midfield. This is around fifth place."

It's a bold target and one which will rely heavily on Honda making a big step after three painful campaigns. And if it achieves that, Toro Rosso may well find that another 'member' of its team graduates to Red Bull. ✽



LAT IMAGES

Above: Tost's and Honda tech director Toyoharu Tanabe's expressions belie what's already described as a "fantastic" working relationship

Left: Toro Rosso's trouble-free test running contrasts starkly with McLaren's stint with Honda



Drivers buoyed by Toro Rosso potential

PIERRE GASLY AND BRENDON Hartley (right) have been pretty positive so far, following their first experiences of Honda and its latest engine.

"I knew that Toro Rosso and Honda worked really hard over the winter to try to make a package as good as possible," says Gasly. "They had to find compromises. We compromised in Toro Rosso, with the shape of the car, but also Honda [compromised]. It wasn't only one way – 'OK, the car is going to be like this and you need to deal with it'. Toro Rosso did a good job in terms of communication with Honda and then, yeah, we can see some positive outcomes already."

Gasly said his initial impressions of the Honda power unit were positive, but admitted it remains

early days. "At the moment, it's really good," he says when asked about the horsepower after his first run. "But we run really safe modes. We didn't do any qualifying runs or even 'pushing' laps. It's more about making sure we run many laps and at the moment the engine is really reliable, which is what we need to have a good understanding of the car. So far, so good."

Driveability was a recurring issue during Honda's stint

"At the moment the engine is really reliable. So far, so good"

with McLaren, and was particularly poor when Honda introduced its all-new engine in 2017. Hartley, who made his F1 debut last year and contested four grands prix in a Renault-powered STR12, went as far as to suggest that this Honda unit's driveability was better than that of any of his previous 2017-spec Renault engines. "The driveability of the engine is one of the best I've driven in a Formula 1 car, so it was really positive in all aspects," he says.

And there have been more encouraging signs surrounding the chassis. "I felt comfortable with the car," says Gasly. "It's consistent from one corner to another, between the low-speed, medium-speed and high-speed. I still have a lot of work to do and I think we have some good directions overall."



2018
IndyCar
preview



Newgarden is confident,
but knows new car offers
potential to mix things up

Penske's latest IndyCar challenge

The benchmark American team has got to grips with a new car for 2018, so can anyone stop another Penske title?

By David Malsher, IndyCar Correspondent

[@DavidMalsher](#)

The seventh year of competition for IndyCar's Dallara DW12 is already looking like its most promising yet. President of competition Jay Frye has overseen a radical overhaul in the series' technical approach, deleting the manufacturer aerokits that over the last three seasons cost Chevrolet and Honda eight-figure sums to develop, turned an aesthetically challenged car into a downright ugly one, hurt the racing at most tracks, and artificially compressed the varied talents of the IndyCar drivers with excessive downforce.

The reversion to a common aerokit has allowed Bill Pappas (VP of competition and engineering) and Tino Belli (director of aerodynamic development) to come up with a concept that slashes downforce by between one-quarter and one-third depending on the track, and has transferred the majority of the downforce-generation to the underside. Suddenly IndyCar drivers have been forced to relearn the art of throttle control and tyre management, they should also be able to race closer on all types of track without losing vast amounts of downforce from the top surfaces, and they now have longer braking zones in which to complete a passing manoeuvre.

"The grip from [manufacturer aerokits] was very lightswitch, nothing in the middle, so it was absolutely stuck with downforce or it was gone," says Marco Andretti, who appears rejuvenated by the new car. "It was extremely hard to feel the limit, plus, with all that topside downforce, very unpredictable in traffic."

"I like a car that's superlight, where you can feel what it's doing and predict what it's going to do, and thankfully that seems to be what we've got with this new aero package. On ovals, I can feel the rear of the car now, I'm not just driving it hard into the turns and hoping it's gonna stick... I can feel that it's right on the limit."

The deletion of myriad top-surface appendages and tail-end protuberances should not only reduce the amount of debris and size of repair bills following accidents, it has also allowed IndyCar to produce a very handsome car, enhanced further by transferring the air intake from above the driver's head to the radiator ducts. Chris Beatty, a design consultant

from the UK, has penned what appears to be a DW12-based version of the glorious mid-1990s CART Indycars. At last, in 2018, an IndyCar is very distinct from other open-wheel race cars but now in an aesthetically pleasing manner.

Do not, however, expect the technical shake-up to drastically alter the relative performances of the teams. The 2014, '16 and '17 champions – Will Power, Simon Pagenaud and Josef Newgarden – will keep Team Penske-Chevrolet at the sharp end of the grid throughout the season.

"Having lived and breathed the Penske experience for the last year and a bit, I think they'd be a force in any situation – same regs, new regs, whatever," reckons reigning champion Newgarden. "They've operated at this level for 50 years and so they're always going to be in the fight."

"I think we will be strong. We have too good a line-up of personnel, too strong an infrastructure, to not be in the championship hunt. Will we be leading that hunt? I do believe we have a strong foundation with this car already..."

However, he then throws a crumb of comfort to the cheap seats by adding: "Having said that, with a new car you can get some interesting twists, just because the calendar is so diverse

and because there are a lot of strong engineer/driver combinations throughout the field. This is IndyCar and we know there are a lot of potential race winners here, and so we may have surprises because none of us has yet got a handle on set-ups for this car on every track."

Newgarden's race engineer, Brian Campe, agrees: "We were pretty comfortable with the manufacturer aerokits by last year, the third year, so this new aerokit causes us to ask a lot more questions of ourselves. Where do you put the rideheight? Will our set-ups from last year work or at least provide a decent starting point? You even start looking back to the first version of the DW12 [2012-14] to see what we ran then. You're trying to answer a lot of these questions at each test but there are still going to be a lot of unknowns at the tracks we haven't tested at, which is most of them!"

Campe also emphasised that tyre degradation will be a far more prominent feature in 2018 than in recent years, when the cars were nailed to the track and therefore the rubber wasn't skating laterally across the surface. Firestone, >>

CALENDAR

DATE	EVENT
March 11	St Petersburg
April 7	Phoenix (ISM)
April 15	Long Beach
April 22	Barber Motorsports Park
May 12	Indianapolis
May 27	Indianapolis 500
June 2	Detroit Belle Isle
June 3	Detroit Belle Isle
June 9	Texas Motor Speedway
June 24	Road America
July 8	Iowa Speedway
July 15	Toronto
July 29	Mid-Ohio
August 19	Pocono
August 25	Gateway
September 2	Portland
September 16	Sonoma

2018 IndyCar preview

which had long intended to create a bigger differential between the red-sidewalled softer 'alternates' and the all-black harder primaries, has seized the opportunity offered by IndyCar's 2018 technical makeover. With the sidewalls more flexible the tyres provide more driver feel and allow greater slip angles; they do provide more mechanical grip; and yes, there is indeed a greater difference between the reds and blacks.

"You're going to have to be smooth to save the tyres so you're strong for a whole stint," says Campe. "I've been constantly on Josef about this throughout testing. I'll say, 'OK, that's a fast set-up now, but how's that going to be 20 laps into a stint at St Pete? Will the rear tyres be going off too much? The front tyres?' It's another of these unknowns."

There are a couple more series-wide unknowns, and they each relate to ovals. The dire racing seen at Phoenix's newly renamed ISM Raceway for the past two seasons needed fixing, and in the open test in February that appears to have been addressed. The reduced downforce obliges drivers to lift the throttle and change down for the turns, even on fresh rubber, so the chances of a bigger differential between the able/unable have increased, as have the chances of a driving error. Cars can also follow closer through a turn. But will a second lane emerge so that passes can be made without the driver ahead making a mistake? That could make all the difference between a great race and a drone-a-thon.

The other oval where IndyCar created something truly rotten in 2017 was Texas Motor Speedway, which saw drivers embroiled in one of those hideous pack races that proves nobody's talent. Although a little testing has occurred at TMS with the new car, it will take the multi-car test post-St Petersburg for Pappas, Belli and co to get a definitive read on what needs to be done there.

Schedule-wise, there isn't much change. There's a godawful four-week blank between rounds one and two, and the championship again ends mid-September, but the main change is that Watkins Glen has been replaced by Portland International Raceway, which last saw topline US open-wheel racing in 2007.

There are numerous upheavals in the paddock, however. Ganassi has shrunk from four cars to two, inevitably retaining four-time champion Scott Dixon, but with Tony Kanaan being replaced by series sophomore Ed Jones, the 2016 Indy Lights

champion. Max Chilton and Charlie Kimball have gone together to join new full-time team Carlin (see page 38). Kanaan has gone to AJ Foyt Racing, where he's joined by a rookie compatriot less than half his age, Indy Lights race winner Matheus Leist. Spencer Pigot has replaced JR Hildebrand as Ed Carpenter Racing's full-time driver, while team owner Ed Carpenter will remain as the oval pedaller in his squad's other car, but with GP2 race winner Jordan King taking over for the 11 road/street courses on the 17-race schedule.

Another split ride — though not one based on ovals/non-ovals — has been carved out for two more rookies, this time in the #19 Coyne car. Zachary Claman DeMelo, a wild but swift graduate from Indy Lights, will compete in 11 races, while the other events — including the Indianapolis 500 — will see Formula V8 3.5's last champion, Pietro Fittipaldi, taking the wheel, alongside team incumbent Sebastien Bourdais.

Schmidt Peterson Motorsports has grabbed DTM exile Robert Wickens to form an all-Canadian line-up with James Hinchcliffe, while former British F3 champ Jack Harvey, in the Michael Shank Racing-run arm of SPM team, will compete in at least six races.

Indy 500 winner Takuma Sato has departed Andretti Autosport after just one season to turn Rahal Letterman Lanigan Racing into a two-car team with Graham Rahal. Sato's seat at AA has been taken by fast and brave rookie Zach Veach, who joins 2012 champion and '14 Indy 500 winner Ryan Hunter-Reay, '16 Indy 500 victor Alexander Rossi, and Marco Andretti.

Harding Racing, which made such a strong impression in its first three outings last year, has committed to a full season running a single car for 2014 Indy Lights champ Gabby Chaves. Juncos Racing, which in '17 took its drivers to both the Indy Lights (Kyle Kaiser) and Pro Mazda (Victor Franzoni) titles, will enter eight races, four with Kaiser and four with Rene Binder, who scored four wins in Formula V8 3.5 last year.

None of these will stop Penske over a 17-race season, however. As usual, Roger's crew will likely find its chief opposition is the irrepressible combination of Dixon, Ganassi and Honda. The more things change, the more they stay the same. But it's very refreshing when those changes are good ones. ❧



Andretti Autosport team-mates Marco Andretti (left) and Ryan Hunter-Reay compare notes at Phoenix test



Newgard's engineer has stressed how tyre degradation will be a bigger factor this year





LAT IMAGES

ENTRY LIST

No.	DRIVER	TEAM/ENGINE
1	Josef Newgarden	Team Penske-Chevrolet
12	Will Power	Team Penske-Chevrolet
22	Simon Pagenaud	Team Penske-Chevrolet
9	Scott Dixon	Chip Ganassi Racing-Honda
10	Ed Jones	Chip Ganassi Racing-Honda
26	Zach Veatch	Andretti Autosport-Honda
27	Alexander Rossi	Andretti Autosport-Honda
28	Ryan Hunter-Reay	Andretti Autosport-Honda
98	Marco Andretti	Andretti Autosport-Honda
15	Graham Rahal	Rahal Letterman Lanigan Racing-Honda
30	Takuma Sato	Rahal Letterman Lanigan Racing-Honda
5	James Hinchcliffe	Schmidt Peterson Motorsports-Honda
6	Robert Wickens	Schmidt Peterson Motorsports-Honda
60	Jack Harvey	Michael Shank Racing with SPM-Honda *1
20	Jordan King/ Ed Carpenter	Ed Carpenter Racing-Chevrolet *2
21	Spencer Pigot	Ed Carpenter Racing-Chevrolet
4	Matheus Leist	AJ Foyt Racing-Chevrolet
14	Tony Kanaan	AJ Foyt Racing-Chevrolet
18	Sebastien Bourdais	Dale Coyne Racing with Vasser-Sullivan-Honda
19	Pietro Fittipaldi/ Zachary Claman DeMelo	Dale Coyne Racing-Honda *3
23	Charlie Kimball	Carlin Racing-Chevrolet
59	Max Chilton	Carlin Racing-Chevrolet
32	Kyle Kaiser/Rene Binder	Juncos Racing-Chevrolet *4
88	Gabby Chaves	Harding Racing-Chevrolet

*1 Part-time entry. Harvey set to race at least St Petersburg, Long Beach, Indy 500, Portland and Sonoma

*2 King to race the 11 road/street courses, Carpenter to race the ovals

*3 Fittipaldi to race Phoenix, Indy GP, Indy 500, Texas, Mid-Ohio, Portland and Sonoma. Remaining 10 to be raced by Claman DeMelo

*4 Part-time entry. Binder to race at St Petersburg, Barber, Toronto and Mid-Ohio; Kaiser to race at Phoenix, Long Beach, Indy GP and Indy 500.



Dark horse
Rahal is real
title threat

Penske's chief rivals

GANASSI'S SCOTT DIXON (BELOW) has to head this list of potential Penske-beaters because 1) he's done it before; 2) he can rarely be counted out in any given race; 3) this car's inherent characteristics should suit him. Very direct 'on-the-nose' turn-in and an unstable rear end under braking just suits the four-time champion's preferred driving style. And even if this car was a pushy understeerer, Dixon's race engineer Chris Simmons could probably find a way to set it up for his driver.

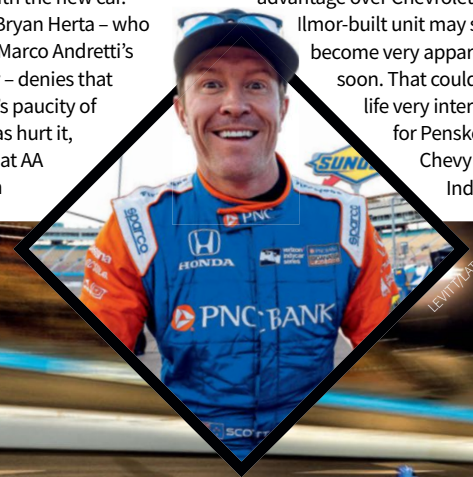
Two more drivers who thrive on flicking a car into a turn and catching the rear end are Andretti Autosport's Ryan Hunter-Reay and Alexander Rossi. Michael Andretti's brief flirtation with Chevrolet last summer not only cost the squad its latest Indianapolis 500 winner, Takuma Sato, but also meant Schmidt Peterson Motorsports and Chip Ganassi Racing carried out Honda's initial manufacturer testing with the new car. And yet, Bryan Herta – who co-owns Marco Andretti's #98 entry – denies that the team's paucity of testing has hurt it, stating that AA has taken

another sizeable step forward after a couple of seasons in the relative doldrums. January and February testing appeared to justify his optimism.

But if you were feeling brave, the real dark horse is Graham Rahal and the Rahal Letterman Lanigan Racing team, who have finished in the top six in points for the past three seasons, despite running just one full-time car. With Sato joining the squad, it can share workload, set-up experiments and data; and remember, RLLR dominated testing at Phoenix and has also shown well in Sebring tests. And no-one should doubt anymore that Rahal is a potential future champion.

The common factor among the aforementioned cars is, of course, Honda, which has now cast off the shackles of an underperforming aerokit. With everyone running the same aero package, the truth about whether HPD engines really do have a 3-4% advantage over Chevrolet's

Ilmor-built unit may start to become very apparent very soon. That could make life very interesting for Penske and Chevy – and IndyCar fans.



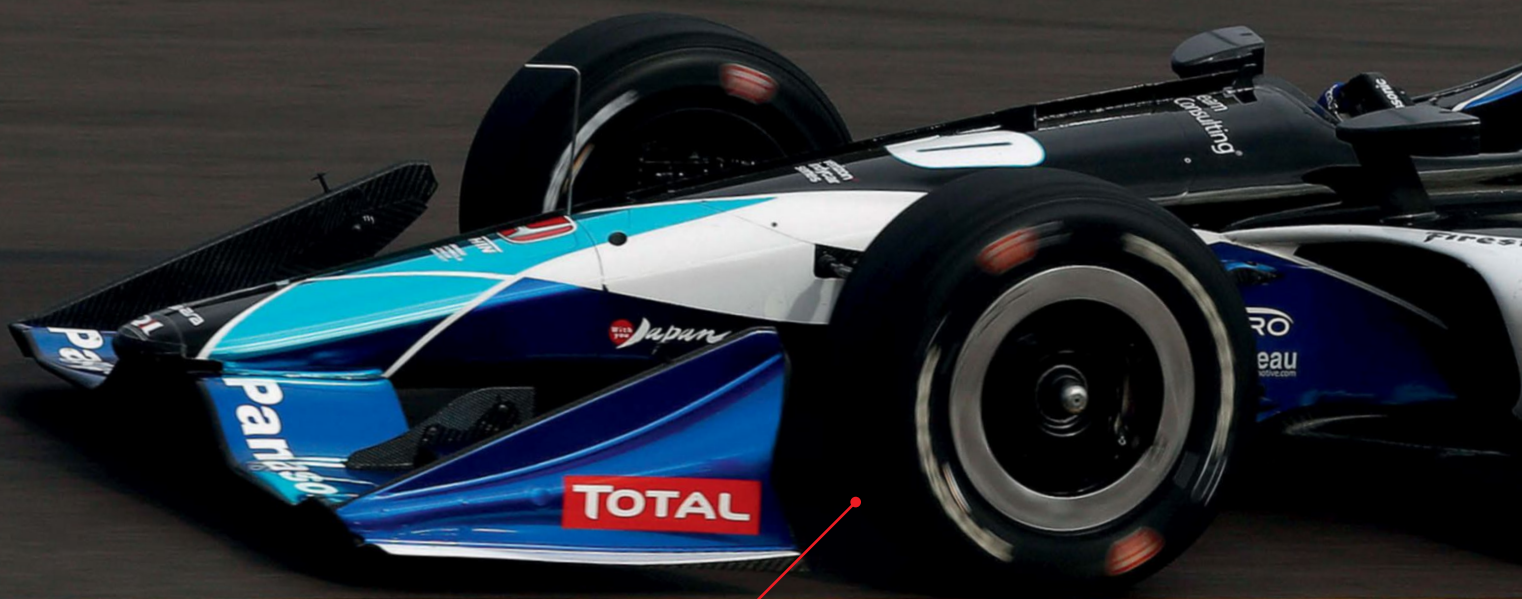
2018
IndyCar
preview

IndyCar's new look

The era of manufacturer aero kits is thankfully at an end. This is how constructor Dallara has cut costs, improved the looks – and, hopefully, the racing

By Tom Errington, Special Contributor

🐦 @tomgerrington



LAT IMAGES

TYRES

The Firestone rubber has been regularly criticised in IndyCar because the red and black-walled tyres do not have enough performance differentiation between them. With less downforce this year, degradation should increase, giving Firestone the chance to change the status quo. It's committed to introducing new rain tyres and will test a new street-course compound too.

DRIVERS

While some of the IndyCar field ran the aero kit in manufacturer testing last October, Honda's and Chevrolet's teething problems meant early impressions counted for little. But when the cars got into the hands of every driver in January, a consensus formed that the new car puts control back in the hands of the pilot.

Both Scott Dixon and James Hinchcliffe said that the increased downforce of the outgoing era meant drivers and teams could hide mistakes on track and in set-up. Now that this 'Band-Aid' has been removed, IndyCar's best drivers will rise to the occasion.

Testing has offered few opportunities to run in traffic, but the limited running has suggested that IndyCar is on track to improve the racing, with larger braking zones and less-dominant aero, which means cars can follow more closely.

Even experienced drivers such as Charlie Kimball and Marco Andretti have been caught out by how different the 2018 car is, with Andretti describing it as "on edge". All the signs bode well.

IndyCar's 2018 car package is not only a radical departure from the outgoing era of manufacturer aero kits, it's also the centrepiece of the series' plan for the future as it seeks to become attractive to global car makers.

The aero kits designed by Chevrolet and Honda proved disastrous to IndyCar, and this precipitated the 2018 revamp. Chevrolet mastered the aerodynamics and pulled a decisive advantage over Honda's Wirth Research-designed aero kit, triggering a cost rise that angered the team owners who had to foot the bill.

The first time the manufacturer aero kits raced, at St Petersburg in 2015, excessive debris resulted in a spectator being injured. While the designs were continually tweaked, the ugly and complex aero packages made the racing more pedestrian.

IndyCar and Dallara have now produced a striking, simple car that has two ultimate goals: lowering the costs and improving the racing. All full-season entries will get two aero kits for free, saving nearly \$200,000. With four new teams joining up, that's one box ticked. Now IndyCar has to tick the other box on track.

Windscreen tests go well

INDYCAR'S OPEN TEST AT PHOENIX WAS THE first time it showed the world its initial attempt at the cockpit-protection system it calls the 'windscreen'.

Justin Wilson's death in 2015 made IndyCar seriously consider protection of some kind, and the resulting media coverage of the crash prompted PPG – the designer of canopies on military aircraft – to approach IndyCar. The PPG approach intensified the project and, with the halo instantly discarded due

to its restriction of driver focal points on ovals, the windscreen was the only option.

Scott Dixon completed the windscreen's maiden test and reported few issues beyond slight distortion – caused primarily by being an early prototype rather than an inherent design flaw – and the lack of natural cooling caused by the windscreen's placement.

With fixes underway, IndyCar could run an updated specification at the Barber Motorsports Park open test this month, with the series surprised at how well the process has gone to date.



AERO

The most surprising thing about the 2018 car is how few aerodynamic devices feature. Dallara's Andrea Toso explains it as "simplified for the right reasons". The swept-back look reduces the chances of errant debris and increases stability. The idea was to balance a stable car with a good look. Impressively, 66% of downforce comes from the underbody – an increase of 19% – and this should boost the racing.

ENGINE PACKAGING

While cost saving was high on IndyCar's agenda, creating a striking car was also a key priority. Taking inspiration from the best-looking designs of the CART era, it was decided that removing the airboxes was one of the best ways to achieve this. Toso reckons it was "easy" to accommodate Honda and Chevrolet engines by incorporating inlets and air intakes elsewhere on the car. The new look is a source of pride for Dallara's team.

SAFETY

IndyCar and Dallara seized the chance to produce a sizeable safety update. The coverings that fitted around the tyres have been removed, and the complexity of surface aerodynamics has been reduced to cut down on debris that could impact a driver or cause on-track problems. The sidepods have been moved further forward, and Dallara has incorporated better crash structures into the car.



2018
IndyCar
preview



Wild west heroes?

British team Carlin has got to the pinnacle of the sport in the States. Now the challenge is to establish credibility as it takes its first steps in the IndyCar Series

By Tom Errington, Special Contributor

It could have been the British Touring Car Championship for Carlin this year, another extension in the increasingly impressive roster of activities for the team. Instead, it's completed a single-seater ladder that goes all the way from its own academy to Formula 2 – and now Stateside, to the IndyCar Series via the already-successful Indy Lights squad. No longer does Carlin have to wave goodbye to the talents it produces, as it has done with four-time Formula 1 champion Sebastian Vettel, reigning IndyCar title holder Josef Newgarden and Red Bull's Daniel Ricciardo.

It's taken two attempts for team chief Trevor Carlin to

make the IndyCar grid. A planned tie-up with KVSH Racing for 2017 failed, and left that team to collapse, but now Carlin has made a move that means it will stand on its own feet, for better or for worse, beginning with this weekend's season opener at St Petersburg.

"It's like all these things in racing and life – it's all about timing," says Carlin. "Kevin Kalkhoven [KVSH Racing co-owner] was very supportive and desperate to help us. He wanted to help us into IndyCar. At the time, I don't think we were ready as an organisation. And the timing wasn't right for us to get the drivers. So it sort of just drifted away, and then Kevin had to make a final decision on what to do with the equipment and went to auction. At the end of 2016,

OWENS/IMS



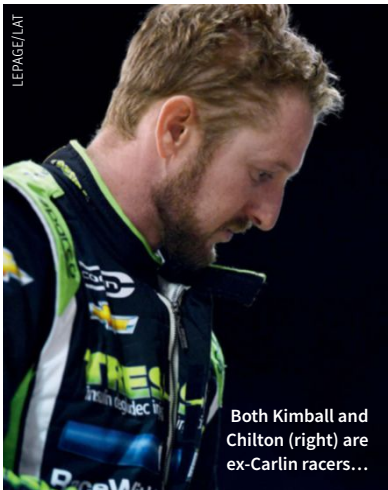
Chilton will drive car #59, while Kimball (below, right) is in #23

Trevor Carlin has long dreamed of US success

SKIBINSKI/IMS



LEPAGE/LAT



Both Kimball and Chilton (right) are ex-Carlin racers...

GRITZWACHER/IMS



...have IndyCar experience and bring funding



COTE/IMS

it was [a case of] trying to force something to happen, whereas this time it has happened organically and clicked into place like all the best teams do.”

Carlin admitted during the build-up that the programme was still about six weeks behind schedule as it lined up sponsors and put together the final pieces of the jigsaw, including its Chevrolet engine deal. But forget the difference a month or two makes – it’s joined IndyCar at the perfect time.

The manufacturer-aero-kit era was a disaster, plain and simple, as racing deteriorated and costs escalated. That meant IndyCar realigned its future, beginning what series president of competition and operations Jay Frye repeatedly calls the “five-year plan”. That revolves around the new-car package for 2018, which slashes costs, and on top of that IndyCar has given two ‘18 aero kits for free to full-season entrants such as Carlin, which was enticed by the much better value on offer in IndyCar. Consider that the DW12 chassis will continue until 2020 at the earliest, and those costs will stay low too.

“The fans want to see close racing and they don’t really

care how much your body kit costs, so at the end of the day they [IndyCar] have got it right in that respect,” Carlin says. “They’ve managed to cut the costs so I think it’s very positive, and it’s the way the sport needs to go.”

But making the grid is just one aspect of Carlin’s journey. In the past few weeks, it has completed a shakedown on the Homestead road course and tested thoroughly and competitively in the open test on the Phoenix oval. Plans in

progress include opening an Indianapolis base, which is on track to be completed mid-season and helps complete the project-building phase. The staff roster has been finalised, and includes hires from IndyCar

and NASCAR to complement a European core.

One of IndyCar’s worst-kept secrets, once it was clear that Carlin would step up to the series, was that Chip Ganassi Racing’s dropped pairing of Max Chilton and Charlie Kimball would lead the team in its first season. On the face of it, the choice can be considered slightly underwhelming, as Kimball won one race in seven years at Ganassi and Chilton managed zero in two. But what is certain is that Carlin has two drivers >>

“It happened organically and clicked into place like all the best teams do”

2018 IndyCar preview

who bring essential funding, IndyCar experience and know the team inside out. None of those factors can be called drawbacks.

"Charlie's a race winner, and Max led the Indy 500 for 25% of the race last year," Carlin says. "If we can turn up with two drivers of that calibre for your first year then you say, 'Well that's ridiculous, you'll never pull that off,' but we have. Plus the fact that they're both ex-Carlin drivers and they've both won with us is the icing on the cake, and they're really good guys."

"They're not crashers, which for a new team is important, which means you're going to get as much running as possible. Obviously, you can't avoid accidents in races but neither of them will throw the cars off, which gives us a bit more time and a bit more bandwidth to do our technical job."

With a solid and sensible base, Carlin is well on the path to a sustainable IndyCar programme, but what's harder to determine is its immediate competitiveness. It is possible to make an early impression. For example, in a three-race spell last year, Harding Racing – another team that will step up full-time in 2018 – managed ninth in the Indy 500 and fifth at Texas Motor Speedway. So Chilton's prediction of podiums in Carlin's first year is, while ambitious, not totally unrealistic.

To make such a target possible, Carlin's secret weapon will be its extensive history of working with spec Dallaras in series such as Formula 2/GP2, GP3 and Indy Lights, coming at a time when IndyCar becomes increasingly single-make in most regards.

"I'd say Trevor is one of the best, if not *the* best at running single-make-formula teams," says Chilton. "There is a knack to it. Everyone's basically got the same [equipment] apart from two engines, which are actually pretty close now. If there's ever a chance for us to come in and make an impact, it will be 2018."

As Carlin adds, the team has almost two decades to draw upon in its maiden year. "Being a junior [category] team, we don't have a massive design department," he says. "We have got a design department but it's effectively one or two guys. To step into something like Formula 1 or LMP1 is just not within our realm."

"We've got a very good research-and-development department, but we don't have the funding or the size of the company to build and design a competitive racing car. But to run and operate pretty much a spec car is what we've done. We've been doing it for nearly 20 years now, so we're well versed in what it takes to get a car up to speed quickly."



Chilton in the new car during shakedown



New IndyCar team is combo of European and American talent

That level of knowhow and expertise is how Carlin has developed its knack of leading junior categories, whether it's British Formula 4 or an international series such as European Formula 3 (which isn't a spec car, although everyone uses the same model of Dallara as there is no credible opposition). Carlin's reputation precedes it, meaning it can, to a degree, cherry-pick the best talent to marry with that expertise.

With such a narrow spread of competitiveness in IndyCar, and with four-time champion Scott Dixon pointing out that the new aero kit means an initial shake-up is likely, Carlin will

have to build itself up to become a destination of choice for the top talents. But how long before it can be in that position?

"Well if I knew that I'd be a magician," says Carlin. "I don't know. We've got to push forward in every

area now, on-track performance, off-track presentation and image. We need to work hard on selling ourselves to raise sponsorship income so that we can be in a position to give Fernando Alonso a seat for a season and pay him. That's the dream scenario, when the team can fully fund itself and pick the drivers. That's going to take a while."

While talk of a certain McLaren-contracted Spaniard may just be an illustration to prove a point, Carlin is much more expectant on results, and points to IndyCar's tendency for bizarre twists as an example of how his team can compete early on. "They [IndyCar] have more of a randomiser with more pitstops and yellow flags," he explains. "We don't want to necessarily win a race by accident or default, but we'll take it any way that we can. One day the dice may fall our way, but that would never happen in F1. The chances of Sauber finishing in the top 10 are hard, let alone winning a race. It's possible in IndyCar."

Having finally made the grid, Carlin is about to find out just how much is possible for his empire, 30 years after he first fell in love with American racing. "My love of Indycar racing, especially the Indy 500, started back in the 1980s when I used to watch the races on TV in the UK," he says. "I remember '85 when it was Danny Sullivan who spun during the Indy 500, did a full 360, somehow managed to keep going and ended up winning the race."

"And that always sticks in my mind, I think, 'Oh my God, that's just incredible. Wouldn't it be fabulous, initially to go and watch the race!' Let alone actually going to take part in it..."

Given how Carlin approaches single-seater racing, you wouldn't bet against the team doing more than just making up the numbers at the Indy 500 in the near future. ❧

King of America

IT MAY SOUND ODD TO HEAR THAT Jordan King needed to be convinced to join the IndyCar Series with Ed Carpenter Racing, but that just illustrates how young European talent is conditioned to aim for Formula 1.

When the majority of those careers level out in the junior categories, it can be difficult to convince a driver to look Stateside. But ex-Formula 1 and IndyCar pilot Mark Blundell, now a driver manager, says it should be an easy sell.

"The guys are so focused on F1 that they kind of lose sight of what else is around, and trying to actually get to F1 and actually be part and parcel of the environment is so difficult these days," says Blundell. "Because unless you are in the privileged area of getting into a manufacturer relationship, there are only so many teams that can take you under their wing.

"If you're not, then you'd better have €15-20million in your pocket because that's what you're going to need to buy a seat, and at that stage I think you have to have a



King has switched from Formula 2 to IndyCar

SBLOXHAM/LAT



look inside of the box and see what else is there. I think IndyCar racing is some of the best racing he [King, left] will do."

Meanwhile, 2012 British Formula 3 champion Jack

Harvey is also on the grid for at least six races. As one of the drivers supported by the Racing Steps Foundation, his career took him into GP3 in '13 before a switch to Indy Lights for '14 with Schmidt Peterson Motorsports. He's highly rated by those within the team, who along with Harvey

have worked tirelessly to get the 24-year-old into the field through a tie-up with Michael Shank Racing.

As SPM's new head of engineering Todd Malloy says: "I think if you're a driver in Jack's position, then any time in an IndyCar is an audition."

With Carlin, Max Chilton, Harvey and King on the grid, there's a sizeable UK opportunity in IndyCar. There's even some influence under the radar too, with British designer Chris Beatty playing a key role in the look of the 2018 IndyCar, for which the series is getting rave reviews.

Harvey drove SPM's #7 car at final two rounds of 2017

GALSTAD/LAT







Audi *finally* hits back

For the second time this season, Daniel Abt gave Audi its first win as a Formula E works team. Only this time it stuck

By Scott Mitchell, Formula E Correspondent

[@Scott Mitchell](#)



“What I want to know is: ‘Is Audi the worst team in Formula E?’” It’s

probably not surprising that Autosport’s analysis of Jaguar’s awful start to life in the series last season occasionally gets brought up by members of the team. This time, though, it was a topical jibe. The all-singing, all-dancing Audi Sport Abt team was tipped to conquer all before it at the start of the 2017/18 season, but had mustered just 12 points from the opening four races heading to Mexico City last week.

Thus, the tongue-in-cheek question above. And the answer wasn’t exactly a resounding ‘no’, because Audi has been the epitome of profligacy this season. In its first season as a fully fledged works entrant, Audi has shown searing pace but crippling unreliability. Lucas di Grassi has borne the brunt of that woe, but the issues haven’t been confined to powertrain problems – Daniel Abt actually claimed Audi’s ‘first’ FE win in



Hong Kong, on the opening weekend of the season, but lost it because the team filled in his technical passport incorrectly. Myriad dramas have followed, and the hard-luck story filled more and more chapters.

The saga reached peak ridiculousness when Audi revealed last week it had finally identified the problem that was triggering failures on di Grassi’s car at each race, and had a fix – but couldn’t bring it to Mexico City because it requires a re-homologation. This was granted by the FIA, but its regulations

Top: Rosenqvist leads early on, but would not make the finish

Above: Abt finally celebrates a deserved victory for Audi factory team

state there is a grace period before it can be enacted. Audi, its beleaguered reigning champion di Grassi, and Abt, would have to cross their fingers and hope in Mexico.

It says a lot about that wastefulness that Audi went to Mexico three points off the bottom of the championship table, yet won the race at a relative canter. That it was Abt who secured (and kept) the breakthrough victory was a poetic turn. That lost win in Hong Kong had already gone some way to vindicating Abt’s status as an Audi factory driver, given he was often labelled a beneficiary of nepotism thanks to his father Hans-Jurgen owning the original Abt FE team that is now the works entry. But his speed in Marrakech and Santiago was further proof that he has stepped up his game this season.

In Mexico he reached a new height, producing an expert drive that included pressuring and passing Sebastien Buemi, then overhauling Oliver Turvey to win comfortably and, as Audi team principal Allan McNish said, “put the ghost of Hong Kong to bed” in the process.

When Abt ‘won’ in Hong Kong, he inherited the victory. Felix Rosenqvist



LAT IMAGES

and Edoardo Mortara had to bin it from the lead at the start and end of the race for him to move to the front. He and the car had pace, but he seemed a little stuck.

The Mexico race threatened to develop in similar fashion. Abt grabbed fourth and hounded Buemi early on, but with Rosenqvist streaking clear from pole and Turvey edging away from the struggling Renault e.dams, Abt stayed fourth.

Things started to swing in his favour when Rosenqvist's car shut down coming through the final corner at the end of the 14th lap, after he had built a lead of 2.3 seconds over Turvey. That gifted Turvey the lead and, although it moved Abt into the podium places, with Buemi holding firm, he was still three seconds behind the new leader.

"I was chasing Sebastien but it was super-tough to overtake him and I saw that Oliver was making a bigger gap," said Abt. "I knew I had to somehow make it past if I wanted to win."

This time he was more aggressive. Abt stayed glued to Buemi's rear end and the pressure eventually told when the 2015/16 champion locked up into Turn 1 at the start of lap 21 of 47 and

ran deep, allowing Abt to steal through.

By the end of the tour Abt was 3.6s behind Turvey, but a blistering trio of laps slashed the advantage to almost nothing as they came in to swap cars. Turvey reckoned he was marginal on energy and that exacerbated Abt's incredible closing speed, but the fact Abt dropped Buemi to the tune of 2.6s in that period shows it was mostly, if not entirely, down to the performance of the Audi and its driver.

Then the team came into play. With no minimum pitstop time in place it was a race to swap cars and get away, which Audi executed almost five seconds quicker than NIO. Abt was comfortably ahead as they left the pitlane and gave due credit to an "amazing job" by his squad. Even though Turvey had a problem getting his second car into gear, he admitted it was a speedy swap from Abt.

"I knew the pitstop was going to be crucial and the change actually went well, but we had a small issue leaving the garage," he said. "That cost me a bit, but not enough to keep him behind."

From there, Abt was untroubled. He moved clear in commanding fashion, >>



JEP/LAT

F1 HAS A LOT TO LEARN

LAST MONTH BERNIE ECCLESTONE DECLARED Formula 1 needs to become fully electric. Given the popularity of Formula E and the automotive industry's trend of switching to EVs, that's not his most ridiculous suggestion. However, he's kind of missed the point.

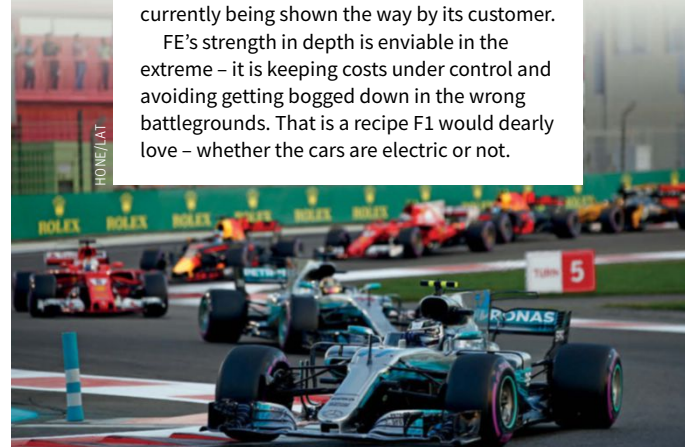
Well, two points. First, even if F1 wanted to do it, FE has an exclusive agreement with the governing body to be the only FIA-blessed electric single-seater series. Second, switching to electric cars isn't going to solve F1's most fundamental ills (below).

There's a lot more to FE than the fact it is electric. Its appeal to manufacturers is also because it is low-cost and races in city centres (although, to be fair, that second point is mainly possible because it's electric). Beyond that, FE's street-circuit calendar and low-cost nature is what helps make it so entertaining.

Yes, eventually this series will need to properly open the doors to development to justify its place as a testbed for future road-car tech. But there's enough for now to keep manufacturers satisfied without running the risk of letting one spend tens of millions to gain an advantage. A refusal to open chassis or aerodynamic competition also avoids this.

The result? Since I've been Autosport's FE correspondent, I've watched each of the current 10 teams score a podium. F1 isn't even close to that kind of statistic over the same timeframe (two and a half years). Daniel Abt's victory in Mexico also means 10 drivers, across seven teams, have now won a race – F1's number over the same time is five race winners from three teams. This season, FE's fastest package has failed to deliver and the most dominant team in its short history is currently being shown the way by its customer.

FE's strength in depth is enviable in the extreme – it is keeping costs under control and avoiding getting bogged down in the wrong battlegrounds. That is a recipe F1 would dearly love – whether the cars are electric or not.



HOME/LAT

IN THE HEADLINES

MAUGER/LAT



JAGUAR HITS NEW HEIGHTS

One year on from, and at the location of, its first FE points finish, Jaguar moved into third in the FE teams' championship. Fourth for Nelson Piquet Jr and sixth for Mitch Evans meant the team, which finished last in 2016/17, now has 74 points to its name and is 25 from Techeetah at the summit.

WIFINES

Renault e.dams, Jaguar, Venturi and Dragon Racing were fined €5000, with €3500 suspended, for using WiFi systems that were too powerful on Friday. They breached article 27.1 of the championship's sporting regulations, which forbids the teams from using "electromagnetic radiation between 5 and 6 GHz" so the FIA can keep those channels free for its data monitoring systems.

TECHEETAH MECHANIC HURT

FE suffered its first instance of a mechanic getting hurt in the mid-race car swaps since dropping the minimum pitstop time. A Techeetah team member sustained ligament damage after getting clipped by Andre Lotterer as the German exited the garage.

MORE MAHINDRA MEXICO MISERY

To compound Mahindra's difficult race, one year on from both of its cars being eliminated in a crash with Renault e.dams driver Nico Prost at the Mexican venue, Nick Heidfeld joined team-mate Felix Rosenqvist in retirement. Heidfeld's second car suffered a water pump failure on lap 27 of 47.

BIRD LEAVES VERGNE SOLO

Sam Bird's slump to last in the Mexico City race leaves championship leader Jean-Eric Vergne as the only driver to have scored points in every race this season. Vergne's current 11-race streak stretches back to Berlin in 2017 – he crashed out of the previous race in Paris.



building an eventual winning margin of 6.4s. But it was not without its stresses, given Audi had no guarantee its cars would hold up, and after what happened in Hong Kong, both driver and team were on tenterhooks.

"I just told myself, 'Don't do anything stupid, just bring it home now'" said Abt. "I knew I had a good gap, my car was good, I was feeling well. I just brought it home. Jack [Nicholls, the FE commentator] came on the radio and told me to do some donuts in the stadium. I would have loved to, but I just felt like, 'OK, let's not do anything that can possibly take this result away!' So, I just brought the car back in one piece."

His team principal was also "pretty bloody nervous". "It does actually mean a lot," said McNish. "A lot to me personally, too – it's a score in a different game. That is very nice. I was very proud to stand up there on the podium – that was an emotion that actually surprised me because I've stood on a few podiums."

"It was a wee bit of a representation of all the fight that has gone on here but also everybody back at Audi where a lot of people have worked a lot of nights to get us to that point."

With Abt romping clear, Turvey was left to defend second. Buemi was also a loser in the mid-race swaps, after delaying his return to the track briefly because he was exiting the garage just as his team-mate Nico Prost was arriving. That allowed Jean-Eric Vergne to nip ahead, although Buemi passed him into Turn 1 relatively quickly using Fanboost.

Buemi, much happier in his second car, reeled in Turvey and pressured the Briton for the remainder of the race, but was unable to get ahead. He half-forced Turvey into the same mistake Abt got Buemi to make at Turn 1, but Buemi locked up as well and Turvey got away with it. It was another tale of redemption given Turvey led from pole in last year's Mexico race, only to stop on track.

Third place for Buemi, ahead of Jaguar's Nelson Piquet Jr – who had run a lap longer than most but fell short in his late charge for the podium – and Vergne, continued his rostrum streak, but a 2017/18 victory continues to elude FE's most successful driver. Nonetheless, with Rosenqvist retiring and Vergne restricted to fifth, third was a boost for Buemi's

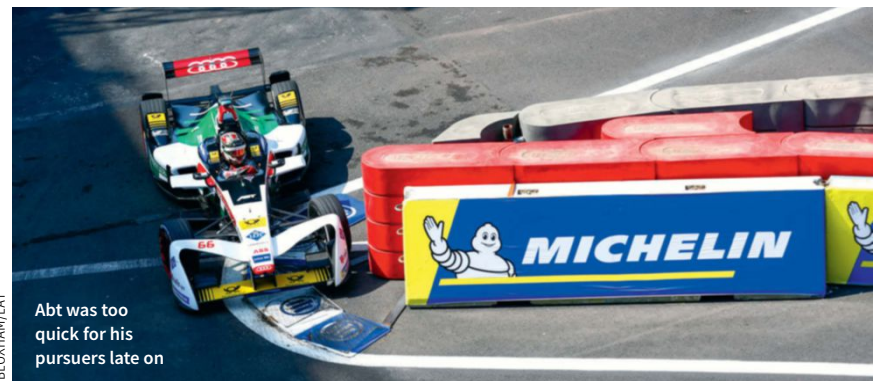


title hopes – not that he's counting himself in the running: "I'm an outsider. I don't have the speed yet."

This was a result that diverged from the season's status quo as the top two finishers had barely troubled the scorers before the fifth round. That's why there was satisfaction in an otherwise disappointing day for the likes of Vergne, Rosenqvist and Sam Bird, whose race depended on a safety car after starting from the back thanks to a grid penalty and then pitting a lap early to try to haul himself into points contention.

Vergne extended his lead over Rosenqvist to 12 points, which was music to the Frenchman's ears after a second stint in which "I had no dash, no beeps [to assist with energy saving], no energy, no radio – I basically had no idea what was going on". That was why the Techeetah driver did not defend when both Buemi and Piquet attacked him.

For Rosenqvist, the repeated on-track stoppages that wrecked his first stint were "strange" and traced to a battery problem, according to the team. Yet he claimed "I can still travel home with a smile on my face because I think I did everything really well", and "I only lost



Abt was too quick for his pursuers late on



LAT IMAGES

six or seven points – so that’s very good, a lot of luck in an unlucky situation.”

Such setbacks have given Abt fresh hope that Audi’s season may not be the write-off its dismal opening four races suggested. Without that lost Hong Kong win he would be 19 points from the lead and third in the standings, not 44 points behind in sixth. As he said, “it’s not over – we’re strong, we can still do it.”

If there’s to be a shock charge and title challenge, it will rest on Audi’s supposed fix holding up when it’s introduced in Punta del Este. Di Grassi isn’t going to be a factor in the title fight, but consider that with a reliable package he can take points off other drivers, he could conceivably aid an Abt challenge.

“We go to Punta with a solution and in a different frame of mind, that’s the important thing,” says McNish. “We know we’ve got a bit of fight left in us for the rest of the season.”

That was evident in di Grassi post-race, after his points drought finally ended courtesy of a ninth place and fastest lap. It was a dramatic race for the Brazilian, who started from the back, rose to 14th while saving a lap’s extra energy than those around him, took a five-second penalty in the pits, half-spun after hitting Jose Maria Lopez at Turn 1, then grabbed his first top-10 finish of the season in a hectic final two laps that included more contact with Maro Engel.

“It’s a fresh start in my mind and in the team,” said di Grassi. “That was one of my best races in Formula E. Daniel deserved his victory, the team deserved it – now we have the possibility to push hard from Punta.”

The rest of the grid should take that as an ominous warning. If Audi really does have a permanent fix, then repeats of this Mexico result will not come as a surprise. ❄

Above: Rosenqvist’s Mahindra leads the pack away at the start of the race

Above, right: Abt is now up to sixth in the championship



S BLOKHAM/LAT

RESULTS ROUND 4/10, MEXICO CITY (MEX), MARCH 3 (47 LAPS – 61.125 MILES)

POS	DRIVER	TEAM/CAR	TIME
1	Daniel Abt (D)	Audi Sport Abt · Audi e-tron FE04	50m45.164s
2	Oliver Turvey (GB)	NIO · NextEV NIO 003	+6.398s
3	Sebastien Buemi (CH)	Renault e.dams · Renault Z.E.17	+6.615s
4	Nelson Piquet Jr (BR)	Jaguar · Jaguar I-type 2	+7.015s
5	Jean-Eric Vergne (F)	Techeetah · Renault Z.E.17	+7.546s
6	Mitch Evans (NZ)	Jaguar · Jaguar I-type 2	+9.050s
7	Antonio Felix da Costa (P)	Andretti · Andretti ATEC-03	+17.157s
8	Edoardo Mortara (I)	Venturi · Venturi VM200-FE-03	+26.511s
9	Lucas di Grassi (BR)	Audi Sport Abt · Audi e-tron FE04	+29.208s
10	Alex Lynn (GB)	DS Virgin Racing · DS Virgin DSV-03	+29.515s
11	Jerome d’Ambrosio (B)	Dragon Racing · Penske EV-2	+30.418s
12	Jose Maria Lopez (RA)	Dragon Racing · Penske EV-2	+31.859s
13	Andre Lotterer (D)	Techeetah · Renault Z.E.17	+36.206s
14	Luca Filippi (I)	NIO · NextEV NIO 003	+38.336s
15	Tom Blomqvist (GB)	Andretti · Andretti ATEC-03	+38.592s
16	Maro Engel (D)	Venturi · Venturi VM200-FE-03	+44.689s
17	Sam Bird (GB)	DS Virgin Racing · DS Virgin DSV-03	+44.982s
R	Nicolas Prost (F)	Renault e.dams · Renault Z.E.17	36 laps-acc damage
R	Felix Rosenqvist (S)	Mahindra Racing · Mahindra M4ELECTRO	34 laps-battery
R	Nick Heidfeld (D)	Mahindra Racing · Mahindra M4ELECTRO	27 laps-water pump

Winner’s average speed 72.262mph. Fastest lap di Grassi 1m02.202s, 75.269mph.

SUPER POLE 1 Rosenqvist 1m01.645s; 2 Lynn 1m02.014s*; 3 Turvey 1m02.172s; 4 Buemi 1m02.510s; 5 da Costa time disallowed (underweight).

QUALIFYING 1 Buemi 1m01.668s; 2 Rosenqvist 1m01.676s; 3 da Costa 1m01.772s; 4 Turvey 1m01.777s; 5 Lynn 1m01.830s; 6 Abt 1m01.885s; 7 Vergne 1m01.962s; 8 Piquet 1m01.964s; 9 Bird 1m02.007s*; 10 Heidfeld 1m02.023s; 11 Lotterer 1m02.057s; 12 di Grassi 1m02.079s***; 13 Engel 1m02.091s; 14 Evans 1m02.135s; 15 Lopez 1m02.264s; 16 d’Ambrosio 1m02.360s; 17 Prost 1m02.377s; 18 Blomqvist 1m02.443s; 19 Filippi 1m02.508s; 20 Mortara 1m03.416s.

* Started 10th due to gearbox change. ** Started 19th due to gearbox change. *** Started 20th due to inverter change.

CHAMPIONSHIP 1 Vergne 81; 2 Rosenqvist 69; 3 Bird 61; 4 Buemi 52; 5 Piquet 45; 6 Abt 37; 7 Evans 29; 8 Mortara 28; 9 Turvey 26; 10 Heidfeld 21.

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Van Gisbergen scores double in new Holden

AUSTRALIAN SUPERCARS
ADELAIDE (AUS)
MARCH 3-4
ROUND 1/16

SHANE VAN GISBERGEN MADE A perfect start to the 2018 Supercars season with a pair of sublime wins on the streets of Adelaide.

The Red Bull Triple Eight Holden driver gave the new ZB Commodore a dream debut last Saturday, cruising to victory ahead of Walkinshaw Andretti Holden driver James Courtney and the Ford of Penske's Scott McLaughlin in the first race.

The Kiwi then doubled up on Sunday to extend his total run of Adelaide wins to four in a row.

The Holdens of David Reynolds (Erebus) and Garth Tander (Garry Rogers Motorsport) finished second and third on Sunday, meaning the



new Commodore secured five of the six podium spots across the event.

Van Gisbergen did have some luck in the second race, with early leaders McLaughlin and Jamie Whincup hitting troubles. For McLaughlin the issue was a puncture from an errant bolt. He fought back to finish 10th.

Whincup's issue was more terminal. Having stormed into what looked like an unassailable lead, a gearbox-cooler failure on his Triple Eight Holden forced him out.

It was the reigning champion's first retirement since 2013.

Whincup's problems had started on Friday, when he was caught out by the infamous Turn 8 in qualifying and went into the wall hard. The team worked until 0430 on Saturday to finish a \$100,000 rebuild. Whincup finished sixth in the first race after dealing with smoke coming into the cockpit and issues with the steering rack.

ANDREW VAN LEEUWEN

RESULTS

Race 1 1 Shane van Gisbergen (Holden Commodore ZB) 78 laps in 1h56m18.654s; 2 James Courtney (Holden) +1.222s; 3 Scott McLaughlin (Ford Falcon FG/X); 4 David Reynolds (Holden); 5 Mark Winterbottom (Ford); 6 Jamie Whincup (Holden). **Race 2 1 van Gisbergen** 78 laps in 1h48m02.091s; 2 Reynolds +0.825s; 3 Garth Tander (Holden); 4 Chaz Mostert (Ford); 5 Cameron Waters (Ford); 6 Courtney. **Points 1 van Gisbergen 300**; 2 Reynolds 258; 3 Courtney 240; 4 Mostert 216; 5 McLaughlin 207; 6 Tander 186.

Pitstop woes can't halt Harvick in Nevada

NASCAR CUP
LAS VEGAS (USA)
MARCH 4
ROUND 3/36

STEWART-HAAS FORD DRIVER Kevin Harvick followed up his Atlanta win with victory at Las Vegas, sweeping all three stages in a dominant display.

A trio of pitstop problems proved no obstacle for Harvick, who suffered two wheelgun failures during his first two stops and quickly recovered three places lost after a slow pitstop at the end of the second stage.

Kyle Busch attempted a late challenge to Harvick's unassailable lead, the Joe Gibbs Toyota driver

staying out longer than the other frontrunners in his penultimate stint. His fresher tyres in the closing laps allowed him to scythe his way up to second place, but he had no answer for the pace of Harvick's Ford.

Third-placed Kyle Larson was Chevrolet's only representative in the top 10, taking advantage of a late tyre drop-off from polesitter Ryan Blaney.

RESULTS

1 Kevin Harvick (Ford Fusion) 267 laps in 2h49m31s; 2 Kyle Busch (Toyota Camry) +2.906s; 3 Kyle Larson (Chevrolet Camaro ZL1); 4 Martin Truex Jr (Toyota); 5 Ryan Blaney (Ford); 6 Brad Keselowski (Ford). **Points 1 Harvick 135/2 wins**; 2 Austin Dillon 94/1; Joey Logano 132; 3 Blaney 131; 4 Truex 115; 5 Kyle Busch 104; 6 Larson 104.



IN BRIEF

EUROFORMULA OPEN WS

Dutchman Ben Viscaal won both Winter Series races at Paul Ricard. The Teo Martin Motorsport driver took pole for race one and led throughout. Brazilian Felipe Drugovich was second, 5.8 seconds behind. It took Viscaal just six laps to hit the front from row three in the partially reversed-grid encounter, leaving RP Motorsport's Drugovich to again secure second.

NASCAR XFINITY & TRUCK

Kyle Larson gave Chevrolet some solace in Las Vegas by winning the Xfinity race from Toyota driver Christopher Bell. Larson's Chip Ganassi machine led most of the race, but had to recover from a slow pitstop to take victory. Toyota's success came in the Truck event on Friday night, won by Kyle Busch.

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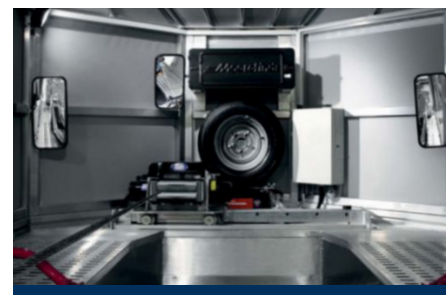
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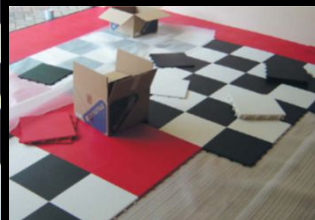
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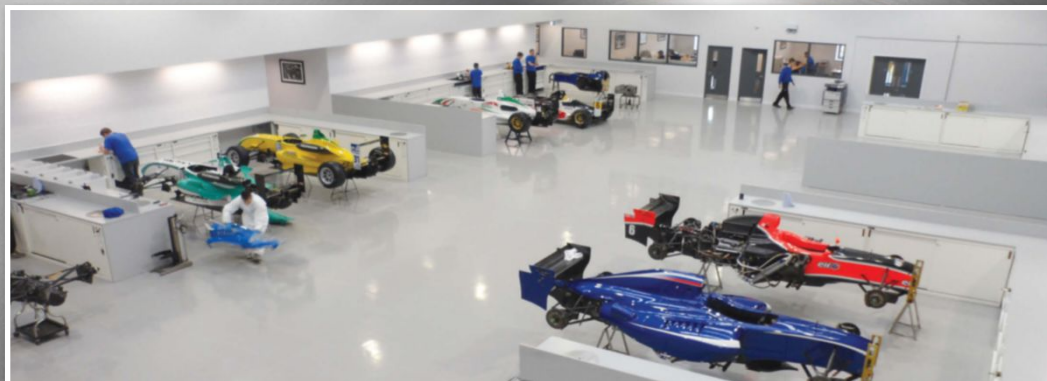
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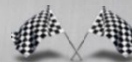
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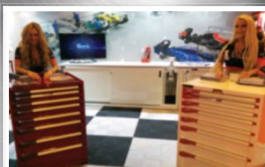


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Barnicoat will race a Track Club GT4 McLaren



JEP/LAT

LAT IMAGES

BRITISH GT

Barnicoat latest to join bumper GT field

FORMER SINGLE-SEATER RACER Ben Barnicoat will join a record British GT4 entry, after agreeing a deal to run with the Track Club McLaren team.

The ex-Racing Steps Foundation-backed Briton is the latest driver to commit to the series, sharing a McLaren 570S GT4 with Adam Balon. He was a two-time winner in European Formula 3 in 2016 before switching to GTs with Strakka Racing in the Blancpain Endurance Series last season. He has since joined McLaren's factory GT Driver Academy, which has opened this opportunity.

"British GT is a brand-new championship for me and it'll be my first season of racing in Britain since karting in 2012, so there's a lot to learn," said Barnicoat.

"I've done some development work on the 570S GT4, so I know what the car's about and it's a great piece of kit. It has less power and aero than the GT3



version I race in Europe, but it's probably one of the most advanced GT4 cars available right now.

"I don't know a huge amount about British GT. I've been friends with [reigning GT3 champion] Seb Morris since we were team-mates in 2014 [in Formula Renault], so I've checked in on what he's been doing, but aside from that doing a Pro-Am championship is

Nissan is set for its first full British GT3 season since 2014 with Moore and Modell driving for the RJN squad

all new to me, but I like a challenge."

This year's full-season GT4 entry of 23 cars represents a new record for the burgeoning class and is part of the series' first capacity entry since 2014.

British GT Championship manager Benjamin Franassovici said: "GT4 is a real success story. The influx of manufacturers has forced people to take notice, the cars look great and our grid is bigger than ever. This could well be the year that GT4 emerges from GT3's shadow."

Meanwhile, in the GT3 class, the Nissan brand will return for its first full season since 2014, with the factory RJN Motorsport team running a single GTR GT3 for Struan Moore and Devon Modell.

Ex-Japanese F3 racer Moore returns for his first British campaign since BRDC Formula 4 in 2014, while Modell finished as runner-up in GT4 in '14 alongside Andrew Jarman, and has since raced GTs in Europe and Asia.

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Racing returned to Lydden in 2017 after a hiatus

LYDDEN HILL CIRCUIT

Lydden promotes own race meetings

LYDDEN HILL WILL PROMOTE ITS OWN club racing events as track bosses plan to increase the amount of circuit racing held at the venue in the 2018 season.

A successful Classic Touring Car Racing Club meeting last August was the track's first circuit racing event for two years as rallycross and trackdays filled the Lydden schedule.

Now, apart from the British and Global Rallycross championships and other off-road events, there are four race meetings scheduled for the 2018 calendar.

The CTCRC will be back with a full programme of races to supplement the Classic Festival on July 7-8 and the British Automobile Racing Club Truck Festival on August 18-19

will feature Pickup and Intermarque saloon races.

But in addition to these, the circuit has decided to promote its own events. The Lydden Hill Motor Club's Spring Race Day on April 7 will start with a Borough 19 sprint followed by races for South East Saloons & Sports Cars and a Festival of Fords event, as well as other races which are still to be confirmed. Then, on October 6, the LHMC's Autumn Race Day will feature the same two categories plus the three regular BARC SE championship rounds for Modified Saloons, Tin Tops and Intermarque silhouettes.

The two LHMC meetings are likely to attract many competitors who used to race with the South Eastern Motor Sports Enthusiasts' Club (SEMSEC), which stopped

organising race meetings in 2014.

Hannah Rynston, Lydden's marketing and events manager, said: "The existing LHMC will still remain involved in the MSA British Rallycross Championship, although with the current focus to increase the amount of circuit racing at Lydden, it seemed natural to begin our own LHMC race series.

"Looking ahead to 2019, I am in discussion with a number of race clubs to increase circuit racing here at Lydden Hill to run alongside our existing programme of events.

"With the current investments and improvements taking place ahead of the 2018 season, we are looking forward to an exciting and prosperous future for the circuit."



PICKUP TRUCK RACING CHAMPIONSHIP

Gent will race Subaru... and a Pickup

THUNDER SALOONS RACE winner Dale Gent will compete in the Pickup Truck Racing Championship in 2018.

The 33-year-old will dovetail outings in his modified Subaru Impreza (left) with the Pickups, racing both on the same weekend at Croft and Rockingham.

"I've been looking for a new challenge," said Gent, who will race both cars, run by Relentless Performance.

"Thunder Saloons has gone well, but I wanted to test myself.

"Pickups is close racing and I've always liked that. Bumper to bumper, side by side and having to battle for it.

"I'd like to be in the top 10, but there's a lot to learn and some of the boys in it have been doing it a long time."

The Pickup Truck Championship has had an influx of entries for 2018, with numbers rising from below 20 to above 30.

Scott Bourne, the reigning champion, will return with the number one on his door, while

leading National Hot Rod racer Steve Dudman returns after a 17-year gap.

Twilight oval races at Rockingham and a 'dash for cash' oval race with a pitstop, at the same Rockingham venue, has helped to increase interest.

After racing at Brands Hatch last year, British Touring Car Championship frontrunner Andrew Jordan confirmed he would like to compete in the series this year with his father and former Pickup racer, Mike.

USF2000

F4 champion Caroline to USF2000

BRITISH FORMULA 4 CHAMPION JAMIE Caroline will move to the USF2000 Championship this year after failing to find the budget to continue racing in Europe.

The 19-year-old has signed a late deal to compete with BN Racing as the series begins at St Petersburg this weekend.

"I've always had my eye on racing in America," he said. "There seem to be more opportunities for young drivers, the competition is good, plus the whole Mazda Road to Indy scholarship is pretty exciting. This is the best career move for me and I hope to find some new sponsors to work with in the US."



Caroline is planning to race at St Petersburg

"When I heard from BN Racing I was immediately interested. The team looked strong in pre-season testing and with a British team owner I'm sure I will feel right at home."

Earlier in 2018 Caroline had announced his retirement from racing.

IN BRIEF



ROWLEY SHAKES DOWN EPIC ESCORT

Single-seater veteran Iain Rowley shook down a Ford Escort RS2000 at Mallory Park last week. Built to Group 1 spec for September's Escort 50th anniversary celebration race at Brands Hatch, the Broadspeed tribute-liveried car was also driven by Delta Motor Sport spannerman Martin Brown, the former short-oval racer who helped build it.

KARTING ACE GETS A SEASON IN SALOONS

Karter Scott McIntyre has been chosen as the winner of the Junior Saloon Car Championship's scholarship shootout. McIntyre impressed in a variety of assessments, which included fitness, media and driving tests, that took place at Silverstone at the end of last month and has secured a fully funded drive in the series for 2018.

COWLEY STEPS UP TO F4 US SERIES

British driver and reigning USF1600 champion Matt Cowley will race in the Formula 4 US Championship this year with Century Auto Racing. After dominating USF1600, Cowley won the President's Cup by the Sports Car Club of America. He is the first British driver to receive the trophy in its 63-year history. Previous winners include Roger Penske, Bobby Rahal and Paul Newman.

ARTHUR MALLOCK'S LIFE CELEBRATED

A website was launched earlier this month to celebrate the career of Mallock founder, Arthur, on what would have been his centenary. Arthur debuted his first U2 at Silverstone in June 1958, then proceeded to help customers keep the revered Mallock name at the forefront of Clubmans racing and speed hillclimbing for more than three decades.

MOHNHAUPT JOINS BRITISH F3 GRID

Mexican Alexandra Mohnhaupt and Frenchman Tristan Charpentier have joined the BRDC British F3 grid. Mohnhaupt competed in British F4 in 2016 and '17, and will race with Douglas Motorsport in 2018. She is the second female driver to sign up for the series this year after Jamie Chadwick, who will also race with Douglas. Charpentier will compete for the Fortec Motorsport squad after switching from Chris Dittmann Racing.



LAT IMAGES

PORSCHE CARRERA CUP UK

Plato and Orton join Harper at JTR

Porsche Carrera Cup GB racers Lewis Plato and Jamie Orton will both remain in the series this year, driving for JTR.

Plato finished fifth in the standings last term, taking four podiums, while former Ginetta GT4 Supercup frontrunner Orton had a disrupted first year in the category as he competed

with both Redline and In2Racing. The duo join Porsche Junior driver Dan Harper in the JTR line-up.

"Lewis started out 2017 really well and was fighting for wins and was in strong championship contention, but our results together faded towards the end of the year," said team boss Nick Tandy.

"The plan for 2018 is to keep that speed but be much more consistent."

"Jamie comes to us with a year's Porsche experience in his pocket. His results in previous years in other championships prove he will be a threat to anyone."

JTR are also in talks to add a fourth driver to the team.



Plato finished fifth in last year's series

TCR UK

Prizes unveiled for TCR UK

The TCR UK Championship has postponed its media day until March 30, but has unveiled prizes for the 2018 season.

TCR creator Marcello Lotti visited the UK last week to finalise details of the championship, where he urged for the media day to be delayed due to a clash with the Geneva Motor Show. Reportedly, a number of teams backed the decision, to allow for more time to prepare for the season.

The winning team and driver in TCR UK

in 2018 will receive free entries for the following year, while the highest finishing car in the championship using a DSG gearbox (Audi, SEAT, VW) would receive a free upgrade to a sequential 'box.

To reduce costs at the request of teams, the championship will no longer have a pre-event test at each round, and will return money to those that have paid entry fees already through "start money" awarded on the number of starts made in the season.



HSCC CLASSIC F3 A unique Italian car is being prepared for the HSCC's Classic F3 championship by Briton Thomas Hall. Constructed by Scuderia Delta Corse, the distinctive Delta HK5 appeared in 1977 in the hands of Lorenzo Sassi, who had previously raced an FF1600 Delta as well as Ensign and GRD cars in the 1600cc F3 of 1971-73. The F3 Delta is powered by an Alloni Toyota 2TG engine developed by the BSA organisation (of which Franco Alloni was a partner), identifiable by its vertical inlet manifold. Lee Cunningham and Andy Jones have previously raced Alloni-motivated Dallaras in Britain. **Photographs by MAWP+SPORT**

EQUIPE CLASSIC RACING

Equipe series entries top 100

EQUIPE GTS ORGANISERS HAVE SECURED A SECOND grid for the opening meeting of the season after the initial 40 spaces were filled within two-and-a-half hours.

The popular series, which caters for FIA Appendix K machinery, will now have two grids at the MG Car Club's season opener on the Silverstone National circuit (April 7).

The two races will run for 35 minutes, instead of the originally planned 40, to ensure they fit into the timetable.

"I'm really pleased that we have been able to accommodate all the drivers," said co-organiser John Pearson. "The interesting thing about doing it on a first-come, first-served basis is if you look at the

original entry list, we'd got some new drivers and a lot of our regular drivers hadn't managed to get their place."

Equipe GTS's new sister series, Equipe Pre '63, will also launch that weekend and it too is full.

"As a new series, you just don't know [what the number of entries will be]," added Pearson.

"The new series has brought in a lot of new drivers who haven't raced for us before. We could be running 120 cars; we're currently on 108."

Equipe Classic Racing has also already secured extra track time at its next meeting at Brands Hatch on April 28-29 because of the level of interest received.

MEMBERS' MEETING

COULTHARD TO RACE MERC AT GOODWOOD

FORMER GRAND PRIX RACER David Coulthard will return to Goodwood for the 76th Members' Meeting and will race a Mercedes 300SL in the Salvadori Cup.

Coulthard, 46, will drive the Mercedes for the new IWC Schaffhausen Historic Racing Team and will go up against Jaguar D-types, Lister-Jaguars and Birdcage Maseratis in the sprint race for sports and sports-racing cars produced between 1955 and '60.

The former Williams, McLaren and Red Bull driver has experience of Goodwood and competed in an Austin A35 in the St Mary's Trophy at the Revival Meeting in 2016.

However, on the Sunday of the Members' Meeting he will make his race debut at the event in the six-cylinder Mercedes coupe.

Coulthard will be the first driver to race for the team, and both car and squad will be unveiled on Saturday morning at Goodwood ahead of qualifying for the Salvadori Cup.

More details of the demonstrations for Formula 5000 and Group 5 have also started to emerge. Ex-Peter Gethin McLaren M10B and Chevron B37 cars will lead the former, while the silhouette sportscar set should include Porsche 935s, Zakspeed Capris and BMW M1s.

HSCC HISTORIC FORMULA FORD 1600

Genecand among big FF1600 entry

SWISS RACER GISLAIN Genecand is one of three continental racers and one of a total of more than 50 drivers set to start the season in the Historic FF1600 Championship at Donington Park on April 7-8.

A regular competitor in the (BARC-badged Pre-'82) Classic FF series, driving later era Crossles, Genecand has also registered the ex-Jon Reakes

F5000 Surtees TS5A for HSCC Derek Bell Trophy races and a two-litre-engined March 76B for Historic Formula 2.

In Historic FF1600, Genecand will come up against reigning champion Richard Tarling (Jamun T2) and double title-winners Callum Grant (Merlyn Mk20A), Benn Simms (Jomo JMR7) and Nelson Rowe (Crossle 20F)

setting the benchmark.

Over the winter Tarling has acquired a Lotus 61 'wedge' supplied to Canada in 1969.

"It's for sale or hire," said 1999 Formula Palmer Audi champion Tarling.

"I took it to Mallory [Park] last week and while I was dodging the ice I was pleasantly surprised as to how good it was."



Tarling has a rare Lotus 61

MAWP+SPORT



Going the distance

With the Silverstone 24 hours coming up this weekend, can the UK learn from other long-distance races to help shape future events?

By Gary Watkins, Special Contributor

[@gazzasportscars](#)

THE HISTORY OF 24-HOUR RACING IN THE UK ISN'T so much chequered, as belated and stop-start. Take the Double 12 at Brooklands in 1929-31 out of the equation – and it should be, given that it was two 12-hour races with the cars held in parc ferme overnight – and it wasn't until '80 that there was a 24-hour event held in the United Kingdom.

The Willhire 24 Hours at Snetterton started out as a relay, but rapidly became an important fixture on the British national calendar. But that's what it remained.

The strength of the British Racing & Sports Car Club's production saloon and then Group N series through its 1980s pomp ensured full grids. There simply wasn't room for overseas competitors. When series regulars started staying away on grounds of cost, it withered and died, gasping its last in '94.

The Britcar 24 Hours at Silverstone, which revived 24-hour racing in the UK in 2005, did attract international competitors. Dieter Quester, a touring car legend of the '70s and '80s, famously won the race in his dotage in 2006-07.

The complicated – and sometimes controversial – history of the Britcar event came to an end in 2015, after a two-year hiatus (which included a 1,000km race in '13). The event was taken over for the following year by the Dutch Creventic organisation, which runs the successful 24H Endurance Series, incorporating the Dubai 24 Hours. But on new terms.

The high-level GT machinery that had done much of the winning was banished from the grid. The Silverstone 24 Hours is now predominantly a touring car event, although GT4 cars are allowed for the moment.

Creventic sees the future of the Silverstone event belonging to tin-tops.

"We believe that the Silverstone event is excellent for touring cars," says Creventic founder Gerrie Willems. "The other point is that we are not allowed to have too many GT3 cars due to noise limitations."

Silverstone self-polices on noise. It maintains a close dialogue with local communities, whose objections resulted in the cancellation of the 2014 Britcar 24. A large field of GT3 cars, particularly when bunched up behind the safety car at night, caused the problems.

Martin Short, winner of the 24-hour fixture at Silverstone in 2005 and '16, believes that until the race becomes a true

event it will struggle to become a must-do race of international standing.

"We need to generate a party atmosphere to turn it into a big event," he says. "People need to be able to camp on or near the fence, like they do at the Nurburgring 24 Hours or the Sebring 12 Hours, not have to walk a quarter of a mile from their tents."

For the Silverstone 24 Hours to become the social event that Short desires, it would surely require a summer date. That's unlikely because it would only fuel noise complaints – people sleep with their windows open in the summer.

Willems believes that the Silverstone 24 Hours is here to stay. The priority for the moment, though, is to focus on growing the entry rather than the fanbase.

This year's event is split into a 24-hour and a 12-hour event, with the 12 hours mostly populated by GT3 cars. The latter has proven more popular with 23 entries, while the more touring car-based element has garnered 19 entries.

In terms of 'names', British Touring Car racer Matt Neal

headlines the 24 hours in a Synchro Motorsport Honda Civic, while sportscar regular Rory Butcher fields a VW Golf TCR. Historic frontrunner Oliver Bryant steers more contemporary machinery

in the BMW M235i Racing Cup, and will be one to watch.

From the continent, a Finnish SEAT squad headlined by 2012 British Formula Ford champion Antti Buri could challenge. Hyundai Denmark have also sent one of its rapid i30 TCR cars to the race.

In the 12 Hours, British GT frontrunner Phil Keen swaps his Barwell British GT Lambo for a Grasser one, which took overall Blancpain and Endurance titles in 2017. He's partnered by former Toyota Formula 1 tester Franck Perera.

The Simpson Ginetta G57-P2s will likely front-run, but may struggle to last the distance. Mike Simpson will race in both entries.

The event has more than a fighting chance of establishing itself on the British calendar, just like the British Isle's other day-nighter clubbie, the 2CV 24 Hours. (It's now back at Snetterton as it heads towards the 30th anniversary of its creation at Mondello Park in 1990.)

But the Silverstone 24 Hours isn't likely to be talked about in the same breath as the Nurburgring or Spa 24 Hours any time soon. ❧

"We need to generate a party atmosphere to turn it into a big event."

What we're looking forward to in 2018

On the eve of the season's start, our national writers pick out the events, series and drivers they are most eager to watch this year

Compiled by Stefan Mackley

Entries by Jack Benyon, Matt James, Paul Lawrence, Rob Ladbrook, Stephen Lickorish and Marcus Pye

🐦 @AS_National



Thruxton 50th anniversary

By Matt James 🐦 @MattJMNews

There is a fake English Heritage sign adorning the wall of the race control building at Thruxton. It was a joke gift given to the circuit's operators, the British Automobile Racing Club, by British Touring Car Championship boss Alan Gow eight years ago.

While that blue plaque was a tongue-in-cheek gesture, Thruxton and its supporters will have a real reason to celebrate in June when the track hosts its 50th anniversary meeting.

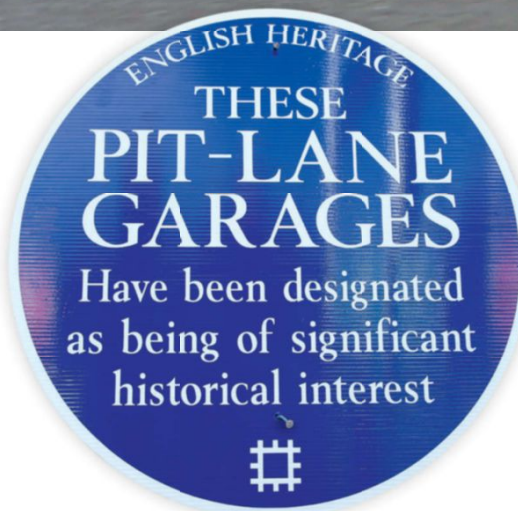
The Historic Sports Car Club will visit the track over the weekend and provide some of its most popular

championships. Everything from Formula Ford, Sports and GT cars to Super Touring cars will battle it out on track.

Aside from the races, the event will take over the whole venue. Track rides will be offered and there will be live music, displays from car clubs and even a fireworks special.

Former F1 commentator Murray Walker and 1992 world champion Nigel Mansell will also be there to open the circuit's new £2million hospitality facility.

The Williams F1 team is throwing its weight behind the event and it will bring the 1983 Williams FW08C, a car driven to victory at Monaco by Keke Rosberg. It will perform on-track demonstrations on Saturday and Sunday with an as-yet unnamed driver. Other gems from the Williams collection are also due to be on show.



Monger returning to racing

By Stephen Lickorish [@sdlickorish](#)

Yes, we have to add the caveat that nothing is currently confirmed. We also need to consider that there is absolutely no guarantee of how he will perform. But, regardless of this, the prospect of Billy Monger racing a single-seater again this season is quite an incredible one.

Donington Park was not a happy place on April 16, 2017. It was, of course, the scene of the horrific crash in a British Formula 4 race that threatened to end Monger's racing career for good. It was instantly clear at the time that something serious had happened. I was in the paddock and could hear the distant cries of the circuit tannoy and picked up the word 'crash' and 'red flag'. Not long after, things fell silent and it became obvious that this was completely different to the plethora of other accidents that had already occurred that weekend.

Everyone's worst fears were finally confirmed two days later when it was revealed that Monger had suffered amputations to both of his legs as a result of the crash. At that point in time, the prospect of him racing a single-seater again was not even considered.

Now we are on the verge of the impossible becoming possible. Monger – whose positive attitude right from the first moments he woke up from his coma has been quite incredible – has been conducting extensive testing with a

specially adapted BRDC British Formula 3 car in preparation for a campaign in the series.

He still needs to find the last little bit of sponsorship money to make it happen, but surely sponsors should be queuing up for the exposure that such a remarkable story brings.

Much has been written about Monger since his crash. But him being on the British F3 grid at Oulton Park on March 31 would be by far the most impressive element of his amazing tale so far.

Big names in GT3

By Rob Ladbrook [@LaddersMN](#)

The doom mongers seem a little quiet these days, don't they? Just a few weeks ago, most of them were proclaiming the death of GT3 racing in Britain. Now? Complete hush.

The top tier of British GT has been 'slowly dying' for about three years now. But it hasn't. If anything, this year will be its strongest ever.

OK, the numbers haven't leapt up substantially, but there should be 13 cars in the class from six different manufacturers. But it's the talent behind the wheel that's drawing the interest.

This year's entry list reads like a who's who

of world GT racing, with five factory Aston Martin drivers (Darren Turner, Jonny Adam, Maxime Martin, Nicki Thiim and Marco Sorensen), a works Mercedes man (Yelmer Buurman), a McLaren one (Rob Bell) and a host of other top names – Phil Keen, Jonny Cocker, Callum MacLeod, to name but a few.

The World Endurance Championship's switch to a 13-month superseason means fewer races at world level this year, so the AMR drivers in particular had space for another programme. Coincidentally, the Vantage GT3 is in the final year of its lifecycle. As the most successful GT3 car ever produced in Britain, it's almost like Aston wants to go out with one final flourish.



Porsche GB Junior Harper and British F4 title battle

By Stephen Lickorish [@sdlickorish](#)

This is a year of major change among the British Touring Car Championship's support categories. There are a lot of teams leaving the paddock, a lot of 2017's stars have made much-deserved graduations and there are

many more drivers still needed to fill the grids. But despite that doom and gloom, there's much to look forward to.

I'm looking forward to seeing how one particular driver performs this term – Dan Harper (left). The Porsche Carrera Cup GB Junior driver was very impressive on the shootout day last November, getting astonishingly close to the times Porsche champions Josh Webster and Charlie Eastwood achieved, considering he had only raced in Ginetta Junior beforehand. It will be fascinating to see how he gets on with more experience.

The British Formula 4 title fight should also be exciting. With established number one team Carlin out of the picture, it's wide open. You've got some impressive graduates from Ginetta Junior (Seb Priaulx and Kiern Jewiss), some highly rated Red Bull-backed karting stars (Jack Doohan and Dennis Hauger) and some strong returnees from 2017 (Hampus Ericsson and Johnathan Hoggard). Somehow, you get the impression it will be closer than Jamie Caroline's 65.5-point winning margin last year.



New Heritage Formula Ford series

By Stefan Mackley [@Smackley27](#)

Who doesn't love watching a Formula Ford race? With its close-pack, wheel-to-wheel racing, no wings or aerodynamics to get in the way and a plethora of chassis to choose from, the action is some of the best in the UK.

The category is going through something of a renaissance with the British Racing and Sports Car

Club's National series growing stronger every season and the end-of-year Brands Hatch Festival and Walter Hayes Trophy at Silverstone remaining popular.

But there's arguably a gap in the market for cars from the late 1980s and early '90s that are too new for the Historic Sports Car Club's Historic FF1600 series, but that often struggle to match the newer models on pure pace.

But that will change from this season as James Beckett – organiser of the WHT, SuperSeries and

Champion of Brands events – has created Heritage Formula Ford.

The new series will be open to cars manufactured before 1993 and will consist of a five-race calendar: Donington Park, Silverstone, Oulton Park, Snetterton and Brands Hatch. Twenty-five drivers have already registered, which for a new series is a pretty decent effort, and the season hasn't even started yet.

Only time will tell just how popular this new series will become.

Night racing at Rockingham

By Jack Benyon [@jackbenyon](#)

Unless there are early 2000s CART cars going around it, Rockingham isn't the brightest or most aesthetically pleasing circuit to visit in the UK. The circuit provides a higher-than-average quality of racing, but ability to switch things up in terms of the venue is limited. It is, effectively, a concrete bowl.

That being said, huge effort has gone into the 2018 season from Rockingham, and a host of championships will race in dusk and into the night for the first time in its history.

The circuit will host two 24-hour events this year, for the growing Citroen C1 Challenge. Rumour has it all its rounds are already sold out.

The Legends Championship and the Junior Saloon Car Championship will support some of the other

'dusk' meetings, but the real headline act this year will be the Pickup Truck Championship. With falling numbers last year (below 20, now over 30 in 2018), the organising team led by Sonny and Barbara Howard have turned the series on its head. Dusk-to-night races at Rockingham on the oval ensure it's still the fastest club racing championship, and the addition of a 'dash for cash' pitstop race at the end of the season can only add to the drama.



Ford Escort 50th anniversary

By Paul Lawrence [@AS_National](#)

Half a century on from the car's launch, the Ford Escort remains the nation's favourite rally car. But it should not be overlooked as a race car as the Mk1 in particular made a big impact on track and that will be celebrated at Brands Hatch in September.

Over 50 years, there have been other Ford Escort races. The frantic Mexico Challenge thrashes of the early 1970s and the Shellsport celebrity contests of the 1980s were single-make races in identical cars, but the races planned by the Historic Sports Car Club will cater for a wider range of Escorts.

The Brands Hatch Indy circuit on

September 22/23 will have the Escort fans in ecstasy as what is thought to be the first all-Escort race of the century honours the humble family saloon that evolved into a motorsport icon.

The poster car for the event is the ex-Frank Gardner Mk1, the 1968 British Saloon Car Championship-winning X00 349F, from the Alan Mann Racing stable. Sadly, the car's precious period specification precludes it racing, but it will be appearing on track for some demo laps.

Meanwhile, a gaggle of Escorts will go into combat and, with a bit of luck, the irrepressible David Brodie will have the rebuild of his 'Run Baby Run' Special Saloon Mk1 finished in time to join the grid.



Formula 5000 at Goodwood

By Marcus Pye [@AS_National](#)

Goodwood's Motor Circuit had been closed to racing (but not testing) for towards three years when the ferocious Formula 5000, billed as a cost-effective category offering F1 speeds, debuted in the UK at Oulton Park in April 1969, for the Guards Formula 5000 Championship.

Goodwood was a well-used test venue for F5000 cars through its lifespan, and period racers will circle once again at the venue in 2018 at the 76th Members' Meeting on March 17/18. The cars will take part in demonstration runs.

Peter Gethin was king in Guards F5000 for two seasons (1969-'70) in McLarens prepared by Church Farm Racing in nearby Pagham, run by Derek Bell's stepfather Bernard Hender. In a Chevron B24, Gethin also won Brands Hatch's 1973 Race of Champions (above), the only race in which an F5000 beat a quality F1 field.

Two wonderful ex-Gethin cars – a McLaren M10B (1970) driven by Matthew Wurr and Neil Glover's svelte Chevron B37 (1976) – will illustrate chassis development over the class's seven years in the demos later this month.

Chevron, Hepworth, Lola, March, McLaren, McRae, Surtees and Trojan form the home guard in the daily demos, with US raiders Eagle and Shadow and the O'Donnell cousins' Beggs up from New Zealand.

Prescott hillclimb hits 80

By Paul Lawrence [@AS_National](#)

The Prescott hillclimb course on a summer day is a wonderful place to be, and on Saturday, July 14, a rather special event will honour 80 years of competition at the Gloucestershire venue.

Having resolved that it needed a permanent motorsport venue, the Bugatti Owners' Club acquired the Prescott House and estate in 1937

and the first proper competitive event was held in May '38. After a war-time hiatus, Prescott was back in 1946 and a young Stirling Moss was an early competitor on the 880-yard course, which grew to 1127 yards in 1960.

The plan for July's celebration centres on gathering together as many former hill record holders as possible and the list of pledges reads like a who's who of hillclimbing: from 1960s pacesetter David Boshier-Jones to contemporary

multiple hillclimb champion Scott Moran.

Many will be reunited with suitable cars, either for a parade or for full-on competition as the day will feature a capacity field of 150 cars, including a class of Bugattis, of course. Significant cars will also be on static display.

With a scenic rural setting amid mature trees, excellent viewing, a gaggle of hillclimb aces and a full paddock, there is surely no better way to celebrate 80 years of this fine venue.



Knockhill reverse meeting

By Stephen Lickorish [@sdlickorish](#)

Breaking with convention is often good. Too regularly things remain the same for no good reason. An excellent example of trying something new came last year when Knockhill ran a race meeting with cars circulating in the opposite direction to usual for the first time in over 20 years. That was perfect for the Scottish Motor Racing Club as its competitors don't enjoy the variation in venues that most other clubmen in the country do.

This year it's not just the SMRC racers that will benefit from some anticlockwise Scottish action. Circuit bosses have decided to let one of its highest profile meetings run in reverse, too: the TCR UK weekend on May 12/13. And it's great to see organisers make that sort of decision for a meeting that carries some weight.

It's not just Knockhill using this tactic to add extra interest. Mondello Park has got in on the act too for 2018 and will run its June 9/10 event in the anticlockwise direction. Will it spread to other venues? Somehow, Thruxton in reverse doesn't sound quite such a good idea...

WHAT'S ON

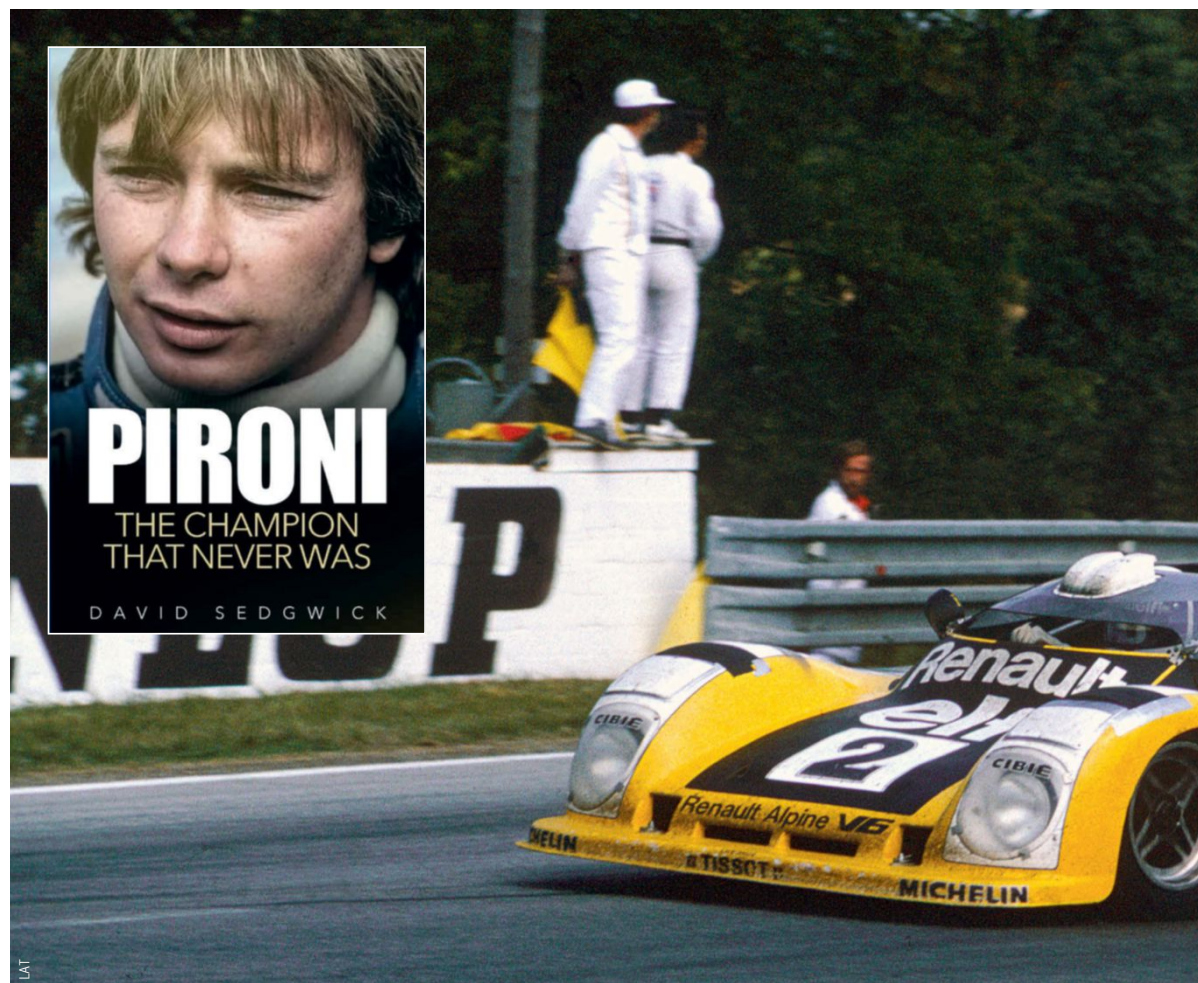
Another side to Pironi

THE CLOSING STAGES OF THE 1978 Le Mans 24 Hours were some of the hardest laps Didier Pironi ever drove. He was exhausted, dehydrated and in pain, but team boss Gerard Larrousse insisted that he – and not experienced team-mate Jean-Pierre Jaussaud – guide the Renault Alpine A442B home.

Pironi had French honour to maintain; with the other two Renaults long retired and the marque about to pull the plug on its Le Mans programme, this was the last chance. It was perhaps Pironi's greatest ever drive. He lost 8kg in weight and was hospitalised after the podium. But in winning, he firmly announced himself on the international scene.

Yet this achievement is often, lamentably, forgotten. Instead, Pironi is better known for his apparent betrayal of Ferrari team-mate Gilles Villeneuve to 'steal' victory at the San Marino Grand Prix in 1982. Some even blame Pironi for Villeneuve's death a fortnight later at Zolder.

Pironi: The Champion that Never Was by David Sedgwick is a powerful and poignant depiction of an incredibly enigmatic personality who seemed as destined for glory as he was his own eventual tragic fate. Sedgwick's depth of research in recounting Pironi's early years – his Italian origins, bourgeois



upbringing and strong sibling-like relationship with cousin and fellow racer Jose Dolhem – shines through and makes for compelling reading.

Personal relationships form much of the story, making it highly relatable. Pironi came from money, that much is true, but his journey up the racing ladder was arduous. After winning the

Arguably Pironi's finest drive – winning the 1978 Le Mans

acclaimed Pilot Elf title in 1972, Pironi walked the long road to F1 with familiar names. Rene Arnoux and Patrick Tambay were his main competitors, with Patrick Depailler and Elf's Francois Guiter his mentors.

The description of his awkward rivalry with Arnoux – they were also good friends – is arguably one of the



Did Pironi's '82 San Marino GP win rob Villeneuve (27)?



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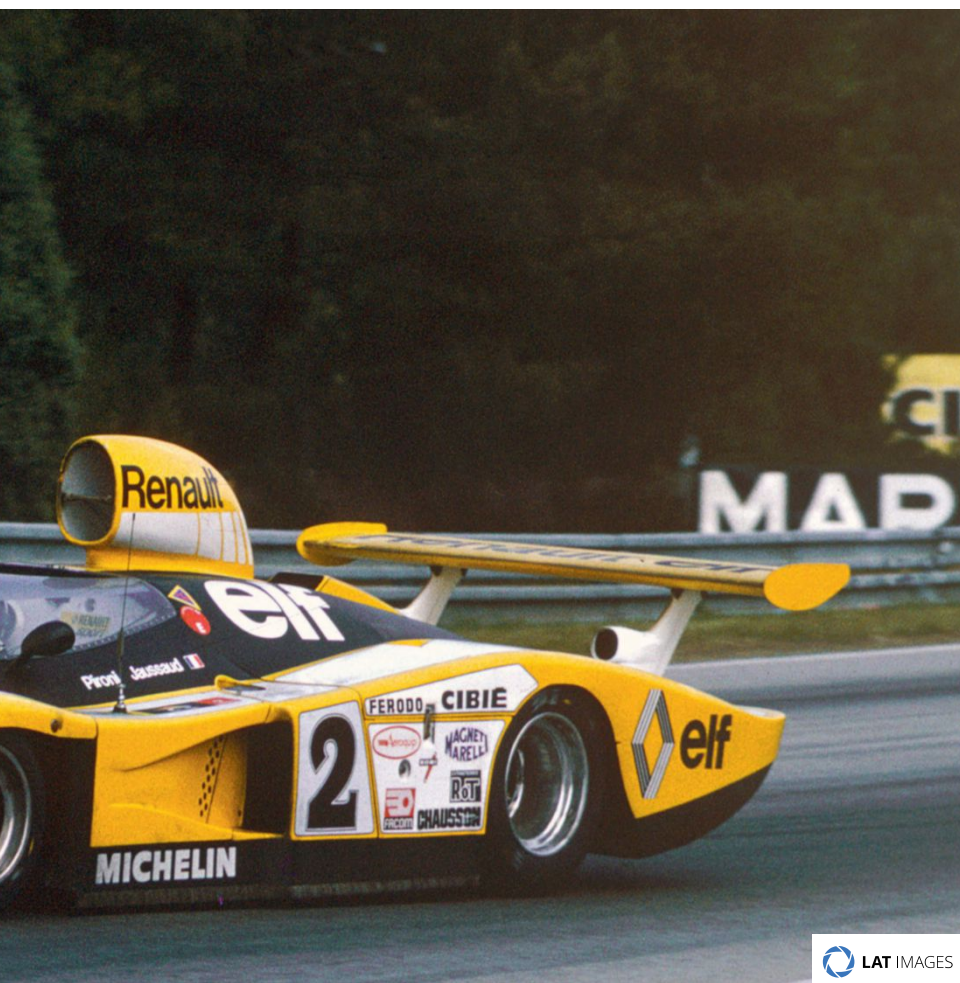


HOT ON THE WEB THIS WEEK

THE FUTURE OF FORMULA E

Search for FIA Formula E Gen2 Car: Performance Spec/Speed/0-100 | Geneva Motor Show

The covers officially came off the next-generation Formula E car, due to race in the 2018/19 season, at this week's Geneva Motor Show, and on the series' YouTube channel you can see it on track. Refreshingly upbeat below the line, too.



LAT IMAGES

best told stories in the book. Fierce rivals in Formula 2, they fought tooth and nail for the coveted works Renault F1 drive, which Arnoux eventually sealed in 1979. Many would have forgiven the pair for becoming distant or even butting heads, but they retained their mutual respect and friendship.

The book is not without its flaws. A self-confessed Pironi fan, Sedgwick does not try to hide the fact he holds some bias throughout. However, sometimes it goes too far, jumping far too easily to Pironi's defence on some of the more contentious issues.

His inferiority to Villeneuve in qualifying when the pair were teammates is often put down to external problems and set-up choices rather than lacking outright pace.

The chapter on Imola 1982 attempts to tell the other side of the story and tries to dispel the notion that team orders of any kind existed between

Ferrari and the drivers. It is a partisan interpretation, but one that doesn't detract from the book as a whole.

An area that Sedgwick covers well in *The Champion that Never Was* is tales of tragedy. The detail of Pironi's injuries and subsequent operations following his horrific airborne accident at Hockenheim in 1982 are difficult to read about, as are the immeasurable losses endured by his partner Catherine. The list is heartbreaking: Pironi's mother and aunt, Pironi himself and then Jose all perished before Catherine gave birth to twins, aptly named Didier and Gilles.

That Pironi's legacy is commonly judged by the events of 1982 is a poor reflection of what and who 'Didi' was. An often underrated driver, with that famous 'mocking smile', the desperate push for the recognition he deserved drove him into fate's hands all too soon.

STEPHEN BRUNSDON

NEXT WEEK



⬆️ BUMPER F1 PREVIEW
All the major storylines
to watch out for in 2018

SBLOXHAM/LAT

INTERNATIONAL MOTORSPORT

RALLY MEXICO WORLD RALLY CHAMPIONSHIP

Rd 3/13

Leon, Mexico

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INDYCAR SERIES

Rd 1/17

St Petersburg, Florida, USA

March 11

TV Live BT Sport ESPN, Sunday 1600

INDY LIGHTS

Rd 1/10

St Petersburg, Florida, USA

March 10-11

NASCAR CUP

Rd 4/36

Phoenix, Arizona, USA

March 11

TV Live Premier Sports, Sunday 1930

V8 STOCK CAR

Rd 1/10

Interlagos, Brazil

March 10



UK MOTORSPORT

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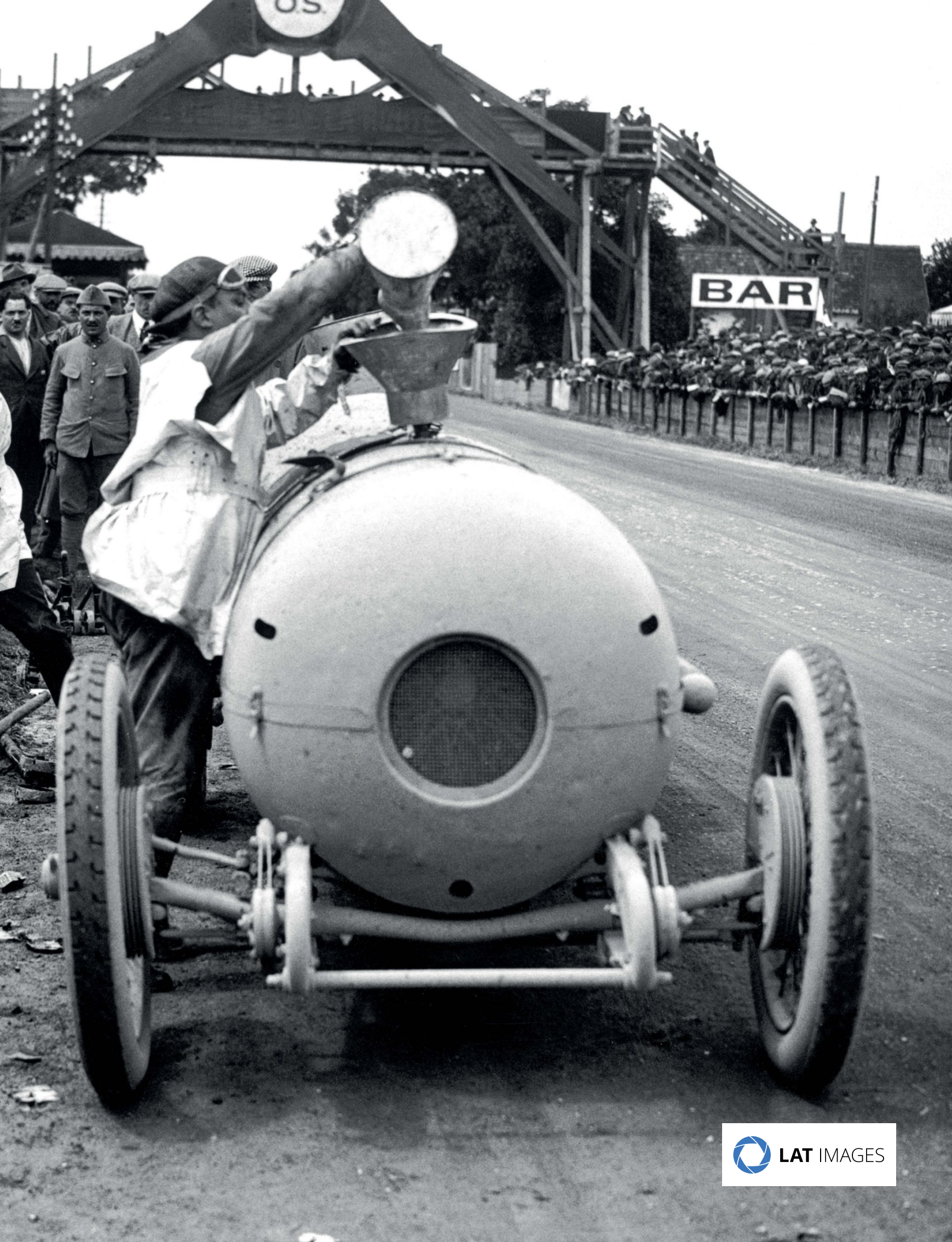
March 9-11

Hankook 24 Hours, 12 Hours, 7 Race Series

FROM THE ARCHIVE

Giulio Foresti's extraordinary looking Ballot 2LS receives a top-up of essential fluids during the 1922 French Grand Prix at Duppigheim near Strasbourg. Foresti retired after 44 laps with engine problems. The 60-lap race was won by Felice Nazzaro in a Fiat 804, in a time of 6h17m17s. But there was to be no joy in victory: the winner's nephew, Biagio Nazzaro, had died after his Fiat 804 crashed when the rear axle broke on lap 52.





MY FIRST MOTORSPORT MEMORY



MILTENBURG/LAT



JAMES NEWBOLD

[@james_newbold](#)

SUNSTROKE AND PASSION ARE IGNITED AT BRANDS

couldn't believe how steep it was. Like many adolescent motorsport fans of my generation, I had completed plenty of laps of Brands Hatch on the PlayStation 2, so knew a fair bit about the challenge of Paddock Hill Bend. But I was completely unprepared for the dramatic spectacle in real life, seeing the cars stick, as if on rails, on first-time trackside viewing at the British DTM round in 2006.

My dad was never a huge motorsport fan, but had attended the odd touring car event at Silverstone in the 1980s, and still remembers the sense of crushing disappointment when Tony Pond failed to appear at his vantage point on the '84 RAC Rally after shunting on the opening stage. My transition from Thomas the Tank Engine aficionado to motorsport anorak was swift, coinciding with a brilliant 2001 season that featured Eddie Irvine on the podium at Monaco, Jason Plato and Yvan Muller knocking seven bells out of each other in British Touring Cars and Richard Burns becoming England's first World Rally champion.

But it was another five years before my long-suffering parents gave into the nagging and took me along to Brands on a fiercely hot July Sunday. There was little overtaking on the Indy circuit, yet to my 11-year-old mind it was a window into a world I had only dreamed about. I was blissfully unaware that Autosport's own Edd Straw was participating in one of the supporting Ginetta races, but the programme informed me that Sebastian Vettel and Paul di Resta would take centre stage in the Formula 3 Euro Series support events. But that wasn't strictly true as in the reversed-grid race, poleman Peter Elkmann fended off Michael Herck for all 42 laps in an encounter that would have been entirely forgettable for the majority – but not to me.

After a productive trip into the paddock before the main event that involved gawping at Mika Hakkinen through a fence looking into a Mercedes VIP area and getting an autograph from Damon Hill, that's where memory starts to fail me. Sitting in the grandstand overlooking Paddock, I had a spectacular view, but 43-second DTM lap times and divergent pit strategies combined with acute sunstroke meant it was hard to keep tabs on where everybody was.

The record states Mattias Ekström took victory after Tom Kristensen suffered a suspension failure at Surtees, but I didn't especially care. Having witnessed live motorsport for the first time, I was determined to be back before too long. ❧

AUTOSPORT

Autosport Media UK Ltd, 1 Eton Street, Richmond, TW9 1AG
Tel +44 (0) 20 3405 8100 **Email** autosport@autosport.com
Individual email firstname.surname@motorsport.com
Website www.autosport.com **Twitter** @autosport

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