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BRITAIN'S BEST MOTORSPORT WEEKLY

11 JANUARY 2024

# AUTOSPORT

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Seven-time world champ on the battle to beat Red Bull

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LEWIS HAMILTON

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Hamilton's most-recent F1 win:  
2021 Saudi Arabian Grand Prix

# Hamilton and Mercedes regroup for F1 2024 attack

Twenty-five months. That's how long it has been since Lewis Hamilton last won a race in Formula 1, by some margin the longest drought he has endured since bursting onto the scene in 2007.

Now 39, and saddled with less-than-spectacular Mercedes machinery for two years, the seven-time world champion could be forgiven for deciding that it was time to do something else. But it's clear in our F1 feature this week that this is not the case (page 14).

Whether it's because he feels there is unfinished business after the way 2021 ended, a desire to overtake Michael Schumacher with an eighth title, or simply a love for the sport, Hamilton is still motivated. And he believes that he has the team around him to give him a chance to challenge Max Verstappen and Red Bull. After all, with the possible exceptions of Esteban Ocon (in F3) and Charles Leclerc, Hamilton is the only driver who has proved he can go toe to toe with the Dutchman in a full-on championship contest.

Much of our issue this week is dedicated to the rebooted Autosport International show, which kicks off the European motorsport season today (Thursday). Turn to page 28 for our guide, which includes interviews with main stage stars James Calado (p36) and Ash Sutton (p40). For those heading to Birmingham's NEC, see you there! For those not planning to make it, we'll have the usual show highlights in next week's issue, which will also include a look at the likely key themes of F1 2024 and a report from the Formula E opener in Mexico. For our FE season preview, take a look at p22.



*Kevin Turner*

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## FREE WITH THIS ISSUE



## ENGINEERING SUPPLEMENT

The new Chevrolet Corvette and Formula 2 racers, plus the different powerplants set to battle it out in truck competition, feature in the latest free issue of Autosport Engineering.

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# PIT + PADDOCK

## Sauber cautious on Audi F1 potential for 2026 season

### FORMULA 1

While the Sauber squad's transformation from Alfa Romeo to Stake F1 Team has caused some amusement and diversion over the 2023-24 off-season, the important question revolves around whether it is going to be able to make a big leap forward under its next identity of Audi, using the German manufacturer's new Formula 1 engine, in 2026. And technical director James Key has moved to dampen those expectations by saying that the team is "not going to be the final product" until 2027.

While Audi's process of taking over Sauber continues, in the background the Swiss team is already undergoing rapid changes, with team CEO Andreas Seidl commissioned with improving the Hinwil headquarters' facilities and bolstering its technical staff. Seidl's first major hire was bringing in Key as technical director after the pair worked together at McLaren.

But Key is remaining cautious. "In terms of next steps, there's a very significant well-documented plan," he said. "We're already acting on it, and attracting all the right talent to the team to join some very good talent that's already there is obviously a priority that we're working on. There is a lead time to people of course, with garden[ing leave] periods. We're certainly not waiting for that, there's a lot of stuff we can do now without any extra people. But ultimately, to achieve our goals we have to expand in all areas.

"Everywhere has got to take a step up regardless of where we are in that process. So that's the short-term ambition, working closely with Andreas on that for 2024, as well as the future. Ultimately, we're probably not going to be the final product that we're aiming for until about 2027 time, because there is a lot to do. But we'll be in far better shape as we approach 2026."

Key, who started with the team in September after leaving McLaren, has prior experience at Sauber from a stint between 2010 and 2012. He feels that Sauber already has a good basis to build on despite finishing ninth in the 2023 constructors' championship. "The team is growing, it's actually a very young



Bottas angling for seat. If not, that 'tache would suit NASCAR

FIA POOL

team," he added. "The period of stability it's had with the current major shareholder has been very good and it's been able to grow under that condition. You can recognise there's a gap there that we can fill pretty easily with the talent we have in the team, or with the facilities we have on the team already."

As part of its long-term plans, Audi is also set to make a decision on its driver line-up, which according to Valtteri Bottas will be made soon. Bottas, who moved to Sauber/Alfa Romeo from Mercedes ahead of the 2022 season, is entering the final year of his contract. And with the prospect of Sauber turning into a fully fledged factory operation, he is keen to secure his future sooner rather than later amid a competitive driver market.

Speaking exclusively to Autosport, Bottas said that staying on during the transition to Audi is his preference since he believes it to be the best option of returning to podium contention. "I'm still hungry to get back on the podium eventually," the 10-time grand prix winner said. "The Audi project could be the next opportunity. From my understanding, they're going to make decisions of the years ahead early [this] year. I'm going to have those discussions in the first quarter."

Should talks with Audi break down, Bottas, who will turn 37 in 2026, says he is open to discussions with other teams and intends to remain in F1 in the long term. "Being part of Audi would be my number one priority and preference," he continued. "If for some reason not, then absolutely I would talk to [other teams]. I want to be around because I feel like I still have some unfinished things in this sport."

FILIP CLEEREN



Key (inset) reckons Audi needs time to get up to speed in F1

SUTTON/MOTORSPORT IMAGES





Goss in happier times, on 2010 Chinese GP podium with Button and Hamilton

COATES/MOTORSPORT IMAGES

# Tech chief Goss is latest to join exodus from FIA

## FORMULA 1

The FIA has lost another key member following the departure of Formula 1 technical director Tim Goss. His exit comes in the wake of the resignation of sporting director Steve Nielsen and the departure of Deborah Mayer, the head of the FIA's women in motorsport commission, in December.

Goss was playing an

important role on F1's technical regulations for 2026, reporting to single-seater director Nikolas Tombazis. "We are disappointed to lose a person of Tim's calibre from the organisation," said Tombazis. "Tim has played a major part in the technical department and has always operated to the highest level. We understand that his career is taking a new direction and we support and respect his

desire to pursue another path." Goss, who joined the FIA after three decades with McLaren, said it was "an honour to work as technical director at the FIA and to help shape the future of the sport".

Nielsen will be replaced by Tim Malyon, who previously served as safety director. The FIA said that he "will oversee all sporting matters, including race direction and the Remote

Operations Centre in Geneva".

"We have already brought significant change to our race direction operation with the support of the ROC and I look forward to taking that to the next level," said Malyon. "We are also committed to a broad regulatory review of sporting matters, and I look forward to applying a sharper focus to those efforts in the future."

FILIP CLEEREN

# Car makers key to future power rules

## FORMULA 1

The FIA says that the long-term direction of Formula 1 engines will be dictated by ensuring the relevancy of the championship to car makers. F1 moves for 2026 to turbo hybrid power units run on fully sustainable fuel with an increased reliance on electrical power. There is an awareness that it needs to be at the forefront of battery technology development to retain the interest of manufacturers, who are shifting towards fully electrical cars. Longer term, a switch could be made to hydrogen power if it proves suitable, with F1 and the FIA recently joining Extreme H in forming a working group to evaluate the technology.

FIA single-seater head Nikolas Tombazis says that it is critical to



Remember road-relevant fuel rules of 1985? Prost and Senna lost out at San Marino GP

motorsport IMAGES

have rules to keep offering value to manufacturers. "The step for 2026 is defined, but what we do in the next step afterwards is still up for discussion," he said. "There are a lot of options still on the table; whether it's more sustainable e-fuels, whether it's hydrogen – in which we have quite a lot of work

happening in the FIA – or whether it's more electrical.

"But we always want to remain relevant to what the OEMs want to do. We cannot go in a completely random direction. We need to remain road relevant, that is the key objective."

JONATHAN NOBLE



## Verstappen tries his hand in DTM Ferrari

### DTM

Max Verstappen just can't keep away from driving. The three-time Formula 1 world champion has been using the winter break to drive the Emil Frey Racing Ferrari 296 GT3 raced in the DTM by the son of his manager Raymond Vermeulen.

Verstappen supports the career of Thierry Vermeulen, and to that end spent two days in the Ferrari at Portimao's Algarve Circuit. The objective was to use Verstappen's experience and assist the development of 21-year-old Vermeulen.

"He drove on both days," said EFR boss Lorenz Frey-Hilti. "On the first day, it was about 100 laps and they took turns. We tried out a lot. We are honoured that he uses our services as a racing team and that we are able to work with him on the test days. That is absolutely brilliant."

"It's always interesting when you meet such famous people in person. You think you know the person, but when you meet them in real life you experience a completely different person. He's incredibly down-to-earth and a really nice guy."

"And it's nice to see how much passion he has for motorsport and what he achieves. Even with a GT3 car his feedback is on another level compared to everything I've seen so far. He is world class."

Verstappen has limited experience in GT3 machinery but was able to adapt to the Ferrari straight away, according to Frey-Hilti. "He gets in the car and on the very first flying lap he delivers the performance," he said. "If you look at his onboards and data, the way he can handle the car is extremely impressive, how quickly he adapts to the car



and always tries to get the maximum out of it.

"There were also other GT3 cars on site. And I can only say that it is on a different level compared to all the others."

Meanwhile, rival Fernando Alonso has bought one of

the Class 1 Aston Martin Vantage DTM cars raced by R-Motorsport in 2019. Alonso has had a passenger seat fitted and took it to Motorland Aragon last month – and allowed MotoGP king Marc Marquez a whizz in it.

**SVEN HAIDINGER**

## Overdrive Toyota leads with local hero Al-Rajhi

### DAKAR RALLY

A Toyota driver led the Dakar Rally as Autosport went to press after the fourth stage on Tuesday, but it wasn't one from the five-strong factory team. Instead, it was local favourite Yazeed Al-Rajhi in his Overdrive-entered Hilux who held the top spot at the one-third mark, despite not winning any of the individual stages.

Saudi Arabian Al-Rajhi, competing on the Dakar for a 10th time, avoided the troubles that beset his factory rivals to head the Audi of Carlos Sainz Sr by 4m29s, with last year's winner Nasser Al-Attiyah in third on his first outing for Prodrive. Al-Attiyah had dropped nearly 25 minutes to the leaders after an excruciatingly painful opening test on Saturday, but was able to cut the gap by more than half with three strong

performances in the upgraded Hunter.

Last season's Rookie of the Year Lucas Moraes led the works Toyota contingent in fourth after winning the third stage, one of the longest at 438km (272 miles). But, like Al-Attiyah, he had a lot of ground to make up after losing time in the opening 414km special from Al-Ula to Al-Henakiyah.

Nine-time World Rally champion Sebastien Loeb was also caught out by the first stage on Saturday, with more punctures on day three only adding to his misery. But a decisive victory in the fourth special allowed the Prodrive pilot to fight back to sixth overall, behind the second Audi of Mattias Ekstrom.

Ekstrom's team-mate Stephane Peterhansel claimed a record-equalling 50th Dakar stage win on Sunday's second test in what has otherwise been a difficult outing. Nearly 27 minutes off the lead, the Frenchman has dropped to a distant eighth, even behind the two-wheel-drive Century of Mathieu Serradori.

**RACHIT THUKRAL**







Metge (inset) took  
third Paris-Dakar  
victory in 1986

## Rene Metge 1941-2024

### OBITUARY

The name Rene Metge will be forever associated with the Paris-Dakar Rally. The Frenchman, who has died aged 82, competed in its inaugural running in 1979, won it three times, and subsequently became the director of the event. But he wasn't a career rally driver: he made his reputation in touring cars and would claim victory in the Tourist Trophy at Silverstone in 1983.

Metge was a British Leyland dealer from Hauts-de-Seine to the north of Paris who raced for the French importer in Supertourisme aboard Triumph Dolomite Sprints in the late 1970s. His dealership sold a lot of Range Rovers, which explained his participation in the first Paris-Dakar aboard one of the British machines.

Two years later he won the event partnered with journalist Bernard Giroux. He was subsequently brought into Porsche's nascent rally-raid programme on the recommendation of Jacky Ickx, winning again in 1984 aboard a 911 4x4 co-driven by Dominique Lemoyne. The machine, codenamed the 953, was the lead-in to the Group B 959 in which Metge completed his Dakar hat-trick in 1986.

That year event founder Thierry Sabine was killed in a helicopter crash during the rally, and Metge stepped into his shoes to lead the organisation for two years. It was the start of a long career on the other side of the fence: among his credits were running the Paris-Moscow-Beijing event of the early 1990s, and launching the Africa Eco Race after the Dakar Rally moved to South America in 2009.

Metge started racing in Formula Renault in the early 1970s. He moved from Dolomites to Rover SD1 3500s in 1981 with an importer-backed programme masterminded by Tom Walkinshaw Racing: it supplied the hardware and flew in a crew to run the car. Metge won the 1982 French Supertourisme title and the following year he contested selected races with the TWR Rover squad in the European Touring Car Championship, claiming a famous victory with Steve Soper in the TT.

Metge competed at the Le Mans 24 Hours six times, winning the IMSA GTX class in a factory Porsche 961, the race variant of the 959, in 1986.

GARY WATKINS

## GB3 CHAMPION VOISIN STEPS UP TO JOIN F3 FIELD

### FORMULA 3

Reigning GB3 champion Callum Voisin has secured a graduation to the FIA Formula 3 grid, and remains at Rodin Motorsport for his step up.

The 17-year-old Briton (below) took part in all three post-season F3 tests last autumn with Rodin Carlin (see p8), although missed the second day of running at Barcelona in order to compete as a finalist in the Aston Martin Autosport BRDC Young Driver of the Year Award.

"Callum has been part of the wider Rodin Carlin team for the past two seasons, so being able to build on that strong working relationship is something I'm incredibly happy we can continue," said team manager Sam Waple. "It's a dream of mine to race alongside the Formula 1 stage, so I can't wait to get started," added Voisin.

Another GB3 race winner to land a seat for the 2024 F3 campaign is American Max Esterson, who will line up with Jenzer Motorsport. Esterson drove in all three post-season tests as well as the Macau Grand Prix with the Swiss squad, off the back of contesting two rounds of the regular F3 season with Rodin Carlin. "I feel like I've gelled well with Jenzer's family environment," said the ex-Formula Ford ace.



JEP/MOTORSPORT IMAGES

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## Rodin renames after founder Carlin departs



Carlin's first winner was Narain Karthikeyan in 1999

### SINGLE-SEATERS

What's been going on at the team that veteran single-seater buffs still can't help calling Carlin Motorsport, even though it hasn't held that name since 2009? First, founder Trevor Carlin made a shock departure two months ago. His wife Stephanie stepped up from the deputy team principal role to take overall charge, but only on an interim basis because she had already accepted a job at the McLaren Formula 1 team as business operations director, starting in the new year.

The team that in 2023 was properly known as Rodin Carlin has now been renamed Rodin Motorsport. Australian David Dicker, chief of New Zealand

boutique manufacturer Rodin Cars, had bought out the stake of Capsicum Motorsport in January. Capsicum head Grahame Chilton, father of ex-Carlin single-seater racer Max and British Touring Car Championship veteran Tom, had taken the majority share in late 2009. For 13 years Chilton Sr presided in benign fashion, allowing the team to operate simply under the Carlin title, its cars bearing 'chili' logos in honour of his nickname.

As Carlin Motorsport, the team became the dominant force in British Formula 3. These days it fields cars in FIA Formula 2 and 3, GB3, British and Spanish Formula 4, F1 Academy, and operates Lewis Hamilton's X44 Extreme E squad. It has also competed in IndyCar and Indy Lights, LMP2, and

enjoyed success in Formula Renault 3.5. Under the continuing charge of Trevor Carlin over 27 years of competition, it amassed a wins total estimated at almost 500, plus over 30 championship titles.

Dicker made no mention of the Carlins in the team's statement regarding the renaming. "I am thrilled to lead Rodin Motorsport in this new era of our racing history," he offered. "Our core values remain the same and we continue to strive to be the leading junior motorsport team."

Trevor Carlin did not want to comment to Autosport, preferring to maintain a "dignified silence". But one figure close to him said: "Believe you me, this isn't the last we'll see of Trevor in single-seaters."

**MARCUS SIMMONS**

## Edgar joins Kubica, Deletraz at TF Sport

### EUROPEAN LE MANS SERIES

Reigning World Endurance Championship LMP2 title winners Robert Kubica and Louis Deletraz will continue their partnership in the European Le Mans Series this year. They will try to reprise their ELMS 2021 title alongside British sportscar convert Jonny Edgar with the TF Sport squad.

Deletraz and Edgar (right) were announced in the TF-run ORECA-Gibson 07, to be fielded

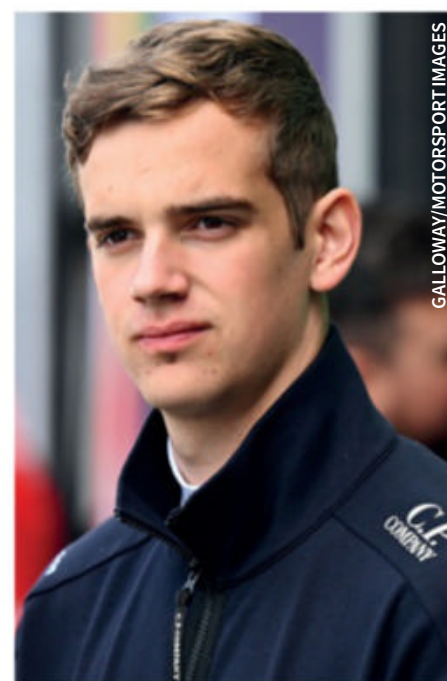
under the Orlen Team AO by TF banner, alongside the already confirmed Kubica on Monday. It will be the fourth season in which Kubica and Deletraz have been paired in LMP2 after a title-winning debut season in the ELMS with WRT in 2021, a graduation to the WEC with Prema in 2022, and a return to WRT for their successful championship assault.

They will dovetail their ELMS campaign with their top-class prototype programmes, Kubica

in the WEC with the customer AF Corse Ferrari squad, and Deletraz in the IMSA SportsCar Championship with the WTRAndretti Acura team.

Edgar, 19, is making the move into endurance racing as the silver-rated driver in the line-up after three seasons in Formula 3. He will race a P2 car for the first time when he joins the Sean Creech Motorsport for this month's IMSA season-opening Daytona 24 Hours.

**GARY WATKINS**





Best overall Le Mans  
result for Linge (inset)  
was fourth in 1965

PHIPPS/SUTTON  
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## Herbert Linge 1928-2024

### OBITUARY

Herbert Linge was a five-time class winner with Porsche at the Le Mans 24 Hours, but his contribution to the German manufacturer was far greater than his exploits behind the steering wheel as an all-rounder who also enjoyed success in rallying. He played key roles in the establishment of the Weissach development centre near the beginning of his career, and Porsche one-make racing right at its end.

Linge, who has died aged 95, was one of the earliest Porsche apprentices: he was the first mechanic to be employed on its move to Stuttgart. He proposed a rocky tract of heathland near Weissach, his home town, as the site for Porsche's test track and would go on to become operations manager of the research and development centre, home to the motorsport department, that grew up around it in the early 1960s.

Twenty-five years later, he was one of the group that came up with the idea for a Porsche one-make series and given the job of overseeing the programme. The Porsche 944 Turbo Cup was inaugurated in Germany and Canada in 1986 and spread to France in 1987. It was then Linge's idea to swap to the 911. The Porsche Carrera Cup was born in Germany in 1990: more than 30 years later there are now series for the Porsche spec racer all over the world.

Linge participated at Le Mans on 11 occasions between 1958 and 1970, seven times aboard factory machinery. His best overall result was fourth in 1965 driving a works 904/6 with Peter Nocker. He was also a class winner in the Mille Miglia, Targa Florio and Carrera Panamericana road-racing classics, and won the 1954 Liege-Rome-Liege Rally and the Tour de Corse in 1960.

GARY WATKINS

### WILLIAMS'S MERC DEAL

The Williams Formula 1 team has locked in an extension to its deal to run Mercedes engines until the end of 2030. This follows a few weeks after McLaren committed to its own extension as a customer for the same period. The Williams-Mercedes partnership began in 2014, at the start of the V6 turbo-hybrid era.

### NO CHANGE AT FERRARI

Ferrari will go into the 2024 World Endurance Championship with an unchanged line-up in the Hypercar class. Le Mans 24 Hours winners James Calado, Alessandro Pier Guidi and Antonio Giovinazzi will again drive the #51 499P Le Mans Hypercar, with Antonio Fuoco, Nicklas Nielsen and Miguel Molina in the #50.

### BARNARD BACK IN FRM3C

FIA Formula 3 race winner Taylor Barnard is contesting the Formula Regional Middle East Championship again, kicking off this weekend at Yas Marina. Barnard will rejoin PHM Racing, with which he was runner-up last year. Other Britons on the grid include Red Bull Junior Arvid Lindblad (Prema Racing) and GB3 racer John Bennett (Evans GP). Freddie Slater lines up with Prema-run Mumbai Falcons in the sister F4 UAE series, while Hitech GP is fielding Deagen Fairclough and Gabriel Stilp as well as Slater's fellow Ginetta Junior ace Reza Seewooruthun.

### TCR RACER GETS BTCC SEAT

TCR UK graduate Scott Sumpton will contest his rookie British Touring Car Championship season this year. The 19-year-old will partner Chris Smiley at Restart Racing – the team that ran both drivers in TCR – aboard the squad's pair of ex-Team Hard Cupra Leons. Sumpton, who claimed a pair of podiums on an end-of-season sojourn to the competitive TCR Spain series with a Restart-run Honda, said: "To race in the BTCC is almost every UK driver's dream, and it's a fantastic opportunity for me to develop as a driver and get to benchmark myself against some of the best drivers in motorsport."

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# Russell's risk/reward conundrum

*An admission by the Mercedes F1 driver about where his priorities now lie highlights a broader consideration of what fans expect from motorsport stars*

ALEX KALINAUCKAS

**“A**re there any good Formula 1 drivers?” Stuffed as I was full of turkey and bread sauce, I was not expecting to answer *that* question on Christmas Day. The calorie-stupefied cogs had barely started turning. Explanations of Lewis Hamilton’s statistical greatness, Max Verstappen’s current crushing domination and Charles Leclerc’s searing speed rose slowly from some dormant brain place after a long season. But the question actually wasn’t the one I’d initially assumed. “Are any of them good people?” Ahh – now that’s an entirely different query.

First, there’s the hurdle of subjectivity, I diplomatically replied, the festive-season torpor into which I’d slipped since filing my final article of 2023 meaning my mind was struggling to switch into gear. Then it came to me. Hamilton’s drive for racial equality and efforts to improve diversity in motorsport were the obvious starting point. Then there was Alex Albon’s support for the Wat Sakraeo Orphanage. And Verstappen clearly loves the cats that wander around his Monaco apartment.

‘Good’, a loaded term in itself, is always going to mean different things to different people, although it must be stressed at this point that the criticism slung Hamilton’s way simply for being a racing driver with a worthy cause goes beyond nefarious. On taking a step back to consider different elements of motorsport at this reflective time of year before the chaos of F1 launch season ensues, the

**“I’ve got probably got the best job in the world and how stupid would it be to waste it?”**

varied qualities of each driving star will also always cause debate.

And so, another memory stirred. It was something that Hamilton’s team-mate George Russell said at the close of the 2023 campaign. And this was a rather frank admission. “As I’ve grown and matured you learn what you need and what you don’t need, and where your priorities lie,” Russell said in Abu Dhabi during an interview with select media, including Autosport.

“Even speeding on the roads. I used to speed a lot when I was younger. My parents used to live in the countryside and I was totally within my limit, but well beyond the speed limit. [Now] I just think to myself, ‘It’s just not necessary’. If I get stopped, I might lose my licence, I might lose my whatever. That stress is not worth the rush that I got from that. I’ve got probably the best job in the world with what I do and how stupid would it be to waste it on

something like that? Or crashing my [push] bike getting a slipstream off a bus down a hill in Lanzarote trying to break 100km/h? I think that just comes with age.”

Russell had been explaining his 2023-24 off-season plans. He’d hoped to get “Toto’s permission” to go skiing – adding that part of his case to Mercedes team boss Wolff was that “I’m always sensible when it comes to sport outside of racing, because I get my adrenalin rush from racing”.

Russell’s adjustment wasn’t the result of witnessing Albon’s 2017 mountain bike training crash and painful collarbone breakage when they were respectively GP3 and Formula 2 racers, enjoying climbing the ladder together as friends and rivals. It came from his own realisation in the years following that incident, when he was 19 and Albon 21, that what he was doing tipped the risk-reward balance unacceptably. Russell and Albon are sensible characters in our hot-take age. But it’s to Russell’s credit that he’s not only reached such an understanding at a youthful age, but spoken about this so openly.

Motorsport history contains many driver careers stunted or lives even ended because the people in question turned to other adrenalin-packed pursuits. Think Didier Pironi and powerboat racing (after his F1 career), or Ron Flockhart and flight record attempts. Plus, Manfred Winkelhock, Stefan Bellof and Robert Kubica lost promising F1 careers to Group C or rallying crashes. These are all different circumstances to how a driver might approach road cycling as part of a strict training regime or using their talents behind the wheel of a road car. But it serves to highlight how we who appreciate motorsport can derive very different things from what we want or expect of its stars.

Plenty would want their F1 drivers to be adrenalin junkies, sharing their exploits on social media or perhaps saving the real gems for a tell-all late-career autobiography. Again, it’s all subjective. But the risk/reward element just can’t be forgotten. It’s why Russell needs Wolff’s permission to go skiing in the first place. Is it worth a possible injury for what is ultimately mundane compared to securing F1 glory for Mercedes?

Perhaps this is why Fernando Alonso’s attempt to win the triple crown – particularly while he still raced (almost) full-time for McLaren in F1 in 2017-18 – was greeted so warmly by motorsport aficionados. But wherever you stand in a debate on what makes a ‘good’ F1 driver, when it comes to them taking risks away from the circuits, it’s surely always better for them to see that discretion is the better part of valour. I’d much rather see Russell’s latest attempts to succeed Hamilton as Britain’s next F1 world champion than have him possibly miss out through injury or suspension. 🍷

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# Building on a tough season

*The Porsche specialist and BRDC SuperStar talks about his season in IMSA and his plans to challenge for top honours in GTD Pro in 2024*

SEB PRIAULX

**P**erformance-wise, I was up there with the top Porsche GT drivers in IMSA every weekend in 2023. The team, AO Racing, was new, having only been formed in the winter of 2022, but did an amazing job to get the car to where it has been

because the Balance of Performance hadn't really been on our side, apart from the last few races.

It was a massive learning year, as it was my first time setting up the car and being the lead driver in a GTD pro-am line-up. I felt like I've learned a lot from doing that and progressed as a driver in and out of the car. We didn't get the results we wanted, but I'm happy with how the year has gone.

It was around November 2022 that I was getting an idea of what we were going to do. The link came through Multimatic and Gunnar Jeannette, who is one of the drivers and part of the management team, and founder PJ Hyett, who was my regular co-driver wanted me. It was a good move for me to do and I really enjoyed working with them all season as the team is great and very professional. I can only see better things with them as they make their way up.

I've helped the team learn the Porsche 911 GT3-R because it's different to the RSR, set-up and handling-wise, so it's difficult and has a very small window to work in. It's not very easy to set up, but the team did a great job, and we did get some really good results.

Highlight of the season would be Virginia, which was one of my best races. I finished the top Porsche, and I was really happy with the pace. I had a good race, I kept it on the track and did

some good laps, so I was happy with my performance. At Road Atlanta we were pretty quick. I really enjoyed the track, as it's fast and flowing with not a lot of room for error. Towards the end we nearly had a podium, which was taken away from PJ, Gunnar and I in the last few minutes – that was tough.

It was a tricky year because we were on the back foot, but we kept believing in the car and ourselves and I think that's the main thing. We can only do what we can do, being positive

**“I'm ready to fight with all the factory drivers, and being at the top of the timesheets, hopefully”**

and clear-headed every weekend, not focusing too much on the results and more on our performances.

It's probably the only year that I've not had a proper podium, but you do get those years, and I'm sure there will be many more to come, so I'm not too worried about that. I know this car well now so being back in the Porsche will be great.

Laurin Heinrich will be joining me at AO Racing, and we'll be moving into GTD Pro. It will be a tough 2024 because I'll need to be pushing even harder than I usually do and I will need to be performing at my best with someone that talented alongside me. However, it will also be a great challenge and nice to test myself against fully professional line-ups, though it's a shame we won't be racing at Long Beach – that's one of my favourite circuits!

It's only over the past month that I have properly known what I'm doing and was signed with AO Racing again. It's a great opportunity and stepping up to GTD Pro is where I want to be. I'm ready to fight with all the factory drivers, and being at the top of the timesheets, hopefully. I know Laurin a bit because I did Porsche Shootout with him a few years ago. He won it and he's a good guy, quick, and tough to beat, but I think it's good to have someone in the team like that, pushing me forward.

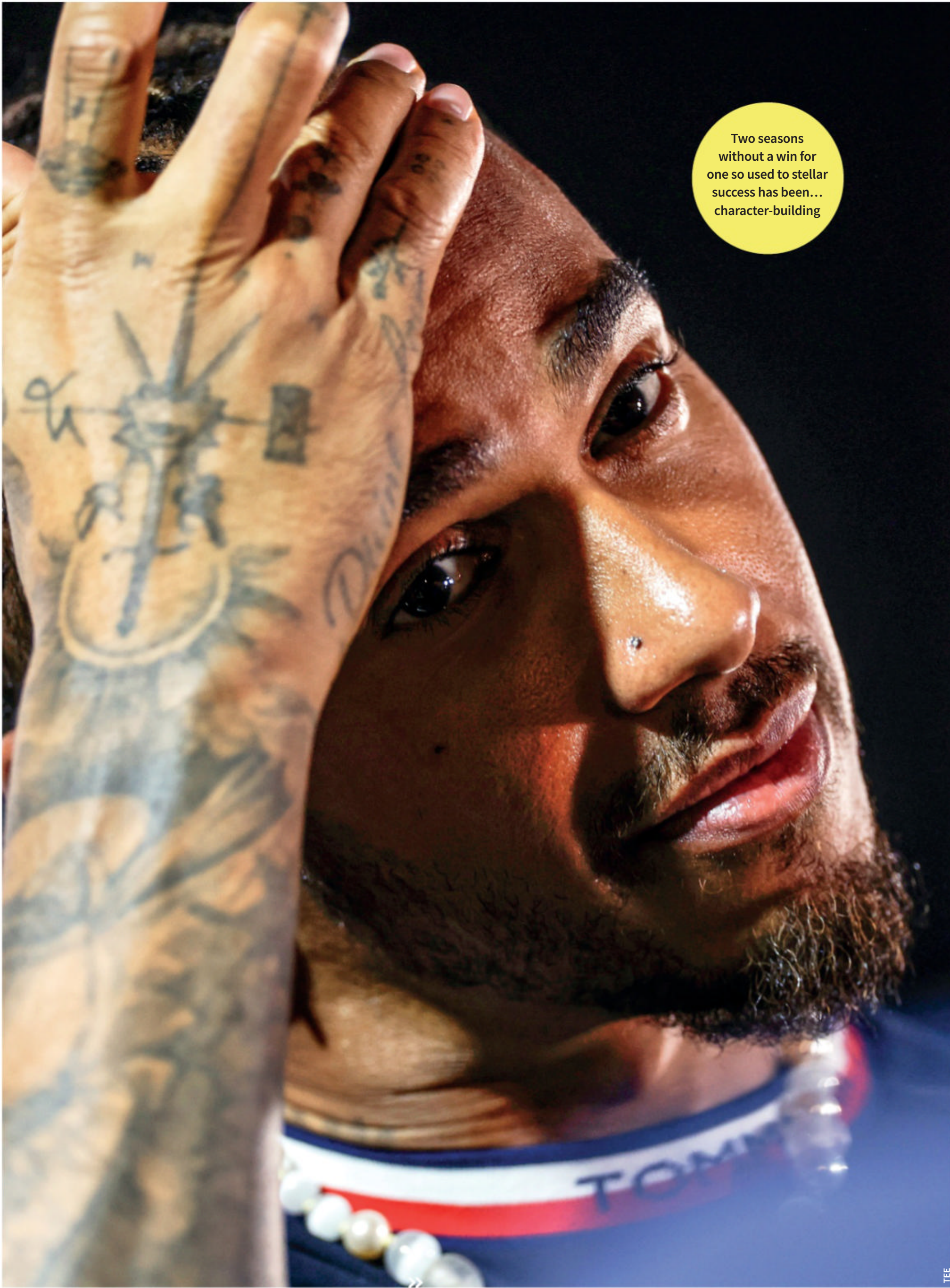
I'm now a full British Racing Drivers' Club member, which is amazing. The BRDC SuperStars programme is great to be on. It's such a prestigious club, it's nice to be part of that history. I haven't been able to attend a lot of the team-building sessions this year because of my commitments in the United States, but Andy Meyrick does a great job running everything. I looked up to the BRDC as a kid, as my dad was there, and I did once put some stickers on my helmet and my dad said: “You can't do that because you're not a member!” But now I can happily do that. 🍀

Priaulx shared Porsche with Hyett at most rounds in 2023



GALSATAD/MOTORSPORT IMAGES





Two seasons without a win for one so used to stellar success has been... character-building



FORMULA 1

# Plotting a course back to the top

*Lewis Hamilton has described 2023 as a 'strengthening year', such were the disappointments at Mercedes. Now he's hoping the North Star has been rediscovered in Brackley*

JAKE BOXALL-LEGGE

PHOTOGRAPHY  motorsport  
IMAGES

BACKGROUND: GUILLE POZZI/UNSPASH

SUTTON



**Of the stars in the Ursa Minor constellation, Polaris is the most luminous.**

Easily visible on the darkest of nights, Polaris is a focal point in both astronomy and navigation; as a cepheid variable star (in other words, it pulsates), it can be used to determine spatial distances to other galaxies. And, because it sits almost directly over the Earth's celestial north pole, it can be traced by seafarers to travel north. It's probably better known as the North Star.

On a cloudy night, however, its luminescence is eclipsed by the gloom; finding your way without it is a much more arduous endeavour. It's an enveloping state of purgatory within which Mercedes has existed for the past two years, running aground multiple times as it seeks to plot its course towards the top of Formula 1. Its own radical concepts had not maintained its turbo-hybrid-era successes, instead producing a feedback loop of seemingly endless problems. In addressing those issues, Mercedes' fixes seemed to vacillate between the forensic and a more trial-and-error approach.

"We didn't have a North Star necessarily at the beginning of the year, knowing exactly where we need to work towards," explained Lewis Hamilton in 2023. "It's been kind of a zigzag line trying to get to where we need to be. Every now and then something positive happens, you're like, 'OK, that's it'. And then it shifts, so the goalpost is always moving, which is typical."

The team has pledged an all-new car for 2024. Now, Hamilton reckons, a sense of direction and purpose has once again come into view: "I do believe we have a North >>



Hamilton took lion's share of experimental set-ups through 2022



BINGHAM

Mercedes star was a very real threat to Verstappen at Austin



ETHERINGTON



ETHERINGTON

DUNBAR



Impressive Hungary pole bucked trend of car's poor one-lap pace



ETHERINGTON

Hamilton really happy with racecraft and race performances last year



SUTTON



Star now, which I don't think we've had for two years. But still getting there is not a straight line..."

For the Briton, this is none too soon. The notion of two years without a win had seemed an impossibility when he was chalking up race victories seemingly every weekend in his pomp, but it has coincided with Mercedes' failure to make its car philosophy work under the dramatic changes to F1's technical regulations.

When the W13 emerged for 2022, bearing its minimalistic approach to sidepod design, many perhaps assumed that the Brackley squad's divergence from the rest of the grid had presented a masterstroke. When the car hit the track, it showed serious deficiencies, while Red Bull proved to have built upon Max Verstappen's last-gasp title success from 2021.

Mercedes initially stuck to its guns for the development of its W14. Steady improvement over 2022 had transformed the once-recalcitrant W13 into a race winner, and the gradient of progress had been enough to prompt the team to retain its tiny sidepods for the 2023 season. The team's technical figures had been adamant that there was still an untapped vein of performance to find within its design hypothesis. Instead, 2022's ascent proved to be a false dawn. Hamilton recalls the W14's first shakedown at Silverstone, where he felt a sense of déjà vu to his first experience with its predecessor.

"I remember it feeling exactly the same, and definitely was not a great feeling," Hamilton explains. "I really had high hopes. You train through the winter with the mindset that hopefully, when you see everyone working at the factory, you think it's going in the right way. And in February, when we do a download of where the car is going, I was a little bit more apprehensive compared to the previous year. The previous year it was like, 'The car is amazing, it's so unique, no one's going to have anything like it'. And then we get to the first test... So I was a little bit more cautious, and I was like, 'We'll see'. And then the car had all these problems. So, I just knew that it was going to be a long year."

Throughout 2022, Hamilton, as the senior driver alongside newcomer George Russell, had been burdened with experimental set-ups. While many of them did not bear fruit, his work had helped the team chart a course through the labyrinthine maze it had built itself. Russell snared the team's only win of 2022 in Brazil, adding to the sense of optimism that it was on the right track. It was not so; for 2023, it emerged that the squad had rather uprooted its old maze and planted a new one that was just as complex to navigate.

Mercedes principal Toto Wolff had been adamant that there

*"Ultimately, it's really about car characteristics. You could change 100 things, but it doesn't really change the fact that the aero package is wrong"*

were "no holy cows" in the team's philosophy and, when the team found that its 2023 car had not delivered the step forward that it hoped for, it introduced a new sidepod and floor solution in late May for Monaco that did away with its previous hallmarks. Prior to that, technical chief Mike Elliott had been relieved of his duties, and James Allison returned to his old post overseeing the development of the F1 project's technical departments.

The experimentation that Hamilton had to conduct was nowhere near as excessive as it had been in 2022, when Mercedes sought to find a cure for the W13's propensity to porpoise at the drop of a hat. Instead, he says a tacit acceptance that the overall aerodynamic concept was wrong prompted a rethink of how to get the best out of the car; rather than searching in vain for the golden-goose set-up with endless clicks of a socket wrench, the team began to engage in bigger-picture thinking. Hamilton



says that he was willing to be a part of that, and laid the soul-searching processes bare.

"I did a lot less of that experimental stuff in 2023 because, ultimately, it's really just about car characteristics," he adds. "You could change 100 things, but it doesn't really change the fact that the aero package is wrong. Sometimes it's in the window, a lot of the time it's out the window and no matter what settings, car set-up changes you make, whether it's mechanical, roll stiffness, all those sorts of different things, you can't overpower the aero characteristics and through-corner balance."

"So, what I did was just spent more time at the factory, having meetings with all of the key heads of the different departments and trying to keep them positive because if you imagine, for them, no one feels great. And it can be demoralising. So it was just really talking to them, saying, 'OK, we can do this, this is the area that we have a problem, this is what we've got to work towards'. And I would just help, try to be positive with them. I was looking at other cars, and I was asking just lots and lots of questions just to stimulate ideas. But, ultimately, letting them do their jobs."

## A 'strengthening year'

It's not all been doom and gloom in Hamilton's world of late. Third place in the 2023 drivers' championship added shine to a strong year for the Stevenage native, after falling behind Russell in the standings in the season prior. There were very clear highlights: pole at the Hungaroring, second-place finishes in Australia, Spain and Mexico – although the United States GP probably represents the best of his efforts over the year.

Hamilton has always been a dab hand at the Circuit of The Americas and, armed with a floor upgrade for F1's second US trip of the year, properly put Verstappen under the microscope over the second half of the race. It was probably just as well that he didn't win, following his disqualification for a skid-block infringement that resulted in that second place being chalked off.

That said, Hamilton's final three races of the season were meek at best; Mercedes was out to lunch over the Brazil weekend, while Las Vegas and Abu Dhabi were both middling results that suggested he was keen to get the season over with. When the year ended with a fluffed last-lap assault on Yuki Tsunoda at Yas Marina, it suggested that Hamilton had had enough of 2023 with a lap to spare.

Although there were very clear miscues from Hamilton, such as his first-lap clash with Russell in Qatar, most of his races were impressive. It's one-lap pace that has been a perpetual weakness for Mercedes, at least relative to its race performance (which makes the Hungary pole more impressive). So Hamilton and Russell have had a little more work to do to recover on Sundays.

"My racecraft and race pace, I've been really happy with through the year," Hamilton assesses. "Not a lot of mistakes, most of my race performances have been really good; I'm happy with building that up to the level it should be. But qualifying is still an area that needs to be improved. We struggle as a team getting the performance out of these tyres. You'll notice there was one weekend where George will be massively off and I'll be OK, and then it switches the other way. And those are down to small details >>



with our car. So, we need to work better as a team to be able to extract it more consistently, as some of the others do.

“Generally I’ve been much happier with my performance than in 2022 – that year was difficult because of always trying all these different things, and then the weekends were disastrous. You could say some of it was erratic in terms of the set-up changes we were trying, but for me we were not fighting for a championship. It was all about discovery and trying to see if there was any way of finding more information, of where the window is and where the car needs to be to work at its best. I think it was definitely a good learning year.”

You could forgive Hamilton for viewing the past two years as wasted seasons, as his hopes of securing a potential eighth championship waned spectacularly with Mercedes’ downturn in form. When it became apparent that the team’s drop in performance at the start of 2022 was more than just ephemeral, there was a growing frustration from within the camp. Some onlookers considered it hubristic, and arrogant that the team should expect to contend for titles every year. Instead, it’s more akin to a high level of expectation from everyone involved; the drivers also expect the best from the team and themselves.

But the knowledge gained from winning every week is limited. There are very clear lessons in defeat, so long as an entity does not replicate the mistakes, and Hamilton considers the challenges that the team has faced over the past two years as “strengthening”. Asked whether the troubles of 2022 and 2023 might have extended Hamilton’s career by prolonging the pangs of hunger to win, he joked about the adverse effects of helping to rebuild the team. “I would say it has probably shortened my life! [He laughs]. Stress definitely shortens your life expectancy.

“But I am grateful for the challenge we’ve had, the lessons we’ve learned as a team. And it has been massively challenging from a human side as well, outside of the car and how you are as a team-mate to all the people you’re working with. It has been a strengthening year.”

## Improving the formula for 2024

After its first forays into the revived ground-effect formula had yielded only limited success, Mercedes’ shuffling on the technical front reintroduced a tried-and-tested line-up as Allison took control once more. That’s not to say that Mercedes’ failure to continue its winning ways fell solely upon Elliott’s shoulders, but rather that the team needed to change something.

Hamilton, who has a long history of working with Elliott, was in awe of the now-ex-Mercedes technical chief and his abilities, but agreed that Allison was the right choice to help “galvanise” an engineering department that has likely lost confidence over the past couple of years. “I think it’s important for people to know that I wasn’t part of Mike’s departure,” he says. “I’d known Mike since I was at McLaren, had a great relationship with Mike. When I was at McLaren I was in awe of him, just because he’s so smart and I was just learning so much from him. When I asked him about the car, there was nothing that he didn’t have an answer for. What’s always difficult for someone in his position – and I remember this at McLaren – it often falls on them but it’s a collective. Everybody, all these pieces coming together, not just one person. There unfortunately may be people in the outside world who think it’s one individual’s fault.

“But James, he’s got that leader mentality, more than I think any other engineer I’ve come across. He’d be at the front with the sword saying ‘let’s go’ and go into the fire. And I think he does instill massive confidence in people. He’s so eloquent in how he speaks. He delivers speeches to the team, week in, week out. He’s great, telling everyone how it is and what we’ve got to do, and it galvanises the whole team.”

But will it be enough to take the fight to Red Bull? Hamilton was effusive in his praise of the Milton Keynes team and the fruit of its labours, the RB19. On following the car, he remarked that it “does everything well” and reminded him of Mercedes’ W11 from the

2020 season – a car that he won 11 races in that year. Since their explosive battle for supremacy in 2021, the two teams have been on very different trajectories; while Red Bull had been able to build on its strengths for 2022 and carry into 2023, Hamilton felt that Mercedes needed “to knock down the wall” between seasons.

In the process of dismantling that wall, Mercedes has added to its great library of experience to inform the design of its 2024 car. It made some of those changes over 2023, but its situation was not analogous to McLaren’s, where the Woking squad already had the basis for its later aerodynamic overhaul present. Mercedes’ progression was limited by the infrastructure of the car, which could not be so easily changed under the cost cap. Now there are fewer excuses because the team has the data showing how not to forge its path with car development – not that it doubted that it needed to change its approach for 2024.

If Mercedes gets the formula right for this year, it ties up many of the elements that have plagued it over 2022 and 2023. When the

*“I’ve learned a lot about my mind state and how to keep it in a solid place, staying positive, adding new tools to my armoury so I can continue to do what I do”*

car simply ‘works’, a team rarely has to spend as much time tinkering with set-up options, meaning that it can focus on optimisation at a more granular level. And, when the cars are perfect, it’s all down to the drivers to execute the perfect weekend.

This is probably the area where Mercedes boasts the most strength. Russell is a star in the making, while seven world titles show that Hamilton can do the business when the car is right. Despite the tribulations faced over the past couple of seasons, he’s still got the desire to compete – and likely wouldn’t have signed until the end of 2025 if he hadn’t.

“I think that’s a misconception [that he hadn’t had a long drought before],” points out Hamilton. “When I was younger, I had shit years when I was a kid. 2009, the car was horrendous. We did have a win through the year because we had a second upgrade in the season. 2010-11, also not great years. One on my side from a personal side, the other more often than not the car was not spectacular. It’s maybe the biggest drought in terms of success, but if you take away those wins it’s been similar to those seasons. I think I’ve learned a lot about my mind state and how to keep it in a solid place and staying positive, adding new tools into my armoury so I can continue to do what I do.

“I’m 38 years old [now 39] and I feel great in my body. That’s due to certain tools I’ve been able to accumulate during these two years. Time that I’ve been able to manage outside racing, and I think I’ve been able to do a much better job of maintaining energy and focus. I’ve got a better team around me than ever before.

“I guess ultimately, when you have difficult seasons like this, there are always going to be moments when you’re like, ‘Is it me or is it the car? Do you still have it? Has it gone?’ But when the magic happens, when everything comes together, the car and you get that spark, it’s extraordinary – and that’s what you’re in the search for. You’re going to be stuck with me for a bit longer.”

Hamilton firmly believes that Mercedes has found direction once again, a focal point to follow as it chases the successes that it reeled off in the past. If true, then his aspirations of an eighth title to beat, rather than stay matched with, Michael Schumacher’s record of seven will become ever brighter.

If Mercedes has based its navigation around the wrong star, then Hamilton has a decision to make. And, unless there’s a surprise late-career jumping of ships, Hamilton’s eventual exit from F1 would be the antithesis of his entrance in 2007 – and that would be an anti-climax unbecoming of his career. ❁ ➤





Fighting spirit is undimmed – and Hamilton's not unfamiliar with success droughts

HONE



Russell/Hamilton driver combo a major strength for the Mercedes squad

ETHERINGTON



New sidepods and floor at Monaco marked design philosophy rethink

GALLOWAY

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Third place in 2023 drivers' championship was an impressive result





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Magnanimity  
in the face of  
controversial defeat  
was followed by a  
period of reflection



ANDRE

## ‘Emotional’ thoughts of leaving F1 after 2021 finale

Living through history rarely feels quite so glorious when it comes at your own expense. For Max Verstappen, winning the 2021 title on the final lap of a contentious Abu Dhabi Grand Prix will likely remain his finest and most memorable triumph. For Lewis Hamilton, it was heart-shattering.

Magnanimous in the moment, Hamilton rode off into the sunset once the weekend’s festivities were truly over. Then, there was radio silence. His social media channels barely flickered into life, and this prompted suggestions that he might be on the brink of hanging up his helmet for good. Outlandish? Yes. But, as Hamilton explains, it wasn’t all that far

from the truth.

“For sure [he considered retiring], yeah. There was so much going through my mind during that period in time. I think one of the worst things you can do is make decisions based on emotions, and when

you’re emotional and in the heat of that moment, more often than not, you’re not going to make the best decisions. It was a really difficult period of time, so I had to just wait until things calmed down, that I was clear in my thought and I was able

to then make the right decisions.”

It was a family holiday in Hawaii that helped Hamilton work through the aftermath of 2021. Time spent with his niece and nephew allowed him to centre himself to continue.

With a deal stretching until the end of 2025, Hamilton has at least two more seasons to return to winning ways. This year will likely define the path that he takes in the future, depending on how successful Mercedes’ change in direction is. If not, would Hamilton stick it out to the end – or quit, abruptly, like late three-time champion and Mercedes adviser Niki Lauda did in his first retirement in 1979?

“I can’t say,” he ponders. “I really have no idea. It could be abrupt and I just disappear from the face of the earth. It could be I move into a different role. I really have no idea. I still love driving, I still love getting into the car.”



TEE





FORMULA E

# Can Dennis and Andretti fend off the pack?

*Jaguar finished last year on top form, but reigning champion Jake Dennis is feeling strong ahead of this weekend's season opener in Mexico*

STEFAN MACKLEY

PHOTOGRAPHY  motorsport  
IMAGES







BAGNALL



GRIFFITHS

F

ormula E embarked on a new era just over a year ago, with the fresh, more powerful Gen3 machines offering teams the opportunity to reset the hierarchy and establish a revised pecking order in the championship.

For Jake Dennis and Andretti Autosport – now renamed Andretti Global – any thoughts that they could be at the top of that new competitive order were a distant dream after a

lacklustre pre-season test seemingly put them on the back foot. Fast-forward 12 months, and the 28-year-old Briton is in a very different place; he enters the 2024 season with the coveted #1 on the front of his Andretti machine after claiming his maiden Formula E title in dramatic fashion on home soil last year.

Dennis enters the new season, which gets under way this weekend in Mexico City, as the driver to beat and, in theory at least, with everything to lose as the all-electric championship embarks on its 10th season of racing. But that's not how he feels.

"To be honest, I actually feel slightly less pressure than I would say I normally do," professes Dennis. "I feel like I've sort of proven to myself, proven to the team, that I can deliver when it matters and, coming into the season, I feel even more relaxed, that I don't have to prove myself and prove my worth."

"We've come off the back of a very strong season, definitely my best in terms of performance and consistency throughout the year, delivering when it mattered. It was obviously down to a strong package from the Porsche powertrain and obviously the Andretti side, but there's no two ways about it: I'm coming into the season confident in myself, confident inside the team and just hopeful we can replicate what we achieved last season. We're very much aware how difficult it's going to be, and the rivalry between three or four teams is going to be very high."

Dennis's quest for back-to-back Formula E titles will be a difficult one, with Jean-Eric Vergne the only driver able to manage the feat so far between 2017-19. Getting a foothold in the points could be a difficult task for all given the frenetic and unpredictable nature of races, a consequence of the high-drag design of a Gen3 car that turned last year's contests into slipstreaming battles that no one wanted to lead, and are likely to be a mainstay once again.

It's also unlikely that Porsche, which powers customer team Andretti, will be able to rely on the same early-season dominance that Dennis and factory driver Pascal Wehrlein enjoyed last year, which allowed them to share the wins in the opening three races.

Come the end of the campaign, it was Jaguar and customer team Envision that were the strongest, and it's a battle that looks set to rumble once more. "I don't think there's any denying that Jaguar definitely turned up to the last part of the season with an extremely strong performance," admits Dennis. "It just so happened that Rome and London definitely played into the strengths of their powertrain with a lot of tight, twisty corners, and that's perfectly suited towards them."

"Nevertheless, there were certain circuits where they didn't perform at, like Portland for example, where they struggled and obviously we scored big points. I would definitely say they look like they've probably found some extra pace, but I think it was just the track configuration more than anything."

"We just need to not be complacent and keep working hard. I think both teams, Porsche and Jaguar, are working extremely hard and ultimately, we want to beat them, they want to beat us and it's going to be definitely a dogfight. I'm very sure of it."

Dennis's main rivals from 2023, Nick Cassidy and Mitch Evans, have joined forces at Jaguar to create a Kiwi superteam (see overleaf), and no fewer than seven Formula E champions will be on the grid this season. Vergne and 2022 title winner Stoffel Vandoorne remain together at DS Penske, while 2016-17 king Lucas di Grassi has left Mahindra and returned to the Abt Cupra squad, where he has enjoyed so much success >>





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➔ FIVE THINGS TO WATCH THIS SEASON

in the past in its former guise as Audi.

Taking di Grassi's place at Mahindra is returning 2021 champion Nyck de Vries (see overleaf) following his truncated spell in Formula 1, with Sebastien Buemi and Antonio Felix da Costa – title winners in 2015-16 and 2019-20 respectively – remaining with Envision and Porsche respectively. Elsewhere, Sam Bird has left Jaguar and joins Jake Hughes at McLaren. Bird is one of five drivers to have made 100 starts in Formula E, and is only one of those centenarians not to have won a title.

Oliver Rowland returns to Nissan after parting ways with Mahindra in the middle of last season. He replaces Norman Nato, who joins Dennis at Andretti, to partner Sacha Fenestraz, who impressed in his maiden campaign.

The only rookie joining the grid this year is Indian Jehan Daruvala, who pairs up with Maximilian Guenther at Maserati MSG, the squad having split with team principal James Rossiter during the off-season, while the driver line-up of Dan Ticktum and Sergio Sette Camara remains unchanged at the newly rebranded ERT team, formerly NIO 333.

With many aspects of the cars homologated from last season carrying into this year, a general consensus among the paddock is that the pecking order from last term is unlikely to change much, at least initially, with a key area of development being each team's software.

Nearly three months have passed since pre-season testing at Valencia, where running was limited due to a garage battery fire and track action was suspended for a day and a half while the FIA investigated. The cause of the blaze was determined to be "an arc flash" and there remain no concerns with the batteries, all of which went back to supplier WAE (formerly known as Williams Advanced Engineering) for refurbishment as originally planned.

The winter break will have provided teams with plenty of chances to make gains in the hope of usurping Dennis and Andretti from the top spot, and the 2024 season promises to be as unpredictable as ever as Formula E hits a decade.





Evans (right) and Cassidy now find themselves as team-mates at Jaguar

# 1

## JAGUAR SETS THE BENCHMARK

In an alternative universe, it's more than conceivable that either Nick Cassidy or Mitch Evans could have walked away with their maiden Formula E title last season instead of Jake Dennis.

Both won four races, double Dennis's tally, as the Jaguar powertrain put factory driver Evans and customer Envision team pilot Cassidy on the brink of the crown when they emerged as the dominant force in the championship come the end of the campaign. Were it not for a collision between the two Kiwis and close friends in the second Rome race, things could well have played out differently in the London finale.

Given his impressive 2023 performance, Cassidy has been signed by Jaguar, re-establishing a partnership alongside Evans that reprises their time together as youngsters back home in the 2011 Toyota Racing Series, when reigning champ Evans led rookie Cassidy in a championship 1-2.

"I would say our strengths and weaknesses are maybe a bit unknown to each other just because we've developed so much as drivers across 12 years, but I think he's quality," declares Cassidy of his relationship with Evans. "He's very proven in this championship, he's up there all the time and the perfect reference for me to learn off. I still want to improve, had a good season [last year], but we always want to be better."

The pair were in ominous form during Valencia pre-season testing, where they took a clean sweep of the fastest times across the three sessions, while Envision's Robin Frijns – the Dutchman has returned to the team after a disastrous season with Abt Cupra – came out on top in the simulation race.

As ever, results from testing should not be taken as gospel but, with both Evans and Cassidy hitting their Formula E strides last season and the pecking order of the Gen3 cars likely to remain relatively similar, there's every reason to believe that both will be in the title hunt this season.

If that does happen, though, their friendship could well be pushed to the limit, with a first Formula E title on the line. How Jaguar chief James Barclay handles that dynamic could well be the biggest challenge – one that may well prove to be the difference between a first championship for the Big Cats or not.

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SEASON  
PREVIEW



GALLOWAY

Wehrlein and  
da Costa remain  
in works Porsches

2

## POINT TO PROVE FOR PORSCHE

The 2024 season is Porsche's fifth as a works entry in the Formula E championship and, on paper at least, it enters the new season after its best campaign to date.

Fourth in the teams' championship and four wins are easily superior to what Porsche achieved before, yet there remained a sense of what could have been after the London finale. The German manufacturer had hit the ground running with the new Gen3 machines, but that early-season dominance slipped away as it missed out on the drivers' title and eventually fell behind customer team Andretti in the teams' championship.

With Pascal Wehrlein and Antonio Felix da Costa retained for another season, Porsche has a strong platform on which to build and

a specific area of focus if it is to maximise the potential of its package.

"I would clearly say the problem was qualifying because the race performance was strong on all kinds of track, and several tracks in Formula E it's more easy to overtake than on others and our limiting factor clearly was the qualifying performance," says team principal Florian Modlinger. "We have worked on it since August to improve for season 10 and this is a must. If we improve this we will be in the races and collecting more points."

Porsche is known for its motorsport success and the team will be hungrier than ever to make up for the disappointment of last year's campaign.

Wehrlein lost a strong  
points lead last term



GALLOWAY

3

## RETURN OF A CHAMPION

After only 10 Formula 1 races with AlphaTauri before his mid-season dismissal, it was perhaps inevitable that Nyck de Vries would return to Formula E after so much success in the past, with the pinnacle his 2021 title with Mercedes.

More surprising than de Vries's return has been his choice of team, with the 28-year-old landing at Mahindra despite the Indian manufacturer being woefully off the pace last season, when it was behind in the development of its powertrain.

De Vries has bought into team principal Frederic Bertrand's vision for the future, though, and eyes are already looking ahead to the 2025 season, when large-scale changes, which have yet to be finalised, will be made to the cars.

It means that this season is likely to be one of learning and patience, but even before the first race de Vries's return has been far from straightforward. The Dutchman was slowest in the opening pre-season session when he sampled Mahindra's M9Electro for the first time, and the team's running was then severely impacted by the garage battery fire – it was located next door to WAE, where the incident occurred. The team's IT systems were destroyed, and the extinguisher foam used to put out the blaze, as well as soot, put de Vries's car out of action for the remainder of the week.

It meant that when track action did resume, one car was shared between de Vries and team-mate Edoardo Mortara, who joins Mahindra this term after six years with Maserati MSG and under its previous guise of Venturi. A meeting between the team principals took place, and it was agreed that Mahindra would be compensated with extra running.

The private testing was conducted over 14 hours, split across two days at the Monteblando circuit in Spain at the start of December, with both drivers able to get behind the wheel. Even with the additional running, de Vries and Mahindra are likely to face an uphill struggle during 2024, but the hope is that they can lay the foundations for long-term success.



Nyck de Vries has put  
his faith in Mahindra  
after F1 disappointment

BAGNALL



# 4

## FAST-CHARGING PITSTOPS

A year later than planned, fast-charging pitstops are at last due to feature, although when exactly has yet to be determined. The innovative concept requiring each driver to make a mandatory pitstop, where they will recharge their car's energy over approximately 30 seconds via a 600kW 'booster', was delayed by a year due to a shortage of supplies as the new Gen3 machines got up to speed last season.

The technology was trialled during the Valencia pre-season testing but, due to the garage battery fire earlier in the week, this was limited. Teams only simulated the procedure during the mock race, although it was used for the remainder of the test but at a reduced voltage.

The concept won't be used in Mexico City during the race, but it will be tested further. The FIA is required to give teams at least 21 days' notice on whether it will be used ahead of each event, with the infrastructure at each venue a determining factor. The reliability of the technology, as well as what it brings to the dynamic of a race, have been points of discussion and contention among drivers and teams so far.



# 5

## NEW LOCATIONS

Formula E will make its long-overdue debut in Japan this season, with Tokyo's waterfront the location of an 18-turn, 2.582km (1.6-mile) street circuit that is the culmination of years of planning by organisers to get the event off the ground.

While Japan is the only new country set to be visited this year, two venues feature on the calendar for the first time: the Misano World Circuit in Italy and the Shanghai International Circuit in China, both of which are set to host double-headers.

Misano replaces the Circuito Cittadino dell'EUR in Rome, which was dubbed not suitable for the current breed of Gen3 machines, while the championship returns to China for the first time since before the COVID-19 pandemic and will use a partial configuration of the Formula 1 venue. The Tempelhof Airport Circuit in Berlin, a staple of the Formula E calendar, will once again feature, but a new 15-turn, 2.585km layout has been created in an attempt to provide better racing with the faster breed of car.

A total of 16 races across 10 locations are currently planned after the Hyderabad E-Prix, scheduled for 10 February, was cancelled earlier this month. The second visit to India was thrown into doubt at the very end of 2023, as Formula E organisers publicly admitted it was "seeking urgent clarification" with the new Government of Telangana after receiving a letter that "could impact the Hyderabad race". It was formally announced on 5 January that the 2024 edition of the race would not be going ahead, joining Cape Town in South Africa and Indonesian capital Jakarta as venues that have dropped off the calendar from last season.

### FORMULA E ENTRY LIST

NO	DRIVER	TEAM
1	<b>Jake Dennis</b>	Andretti Global (Porsche)
17	<b>Norman Nato</b>	Andretti Global (Porsche)
2	<b>Stoffel Vandoorne</b>	DS Penske
25	<b>Jean-Eric Vergne</b>	DS Penske
3	<b>Sergio Sette Camara</b>	ERT
33	<b>Dan Ticktum</b>	ERT
4	<b>Robin Frijns</b>	Envision (Jaguar)
16	<b>Sebastien Buemi</b>	Envision (Jaguar)
5	<b>Jake Hughes</b>	McLaren (Nissan)
8	<b>Sam Bird</b>	McLaren (Nissan)
7	<b>Maximilian Guenther</b>	Maserati MSG
18	<b>Jehan Daruvala</b>	Maserati MSG
9	<b>Mitch Evans</b>	Jaguar
37	<b>Nick Cassidy</b>	Jaguar
11	<b>Lucas di Grassi</b>	Abt (Mahindra)
51	<b>Nico Muller</b>	Abt (Mahindra)
13	<b>Antonio Felix da Costa</b>	Porsche
94	<b>Pascal Wehrlein</b>	Porsche
21	<b>Nyck de Vries</b>	Mahindra
48	<b>Edoardo Mortara</b>	Mahindra
22	<b>Oliver Rowland</b>	Nissan
23	<b>Sacha Fenestraz</b>	Nissan



### 2024 FORMULA E CALENDAR

RD	VENUE	DATE
1	<b>Mexico City</b> (MEX)	13 January
2	<b>Diriyah</b> (SAU)*	26-27 January
3	<b>Sao Paulo</b> (BRA)	16 March
4	<b>Tokyo</b> (JPN)	30 March
5	<b>Misano</b> (ITA)*	13-14 April
6	<b>Monte Carlo</b> (MCO)	27 April
7	<b>Berlin</b> (DEU)*	11-12 May
8	<b>Shanghai</b> (CHN)*	25-26 May
9	<b>Portland</b> (USA)*	29-30 June
10	<b>London</b> (GBR)*	20-21 July

\*Double-header events



# A24

11-14 JANUARY 2024

# GUIDE



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JEP/MOTORSPORT IMAGES



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JEP/MOTORSPORT IMAGES



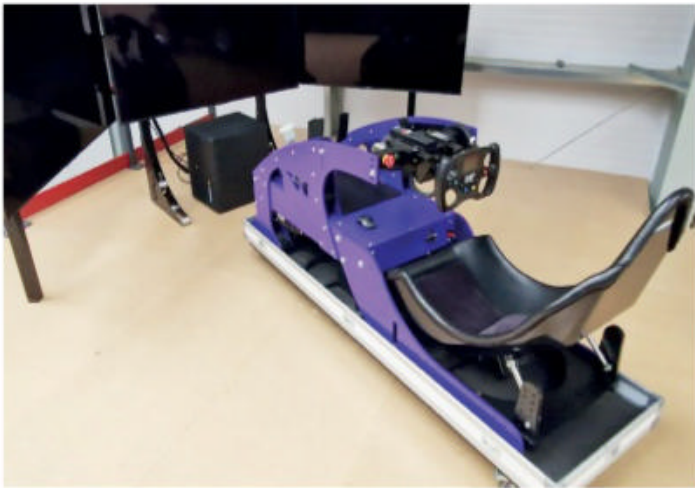
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# WELCOME TO AUTOSPORT INTERNATIONAL

## The future of motorsport starts here

Autosport International (A24) is the number one motorsport show in Europe. We aim to continue at this level by creating a highly impactful and memorable experience for every visitor. Our show offers unrivalled access to motorsport, and welcomes racing enthusiasts, race licence holders, industry professionals and families looking for a great day out. A24 is a showcase that combines quality exhibitor brands, high-profile guests, and all the thrills, noise and excitement of Live Action Arena.

I am a massive motorsport fan and competitor, and I have visited and exhibited at the show for the past 20 years. This passion for motorsport, and my experience in delivering world-class events, has put me in pole position to bring Autosport International back to the desired levels.

We've been working hard to develop the future of A24, and safeguard the industry's platform through our visitor and exhibitor feedback. This process has highlighted areas where we need to be accountable and acknowledge areas where we need to improve.

## So what's new?

We have developed a three-year plan, and are working hard towards building the platform for future years. The first thing to be delivered is the introduction of a new vision and floor plan to streamline the halls and improve the visitor flow. Our clear and distinct focus on Motorsport, Engineering, Performance and Live Action makes it easier for visitors to focus on spending more time in the specific areas that are important to them.

## Driving the change

For 2024, the cars will take centre stage. We've introduced two new Driveway live stages, designed to bring official launches, championships, liveries and historic cars to life from manufacturers and series such as Formula 1, the World Rally Championship, Le Mans 24 Hours, NASCAR, TCR, British Touring Cars and British Superbikes.

## Trading up

The newly focused Engineering Hall is dedicated to suppliers and buyers, and showcases the latest technology and advancements exclusively for the trade.

Our range of exhibition stands continues to attract international visitors and is seen as a place to network and collaborate. The Business Forum is a high-end conference featuring a variety of strategic topics. The focus covers motorsport and automotive, but also includes hybrid industries including aerospace, energy, marine and defence. The VIP Business Lounge enhances this offering, with a dedicated business-focused area for continued networking for the trade.

## Something for everyone

The Performance Hall offers a unique opportunity to see the inspiration behind the best of the tuning and modifications solutions industry. This dedicated Hall features its own driveway stage, which includes our resident DJ on Saturday from 4-6pm, plus some of the biggest names in the industry, from Mat Armstrong to major brands, offering a unique interactive event to bring your following project car vision to life.

The 2025 show will see us embark on the next chapter with new improvements and exciting changes.

See you there, and roll on A25.



*Ben Whibley*

**Ben Whibley**  
Event Director





**GUENTHER STEINER**

# YOUR GUIDE TO THE 2024 SHOW HIGHLIGHTS

We're sure you'll find plenty to enjoy in Birmingham, but here are our picks of what you should look out for

PHOTOGRAPHY  
**motorsport  
IMAGES**

HONE





## MOTORSPORT

### STARS ON STAGE

The Autosport main stage is invariably a focal point throughout the event. This year many of the stars will be joined by their cars (see pages 44 and 52) in a new-look format that should really add to the atmosphere.

Haas team boss Guenther Steiner is one of the more forthright Formula 1 figures. The *Drive to Survive* star will appear with Sky Sports commentator David Croft at 1000 on Saturday to share his views on F1 and the year ahead.

Former F1 driver Jack Aitken will also be there on Saturday afternoon as the DTM takes centre stage, while ex-Ferrari Driver Academy protege and former IndyCar racer Callum Hogg will appear alongside Jota boss Sam Hignett to talk about their 2024 World Endurance programme with a Porsche 963.

Ferrari's Le Mans 24 Hours winner James Calado (see p36) will be on stage at 1230 on Saturday, shortly before 2023 Aston Martin Autosport BRDC Young Driver of the Year Joseph Loake.

A decade of British Touring Car champions will be represented at 1400 when reigning champion Ash Sutton is joined by fellow four-time title winner Colin Turkington, triple champion Gordon Shedden and 2022's top driver Tom Ingram. Continuing the BTCC theme, three-time champion Matt Neal will be interviewed later in the afternoon.

There are plenty of other key motorsport figures who will give their views and insights across the four days, including rallycross star Kevin Hansen and the versatile Ian Flux on Friday, plus there can be late surprises, so be sure to listen out for the announcements about who will be appearing and when.



## LIVE ACTION

### LIVE ACTION ARENA

Rallycross, autograss, BriSCA Formula 1 and EuroNASCAR will all be part of the Live Action Arena, which provides a much-needed dose of motorsport at a quiet time of year. Throw in the Swamp Thing monster truck, Terry Grant's world-leading stunt driving, and motorbikes, and it's not surprising

that the indoor stadium is one of the show's longest-running and popular elements. More than 3000 spectators will be entertained in each 45-minute display and there's no extra charge to see and hear (and smell!) this indoor motorsport – public day tickets include access to the Live Action Arena.

## LIVE ACTION TIMES

Thursday and Friday

1430

Saturday and Sunday

1000 1130 1300 1430 1600





## ENGINEERING

### ENGINEERING HALL

Engineering is a key part of Autosport International and this year it has been expanded to cover all four days, rather than just the traditional Thursday and Friday.

The revitalised Engineering area has been developed for trade, suppliers, buyers and professionals. As well as showcasing many motorsport products and the latest automotive innovations, it provides an opportunity for like-minded professionals and enthusiasts to collaborate with new business partners and keep track of current developments.

Beyond the big and growing companies, F1 in Schools will once again be exhibiting, providing visitors with the opportunity to explore the educational STEM challenge that teaches young people how to design, make, test and race miniature F1 cars. The not-for-profit organisation will have an interactive space, with a 20-metre race track in operation throughout the event, enabling visitors to put their reaction times to the test as they race cars designed and made by students from around the globe.



## PERFORMANCE

### PERFORMANCE HALL

The tuning and modifications industry is a big one and has long been part of Autosport International. As an element of the revamped event, the dedicated Performance Hall will have its own driveway stage as well as some of the biggest names in the field.

Modified-car-building king Mat Armstrong will be on the Performance Stage on Saturday and Sunday, will open the show on Sunday, and a display of his cars will feature in the Performance Hall.

The UK's First BMW G87 M2 Clubsport will also star, presented by AReeve Performance. The AReeve M2 Track Edition will be displayed and driven onto the new Driveway Stage on Saturday and Sunday.

Other likely highlights include British rallycross driver Liam Doran's 1000bhp, carbon-bodied Ford RS200, which will appear on the Vibe stage on Saturday, and machines from Petrolheadonism. DJ Laura Dean will also be on hand to add to the spectacle for a two-hour set from 1600 on Saturday.





## ENGINEERING

### BUSINESS FORUM

Things are changing fast in the automotive world, providing plenty of talking points for the Autosport International Business Forum on Thursday and Friday.

Some of the most innovative leaders will be part of the two-day conference to discuss a range of topics, from future engineering challenges to encouraging people from all backgrounds to pursue careers in STEM and business. Hydrogen in motorsport, artificial intelligence and autonomous travel,

simulator racing and sustainability are also on the agenda.

Former head of strategy at Aston Martin F1 and Sky Sports analyst Bernie Collins will host many of the panel discussions. Business leaders for the forum include representatives from the Alpine F1 team, Audi, DTM, Extreme E, IMSA, Jota, McLaren, MissionH24, More than Equal, Motorsport UK and the National Motorsport Academy. Admission to the Forum is included with any trade day ticket.



## DON'T MISS

There's plenty more for everyone at the show. National motorsport always has a big presence and this year is no different. Turn to p48 to find out more. There are also lots of stands selling anything from clothes to motorsport models, as well as catering options around the NEC. Turn to p52 for the Autosport International map and p54 for the list of exhibitors so you can find exactly what you're after.

## ATTENDING THE SHOW

11-14 JANUARY 2024

For those who have not yet made up their minds about attending the show, there is still time to book...

### TICKET OPTIONS

#### Standard: £38

Includes entrance to the show and free access to the Live Action Arena

#### Paddock Pass: £48

Best seats in the Grandstand, unlimited access to Paddock area of Live Action and lanyard guide

#### VIP Club: £150

VIP Lounge Access, complimentary tea, coffee and biscuits in the VIP lounge, free cloakroom, free parking pass, unlimited access to Paddock area of Live Action, exclusive Live Action Viewing Box with drinks and canapes, lanyard guide and goody bag

All tickets subject to an additional £2.25 service charge per ticket

**TICKETS ARE AVAILABLE TO BUY NOW AT**  
[autosportinternational.com](https://autosportinternational.com)

### TRAVEL AND VENUE INFO

There is covered access from Birmingham International railway station and Birmingham airport. For those arriving by car, there are over 15,000 parking spaces (payable to the NEC when leaving). The NEC is signposted from all West Midlands motorways and major routes, including the M42, M40 and M6 – just pop B40 1NT in your satnav to the NEC site. Once you arrive, ignore the satnav and simply follow the digital screens for directions to the car parks.

**AUTOSPORT**  
INTERNATIONAL





Class wins are just as hard, says Calado, but outright Le Mans victory brings whole new profile

Hear more from Calado on the main stage at 1230 on Saturday

**MOTORSPORT**

# ***FERRARI'S BRITISH STAR HITS BIRMINGHAM***

One of the leading names at Autosport International will be the UK's latest Le Mans winner – James Calado will be on stage on Saturday

**GARY WATKINS**





## “PEOPLE START TO KNOW WHO YOU ARE. MY MUM REALISED I GO RACING FOR ONCE AFTER THIS YEAR!”

“The big difference between winning in class and winning overall now in Hypercar is the attention you get afterwards. People start to know who you are. My mum realised I go racing for once after this year!”

That said, Calado acknowledges just how significant – or special, again – this one was. “It wasn’t just an outright victory in the 100th year of Le Mans, it was Ferrari’s comeback season after half a century away [from the prototype ranks as a factory],” explains the 34-year-old. “It was a new car and the three of us were all new to prototypes. We won it – and it was only the fourth race!”

That point shouldn’t be overlooked given that Ferrari beat the previous king of Le Mans in the form of Toyota, a marque incumbent in the WEC since 2012 and the winner of the 24 Hours every year from 2018 to 2022. Just how close it was as the #51 prevailed over the second-placed Toyota GR010 HYBRID LMH by just 80 seconds explains Calado’s reaction to questions about the Balance of Performance, which was controversially changed against Toyota just days before the cars were due on the Circuit de la Sarthe. Of Toyota boss Akio Toyoda’s contention that the Japanese manufacturer was “beaten by politics”, he retorts, “Not true”.

“They were 15s behind when they put it in the barrier,” he says of Ryo Hirakawa’s off at Arnage that appeared to have set the seal on a Ferrari victory with a couple of hours to go. “People say Ferrari won because we had a performance advantage given to us, but there were times during the race when Toyota was quicker. It really was equal. It was such an enjoyable race because it was so close.”

Calado didn’t enjoy the moment with half an hour to go when an electrical glitch that had cost the winning 499P time earlier in the race reoccurred at the car’s final pitstop. He looked like he’d seen a ghost when the TV cameras panned onto him in the box.

“I was really worried we wouldn’t get going in time to hang onto the lead,” he recalls. “Ale [Pier Guidi] basically had to do a full reset, which isn’t a simple on-off. You have to press one switch, then do two more things, and then some more. It seemed like it was taking a lifetime. I remember Berto [longtime Ferrari driver Andrea Bertolini] trying to reassure me it was going to be OK. When the car left the pits, I thought, yes!”

The electronic glitch was the only significant issue to afflict the winning Ferrari during the race, save for Pier Guidi’s off in the wet during the night at the first Mulsanne chicane. That wasn’t what »

**L**e Mans 24 Hours winner. That’s the tag that’s now nailed firmly ahead of the name James Calado, and has been since Ferrari’s victory in the centenary running of the French enduro last summer. Only it should really be, as the man himself points out, three-time Le Mans winner. When Calado, Alessandro Pier Guidi and Antonio Giovinazzi took victory aboard their 499P Le Mans Hypercar in June, the first two were adding to their tally of wins at sportscar racing’s ‘Big One’. The Briton and long-time Italian team-mate Pier Guidi were winners at the World Endurance Championship blue-riband in GTE Pro in 2019 and 2021, triumphs that inevitably didn’t receive the same plaudits or attention as an overall win. Yet their importance shouldn’t be diminished. That’s very much Calado’s view.

“I always insist that it was just as difficult to win in GTE Pro; those races were so intense,” he reckons. “There was the year in 2019 [in the second of two editions of Le Mans encompassed by the 2018-19 WEC ‘superseason’] when there were 19 cars in class. That one was special.





## THREE THINGS YOU PROBABLY DIDN'T KNOW ABOUT JAMES CALADO

**1** His first loves were motocross and trials riding. He competed on two wheels as a youngster before he started karting. "I could ride a bike almost before I could walk," he says. "I didn't stop until my second year of karts when I was a Zip Young Gun and had to make a decision on what I wanted to do. I still love going out on my bikes and tinkering with them."

**2** He did work experience with the Team Dynamics British Touring Car Championship squad – based up the road from the Calado family home in Worcestershire – while he was still karting. His tea-making abilities, it is said, left something to be desired.

**3** To get the necessary signatures to upgrade to the National A licence required for his maiden season of Formula Renault in 2008, Calado raced a selection of clubbie tin-tops including a Nissan 350Z and 1980s Ford Fiesta XR2. His outing in the former didn't go according to plan: "The car had some kind of fire and was throwing out smoke. I didn't notice the warning flag and ended up getting points on my licence."

was expected within the Ferrari camp heading into the race.

"During testing we'd never done more than six or something hours in a row without having to pull the car into the garage," recalls Calado. "An engineer showed me a statistic on the computer suggesting that we had a 38 to 40% chance of running through without a major problem. But that's what we did. Mechanically the car was faultless."

And supremely enjoyable to drive: "The car at Le Mans last year was unreal. The speed and the balance through Porsche Curves was so impressive. All three of us came in smiling after our first laps in the car at the Test Day the weekend before the race."

Calado regards the Spa 6 Hours at the end of April, the last WEC round before Le Mans, as the race at which the 499P came alive. He overturned a 50s deficit to the factory Porsche 963 ahead of him over the final two hours to snatch a first podium for #51 on the final lap.

"I was flat-chat all the way after getting in the car for those final two hours: it was quali lap after quali lap," he relates. "It was the first time that I really felt comfortable in the car, that I could start throwing it around. Spa gave us great confidence going into Le Mans. We said to ourselves afterwards, 'We're right there now'."

The Le Mans victory propelled Calado and his team-mates into second in the points and gave them a scent of the WEC title, but it didn't work out that way and they faded to fourth in the championship. The balance between Toyota and Ferrari swung the other way after a further – scheduled, this time – BoP change in the wake of the 24 Hours. Drivers, along with teams and manufacturers, aren't permitted by regulation to talk about the BoP. "I can only say that what we were given set us back a bit" is all he can offer.

The 2023 season was Calado's 10th year with Ferrari and he has just signed a new long-term deal to keep him there for the foreseeable future. He joined the Italian marque for 2014 after his single-seater career came to an end following two seasons in GP2 with ART Grand Prix. He'd been backed by the Racing Steps Foundation, which generally allowed its drivers to what it used to call "graduate" from the scheme after a single year of GP2. A deal was done between RSF, ART and team co-owner Nicolas Todt, who brought Calado into his All Road Management fold, for a second season. Despite finishing third in the points, the funds weren't there to continue his open-wheeler career.

Calado probably wouldn't be up on stage at this weekend's Autosport International – or if he was, his attire would bear the badges of a different manufacturer – had the original plan post-GP2 come to fruition. He had a provisional agreement to join Mercedes to race in the DTM in 2014.

"It was pretty much a done deal when [Mercedes motorsport boss] Toto Wolff told me straight after I'd done a simulator session that it would have to wait for a year," he remembers. "I knew I had to



Spa podium was a breakthrough for 499P



Abu Dhabi 2013: Calado won on final GP2 outing



Winning Le Mans on Ferrari's comeback after half a century away was icing on the cake



JEP



Crashing out in 2014 almost cost him his job

GILBERT



GTE Pro victory in 2019's crowded field "was special"

EHRHARDT

keep racing, otherwise I was thinking it could be the end for me."

Todt, son of former Ferrari F1 boss Jean, then used his connections at the Italian marque to get Calado into a shootout for a vacant seat on its factory sportscar roster. The Brit was squeezed into a test at Vallelunga originally due to involve only Sam Bird and Jerome d'Ambrosio.

"I'd heard of Le Mans but I'm not sure I knew what the WEC was," recalls Calado. "When I got in the car for the first time, I thought, 'What is this?' It was wet and I sussed that a different approach was required. It was the 458 Italia, and once I got used to it, I realised it was a well-balanced, real racing car. And it sounded great, so a proper Ferrari. I loved that car."

Calado got the drive and was paired with Davide Rigon for his maiden season in the WEC in 2014. He can reveal now that Ferrari had some misgivings about his signing after he crashed during qualifying for what should have been his maiden Le Mans that year: "I nearly lost my job straight away!"

The accident happened in the second left of the ultra-quick Porsche Curves: "Maybe I was pushing too hard on new tyres; I didn't have a lot of experience of them at the time. I actually caught it, but the correction cost me 50 metres, which put me in the wall. It was Davide who told me that there were some

worries within Ferrari about me, but he said he'd have a word. He helped me realise I had a lot to learn about being an endurance driver."

Calado fell briefly unconscious while still in the car after the shunt and again in the ambulance on the way to the medical centre. "I knew the doctors were going to ask me questions to work out if I was concussed," he remembers. "I desperately wanted to race at Le Mans and thought I was ready for them. The first questions were, 'Where are you and what corner did you crash at?' Silverstone and Copse were my answers!"

Calado was carted off to hospital and remained there for the better part of the week. It was an inauspicious start to a Le Mans career that would quickly blossom. He was second on his proper debut the following year, and he's been on the class podium every year since 2019.

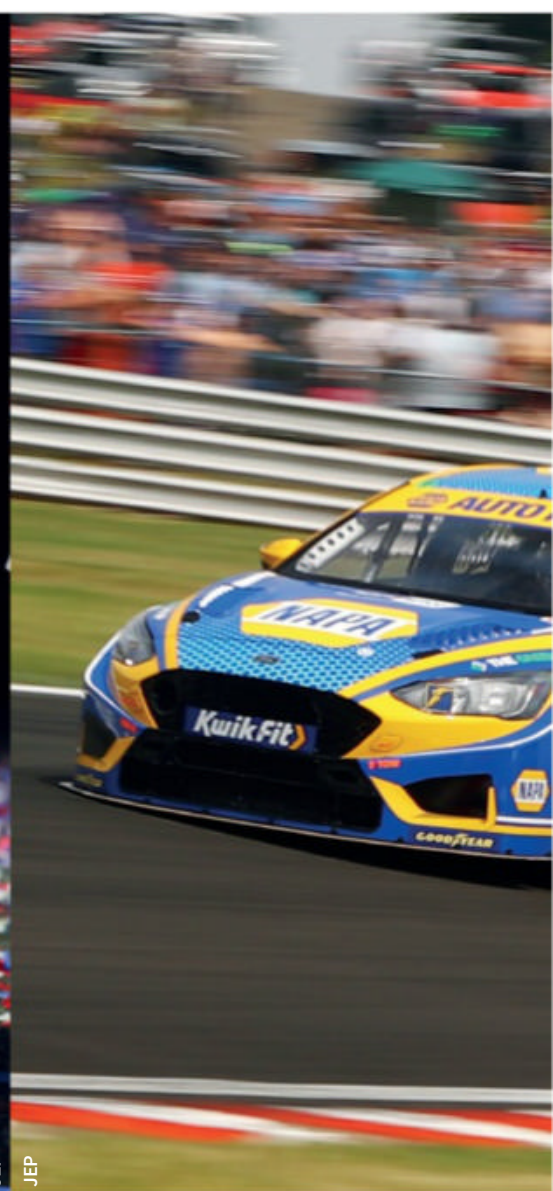
The aim now is to continue that run and try to add to his tally of WEC titles: in addition to his trio of Le Mans triumphs, he's also won the GTE Pro crown on three occasions, each time with Pier Guidi, in 2017, 2021 and 2022.

"We proved our worth in 2023," he says. "The goal on my side has to be to add another championship to the ones I've won already." ❄️





Sutton won his fourth title in 2023 (left), and enjoyed fabulous battle with Hill at Oulton (right)



Hear more from Sutton on the main stage at 1200 and 1400 on Saturday

## MOTORSPORT

# SUTTON ON HIS RIVALS

Ahead of his appearance at this week's Autosport International, it was time to find out what the BTCC king thinks of his main opposition – past and present

MARCUS SIMMONS

**T**here's no question about it: Ash Sutton is one of the all-time greats of the British Touring Car Championship. It's well-documented already that his 2023 title success aboard his Alliance Racing Ford Focus ST was a record-equalling fourth alongside Andy Rouse and Colin Turkington, and meant that he became the first in BTCC history to win it in rear and front-wheel-drive machinery; the same goes for his matching of Alain Menu's 1997 record of 12 race wins in a season.

Sutton's career has been covered extensively in these pages; so too have the achievements of the NAPA-liveried Motorbase/Alliance squad in our in-depth feature of last November. And everyone has an opinion about him. So now, as he gets set to be one of the star guests at this week's Autosport International show at the Birmingham NEC, it's time to ask Sutton: what does he think of the main rivals he's faced in the BTCC? Read on to find out...

## TOM INGRAM

There seems to be a lot of respect between 2022 champion Ingram and Sutton: "Yeah there is. Initially when I first got into touring cars we had a few little run-ins together. I think everyone does – it's touring car racing. We'd give each other the nudge that was always a little bit too much. But I think from 2019 onwards the atmosphere in touring cars maybe slightly changed – a bit of racing room was left a bit more. Definitely with Tom I've noticed, especially the past two seasons when we've both been gunning for the title, that we've always given each other that bit of respect. We still get stuck in, we still give each other the nudge here and there, but there's never this taking-each-other-out stuff. If you give him a little nudge you know you're going to get it back at some point."





ALL PHOTOGRAPHY  
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## JAKE HILL

Hill appears to be a fiery little character on the track: “He’s filled Rob Collard’s shoes maybe! To be fair, Jake’s a hard racer, and he’s very passionate about it, and you can see that sometimes when things flare up. But we all have our moments when things get a bit heated. Jake on track is very aggressive, but there’s nothing wrong with that as long as you know how to handle that person, and I’ve been told I can come across quite aggressive. It’s just the nature of the beast I think. When you’re in a rear-wheel-drive car and you know that it’s going to come on strong at the end of a race, that tends to be when you see Jake quite punchy, when he knows that he’s got an advantage in the car and he’s trying to make the most of it.”

## COLIN TURKINGTON

He’s now the elder statesman of the leading runners, and still a force: “Colin is always thinking of points, but don’t get me wrong – he’s almost like the silent assassin! We’ve seen it when he’s had to come from the back of the grid to the front, like at Oulton Park [in 2023] – he does get stuck in. As much as everyone calls him Mr Consistent, Mr Pointsy, when he’s at the back and he’s got to make his way to the front the elbows are out. But 90% of his driving style is done on a calculation basis for the championship – that’s how I always look at Colin.”

## JOSH COOK

He was Sutton’s first BTCC team-mate, back in the Triple Eight MG days in 2016, and they’ve been friends ever since: “The moment I joined British touring cars in 2016, we got on like a house on fire and we still do. We maybe don’t see each other as much or speak as much we used to – our lives take over [both have recently become fathers] and we’re doing our own programmes within touring cars – but he’s just a fantastic guy and we’ve had some awesome »



Respect: hugging Ingram after  
Hyundai man won 2022 title



2020 fight with Turkington  
(right) went Sutton’s way



Friendship forged with Cook  
(left) during wig-wearing 2016





Team player Cammish (leading)  
gave Sutton 2022 Thruxton win

JEP



Snetterton 2019 battle with  
Plato ended in rancour...

JEP



...while Neal wasn't best pleased  
after Brands 2016 shenanigans

JEP

battles on track. Despite being friends, you're still going to have these blows. Look at Knockhill last year when Josh ended up in the barrier – I went round the outside of him and he bounced off the side of my car and it ended his race. Was that my intention? No. That for me was just a racing incident, and even if we were best friends we wouldn't have been able to do anything about it. Despite your relationship with that individual, you can't always overcome every issue."

## DAN CAMMISH

Sutton's current team-mate – and sometime rear-gunner – can also be blisteringly fast in his own right: "Dan's fantastic. Back in 2021, Pete Osborne [Alliance boss] approached me to join what is now the NAPA outfit, and at the time I thought I had a done deal elsewhere. Pete asked me who would I put in the car, and I said, 'Well, there's one guy who's not on this grid that deserves a shot because of his raw pace', and that was Dan Cammish. He'd lost his seat from Honda, he'd had a year out, and he was itching to get back in.

"I never really spoke to him up to that point – he keeps himself to himself. But you look at his CV and what he's achieved in a race car, and that speaks for itself. My respect for Dan is huge, and it turned out that we ended up being team-mates anyway! We have a right laugh within the team, and away from the track he's just a down-to-earth, genuine guy."

## JASON PLATO

Now we're going to talk about some of the BTCC champions who haven't been on the grid lately, starting with Sutton's childhood hero: "The first time I met him, and we still send the picture between us every now and again, was the Autosport Awards after the 2007 season. I was there to collect an award for my karting career.

"Despite Lewis Hamilton and David Coulthard and a few others being there, the one I wanted to go and see was Jason. He's the one who I'd been watching on telly, and I wanted to be in his seat doing what he was doing. I was a young 13-year-old looking at my idol, and God knows how many years later I'm sat in a race car next to him. It was quite surreal to be fair, firstly to be joining BMR [for 2017], but to do it alongside Jason was special. At Brands Hatch, just before the final race in 2017, I was going for the title. He pulled me aside, he grabbed the front of my helmet, he looked me in the eye, and he said, 'Don't worry kid, you've got this'. It was just one of those... 'this is your time' moments.

"I've been on the wrong side of Jason – in 2019, me and him came to blows at Snetterton, and that was the first time that someone I had respected for so long and thought that we were on a common ground... I got knocked down a peg or two! It made me open my eyes. It was a learning curve and definitely a heated one.

"But last year I had some fantastic texts from Jason. When we won the title at Brands, after the first race, he was the first person to call me. And he spent 10 minutes on the phone, chatting away, talking about some of the memories, congratulating me, and I even heard him crack open a little drink for me. It was nice – we've been through some highs and lows, but to have someone who I had as an idol saying you're doing the best job anyone can do, that you're a bit special, is really nice."

## MATT NEAL

Neal's title-winning days were over when Sutton rocked up in the BTCC, but he could still be a force: "In my first year in the championship I had a big coming-together with him at Brands. It was the accident coming out of Druids where he hit the wall on the left – he spun round and round and he even picked up a bit of concussion. I can remember going to see him afterwards and talking about it and it was very heated, very Matt Neal-esque if



I can call it that! I definitely was on the receiving end of that... But I was the new kid on the block at that time, and ultimately these names were just stickers on the window to me. I was there to do my own job.

"I always found he kept himself to himself. And then at the start of 2018 all of us went to the Autosport show, and did a bit on stage, and I started calling him 'the giraffe' and 'the old boy' and things like that, and we started having a bit of a laugh on stage, and that was the first time I felt part of the inner circle, when you've gone and got yourself a championship, and you've proven your worth, it's almost like you've been let in. He's a genuinely nice guy, a good old character."

## GORDON SHEDDEN

The Scot was very much the BTCC top dog when Sutton arrived, but more part of the Plato/Neal generation: "I actually got on very well with Gordon on track. A lot of people struggled with having a bit of contact with him, but like with Tom Ingram we've had this mutual respect. A couple of times I've been on the receiving end of a nudge and thought, 'Oh Gordon, that was a bit hard'. But there were a couple of times where we've both just worked together, and he would make a gap and I'd follow him through, or vice versa. I really enjoyed those races with him, and we've both got out of the car multiple times and said, 'Ah, that was a cracking race'. Once I got into that inner circle, your respect for each other does change massively.

"I spoke to him at the BRDC Awards last month and he was saying he'd love to get back into the BTCC, and then he's on the phone asking if I can help him with a sim [Sutton's business away from the track is simulators]. And he sent me down a book on 50 years of Knockhill for Christmas as a little thank you gift. A great guy and a true racer – a hard racer, that's for sure."

## ANDREW JORDAN

If only Jordan had stayed in the BTCC after the COVID hiatus, he might have enjoyed some epic scraps with Sutton. But he's preferred to concentrate on the family business in historic racing: "Like Gordon, we never really had big blows with each other on track, and there were definitely a few occasions where we worked together but without any communication beforehand. When you fall into that with someone I always feel that's when you know you've got the mutual respect there. In my eyes, there's working together on track and making progress, or there's causing carnage.

"Andrew's fast in the car, and a fantastic guy away from the track – a family man and a true hard worker. You look at what their business is now, and he's doing a fantastic job there. The whole Jordan family are great – I must fit into their good books for them to invite me along in 2018 to race one of their Cortinas with one of Andrew's sponsors, Pete Chambers, at Goodwood. That was quite a cool moment."

## AND... ALAIN MENU

We're going to give Sutton the final choice, to complete 10 drivers. And he picks a champion he never raced against: "Unfortunately I probably will never race him. He almost acted as a bit of a mentor in my first year of touring cars, just looking over data. I built a relationship with him off the back of that, and took some of his advice in terms of the dos and don'ts of touring car racing.

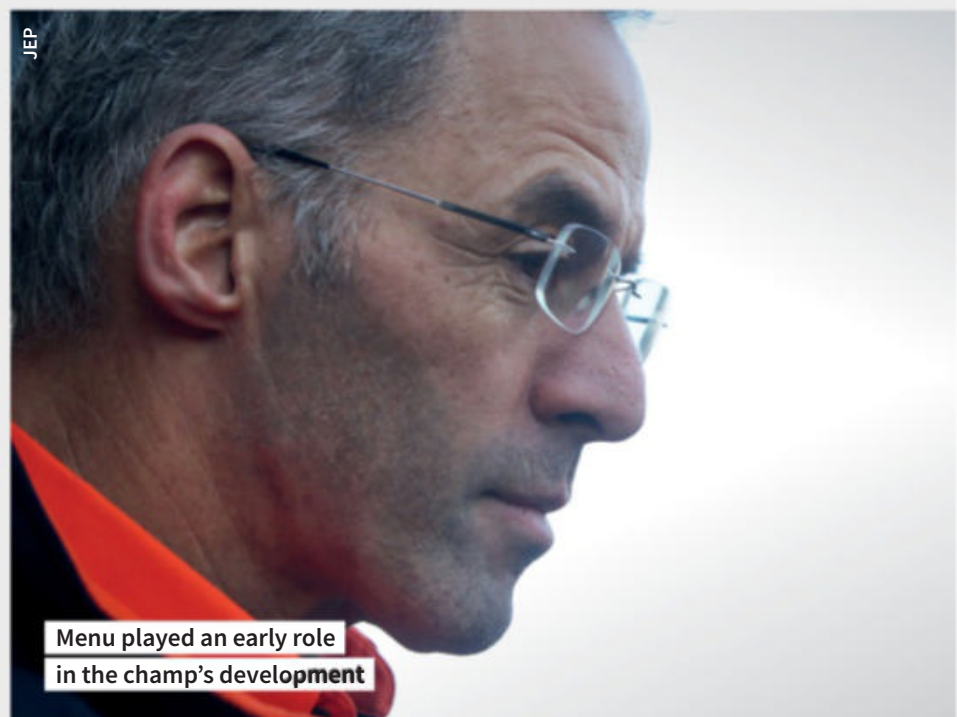
"In 2017 Alain asked me to go up to his house when we were at Knockhill. We stayed there for the weekend, we had some fantastic food, spent time with his family and mine. From that point onwards I've always had a great relationship with him where we drop each other a text, just a little catch-up with each other, checking in how everyone's doing. He played a part in it [Sutton's success], and I class him as a friend." ❄️



Joining Neal and Jordan in 'inner circle' at 2018 ASI



Sutton (red Cortina) fights Rob Huff at Goodwood



Menu played an early role in the champ's development



MOTORSPORT

# ***MIGHTY MACHINES OF MOTORSPORT***

A new feature of Autosport International is that some of the stars will be joined by their cars on the main stage. Here are some of the best to look out for there – and around the National Exhibition Centre





## PORSCHE 963

Porsche rules the roost when it comes to Le Mans success. Ferrari's famous 2023 victory took the Italian marque's tally in the French classic to 10, but Porsche has a record 19 wins.

The 963, which took the German firm back to the top rung of the endurance racing ladder last year, is an LMDh rather than an LMH. This means that, unlike the Ferrari, it

uses some spec parts and has the LMP2-based backbone of the chassis produced by one of the four approved constructors, in this case Multimatic.

Porsche took third in the manufacturers' table, but the 963 is also bringing privateers back to the top class. The Hertz Team Jota entry showed that well-run customer cars can mix it with the works machinery, and

even led Le Mans for a time.

At the Autosport International main stage, fans will be able to get up close and personal with the 4.6-litre twin-turbocharged V8 Porsche, as team owner Sam Hignett talks about 2023 and the team's ambitions for the new season, with 2009 F1 world champion Jenson Button part of an expanded two-car attack.



JEP/MOTORSPORTIMAGES



## FERRARI 499P

The return of works Ferraris to the top class of sportscar racing for the first time in 50 years was already one of the big news stories heading into 2023. And when the 499P Hypercar of James Calado, Alessandro Pier Guidi and Antonio Giovinazzi triumphed in the centenary edition of the Le Mans 24 Hours it provided arguably the motorsport highlight of the season. The car went on to give Ferrari second in the manufacturers' World Endurance Championship, behind only the experienced Toyota squad.

The twin-turbocharged three-litre V6 hybrid-powered 499P will undoubtedly be one of the stars in Birmingham. The LMH design features semi-permanent all-wheel drive, with an electric motor at the front axle pushing out an extra 268bhp above 118mph, providing a heady 671bhp in total.

Calado will appear on Saturday (13 January), with his prototype on display throughout the show. Three 499Ps are set to contest the eight-round WEC schedule this year, with ex-Formula 1 star Robert Kubica on the driver strength.



## MISSIONH24

Continuing the endurance racing theme and pointing to the future is MissionH24, a joint venture between H24Project and Le Mans organiser the Automobile Club de l'Ouest – and the hydrogen-powered H24 prototype will appear in Birmingham.

The H24 finished four Michelin Le Mans Cup races in 2022, an impressive sporting and technological achievement. The aim is to create

a hydrogen class at Le Mans and in the World Endurance Championship, featuring cars that can compete for outright victory. Current WEC pacesetter Toyota is among those to have already expressed an interest in the category.

The race car, which emits nothing but water, will be on display at the main stage while the team talks about its ambitious plans to launch a new-generation car ahead of the 2025 season.



McKLEIN



## M-SPORT FORD PUMA RALLY1

The Ford Puma Rally1 made a sensational debut in the World Rally Championship, winning the 2022 Monte Carlo Rally in the hands of Sebastien Loeb. Last year was challenging for the title-winning M-Sport squad, but Ott Tanak still took two victories in the Puma.

The M-Sport Ford World Rally Team will be part of Autosport International and, on Friday and Saturday, it will take to the main stage to unveil the 2024 challenger that will be driven by Adrien Fourmaux and Gregoire Munster, officially launching the squad's campaign. The Puma will then be on display for the remainder of the weekend.

## McLAREN SOLUS GT

A world-first, track-only realisation of a McLaren concept that debuted in the virtual gaming world. Featuring a central, single-seat, closed-cockpit design with jet aircraft-style sliding canopy, and a motorsport-derived powertrain as a structural element, the 5.2-litre V10 Solus weighs less than 1000kg and can produce more than 1200kg of downforce.

The 25 customers can have a full 'racing driver experience', including a driving seat moulded to their individual body shape, an FIA-homologated race suit, helmet and HANS device bespoke to each owner, and driver-development coaching programme.

The Solus GT won the timed shootout at the 2023 Goodwood Festival of Speed with McLaren factory driver Marvin Kirchhofer at the wheel.



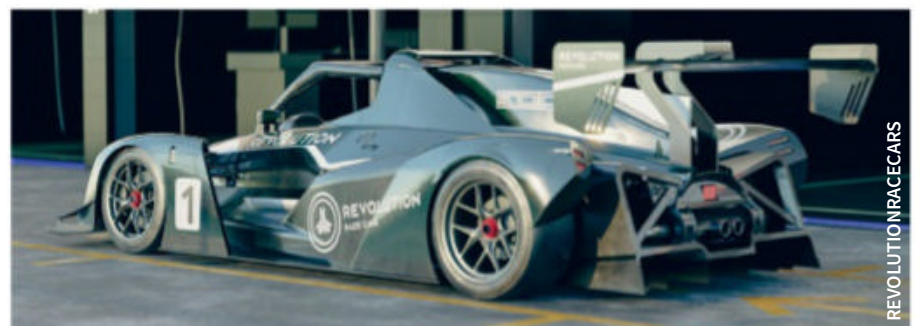
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## AUDI R8 LMS GT3 EVO II (DTM)

The Audi R8 has to be regarded as one of *the* cars of the highly successful GT3 category, scoring wins and titles around the world. That includes in the DTM, where Abt Sportsline drivers Ricardo Feller and Kelvin van der Linde both scored success last season and will continue in 2024.

Despite Audi turning its motorsport attention elsewhere, Abt will bring one of the 5.2-litre V10 racers to Birmingham. It'll be a fine reminder of the success of the category that arrived in 2006 and which will form the basis of the new LMGT3 class in the World Endurance Championship, including the Le Mans 24 Hours.

GRUPPECMBH



REVOLUTIONRACECARS

## REVOLUTION 500 EVO

Building upon the success of the 427 and 500SC, which won more races in the pan-European Sports Prototype Cup than any other model, Revolution's team of racers and engineers have unveiled the latest incarnation in the 500SC series for 2024: the Revolution 500 EVO.

With a carbon-reinforced polymer safety cell and cutting-edge technology such as a double-halo, the supercharged V6 Revolution aims to deliver LMP3 and GT3-rivalling lap times with lower cost and easier maintenance.

The car is eligible for many championships, and has its own class in the Sports Prototype Cup, racing at circuits such as Spa, Zandvoort, Donington Park and Le Mans in 2024.





JEP/MOTORSPORTIMAGES

## TATUUS MSV-022 (GB3)

MotorSport Vision's GB3 championship has been the UK's leading single-seater series for several years now and has helped launch the careers of many drivers, including last year's FIA Formula 3 runner-up Zak O'Sullivan and Macau Grand Prix victor Luke Browning, both winners of the Aston Martin Autosport BRDC Young Driver of the Year Award.

The backbone of the series is the Tatuus MSV-022, which incorporates a halo and side-impact protection. It's two-litre, four-cylinder, normally aspirated Mountune engine produces

over 250bhp at 8500rpm, a 20bhp increase over the previous specification. As a consequence of the power hike, the MSV-022 features a side air-intake and carbon airbox similar to earlier-generation F3 cars, and a switch to a fly-by-wire port throttle inlet manifold system. The engine package is mounted to a Sadev six-speed gearbox.

As well as looking out for the Tatuus in Birmingham, you can attend five GB3 events in the UK in 2024, as well as plan trips to Formula 1 venues Hungaroring, Spa and Zandvoort.

## AND NOT FORGETTING

### LOTUS CORTINA

This year is the 60th anniversary of Formula 1 legend Jim Clark winning the British Touring Car Championship (then known as the British Saloon Car Championship) in a Ford Lotus Cortina. Multiple BTCC title winner Team Dynamics will bring its Cortina, which has been campaigned by triple BTCC champions Matt Neal and Gordon Shedden.

### MINI ALL4 RALLYCROSS

Driven by Max Langmaid, the Mini All4 is a turbocharged rallycross machine based on the Countryman road car. Langmaid moved to the Mini in 2023 after winning the 2021 and 2022 Junior Rallycross titles, and won the BMW Mini Rallycross crown to make it three in a row.

### PROJECT INVERSION

Former racer Scott Mansell is attempting to see if a car with enough downforce really can drive upside down. Mansell has partnered with Willem Toet, the former head of aerodynamics at the Benetton, Ferrari and Sauber Formula 1 teams, to modify an Empire Wraith hillclimb car with an electric motor to take on the challenge on a purpose-built structure within the next two years.

### PRODRIVE P25

The Subaru Impreza is one of the iconic competition cars, scoring World Rally Championship drivers' titles with Colin McRae, Richard Burns and Petter Solberg. It's 25 years since the arrival of the two-door WRC variant, which won the 1997 manufacturers' crown, so Prodrive has produced the P25. Prodrive masterminded Subaru's WRC programme and will bring a P25 to the Autosport International stage today (Thursday 11 January).



MICKWALKER

## CUPRA LEON COMPETICION (TCR UK)

TCR has become a successful tin-top category around the world. The profile of the British Touring Car Championship has made things tougher in this country, but TCR UK has still carved a good niche for itself.

Experienced Ginetta and former BTCC racer Carl Boardley took four wins from the 15 races last year to secure the drivers' title in his CBM by Hart GT Cupra Leon Competicion, which will make an appearance in Birmingham.

The TCR UK Touring Car Championship is exhibiting in Hall 3, on stand 3650.

## EURONASCAR

The regional NASCAR series will also roar into Birmingham. After NASCAR wowed fans at Le Mans with the all-star Garage 56 entry, there's increased interest in the category in Europe.

The main stage will echo with 400bhp of V8 power, while two of the best young drivers will make an appearance on stage: 2023 EuroNASCAR 2 champion and EuroNASCAR Pro winner Paul Jouffreau, and Rookie Trophy winner Jack Davidson.

Also joining the drivers will be EuroNASCAR president and CEO Jerome Galpin to talk about the American stock cars in Europe, ahead of the championship's visit to the UK at Brands Hatch in June.



HAWKINS

## BRISCA F1

The combination of a two-speed gearbox and a 650+bhp six-litre V8 is an unusual one in motorsport, but that highlights the monstrous torque of the thundering short-oval BriSCA F1 cars.

Featuring wings, strong steel chassis and pure, unfiltered power, BriSCA will provide quite a sight (and sound) on the main stage,

led by Frankie Wainman Jr. He has won at every championship level in the sport, including international championships in Europe and New Zealand. He also captained the British Lions Superstox team on its recent tour of New Zealand.

With over 40 fixtures across the UK, there are plenty of options to enjoy the monsters again if you like what you see at the NEC.



COLIN CASSERLEY





**MOTORSPORT**

# ***SHINING THE SPOTLIGHT ON NATIONAL MOTORSPORT***

The 750 Motor Club has been a long-standing supporter of the Autosport show and is highlighting some new initiatives at this year's event

**STEPHEN LICKORISH**





The 750MC is a long-time show supporter but is taking new approach with its stand

JEP

There's no disputing the success enjoyed by the 750 Motor Club over the past few years, with its mix of affordable championships consistently proving popular with drivers. For three seasons in a row, it has topped Autosport's average grid size charts among the leading national racing organisers, giving a clear indication of how it's pulling in the crowds. But, equally, the club's bosses are well aware of the need to continually improve and evolve, and some of its latest initiatives will be highlighted at this week's Autosport show.

While many of its categories flourished in 2023, that successful theme was far from universal. One of the 750MC series that struggled a little was Bikesports, which – as the name suggests – caters for bike-engined sports-prototype machinery, chiefly Radicals and Mittells. And, given its numbers fell by 12% last year to sit at the bottom of the 750MC table, the club is working hard to boost its fortunes this time around. A new race weekend format has been devised for the championship, which will not only increase its track time by 18% by moving to a 15-minute qualifying session and two 25-minute races, but also the second of these contests will feature a mandatory pitstop for all drivers, while the first will have the top eight qualifiers reversed on the grid. These moves are designed to attract more drivers and make the fighting at the front even more competitive.

The series will be showcased in the NEC halls this week on a satellite stand to the main 750MC display. Reigning champion Leon Morrell's title-winning Radical SR3 will be in attendance, and Morrell will be on hand to talk about how to get involved in Bikesports, which offers a more affordable alternative to some of the other prototype categories that exist. RJ Motorsport boss Josh Smith is also due to bring one of his arrive-and-drive cars to demonstrate another way of getting on the grid.

But the 750MC is taking a slightly different approach for its main stand (located in Hall 3, 3280). The club has been a long-term fixture at the Autosport show, and this year it is looking to use the event as a shop window, quite literally, for how people can start upon their racing journey.

"You would want to get as many cars there as possible, but >>



Morrell won last year's Bikesports title and his car is due to be on display

STEVE JONES





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
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it's difficult when you've got 24 series or championships," admits the 750MC's James Winstanley. "The idea was just to try and do something a bit different. Last year at the show we sold a couple of cars that were on display and thought, coming into the new season, let's see if we can sell a few more. So, on the main stand, we've got six cars on display and they're all for sale and, if someone agrees to buy one, we will give them two free race entry fees for 2024."

The six cars will represent a broad cross-section of the machinery that can compete with the club, with single-seaters and tin-tops due to be among the cars that those attending the show can buy. The free entry fees are another extra incentive to place a deposit and are worth around £800, so equate to a significant saving. This discount is one of several deals the 750MC is offering for this year, among them a number of free race entries and merchandise for early-bird registrations to series placed in the first two weeks after they open on 22 January. Numerous tyre discounts are also available from 750MC partners Polleysport and Darkside Developments for those signing up early. And this whole focus on affordability is an area the club is keen to explore further.

"Something we've strived to do a bit more over the last five to 10 years is trying to be a bit more open with costs," explains Winstanley. "It's not cheap, but the cars are more affordable than people expect so we try to get those numbers out there. A couple of the cars for sale will be £6000, and a few will be a bit more expensive. It shows people what you can get involved for. The cars also generally hold their value reasonably well – we try to ensure regulations are stable so cars maintain their value. For us, it's about getting people into racing."

And Winstanley believes that having the range of cars for sale on the stand not only helps create excitement for the season ahead, but also brings a variety of benefits. "It showcases what's out there," he says. "It also helps the owners get the cars moved on and it helps us to get the cars back on the grid."

"As well as the cars on display, we're printing a classified paper, which will have more cars for sale, and it will also have arrive-and-drive deals from teams as well. It's a member benefit getting their classified out there in front of as many people as possible. We're really looking forward to it."

Several other cars that race with the club will also be dotted around the NEC, with the BMW Car Club, which operates a championship as part of the 750MC's portfolio, having its own stand (Hall 3A, 3A632). Meanwhile, representatives of RLM Racing and Atomic Racing – the two companies behind the MK Cup 200 machines that race as part of the Sports 1000 grid – are due to be interviewed on the main stage with the car also on display, all of which helps to promote the 750MC's popular brand of club motorsport as it seeks to maintain its place at the top of the average grid sizes table. 🏁



## THE OTHER LEADING NATIONAL ORGANISERS BEDECKING THE HALLS

The 750MC is far from the only main national racing organiser to have a presence at this year's Autosport show. Another key player that has enjoyed some terrific entry numbers in recent years is MotorSport Vision Trackdays, with its suite of categories aimed at encouraging people to take the plunge into racing.

Alongside its popular Trackday Championship, Trackday Trophy and EnduroKa divisions, there's a newcomer among the MSVT ranks for 2024 as it brings the famed Clio Cup name back to UK motorsport. A new series is being run for the latest, fifth-generation Clios (pictured above), and this is due to be highlighted on the MSVT stand (Hall 3A, 3A604).

It may not have any completely new categories for 2024, but the Classic Sports Car Club has attracted several existing series to its portfolio for this year, giving them a refresh. And you can hear more about the likes of the former Kumho BMW series, MG Trophy, Midget & Sprite Challenge and Jaguar Challenge (alongside more established CSCC stalwarts) in Hall 3 (stand 3552).

**"A NEW SERIES FOR THE LATEST FIFTH-GENERATION CLIO IS DUE TO BE HIGHLIGHTED ON THE MSVT STAND"**

TCR UK is one of the championships that is getting its own bespoke stand at the show (Hall 3, 3650) as the series continues to improve under the guidance of Maximum Motorsport. Meanwhile, the British Automobile Racing Club is due to make a return this year (Hall 3, 3450), and the BARC's Hyundai Coupe Cup has got its own stand (Hall 3, 3720). The British Motorsports Marshals Club (Hall 3, 3371) will also be on hand, giving details of how to get involved in the sport as a volunteer.

And it's not just circuit racing that will be in the spotlight. A number of rallying organisers are also set to have a presence in Birmingham, with Motorsport UK highlighting the revamped British Rally Championship (Hall 3, 3560). Others in attendance include British Historic Rally Championship organiser the Roger Albert Clark Rally Motor Club (Hall 3, 3725) and the Mini Rally Challenge (Hall 3, 3441).



# MAP OF A24

Your guide to the main attractions at this year's Autosport International







**Motorsport Stage Paddock**

**HALL 4 PERFORMANCE HALL**

Performance Stage

Bike feature

Entrance to Live Action Arena

**HALL 5 LIVE ACTION ARENA**



# A-Z OF EXHIBITORS

Autosport International 2024 connects motorsport brands, experts and professionals to network, trade, discuss, explore and market their unique showpieces – all under one roof at Birmingham's NEC.

## 0-9

**1HUTCH CREATIVE SERVICES**  
Hall 4 Stand 4534  
1hutch.co.uk

**1ST CHOICE INSURANCE**  
Hall 4 Stand 4648  
1stchoiceinsurance.co.uk

**195 MPH**  
Hall 3A Stand 3A732  
195mph.com

**3SDM WHEELS**  
Hall 2 Stand 2754  
3sdm.co.uk

**750 MOTOR CLUB**  
Hall 3 Stand 3280  
750mc.co.uk

**2023 MSUK DRIFTPRO CHAMPIONSHIP**  
Hall 3A Stand 3A504

## A

**A DRIVING FORCE FOR SSAFA**  
Hall 3 Stand 3190  
adrivingforce.co.uk

**ACE AMERICAN AUTOS**  
Hall 4 Stand 4531  
aceamericanautos.co.uk

**ACTIVE SIMULATORS**  
Hall 4 Stand 4700  
activesimulatoreurope.com

**ADVANCED ENGINEERING RESEARCH**  
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Hall 2 Stand E521

**AIM TECHNOLOGIES**  
Hall 3 Stand 3790  
aimtechnologies.com

**AIRCRAFT RESEARCH ASSOCIATION**  
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Hall 2 Stand E484  
ara.co.uk

**AIRESHelta**  
Hall 3 Stand 3620  
aireshelta.com

**ALT BEARINGS AND ROLLER SCREWS**  
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Hall 2 Stand E296  
alt-bearings.com

**ALUTIGHT – PERMA GRIT**  
Hall 2 Stand 2740

**ANGLO AMERICAN OIL COMPANY**  
Hall 3 Stand 3390  
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**AP RACING**  
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**APEX COLLECTABLES**  
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**AUTOGRAPHED COLLECTABLES**  
Hall 3 Stand 3A512  
signedandauthentic.com

**AUTO VERDI OIL PUMPS**  
Hall 2 Stand 2340  
autoverdi.com

**AUTOSPORT INTERNATIONAL 2025 SALES OFFICE**  
Hall 3 Stand 3770  
autosportinternational.com

**AUTOTECH UK**  
Hall 4 Stand 4646  
autotechuk.com

**AUTOTEL RACE RADIO**  
Hall 2 Stand 2351  
autotel.co.uk

## B

**BAHRAIN INTERNATIONAL CIRCUIT (BIC)**  
Hall 2 Stand 2352  
bahraingp.com

**BELTENICK**  
Hall 2 Stand 2360  
beltenick-trp.com

**BMW CAR CLUB**  
Hall 3A Stand 3A632  
bmwcarclubgb.uk

**BMW HISTORIC MOTOR CLUB**  
Hall 3A Stand 3A630  
bmwhistoricmotorclub.co.uk

**BOWLER MOTORSPORT**  
Hall 4 Stand 4545  
bowlermotors.com

**BOWMAN 3D**  
(Thursday and Friday only)  
Hall 2 Stand E263  
bowman3d.com

**BRIAN JAMES TRAILERS**  
Hall 3A Stand 3A530  
brianjamestrailers.co.uk

**BRISCA F1 STOCK CARS**  
Hall 3A Stand 3A350  
briscaf1.com

**BRITISH ARMY MOTORSPORT**  
Hall 3 Stand 3550  
armymotorsports.co.uk

**BRITISH AUTOMOBILE RACING CLUB**  
Hall 3 Stand 3450  
barc.net

**BRITISH MOTORSPORTS MARSHALS' CLUB**  
Hall 3 Stand 3371  
marshals.co.uk

**BRITISH RALLY CHAMPIONSHIP**  
Hall 3 Stand 3560  
britishrallychampionship.co.uk

**BRUDERER UK**  
(Thursday and Friday only)  
Hall 2 Stand E524  
bruderer.co.uk

**BRITISH TOURING CAR CHAMPIONSHIP FEATURE**  
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btcc.net

**BTRDA CLUBMANS RALLYCROSS CHAMPIONSHIP**  
Hall 3 Stand 3540  
btrda.com

**BUSINESS F1**  
Hall 2 Stand 2730  
britishrallychampionship.co.uk

**BRITISH WOMEN RACING DRIVERS CLUB**  
Hall 3 Stand 3373  
bwrdc.co.uk

**BYD**  
Hall 2 Stand 2320  
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**CAR CRAZY MODELS**  
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**CENTRAL MOTORWAY  
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Hall 3 Stand 3552  
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**CLUBMAN MOTORSPORT**  
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clubmanmotorsport.com

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Hall 3 Stand 36102  
cteracing.tw

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**DRM HELMETS**  
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**FREEM**  
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**FUELED ART**  
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THE GRID**  
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**GOODRIDGE (UK)**  
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motorsportjobs.com

**MOTORSPORT UK**  
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motorsportuk.org

**MSTYLE**  
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**MSVR**  
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msvr.co.uk

## N

**NATIONAL AUTOGRASS SPORT ASSOCIATION**  
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Hall 3 Stand 3260  
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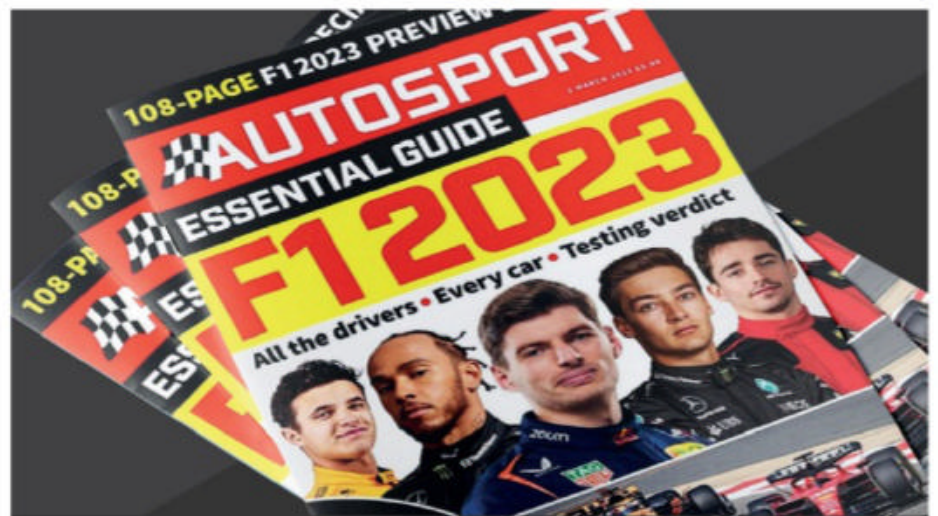
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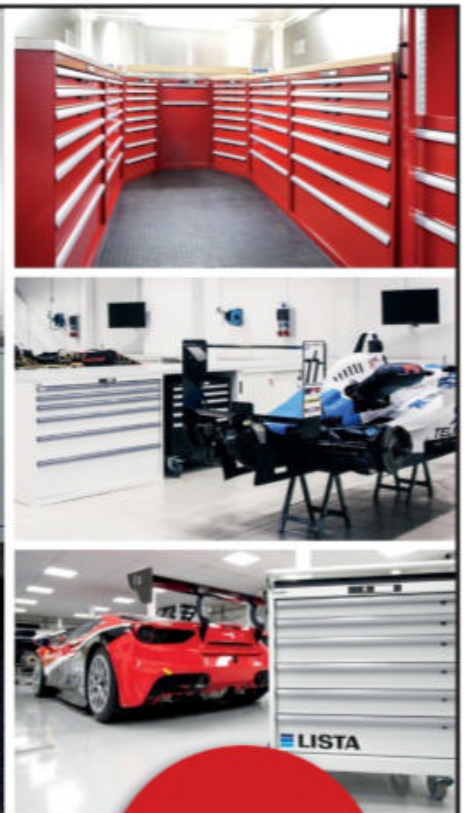
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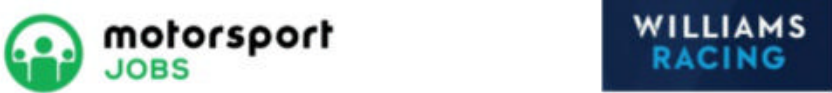
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# Pre-war, F2 and F3 races for Festival

## SILVERSTONE FESTIVAL

Races for pre-war sportscars, classic 1970s junior single-seater machinery, and the 1950s GTs of the RAC Tourist Trophy are among those returning to the line-up for this year's Silverstone Festival.

The pre-1941 beasts were absent from the Festival last year, while the junior single-seater influx for the 23-25 August fixture comes courtesy of rounds of the new Formula 2 and F3 Classic Interseries, organised as a partnership between the Historic Sports Car Club and French promoter HVM Racing. The F2 category caters for cars from the 1.6 and 2.0-litre

eras, spanning 1967 to 1978, while the F3 division will feature machinery from the 1970s and early 1980s.

Many of the traditional staples of the event are also on the racecard, including the Historic Grand Prix Cars Association's pre-'66 F1 battlers and Masters Historic Racing's F1 series for 1966-85 cars, while a Formula Junior double-header will showcase more historic single-seaters. A range of GT, prototype and tin-top categories spanning the 1960s to the present day are among the line-up, with the Transatlantic Trophy for Pre-'66 Touring Cars, Masters Sports Car Legends and Masters Endurance Legends all part of the 20-race programme.

"This summer's roll call of retro races must be one of the best yet," said event director Nick Wigley. "While we have widened the Festival's overall appeal to include more great entertainment for fun-seeking families over the end-of-summer Bank Holiday weekend, it's the incredible sights and sounds of the historic racing which remain the event's heartbeat. And, spanning almost a century, this year's line-up not only will be relished by existing enthusiasts but also will win over many new race fans."

Some of the off-track highlights have also been confirmed, with Sophie Ellis-Bextor, Busted and Olly Murs headlining the live music acts playing at the event.

## Historics star Harrison to race GT4 Toyota

### ABU DHABI 6 HOURS

British historic single-seater champion Samuel Harrison has been called up to race a Speedworks-run Toyota Supra GT4 in Creventic's Abu Dhabi 6 Hours later this month.

The Yorkshireman, who turned 20 on Christmas Day, has won more than 30 races over the past two seasons in dominant style, en route to Historic Formula Ford 1600

and 1000cc F3 titles. He also topped Autosport's National Driver Rankings in 2022.

Harrison is due to join fellow Historic Sports Car Club race winners Michael O'Brien and Ben Tusting in the car. Its crew is completed by Kavi Jundu, like O'Brien a McLaren racer in the British GT Championship.

"It's a one-off at the moment but, if all goes well, there is the opportunity to



do more," said Harrison. "I saw the Toyota on its shakedown at Donington, but haven't driven it yet."

Also on Harrison's 2024 agenda is an Historic FF2000

programme. After a win first time out in Adrian Reynard's spare SF79 at Silverstone last October, the car is available for a tilt at the crown.

MARCUS PYE



# Gordon Bruce 1947-2023

## OBITUARY

Gordon Bruce, who died just before Christmas aged 76, did not list 'racing driver' as an occupation on his passport, yet for 25 years the journalist-turned-PR guru was a highly accomplished competitor.

A mechanical engineer, whose early CV listed Lotus Cars – where he designed Colin Chapman's boardroom table base – Bruce joined *Motor* magazine's staff in 1971 and was soon promoted to road test editor.

Like colleagues Tony Dron and Roger Bell, who died in 2021 and 2022 respectively, Bruce excelled on track, having started hillclimbing in 1972 with an Austin-Healey 3000 and subsequently a Cooper-Norton.

In 1974, Bruce persuaded Ford to loan *Motor* an Escort Mexico for the race series and he finished eighth despite missing four rounds. Re-armed with an Escort Sport Mk2 for 1975, he improved to fifth with consistent results.

After a successful Classic Saloon sojourn with a 2.4-litre Jaguar Mk1, and a brief British championship



sortie in a Hermetite Vauxhall Magnum, Bruce joined Ford's PR department in 1977.

Back with the Blue Oval, Bruce often shared Holman Blackburn's Capri in home European Touring Car Championship rounds, finishing fifth in the 1979 Brands Hatch 500Km. His finest result, though, was third in the Kent circuit's British Saloon Car Championship counter behind Brian Muir and Chris Craft four months later.

In 1982, Bruce launched Gordon Bruce Associates, which he built into an industry-leading PR agency.

He still competed, winning the 1983 Aston Martin Owners Club Intermarque championship in his AC Cobra, then added a TVR Griffith to his stable. After campaigning a Ford Falcon from 1993-96, he called time on his racing activities.

After selling part of GBA in 2005, Bruce provided marketing support to clients on a personal basis. A proud British Racing Drivers' Club member since 2006, he is survived by wife Marilyn, son Alasdair and step-daughter Betty.

**MARCUS PYE**

# Geoff Wyatt 1947-2023

## OBITUARY

Career motorsport engineer Geoff Wyatt, who died in December, aged 76, left a profound influence on racing from club level to Indycars.

Hampshire-born Wyatt cut his teeth in Formula Ford, preparing Chris Gale's Lotus 61 and Nick Foy's Reynard. He subsequently built Foy's FF2000 Reynard and ran it and Australian Mike Quinn's machine in 1977.

Recruited by Adrian Reynard for his growing marque – the quiet unflappable foil to the flamboyant designer/racer –

they snared the 1979 EFDA FF2000 Euroseries crown.

Wyatt graduated to the ATS F1 team, preparing cars for Jan Lammers and Marc Surer, but few could stomach irascible owner Gunter Schmid's decisions, so staff turnover was high and Wyatt returned to Reynard, building the prototype 'new generation' Fford chassis.

As a trusted lieutenant of Reynard's empire, Wyatt's focus, knowledge and pragmatic solutions made him the perfect troubleshooter when customers as far afield as South America needed help.

In later years, Wyatt



worked alongside ex-ATS colleague Simon Hadfield, 10 years his junior, creating a force of excellence in the evolution of Hadfield's historic restoration business.

"Nothing fazed Geoff – his attention to detail was second to none and his

wiring was a work of art," said Hadfield, whose son James he mentored.

They shared a passion for competitive off-road cycling, which led to Wyatt's relocation to the Lake District post-retirement.

**MARCUS PYE**





## Cockshoot Cup to continue as a championship for 40th anniversary

### COCKSHOOT CUP

The single-marque Cockshoot Cup for MG machinery will remain a championship for its 40th anniversary season in 2024 after securing a four-weekend calendar of double-headers.

It will be the only series in which the Motorsport UK permit is retained by the MG Car Club – through its north-western centre – after the MGCC's decision to cease organising race meetings led to its remaining championships finding homes with other clubs.

The championship retains classes for MGFs and race-modified cars, but its standard and road-modified classes have been adjusted. With few standard MG ZR 160s racing, all front-wheel-drive cars will now compete in a single class, separate

from classic MGBs and Midgets.

Championship coordinator Paul Goodman, who is also celebrating 40 years at the helm, explained that the move aims to attract more MGBs to join the existing group of Midgets, which benefit from being able to run on cheaper, more durable tyres than the historic rubber required elsewhere.

The Cockshoot Cup will open its season at MotorSport Vision Racing's Donington Park meeting on 11 May, and also joins MSVR at Oulton Park on 7 September when it will celebrate its anniversary with a gathering of former champions. An early-August visit to Anglesey will be the first since 2019, while the championship concludes on the Silverstone National circuit on 29 September.

MARK PAULSON

### BWRDC AWARD WINNERS

The British Women Racing Drivers' Club has announced the winners of its Gold Star awards for 2023. The senior Gold Star goes to Claire Norman, a frontrunner in Class E of the Classic Sports Car Club's Swinging Sixties series in a BMW 2002 Ti she shares with her father Charles. She also entered rounds of the C1 Endurance Series. Ginetta Junior driver Alisha Palmowski was named as the Junior Gold Star, meanwhile, following her fifth place in the 2023 championship, in which she scored 10 podium positions. Rally and karting marshal Marion Quarrington won the Volunteer Gold Star award.

### VOLUNTEERS WANTED

The British Automobile Racing Club is seeking volunteers to fill positions ahead of the 2024 season that include clerk of the course, event stewards, scrutineers, event secretaries, observers, incident officers, rescue crew, safety car drivers and fire crew, among others. Those interested should email [officials@barc.net](mailto:officials@barc.net) using 'BARC Officials Recruitment Drive' as the subject line. Relevant training and mentoring will be provided.

### CHONG TO BRITISH F4

F1 Academy driver Chloe Chong will compete in British Formula 4 this season with JHR Developments. Chong took a best F1 Academy finish of sixth last year as part of Prema Racing's line-up. "My first experience in a race car was with JHR so I couldn't be happier to return and work with them this season," she said.

### GB4 COLE'S GOAL IN 2024

F1000 racer and BOSS Ireland class champion Kayleigh Cole is hoping to join the GB4 grid this season. She had her first taste of GB4 machinery at Donington Park at the end of last year with Fox Motorsport (below). "It was very different to what I was used to and it's a learning curve," said Cole. "I did go off at McLeans in the damp, when I lost the rear as the turbo kicked in."



## Newcomers Cup funding set to end

### SEAT SUPERCUP

Harry McGovern has taken the top prize of €5000 as part of the Newcomers Cup after a successful season in the SEAT Supercup Ireland last year, but the award is only set to continue for one more year.

A €10,000 prize fund has been shared out as part of the initiative, with 2024 set to be the fourth and final year of a programme that has helped rookies in Ireland's fastest one-make saloon series.

McGovern took the top prize

from 2022 Fiesta ST champion Eddie Peterson, who collected a cheque for €3000 after both took wins during the season and entered the finale with

a chance of the overall title.

Fellow Fiesta ST graduate Dave Maguire claimed €2000 for his efforts after also taking wins during the season.







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# GB3 frontrunner Cresswell to stay for third season

## GB3

GB3 race winner McKenzie Cresswell has decided to remain in the series for a third year and plans a full title bid with Elite Motorsport this season.

Cresswell originally entered GB3 in 2022 with Chris Dittmann Racing after finishing third in British Formula 4 the previous year, but endured a tricky rookie campaign and was 11th in the standings. He improved to fourth with Elite last season, scoring eight podiums, although a tough start to the year at Oulton Park meant he was always playing catch-up to the leading title contenders.

Cresswell, who also contested a couple of FIA F3 rounds with PHM Racing last season, says the addition of a third European event, with the Hungaroring joining the schedule, was a key factor in deciding to stay in GB3.

“We wanted to do F3 but just didn’t have the budget for it, so we were then weighing up our options,” Cresswell explained. “We had continuing in GB3 or going the FRECA route. Looking at all the factors, GB3



made the most sense – it’s a cost-effective championship and it’s growing in quality. We’ve got three European rounds along with two Silverstone rounds so the calendar is brilliant, it’s as good as anything out there.”

Cresswell acknowledged that there will be pressure to secure the title, given few drivers spend three years in the category. “If you don’t win it, it’s not a very good look,” he admitted. “I think we’ve got a good shot off the back of last year. That’s our only aim – we need to win it so we’ll go out all guns blazing for round one. At the start of last season, we

were a bit hot and cold, but we learned some good lessons and know where to improve.”

Cresswell is the second driver confirmed as part of Elite’s line-up, following Jarrod Waberski’s move from Fortec, and team boss Eddie Ives has high hopes for the year ahead. “McKenzy was super-fast in 2023 and, had it not been for an unlucky opening event last season, I’m fairly confident he would have been fighting for the overall title,” said Ives. “As a team we are working hard to improve various aspects of our excellent GB3 package.”

**STEPHEN LICKORISH**

# Abrahams moves to Hitech for British F4 campaign



**BRITISH F4**

British Formula 4 podium finisher Mika Abrahams has moved to Hitech GP for his second season in the category this year.

The South African raced with Fortec Motorsport in 2023, but missed the opening three events

because he had yet to turn 15. Prior to that he enjoyed success in the Danish F4 series, which allows drivers aged 14 to compete.

Hitech powered Alex Dunne to the 2022 British title and Will Macintyre to runner-up last year.

“After some impressive performances last season,

we are confident Mika will be a frontrunner this year,” said Hitech F4 team manager Dominic Stott. “After narrowly missing out on the drivers’ and teams’ championships in 2023, signing Mika is another sign of our intentions going into the new season.”

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# The most successful club driver of 2023

*Michael Cullen has claimed plenty of titles since he first started competing 40 years ago and his latest accolade is heading Autosport's National Driver Rankings*

**Stephen Lickorish. Rankings compiled by Marcus Simmons**



Y

ou could hardly get two more different drivers as the most recent conquerors of the Autosport National Driver Rankings. Back in 2022, it was

teenaged historic single-seater sensation Samuel Harrison who led the way, while last season it was veteran Irish racer Michael Cullen who topped the charts having triumphed in a range of tin-top machinery and also in a Seven-style Stryker. But that is

the beauty of the rankings, which is a straightforward list of the drivers who win the most races in the UK and Ireland during a calendar year – it is open to everyone, regardless of the category they compete in or how experienced they are.

“One of my good friends, Dave Maguire, sent me a text and said it’s no surprise – you’ve done more mileage than a London taxi, which is potentially accurate!” says 60-year-old Cullen of his success. “But I’m just having a bit of fun, as it should be. I’ve been racing for 40 years – I had my first race in a Fiesta at Mondello Park in 1983 in a Production Saloons race and I came fourth and my dad [Des] came third and I was in a

family friend’s Fiesta. That was my first race and here I am 40 years later racing a Fiesta, so I haven’t really progressed but have had a bit of a journey! I’ve had a great time and it’s always been for fun.”

That journey initially took Cullen from his native Ireland to the UK at the end of the 1980s to compete in the Metro Challenge, before he had another spell racing on British shores in the British Touring Car-supporting Fiesta championship in the late 1990s, with his rivals including the likes of Colin Turkington. Cullen then moved across the continent for a very successful stint in the Ferrari Challenge Europe in the 2000s, winning the title twice, all of which led to a





Cullen enjoyed some close fights with son Victor (l) in Irish Strykers last season

British GT assault alongside fellow Ferrari racer Paddy Shovlin in 2008.

"We won the first race and led the series and we ended up third in the championship," recalls Cullen, who says the economic crash then put paid to any thoughts of another title bid. "We only did one race in 2009, the Spa 24 Hours, and then didn't race for a few years."

He returned to the cockpit for a couple of Maserati races before becoming a regular fixture of the Mondello Park scene again from 2015, achieving plenty more success. All of which led up to another twin attack on the Irish Stryker and Fiesta ST series for 2023. But Cullen's latest quest for silverware got off to a challenging start as he missed the

## "I had my first race in a Fiesta in 1983 – and here I am 40 years later racing a Fiesta!"

opening Mondello event in order to compete at the Goodwood Members' Meeting. After sharing his Lotus Cortina with World Rally star Craig Breen the previous September, the Irish pair were again due to race with each other last April in the Jim Clark Trophy, before tragedy struck.

"A few days before, Craig was called up to do that test [for Hyundai] on the Thursday and had to pull out of Goodwood and Sam Tordoff took his place," says Cullen. Sadly, Breen never returned from the Croatia test after a devastating crash, and that left Cullen debating what to do for the best. In the end, he and Tordoff opted to race on in tribute to Breen, but it proved to be a tough event on track as well. "We blew an engine in qualifying and started at the back," explains Cullen. "But we had got up to 10th place on the last lap and then the car in front of Sam spun off on oil and Sam also went off afterwards."

All of this meant it was not until May >>



that Cullen won his first race of 2023 – but he opened his account in some style, winning both Stryker races at Bishopscourt before triumphing twice in Strykers and Fiesta STs at Mondello in June to kickstart his championship challenges. He again completed the quadruple in July and never looked back from there in the Stryker series, only being defeated by his son Victor at Anglesey. “It would’ve been ironic if that cost me the top place [in the rankings]!” laughs Cullen, who enjoys racing in the Caterham-style category. “It’s a 1.8-litre Zetec engine and they’re reasonably quick with 160bhp, so it’s comparable to the second-quickest Caterham series [310R].”

But, while Cullen bowled over his Stryker opposition relatively easily, he had much more of a fight on his hands in the Fiesta ST category. Darragh McMullen had capitalised on his early-season absence and, although Cullen had moved into the points lead heading into the October finale, it was far from a done deal. “I was really lucky to win the title,” admits Cullen. “I had ABS failure in the last race, which puts the car into limp-home mode, so I limped home in 11th place and I think it gave me five points and I won the championship by four points.”

Yet it was Cullen’s historic racing that was to prove crucial to him topping Autosport’s

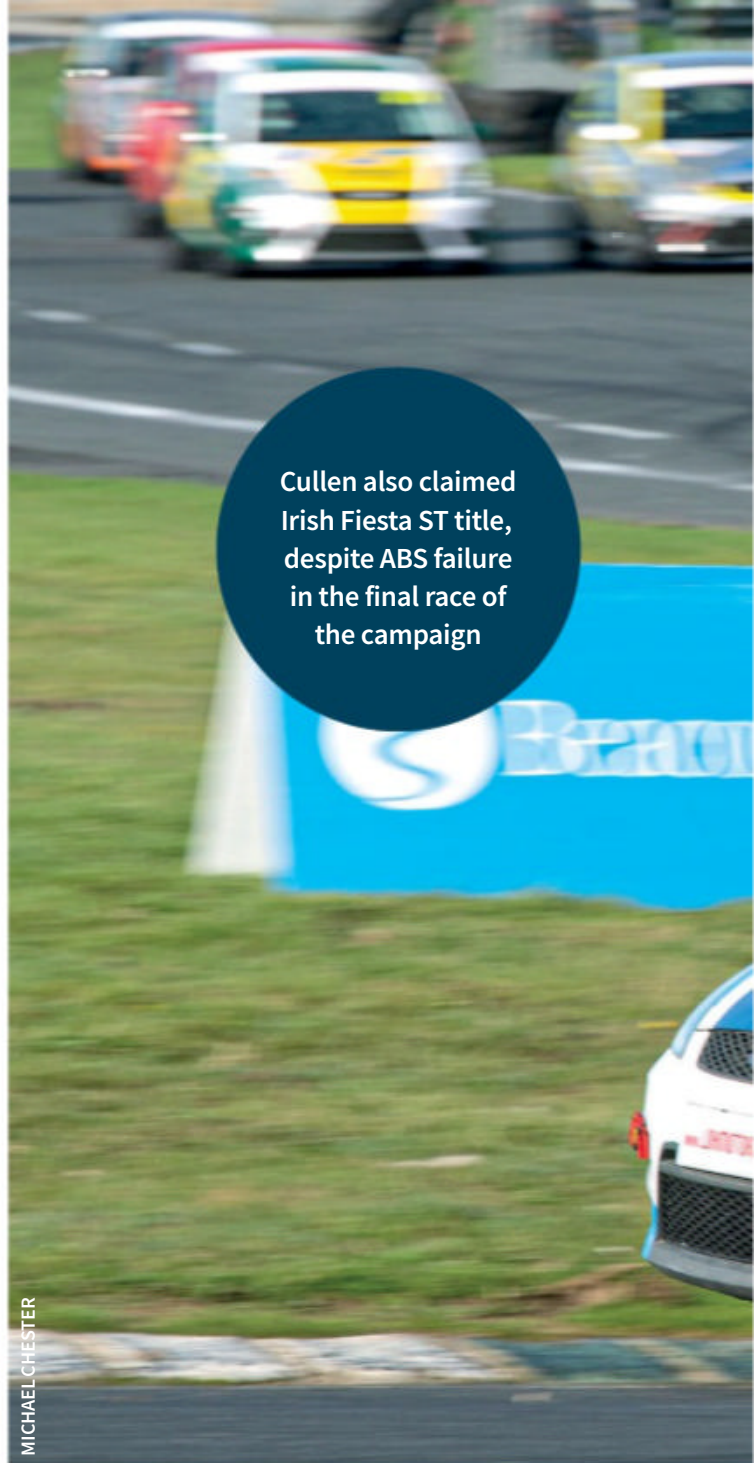
winners’ table. After first joining the UK historics scene in 2019, he has since competed in a pre-1966 Mini and Jordan Racing Team Lotus Cortina. And he won in the Mini at the Historic Racing Drivers Club’s Lydden Hill meeting in June, a victory Cullen says was one of his favourites of the season. “I had a fairly savage battle with Pete Chambers and Nathan Heathcote,” recalls Cullen. “I love the track – it’s a pity it’s not

**“It’s been a huge lot of fun taking the piss out of my racing buddies!”**

used more often and it’s not on the HRDC calendar this year. The track suits the Mini and it was just full on.”

However, Cullen did not climb to the summit of the rankings until late October, when he enjoyed class success in the HRDC’s Allstars category at Silverstone in the Cortina, having narrowly defeated Victor for another “really hard-fought” win. That took Cullen’s victory tally to 17, but it was still

Cullen also claimed Irish Fiesta ST title, despite ABS failure in the final race of the campaign



MICHAEL CHESTER

## THE BATTLE TO TOP THE 2023 WINNERS’ TABLE

For over three months of last year, it looked like a teenager would top Autosport’s National Driver Rankings for the second consecutive season. Freddie Slater was proving almost unstoppable in Ginetta Junior and headed the winners’ table from June until mid-September, but his decision to upgrade his licence to tackle some single-seater races meant an early end to his Ginetta campaign and gave the opportunity for others to reel him in.

But, before Slater had truly hit his stride, it was Mazda MX-5 stars Aidan Hills and Steve Foden that led the way (although they ultimately fell to sixth and 11th, respectively). As Slater moved to the top, Clubmans Sports Prototype dominator James Clarke soon became his closest rival.



MX-5 star Hill was the early rankings pacesetter

GARY HAWKINS



McLeish knocked Slater off top spot in September

JIM MOIR

However, eventual leader Cullen was also on a charge and moved into second place in July. United Formula Ford 1600 champion Lucas Romanek was another to have a spell in second before Slater was finally toppled from the lead by Scottish Legends ace Ryan McLeish.

Cullen then joined both McLeish and Slater on 16 wins in mid-October, meaning the battle to finish the year on top was still wide open heading into the final 2023 events, only for Cullen’s HRDC class win at Silverstone a week later to move him into first as the season began to wind down.

Clarke enjoyed some success at the November Walter Hayes Trophy weekend to return to second and join Cullen on 17 wins but two of his triumphs were class victories compared to Cullen’s one, crucially keeping the Clubmans driver behind. And there was to be no late final twist as that was how it stayed until the end of December, with Cullen claiming the spoils, while Clarke, McLeish, Slater, Romanek, Hills, Toyota MR2 and Honda Civic racer Dan Silvester and Historic FF1600 champion Callum Grant all finished within two wins of the summit.





some way short of the 21 Harrison achieved the previous year and he therefore did not think he would retain top spot. “I thought one of the guys in the top five was going to do the race meeting at Mallory Park [on Boxing Day] and, if they had won one of those races, they would’ve won it,” he says. “I was relieved to see they didn’t! I was amused because I really didn’t expect to win.”

Part of Cullen’s surprise at finishing the year on top can be explained by the fact he actually contested fewer historic races in 2023 than he has done in other recent seasons because he has added yet another string to his bow. “I’ve started to do some rallying here in Ireland,” he explains. “I got an historic BMW M3 from 1987 built by a guy in Holland. [Thierry] Neuville’s got two of them, [Dani] Sordo has one and Breen had one in build. I did three rallies last year and that’s been an eye-opener – after racing for 40 years, I’m not used to someone calling the notes. It’s like playing soccer and now taking up cricket. Both are on a pitch and have a ball, otherwise they’re nothing really like each other at all!”

While Cullen plans to continue his rallying exploits this season, he is also relishing the chance to joke about his driver rankings success with his motorsport mates, including Alliance Racing team manager Malcolm Swetnam. “Malcolm was the Metro Challenge coordinator in 1986 when I started racing in the UK and he and I have been friends ever since,” says Cullen. “I said to

him, ‘You should be giving me a test in a touring car!’ It’s been a huge lot of fun over the last couple of weeks taking the piss out of Andrew Jordan and my racing buddies.”

And Cullen would like to add further wins and defend his position in 2024, although he acknowledges it will be a tough ask. He intends to again compete in the Irish Stryker and Fiesta ST categories and enter a selection of UK historic events, including the Classic Touring Car Racing Club’s Pre-’66 races in support of the BTCC at Croft in his Mini. Ultimately, four decades on from his debut, he is grateful to still be competitive and enjoys racing at weekends to overcome

the stresses of his busy day job as CEO of a hospital in Dublin.

However, he does note a looming threat on the horizon. “I started racing against my dad and it’s gone full circle now,” Cullen explains. “Back in the 1980s, I was a bit slower than my dad and, after a year or two, I got progressively quicker and I can see history repeating itself. Victor is 18 and had his third part-season. He’s pretty much able to do the same times as me now.” So, perhaps there could soon be another Cullen to watch out for in the driver rankings over the years to come.

[➔ FULL TOP 100 WINNERS’ TABLE P76](#)

MICHAEL CULLEN’S 2023 WINS			
DATE	TRACK	CHAMPIONSHIP/SERIES	CAR
7 May (x2)	Bishops court	Irish Stryker	Stryker
10 June (x2)	Mondello Park	Irish Stryker	Stryker
11 June (x2)	Mondello Park	Irish Fiesta ST	Ford Fiesta ST
25 June	Lydden Hill	HRDC Jack Sears Trophy	Mini Cooper S
8 July (x2)	Mondello Park	Irish Stryker	Stryker
9 July (x2)	Mondello Park	Irish Fiesta ST	Ford Fiesta ST
6 August	Anglesey	Irish Stryker	Stryker
9 September (x2)	Mondello Park	Irish Stryker	Stryker
15 October (x2)	Mondello Park	Irish Stryker	Stryker
22 October (class win)	Silverstone GP	HRDC Dunlop Allstars	Lotus Cortina Mk1

**Note:** Cullen also scored a couple of class wins at the Oulton Park Gold Cup historic meeting in July but these don’t count towards his driver rankings total as there were not the required six starters in the division during those tin-top races.



LEADERBOARD FINAL AUTOSPORT NATIONAL DRIVER RANKINGS 2023				
POS	DRIVER (CAR)	OVERALL WINS	CLASS WINS	TOTAL
1	<b>Michael Cullen</b> (Raw Stryker/Ford Fiesta ST/Austin Mini Cooper S/Lotus Cortina)	16	1	17
2	<b>James Clarke</b> (Phantom PR22/Van Diemen RF90)	15	2	17
3	<b>Ryan McLeish</b> (Legends Ford Coupe)	16	0	16
4	<b>Freddie Slater</b> (Ginetta G40 Junior)	16	0	16
5	<b>Lucas Romanek</b> (Van Diemen JL13)	16	0	16
6	<b>Aidan Hills</b> (Mazda MX-5 Mk3/Ginetta G40 GT5)	14	2	16
7	<b>Dan Silvester</b> (Toyota MR2 Mk2/Honda Civic)	5	11	16
8	<b>Callum Grant</b> (Merlyn Mk20A/Van Diemen RF91)	13	2	15
9	<b>Daire Flock</b> (Citroen Saxo VTR)	14	0	14
10	<b>Ravi Ramyead</b> (Ginetta G56 GTA)	13	0	13
11	<b>Steve Foden</b> (Mazda MX-5 Mk1)	12	0	12
12	<b>Ash Sutton</b> (Ford Focus ST)	12	0	12
13	<b>Stewart Black</b> (Legends Ford Coupe)	12	0	12
14	<b>Luke Reade</b> (Ginetta G56 GT4)	12	0	12
15	<b>Nick White</b> (Ginetta G56 GTA)	12	0	12
16	<b>Jonathan Lovell</b> (Porsche Boxster S)	11	1	12
17	<b>Elliot Lettis</b> (Peugeot 107)	11	0	11
18	<b>Graham Fennymore</b> (Reynard SF81)	11	0	11
19	<b>Jake Hill</b> (BMW 330e M Sport/Nissan Primera GT/Ford Capri III 3.0S)	11	0	11
20	<b>Steve McDermid</b> (MG ZR 170/MG ZR 190)	11	0	11
21	<b>Jason West</b> (BMW M3 E46)	11	0	11
22	<b>Matthew Hyde</b> (AHS Dominator)	10	1	11
23	<b>Bryan Bransom</b> (BMW M3 E46)	9	2	11
24	<b>Peter Barrable</b> (Legends Ford Coupe)	9	2	11
25	<b>Mathieu Gauthier-Thornton</b> (Phantom P94)	0	11	11
26	<b>James Lay</b> (Radical SR3)	10	0	10
27	<b>Jack Parker</b> (Legends Ford Coupe/Legends Ford Sedan)	10	0	10
28	<b>Dan Zelos</b> (Mini Cooper JCW)	10	0	10
29	<b>Andrew Graham</b> (Triumph TR8/MGB)	10	0	10
30	<b>Tom Mills</b> (Tatuus F4-TO14)	10	0	10
31	<b>Steven Larkham</b> (Radical PR6)	10	0	10
32	<b>Phil Wright</b> (Honda Civic EP3)	10	0	10
33	<b>Samuel Harrison</b> (Brabham BT21B/Reynard SF79/Brabham BT5)	9	1	10
34	<b>Gordon Duncan</b> (Radical PR6)	9	1	10
35	<b>Scott Parkin</b> (Volkswagen Golf TDI/Audi TTCR)	2	8	10
36	<b>David Drinkwater</b> (BMW Compact)	0	10	10
37	<b>Andrew Young</b> (MGC GT)	0	10	10
38	<b>Freddie Chiddicks</b> (Caterham 7 270R)	9	0	9
39	<b>Michael Gibbins</b> (MCR S2n)	9	0	9
40	<b>Shaun Traynor</b> (Toyota MR2 Roadster)	9	0	9
41	<b>Rory Smith</b> (Medina Sport JL18/Ralt RT4)	9	0	9
42	<b>Stephen Berry</b> (Mini Cooper S)	9	0	9
43	<b>Neil Fowler</b> (MGB GTV8)	9	0	9
44	<b>Stewart Place</b> (Peugeot 205 GTI)	9	0	9
45	<b>Charles Hall</b> (Mittell MC-41R)	9	0	9
46	<b>Jordan Kelly</b> (Van Diemen RF06)	9	0	9
47	<b>Cameron Fenton</b> (Global GT Light)	5	4	9
48	<b>Gary Prebble</b> (Honda Civic/SEAT Leon Cupra 20v T)	2	7	9
49	<b>Graham Moore</b> (GMS Fireblade)	2	7	9
50	<b>Theo Micouris</b> (Radical SR1)	0	9	9
51	<b>Joe Jessup</b> (Honda Civic Type R)	8	0	8
52	<b>Stuart Bliss</b> (Toyota Aygo)	8	0	8
53	<b>Lewis Smith</b> (Mercedes SLK)	8	0	8







LEADERBOARD FINAL AUTOSPORT NATIONAL DRIVER RANKINGS 2023				
POS	DRIVER (CAR)	OVERALL WINS	CLASS WINS	TOTAL
54	<b>Ben Wheatley</b> (Caterham 7 Sigma 135)	8	0	8
55	<b>Andy Southcott</b> (MG Midget Lenham)	8	0	8
56	<b>Guy Davis</b> (BMW Compact 318Ti E36)	8	0	8
57	<b>Ronan Doherty</b> (Sheane FV94)	8	0	8
58	<b>Matt Simpson</b> (SHP Pickup)	8	0	8
59	<b>John Village</b> (Village V2)	8	0	8
60	<b>Horatio Fitz-Simon</b> (Lotus 22/Lotus Elan/Lotus Elan 26R)	7	1	8
61	<b>Mike Jordan</b> (Mini Se7en)	7	1	8
62	<b>Piers Grange</b> (Ford Escort Mk2)	6	2	8
63	<b>Stuart Waite</b> (BMW M3 E36)	6	2	8
64	<b>Joe Ahrens</b> (Royale RP26)	5	3	8
65	<b>Kian O'Brien</b> (Mini Cooper/Ford Fiesta ST)	5	3	8
66	<b>Rob Cull</b> (TVR Grantura MkIII)	3	5	8
67	<b>Oly Mortimer</b> (Mini Cooper)	2	6	8
68	<b>Leon Morrell</b> (Radical SR3)	2	6	8
69	<b>Zac Blackwell</b> (Mini Cooper S)	1	7	8
70	<b>Olly Samways</b> (Mighty Mini)	0	8	8
71	<b>Jack Robinson</b> (Jaguar XK)	0	8	8
72	<b>Neil Turner</b> (Caterham 7)	0	8	8
73	<b>Richard Webb</b> (MK Cup 200)	0	8	8
74	<b>Karl O'Brien</b> (Dallara F307)	7	0	7
75	<b>Andrew Jordan</b> (Mini Miglia/Porsche 911/Lotus Cortina)	7	0	7
76	<b>Colin Turkington</b> (BMW 330e M Sport/BMW M3 E36 Evo/BMW M3 E30)	7	0	7
77	<b>Alastair Kellett</b> (Ford Fiesta ST240)	7	0	7
78	<b>Graham Crowhurst</b> (BMW M3 E46)	7	0	7
79	<b>Andy Hiley</b> (Chronos HR1S)	7	0	7
80	<b>Hugo Cook</b> (Audi R8 LMS GT3 Evo II)	7	0	7
81	<b>Charlie Lower</b> (Caterham 7 270R)	7	0	7
82	<b>Dale Gent</b> (SHP Pickup)	7	0	7
83	<b>Liam McGill</b> (Ford Fiesta ST/Honda Civic EP3)	7	0	7
84	<b>Rhys Claydon</b> (Rover Metro 100)	7	0	7
85	<b>Ruben Hage</b> (Ginetta G56 GT4)	7	0	7
86	<b>Bobby Joe McFall</b> (Mini Cooper)	7	0	7
87	<b>Nigel Greensall</b> (TVR Griffith 200/Shelby Cobra/Ford Capri/Lotus Elan GTS/Lister-Jaguar Knobbly/Jaguar E-type)	6	1	7
88	<b>Richard Kearney</b> (Sheane FS01)	6	1	7
89	<b>Ryan Yarrow</b> (Spire GT-3)	5	2	7
90	<b>Stephen Primett</b> (Ford Escort Mk1)	5	2	7
91	<b>Mark White</b> (Honda Civic Type R)	4	3	7
92	<b>Jamie Moylan</b> (Legends Ford Coupe)	4	3	7
93	<b>Roddie Paterson</b> (Caterham C400)	2	5	7
94	<b>Mike Williamson</b> (Mitsubishi Evo 4)	2	5	7
95	<b>Gary Culver</b> (Ferrari 328 GTB)	2	5	7
96	<b>Callum Davies</b> (McLaren Artura GT4/Ginetta G56 GT4)	2	5	7
97	<b>Andy Baylie</b> (Mazda MX-5 Mk1)	1	6	7
98	<b>Christian Walker</b> (Porsche Boxster S)	0	7	7
99	<b>Chris Lawrence</b> (Renault Clio 182)	0	7	7
100	<b>David Russell</b> (BMW E36)	0	7	7

**Note:** All car races in UK and Ireland are included except qualification/repechage, consolation and handicap races. No races in other countries. Class wins are only counted when there are at least six starters in the class, unless it is part of a multi-stage event where six or more have taken part in earlier heats that feed into a semi-final or final. Only classes divided by car characteristics are included. Classes divided by driver characteristics such as ability, professional status, age, experience (for example rookie or pro-am classes) are not included. Each race counts only once, so an overall winner's class win is not added. Where there is a tie, overall wins take precedence. Where there is still a tie, average grid sizes for the wins determine the order.



# FINISHING STRAIGHT



2023 season kicked off with Dennis's victory in Mexico City

## Switch on to Unplugged for the story



### DOCUMENTARY SERIES FORMULA E: UNPLUGGED

Available on YouTube and TNT Sport

With the new Formula E season getting under way this weekend in Mexico City (see our preview on page 22), what better time to reflect on a 2023 campaign that produced all the thrills and spills we've come to expect from the all-electric championship?

For those with a disposition for EVs, you're in luck. The third instalment of the *Formula E: Unplugged* fly-on-the-wall series is available to watch now – well, in part, but more on that later. Taking inspiration from Netflix's successful *Drive to Survive* docuseries, which charts the highs and lows of Formula 1's personalities over a season, the same concept is used to cover the past Formula E season.

There are the usual face-to-face interviews with the drivers and team principals plus insight from paddock insiders, in this case three-time Indy 500 winner Dario Franchitti among others, which are spliced together with race

footage and behind-the-scenes access.

The opening episode, dubbed *The American Dream*, follows Jake Dennis on his quest for a maiden Formula E title with Andretti, from his win in the opening Mexico City E-Prix to a barren spell of nearly three months without scoring a point and the mounting pressure he faced. Team owner Michael Andretti and team principal Roger Griffiths also feature along with input from Dennis, and the episode ends as he takes a podium at Portland.

The rise of Porsche is covered in the second episode, including the initial struggles of Antonio Felix da Costa as he joins the German manufacturer alongside Pascal Wehrlein, with rookies Sacha Fenestraz and Jake Hughes the focus of the third episode.

Without a doubt the most appealing aspect of the series is getting to know the drivers and their personalities.

Da Costa channels his inner Kimi Raikkonen on the radio en route to winning the Cape Town E-prix, while Dan Ticktum is box office, as you might expect from a driver who speaks his mind.

The remaining episodes cover areas including Abt Cupra's re-entry to the championship as well as Maserati MSG's return to motorsport, and the struggles of Lucas di Grassi and Sam Bird, while the final two episodes of the 10 chart the championship-defining collision between Mitch Evans and Nick Cassidy in Rome and Dennis's title success in London.

Arguably the biggest problem with the *Unplugged* series in the past has not been the content on offer, but rather how people can view it, with even the drivers criticising the accessibility of the series last year. This season all episodes will be available on YouTube but, with only two episodes released per week (on Mondays and







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# of a season

Wednesdays), it means the final one won't be shown until 5 February, when three races of the current campaign will have already taken place. It's an interesting PR strategy when attention, rightly, will be on the new season rather than something that happened six months ago.

Another slightly perplexing element is that the episodes that appear on YouTube vary between 15 or eight minutes in length, whereas the full-length episodes are around 25 minutes. These will be shown on TNT Sport, the new broadcaster for Formula E this season as the championship moves behind a paywall for the first time in 2024 in a bid to gain a more stable viewership.

As Formula E enters its 10th season, there's no doubt that the championship is one of the most eventful in the world of motorsport. *Unplugged* once again offers an insight into what makes it tick.

STEFAN MACKLEY



## WHAT'S ON



### INTERNATIONAL MOTORSPORT

**Formula E**  
**Round 1/10**  
Mexico City, Mexico  
**13 January**  
**TV Live** TNT Sports 4, Sat 1900

**TV Highlights**  
TNT Sports 1, Sun 2045

**Dakar Rally**  
Al Ula, Saudi Arabia  
**5-19 January**  
Visit Motorsport.tv for daily highlights

**Formula Regional Middle East**  
**Round 1/5**  
Yas Marina, Abu Dhabi  
**13-14 January**  
**▶ Livestream** via YouTube





#### FROM THE ARCHIVE

McLaren team boss Teddy Mayer won't have been in the most upbeat of moods as he monitors preparation of the squad's pair of M29Cs in the Hockenheim paddock ahead of the

1980 German Grand Prix. McLaren's performance over the weekend typified a turbulent season of poor results and off-track rancour – Formula 1 rookie Alain Prost and team-mate John Watson qualified

14th and 20th respectively, 2.90 and 3.41 seconds off the pace of polesitter Alan Jones (Williams FW07B); Watson's race ended in retirement when his engine gave up, and Prost trailed home in a lapped 11th place.



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## Jan Lammers

**D**river's have different criteria they prioritise when it comes to choosing a favourite team-mate. Longevity is a crucial factor for some, while others relate most to drivers that they learned from. Erik Comas falls into the latter category and picks Jan Lammers, despite only racing together once.

After four unfulfilling Formula 1 seasons in middling-at-best equipment, the 1990 Formula 3000 champion switched to sportscars and made his Le Mans 24 Hours debut in 1995. The same year, Comas entered the All-Japan GT Championship with Toyota, before joining Nissan for 1997 in a move that also took him back to the French enduro.

The TWR-developed R390 GT1 had lacked reliability on its Le Mans bow, which was addressed for 1998 – all four cars finished inside the top 10. But Comas remembers it best for teaming up with Lammers, a driver he describes as “a gentleman” who impressed on his team-mates the importance of handing the car back “in the same condition as you find it before”.

Frenchman Comas, whose other co-driver in the #31 Nissan was Andrea Montermini, remembers that he quickly warmed to Lammers in fitness camps and tests: “I thought, ‘That’s the guy I would like to have as a team-mate for a full year.’ He was like a brother. I really appreciated being with him at Le Mans.”



“He wants to give the most of his knowledge to you, to transfer to you. He had a big experience at Le Mans and he was so kind. He was always open, sharing all the information.”

“His target was not to be the quickest driver of the three of us. His target was to bring the car in the highest position. I could feel that Jan was really not a selfish person, absolutely not. He wanted to share, he wanted to share his experience, he wanted to share some strategy, [and details] about the track.”

Le Mans was the only race that year for the R390 GT1, which never contested the FIA GT championship, and Lammers didn’t return for 1999 after Nissan’s TWR deal concluded.

“I really enjoyed working with him, it’s a shame we did only one race together,” adds Comas, who took a best Le Mans result of second with Pescarolo in 2005. “I wish I had two Jan Lammers with me at Le Mans!”

**JAMES NEWBOLD**



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# ENGINEERING



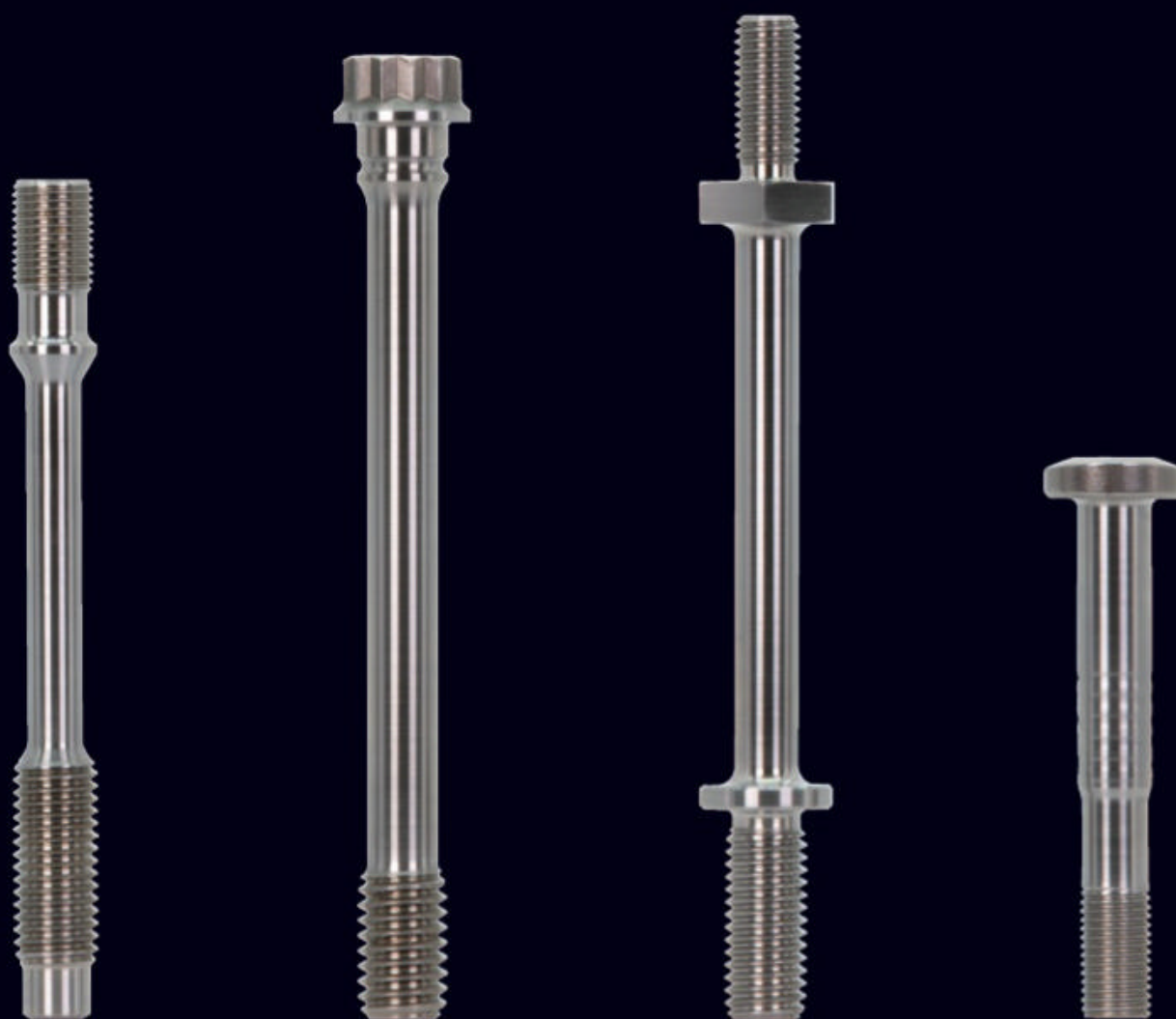
# BATTLE OF TECHNOLOGIES

How truck racing's elite is welcoming different powertrain philosophies





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RICHARD KIENBERGER

# TRUCK RACING EMBRACES OPEN APPROACH TO POWERTRAIN TECH

**T**here's nothing like a clear USP to help a championship stand out from a crowded motorsport landscape, so it's not hard to see why racing series pin their colours firmly to a mast when it comes to their direction of travel.

Formula E broke new ground as the first electric single-seater championship in 2014 and after a few early hiccups has thrived to achieve world championship status, with numerous manufacturers seeking to apply lessons learned to electrified production cars. It has no reason to budge from that niche, and neither will Extreme H once it begins a new era for hydrogen racing in 2025.

The multi-pathway approach is one championed by Toyota, which revealed an updated fleet of battery and fuel cell electric vehicles in November. It can be tough to set feet in more than one camp,

or risking being labelled a fence-sitter, but taking this course has its upsides – not only for manufacturers, but promoters too. As you can read on page 10, the European Truck Racing Championship is dispelling outdated perceptions of its lumbering, smoking beasts and underlining its credentials as an unlikely flag-bearer for innovation with technical regulations that embrace all types of powertrains. Could it be emulated more widely in coming years?

It's always a welcome respite to the January gloom when Autosport International begins. Opportunities to network and exchange ideas aside, it's an ideal chance to appraise the depth of capability that makes motorsport tick – and soak up some noise too. Before you check out the raucous BriSCA stock cars in the Live Action Arena, don't miss Mark Paulson's special feature (p22).



**COVER IMAGE**  
Richard Kienberger

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# OHLINS CHOSEN AS SUPPLIER OF SPEC SUPER FORMULA DAMPERS

Japan's top single-seater series takes significant step in limiting development

Super Formula has appointed Ohlins as the supplier of spec dampers in a cost-saving measure that will further level the playing field between teams in the single-seater series, which uses Dallara's SF23 chassis and Yokohama tyres.

Its technical complexity has made the Japanese championship something of a middle ground between Formula 2 and Formula 1, which F2 graduates have used as a finishing school before arriving in Grand Prix racing. Reigning F2 champion Theo Pourchaire has joined Toyota squad Team Impul in a bid to emulate Liam Lawson, who impressed with AlphaTauri last year in five cameo

appearances alongside a productive Super Formula campaign at Honda-aligned Team Mugen.

The spec damper move for this year will close an area of development that was proving costly for teams to optimise. Ohlins, previously a partner to several teams, had been widely tipped to become the sole supplier, and the teams had a chance to sample the Swedish company's four-way damping products in a three-day test at Suzuka last month.

"We are very proud that we have reached an agreement with Japan Race Promotion to be the sole supplier of shock absorbers for the Super Formula Racing Series from 2024 and onward,"

said Ohlins director of motor racing Claes Hesling. "Super Formula is a top-level racing series with very high demands. The shock absorbers we are supplying are the result of the cumulative experience at Ohlins that we have developed over the decades. Together with our partner in Japan, Carrozzeria, we will be supplying top-level products and excellent service to the teams."

Newly-crowned champion Ritomo Miyata predicted last October that "there won't be much change" in the competitive order from adopting spec dampers since there remain different tuners for the respective engine manufacturers.



## CUPRA LAUNCHES THIRD-GENERATION LEON VZ TCR FOR GLOBAL CUSTOMERS

Details of the new Cupra Leon VZ TCR racer that will be available for customer teams to deploy in international competition this year were revealed shortly before the new year by the WSC organisation behind TCR.

No official communication from Cupra has been made on the new car, the fourth iteration of the Leon produced since the original SEAT Leon Cup Racer won the inaugural TCR International Series title in 2015 with Swiss Stefano Comini and his Target Competition team.

What is effectively an Evo

upgrade on the existing Cupra Leon Competition that has been in use since 2020 features new bodywork, a new front axle and an updated gearbox from French company Sadev, replacing the Hewland unit on the previous-generation model. Sadev kit featured when the Leon was first upgraded in 2016, and it also supplies Honda's Civic Type R FL5 that debuted last year.

Teams using the current Leon Competition chassis, which claimed titles in the UK, Spain and Brazil in 2023, will be able to upgrade to the newer spec.



The Spanish marque has focused its motorsport strategy on electric competition in recent years, and won both iterations of the FIA eTouring Car World Cup

before it was put on ice before the 2023 season. Its partnership with Abt continues in Formula E after the German operation concluded its Extreme E programme.





### HWA RECREATES 1990s DTM ICON FOR THE ROAD

A reinterpretation of the Mercedes-Benz 190E Evo II that Klaus Ludwig drove to the 1992 DTM title has been launched as a road-legal, limited edition special equipped with the very latest technology.

Called the HWA Evo, the car has been described as a “flagship project” by company CEO Martin Marx as the former Mercedes DTM partner seeks to position itself as an independent car manufacturer. The first of 100 units is expected to be delivered to customers by the end of 2025, and will cost €714,000 plus VAT. Technical specifications have yet to be finalised.

### PORSCHE, DUMAS SET NEW ALTITUDE RECORD

Two-time Le Mans 24 Hours winner Romain Dumas set a new automotive altitude record in a highly modified Porsche 911 last month, reaching a height of 6734 metres above sea level after scaling to the peak of the west ridge of the Ojos del Salado volcano in Chile.

The car ran on eFuels in temperatures around 20 degrees below freezing, with the support of an international team. “I’ll never forget this experience,” said Dumas. “It was an extraordinary feeling to drive where no car has gone before. The 911 managed to go higher than any other earthbound vehicle in history. We reached a point where we were met by the true summit of the west ridge – we could go no higher.”



### EXTREME H COMPLETES SUCCESSFUL SHAKEDOWN

A shakedown of Extreme H’s Spark Racing Technologies-built prototype shortly before Christmas was hailed as a success by organisers of the fledgling series, which plans to become the first exclusively hydrogen-powered championship.

Extreme E technical director Mark Grain described it as “a critical milestone” and added: “There is still plenty of work to be done ahead of the launch of Extreme H in 2025, but we are pleased with the progress of our concept.”

The all-electric XE series will continue in 2024, but its future is uncertain. One possibility is that the championship will simply change guise into hydrogen.

### TYLER ALEXANDER SCHOLARSHIP LAUNCHES

Cranfield University will honour the memory of the late Tyler Alexander, one of the McLaren Formula 1 team’s founding fathers in 1963, with a new motorsport scholarship named in his honour.

The scheme, available from the 2024-25 academic year, will be open to students from any background. The successful applicant will enjoy internships at motor racing teams in both the UK and US and have access to the Advanced Motorsport Engineering MSc course.

Tim Mayer, the FIA’s chairman of F1 stewards, hosted the inaugural Tyler James Alexander Annual Lecture last month. Alexander died in 2016 aged 75.

**AUTOSPORT**  
INTERNATIONAL

### EXHIBITOR NEWS

Rowe’s BMW that took third in Macau GT World Cup will be at ASI



### FAMILY BUSINESS ROWE UNDER NEW LEADERS

A new era begins for Rowe Oil at Autosport International, where the German company will be represented by UK distributor MediaCo Imports on Stand 3A620 in Hall 3A. In a change first announced in September, founder Michael Zehe stepped down as CEO on 31 December and handed control to his daughter Alexandra Kohlmann, who has been joint CEO since 2018. Stefan Wermter, previously responsible for operations on the board of management, assumed joint control on 1 January.

### MAPEEX OFFERS FREE 3D SCANS AT ASI

Located in Hall 2 at Stand E393, Kimbolton-based reverse engineering specialist Mapeex Ltd has invited customers to bring any part to its booth for a complimentary 3D scan to showcase its cutting-edge technology in action. Experts will be on hand for consultations, and the company promises exclusive show offers.

### UWTSD COURSE ENJOYS 25TH ANNIVERSARY

As its pioneering BEng Motorsport Engineering degree celebrates a 25th academic year, lecturers and students from University of Wales Trinity Saint David will be at ASI to reveal more about the course at Stand 3432 (Hall 3). Programme director Timothy Tudor also regularly drives one of its two cars in Sports 2000, which the student-led UWTSD Motorsport team runs as well as overseeing logistics and finances.



STEVE JONES

### IN BRIEF

#### TVR PICKS THRUXTON BASE

Sportscar manufacturer TVR will relocate to a new European development and brand centre at Thruxton, replacing its current facility in Surrey. Details of TVR’s “long-term commitment” to the Hampshire track have not been disclosed as it seeks to put its first car since 2006 into production, with its latest Griffith hindered by repeated delays.

#### ZF HAILS ELECTRIC MOTOR MILESTONE

ZF has celebrated the significant milestone of producing three million electric motors, doubling production in just 18 months. Mahindra’s Formula E powertrain partner has also announced that its compact I<sup>2</sup>SM magnet-free motor will be developed for volume production, and recently showcased an electric drive prototype that is 35% lighter.

#### ZOLDER INSTALLS MYLAPS PANELS

Former Belgian Grand Prix venue Zolder has installed FIA and FIM-homologated MYLAPS Grade 2 LED panels in a bid to improve safety and reduce dependency on flag marshals. The circuit already used the MYLAPS timing system and transponders, making this progression a logical step with a system trusted by several top-tier global series.





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## DRIVING CHANGE LUCAS DI GRASSI

### THE TARGET FORMULA E SHOULD SET FOR GEN4

New suppliers revealed before Christmas brought the next generation of cars another step closer, but our columnist thinks there's a performance standard it should aim for

GALLOWAY/MOTORSPORT IMAGES



Current Gen3 cars will be replaced by four-wheel-drive monsters from 2026-27

**T**he picture of what we can expect from Formula E's Gen4 cars that will arrive from 2026-27 is becoming more complete. Last month it was announced that Bridgestone will be the new tyre supplier, replacing Hankook. Marelli will be the front powertrain supplier for the car's four-year lifespan, taking over from Lucid Motors, while Podium Advanced Technologies replaces WAE as the battery partner. Spark Racing Technology remains the chassis constructor.

We know that the cars will be four-wheel-drive, an overdue step that will massively improve performance levels and set new standards for all open-wheel racing. Cars will be shorter, wider and heavier, although we can't say for sure if this will be better until we see the final specs. Spark will produce high and low-downforce bodykits. And for the first time, there will be two different tyre compounds, with a typhoon tyre introduced for heavy rain alongside a grooved all-weather option. In my view, it's time for us to have either slicks or semi-slicks that could optimise dry running.

I drove on Bridgestones in Formula 1, and it's a company with an amazing history in motorsport that knows what it's doing. It will be an incredible asset for FE and

I'm confident it will deliver what's required, but it is the FIA that should target the right specs. We need around 10-20% more mechanical grip than we currently have, to cope with the incredible torque from the four-wheel electric drive, because the cars will be able to deploy up to 600kW, which is approximately 800bhp.

Gen3 was already a massive upgrade in terms of speed, but Gen4 will be even bigger. Still, there's lots of room for future improvements, for example moveable aerodynamics, a lighter qualifying-only battery, and independent motors for torque vectoring and four-wheel steering. These

but it is imperative that all teams have the same access to the same parts for the sake of competitiveness. Another simple change I would support is bringing back wheel covers similar to what we had in Gen2. These have only upsides – reducing drag and increasing protection against contact, while reducing spray during wet races for enhanced safety. I don't understand why they were removed for Gen3 as we don't change tyres in pitstops, so it's no problem at all. They must return for Gen4.

A manufacturer's ability to put their visual identity on the car is primordial. I think FE should allow the manufacturers

### “The best street track is Macau, so where better place to target having the fastest car?”

features will not be in the Gen4 car, but it's something to consider for the future.

In respect to aerodynamics, I believe the two bodykits from Spark will be better, but not enough. Having fully adaptable, software-controlled aero parts would be incredible. For example, you could run high downforce in corners and low drag in straights (and everything in between),

to make the cars look different, using non-performant parts like headlights and taillights without allowing aero advantages.

In a nutshell of performance, I would have put on the requirements for Gen4 that it can race on the full Macau Guia Circuit, and for at least one lap in qualifying be faster than Formula 3 and GT3 cars. That for me would be a great indicator that we've gone in the right direction. The core of Formula E is street racing, and the best street track in the world is Macau, so where better place to target having the fastest car?

The performance could then be adapted or tuned down to other tracks afterwards using software control for specific races and even further, for specific segments of different tracks. In Mexico City we could deploy its full potential, then if we go back to Paris and the cars are too fast for that track, we could simulate the maximum allowance of power per straight and control it. This would allow for much more flexibility without compromise and reduce the cost at the same time. ■

Di Grassi won Macau in 2005, and thinks it should be Gen4 proving ground







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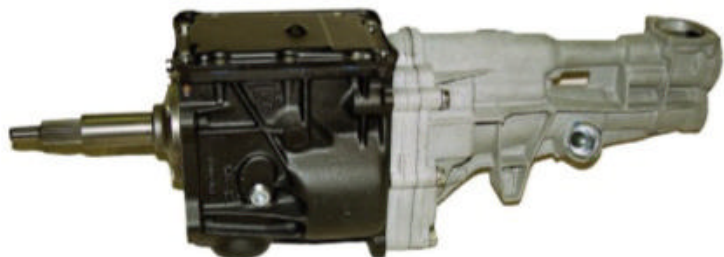
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## ENGINEER'S VIEW TIM WRIGHT

### WHAT TEAMS LOSE AND GAIN FROM RESTRICTED F1 TESTING

Formula 1 squads test significantly less frequently than they did 20 years ago. Alongside the benefits in this cost-cap age are some human downsides too



Testing was good for building camaraderie with McLaren colleagues, Wright recalls

**D**oes the lack of official testing hurt the current breed of Formula 1 teams? There are two ways of looking at this question.

It became fashionable in the 1980s to have a separate group to focus on testing items and set-ups. Until 2008, most teams had a dedicated group of mechanics and engineers – a mix of seasoned veterans and younger personnel gaining experience – who could be found at circuits or airfields around the world all year long. But when the FIA decreed that testing was becoming too expensive, it introduced a directive to lower costs that transformed F1 overnight.

Nowadays teams are permitted 200km to shake down their new cars under the guise of filming days, but this still equates to less than a race distance. The official pre-season test in Bahrain is only three days, a vast reduction from 20 years ago. From the end of the 2003 season to the start of 2004, Marc Gene logged 28 days for Williams.

Today the season finishes much later than in 2003, when the last of the 16 races was held in October. In 2024 there will be 24 races, so teams aren't short of track time to learn about and refine their cars, even if restrictions on how many hours they

can spend in wind tunnels and using CFD give them less freedom to optimise their designs than in pre-cost-cap days.

Modern simulators are sophisticated enough to determine set-ups including springs, anti-roll bars, ride heights and wing levels for upcoming grands prix, an especially valuable tool at new circuits where no data exists, such as Las Vegas. They also allow teams to fine-tune set-ups during race weekends, and surely have helped small teams who in the past couldn't allocate resources to extensive testing.

It can be argued that teams don't suffer too much from testing restrictions but,

**“Ron Dennis flew down especially to read them the riot act in the back of our test truck”**

while the quest for performance has become more efficient, perhaps they have lost something on the human side. The outstanding memories for me are of the camaraderie that came from working with great characters, especially without the same pressure as being at races. Many just don't get to experience this now given the

relentless schedules involved in modern F1, although other roles can blood young talents in the way test teams used to.

Before the advent of full-size wind tunnels, F1 teams regularly used to hire 40 and 50% model tunnels, but availability could be limited, so visiting a lesser-used airfield became an alternative for teams to test aerodynamic set-ups. Among the most popular were Lurcy-Levis in central France, Bruntingthorpe in Leicestershire and RAF Keewil near Trowbridge. The latter was still used as a practice ground for Hercules transport planes that periodically dropped heavy objects next to the main runway.

This meant curtailing any running of the cars, but provided a diversion to the boring up-and-down runs at fixed speeds.

When I was an engineer at McLaren, we had a test team based in Japan to be near Honda's R&D centre at Wako, and in 1988-89 we were testing regularly at Suzuka or Fuji. Emanuele Pirro was our main driver but occasionally Ayrton Senna or Alain Prost turned up to drive a few laps to confirm any finer set-up changes. Once Ayrton was asked by Honda to drive two of their new NSX supercars to see which set-up he preferred. Having done that, he motioned for me to join him in the car for a very quick lap of Suzuka that I'll never forget.

Another memory that will never leave me was at Pembrey after Senna and Prost's fallout at Imola in 1988. Ron Dennis flew down especially to read them the riot act in the back of our test truck. We all hung around outside drinking tea, feeling most uncomfortable! All things considered then, while the teams haven't really lost out, perhaps the people have... ■



Teams have just three days to test their new cars in anger before racing begins



# OPEN DOOR TO INNOVATION

Regulations that permit a variety of propulsion methods make the European Truck Racing Championship attractive for investment

BY JAMES NEWBOLD

RICHARD KIENBERGER





Truck racing has made sustainability a key priority and opened up to new technologies





**T**here are countless differences between the Formula 1 grid of 30 years ago and now, and one that has perhaps gone under the radar is the loss of engine variety. Ferrari's screaming V12 was pitched against an array of V10 and V8 engines in 1994, when the Ford V8 powering Michael Schumacher's Benetton's B194 beat the Renault V10 in Damon Hill's Williams FW16 to the title. Now all teams use 1.6-litre V6 turbo power units, and development is frozen until F1's next major technical revamp in 2026.

It's one thing to allow multiple engine configurations, as the World Endurance Championship does, but it's quite another to welcome completely different methods of propulsion. Yet there are a few series that have left the door ajar. Take the FIA's World Rally-Raid Championship, which contains provisions for hybrid, full-electric and hydrogen vehicles that have been on show in this past week in the Dakar Rally. And there's another, perhaps unlikely, avenue for technical freedom in circuit racing too.

The European Truck Racing Championship has for the past 12 months had a provision in its technical regulations allowing electric and hybrid race trucks to compete against combustion vehicles that since 2021 have run on sustainable HVO (hydrotreated vegetable oil) bio-diesel fuel from TotalEnergies. Hydrogen too is under discussion. The FIA hosted an ETRC-dedicated workshop last year to share its knowhow with the key stakeholders of the truck racing industry, covering areas such as storage types, risk assessment, safety and relevant regulations.



Marek Nawarecki

ARIELWOJCIECHOWSKI



Georg Fuchs

LEFLOCH / DPPI

Given the bulk of its machines, which have a minimum weight of 5300kg including the driver (around 6.6 times heavier than current F1 cars) that necessitates a 160km/h speed limit, the ETRC occupies its very own niche that means it has little in common with the rest of the motorsport world. But this is actually advantageous when it comes to facilitating different technologies, because it makes them more accommodating.

"The truck architecture allows more space so that you have more freedom to accommodate a different technology in the frame of the same vehicle," explains FIA Senior Director of Circuit Sport Marek Nawarecki.

"Some challenges you have with the cars in terms of packaging or weight, that's less of a problem for us," agrees Georg Fuchs, managing director of ETRA Promotion. "That's a very beneficial factor."

But the ETRC's openness isn't simply born of a desire to attain its stated 2038 net zero target, having already decreed that emitting visible smoke – for so many years part and parcel of truck racing – is a punishable offence.

"With truck racing we're not in an open space, we're embedded in the industry," asserts Fuchs. "We are a part of motorsport, but we're also covering the industry segment of commercial vehicles. There's still a big debate in the industry going on [regarding] what technology is useful for what application, and we're responding to the characteristics of the industry. Even though we all know that we have to go down that route and it will happen, there is some reluctance to accept this. So our approach is also to lead as a best practice example and to raise the acceptance for this new technology."

This clear effort to relate to trucks used by the majority of its fanbase are evident in regulations that, with lessons learned from the big-budget Super Race Truck boom-and-bust period, specify clear links between road-going homologated tractor units (to use their technical term) and their racing counterparts. Engines must come from a range with a minimum quantity of 100 units, with modifications only permitted if using commercially available parts that don't change the engine capacity. The gearbox, front and rear axles, steering box and braking components must also be road-based. ▶



RICHARD KIENBERGER





## WHY EOT ISN'T THE SAME AS BOP

Racing series tend to shy away from permitting different powertrain philosophies unless there is a robust Balance of Performance system in place. In the World Endurance Championship's Hypercar class, freedom to select from multiple combinations of engine capacity, number of cylinders and turbos in the knowledge that BoP will ensure comparable performance has led to significant differences in approach, ranging from the 2.6-litre twin-turbo V6 in Peugeot's 9X8 to a 5.5-litre normally aspirated V8 in the Cadillac V-Series.R. And that's before getting into the nitty-gritty differences between four-wheel-drive Le Mans Hypercars and rear-drive LMDh, hence the need for a separate so-called 'platform' BoP. All Hypercars will be hybrid-equipped this year, removing one layer of differentiation from 2023.

But the FIA's Marek Nawarecki believes it's important to distinguish between BoP and Equalisation of Technologies, which was



introduced when Audi competed with its diesel-powered R18 LMP1 (above) against petrol-powered offerings from Toyota and Porsche, and all three had differing levels of hybrid capacity. EoT, Nawarecki explains, was a way to "adjust the key parameters which are the first performance factor for racing" – whether that be in terms of pure performance or efficiency. It will be adopted again in the European Truck Racing Championship, and in World Rallycross.

"Depending on how the championship is ruled, if it is about purely performance or

performance combined with energy management or some other factors, we take these first order parameters and we find out how we should adjust the key parameters to have different types of vehicles on different types of powertrains competing each against the other in an equal manner," Nawarecki says.

"There are different ways to approach and to calculate this; most of the work is based on very precise simulation. It's a different principle than the Balance of Performance, I have to highlight this, because sometimes we saw that both are mixed but it's not the case.

"Since it was implemented in WEC, we try to apply to the different platforms, so with this opening of technical regulations for truck racing we are ready to apply the same principle in order to have different types of trucks, different types of powertrain competing together within the same ruleset and within the same race format."



## REALISING THE FUTURE VISION

Any two-wheel-drive hybrid/electric trucks that are built must be subjected to approval by the FIA and granted a technical passport before being cleared to race. A maximum of four MGUs, which must be mechanically linked, are permitted, while the type and origin of the electric motors, inverters and energy recovery system is free. The FIA will apply its Equalisation of Technologies methodology to ensure parity when a truck with an alternative powertrain is readied to race, which may not be too far away.

The first electric racing truck built by six-time ETRC champion Jochen Hahn – the drivers' representative on the FIA Truck Racing Commission – in partnership with IVECO was formally presented last July at the Nurburgring. Development is ongoing on the prototype, which has yet to be fully homologated. Fuchs says that it's now allowed to run at 100km/h, with 160km/h the evident target. "I'm sure it's just a question of the time, if it will be [2024] or the year

**"From the side of the promoter but especially from the side of the FIA we need to be prepared"**

after," says Fuchs on the matter of when it will race.

Although it will evidently take some time and considerable investment before an electric truck is able to take on and beat the established contenders, Fuchs acknowledges that there has been "a lot of reluctance for change – maybe some fear" within the paddock as well as in the fanbase. But he says positive industry feedback has given encouragement "that we are on the right way", and there's hope that momentum will continue to build behind the ETRC as a destination for innovation.

"The first step will be that industry and manufacturers who are specialised in this kind of new technologies are guiding a race team, maybe supported as we see with Jochen Hahn, to establish a prototype and then in a second step it can be spread over to smaller teams," reasons Fuchs.

"The direction is not at all defined by the industry so you need to be an expert in different fields of the technology; from the delivery of the hydrogen, it can be gas, as a liquid, or it can be combustion engine or fuel cell and so on. Then once this technology is established, you can spread it out to more amateur teams, maybe in a guided way, maybe as a single supplier.

"It's very exciting times, but also challenging times, because as you can imagine, from the side of the promoter but especially from the side of the FIA we need to be prepared."

Fuchs hails the well-received hydrogen workshop as evidence of its efforts in this respect, although Nawarecki is clear that assessing hydrogen's capabilities remains "a long and difficult process" for the regulatory body. He's unwilling to give a robust timeframe for its adoption in truck racing because uptake will be determined by wider market forces but, as motorsport remains an attractive platform to showcase the performance, efficiency and safe application of new technologies, is convinced it is worth taking the time.

"The industry is looking for new solutions for transportation and we understood also that nothing is decided," Nawarecki says. "Our role is to provide a very consistent regulatory framework to support the industry towards the development of new technologies. We try to bring everybody on the same level of understanding of how we should approach this topic."

"We have to see how the industry is working towards one or the other direction," adds Fuchs. "This is something the industry, together with the competitors and so on, have to sort out."



Fuchs (second right) anticipates that manufacturers will lead the push for new tech in ETRC

## A GROWING MODEL?

An interesting case study for the ETRC will come courtesy of the World Rallycross Championship, which last month made the bold leap of announcing its so-called 'Battle of Technologies' concept. RX1 Supercars with internal combustion engines have been banished to the European championship for the past two seasons, but will now be allowed to compete against RX1e all-electric machines if powered by sustainable fuels.

At the time of writing, little is known about the promoter's plans to equalise the two types of machine – the EVs are known to accelerate quicker, and won't be hamstrung at higher-altitude tracks such as Montalegre – although recent series dominator Kristoffersson Motorsport has floated the possibility of entering two combustion cars alongside its trio of EVs.

Discussions on whether trucks with alternative power sources will be competing for outright wins in the ETRC or split into segregated classes remains "a little bit far off", says Fuchs, although he insists that the idea of incentivising entrants with special prizes hasn't been thought of. "We have been already on sustainable technologies for three years, it just hasn't been that obvious than for example an electric vehicle," he points out.

Nawarecki stresses that it's not the FIA's role to incentivise or promote one technology above another because "it's up to different stakeholders, decision-makers to choose what will be the most relevant for the industry, what will be the most relevant in terms of economy".

Could this model of open technology be emulated more





Hahn's electric truck prototype was presented at the Nurburgring last year

widely? It seems likely, despite the headaches for organisers presented by equalising differing densities of energy storage for fuel, hydrogen and batteries – the latter “far behind the two others”, says Nawarecki. But he notes that the FIA is determined to be “as inclusive as possible” in other disciplines too, and points to the WEC’s interest in embracing hydrogen as evidence that “probably this approach won’t be unique for truck racing”.

“From one discipline to another, the way that it will be applied, diversification will be different because of the size of the car, the racing format, the margin we have to adjust the performance in terms of parameters you can play with to find the right balance,” predicts Nawarecki.

Forming technical regulations that appeal to all-comers isn’t a straightforward business. And Fuchs recognises that there is an important balancing act between welcoming new technologies and being incapable of taking decisions to guide the industry. “We can’t have everything open,” he says. “To keep this balance, I think that could be the factor of success.”

But in demonstrating that all disciplines can contribute to making motorsport more sustainable and offering something that appeals to everyone, the ETRC’s bold philosophy shows how a middle ground can be occupied in conversations over the future of powertrains. Variety is never a bad thing for improving a spectacle. Perhaps others could learn a lesson or two. ■



World RX will allow combustion RX1 cars to battle RX1e EVs in 2024

THE BTCC'S 'NIGHTMARE' WITH TURBODIESELS AND LPG



The British Touring Car Championship is well used to working with different bodyshapes and engine sizes. Series boss Alan Gow recalls that during the Super Touring years “we had four, five and six cylinders; four-wheel drive, front-wheel drive, rear-wheel drive” that all played into “a proud history of not saying no”. Today its regulations are consolidated around 2.0-litre turbocharged direct-injection engines, with common turbochargers and intercoolers to reduce costs.

“With our regulations, a privateer can come in and win the championship quite easily and compete on an equal basis,” says Gow. “It’s good for spectators because they understand that everyone’s equal, it’s easier for us to control, and it’s better for the teams because they know what they’ve got and they know what they’re racing against.”

**“WE WERE CONSTANTLY ADJUSTING, DEALING WITH A COMPLETE UNKNOWN”**

That hasn’t always been the case in the past 20 years. LPG gas fuel was first used by privateer John George’s Honda Civic in 2004, although Gow admits this didn’t cause many concerns while he was towards the back of the grid. It was a different story in 2008 when the factory SEAT team adopted turbodiesel engines previously used in its World Touring Car Championship set-up. By season’s end, its Leons were the fastest cars in the series, but lead driver Jason Plato reckoned a lack of testing to iron out reliability niggles and understand how changes to weight distribution impacted the tyres proved costly.

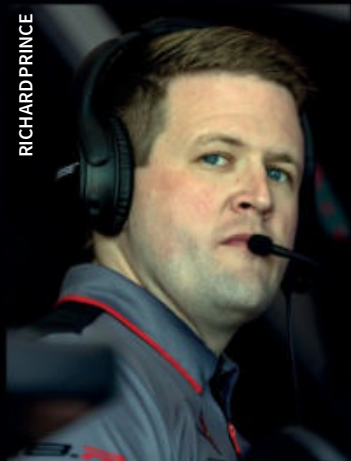
Gow recalls: “That was always a constant battle through the year, trying to manage people’s expectations on how the SEAT performed against normal fuel cars. Having said that, our hands were tied anyway because we were running to FIA [Super 2000] regulations, so we had to accept it.”

Its problem was solved when SEAT withdrew at the end of the season, but LPG then became a race-winning force in the Arena-run Aon Ford Focuses in 2010.

“We were constantly adjusting because we were dealing with a complete unknown,” recalls Gow. “We were learning as we were going along, as were the team. We had no experience in LPG running at the front. It was a nightmare for all of us and perhaps in hindsight, perhaps we just should have said no. As it happened, LPG gas-powered cars became a bit of a cul-de-sac, so that didn’t go any further. But it was a complete nightmare.”



RICHARD PRINCE



# CORVETTE Z06 GT3.R

## THE NEW GM CHALLENGER READY TO GO GLOBAL

The C8.R's successor has big shoes to fill. Pratt Miller Motorsports technical director Ben Johnson is your guide

BY JAMES NEWBOLD



his month's Daytona 24 Hours will herald the global competition debut for the latest GM sportscar in the long line of successful Corvette Racing machines. Following GTE's demise, the Corvette C8.R has been replaced by a new GT3 model that's been in development for over two years. Driver-in-the-loop testing on the Corvette Z06 GT3.R started in 2021, before the product of a collaboration between Pratt Miller Engineering and GM's Competition Motorsports Engineering division began track testing in September 2022.



### DIFFERENT ETHOS

The Z06 will be operated by Pratt Miller's factory-supported team and customers alike. A significant number of shared components from the production model are incorporated, reflecting the need to be priced competitively on the customer car market. "We worked very hard to get to that while still being able to

perform as it needed to in all the different places the car is going to race," says Johnson.

Compromises in terms of serviceability and stability for outright pace on the C8.R have been re-examined for the Z06 GT3.R, in the knowledge that it won't always be run by a large team of mechanics and raced by

platinum-graded drivers. Making it "easy to work on" was a key priority, Johnson explains. Although its control systems have been simplified relative to the GTE car, the addition of ABS and electronically controlled clutches means the Corvette GT3 actually has more systems than the C8.R.

GM DESIGN



Road-car chassis is largely unchanged in the GT3.R

## ENGINE AND GEARBOX

Knowledge of how weight distribution and packaging in Corvette's first mid-engine racer, the C8.R, influenced aero and suspension geometry has been transferred to the Z06, which was optimised early in the design process.

Over 70% of the 5.5-litre V8 engine's components are production-derived, with the primary difference found in the oiling system. Johnson says Pratt Miller has confidence in it based on the "strenuous" requirements the production car had to meet, and the fact that its power output "was quite a bit more than we'd anticipate to ever run" in the GT3.R. With 500 horsepower, it has 170 fewer than the road car, which Johnson notes was a conscious choice: "With that much power overhead, you can make decisions to decrease the engine cost or make it such that it's very driveable. It isn't peaky, the engine response is linear."

The engine is mated to a racing-spec six-speed manual-sequential transmission.



GMDESIGN

## CHASSIS

The road-going Z06 chassis is largely unchanged in the GT3.R, which to Johnson is a testament to its "very well-refined" basis that "still hit all of our stiffness and mass targets". Fewer modifications were necessary than on the C8.R due to factors of regulations and cost, although Pratt Miller made adjustments at the rear for suspension mounting.

The GT3.R, "inevitably based on the construction techniques", has a slightly higher centre of gravity than C8.R, although Johnson reveals that its traction is now "on average much better", inspiring confidence for pro and am drivers alike.

Lengthening the wheelbase was considered but rejected as "a fairly complex and expensive" means of generating downforce and stability that could be found organically elsewhere.

## BODYWORK

"The regulations allow for a higher level of downforce" on the GT3.R than the C8.R, Johnson says, which has resulted in feedback that the Z06 race car "feels more secure" through the corners.

Among its notable features are a new rear wing, and new carbon-fibre diffuser. Pratt Miller focused on extracting as much performance from this and the underfloor as possible "because those components have to be on the car, whether they're complex or simple", Johnson says, and the difference in cost to make them more complex "is relatively minor". Emphasis on floor components also means it is less reliant on winglets and exposed parts that are prone to damage.

## TYRES AND BRAKES

Unlike the C8.R, designed to run exclusively on Michelin tyres, the Z06 GT3.R will use Goodyear rubber in the World Endurance Championship,Michelins in the IMSA SportsCar Championship and Pirelli in SRO-run series. As a variable "you can't fully characterise" during the virtual development process, understanding tyres has been the focus of significant attention in recent months, Johnson explains, with Pratt Miller working on set-ups capable of accommodating vastly different characteristics.

But it had a head-start in configuring ABS for the Z06 thanks to lessons learned in the past two years running the C8.R to GT3 rules in IMSA's GTD Pro class.





Radical rear wing has been devised to improve the racing by increasing the DRS effect

# THE KEY UPDATES IN F2'S NEW DESIGN

Improved safety, accessibility and closer links with F1 drove the development of Formula 2's long-awaited new machine

BY MEGAN WHITE





**A**s one chapter in Formula 2's history closes, with the retirement of its 2018 car, another begins in 2024 with the introduction of its new model. The new Dallara-built F2 2024, which will be raced for at least the next three seasons, features the latest FIA safety innovations, and aspires to be as close as possible to the latest Formula 1 machinery to help prepare young drivers for the final step on the single-seater ladder.

The radically redesigned car, unveiled over the Italian Grand Prix weekend at Monza in September, has several features that move it more towards F1's current generation. It features ground effects and similar wing concepts, with a rear wing not dissimilar from that used in Japan's Super Formula championship, for which Dallara is also the constructor. Powered by a 3.4-litre turbocharged Mecachrome engine, it will continue to run on Aramco 55% bio-sourced sustainable fuel for 2024 before moving to synthetic sustainable fuel in 2025.

The main phase of testing was completed at the end of October, with 5000 kilometres achieved across several days of running at Magny-Cours, Jerez and the Bahrain International Circuit in the hands of 2022 F2 champion Felipe Drugovich and former series driver Tatiana Calderon.

The 11 teams have now received one car each, which was delivered before Christmas, with the second due to arrive in mid-January. There will be a shakedown, with the teams running one car each, before the first official pre-season test in Bahrain next month. Although there have been some "little adjustments here and there", newly appointed series technical director Pierre-Alain Michot is "quite happy with what we have achieved".

"It's really nice what we've done," affirms Michot. "The process to design the car has been quite long and intense over the past winter because we had to design a new car completely... not from scratch, because the philosophy is the same, but we had to accommodate a lot of new features and make sure that we are getting closer to the F1 ▶



Pierre-Alain Michot

PORTLOCK/ 2023 FORMULA MOTORSPORT LIMITED



The new car earned plenty of attention when it was launched at Monza last year



family look that we wanted to achieve.

“We have taken into consideration the look, but also the performance, and all the new technical requirements from the FIA in terms of safety. All the guidelines that they wanted to achieve with F1 with the latest regulations, we had to follow these as well, just to make sure we increase a bit more the following-car performance that we already had in our DNA. It’s something that we always wanted to have and we have made a little step more for this car.”

Williams driver Logan Sargeant has labelled the gap between current F1 and the outgoing F2 car as “probably a bit too big for what it should be”, and addressing this was an important concern for Michot. “We have always wanted to make sure that we can prepare the driver as much as possible for the next step, which is F1, which means we have to follow what they are doing,” he says. “One of the main targets was to follow it in terms of look, in terms of performance and all of the aero package. That’s why we have this nice car now with all the F1 features. It was really driven by the fact we wanted to get the drivers in a good shape for the next step. That’s why we have a car which looks so close to F1.”

Corrado Casiraghi, the FIA’s technical head of single-seater feeder categories, says the car’s development priorities were strategically aligned to “improve racing, enhance safety standards, elevate the series’ visual appeal, and ensure economic viability for all stakeholders involved”.

“The development team focused on incorporating key insights gained from the project undertaken to devise the latest set of regulations in Formula 1 that came into effect in 2022,” explains Casiraghi. “By adopting and adapting these learnings [lessons], the aim was to include advancements in aerodynamics and car design to facilitate closer racing.

“The 2024 F2 car underwent a design transformation to capture the essence of Formula 1 aesthetics. This involved a meticulous process to create a fresh and visually appealing image, establishing a clear lineage to its F1 counterpart.”

For Casiraghi, safety was a “top priority” in the car’s development, especially given the extended lifespan of some chassis: “Any updates and changes need to be as advanced and future-proof as possible.”

One area in which development was focused was the roll hoop with incidents in both F1, involving Zhou Guanyu, and F2 at the 2022 British Grand Prix when Dennis Hauger was launched into

Outgoing chassis had been used since 2018



DIEDERIK VAN DER LAAN/DUTCH PHOTO AGENCY/RED BULL CONTENT POOL

“They really took a lot of care in the design of the car to be able to accommodate small drivers”

Roy Nissany prompting a strengthening of its structure to bear a load 20% higher than the previous generation.

Several changes have also been made to the survival cell, which has been subject to a test generating a deceleration 30% higher than the previous-generation chassis. The front impact structure can now absorb 50% more energy, and the intrusion protected surfaces have been extended, covering the full sidewall and the front surface of the survival cell. The sidewall around the cockpit area is now designed to resist 380kN, protecting the driver in case of a T-bone crash such as the one in which Anthoine Hubert tragically lost his life at Spa in 2019.

The car is also more accommodating for a variety of shapes and sizes in the cockpit in a bid to increase accessibility to female talent. Complying with the FIA 2024 specifications in terms of braking, steering effort and ergonomics, the

Ricci is optimistic that the new car represents a step forward for F2



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Lessons learned from Zhou's 2022 Silverstone crash contributed to safety improvements



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Experienced F2 hand Calderon was called up to develop the new car and says she's impressed



GALLOWAY/MOTORSPORT IMAGES

car features more adjustability than ever before, including a mandatory cap on steering load, a modified steering wheel for smaller hands and a cockpit able to fit drivers from 1.5 metres to 1.97m tall.

Casiraghi says the driver fit issue was “acknowledged as a primary obstacle to greater inclusivity,” and believes the changes “aim to create an environment where driving talent and skill take precedence over physical characteristics”.

Calderon, still the only female driver to have raced in the modern era of F2 after competing in 2019 and 2022, has praised the new car on both its safety and accessibility, and says it’s “definitely a step forward in terms of steering effort and comfort for small drivers”. “It was a privilege to be one of the first drivers to get the call to drive the car,” she enthuses. “I think in terms of performance it’s a very similar car to the previous one, but for me the biggest differences were the position that you are sitting in the car, the view and for me it was much easier to be comfortable straight away.

“Sometimes I take two days to do a seat fit and this time it was really easy. The steering effort as well is something we worked on really hard during testing. As female drivers, we have less muscle than men, and sometimes the F2 car was really heavy. We managed to find a really good compromise with the steering

effort, so we never really had any issues in terms of driveability. It felt very similar but all those aspects and the safety side are a big step forward.

“They really took a lot of care in the design of the car to be able to accommodate small drivers and have a bit more flexibility with the pedals, with the steering. Sometimes the steering wheel is very thick and they have two options, so they are definitely taking a step forward to accommodate more drivers into their cars.”

From a safety perspective, Calderon says the seating angle feels different: “They made the side of the cockpit stronger and they are really taking a step even further than F1 will get in 2026. They [were looking at] the incidents we had in the past, and took a really big step in that regard. As a driver, you always want to know you’re driving something that’s very safe.”

With positive feedback from both teams and test drivers alike, 2024 looks set to be the beginning of a glittering new era for F1’s leading feeder series. ■



Tatiana Calderon

GALSTAD/MOTORSPORT IMAGES

## TEAM PERSPECTIVE

Trident team manager Giacomo Ricci is no stranger to new cars – both in his current role and as a driver. Having raced in Formula 2’s GP2 forerunner and its Asian-based winter series, winning races in both in 2010, Ricci has experienced all four previous generations of the Dallara-built machinery. He raced the original 2005-07 chassis in Asia, started 25 races in the GP2/08 of 2008-10, and also sampled the GP2/11 in a non-championship round at the Yas Marina Circuit in 2011. Since joining Trident in 2014, he also accumulated extensive experience with GP2/11 and the outgoing GP2/18 from the other side of the pit wall. With that in mind, what are his impressions of F2’s latest car?

“It’s looking amazing to me, like a more modern car and closer to F1 in appearance, so that’s the first thing,” the Italian reflects. “The biggest changes for me, 100% would

be the aero package. The floor, the bodywork and everything is completely different, so I strongly believe the priority will be to place the car in the right [set-up] window from an aero package perspective. This will be the biggest difference for me compared to the old car.”

Ricci also praises the championship’s response to the teams’ feedback, and believes this will be “a plus for the future of the series”.

“I think the organisation made the right choice following the suggestions of the various teams,” he says. “Yes, it’s a new car, but the most sensible parts – for example, in the



GALLOWAY/MOTORSPORT IMAGES

**“I LIKE THE FACT THAT THE CHASSIS IS MAYBE A TINY BIT HEAVIER COMPARED TO THE OLD ONE”**

first year [of the previous generation] we had a bit of an issue with reliability – are remaining the same. They made some small upgrades in the areas that still had some problems – I’m talking small issues – because in the end, the most important part is the reliability.

“I like the fact that the chassis is maybe a tiny bit heavier compared to the old one, but in terms of safety it respects F1’s standards for 2026. I have to say that it’s remarkable, because

thinking so much about the future

and the safety of the driver is absolutely a priority. This is very nice from the series and also from the FIA.”



# NOT ALL BRAWN AND NOISE

BriSCA F1 stock cars are powerful and dramatic machines, but don't underestimate the work that goes into making them quick

BY MARK PAULSON



**A** highlight of the Live Action Arena at this weekend's Autosport International will be the ever-popular BriSCA Formula 1 stock cars. These V8 monsters are designed to race on short ovals and thrill with their fast-paced display and an aural assault that makes the grandstands shake.

But while BriSCA F1 machines are used to turning left, left, left and left again, Birmingham's National Exhibition Centre isn't quite their natural habitat. From March to November they compete on quarter-mile ovals, paved or with loose shale surfaces. Over a 70-year history, the formula has evolved from genuine 'stock' cars to highly specialised purpose-built machines with huge power combined with mean-looking steel bumpers and side rails to withstand the rigours of full-contact racing.

Perhaps the most visually striking feature of a BriSCA F1 stock car is its huge roof-mounted wing. These developed in two different directions: relatively conventional downforce-producing devices for sealed-surface tracks, and much taller,

almost sail-like, sloping wings for racing on shale. Stability is key on the loose surface, where drivers also use the throttle to turn.

"When you pitch it into a corner, the stability of the wing holding the car is just immense," explains three-time world champion Frankie Wainman Jr, whose self-built #515 car is a staple of the Live Action Area. "It's very simple – you take the wing off, go into the corner at the same speed and it'll spin straight round."

Relatively low speeds make the benefits of genuine downforce marginal, even on asphalt. Wainman admits that it can be hard to notice, but a larger wing helped him win the Long Track World Championship's final edition on Baarlo's 1000-metre oval in the Netherlands in 1998. "Over there we'd be doing 120/130mph," he says. "Boy, did it work."

Stuart Smith Jr, who was forced to retire through injury shortly after winning his second world title in 2018, is a disciple of downforce on both surfaces. He continues to build cars that, unusually, feature similar wings for asphalt and shale. Smith's





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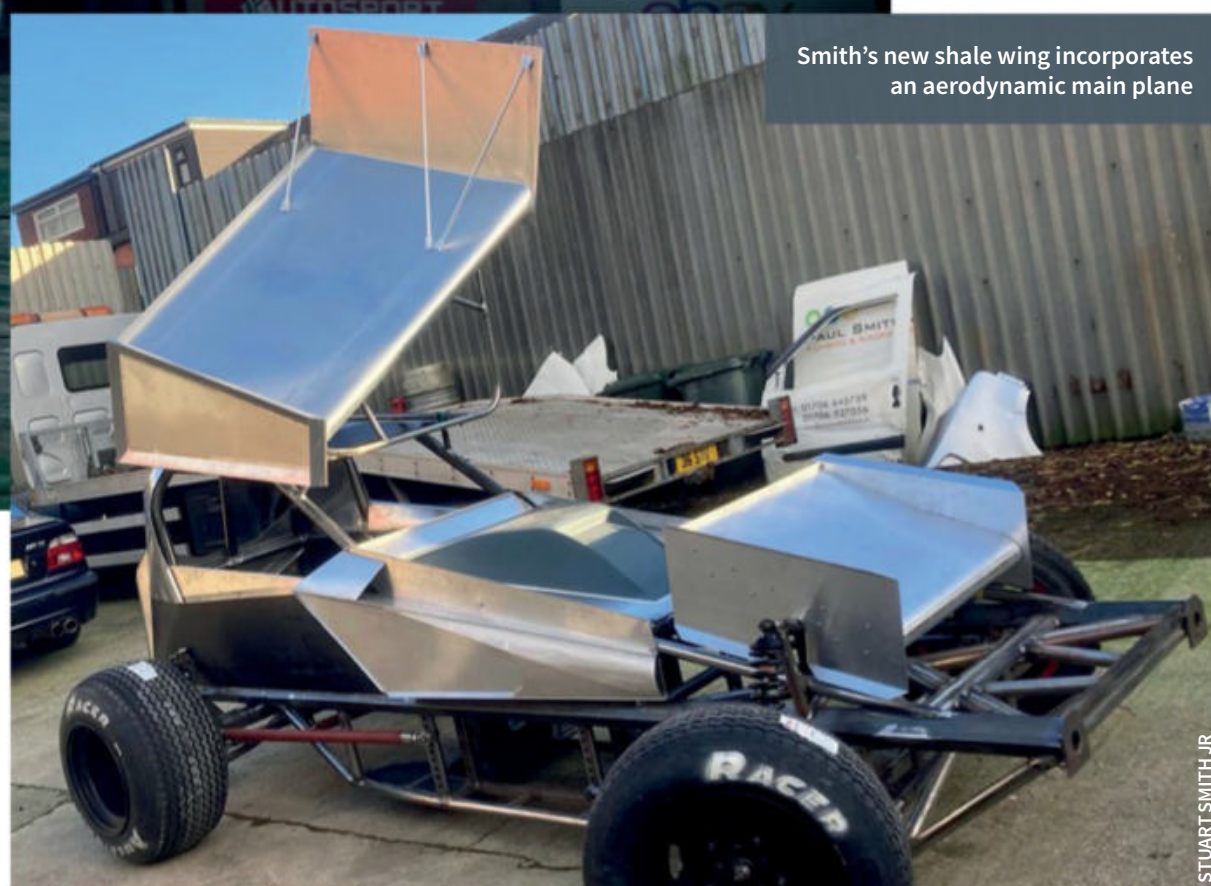
On loose surfaces the  
throttle is used to help steer

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Despite recent restrictions, engine  
performance is deeply impressive

ANTHONY JENKINS



Smith's new shale wing incorporates  
an aerodynamic main plane

STUART SMITH JR

wing, mounted high for a cleaner airflow to the aerodynamic main plane, rewards a neater style of driving deep into the bends before making a sharper turn.

"I wanted a wing that would keep my car straight entering the corner," Smith explains. "And not necessarily one that holds you when you're broadside. The car instantly had understeer into the corner, and we developed the set-up around that, and it worked. My shale car was arguably the quickest in the sport."

For 2024, Smith is incorporating a conventional shale wing's slope into his design, but with an aerodynamic profile. It's been developed based on driver feedback and his own experience. "In stock car racing, you don't have the time [to go testing]," he admits.

The wings give F1 stock cars their unique look, but arguably the biggest performance differentiator – especially on asphalt – is under the bonnet. Almost anything goes, so long as it's normally aspirated and fed through a carburettor. In practice, that means big V8s. Massive big-block Chevrolets were once common but are now outnumbered by small-blocks, typically in 5.7-litre form, particularly on asphalt where engine-braking is more significant.

A limit of 7500rpm is a relatively recent restriction to keep costs in check. "People were spinning them to 9000rpm and the engine-braking you get from that on Tarmac is immense," explains Wainman. "An engine that revs to 7 and

an engine that revs to 9, it's like 30 grand's worth of difference."

Despite pump fuel effectively imposing a compression limit, headline power figures are north of 650bhp. "I do know lads now that are running 760-780bhp," reckons Wainman. "If they were open compression, you'd be up to 850/900bhp."

Development focuses on cylinder heads and valves. "It's all NASCAR stuff and then we carry it on," says Wainman, adding: "The tyres we're running now are too good really." ►





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That better grip comes from American Racer rubber, although gravel rally tyres are also used on the inside wheels, which Wainman believes

makes driveability less crucial: “When I was doing a lot of winning back in the day, you could have too much power. I had 500bhp and it was so easy to drive. They’re getting a bit lairy now, but the tyres are that bit softer and a bit wider, and it’s working for them.”

More power increases strain through the rest of the drivetrain. Most cars use the two-speed gearbox developed by celebrated drag racer Doug Nash. The rear axle was traditionally based on a Ford Transit’s, but the Ford 9-inch is now used to better handle the power. Suspension is largely free, except for (adjustable) spec GAZ shocks, leading to a variety of geometric solutions, but a simple Panhard rod is often favoured for its wide operating window and robustness. “I’ve spent years messing about with Jacob’s ladders [as used on Sprint Cars] and Watts linkages,” says Wainman, “but you get reliability with Panhards.”

Locked differentials would cause understeer on corner entry were it not for the significant stagger that’s built into the chassis

“Tarmac, I’ve always said it’s 50% set-up and car, and 50% driver. On shale, it’s probably 75% driver and 25% car”

and adjusted via tyre sizes and pressures. “Hitting the nail on the head is really technical,” Smith says of set-up, which also includes weight

distribution (rules limit maximum rear and inside weight) and brake balance across all four corners. “Tarmac, I’ve always said it’s 50% set-up and car, and 50% driver. On shale, it’s probably 75% driver and 25% car. You can get away with a lot of things on shale – it’s really forgiving.

“But in big races, you tend to be looking at being the fastest in the dry [towards the end of the race]. If you can have a car that’ll survive in the wet and be within touching distance of the fast lads, the time you’ll make up by being quick in the dry is significantly more.

“As agricultural as stock cars may seem on the outside, to get them to their best performance and win the big races, you’ve got to know what you’re doing.”

He adds with a chuckle: “But you know the beauty of stock car racing, I think, is they’ve all got front bumpers, so you can always stuff them [the opposition] in the fence. You’ve just got to hope that you haven’t got a target on your back!” ■

## A BTCC RACER’S VERDICT

“It’s probably one of the best things I’ve ever done in a race car,” enthuses Bobby Thompson, a British Touring Car Championship podium finisher. Thompson drove world champion Tom Harris’s machine from last to fifth in BriSCA Formula 1’s BTCC Challenge Trophy for tin-top stars at Skegness Raceway last November, and won the 2022 edition.

“Looking at the car, you think it’s going to be a bit of a boat, because of how big and heavy they are. But they’re actually a little bit more nimble than you first think.

“I think I had nearly 800bhp, so to lay that down is quite hard work. I think I got to full power



once – you don’t really need to. But when you get into a rhythm with it, you can really get an idea of how nimble they actually are when they’re well set up. They’re

quite responsive to every input.

“You can brake a lot later than you think – they stop rather well. And you can come off the brakes a lot, lot sooner than you think

because the thing naturally wants to turn left.

“The only thing that you never get used to is the contact – it goes right up your spine. Even in touring cars, the cars are fairly stiff, but there’s still that crumple zone, whereas in a stock car it’s just metal on metal, and the only bit that moves is you in the middle.

“It’s the scariest thing I’ve ever done in a race car. If you tap someone out the way, you know you’re getting it back twice as hard into the next corner, so you’ve got to do the bloke in front fairly good so he doesn’t come back at you!

“But it is really fun. It’s definitely something I would be keen on doing again.”



# HOW TO BE AN ACE ENGINEER

Ian Morgan reflects on over three decades of success in single-seaters and sportscars

BY JAMES NEWBOLD

**N**ow in his third stint at McLaren, it should come as little surprise that Ian Morgan has a deep passion for the Woking-based giant he first worked for over 25 years ago. “The fact that I’m here now says a lot about the company and why after my initial foray in 1998 I’ve been drawn back every time,” the director of motorsport at McLaren Automotive says.

Morgan ran Nick Heidfeld to the 1999 Formula 3000 title as a race engineer with its West Competition junior squad, but in a period of stability on the engineering front found it tough to rise up the ranks of its Formula 1 arm. “It was dead man’s shoes a little bit in those days,” he recalls.

A highly successful spell at Red Bull’s F1 team followed, rising from the head of test and development in 2005 to become chief engineer during Sebastian Vettel’s first three world championships. But Morgan felt McLaren “was where my heart was”, and duly returned as chief engineer at Andrew Kirkaldy’s CRS-run McLaren GT operation before car development and servicing was taken in house in 2017.

Morgan is now at the helm of that process, after rejoining the Automotive division in 2019, and has found that his “biggest challenges weren’t ones that I’d had to worry too much about, up to that point in my career”. But while taking a big-picture view of a manufacturer’s customer racing programme isn’t one he’d had to do before, he is clear that he sought to apply the same holistic philosophy in all his positions since starting out at

Reynard as a mechanical engineering graduate from Coventry University.

“It’s easy to get very focused into the area of performance that the car gives the most and put a lot of your effort into that,” he says. “But I’m a big believer that it’s the whole package that needs to be very strong for something to work well.”

During his youth, Morgan had a strong grounding in engineering practice from his father David, a co-founder of Aston Martin-Tickford. He “spent most of my weekends with my hands dirty doing something” and made regular visits to Silverstone with his father, while many an evening was occupied by rebuilding Formula Ford and Clubmans engines.

Reynard technical guru Malcolm Oastler was also “a bit of a mentor” to Morgan, who remembers being “a sponge trying to absorb as much information as I could” on its Formula 3 R&D team. Oastler made the introduction to Pacific Racing chief Keith Wiggins, and there followed stints with Bowman Racing and West Surrey Racing before linking up with Edenbridge for 1992, where he was given the “opportunity

with a clean sheet of paper to do it exactly how I wanted”. Scooping the British F3 title with Oliver Gavin in 1995 is an experience Morgan describes as “one of the most satisfying things that I’ve ever done”.

“We were having to scrimp and save and find performance around the back of cupboards,” he grins. “We were so determined to do what we needed to do.”

Morgan thought he’d finished with motorsport when he joined Tickford in 1996, but was lured back by the offer from McLaren. He found that his “absolutely amazing” experience in F3000, before assisting Gordon Murray in developing the SLR supercar, was made all the more so by the depth of experience of its personnel. “Many of those guys still work for McLaren now,” he reasons. “The thing that ties the whole thing together really is the people.”

Customer-focused GT racing, he says, is “a completely different way of thinking about things”. But as the marque returns to Le Mans next year in the LMGT3 class with United Autosports, there appear to be more chapters waiting to be written in the Ian Morgan-McLaren story. ■



Morgan heads up the Automotive branch’s motorsport department

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## TOP TIPS FROM IAN MORGAN

- Listen to people. You don’t have to do what everyone says all the time, but take that experience on board, filter it and make sure decisions are the right ones.
- It’s easy for people to get so immersed in the data that they don’t look up. So from time to time shut your laptop, get a feel for what’s going on, and see how that fits into the data.
- You’ve got to enjoy what you’re doing. You’ll give so much more if you find that position.



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