GP RACING

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Why Leclerc is the new darling of Maranello

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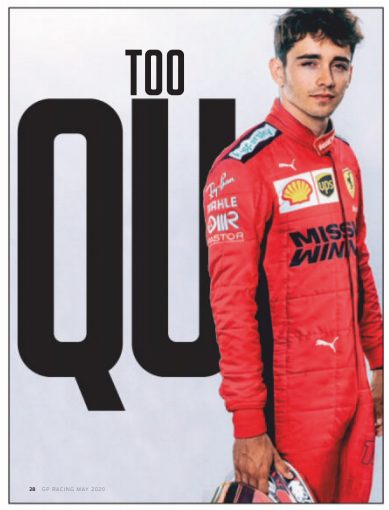
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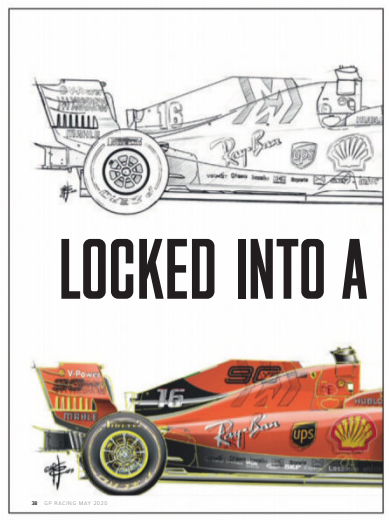
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IGNITION

MAY 2020



Ben Anderson

@BenAndersonF1

Stakes are high in F1's poker game

Strange times these for Formula 1, which clings desperately to the hope of resuming racing before everything falls apart. As races continue to fall by the wayside (ten and counting at the time of writing), decimating F1's income as teams beg for handouts from Liberty Media simply to stay afloat, FIA president Jean Todt is right when he suggests this is an existential crisis for grand prix racing, and indeed all of motorsport.

Even in these extraordinary times of crisis, F1's game of high stakes poker rages on off track. Franz Tost says each lost race is costing his team €2million; Claire Williams suggests her team won't survive if racing doesn't happen at all in 2020; McLaren now calls for F1 to go further and faster with drastic changes to monetary policy: 'slash spending and save our sport'.

Ferrari bristles, but will probably blink first in the end. Or the FIA may force the issue using fresh regulatory powers. A budget cap lowered from $175million to $145million by consent may be lowered further to $100million in the coming years, or even lower still. For so long unthinkable, this could become F1's new lower-cost reality. Regardless of politics, the future – if F1 has a future at all – *must* look very different to what we've known before.

Strange times indeed.

While F1 remains on ice we thought we'd use this month's magazine to examine in more detail one of F1's major emerging storylines: namely, the growing ascendency of Charles Leclerc inside Ferrari, the subsequent recalibration of Sebastian Vettel's place within that team, and Ferrari's chances of doing anything of note with either of them once racing resumes, given how decidedly iffy the Scuderia's latest F1 design looked during pre-season testing.

Andrew Benson (see page 28) has the inside track on how Leclerc managed, through the force of his personality and driving ability, to become Ferrari's *de facto* number one and convince the management to shell out for a lucrative new long-term contract.

Where all that leaves Vettel is anyone's guess, though the man himself seems determined to dig in and continue the project he began in 2015. Vettel might not be Ferrari's new darling any longer, but as he tells us from lockdown in Germany (page 36) he still wants to be part of the Scuderia's future, whatever that looks like.

Like everyone else out of contract in F1 at the end of 2020, Vettel may have to fly blind before he commits pen to paper on any new deal. As Stuart Codling explains in detail (page 38), the SF1000 wasn't looking particularly useful before the season was paused. New restrictions designed to make F1 more sustainable when it does finally resume may make it even more difficult for Ferrari to catch up.

It seems the Prancing Horse is under fire from all angles in these strange times.

Contributors



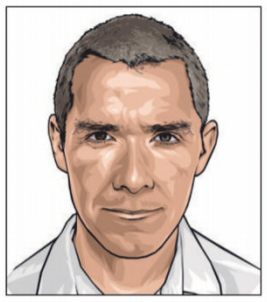
ANDREW BENSON

The rapid journey of Charles Leclerc from F1 new boy to Ferrari top dog is analysed by the BBC Sport's chief F1 writer on page 28



NIGEL ROEBUCK

Our columinist pays a personal tribute to Stirling Moss, the man he thought of as the greatest racing driver ever (page 46)



STUART CODLING

Another busy month for 'Codders'. In between podcasts and quizzes, he penned pieces on Ferrari (p38) and the Brabham BT24 (p78)



DAMIEN SMITH

Damien kicks off another of his great team works with the history of Williams from the early days up to 1982 (see p68)

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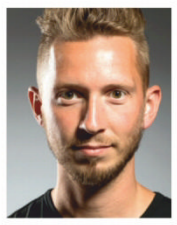
F1 PARADE

motorsport IMAGES

Max hits the big time in Barcelona

This month we'd have been returning to Spain for the first time since pre-season testing. In the absence of a Spanish Grand Prix – for now – we've looked back through the Motorsport Images archive for some of our favourite shots from years past.

This is Max Verstappen on the way to his maiden F1 victory, with the main grandstand and spectator mound forming a nice graphical sweep in the foreground and background. You couldn't do this shot in the morning because the sun would be illuminating the people sitting in the grandstand and it would make the image look too busy. A large aperture size keeps the foreground out of focus, leading your eye to the car.



Photographer
Andy Hone
Where Barcelona, Spain
When 2.50pm, Sunday
15 May 2016

Details Canon EOS-1DX MkII, 500mm lens, 1/2000th @ F4


UBS
F


Mercedes-Benz
Mobil 1
West
BOSS
HUGO BOSS
WARSTEINER

F1 PARADE
motorsport IMAGES

Make way for the champion

Hailing from the days when we shot almost exclusively on film, this image has become separated from the identity of the original photographer, though they were definitely a member of my Motorsport Images team. If memory serves, Marlboro used to sponsor the Spanish Grand Prix and its promo girls used to form a 'human corridor' for the drivers as they walked to the truck for the pre-race drivers' parade.

Nowadays a lot of the drivers dash along with their heads down, not particularly wanting to be photographed candidly, but Mika Häkkinen never minded having his picture taken. As a photographer it's great when your subjects don't try to hide from you...



Principal photographer
Steven Tee
Where Barcelona, Spain
When 12..00pm,•Sunday 30 May 1999

Details Canon EOS-1N, Fuji Velvia film
85mm lens, 1/500th@ 5.6


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F1 PARADE
motorsport IMAGES

In the right place at the right time

In 2016 I was photographing the GP2 Series for Motorsport Images but also supporting the F1 team, and one of my tasks for the Spanish Grand Prix weekend was to stand at Turn 4 and capture a multi-car shot of the opening lap for a commercial client – can you guess who?

The big gravel trap here doesn't make for great art, and most of the first-lap action happens at the opening three corners, so I was on my own for the start of the race. I certainly wasn't expecting to come away with one of the defining images of the season as Lewis Hamilton and Nico Rosberg took each other off.



Photographer
Zak Mauger
Where Barcelona, Spain
When 2.03pm, Sunday 15 May 2016

Details Canon EOS-1DX, 70-200mm lens, 1/2000th @ F2.8

F1 PARADE

motorsport IMAGES

Enjoying the moment

Mark Webber perhaps didn't win as many grands prix as his talent deserved, and he certainly never got bored with winning – you can see his unbridled joy as he lets rip with the champagne here.

Being part of a team of photographers gives you more flexibility to be creative, and earlier that weekend I'd spotted the opportunity for a side-on podium shot with the smoked-glass media centre windows fading into the background. It would only work if the drivers came forward, but I knew my colleagues would be covering the front-on angle. With the current parc ferme rules, you can't do this shot any more because you're not allowed to stand there.



Photographer
Glenn Dunbar
Where Barcelona, Spain
When 3.50pm, Sunday 9 May 2010

Details Canon EOS-1D MkIV, 600mm lens, 1/500th @ F5


1ST
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F1 PARADE

motorsport IMAGES

Fernando Alonso in his pomp

The Spanish Grand Prix wasn't always well-attended but 2006 was Peak Alonso. I'm sure I remember sending the photographer who took this picture down to Turn 3 for the race start, but he has no recollection of it, so it's tricky to say who actually authored it! I really like it because it captures a significant moment and it's all about the fans.

A composition like this wouldn't work as a single-car shot but, with the whole field streaming through and the home hero at the head of the train, you can almost feel the electricity in the air. There must have been 150,000 people there that day.



Principal photographer
Steven Tee
Where Barcelona, Spain
When 2.00pm, Sunday
14 May 2006

Details Canon EOS1-V
Fuji Velvia film,
300mm lens, 1/500th @ F7.1

01 | **TEAMS BATTLE FOR SURVIVAL**
Cashflow crisis hits competitors

FORMULA 1 FEELS THE COVID PINCH

01 **Two months on from the aborted** season-opening grand prix in Australia, Formula 1's teams have had to embrace radical measures to shield themselves from the financial impact of not going racing. Cancelled and postponed events, plus sponsorship payments and other business interests being hit by the economic slowdown triggered by the COVID-19 pandemic, have induced an acute cashflow crisis which has moved some teams to seek advanced payments from Formula 1 itself.

UK-based teams have taken action to reduce their costs including the imposition of 'temporary' pay cuts and placing staff on furlough, taking advantage of the government scheme to protect jobs. The commercial rights holder Liberty Media is not immune, since it funded its acquisition of the business through debt, though the underlying strength of the business – underpinned by multi-year contracts with venues – should give it wriggle room if it were to breach leverage covenants.

The credit rating agency Moody's downgraded F1's outlook from 'positive' to 'negative' at the beginning of April to reflect lower earnings expectations, but added, "Formula 1 has strong liquidity and a sufficiently flexible cost base to manage through a severely curtailed 2020 season, which Moody's consider would likely be able to support a full cancellation."

While the commercial rights holder may have the



financial muscle to withstand a wipe-out, many of the competitors do not, which is why they have been driven to extreme cost-saving measures. It's significant that McLaren, which is majority-owned by Mumtalakat, the Bahraini sovereign wealth fund, was the first team to furlough staff and has been one of the most vocal advocates for a lower budget cap. The original figure for this, due to be introduced in 2021, was $175million a year. While the teams have agreed to this being reduced to $145m in the wake of the pandemic, further discussions of a proposal to drop it to $130m in 2022 ended in deadlock.

McLaren says these proposals don't go far enough – and that $100million should be the figure. This has placed it in direct opposition to Ferrari, which had dug its heels in over the $145million proposal, calling it a "demanding request" which would result in too many job losses.

"We're in a situation now where if F1 goes by its old habits we're all at extreme risk," said McLaren CEO Zak Brown, who went on to accuse Ferrari of "living in denial".

"IF WE DON'T DRIVE A GRAND PRIX, IT WILL COST ONE AND A HALF TO TWO MILLION. IF WE START RACING IN JULY, WE'LL GET OFF WITH A BLACK EYE"
FRANZ TOST



For all concerned with Formula 1, a resumption of racing can't come soon enough

Since the teams' share of the commercial rights revenue is paid in monthly instalments, based on the previous season's income, a truncated or cancelled 2020 season would continue to impact upon teams through next year in the form of a smaller prize 'pot'. And the nature of the contracts means that teams are already losing revenue – Scuderia AlphaTauri team principal Franz Tost put the figure at up to €2m for each lost race.

"The contracts are designed in such a way that we lose revenue proportionately if races are not run, because the agreed amount is then reduced," he said. "If we don't drive a grand prix, it will cost one and a half to two million. If we start racing in July, we'll get off with a black eye."

F1 has also begun to pay the most cash-strapped teams early. In one of his regular conference calls with Wall Street analysts, Liberty Media CEO Greg Maffei said it was necessary to protect the "ecosystem" of F1.

"We have advanced money in advance of team payments for certain teams already," he said. "There are cases where we may do more of that; there are other things that we might do to bridge teams that might need help.

"We want to make sure teams are solvent because they are part of what we need to race successfully in 2020, 2021, and beyond. We may be sufficiently capitalised to handle that for 2020, but there are teams which will incur costs, particularly those which don't have minimum guarantees from F1, and one of the major – if not their major – source of revenue is their share of the profits."

LIBERTY PUSHES ON WITH F1 RESTART PLAN

02 **Since Formula 1's commercial rights** holder needs to keep the cash flowing for its own sake as well as that of the competitors, it is proceeding with plans to put together some sort of racing season if global conditions allow. Although the international situation remains in flux, and COVID-19 is expected to impact upon our daily lives for the foreseeable future, F1 CEO Chase Carey has outlined plans for a calendar featuring between 15 and 18 races.

This schedule could begin in Austria on 5 July before moving elsewhere in Europe, then on to Asia and the Americas before finishing in the Middle East with Bahrain and Abu Dhabi in December. The early races will involve transporting the minimum number of staff to make the events viable and safe, and will not be open to spectators.

"We expect the early races to be without fans but hope fans will be part of our events as we move further into the

schedule," said Carey. "We still have to work out many issues like the procedures for the teams and our other partners to enter and operate in each country. The health and safety of all involved will be priority one and we will only go forward if we are confident we have reliable procedures to address both risks and possible issues."

Given that COVID-19 is likely to remain endemic for many months, F1's plans centre on creating a protected environment for staff. The Red Bull Ring has the virtue of being relatively remote, but well serviced by local infrastructure – which includes an airfield. Charter aircraft could fly into Fliegerhorst Hinterstoisser, the military airbase formerly known as Zeltweg – site of the Austrian GP in 1964. At the track, F1 aims to establish what managing director of motorsports Ross Brawn described as a "biosphere", opening up the possibility of hosting a second grand prix there the following weekend.

"One of the logistical challenges is getting everyone tested and cleared to enter the paddock and enter the racing environment," said Brawn. "Once we do that, it's very attractive to keep everyone in that environment, within that kind of biosphere that we want to create, for another race. It's also pretty challenging to find the right sort of races early on where we can control the environment well enough. Therefore once we're there, it's appealing to have another race the following week."

GP Racing understands the plans would involve a minimum number of operational staff from each team, around 80, all of whom would be tested before departure. Each team would travel together and stay at the same hotel; then, at the venue, they would be screened regularly while avoiding contact with personnel from other teams.

Silverstone has also indicated it could host events under similar protocols. The situation elsewhere is complicated by official restrictions on sporting events in different countries. In France, sporting events likely to attract over 5,000 people are banned until September, which is why the promoter of the French GP has ruled out Paul Ricard in 2020. The Belgian government has imposed similar restrictions until 31 August. It's likely the season will be remapped rather than simply running as originally planned from the Austrian GP onwards.



Silverstone has said it could host two grands prix if racing is able to restart

Racing further afield from Europe will bring further challenges beyond simple logistics. For instance, the Paddock Club buildings at the Autódromo Hermanos Rodríguez in Mexico City are being converted into a temporary hospital to provide surge capacity, including a 26-bed intensive care unit. Will that still be needed at the end of October, when F1 is scheduled to arrive there?

RACING FOR HEALTH AND ONLINE LARKS

03

So often the subject of negative headlines in the mainstream media, F1 became the focus of good-news stories as the teams came together in 'Project Pitlane', a co-operative scheme to fast-track breathing aids into production (see *Under the hood*, p22). Even old feuds

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> Now That Was A Car: McLaren M14
> Motorsport Images showcase: the French Grand Prix

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were set aside for the common good: Renault staff, including the veteran technical adviser Bob Bell, worked at the Red Bull factory. While the BlueSky ventilator design was ultimately shelved because COVID-19 treatment requires a more sophisticated alternative, teams continued to work collaboratively with a consortium fulfilling over 20,000 orders for the Rapidly Manufactured Ventilator System (RMVS) after it received official approval.

Mercedes and the University College London Hospital co-designed a new continuous positive airway pressure (CPAP) device, suitable for patients not yet requiring a ventilator. The Mercedes-High Performance Powertrains facility in Brixworth was turned over to production of these devices, manufacturing up to 1000 a day.

F1-related activity remained forbidden, though, and at the end of April the FIA bowed to the inevitable, extending the factory shutdown for a second time that month. Having been brought forward from August, the three-week 'summer' shutdown was expanded to five weeks and then to 63 days, with the caveat that after 50 days teams could deploy up to ten personnel "to work remotely on long-lead-time projects".

"F1 BECAME THE FOCUS OF GOOD-NEWS STORIES AS THE TEAMS CAME TOGETHER IN 'PROJECT PITLANE'"



Mercedes co-designed this CPAP device with University College London Hospital and manufactured them at its Brixworth facility

While F1 is beginning to draw up plans for the resumption of racing, the teams face a separate but related challenge in terms of how factory staff go back to work. In the UK, where the majority of teams are based, the government's furlough scheme is currently operating until the end of June. As this edition of *GP Racing* closed for press there was no fixed date for the end of lockdown, but even after restrictions are eased it is likely social distancing will be necessary for months to come – which will have a significant impact on working patterns.

In Italy, Ferrari announced at the start of May that its road car factories in Maranello and Modena would resume operations "gradually" under the company's Back on Track scheme, which involves blood tests for COVID-19 and a track-and-trace app. This will be extended to those in F1 activities once the mandatory shutdown period ends.

Online racing has grown in popularity for fans starved of action – and for F1's drivers, too. Lando Norris is at the head of this movement (see *Virtual F1*, p92) and even Sebastian Vettel, a conspicuous absentee from the world of social media, has bought a simulator rig so he can get involved. F1 has hosted a Virtual GP series including 'celebrities' as well as drivers, while Norris has entered the Supercars All Stars Eseries and an IndyCar iRacing event – though the latter ended badly when he was taken out deliberately by 2019 Indy 500 winner Simon Pagenaud.



F1 MASTERMIND

Your chosen specialised subject: the world's greatest motorsport

Q1 In 1988, when McLaren won 15 of 16 races, how many times did the team's drivers finish one-two?

Q2 Which christian name has been ever present on the grid since the 2006 season, but will be missing for the first time when racing resumes?

Q3 Which current driver has started tenth or better only six times but finished in the points 15 times?

Q4 In which year did the championship last start later than March: 1978, 1985 or 1988?

Q5 Esteban Ocon has twice finished fifth - his best results - in his Formula 1 career and both were for Force India in 2017. Which races were they??

Q6 When and where did Jonathan Palmer make his F1 debut in a third TAG Williams entry?

Q7 True or false: the last four GPs held at Dijon all had a Renault driven by a Frenchman on pole?

Q8 Since his first win in 2008, Sebastian Vettel has suffered two winless seasons. Which were they?

Q9 2012 was the last season that had two new winners in it. Who were they?

Q10 Who won more world championship F1 races: Jack Brabham or Stirling Moss?



1 Ten **2** Nico **3** Lance Stroll **4** 1988 **5** Spain and Mexico **6** 1983 European GP, Brands Hatch **7** True **8** 2014 and 2015 **9** Nico Rosberg and Pastor Maldonado **10** Moss, (15 to 14)

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THE F1 ANALYST

BEN EDWARDS

@benedwardstv

PICTURES motorsport IMAGES

WILL LOCKDOWN CHANGE MINDS AND DECISIONS?

The coronavirus lockdown has affected our lives in so many ways and the consequences are likely to be game changing. In the escapist yet passionately engaged sport of Formula 1, the teams have agreed to limit some of that future uncertainty by freezing technical regulations until 2022, a resolve which makes practical sense while opening and closing yet more doors for decision makers.

Take Lewis Hamilton, currently free to choose where he goes for 2021. It is now clear the cars will remain virtually unchanged for a longer period. That will surely influence his thinking. Mercedes has dominated the world championship since hybrid engines were introduced in 2014. Without a shift in rules, the team is likely to stay at the top.

Much of the hype prior to postponement of this year's Australian GP swirled around Hamilton's opportunity to match Michael Schumacher's seven world titles and what he might need to do to amass more. Now there's a greater chance Lewis can assemble a record eight crowns staying where he is.

Red Bull's performance may well be more potent when we get back on track, while Ferrari could have used the interval to iron out whatever problems cropped up in pre-season testing, but any temptation for Lewis to use the new regulations as a catalyst to switch to the Scuderia or elsewhere has been seriously diluted.

Eight world championships would be an incredible achievement, unimaginable for so many years yet now tantalisingly possible. Achieving that number would place Hamilton uncontested at the top of F1's success pyramid, and perhaps give him a different perspective on life beyond motorsport.

Assuming the 2021 season is finished by the end of that calendar year Hamilton will be 36, matching Niki Lauda's age when he chose to hang up his helmet. By the time we reach the first race under new rules in 2022, Lewis will be 37, equalling the average age of all the world champions when they finished driving in F1.

Perhaps that's looking a little too deeply into the crystal ball. More immediate is the question of Sebastian Vettel's position at Ferrari, the team that held out longer than most regarding the rules freeze. The hybrid era has not been a great one for either the team or the driver, and losing an chance to reset and refresh must have been uncomfortable.

If Vettel is pondering a switch to another team for 2021, would it make sense to do so before the new rules help to level the playing field? Perhaps his favoured path would be to try to hang on in there for another year, to accept whatever tight-fisted demands Ferrari insist upon, and then analyse the new landscape.

Two other world champions could also be affected by the technical lockdown. Kimi Räikkönen, the 40-year old entering his 18th F1 season in 2020, has delivered solidly for Alfa Romeo and been an asset to the team behind the scenes. With no major changes to the cars his knowledge, experience and uncomplicated attitude might be a real continued help. Currently signed to the end of 2020, an extension of his contract by one year would make total sense; and he'd be able to raise that average age of retirement.

But Fernando Alonso's chances of returning have now surely dipped; the new rules offered potential for outfits such as Renault and Racing Point/Aston Martin, but the freeze makes it harder for them to close the gap to the front and by the time the cars are fully redesigned, Alonso will have been out of regular F1 for three seasons. He was 37 when he last contested a grand prix – the 2018 season finale…

From drivers to team bosses, everyone is having to readjust. Claire Williams knows the current Williams FW43 is unlikely to be a serious contender, but was banking on those new rules to help her famous team start again. Now that era has been delayed, and Williams must fight for pure survival with little prospect of scoring points in the foreseeable future.

Renault publicly expressed its target of fighting for race wins and titles when the revised regulations come into play, but that opportunity has been delayed and in the meantime, the road car industry rumbles through the combined turmoil of coronavirus outbreak and climate change. There's no doubt this delay to the 2021 rules will afford breathing space for everyone to assess their situation, particularly the strain on finances, and to perhaps think again for the future.

For an outfit like Haas, perhaps this gives it more of a lifeline without worrying about the massive investment required to design and build entirely new machines very soon. However, for companies like Mercedes, Renault and Honda it could be a different story, as the corporate directors locked away in conference calls may decide F1 will carry far less significance in a recalibrated future.

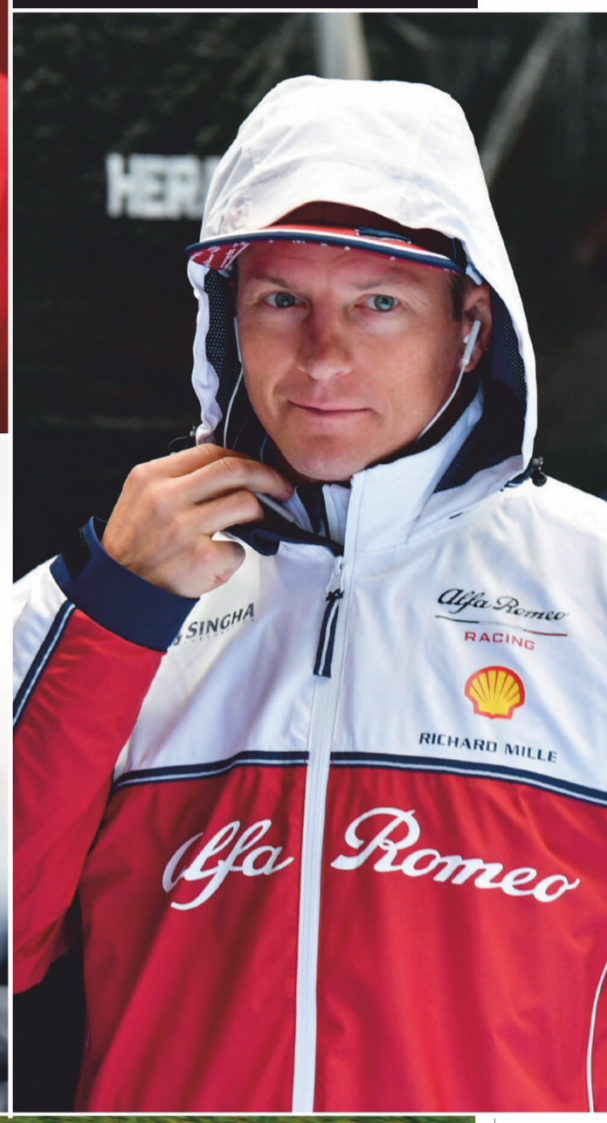
Teams and drivers, indeed all of us, must adapt and find a path in these monumentally confusing times. Seeing F1 teams in the meantime engage with health services by throwing themselves into vital equipment manufacture is truly uplifting.

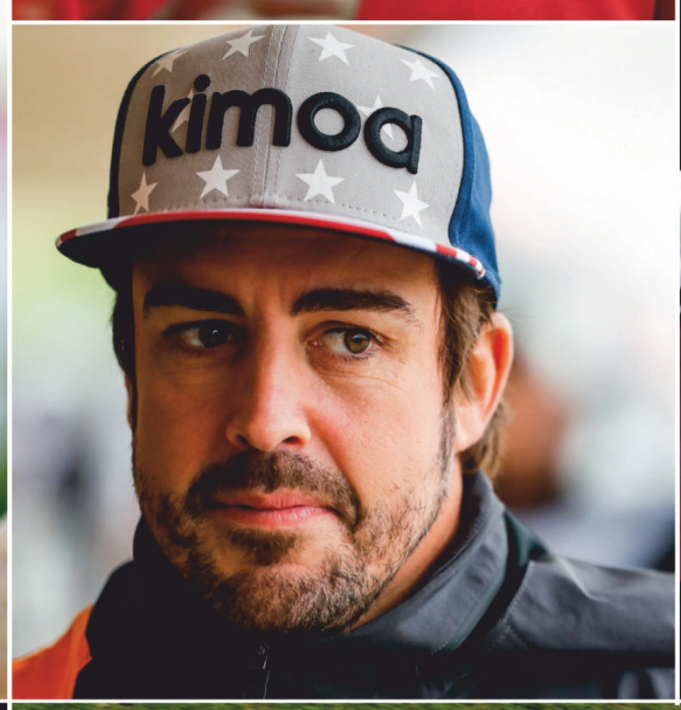
Formula 1 was born out of the crisis of World War II, elevating grand prix racing to a whole new level that has evolved further and with ferocity over the past 70 years. It will survive this drama, but consequences there will be, and we are only scratching at the surface.





The COVID-19 crisis may have consequences on decisions made by or concerning Hamilton, Vettel, Alonso and Räikkönen





The news that 2020 cars will be used in 2021 could give Haas and Renault some breathing space, but for Williams it probably means an extra season as Tail-end Charlie







PICTURES: STEVEN TEE; GLENN DUNBAR; ZAK MAUGER; MARK SUTTON. ILLUSTRATION: BENJAMIN WACHENJE.



UNDER THE HOOD

PAT SYMONDS

PICTURES motorsport IMAGES

INSIDE F1'S FIGHT AGAINST CORONAVIRUS

One of the great pleasures of working in the Formula 1 environment is that it's so agile and dynamic. Throw a new set of regulations at an F1 team and its people will see opportunities that no normal group could imagine. Even more impressive is the way they will execute those opportunities. The competitive instinct of the F1 engineer marries innovation, ambition and pragmatism in a unique way.

When the world was first turned upside down by COVID-19, one department linked to government realised it was an ideal opportunity to use this exceptional F1 ability in a humanitarian manner. When the Cabinet Office put out a call for industry to turn its attention to the manufacture of ventilators for patients in critical care, this department reached out to F1 for help.

That department was Innovate UK, part of UK Research and Innovation, a group that works in partnership with universities, research organisations, businesses, charities, and the government's Department for Business, Energy and Industrial Strategy to create the best possible environment for research and innovation to flourish. The reason that Innovate UK could identify the match so quickly was not coincidental. Its Chief Technology Officer is Mark Gillan, who had a long career in F1 at teams such as McLaren, Jaguar, Red Bull, Toyota and Williams.

On Sunday 22 March, within five days of the call, a meeting was convened at MK7, the home of Red Bull Advanced Technologies and the design home of the Aston Martin Valkyrie. Representatives of the UK-based F1 teams were present along with representatives from Olympus Medical, the COVID-19 lead from the Association of Anaesthetists, the national clinical lead for innovation at NHS England, representatives from the medical branches of the military, and many others.

Once the general problems had been explained by the clinicians present, a presentation was given of a device, originally conceived for military use, that appeared to be a good base for a novel, rapidly manufactured ventilator to bridge the gap between the relatively simple Continuous Positive Airway Pressure (CPAP) devices and the extremely complex intrusive ventilators used in intensive care departments. The device, known as Remora and later named Bluesky, was probably at a technology readiness level (TRL) of around three – meaning that it had reached proof of concept but no further. In normal circumstances, to get from TRL3 to TRL9, where a device is fully qualified and deployed in production quantities in an operational environment, would typically have taken around two years. Project Pitlane, as the group of teams became christened, challenged themselves to complete the task in four weeks.

Bearing in mind this included fundamental design, mechatronics, prototype endurance testing, electronic and printed circuit board design, software programming, failure mode analysis, testing



The Remora/Bluesky device is a great example of the ability of Formula 1 teams to innovate

PICTURES: PAT SYMONDS; JAMES TYE/UCL/MERCEDES. ILLUSTRATION: BENJAMIN WACHENJE



Mercedes was contacted to help reverse-engineer the CPAP device known as Whisperflow

and certification, they set themselves an enormous challenge.

In parallel with this, other projects were ongoing. UCL hospital in London made independent contact with Mercedes High Performance Powertrains, seeking assistance in reverse-engineering a simple CPAP device known as the Whisperflow. This was a purely mechanical and fluidic apparatus, but as it was no longer manufactured it had to be reverse-engineered and CAD models produced to enable rapid CNC machining to take place. This, as well as production of the first batch of devices, was achieved within days and by mid-April, 10,000 devices had been manufactured. Production peaked on Easter Sunday with 1,230 made on that day.

In typical F1 fashion, not content with accepting a proven design as also being an ultimate design, the team further improved it, resulting in a significant reduction in oxygen consumption, a commodity that was to become scarce if the contagion ever reached its fully predicted strength. As the design rights had expired, Mercedes was also able to make the entire design open source – resulting in 1,445 licences being issued to 105 countries at the time of writing.

The more sophisticated devices made by Smiths in Luton and Penlon in Abingdon were both in full production, but even here F1 managed to contribute. The Smiths device was being built from a suite of outdated 2D drawings, so Williams undertook another reverse-engineering challenge to produce 3D CAD models thereby allowing a much faster production rate to be achieved. Personnel from the teams, on a completely voluntary basis, also helped with production build and end-of-line sign-off for both devices.

> “NOT CONTENT WITH ACCEPTING A PROVEN DESIGN AS ALSO BEING AN ULTIMATE DESIGN, THE TEAM FURTHER IMPROVED IT”

Ultimately, within days of the Remora project achieving Medical and Healthcare Regulatory Agency (MHRA) certification, the Cabinet Office decided that with the reduced number of patients presenting with a need for full ventilation, and with a larger than anticipated influx of ventilators from abroad, the Remora device was no longer needed. It was an enormous disappointment to the team that had been working 15+ hours a day, seven days a week, for nearly four weeks, but in a very professional manner the project was shrink-wrapped and the vast inventory of stock that had been purchased put into government storage in a manner that, should the need ever arise, would allow the project to be picked up again and taken to its conclusion.

In true F1 spirit, rather than remaining downcast, the team working on it immediately started pushing the Cabinet Office for further projects to get involved in to ease the ever-changing situation.

People often underestimate the contribution that F1 makes to society, as it is often not very visible. For example, the aerofoil-sectioned fridge shelves developed by Williams and now fitted to one million fridges in Sainsburys has led to an 8,700-ton CO_2 footprint reduction for the company. In another arena, McLaren has applied F1 data acquisition and analysis techniques to digital healthcare to allow doctors to understand the contributing factors to the onset of type II diabetes.

The examples are many, but perhaps nowhere has the unique ability of F1 engineering to react to the unknown been better illustrated than in Project Pitlane’s response to the ventilator challenge. It is something everyone in the F1 community, from engineers to avid fans, should be proud of.

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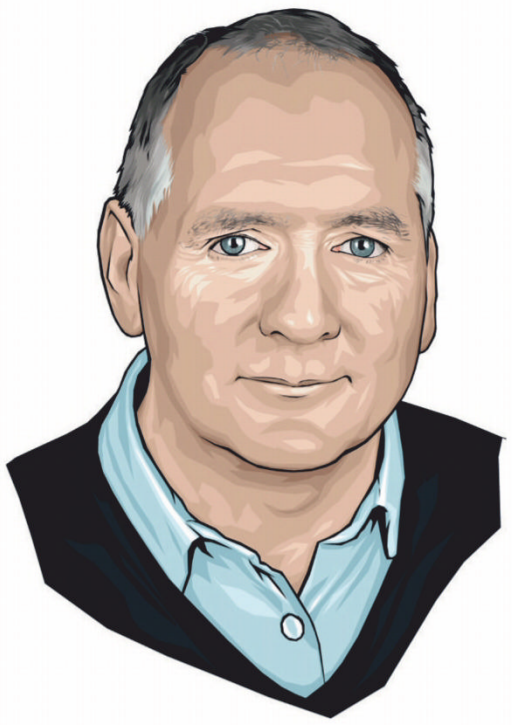


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STRAIGHT TALK

MARK GALLAGHER

@_markgallagher

TRICKY PERIOD AHEAD AS TEAMS TRY TO SURVIVE

When Zak Brown took the decision to withdraw McLaren from the Australian Grand Prix, few imagined that three weeks later teams would be manufacturing medical equipment and furloughing most of their staff. Not only has racing been suspended, Formula 1 is in intensive care.

While F1's CEO Chase Carey talks about restarting the world championship mid-summer with up to 18 grands prix crammed into a congested schedule, possibly spanning the early months of 2021, some teams and many suppliers will struggle to survive that long. This is an anxious moment, and to overcome it will require leadership, patience and creativity.

Carey has the unenviable task of trying to captain the F1 ship through a storm which came out of nowhere to leave us in uncharted territory. His job is to inject confidence but Liberty Media's investors are nervous; F1's share price had peaked at USD$48 per share on 13 January but halved by 1 April.

By then one New York-based investment analyst was asking advisors whether coronavirus represented a short-term problem from which F1 would soon recover, or posed an existential threat. The question rather gave away the thinking.

The COVID-19 pandemic is shaking F1's foundations. Revenue from broadcasters, race promoters, sponsors and licensees are diminished, threatened or gone entirely. For the teams, the only saving grace is that initial payments due from sponsors had already been made. However, those which did pay will want to know that a credit will be applied, and those which haven't are in no rush to settle up in the face of so much uncertainty.

The after-effects of this will likely include a global recession that could comfortably dwarf the financial crisis of 2008, which caused Toyota, BMW and Honda to quit F1, joined by the banks and other sponsors for whom motor racing became irrelevant.

Similar fears are now emerging. With a glut of oil caused by near-global lockdown, exacerbated by a price war between Russia and Saudi Arabia's Aramco – F1's newest sponsor – oil prices have dropped to USD$20 a barrel, down from a June 2008 peak of USD$165. You can be certain that Petronas, ExxonMobil, BP and Shell board meetings will not be spending too much time wondering whether Spa or Monza will take place...

Directors of Formula 1 teams have a number of duties, one of which is to ensure they preside over businesses that are viable, able to meet their obligations and trade legally. With this in mind, there has been a rush to get rid of costs, conserve whatever cash is available and look for ways to generate income sufficient to stay alive as a going concern.

The vast car design, development and build costs for 2020 had already been incurred along with pre-season testing, making the timing of the pandemic a worst-case outcome. The costs of going racing have largely been suspended, most engine costs paused, leaving teams to wrestle with the thorny question of fixed overheads and contractual payments which did not account for COVID-19.

Staff costs have quickly become a focus, since a team with 800 employees on an average salary of £60,000 must find £4m-plus each month, racing or not. This is the stark reality for the Totos, Guenthers and Claires of Formula 1. A crisis, not of businesses, but of people, their families, their wellbeing and survival.

F1 effectively closed for business on March 13 and teams now need to survive until the season restarts



PICTURE: ANDY HONE. ILLUSTRATION: BENJAMIN WACHENJE

THIS MONTH

Mark Humphries

ExxonMobil Sponsorship and Motorsport Advisor

The pioneering synthetic oil Mobil 1 first appeared in Formula 1 as a sponsor decal on the engine cover of the Williams FW07 in 1979. Since then it's adorned race-winning McLarens and Red Bulls too, while ExxonMobil has taken a bigger role in technological development inside the powertrain as fuels and lubricants have become increasingly significant areas of performance gain

CV

2014
Global sponsorship and motorsport advisor, ExxonMobil

2011
Commercial vehicle marketing advisor for Europe, Africa and Middle East, Exxon Mobil

2007
Strategic accounts sponsorship, ExxonMobil

2003
Lubricants marketing manager for UK, Ireland and Benelux, ExxonMobil

2000
Strategic account manager, ExxonMobil

1997
Joined Mobil Oil as a business manager

INTERVIEW STUART CODLING

***GP Racing*:** What does being a sponsorship and motorsport advisor entail?

Mark Humphries: I guess I would use the analogy that I'm the conductor of the orchestra in that I manage the overall relationship with the various race teams and sponsorships that we have, or at least the ones that are in my portfolio. Formula 1 is by far the biggest, for obvious reasons. But the idea is that I kind of act as a central point, both for the team and also for ExxonMobil, for those people in our company, the technology group, the sales organisation and so on.

I'm that centre point that they visit to ask about the sports, whether they can come to a race, or to find out about what we're doing on the technology side. And I pass that through to the team as well. And of course, it's also stewarding the various agreements and obligations that we have to the team and that the team, in turn, has to ExxonMobil.

***GPR*:** Presumably the dealing with ExxonMobil itself must be a big part of the job, since it's a huge and global company with divisions in most territories F1 visits, and they will all want to be plugged in?

MH: It's part of the reason the role is so interesting, because I get to deal with colleagues all over the world and from various parts of the organisation. However, we do take the approach – which may be a slightly different way of looking at it than some of our competitors in the sport – where we do this as a fuels and lubricants business. It's not part of our corporate activities. So we're able to closely focus on what we're doing on the technology on both the fuel and the lubricants. Of course, the rest of the corporation do take an interest in what we're doing because it's a major activity, but they themselves are not part of the sponsorship. It's just a fuels and lubricants business.

***GPR*:** ExxonMobil is one of those sponsors that has changed state, hasn't it? From Mobil 1 arriving as a sticker on a Williams to having a more active role as a technology provider.

MH: Esso and Mobil have been in F1 since day one, since the first grand prix at Silverstone in 1950. And we've been supporting teams across all the decades. Great drivers like Jim Clark and Graham Hill. So we've got a very long heritage. We invented Mobil 1 in the 1970s and really it grew out of motorsport. That's where it earned its reputation. Quite frankly, the car manufacturers at that time felt synthetic lubricants weren't necessary – that they were over-engineered, and the performance wasn't really required, because people changed their oil every couple of thousand miles. And we basically changed the view of that industry by going racing and demonstrating that there was a benefit. The visible moment was putting ourselves into and on the Williams car.

***GPR*:** How has your technology involvement developed over the years? Obviously in the homologated V8 era, fuel and lubricants became a key performance driver. But now power unit development is a bit more open.

MH: I think the principles are still the same. We're still there to get the maximum performance from that car. Essentially it's about releasing the maximum efficiency, getting that Honda engine to deliver 100% of its potential. Every drop of energy in that Red Bull car comes from the fuel, and even the energy from the MGU-K and MGU-H starts with the fuel – they're converting some of that motion back into energy. Our job is to make sure that we get as much of that potential from the engines in a controlled way and then deliver that energy to the track through efficient gearbox oils, hydraulics, greases and all the other things we do on the car as well.

We are able to add significant horsepower throughout the season with what we're doing. It's about making sure the fuel is as powerful as you can make it in every drop, and the lubricant is doing its part to reduce friction, so you're not wasting energy dragging components across each other. And we've always been conscious of fuel economy, because every litre of fuel you put into that car is extra weight, which reduces your speed. We've always been working on those things; it's just more more prevalent now, I guess, with the hybrid technology and the fuel-capacity limits we have.

PICTURE: EXXONMOBIL


Mobil 1
Esso
ASTON MARTIN
Red Bull
RACING

TOO



OK TO IGNORE

Charles Leclerc is Italy's new darling – and when Formula 1 begins again it will be him, not Sebastian Vettel, who will be spearheading Ferrari's world championship assault for the seasons to come

WORDS ANDREW BENSON
PORTRAITS ADRIAN MYERS



As Ferrari's hierarchy surveyed the fall-out from the 2019 Formula 1 season, they knew they had to make a decision.

Charles Leclerc had been in the team for just a year. He had started it as an understudy, cast in a supporting role, charged with learning his craft at the feet of the team's nominal leader. He ended it having beaten Sebastian Vettel on every conceivable metric.

Team boss Mattia Binotto, supported by chairman John Elkann and chief executive Louis Camilleri, looked at the lie of the land in F1 and Ferrari's future within it.

Just 22 years old, Leclerc had proven his right to be at the pinnacle of the new generation of F1 drivers, and they'd seen enough to believe he was only going to get better. Binotto saw a champion in the making, and one Ferrari had created itself, through Leclerc's years in its driver academy.

Ferrari needed to secure him quickly. The team offered him a new contract, a commitment until the end of 2024. And Leclerc was only too happy to sign. It was a significant statement, and the message was clear: Leclerc was Ferrari's future, a man considered ready to assume a mantle previously held by the likes of Niki Lauda, Michael Schumacher and Fernando Alonso.

There had been no single eureka moment, just an ongoing process that led to one overwhelming conclusion: this kid was very, very good.

Leclerc did this through the sheer force of his performances, his speed, competitiveness, will to win and determination not to be subjugated, his desire to prove that he – not anyone else – should be the main man at the team. He had shown a quiet but steely determination to stand his ground, to use all the tools at his command within the team to get the best out of himself.

Ferrari's relative novice had put the proud four-time champion firmly in his place. Not only that, but he had proved a hard worker and a fast learner; robust, serious, driven and resolute, but humble and with a lightness of touch.

Ferrari saw a natural, easy personality, someone spontaneous, open, fresh and usually happy. An inquisitive character who wanted answers, was curious as to how things worked, with a strong focus on using that information to make himself a better driver. Someone whose learning curve had been almost vertical, and a driver who, once a lesson had been taken on board, never required a reprise. Most of all, Ferrari saw a man whose on-track performances had given all the reassurance needed.

Bested by Red Bull's Max Verstappen in Austria, deprived of victory with a controversial passing move with two laps to go, Leclerc immediately realised he could be more robust in his racing than he had previously believed. The result – at the next race at Silverstone – was an exquisitely judged display of defensive racecraft in a 25-lap fight with Verstappen that put many in mind of one of the defining performances of a Ferrari hero of yesteryear, Gilles Villeneuve, in his duel with René Arnoux's Renault at the 1979 French Grand Prix.

A few races later, Leclerc had echoed a different Villeneuve masterclass, this time at Jarama in 1981, showing unflappability under pressure from Lewis Hamilton's Mercedes on his way to victories in Belgium and Italy, in Monza displaying noticeably sharp elbows to keep the world champion behind.

Yes, there had been some mistakes along the way, and he still had a fair bit to learn, especially on the nuances of setting up a car. But that would come with experience, Ferrari was sure.



Leclerc never contemplated quitting after the death of his godfather, Jules Bianchi. His only thought was to improve and make Bianchi proud



STRENGTH IN ADVERSITY

There always seemed something preordained about Leclerc's rise. Many of the qualities a grand prix driver requires to succeed were apparent long before he made it to F1, his strength of character above all.

Leclerc's route to F1 was not an easy one. His abundant talent meant he was marked out for success from an early age; the challenges came off track.

He spent much of his childhood with Jules Bianchi, his godfather, who Leclerc's manager Nicolas Todt says he saw as "a mentor, his hero". Eight years older, Bianchi was instrumental in Leclerc's development as an aspiring young racing driver. Then Bianchi suffered fatal injuries in an accident in the 2014 Japanese Grand Prix, when Leclerc was just 16.

Rather than sow the seeds of doubt, this emboldened Leclerc.

"There were definitely no thoughts any time in my career to stop because of that," he says. "From the beginning when you go into this sport, you know how dangerous it is. Of course, the cars are getting safer and safer, but when you're going at 340km/h, it can never be safe. This, I knew it from the start. And, yeah, I just wanted then to be good for him because he had taught me many things.

"He had always pushed me forward and helped me to get better, and the only thought I had when this happened was just to do good for him to make him proud."

Less than three years later, with Leclerc now in Formula 2, he lost his father Hervé three days before the race at the Azerbaijan Grand Prix. He thought about not competing, ultimately decided he should do so in his father's honour, and produced a defining performance, taking pole by more than 0.5secs and winning both races, even if the second was taken from him.

Todt says: "Between Jules's death and his dad's death, those two very difficult moments that happened in a very short period of time made Charles a stronger person. You are not supposed to go through that sort of thing when you are 15 or 18 years old."

Leclerc puts his ability to compartmentalise grief down to the fact that, under Todt's guidance, he has been working with a sports fitness company on his mental strength "since pretty early on in my career".

"It was really important," Leclerc says. "I really felt the difference. But you can never really prepare for a loss like that. I don't know; I just tried to focus as much as possible on the race weekend, which was very, very difficult.

"To be honest, I didn't manage to fully focus, which is completely normal. Practice went very bad, and after that I just asked myself what he wanted me to achieve on a weekend like this, and the answer came pretty quickly – it was that he wanted me to win. So I just focused massively on that and finally achieved it by winning race one, race two on track, but then we took a 10-second penalty which dropped us to second."



FIXING HIS OWN WEAKNESSES

If a man can cope with such huge life events and carry on so no one would know anything had happened, he is hardly likely to be thrown off course by the professional disappointments that hit F1 drivers in the course of their job.

And so it has proved for Leclerc in his short F1 career so far. He started his first year at Sauber in 2018 with high expectations on him, but his opening three races were shaky and error-strewn, as Leclerc tried to make the oversteer balance he had preferred through his junior career work for him in F1.

The sea change came at Baku, when an enforced change to a more understeer-biased set-up, necessary on a street circuit with so many inviting walls, led to a dramatic change in performance. Leclerc drove superbly to sixth place and never looked back, crushing team-mate Marcus Ericsson over the rest of the year at an average of 0.6secs in qualifying and earning his promotion to Ferrari.

Despite Leclerc's obvious potential, Binotto decided before the season that Vettel would have priority in what he called "50-50 situations". The reasoning was that the vastly more experienced German could reasonably be expected to produce the stronger overall season.

Some questioned the move, given the number of errors Vettel had made in 2017 and 2018. Leclerc himself was disappointed, but understanding. He kept his counsel, said the right things in public, but made clear his intention to force Ferrari into a re-think simply by virtue of proving too quick for them not to. "Once he wants something," Todt says, "he will never give up."

It didn't take very long. In the closing stages of the first race of the season in Australia, Binotto had to impose team orders on Leclerc to stay behind Vettel as the younger man closed on his team-mate on fresher tyres after a later pit stop.

Two weeks later, in Bahrain, Leclerc was in a league of his own, taking pole position, losing out to Vettel and Mercedes' Valtteri Bottas at the start, but coming straight back at them. Against team orders to wait two laps for further instructions, Leclerc swept straight past Vettel as soon as he caught him into a race of his own, which Leclerc failed to win only when his engine lost a cylinder late on.

Hamilton inherited the win, but the message of the weekend was not lost on him. "You drove great," he told Leclerc in the green room. "You've got a great future ahead of you."

In Baku, Leclerc was again looking peerless, only to ruin his weekend with a crash in second qualifying when he should have taken a dominant pole and victory. "Stupid, stupid," he chided himself on the radio, in an early example of the capacity for self-criticism that was to serve him so well.

There were some bumps in the road for Leclerc – qualifying was relatively weak compared with Vettel in Australia, China and Spain. But Canada proved a turning point. In Montréal, Leclerc realised he needed to change his approach.

"In qualifying, especially, I was doing some mistakes and I was not in the position I wanted to be, mostly on the car set-up," he later reflected. "Trying to follow the track evolution. And I focused on that and I improved a lot.

"It was only my second year in Formula 1. Arriving in such a big team, you're a little bit intimidated. Or I was a little bit intimidated.

PICTURES: STEVEN TEE; JERRY ANDRE

> “ONCE HE WANTS SOMETHING, HE WILL NEVER GIVE UP”
>
> NICOLAS TODT

And to straight away say: ‘OK, I want this, this and this’ wasn’t the way I wanted to start this relationship.

“So at first I wanted to understand the car, try to adapt my driving as much as possible. At one point, I managed to do good things adapting my driving style, but then I felt that there was more performance by trying to put the car a little bit more into my direction. So then I could drive a little bit more naturally, which helped me.”

“Charles has the intelligence to be able to address his own weaknesses and to improve them,” Todt adds. “It is a great plus and it is one of Charles’ big qualities.”

Starting in France, Leclerc outqualified Vettel nine times in a row. By the end of the year, he had turned around their qualifying head-to-head from 6-1 in Vettel’s favour after Canada (which should have been 4-3 were it not for Baku and a team strategy error in Monaco qualifying), to a 12-9 advantage for Leclerc.

The new boy was directly undermining the champion, and the strain inevitably began to show in their relationship. After Leclerc


IT IS GREAT KNOWING I WILL BE DRIVING FOR FERRARI FOR FIVE MORE YEARS BUT THIS DOESN'T MEAN THE RESULTS WILL COME, IT IS A LONG-TERM PROJECT AND IT IS INTERESTING FOR MYSELF AND THE TEAM TO BE WORKING ON SUCH A LONG CONTRACT AND BUILD A STRONG RELATIONSHIP THAT WE HOPE WILL BRING A LOT OF SUCCESS
#essereFerrari

had taken his long overdue maiden win in Belgium, his ruthlessness was on show in Monza qualifying a week later, when he failed to abide by an agreement for him to tow Vettel on the final qualifying runs.

The steel was already there, but the win at Spa, taken despite the death of Leclerc's childhood friend and rival Anthoine Hubert in the F2 race on Saturday afternoon, led directly to a shift in attitude. After savouring the cheers of thousands of tifosi on Sunday, Leclerc said: "It was the first weekend when the only thing in my head was winning. Since Wednesday, seeing the support, it was incredible, and the only thing I wanted was to win."

Binotto told Leclerc the win had earned him forgiveness for his qualifying actions. But Vettel was furious, so showed no sympathy in Singapore where, after a brilliant and wildly acrobatic pole lap, Leclerc lost victory to his team-mate when Ferrari inadvertently managed to get Vettel ahead of him at the pit stops when simply trying to vault the German ahead of Hamilton's Mercedes.

Next time out in Russia, it was Vettel's turn to ignore an agreement. He refused to let Leclerc back through after being allowed to tow past the polesitter on the run to the first corner, part of a plan to ensure both Ferraris ran one-two ahead of Hamilton. The team sorted that one out by swapping them around at the pit stops. But although all professed to be getting on, in Brazil the lid blew off the pressure cooker.

In the chaotic closing laps after a late Safety Car period, Leclerc pulled off an uncompromising passing move on Vettel into Turn 1. Vettel sought to re-pass into Turn 4. Leclerc held him tight to the grass, and when Vettel moved across trying to intimidate him out of the way, they collided and both crashed out of the race.







The wins in Italy (above) and Belgium (right) were final confirmation that Leclerc was the future for Ferrari

PICTURES: STEVEN TEE; STEVE ETHERINGTON; SIMON GALLOWAY

PILING THE PRESSURE ON VETTEL



It didn't take much analysis to see which Ferrari driver had come out on top over the season. Despite starting as the number two, and losing out through team orders calls a number of times, Leclerc had beaten Vettel on points, wins, poles, qualifying head-to-head and average qualifying pace.

Where does his speed come from? A similar place to Hamilton's, as it happens. "He's aggressive and uses a lot of brake to rotate the car, so it's always moving," says Red Bull's Alex Albon, Leclerc's team-mate in GP3 in 2016.

"He has incredible feeling on the brakes. You couldn't be quicker than him in a corner by even half a tenth, and sometimes he'd do laps where he braked incredibly late, the car moves around like crazy and it's like 'wow', as he would always come out quick."

First gradually, a little haltingly, and then increasingly remorselessly, Leclerc stripped away Vettel's privileges, and his accession became inevitable and irresistible. Vettel put a brave face on it, but he's no fool. At Ferrari's car launch this February, it was Vettel facing all the difficult questions - about his soon-to-expire contract, his future in F1. And he was not happy about it.

Leclerc stood calmly to one side, his questions all about the expectations that come from that long commitment from the team.

"It is great knowing I will be driving for Ferrari for five more years but this doesn't mean the results will come," he said. "I will be working very hard. It is a long-term project and it is interesting for myself and the team to be working on such a long contract and build a strong relationship that we hope will bring a lot of success."

A year ago, Leclerc needed to earn Vettel's respect and find his place in the team. Now, the dynamics have firmly shifted.

"It is a year after," Binotto said. "Charles has got a year's experience and, while last year we said Seb would be first driver and Charles second, both have proved they can fight for the best results. They will be on the same level."

The Ferrari drivers headed into 2020 – a season now in suspended animation – with positions reversed. Leclerc the new main man; Vettel's future is uncertain, his status changed. Maranello has a new prince.

Andrew Benson is BBC Sport's chief F1 writer

IN CONVERSATION WITH

WORDS JONATHAN NOBLE
PORTRAIT MARK SUTTON

SEBASTIAN VETTEL

Like everyone else, Formula 1 drivers have been on lockdown while the world tackles the coronavirus pandemic. Ferrari's four-time world champion took some time out from training at home and looking after his three children, for a chat

We're all missing sports, you're missing sports and being able to watch other sports – does this period give us time to reflect on what sport means in our lives, and when we come back should we reflect on that and appreciate what we're doing?

The big change is that we don't have a normal daily routine. Routines are good in life. And I think sports is a way for most people to switch off, to do something else. In this regard, it's very powerful. Normally one of the first things I check when I open the newspaper is the sports section. And right now, there's nothing happening. The circumstances are rather sad but it's a great chance for all of us to reset and try to figure out what's really important in life.

With the prospect of there being no races until at least the European summer, probably later, how does this affect the contract negotiations with Ferrari – will you need to reach a new deal before there's even been a race?

I think it depends [on] when we will have the first race. One of the key things right now for everyone, no matter whether you're in sports or not, is to remain patient. There is a chance we will have to make a decision before [the first race], because at the moment it looks like there will be no race before July. We are all waiting. But the main priority at first was to ensure we're dealing in the right way with the [coronavirus] situation, and therefore everything was put on hold. I can imagine that's probably the same everywhere else. I think we will make progress, but I don't think there's a real timeline.

So, you have decided you want to stay?

Yeah I think I've made that clear, at the [pre-season car] launch or even in Australia. Whatever the deal will be like, I think it will be what whatever I and the team will be comfortable with. In terms of duration, normally the contracts I've had in the past were all three-year deals. I know that I'm one of the more experienced drivers in Formula 1, but I'm not the oldest and I don't think there's an age limit in this regard.

With the rules delays do you still want to be part of F1's new era?

I'm sort of half and half, because on the one hand I was quite looking forward to driving the new cars. Now that's not going to happen for another year, which is sad. On the other hand, the cars now will be, by the sounds of it, still quite a bit faster than the new ones. [Whether] going faster is more exciting than slowing down depends on the trade that comes with it: if the racing is so much better then I think we will forget very quickly, but if the racing happens to be the same and the cars [are] just slower that's a worse compromise. I think everybody understands why we are pushing these rules back. It's not yet clear exactly if next season will take place in the normal manner.

Some of your rivals have been staying sharp with sim racing – are you tempted to join them?

Well the truth is, I didn't have a simulator until recently so I have not been tempted because I didn't have the chance. I have heard a lot about it so I thought I might get one and try, but I need to set it up properly. I'm not going to foresee a career in sim racing, I think it's more something to try for fun. I grew up with some of the stuff and I've been playing some games, but to be honest since I had kids it's not the first thing on my list to do. I still love racing and I miss racing. I want to be back in the car. I miss the sensation of driving – there is nothing really that can replace that.

> "WHAT WE WOULD ALL LIKE IS TO GET BACK TO NORMAL, NOT JUST FOR F1'S SAKE BUT FOR EVERYBODY'S SAKE"

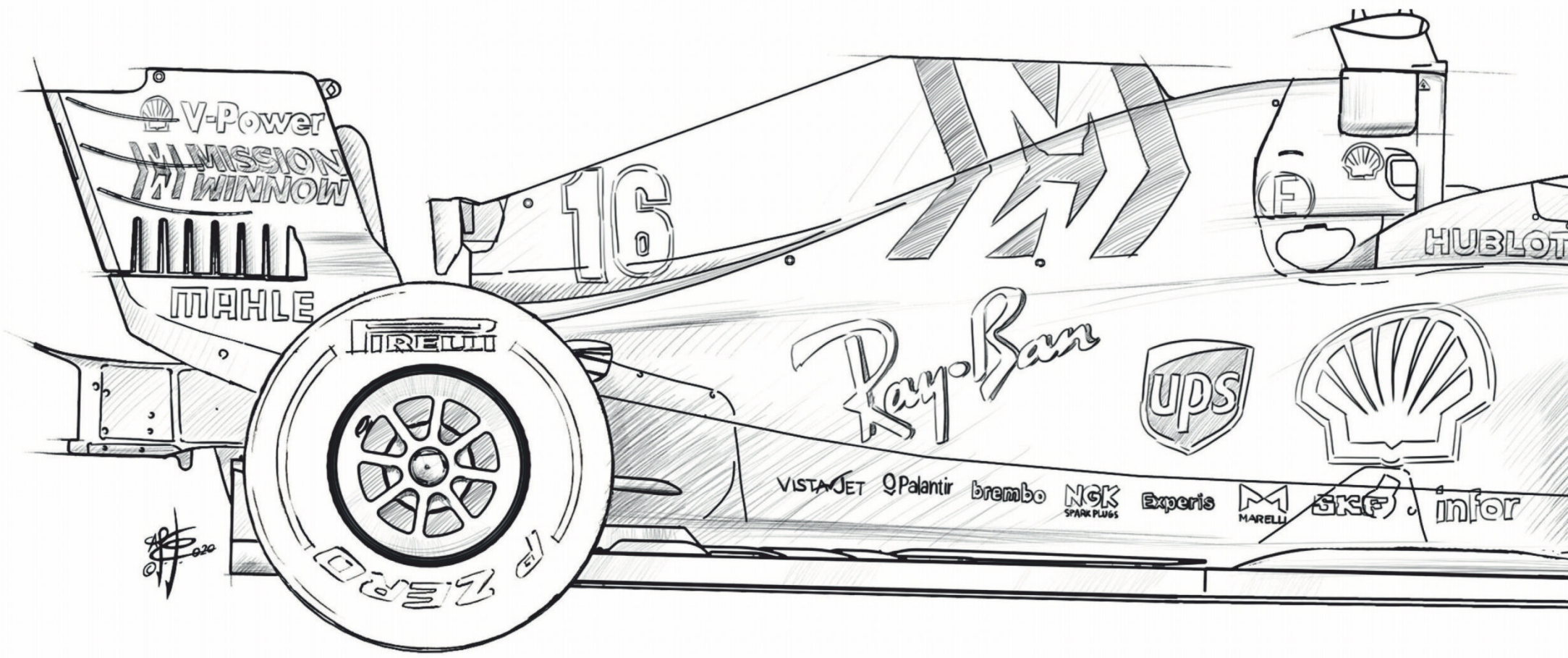
How should F1 handle its return. Is this something the GPDA has talked about?

Nobody likes to race in front of empty grandstands. On the other hand, the question is obviously when is the right time to start racing again? And whether a 'ghost race' could be held a lot sooner than a race as we are used to. There's a lot of things on the business side involved as well. What we would all like is to get back to normal, not just for F1's sake but for everybody's sake. It is painful because I want to get back in the car, and if I'm selfish I want to race. Probably the first couple of races will be compromised compared to what we're used to, but hopefully not too much because we want to race in a way we are all familiar with: meaning in front of crowds with great atmosphere.

Will we see a different F1 when this is over?

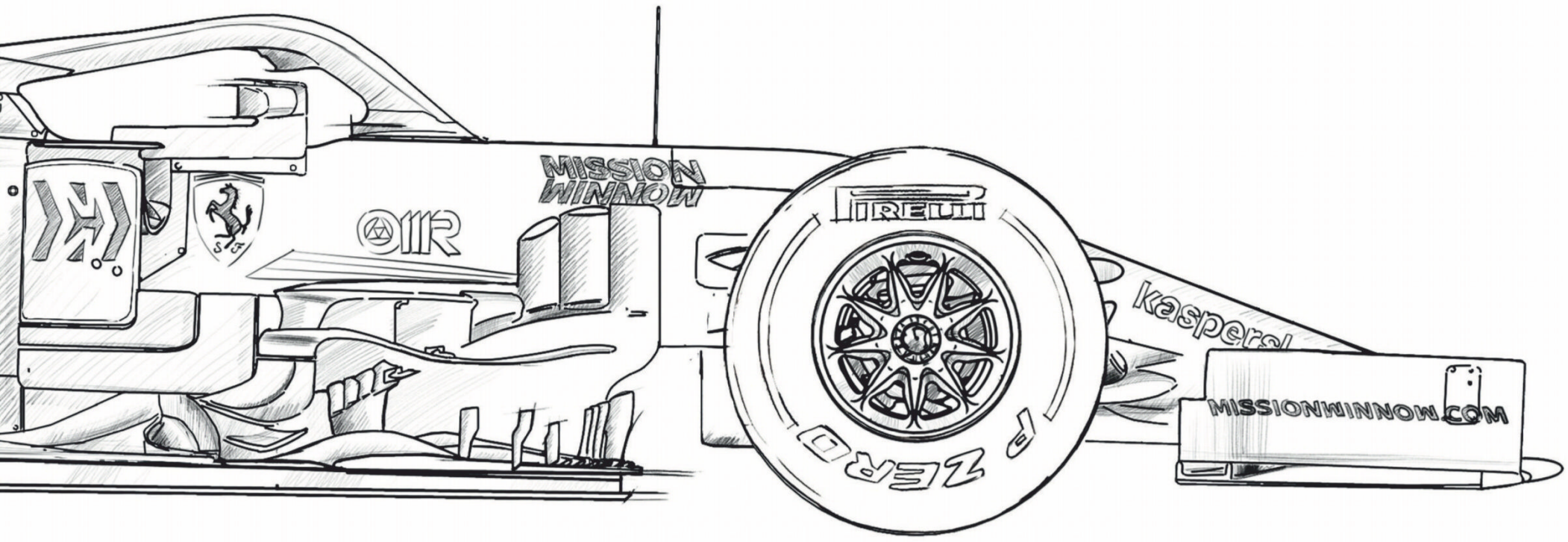
It would help the sport to come closer together in order to then have better racing and a better sport – that would be a good side effect. But we will only be able to judge once we have some concrete decisions in our hands and then see how they work in in practical life. Definitely for some of the smaller teams this situation is putting existence in question, and it's quite extreme. As a family of Formula 1, I think we ought to look out for each other.


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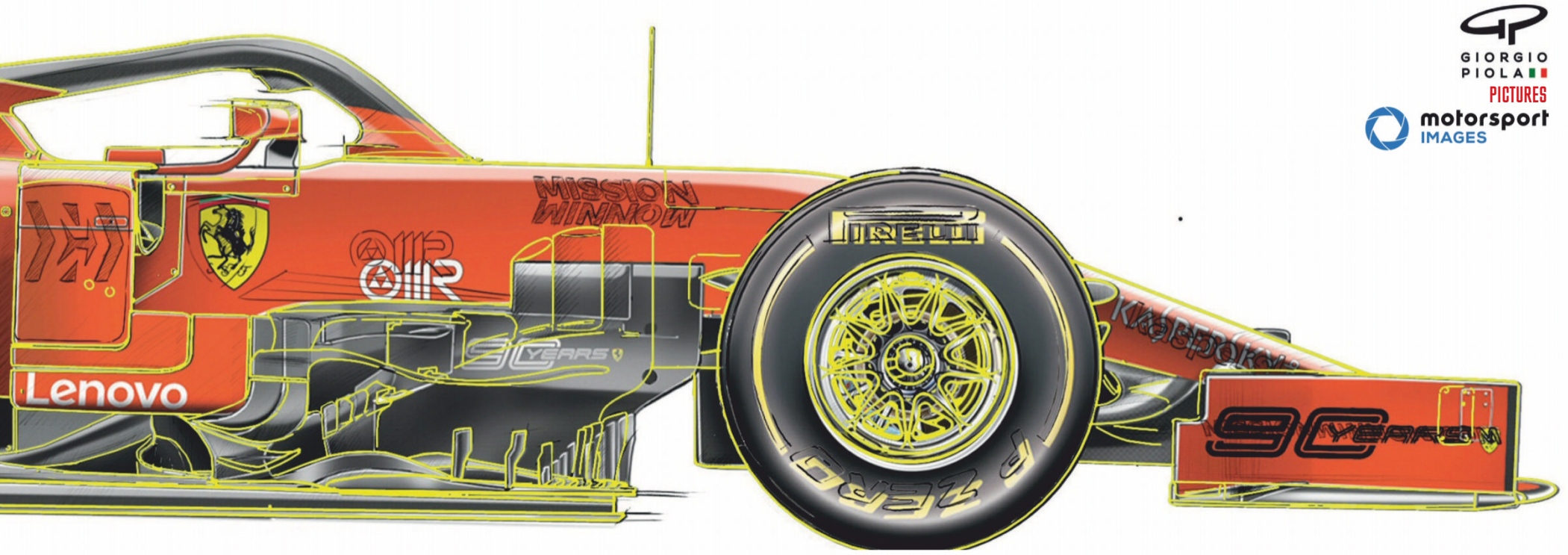




LOSING STREAK?

Ferrari's new **SF1000** seemed troubled in testing and the team wasn't expecting a solid result at the season-opening grand prix. Now that development will be strictly limited until 2022, Ferrari could be facing even bigger problems...

WORDS STUART CODLING
ILLUSTRATIONS
GIORGIO PIOLA
PICTURES
motorsport IMAGES



AS FORMULA 1 DRAWS UP PLANS

to go racing again after an enforced hiatus, one of its key competitors is girding itself to deal with a pain it has long been expecting. Ferrari disappointed in testing and Formula 1's adaptation to new global circumstances means the Scuderia must carry low expectations to the first race when the season begins. When it launched the SF1000 back in February, Ferrari made the bold suggestion that it had adopted 'extreme concepts' to move the game on from 2019's SF90. That car was a three-time grand prix winner but, in the final analysis, fell way short of its expected potential and carried weaknesses 'baked in' to the design concept.

One of the areas in which the SF90 was found wanting over the course of 2019 was in peak downforce levels. It was fast in a straight line but not enough to claw back time lost by indifferent cornering performance over a single lap – and the lack of downforce triggered a vicious cycle of other deficits, such as greater tyre degradation, which mounted up over a race distance.

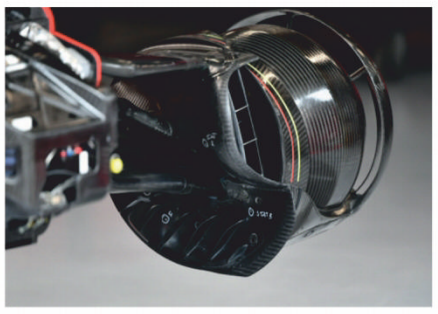
Ferrari ran a very different front-end aerodynamic concept compared with Mercedes, based around what's known as an 'inboard-loaded' front wing design. In this, the separate horizontal elements of the wing are more steeply raked at their inner ends; the flatter profiles on the outboard sides means a greater proportion of the airflow energy is used to channel the flow around the front wheels rather than to create downforce.

The 'outboard-loaded' concept used by Mercedes, and adopted by others, theoretically offers greater downforce but creates challenges in managing the turbulent wake of the front wheels. This may be among the reasons Ferrari chose to persist with the inboard-loaded philosophy for this season, having successfully added downforce to last year's car through in-season development – although it wasn't until Singapore last year that the package began to deliver its full potential.









Testing wasn't outstanding for Ferrari and with development to be limited it may struggle when racing resumes



PICTURES: MARK SUTTON









The nose and rear wing are evolutionary, and the front-wing elements remain faithful to the 'inboard-loaded' principles

"I think we improved last year's car, there were weaknesses we figured out fairly quickly," says Sebastian Vettel. "It was quite clear what we were fighting, what we wanted to improve. I think we improved it for this year. So naturally, I think it will be a step forward. But we've also seen in testing that, you know, we're not smashing lap times with ease. So we are not the favourites.

"We had a solid testing in Spain. But, unfortunately, we were not as quick as we hoped to be. But I think we were quite realistic with the expectations we had for Melbourne. The first race normally you never really know where you are, so you're also a bit nervous and excited. Obviously, we have to delay that feeling for the real first grand prix that we get to…"

Between testing and the ultimately aborted Australian GP, team principal Mattia Binotto sought to manage expectations internally, telling staff in an email that Ferrari was unlikely to show race-winning pace around the streets of Albert Park. The Ferrari factory, in common with other F1 facilities across Europe, has been closed since shortly after that season-opening race was postponed, apart from limited activity producing protective masks and ventilator components.

In any ordinary year there would be time and opportunity over the course of the season to drill down into a car's weaknesses and – depending on the team's skill and resources – to mitigate or cure those flaws through development. But this was no ordinary year even before the COVID-19 pandemic ripped up the calendar. By mid-season Ferrari would have needed to allocate most of its resources to a clean-sheet design for the new rules set originally planned for 2021. The pandemic prompted an agreement between the teams, the FIA and F1 to delay the introduction of those rules until 2022, but this wasn't a get-out-of-jail-free card for Ferrari because it was packaged along with a design freeze on certain areas of the current cars. The shortcomings of the SF1000, and the likelihood this freeze may make them challenging or even impossible to resolve, accounts for why Ferrari hesitated before lending its blessing to the agreement.

"I think it was the right and good decision," said Binotto at the time. "Obviously it has to be a responsible decision. I think the situation with the emergency we are facing becomes the priority, not only the interests of a single team, but really looking at the wider picture.

"Obviously we know some teams were in [financial] difficulty, time would become very tight to develop new cars for 2021, so I think at the end that was the right choice. Is that somehow not in favour of Ferrari? Very likely, yes, maybe, but I think that we are challengers, and we are people that want to do each time better than we did in the past, and there will be a time where eventually… we can recover and we will be stronger."

In a subsequent interview with Sky Italia, Binotto repeated his admission that the design freeze has added to Ferrari's challenges, saying, "Considering the current baseline and the feedback from the tests, we don't think we have an advantage with this choice. The regulations will remain the same, but there will still be room for aerodynamic development, though we have yet to define that in detail. We are discussing it with all the representatives of the teams and with the FIA, to understand what will be frozen and what will be open to development."

> WE HAD A SOLID TESTING IN SPAIN. UNFORTUNATELY, WE WERE NOT AS QUICK AS WE HOPED TO BE. BUT I THINK WE WERE QUITE REALISTIC WITH THE EXPECTATIONS WE HAD FOR MELBOURNE. OBVIOUSLY, WE HAVE TO DELAY THAT FEELING FOR THE REAL FIRST GRAND PRIX THAT WE GET TO
> SEBASTIAN VETTEL

The situation regarding Ferrari's powertrain is also layered with uncertainty. Doubts were raised about the legality of its power unit late last season after a new specification introduced for customers at Spa, then used by the works team at Monza, yielded a remarkable performance gain. Two theories abounded: that Ferrari could be using a 'controlled leak' of oil from the intercooler to aid the combustion process, or that it was somehow exceeding the maximum 100kg/hr fuel-flow rate without detection. But in circumstances such as these the FIA rightly places the onus on the other teams to lodge a formal protest, or to seek 'clarification' from the technical department over whether a theoretical system is legal or not. It does not act on innuendo – especially if, as was

SF1000 – DIFFERENT ENOUGH?





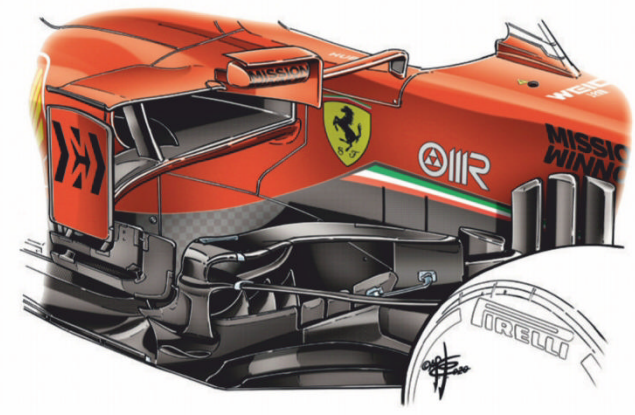
As Giorgio Piola's comparative illustrations reveal, in terms of its aerodynamic surfacing and mechanical details the SF1000 is more evolutionary than revolutionary. While the nose features a similar 'cape' to that added in the SF90's highly successful Singapore update, the nose itself is markedly wider than that of Ferrari's key rivals. While Red Bull – and midfielders such as Renault, McLaren and Racing Point – have adopted the narrow-nose concept led by Mercedes, Ferrari's nose has remained largely unchanged since 2017.

Packaging this area of the car is a challenge since it must service impact-protection regulations as well as housing the steering and suspension mechanisms, plus the hydraulic reservoirs for the brakes. A narrow nose means less room for these, plus additional weight since the crash structure needs to be denser.

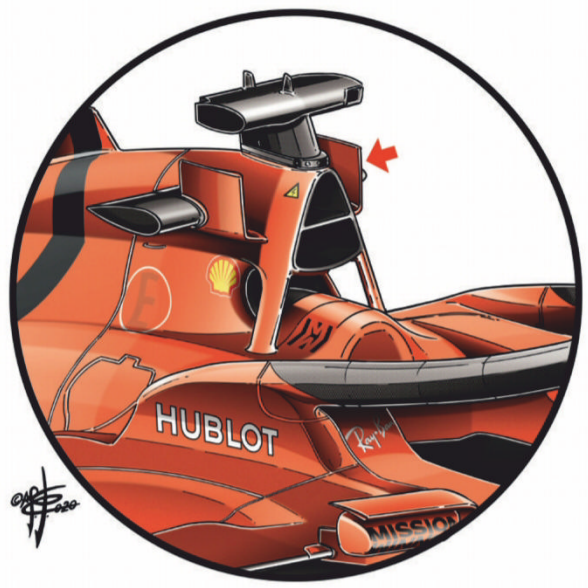
Mercedes' head start in this area enabled it to do all this and incorporate its novel Dual-Axis Steering system (DAS); Red Bull relocated its steering rack and brake reservoirs behind the bulkhead, which is why it cannot mimic DAS and instead chose to lobby the FIA for that innovation to be banned. Has Ferrari made a conscious choice to stick with an established concept, figuring the gain is not worth the pain, or has it overlooked an opportunity?

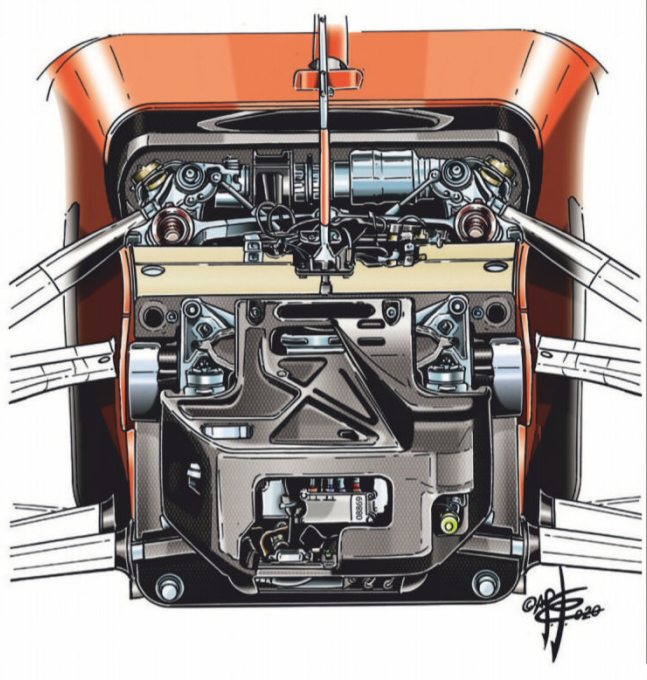
The SF1000's bargeboards and turning vanes are mounted further forwards and are more complex than before, but a narrower nose would have opened up more opportunities in this area since it allows a greater volume of air to pass between the nose and the front wheels, which have been redesigned with a smaller hub and longer spokes, enabling more air to pass through via the brake ducts. In the sidepod area, Ferrari has made small adjustments to the arrangement it introduced in 2017, with a low-mounted side-impact structure and high air intakes, which now feature 'wings' above smaller cooling inlets. The mirror mountings also act as flow conditioners over this area.

Twin 'horns' around the airbox are unusual in contemporary F1 but were common in the mid-2000s. A much slimmer and lower engine cover points to a great deal of development beneath the skin in terms of packaging the powertrain and managing cooling requirements, while the gearbox is also far narrower than before.



The revised areas of the SF1000, compared with the SF90, are outlined in yellow in the two images at the top, and the new twin 'boomerang' elements are detailed above. Below, the illustration shows the airbox, with a red arrow pointing to the new 'horn' elements, while the bottom image shows Ferrari's congested bulkhead section, a possible reason why it didn't pursue a narrow-nose philosophy





the case here, its standard scrutineering checks reveal no evidence of wrongdoing.

So it was not until early November, after Red Bull filed a detailed enquiry relating to 'filtering' of the signal from a car's fuel-flow sensor, that the FIA issued a strongly worded technical directive saying such a system would be illegal. This coincided with Ferrari's straightline speed and qualifying performance abruptly falling off from the US Grand Prix onwards. While correlation doesn't equal causation, and Ferrari insisted it was simply running its cars with more downforce, the FIA impounded an engine for more detailed investigation after the season-closing Abu Dhabi Grand Prix.

Remarkably, though, this inquest ended in what appears to be a stalemate, as the FIA released a statement saying it had reached a "confidential settlement" with Ferrari. The predictably furious response from other teams moved FIA president Jean Todt to state that his hands had been tied by a lack of adequate proof: faced with the possibility that any Ferrari appeal would take months to resolve, the "confidential settlement" was his least-worst option.

"They have been sanctioned but we cannot give the detail of the sanction," Todt told *GP Racing's* sister title *Autosport*. "Unfortunately it is very much a fait accompli of technical matters, because our technicans say, 'We cannot for sure demonstrate as much as we should that they were not legal.'"

Nevertheless, from this season onwards all cars must carry a second fuel-flow sensor which transmits an encrypted signal. Given the additional scrutiny its powertrain will be under, Ferrari must pin its hopes on aerodynamic development being left sufficiently open for it to design its way out of trouble. Given that it took until the update package introduced in Singapore last year to transform the SF1000's predecessor, solutions may be a long time coming.

"No matter when we start, our expectations will be fairly realistic, knowing that maybe we're not the clear favorites," says Vettel. "But obviously we hope for a relatively long season after that, lots of races to prove that we know we can come back from where we might start. Obviously it will depend on how many races we will actually have, how long the season will be.

"But maybe this period can help us – even though development and everything is stopped, your head is still switched on, so any ideas that we have, the engineers have and so on are obviously allowed. And as soon as we get back, hopefully we can put them into the car, and then sooner rather than later, we can make progress.

"But at this stage, I think we have to wait."

PICTURE: GLENN DUNBAR

MAYBE THIS PERIOD CAN HELP US – EVEN THOUGH DEVELOPMENT AND EVERYTHING IS STOPPED, YOUR HEAD IS STILL SWITCHED ON, SO ANY IDEAS THAT WE HAVE, HOPEFULLY WE CAN PUT THEM INTO THE CAR, AND THEN SOONER RATHER THAN LATER, WE CAN MAKE PROGRESS

SEBASTIAN VETTEL

IN CONVERSATION WITH

WORDS STUART CODLING
PORTRAIT MARK SUTTON

ANDREAS SEIDL

McLaren's team principal says Formula 1 will emerge from the coronavirus pandemic stronger – if it embraces brave and far-reaching cost-saving measures now. For McLaren that will mean accepting compromises when it moves to Mercedes engines...

How can McLaren maintain its momentum from last season through the coronavirus crisis?
First of all, the most important thing at the moment is to go through this crisis and survive it as a team and as Formula 1. Then obviously we have a clear plan in place of what we have to do in the next months and years in order to move up the grid again. With everyone being on shutdown it's a tough situation for everyone. But I'm confident that as soon as we are through this crisis and back at work, we can continue the positive momentum we had before we all went into the shutdown. In terms of timing, it's clear that with the shift of the regulations by one year, and with this long shutdown, obviously that will cause some delays to our recovery programme. But again, I think it's too early to say at the moment what the consequences will be in detail.

What impact will the crisis have on the timescale for McLaren's big capital infrastructure projects, such as the windtunnel and simulator?
It's difficult to know exactly how big the delays will be. One thing is for sure, the entire factory apart from the ventilator production [see F1 Insider, p16] is in full shutdown, so this means also the infrastructure projects are on hold.

Will it be possible to work on upgrades for the MCL35 before the season starts?
After testing in Barcelona every team for sure had identified some weak points on their car which we tried to address straightaway. But at the same time we have to face reality at the moment. First of all we are all in a shutdown so we're not allowed to work on the cars. The second point is that we're still in the process of finalising the regulations in detail in terms of what gets frozen on the current cars for this year and next year. This will decide what we actually do on the cars, once we get back to our factories.

Is this crisis a tipping point for F1 to take radical action on costs?
I think the crisis is, let's say, the final wake-up call the sport, which was unhealthy before and not sustainable, has now reached a point where we need big, drastic changes. For us the most important thing is to make the next big step on the budget cap. Because we think it's absolutely important now with all the financial losses that we will face this year.

We know [FIA president] Jean Todt is having a lot of meetings with [F1 CEO] Chase Carey, also with the teams, and they will make decisions – big decisions – to protect the teams and to protect the future of F1. We're happy with what we're seeing there. Of course, we would like to see the budget cap as low as possible. We've put out the number of $100m, something we would be in favour of. At the same time we understand it is a discussion that involves a lot of different parties

Formula E boss Alejandro Agag has said he thinks F1 should be bold and aim for a budget cap of $75million a year. Would that be a cut too far?
Obviously it's easy for Alejandro to say – he's not running this championship! I think $100m is a good number to run a team in the way we want to see Formula 1. It's important that Formula 1 has the fastest car on the planet, and is always seen as the leading edge in terms of technology.

> "THE SPORT, WHICH WAS UNHEALTHY AND NOT SUSTAINABLE, HAS NOW REACHED A POINT WHERE WE NEED BIG, DRASTIC CHANGES"

But I'm convinced that this is possible with a budget cap of $100m.

Given the likelihood of a compressed calendar, is McLaren supportive of new formats and ideas?
We're definitely open to trying new things. At the same time it's important not to rush into too many changes now, and to take our time to make the right decisions – there's things like a race weekend format of two days, especially when you have three or four races in a row, which make sense. It's also important that we have a good sporting contest, good races.

For us, the biggest topic is the difference between the big names and where we are. That's something that needs to be addressed, which will be addressed with the new regulations that are coming now in 2022, and with a budget cap lower than [the currently proposed] $175m. Then I think we'll come out of this crisis with F1 being in a better shape than it was before.

Will the design freeze put you at a disadvantage when you move to Mercedes engines next year?
It's a change of plan now for us, because we had planned to integrate the Mercedes power unit into the new car with the 2021 regulations. For sure there will be restrictions in terms of how well we can integrate this power unit into the current car. We have agreed together with the FIA that they will monitor very closely that we are only allowed to do the changes that are absolutely necessary to install the Mercedes power unit.

So they will ensure we don't touch any other areas in the surroundings of the power unit which might give us additional performance gains. We fully understand and agreed to this, because we need to look at the bigger picture. We support the freeze because it ensures maximum cost savings for everyone for this year.


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McLaren
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NIGEL ROEBUCK'S FORMULA ONE HEROES

STIRLING MOSS

PICTURES motorsport IMAGES



Moss counted himself lucky to have been able to make a career from motor racing, and the British public adored him

"REST IN PEACE, RACER"…

was how Mario Andretti signed off his message of condolence, and nothing would have pleased Stirling more. For one thing, he saw Mario as a kindred spirit more than anyone else; for another, he would have seen his words as an ultimate accolade.

"It was easy," said Moss, "for me to understand how Mario went on racing as long as he did, however much he had in the bank. That man was a *racer*, like Gilles Villeneuve was a racer. And like I was, I think…" For all his artistry, his countless victories, it was on this that he most prided himself.

Now, with the news of his death not unexpected but still raw, as well as losing a loyal and generous friend, I feel that the last of my gods is gone. If ever a racing driver transcended his sport, it was Stirling Moss.



Stirling's first world championship victory aptly came on home soil in the 1955 British GP at Aintree, driving the Mercedes W196

He had always counted himself lucky, he told me once, to have had ability enough to make a living from motor racing. "God, think about it – otherwise I'd have had to work! And that, of course, was the problem I had to face after the Goodwood shunt, when I was 32 years old. I mean, what do you do when you know nothing about anything – apart from become an MP or an estate agent?"

If he never quite got over being ripped from the sport he so much loved, still he was able thereafter to make a good living simply out of being Stirling Moss. No name was ever more synonymous with a sport, and public affection for him never wavered.

Predictably just about all the obituaries trotted out the old cliché that he was 'the greatest driver never to win the world championship', but in my eyes that diminishes only the worth of the title: I have always thought Stirling the greatest who ever lived.

Enzo Ferrari thought similar, suggesting that he alone belonged with Tazio Nuvolari. "If Moss had put reason before passion," Ferrari said, "he would have been world champion many times," and that was undeniable – but then he wouldn't have been Stirling Moss. Part of the attraction of driving, in his later years, for Rob Walker was the frisson of beating the factory teams as a privateer.

It doesn't often happen that a generation of drivers willingly allows that one of their number is consummately the best, but all his rivals felt that about Moss. Yes, there were the iconic victories



Moss won two world championship races in 1961 in an obsolete Lotus, in Germany (above), and Monaco (below). He considered the latter his greatest drive

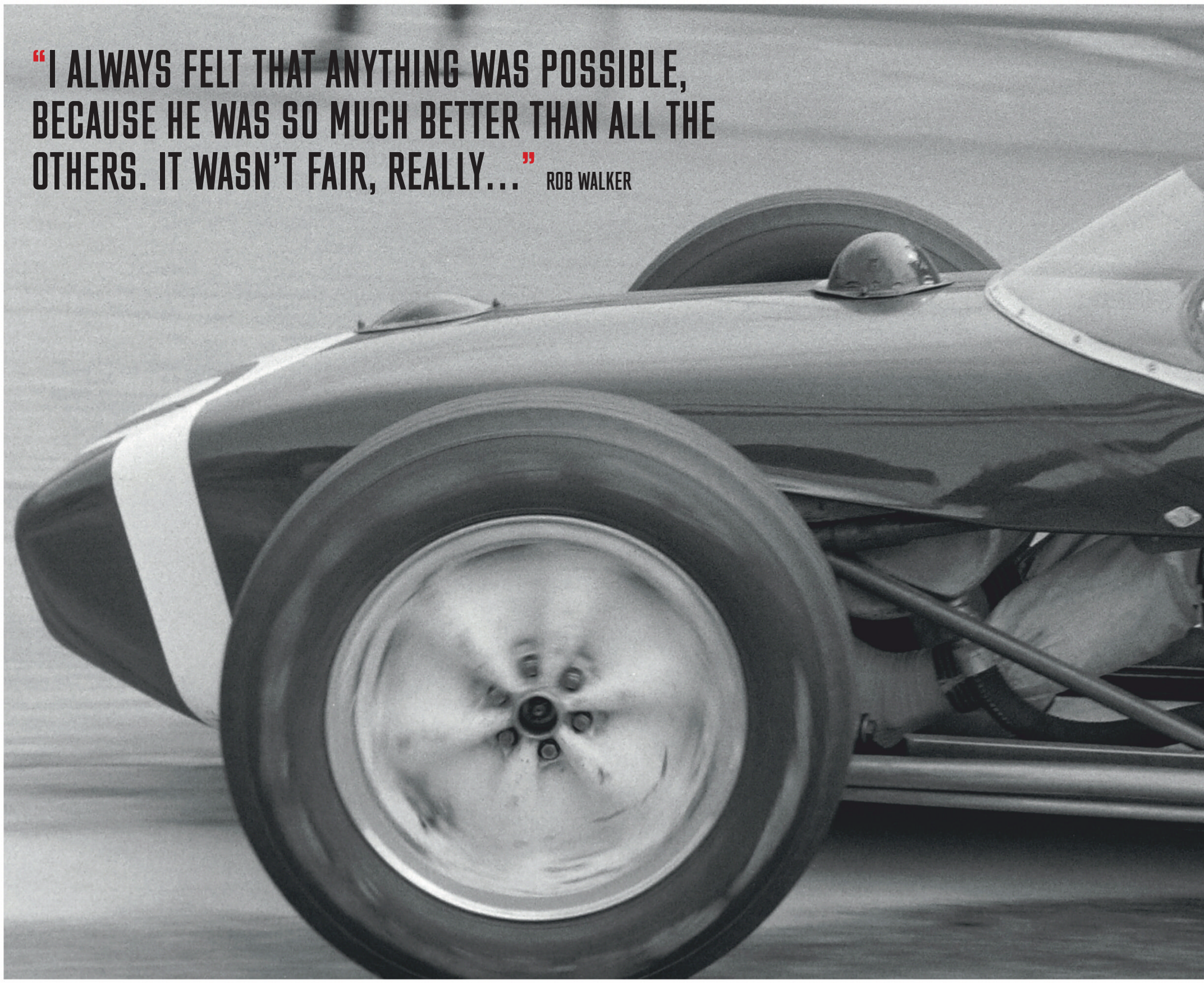
for Mercedes and Maserati and Aston Martin, Vanwall and Cooper and Lotus, in grands prix and sports car races, but – as was the way of it back then – Stirling raced something virtually every weekend of the season, invariably the class of the field. In appalling conditions at Silverstone in 1961, he won the *Daily Express* Trophy, lapping everyone, including runner-up Jack Brabham. "Oh, second's not too bad," Jack smiled. "I'd be more upset if I'd been beaten by a human."

Unless you were around at the time, it is impossible to appreciate just how much Moss *was* motor racing in Britain back then. While there were fellow countrymen – Mike Hawthorn, Peter Collins, particularly Tony Brooks – of great ability, none captured the public imagination like Stirling and I would venture none has since. A childhood memory of the warm-up lap for a Gold Cup at Oulton Park: past the cars came – and then someone shouted, "Here he is!" No elaboration was required.

In his pomp – which he was to the end of his career – Moss's driving was essentially without flaw. Wet or dry, fast circuit or slow, it didn't matter, and it was the same with cars. When John Cooper and then Colin Chapman revolutionised F1, Moss effortlessly adapted: in 1956 he won at Monaco in a Maserati 250F, and four years later did it again in a Lotus 18.

On the day of his last accident, at Goodwood in 1962 – unexplained presumably forever – he was laps behind after a pitstop, but going flat out because there was still a lap record to be broken, still something to be got from the day, still spectators to enrapture. For days, his fight for life was the first item on the news.

More than anyone I ever saw, Stirling personified 'racing driver', but even with charisma to throw away, he was fundamentally a shy man, never finding it easy to make a speech, even to enter a crowded room in which all would instantly recognise him.





“I’m much more extrovert than I was,” he said a few years ago. “For some reason I always lacked confidence – although in a car I was as confident as hell. The race was no problem, and neither was going up to get an award at prizegiving – but I’d worry if I actually had to say something…”

There was a purity in the way Moss went racing. If he was fortunate in anything, it was that in those simpler times a great driver could compensate for an average car. Like most of his contemporaries, he had no great mechanical knowledge: if a car wasn’t handling well, he simply drove around the problems.

As well as that, Stirling was also quintessentially a sportsman, a quality highly valued back in the day. Thanks to the scoring system of the time, he famously lost the 1958 world championship by a point to Hawthorn, despite winning four grands prix to Mike’s one. Less remembered is that had Stirling not voluntarily gone to the stewards at Oporto, and spoken in his rival’s defence, Hawthorn would have been disqualified. My suggestion that he’d been remarkably selfless left Moss bemused: “What else could I have done?”

While Moss’s most fabled victory is perhaps the Mille Miglia in 1955, he was at his very greatest in 1961, his last full season, genius at Monaco and the Nürburgring allowing him to beat the more powerful Ferraris in Walker’s obsolete Lotus. No one else beat them all year long.

The Monaco win came after what Moss considered his greatest drive, and with good reason. Over the 100 laps, his average lap time was 1m 39.5s, only four-tenths shy of his pole position time, and that always takes a little believing. Conjure a blend of the ease of Alain Prost and the commitment of Ayrton Senna, and an image of Moss at his zenith comes into focus.

“For me,” said Rob Walker, “Stirling was the perfect racing driver. When he was driving for me, I always felt that anything was possible, because he was so much better than all the others. It wasn’t fair, really…”

‘Mr Motor Racing’ was the headline on Autosport’s report of Monaco ’61. That he was, and that, for me, he will always be.

Always racing and nearly always competitive, victory in the 1961 Silver City Trophy at Brands Hatch was just one of Moss’s other numerous race wins



THE LONG INTERVIEW

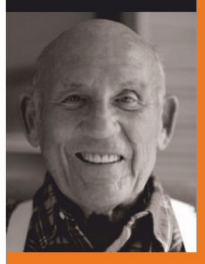
The last time we had a long chat with **Sir Stirling Moss** was back in 2013. 'Mr Motor Racing' was in fine form, talking about his time at Mercedes, his deal with Ferrari, and the attempted comeback from *that* accident at Goodwood, Here, as our tribute, is the interview in full

THIS IS STIRLING MOSS

WORDS MAURICE HAMILTON
PORTRAITS LORENZO BELLANCA



THE LONG INTERVIEW



STIRLING MOSS

Sir Stirling Moss is a stickler for punctuality. So precisely three minutes before our appointment, photographer Lorenzo Bellanca and I ring the bell to his Mayfair town house. Spread over five floors, this has been the Moss abode for more than 50 years. I've read all about it but never been inside; one of many reasons to look forward to this lunch with a motorsport legend.

The door is opened by Mandy Shepherd, Sir Stirling's PA. We are ushered in past his ground-floor office and up a spiral staircase, pausing at the first floor to be greeted warmly by Lady Susie Moss before climbing up to the kitchen. Seated at a desk by the window, that familiar stocky figure removes his spectacles and rises – slowly, it has to be said, given the horrific accident he suffered in his lift shaft two years ago, which injured his ankles, legs and knees.

Once on his feet, his aura of urgency and energy is all too evident, just as it was when S. C. Moss was one of the world's greatest drivers. Moss is more famous for not claiming the world title than some champions are for having won it at least once.

It is a mark of the man and the reason why, at 83, he is always on the move. He's just returned from a visit to the United States, then he'll fly to the Isle of Man the day after our interview, then back to London and on to a function in York just 24 hours later.

Moss sat still for our interview but, even at the age of 83, was well known for a busy lifestyle



"As busy as ever, boy," he says, making room at the table. Then he pauses before adding: "Thank God I am." He means it. Sitting still and doing nothing is not an option in the world of Sir Stirling Craufurd Moss. Never was and never will be. He's ready. Let's get going...

Maurice Hamilton: I want to start by linking the past with the present. Mercedes are in the news because Lewis Hamilton has decided to move there for 2013, so I guess you'll have had people asking about when you raced for Mercedes?

Stirling Moss: I have, and there's no comparison at all. In 1955, I was driving for a major motor manufacturer who were going motor racing. It was a racing department; part of a big company. There were lots of reasons why going to Mercedes made sense. Alfred Neubauer [team manager] was there and so was Rudolf Uhlenhaut [chief engineer], both of whom were exceptional, particularly from a driver's point of view. Uhlenhaut was talented enough to race if he wanted to – can you imagine that now? He spoke perfect English, which was very useful. But they wouldn't let him race as he was too valuable.

MH: The standard of engineering must have been extraordinary at the time. You hardly had a single retirement with them, did you?

SM: Just one. And the thing was, at Mercedes, whatever you wanted, you got. If you wanted square wheels they'd look in the book and say: "We tried it in 1928 and they vibrated too much." Or they would be fitted the next day. They used four-spoke steering wheels, but I liked three-spoke, so that's what they made.

MH: From your point of view, the most valuable asset had to be having Juan Manuel Fangio in the other car. You were, in effect, number two to the great man – and you were happy to accept that?

SM: You bet I was. But I wouldn't have accepted that with any other driver in the world. I was not told to follow Fangio; it was a completely free situation. But I was very happy to sit right behind him. Neubauer said: "I don't like you going that close. What happens if Fangio goes off?" I said: "He doesn't."

MH: It must have been nice to know you could match his pace?

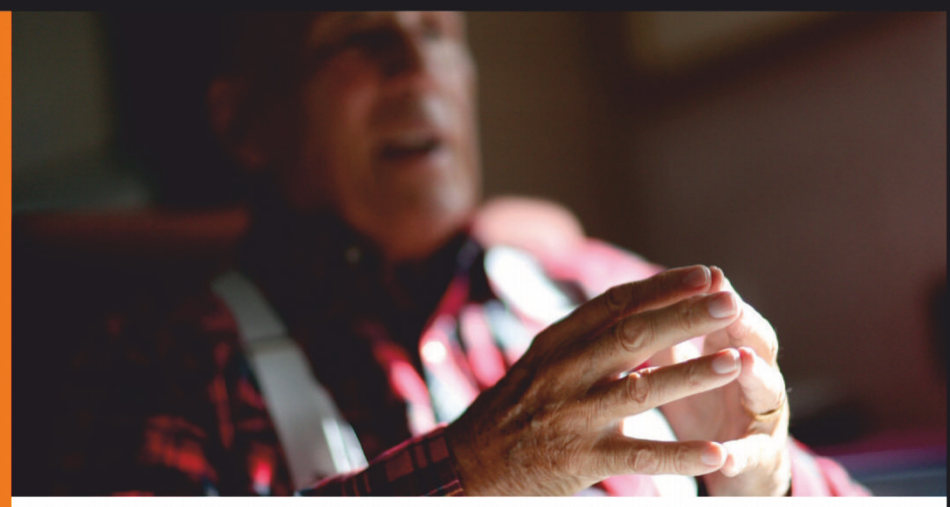
SM: It was, yes. But he gave me what you might call a lot of hints about driving; about where to place the car. But he never, ever said: "You're getting too close", or whatever.

MH: I guess the learning had to come from what you were seeing because you had a language problem, didn't you?

SM: Yes, he was Spanish-speaking and all I could manage was a little Italian. But I tell you, boy, if you're only talking cars, crumpet and food, you don't need much! A few hand signals and you're in business. Our dialogue was kept to a minimum.

MH: Fangio always seemed such a gentleman. And he never





gave the impression that he felt threatened by you. I say that, not in the sense that you weren't as quick – because you were – but because he was confident and mature enough to cope. That's always the sign of a top performer, isn't it?

SM: Exactly. I was faster than him in sportscars. When I asked him why, as far as I could make out, it was because he liked to see the front wheels. I can't really understand that because, apart from when you're in a hairpin, you never look down at your front wheels.

MH: That's interesting because when he had the streamlined Mercedes W196 at Silverstone, he was hopeless – by his high standards, anyway.

SM: Yes, he kept hitting the barrels on the inside of corners.

MH: The W196 was quite a big car. Did it feel big when you were in it?

SM: It was not an easy car to drive. Not like the Maserati 250F. The 250F was the most user-friendly F1 car – you ask anybody who has driven one. But the Merc was a large car; not what you would call an easy thing to throw around.

MH: I seem to remember you saying there was something tricky about the gearshift?

SM: It was back-to-front, very difficult until you got used to it. My problem was that I was racing every week. So, if I wasn't racing a Mercedes, I was driving something else. I had to remind myself about the gear change each time I got into the Merc. It had an off-set first [he indicates top left] then second back here [down, across left to right and down], then third up here [straight up], down, across and down to fourth, and then up to fifth. So, in any other car, you would flick it across and back one when changing down. Which I did in Argentina in the Merc.

MH: So, you went from fifth to third?

SM: Exactly. But it was no problem mechanically because that was where the desmodromic valves came in. Had it not been for that [the lack of springs], the valves would have bounced. Do that once at speed and you soon learned. I don't know why they had it like that – I never asked.

MH: Sadly, however, one aspect of your career that I must ask you about is that you never got to race for Ferrari. You were about to in 1962. Indeed, if the car had turned up as promised at Goodwood, you wouldn't have had the accident that ended your career. I often think, and I'm sure you do too, that...

SM: ...that if the Ferrari had arrived, I wouldn't have been in the Lotus and I probably would have continued racing until I was 50? It was a dream deal. Ferrari would have made whichever car I wanted. And it would have been painted, not red, but in the blue used by Rob Walker. Absolutely amazing, really.

MH: That is such a public admission of how much Mr Ferrari wanted you as a driver.

SM: It is, particularly when you know what the man was like and how he really couldn't care a sod about his drivers. In fact, he preferred to have different drivers winning because, for the Old Man, it was all about his cars rather than the driver. He would say it was the best car – which was not necessarily true at all.

Moss was forthcoming with praise for Juan Manuel Fangio and also reckoned that the Maserati 250F was the most user-friendly F1 car he drove



MH: This deal you had with Ferrari is all the more interesting because you got off to such a bad start with the Old Man in 1951. He promised you a drive at Bari and you went all the way to Italy, only to find he'd given it to someone else. I don't blame you for being pissed off about it.

SM: I flew down there with my father and we went to the Fiat garage where the racing cars were being prepared. I saw the four-cylinder car, knew that was mine and I was about to get in when the mechanic asked me what I was doing. I told him I was Stirling Moss and I was driving this car. He said something like: "No you're not. Taruffi is driving this car." I was, as you say, really pissed off. Ferrari didn't even have the manners to call me and say: "Look, sorry. I've changed my mind." I thought: 'That's it, boy. I'm never going to drive for you. Never.'

MH: So when this incredible offer came along in 1962, you really had to put all that behind you, swallow your pride, and accept.

SM: Absolutely. It was *the* car to have. Apart from anything else, I couldn't think of anyone who had been killed in a Ferrari because of a mechanical failure. Not one. And that was saying something in those days. That sort of thing was fairly high in my mind because I had been driving Lotus cars and there was a ten-to-one chance something was going to fall off.

MH: Before coming today, I started to re-read Ken Purdy's book, *All But My Life*, which he wrote about you. I was reminded what an incredible effect that book had on me when I read it for the first time in the late 1960s.

SM: A fantastic book – absolutely fantastic. It was the only one of its kind in that era. He wrote in a vicarious way. Although he knew nothing about racing when he started out, he wanted to be part of it. He contributed articles to all the very big magazines, and *Playboy* sent him over from the States to do a piece on me. But after a while, he said: 'There is so much material, this is a book and not just an article.'

MH: Purdy started all this before the accident and was with you right through the recovery, which meant he could provide a real insight into 'Stirling Moss before and after'. He lived it with you. Which is the perfect situation – not for you, of course – but for a writer. He described you – and I want to quote this – as being 'beyond doubt the best-known sports figure in the world'. He went on to make the point that, for example, Sonny Liston (World Heavyweight Champion from 1962 to 1964) was well-known in the USA, but that your name, because you raced here, there and everywhere, was global. That's a big claim. You probably wouldn't have said, but do you feel, looking back, that he was right?

SM: I suppose I was recognised wherever I went and, as you say, racing every weekend seemed to take me somewhere around the world. But I was lucky to have the

THE LONG INTERVIEW



STIRLING MOSS



> IT WAS A DANGEROUS SPORT. THAT WAS ONE OF THE REASONS I ENTERED IT; I LIKE PLAYING WITH FIRE

name Stirling Moss. I was very nearly called Hamish – which is a ghastly thought! It also helped to be viewed as the underdog because I drove so many crappy cars early in my career. The English people get behind that sort of thing and, of course, they knew I was always looking for the British win.

MH: Yet you ultimately had to go for a Maserati 250F as a privateer in 1954 if you were to make any sort of mark in F1. Did you feel uncomfortable with that?

SM: I called in the British press and told them: "Look, I want to drive a British car, I've tried it and there's nothing suitable. I have to go with the Maser." They agreed it would be better if I had a British car but that if I had to have a foreign car to win, so be it. I needed to get that endorsement. It was political as much as anything else.

MH: Saying that, you wouldn't leave the pits until your car – be it a Maserati or a Mercedes – had the Union Jack somewhere on its flanks…

SM: Oh, absolutely.

MH: So there's that and the BRDC badge on your overalls; the nice young Englishman, winning races, with an eye for the ladies afterwards…

SM: Chasing crumpet. Exactly!

MH: And yet Ken Purdy also wrote that you were – are – shy.

SM: Very much so. I wouldn't go into a room if I was on my own. If you were there and I could see you, I'd come in and say hello. Or take somebody with me. But otherwise, I find that quite difficult.

MH: And yet you chat away nineteen to the dozen; you are very easy to get on with. But you're saying it's the initial approach. Do you put this down to British reserve, or what?

SM: Lack of confidence – if I'm honest. I don't know why. I knew I was pretty good at what I did because of the success I had but, when I got out of the racing car, my disguise had gone. When I was in the car, I was perfectly at home. But when the race stopped, reality returned. I had confidence in the car, but I didn't have the confidence to walk into a room full of people.

MH: It always struck me that you looked so relaxed at the wheel; your facial expression… everything. You appeared to be completely at ease and in control.

Moss was really tickled by this picture of Bob Gerard's Frazer Nash at the 1953 Tourist Trophy. Moss finished third in the race, but the author is pointing out himself, age seven, at his first ever motor race

SM: There were bad cars when I probably wasn't quite at home, but I'm lucky in that of the 108 cars I drove, probably 100 of them were good.

MH: On that subject, this is a good point to mention that one of them was a Sunbeam Talbot saloon with which you won the Alpine Rally, not just once, but three times to claim the coveted Gold Cup. That's an immense achievement in its own right because that was a very tough rally.

SM: We were on public roads and you could really get your foot in. The cars we were driving were slow – the Talbot had a top speed of about 105mph – but it meant I could work harder and make the difference. If I had done it in, say, a Jaguar XK120, then, to me, that would have been far less of an achievement. It was all about time controls, and on one occasion I got in by a gnat's cock. The whole thing hung on this. I had tears in my eyes, boy; it was so emotional.

MH: You drove touring cars on your comeback in 1980 with Audi in the British Championship.

SM: Biggest mistake I ever made, boy. I never researched it. I'd never driven on slicks. I had no idea at all that the tyres had no grip whatsoever if the track was wet. And I wasn't ready for the driving standards; it was like stock cars.

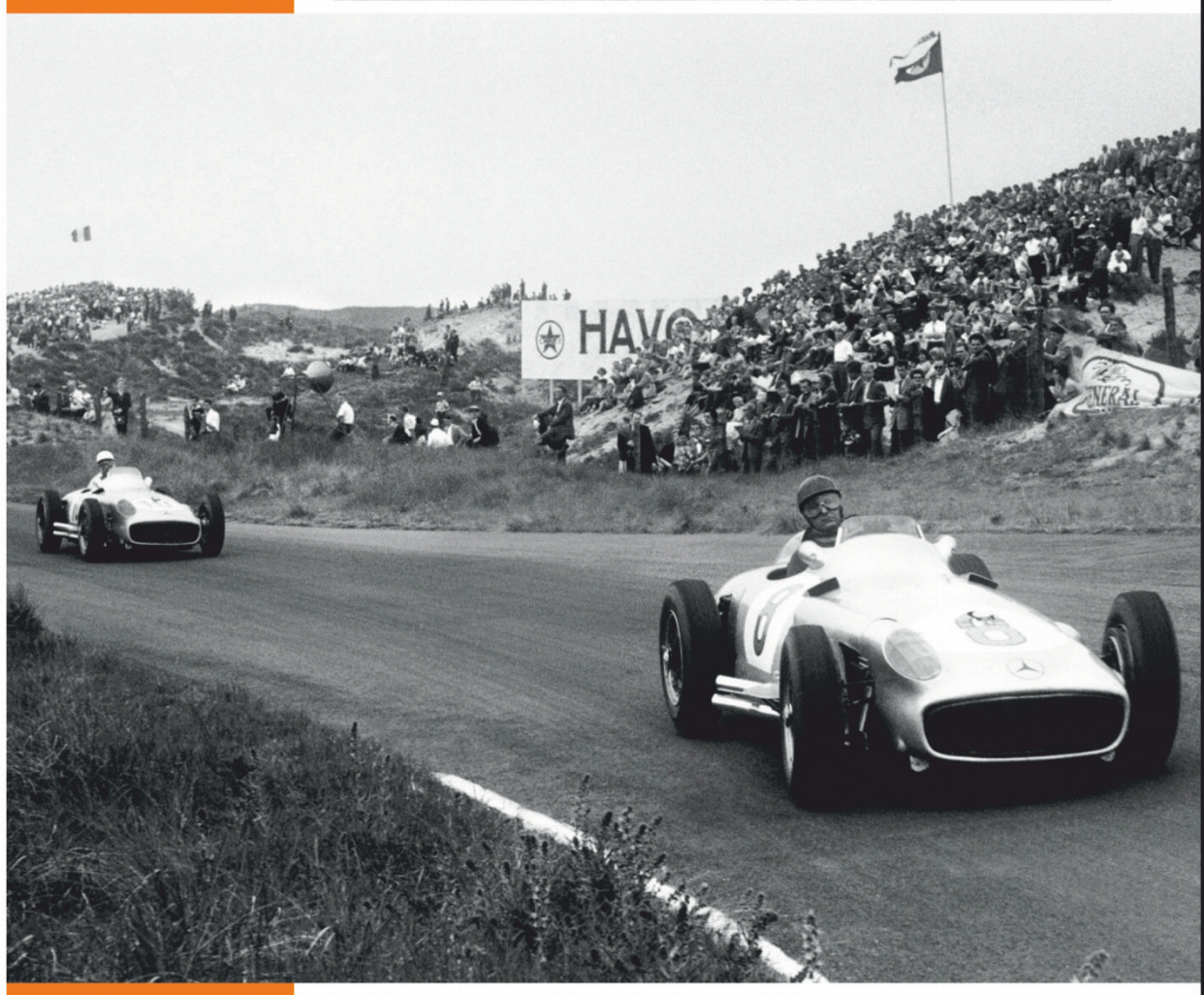
MH: Not your style, is it? So, what do you think when you see the start of an F1 race today and the guy on pole swoops straight across the track in a blatant movement to block the man on the outside of the grid?

SM: There are certain things they're allowed to do. I presume it's done within the regulations – so that's it. I can see why they do it under those circumstances. My attitude is that you learn the rules and, if it's within the rules, you push the envelope as far as you can. But I'm not saying the rules are necessarily right to allow it.

MH: What would you say about incidents such as Ayrton Senna and Alain Prost at Suzuka in 1989? And Michael Schumacher taking Damon Hill off at Adelaide in 1994?

SM: Those things happen because the cars now are so safe. If you want to live, get in a racing car. It's remarkable what they've achieved. The shunt Mark Webber had in Valencia in





2012 – unbelievable. That's the way it is. If the cars were as dangerous as they were in my era, I don't care how big your balls are, you simply wouldn't do what people do today. It was a dangerous sport. That was one of the reasons I entered it; I like playing with fire. I wouldn't swap my era for now.

MH: Why is that?

SM: I think the danger added a huge amount to it. If you and I are playing cards, you want to try and win. If I give you chips, you want to try and win a bit more. If I give you cash, it becomes even more important and you really concentrate if you are losing your money. The fact that there is danger on your shoulder certainly sharpens up your attitude towards what you are doing.

MH: And I presume racing in cars like that generated more respect between drivers?

SM: It did. There were certain drivers you knew damn well were likely to cause problems – Willy Mairesse was one; people who were competent to a degree, but not great. When you caught someone like that you had to make allowances. You'd say: 'Okay, I'm going to take two seconds to get by rather than go straight past.'

MH: In Purdy's book, there's a reference to a sportscar race in Sweden where you deliberately gave a slow driver a little tap.

SM: I did. I hit him in the arse. It was on a little circuit, in some former gravel pit somewhere. He kept blocking me all the time. When we went into a hairpin, I just nudged the back and he spun off. It wasn't dangerous. But that was dirty driving and I meant to do it. It was the only time I ever did anything like that.

MH: This really was a different age. People today would have difficulty getting their heads around the fact that when officials tried to throw Mike Hawthorn out of the 1958 Portuguese Grand Prix for going against the traffic after he had spun, you sprang to his defence. You had no hesitation.

SM: No, certainly not. Mike did go up the escape road and that was penalty enough in itself.

MH: Yes, but it was *you* – not Mike – who pointed out that, although he was going in the wrong direction, he was on the pavement and not actually on the track. The officials agreed and allowed his second place to stand.

SM: But I can't see how this is open for debate! He was not on the circuit…

MH: Yes Stirling, but if you hadn't said anything and he lost the six points, you'd be world champion. He was your only rival. That didn't come into your thinking?

SM: No! [Mere words cannot portray the genuine incredulity of Sir Stirling's expression at this point. It did not figure then – and doesn't now. Hawthorn was being hard done by. End of story.]

MH: I suppose you've gained more notoriety for never having won the championship?

SM: Absolutely.

MH: After your accident in 1962, you tried a Lotus sportscar at Goodwood, but it was too soon and you had not fully recovered.

SM: The reason it was too early was purely because of the press. I was only 32 and all the time they were asking: "Are you coming back? Are you going to race again?"

MH: You didn't allow for the length of time it would take your functions to fully recover from the brain injury caused by the shunt. You were unconscious for how long?

SM: A month. And I was paralysed on one side for six months. But so much had happened in between. Jimmy Clark had arrived and he was looking over my shoulder.

MH: You eventually got over that injury. But how, nearly 50 years on, how did you recover from that fall down the lift shaft?

SM: I opened the doors and got in at this height [two floors up] but didn't realise there was a malfunction and the lift was actually on the floor above. My knees and my ankles aren't as good as they were before I did it! When I get up, I have to take my time before they'll take some pressure. And when I wake in the morning, I'm a bit stiff.

MH: But you must have such a strong constitution. The shock alone…

SM: It wasn't such a shock. It wasn't a case of: "God, it's not there!" because the first thing I knew, I was hurting in my legs and ankles. I was lucky I didn't bang my head. Broke both my feet, ankles and the rest of it. A few rather depressing people said the recovery would take longer because of my age. Well, age is what you make it. There are times when I feel older than I am, but most of the time I feel really good, I must admit. When you've been through what I've been through in racing, you become professional with injuries and take them in your stride, so to speak. You name it, I've broken it.

MH: Well I must say, you look fantastic on it.
It's been a lovely chat. Thank you.

SM: A pleasure, boy.

Moss followed Fangio home for a Mercedes one-two in the 1955 Dutch GP at Zandvoort (above). The positions were reversed in the next race, the British GP at Aintree (top)

COMING! READY OR NOT...

WORDS STUART CODLING
PORTRAIT SHUTTERSTOCK

Racing Point's planned rebirth as Aston Martin is still on, regardless of the ongoing chaos wrought by the coronavirus pandemic. In fact, as *GP Racing* can explain, team owner Lawrence Stroll has taken advantage of plunging stock markets to drive a better deal – and Formula 1 is key to his plan...

SIXTY YEARS and several changes of ownership ago, Aston Martin dabbled its toes in Formula 1... and quickly withdrew them. And yet now its latest man at the helm is determined to bring Aston Martin back – not with a technology partnership or engine-badging deal, but as a manufacturer in its own right.

It helps that this individual is Lawrence Stroll, an incredibly successful entrepreneur who also happens to be head of the consortium which owns the Racing Point F1 team. And Stroll has confirmed that the team *will* be rebranded as Aston Martin from 2021 onwards, even though the factory is currently in shutdown – apart from its involvement in the 'Project Pitlane' ventilator scheme – for the foreseeable future.

Stroll increased his commitment even as the COVID-19 pandemic tipped the global economy towards recession. His Yew Tree Consortium took a 16.7% stake in Aston Martin last January, as part of a rescue package as underwhelming sales followed a troubled stock market flotation.

Aston's Initial Public Offering [IPO] in October 2018 valued the company at £19 a share; market jitters and poor sales figures drove that valuation downwards – and, after a brief uptick when Yew Tree agreed to its £182m investment in January, it plummeted along with other stocks in mid-March as the pandemic took hold.

Stroll then took the opportunity to renegotiate the deal. Instead of taking 16.7% at £4 a share, as planned, his consortium took 25% at £2.25 a share and agreed to an injection of £75.5m in "short-term capital support", along with a long-term capital investment of £260m. Stroll also became executive chairman.

"We are bringing a lot more than money," Stroll said in a video conference which replaced his appearance at the cancelled Geneva Motor Show. "I have a long history in building luxury global brands in both private and public sectors. As executive chairman, I will ultimately be responsible for the strategy we are implementing. The foundation of the strategy is returning Aston Martin to a works Formula 1 team on the grid for 2021."

While the board approved his plans, the company also had to disclose an unwelcome truth: that even with Yew Tree's money, it would fall short of the working capital required unless it could attract outside investment. Shares fell further in response, hitting a low of 65p at the beginning of April before rebounding.

On the heels of that, Stroll spoke again, saying: "A brand with the pedigree and history of Aston Martin needs to be competing at the highest level of motorsport. I think it's the most exciting thing that's happened in recent memory in F1 and it's incredibly exciting for all stakeholders in the sport, especially the fans.

"Our investment strategy places F1 as a central pillar of the global marketing strategy, and it makes perfect sense to rebrand Racing Point for this purpose. Aston Martin has been competing very successfully in various classes of motorsport throughout its history, but we now have an opportunity to create a works team in F1. The global spotlight of Formula 1 is second to none and we will leverage this reach to showcase the Aston Martin brand in our key markets.

"The group of men and women at Silverstone are true racers and their determination and spirit is one of the main reasons I invested in the F1 team. After 30 years, they deserve this opportunity to represent this legendary brand. We are continuing to invest in the team to give everybody the resources required and we will see the benefit of those efforts this year."

Since Racing Point is one of five UK teams to



Rebranding Racing Point is a crucial pillar of Stroll's strategy for rejuvenating Aston Martin

furlough its staff during the COVID-19 outbreak, and Aston Martin's manufacturing facilities are also on shutdown, the F1 plan is precarious. The financial industry remained unenthused by Aston's stated aim of sourcing the additional working capital it requires for the next 12 months via loans and other financial instruments. Stroll urgently needs to make the road car business pay its way – and source more investment.

This has already begun to arrive. A week after the stock touched 65p, Mercedes F1 team boss Toto Wolff was moved to deny rumours linking him to a new role at Aston Martin, telling an Austrian newspaper "I'm not going to become CEO of Aston Martin, and I'm not going to make a strategic investment there either." Twelve days later it was announced that he had bought a minor shareholding in Aston Martin, which amounts to 0.95% after the latest rights issue.

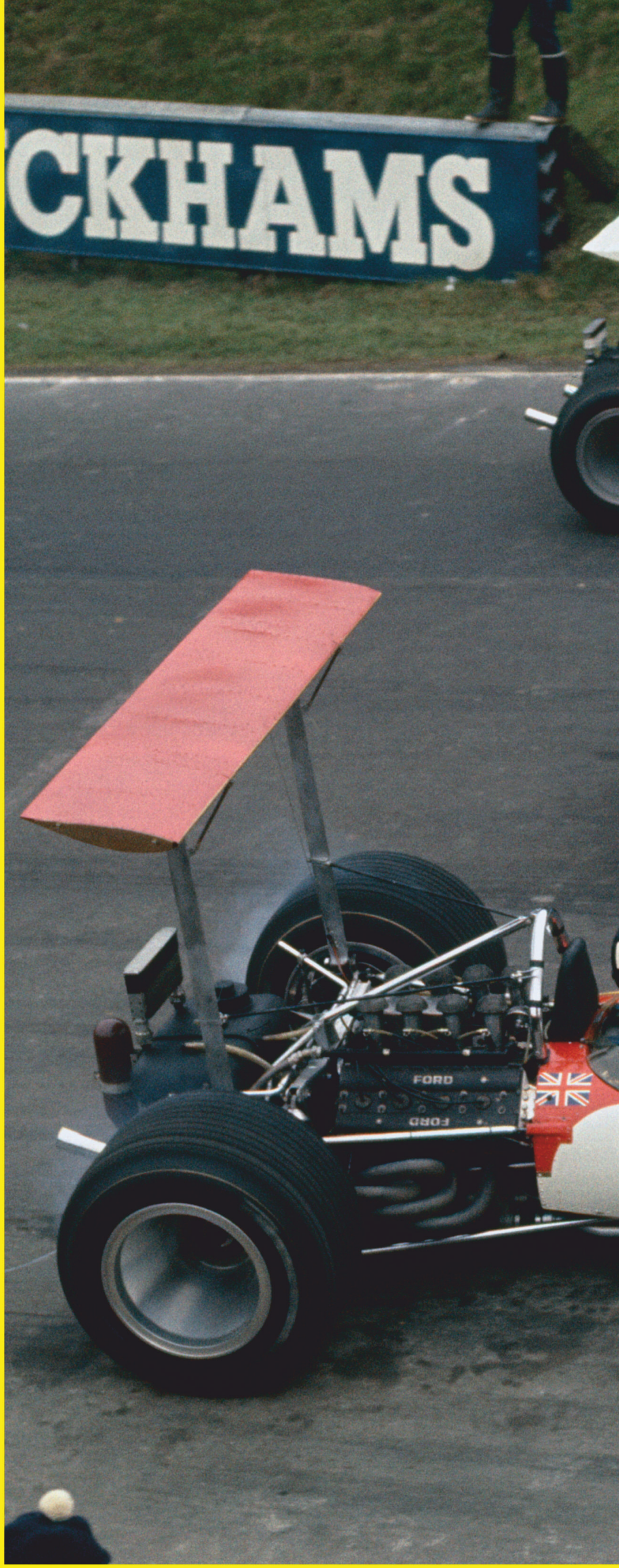
This is small beer compared with Toto's 30% ownership of Mercedes F1, and Wolff insists his future lies with Mercedes. But it's a meaningful – in terms of hard cash – and public show of support for Aston Martin and its F1 project. It's also going to be a rich source of speculation and controversy in the coming months as rival teams, already muttering about Racing Point's so-called 'pink Mercedes', grow fretful about the cosy relationship between F1's mightiest competitive force and its most ambitious midfielder.

WHEN F1 RACED FOR NIL POINTS

Formula 1 racing wasn't always about the world championship. Even well after that was formed in 1950, frequent non-points races at home and abroad could outdo the main events for drama and prestige

WORDS DAMIEN SMITH

PICTURES motorsport IMAGES



Stirling Moss got it right – as usual. "Those non-championship races were just as important as the world championship grands prix," he said. "The BRDC International Trophy was in actual fact more important than the British GP because more prize money was at stake. That's why it usually got a fantastic entry. The world championship can spoil things because drivers spend more time trying to win it than actually trying to win the individual races. That, to me, is wrong. For me, the most important race is always today's. Today I could win, lose, or get killed. What could be more important than that?"

Racing for the hell of it, for the moment – and for money. That was the foundation upon which the sport of motor racing was formed. But even by 1965, when John Webb founded the Race of Champions as the Brands Hatch alternative to Silverstone's long-established BRDC International Trophy, Formula 1 was changing. The world championship wasn't yet the be-all – but within two decades it would be.

A stellar front row of Graham Hill, Jackie Stewart and Jo Siffert line up at the start of the 1969 Race of Champions on a cold March day. Jochen Rindt, Jack Brabham, Bruce McLaren and Denny Hulme filled the next four places...

Britain had more than its fair share of ‘pointless’ F1 races, including the Oulton Park International Gold Cup that started in 1954 (an event won by Moss), but the Brands Hatch and Silverstone races were the biggest, often acting as curtain-raisers to the European F1 season.

Through the 1960s and 1970s, as non-championship races dwindled, the two spring staples of UK motor racing rumbled on, vying for attention, prize money and quality grids bolstered by Formula 5000 cars and later Aurora British F1 regulars. At both, the entertainment was often better than at GPs. Heat formats and shorter distances helped, but as Moss said, somehow these races always had a freedom, unshackled as they were to any ‘greater’ meaning. Perhaps that’s why they tended to throw up surprise winners: those who’d never won before – or never would again. That’s the basis of our selection here, drawn from two decades of ‘pointless’ races at Brands and Silverstone that produced tales of the unexpected and provided gilt-edged memories for all who were lucky enough to witness them.

CLARK FEELS THE HEAT

1965

Imagine this today: a competitive and contemporary F1 field congregates at a British race track for a two-heat dash to warm the cockles and kick off a new season. My goodness, the Brands Hatch Race of Champions was a good idea. The first one, on 13 March 1965, began a new tradition in the best way possible, by creating a storyline of the unthinkable: on the cusp of his greatest season Jim Clark made a mistake. And crashed. It was almost as if Brands impresario Webb had scripted it.

Clark had won the first 40-lap heat in his Lotus 33, but the clanger came in the second. He dropped it at Bottom Bend, under pressure from his good friend Dan Gurney. Then the American was out three laps later when his Brabham’s engine failed.

So who should lead now? Second Lotus drivers only rarely got a look-in and here was Mike Spence’s chance, a breakthrough victory for the taking. A pity, then, that wily old Jack Brabham was closing in for the aggregate win – only for ‘Black Jack’ to lose his oil. Spence was home and dry, beating BRM’s Jackie Stewart by a whopping 59.4 seconds.



THE EAGLE HAS LANDED

19 67

This time more Webb-inspired novelty: two 10-lap heats and a 40-lap final – in front of a crowd of 45,000. Forget GP purity, this was the Race of Champions. Anything goes, a chance for experimentation.

And what usually went first was something mechanical, in the days when racing cars generally broke more than they worked. John Surtees' Honda V12 was thwarted by a stuck throttle slide; Jack Brabham by a loose lead; and Richie Ginther's Eagle by deranged steering. Lorenzo Bandini – just a couple of months before his awful death at Monaco – put in a characterful charge, but fell just 0.4 seconds short of... Gurney: Eagle was an F1 winner. The Anglo-American Racers (as they were then) would repeat the feat in the world championship proper at Spa, but there's an even more quirky stat from Brands: the top five read Gurney, Bandini, Jo Siffert (Rob Walker Cooper), Pedro Rodriguez (Cooper) and Ludovico Scarfiotti (Ferrari) – not a Brit among them, during an era when homegrown talent generally ruled. The first in this case was Chris Irwin, sixth, in a Reg Parnell-run Lotus-BRM. Another tale of the unexpected.



McLAREN LEADS THE HERD

19 68

"Do you realise that the Race of Champions was the first single-seater race I've won at Brands Hatch since 1958? That's 10 years!" wrote Bruce McLaren in his *Autosport* column in March 1968. "That was my first race at Brands and I remember Ken Tyrrell and I were both in Formula 2 Coopers. I suppose I really beat him again last weekend as well, because Jackie Stewart's Matra was down in sixth after a pitstop, but I mustn't rub it in because we're not kidding ourselves this early in the season. We're well aware that Clark, Jochen Rindt and Gurney weren't there, not to mention 'Black Jack' and Surtees with a good Honda."

By the time they'd reconvened at Silverstone for the International Trophy towards the end of April, Clark was missing again – but this time forever. A minute's silence on the grid and the eerie sound of a lone piper marked the passing of the great man, killed in a Formula 2 race at Hockenheim on 7 April. Then the engines started and, as ever, Formula 1 rolled on...

Just as in its first race at Brands, young Robin Herd's McLaren M7A won again, this time Denny Hulme leading home team leader Bruce. McLaren would repeat Gurney's 1967 feat at Spa by winning a world championship F1 race in his own car – but he was spot on to take nothing for granted. The season would centre around Graham Hill, picking up a deflated Lotus quite brilliantly to see off Stewart's Tyrrell-run Matra. The M7A, complete with potent Cosworth DFV V8 now available for the first time as a customer engine, looked magnificent – but ultimately those early non-championship races flattered to deceive. Herd was soon gone, destined for the false dawn of a Cosworth four-wheel-drive car that would never race. Had he stayed, would McLaren have waited until 1974 to win its first world title? The question can only ever be rhetorical.

AMON TO ALL THAT

19
70

One of only two wins in an F1 car – and he didn't even finish at the front of the second heat of Silverstone's International Trophy race of 1970. Chris Amon always deserved so much more.

The Kiwi had won the first heat, which meant in the second he just had to keep within 12secs of a visibly hard-working Jackie Stewart to take the Trophy on aggregate. The victory marked a maiden win for those cocky upstarts at the March factory, Stewart having already won on the 701's debut at the Race of Champions for customer Tyrrell and at the Spanish GP too, a week before Silverstone. Like his M7A, Herd's 701 hit the marks out of the box, but then never quite matched those heights as the season progressed. At Silverstone, Stewart even tried Piers Courage's new Frank Williams-run de Tomaso in practice (imagine such a thing today!). Just a second-opinion favour for a mate, or a sign he really didn't fancy this customer chassis he'd been cornered into for 1970?



Amon's other Formula 1 win, incidentally, was another non-championship race: the 1971 Argentinian GP at Buenos Aires, again a two-heat contest, this time in a Matra.



NOT YET OVER THE HILL

19
71

Talk about a feelgood result. By 1971, Graham Hill was surely just playing for time despite his glint-in-the-eye charisma keeping him high in the public's affections. But at Silverstone in the two-heat 'Daily Express', at 42 years old, Hill defied the nay-sayers for his first F1 win since Monaco 1969 – and what would prove to be his last in an F1 car. Remarkably, he still had an inspirational Le Mans win in him, for Matra in 1972, which astonished even his doubting team-mate Henri Pescarolo. But it wouldn't be until 1975 that he'd reluctantly stop – by then undoubtedly beyond last orders.

Sure, that day in 1971, driving the 'lobster claw' Brabham BT34, Hill inherited his win. Jackie Stewart had won the first heat comfortably for Tyrrell, but crashed early in the second thanks to a stuck throttle. Tellingly, the field was also bulked out by a mixed bag of F5000s. But for Hill, especially at this stage of his life, a win was a win – and they all counted, points or not. And he always was a crowd-pleaser.

NO SECOND GETHIN

19
73

Popular as non-championship races were in the sixties, by the following decade grids had started to shrink and were often bulked up by Formula 5000 cars. This would lead to the most famous, most unexpected – and greatest – 'pointless' victory, at Brands Hatch in 1973.

Peter Gethin, Chevron B24: giant killer? Well, in truth, the giants really killed themselves as high attrition once again became the deciding factor. But in a race led by Jean-Pierre Beltoise (Firestone tyre-eating BRM), Ronnie Peterson (broken diff, Lotus), Mike Hailwood (nasty crash, Surtees) and Denny Hulme (failing clutch, McLaren), Gethin – to his eternal credit – hung in there, picked up places and hit the front with two to go, as Hulme limped home second just ahead of James Hunt. Back in 1971, Gethin had already emerged the surprise right-time, right-place winner of the closest finish to a grand prix at a breathless Monza slipstreamer. Now this. Which was the greater achievement? Probably this one.



HESKETH IN THE HUNT

19
74

This was all about James Hunt's charge to his breakthrough win. As 'Le Patron' Lord Hesketh helicoptered champagne-quaffing guests in from his estate, his plucky team of genuine racers got on with winning an F1 motor race for the first time. Hunt set pole position – by a massive 1.7secs! – then put in a stirring performance after a disastrous getaway.

Lacking a clutch and blistering his hand on a broken gearlever, Hunt beat a decent field that had convened just eight days after the South African Grand Prix. Not for the first time nor the last, a setback sparked the fire that ignited the best from 'Master James': having plummeted down the order he was up to fourth by lap seven, which quickly became third. By lap 13 he was past future McLaren team-mate Jochen Mass, then zeroed in on leader Peterson's Lotus 76.

Think of 'SuperSwede' and images of his Lotus 72 on opposite lock at Woodcote are never far from our minds – but it was at 'Ronnie's corner' that Hunt swept past, Peterson struggling with a chunking left-rear Goodyear before his engine tightened and seized. This was Hunt and Hesketh's – and Firestone's – day.

A PRYCE WORTH PAYING

1975

More mid-1970s Brands magic, this time from the 'Prince of Wales', Thomas Maldwyn Pryce, sublime in the spring on his way to his only Formula 1 win – and another pointless landmark.

The Shadow had smoked its fat Goodyears from pole position, bogging down in the famous Brands start-line dip, as fellow front row man Jody Scheckter scorched away in his Tyrrell. But Pryce, still green and with it all seemingly stretching ahead of him, quickly made up what he'd lost, dispatching Lotus duo Jacky Ickx and Ronnie Peterson no less, and then chasing down Scheckter. Closing, closing... and then bang: Scheckter's Cosworth let go and Pryce was away. Behind him, a charging John Watson also cleared the Lotus duo and took a strong second for Surtees to record a remarkable footnote: the first British 1-2 in an F1 race since Graham Hill and Piers Courage finished first and second at Monaco in 1969.

YOUNG PUNKS ROCK IN THE RAIN

1978

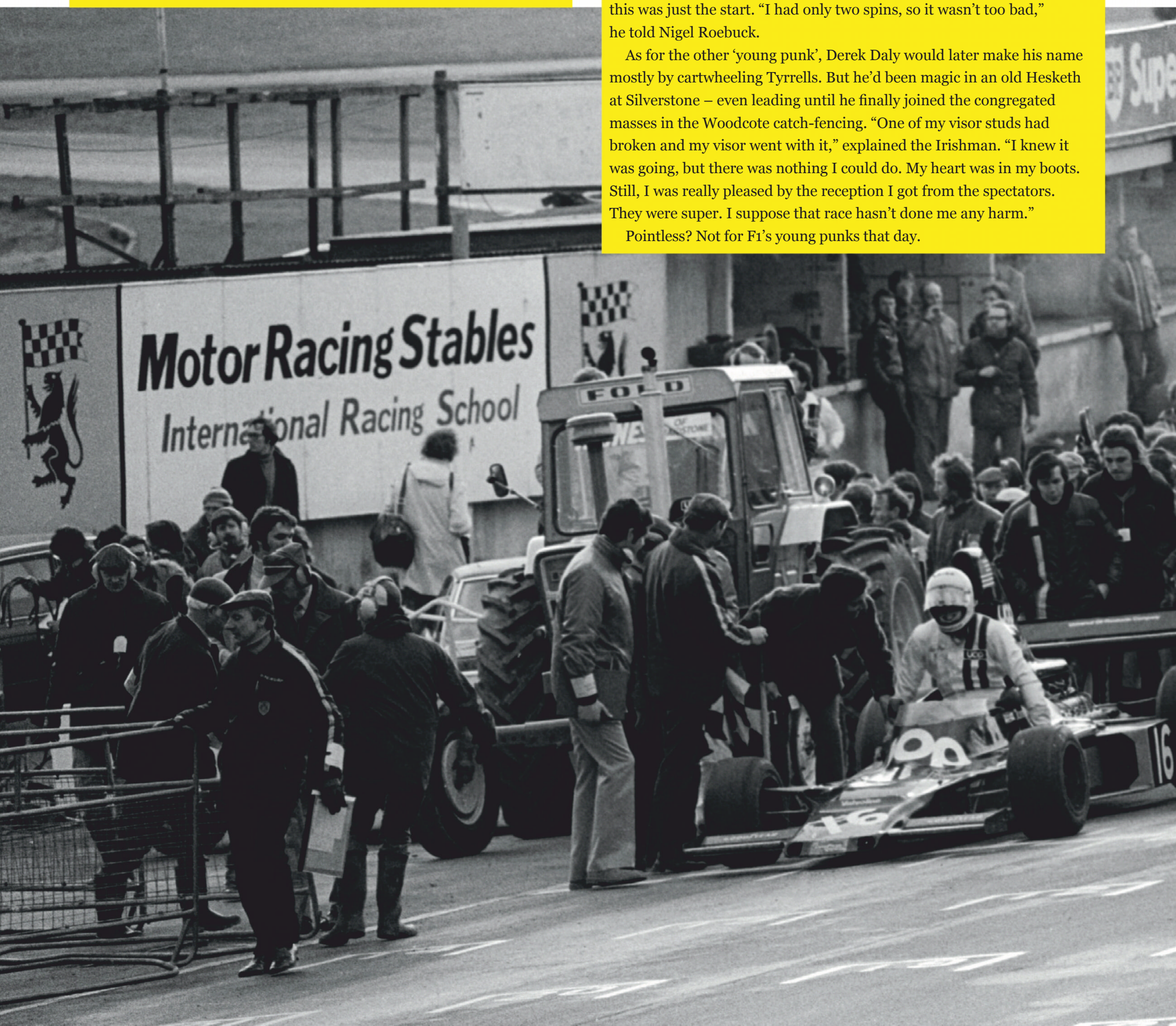
On a sodden stage at Silverstone, two of F1's young punks stuck a rocket up the establishment as the final (contemporary) F1 International Trophy played out in a deluge.

And what a sign-off. The front row didn't even line up, poleman Peterson being forced to start from the pitlane and Lauda not bothering at all after skating off in practice. He was last seen receiving a piggy back by a marshal, with his Brabham plugged in what looks like (and probably was back then) a ploughed field. One can imagine his short-syllabled verdict on the whole affair.

As for the rest, just four out of the 15 who took the start made the finish. Abbey was close to flat-chat back then, but not on 19 March, 1978: drivers were forced to pick their way through a route more befitting of a rallycross – and there at the end was Keijo Rosberg, in of all things a Theodore. For Keke, in just his second Formula 1 race, this was just the start. "I had only two spins, so it wasn't too bad," he told Nigel Roebuck.

As for the other 'young punk', Derek Daly would later make his name mostly by cartwheeling Tyrrells. But he'd been magic in an old Hesketh at Silverstone – even leading until he finally joined the congregated masses in the Woodcote catch-fencing. "One of my visor studs had broken and my visor went with it," explained the Irishman. "I knew it was going, but there was nothing I could do. My heart was in my boots. Still, I was really pleased by the reception I got from the spectators. They were super. I suppose that race hasn't done me any harm."

Pointless? Not for F1's young punks that day.





ROSBERG CLOSES AN ERA

19 83

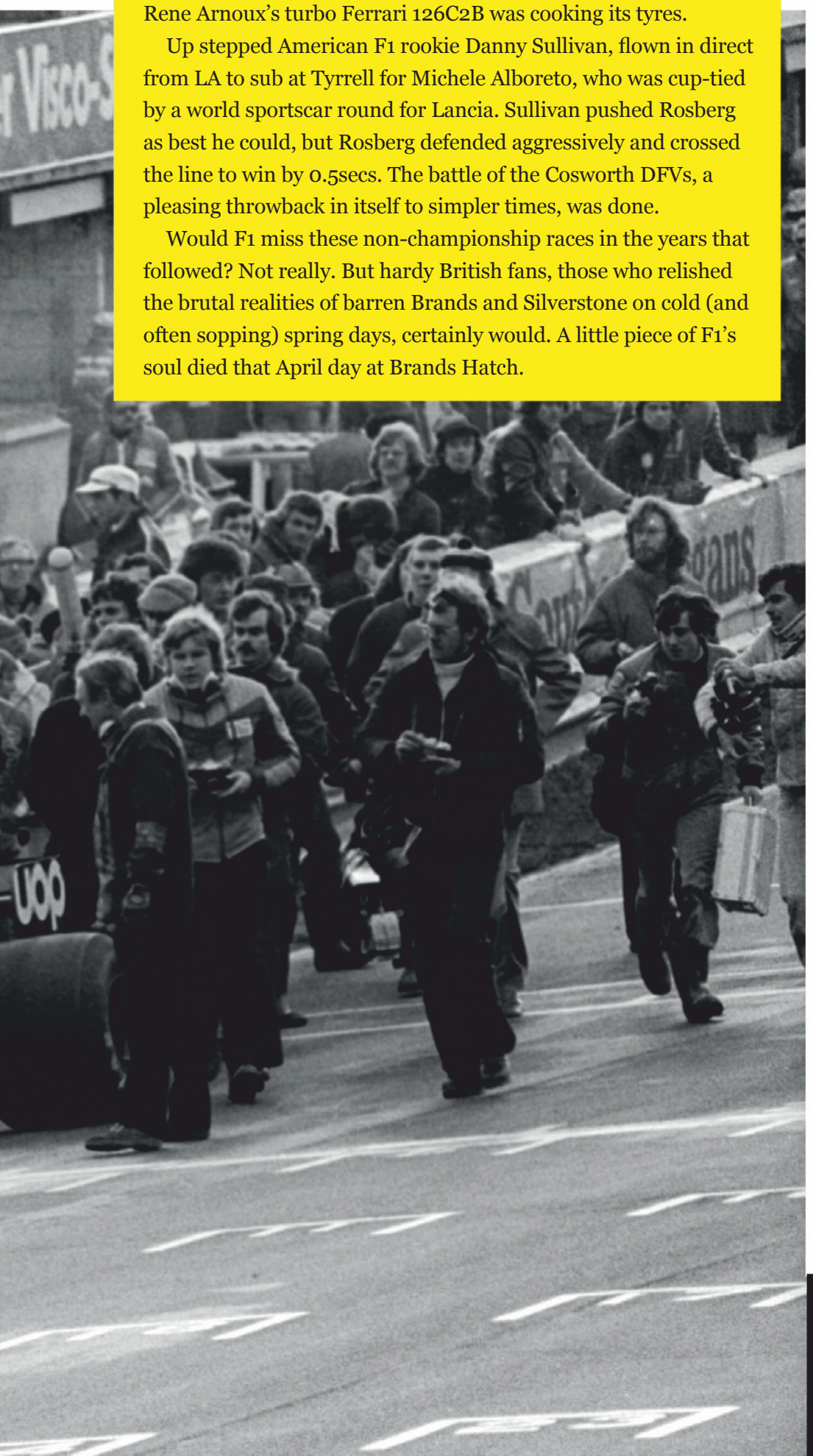
The final (proper) Race of Champions was the last contemporary non-championship F1 race. By then, F1 was moving ever faster, not only thanks to the ground-effect cars that had just been outlawed but also increasingly because of the powerful little bloke running Brabham.

By 1983, Bernie Ecclestone's grip on F1 was welded solid. He'd won the war with race promoters and the FIA and in his vision of increasing conformity, pointless F1 races had become exactly that. Just 13 cars lined up for the first Race of Champions since 1979, a clashing test at Paul Ricard proving a conclusive diversion.

There's a pleasing symmetry that the same chap who won the final F1 International Trophy should also win the last Race of Champions. By now Rosberg was a world champion, pedalling a vastly outgunned Williams FW08C. Not at Brands though, where Rene Arnoux's turbo Ferrari 126C2B was cooking its tyres.

Up stepped American F1 rookie Danny Sullivan, flown in direct from LA to sub at Tyrrell for Michele Alboreto, who was cup-tied by a world sportscar round for Lancia. Sullivan pushed Rosberg as best he could, but Rosberg defended aggressively and crossed the line to win by 0.5secs. The battle of the Cosworth DFVs, a pleasing throwback in itself to simpler times, was done.

Would F1 miss these non-championship races in the years that followed? Not really. But hardy British fans, those who relished the brutal realities of barren Brands and Silverstone on cold (and often sopping) spring days, certainly would. A little piece of F1's soul died that April day at Brands Hatch.



THE TOP 10 NON-CHAMPIONSHIP F1 RACES

10 **1973** BRDC International Trophy, Silverstone

Snow proved decisive in the outcome as Ronnie Peterson's Lotus slid off the road and handed victory to Jackie Stewart's Tyrrell.



9 **1971** Questor Grand Prix, Ontario

This 'Race of Two Worlds'-style event pitted F1 cars against American Formula A (to become F5000) machinery with Mario Andretti winning for Ferrari.



8 **1952** Daily Mail International Trophy, Boreham

A combined race for F1 and F2 cars in which Mike Hawthorn (pictured here at Spa) dazzled by leading in the rain, eventually finishing third in a Cooper-Bristol.



7 **1975** BRDC International Trophy, Silverstone

Famous for a great battle between James Hunt (whose Hesketh blew its engine), Emerson Fittipaldi (McLaren) and Niki Lauda (Ferrari), won narrowly by Lauda.



6 **1960** International Gold Cup, Oulton Park

No Ferraris present, but a starring drive from Innes Ireland (Lotus) before Stirling Moss inherited victory following an epic tussle with Jack Brabham.



5 **1969** BRDC International Trophy, Silverstone

Notable for a stirring charge by Jochen Rindt, who overtook Jackie Stewart's narrow-tyred Matra and fell just 2.2secs shy of victory as Jack Brabham ran out of fuel.



4 **1955** Syracuse Grand Prix

British dentist Tony Brooks won on his debut in contemporary F1 machinery, on a track he hadn't seen before, defeating the factory Maseratis with a Connaught.



3 **1964** Mediterranean Grand Prix, Enna-Pergusa

Jo Siffert's privately run Brabham BRM averaged 133.9mph in narrowly beating the works Lotuses of Jim Clark and Innes Ireland in a drag race on Europe's fastest non-banked circuit.



2 **1974** Race of Champions, Brands Hatch

Jacky Ickx's sensational wet-weather defeat of rising star Niki Lauda with a round-the-outside pass in an ageing Lotus 72 was arguably the Belgian's last great F1 performance.



1 **1962** BRDC International Trophy, Silverstone

Graham Hill pipped Jim Clark's Lotus 24 to victory with a last-gasp pass across the finish line while broadside in his BRM.



BY *AUTOSPORT* EDITOR KEVIN TURNER

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British Grand Prix
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NATURAL

THE HISTORY OF WILLIAMS

BORN

PART 1: 1977-82

RACERS

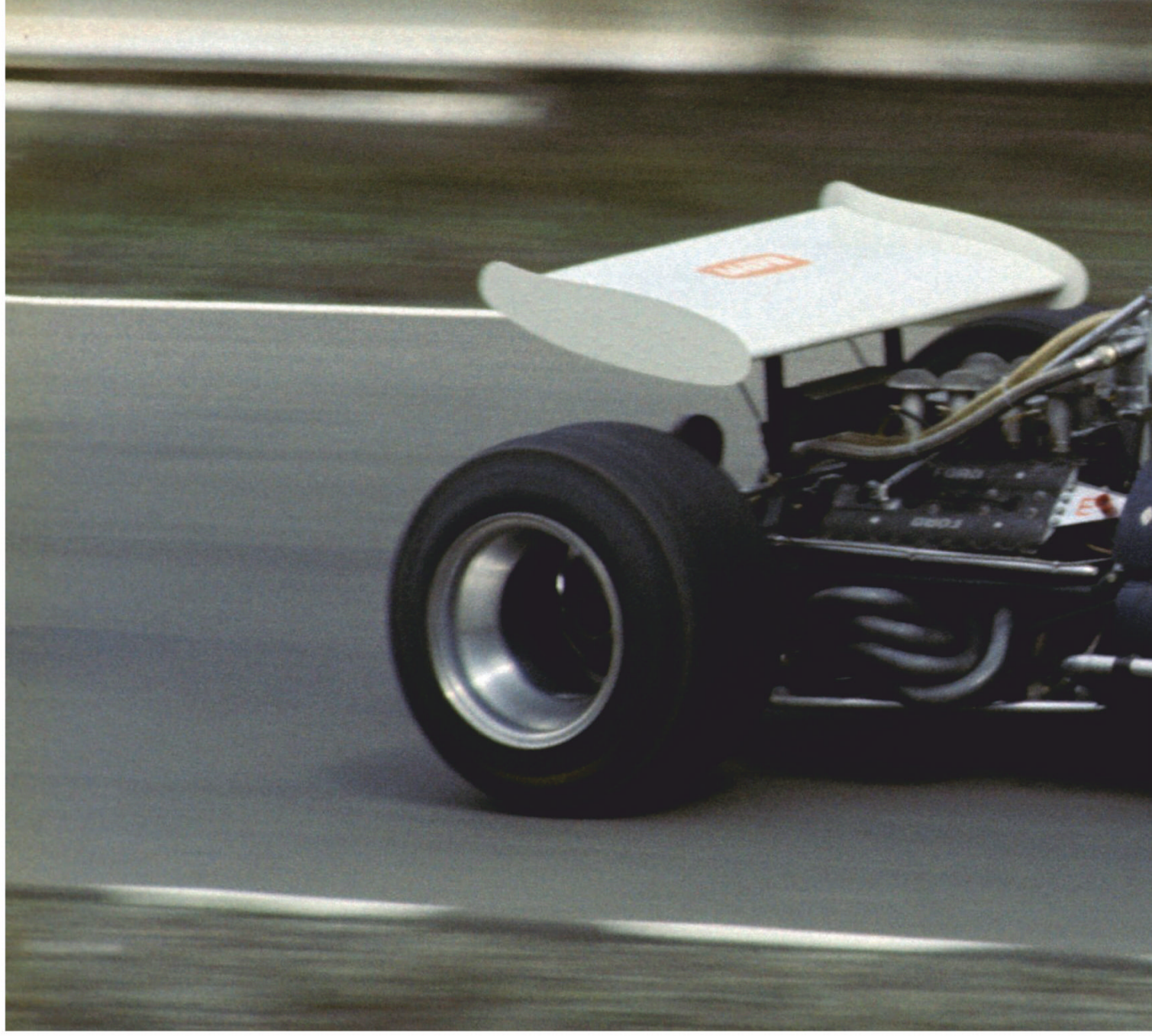
On the face of it, two seasons was all it took for Williams Grand Prix Engineering to become a world-beating contender. But for years before that, all Frank Williams knew was toil – and the scorn of fellow competitors...

WORDS DAMIEN SMITH

PICTURES motorsport IMAGES

FORGET THE PAST FEW SEASONS. PARK THE INCONVENIENT TRUTH THAT THE LAST WIN WAS EIGHT YEARS AGO. THE CURRENT, DEVASTATING BACK-OF-THE-GRID MALAISE CAN'T TAKE AWAY FROM WHAT HAS COME BEFORE. THE HISTORY, MEMORIES, IMAGES, VICTORIES… THEY'RE INDELIBLY BRANDED INTO THE FABRIC OF FORMULA 1.

NINE CONSTRUCTORS' WORLD CHAMPIONSHIPS, SEVEN DRIVERS' TITLES, 114 GRAND PRIX WINS (THIRD IN THIS REGARD BEHIND ONLY FERRARI AND McLAREN) ARE THE STOIC FOUNDATIONS OF THE WILLIAMS LEGEND – AND WHAT MUST NOW INSPIRE, RATHER THAN WEIGH DOWN, THOSE WHO ARE WORKING SO HARD ON THE REVIVAL.



Officially, it all started 43 years ago – but that's not true at all. Within just two years of its founding, Williams Grand Prix Engineering was the shiny, new irresistible (down)force of F1, but its rise begs the old question: 'how many nights does it take to be an overnight sensation?' Eight long years of turmoil, tragedy, of missed and wasted opportunity, of false starts and disappointment – the same length of time as the current drought – preceded what was Frank Williams's last chance to really make his F1 ambitions stick as he'd always belligerently believed they would.

Frank had briefly raced himself before wisely recognising his strengths lay in the hustle of getting racing cars on to grids rather than away from them. His first muse was good friend and brewery heir Piers Courage, who scored a promising second at Monaco in a smartly turned out blue Brabham in 1969 – only to lose his life in a horrifying accident at Zandvoort a year later, driving a de Tomaso born from a collaboration with talented Italian engineer Gian Paolo Dallara. So much promise, cruelly snuffed out in the Dutch sand dunes. Most would have quit this violent game there and then, but racing people are wired differently – and oddly. Williams was devastated, of course he was – but there was no question of stopping. He knuckled down and went again.

Few in F1 took him seriously. To some, he was dubbed 'Wanker Williams', written off as a 'startline specialist' who at times was consigned to making business calls from a phone box when he couldn't pay the line bill from his base in Bennet Road, Reading. By 1975, he was desperate – then old friend Dallara introduced him to Austro-Canadian oil tycoon (and eccentric racing nut) Walter Wolf. Here was a man with the means to help, and Frank was grateful to receive. To this day, Wolf maintains he never bought shares in Frank Williams Racing Cars, but Frank claims his investor ended up with 60% and paid off debts of £140,000. Why? Simply, Wolf liked Frank, which is no surprise. Irrepressible, energetic and quick to smile, he was an easy man to like – and for some, to believe in (despite everything). But by 1976 Frank's beloved F1 cars were entered under the

The early days were a struggle. This was one of Frank's former bases, a humble workshop in Slough





Frank's initial success came with friend Piers Courage and a Brabham, but Courage perished at Zandvoort in 1970

auspices of Walter Wolf Racing, the uncompetitive Hesketh 308C as a Wolf-Williams FW05. Whether formally or otherwise, Frank was now an employee – and that was never going to wash. Time for one final throw of the dice. But as he gambled and backed himself one last time, he made the most crucial – and best – decision of his life: he convinced a sharp, young engineer he'd hired to come with him. It was just as well that Patrick Head said yes.

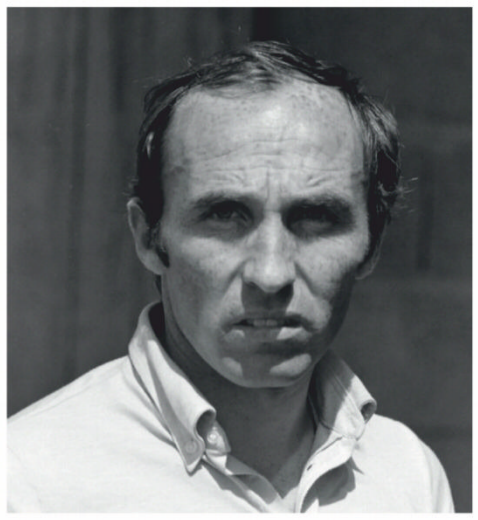
Son of a military man who'd raced Jaguars in the 1950s, Head was another cocktail of apparent contradictions. After his own brief dalliance with the navy, he'd earned an engineering degree and set a rough path towards motorsport, earning his spurs at Lola. Direct, fiercely logical but blown along by the creative flair of a free spirit, Head freelanced his way through the early 1970s until he was introduced to Williams by racer and ace sponsor hunter-gatherer Guy Edwards. Williams spotted a kindred spirit, but Head's faith in his new friend was still remarkable. Having worked closely with Harvey Postlethwaite and made a significant contribution to the smart, new Wolf WR1, Patrick was turning his back on a well-funded team that had just hired Jody Scheckter – and would astoundingly win its first grand prix – for a man who had just taken a lease on a former carpet warehouse in Didcot, and had nothing to fill it.

To the F1 paddock, it seemed to be the same old 'Wanker Williams' when this apparent new entity pitched up at the 1977 Spanish Grand Prix with what was supposed to be a year-old March 761 for Belgian journeyman Patrick Nève. As it turned out, March's smooth-talking co-founder, Max Mosley, had sold them a cast-off – orange paint under the bodywork's surface suggested Vittorio Brambilla's Beta Tools livery from 1975, but it might have been even older (imagine the Mosley smirk). A seventh place at Monza was as good as it would get for Nève and whatever March he was actually driving. But all this was just to keep the ball rolling. Back at the warehouse, Head was cooking up the car that would really kickstart this remarkable story.

There was nothing particularly special about the FW06 of 1978, but as conventional F1 cars of the era go it was neat, tidy and logically conceived as a foundation upon which the team could build. Significantly, it also sported new colours. Williams had sourced F1's first sponsor deal from the Middle East, as Saudia Airlines bought into Frank's vision. And just to complete the package, the team had a new driver for what was still a single-car entry. In Alan Jones, neither Williams nor Head truly realised what gold they'd just struck.

Like Head, Melbourne-born Jones was the son of a moderately successful 1950s racing driver and couldn't have been a better fit for the team. Hell, he even looked like Patrick: if you didn't know, they could have been brothers. Having scrapped his way to London, then wheeled and dealed his way into F1, 'Jonesy' had even scored a grand prix win, for Shadow in Austria in 1977. That form and his no-nonsense, straight-ahead Aussie approach raised the stakes for Williams and Head – and the trio quickly gelled. Shared outlooks helped forge a three-way axis of mutual respect.

In the year Lotus struck ground effects





The hiring of Patrick Head (below) by Williams (above) was a risk for both. Head turned his back on Wolf, a well-funded team on the way up



Despite this great start, Regazzoni relied on problems for Jones and Jabouille to win at Silverstone in 1979



Jones was a perfect fit for Williams and claimed the team's first pole at that famous 1979 British GP



(black and) gold with the stunning Type 79, and Brabham's Gordon Murray lobbed in his fan car red-herring, Jones and the little FW06 were never going to shake up the F1 world – but still, there was genuine promise. At the penultimate race at Watkins Glen, Jones started third, finished second to Carlos Reutemann's Ferrari – and beat Scheckter's Wolf (which must have been satisfying). Meanwhile, Head had been taking a good look at that incredible Lotus.

His FW07 for 1979 was the car Colin Chapman's Lotus 80 should have been. 'Copy' is a strong word in F1, as Racing Point would currently attest, but it's never been a secret that Head's creation was heavily influenced by Mario Andretti's 1978 title winner. The harnessing of true downforce was also bolstered by recruitment: first, a straight-out-of-college Neil Oatley doubled the manpower in the design office, while another young chap by the name of Ross Brawn was busy learning, listening and working away in the machine shop. Then as the FW07 began to take shape in a newly acquired quarter-scale windtunnel, another bright chap called Frank Dernie signed up. Where first there had only been Frank and Patrick, now there was strength in depth. This was now a proper F1 team.

Jones began the new season still in FW06, but added a second podium finish at Long Beach before the new 07 tested away from prying eyes at Ontario Motor Speedway, California. For the driver, here the ground effects penny dropped. Andretti had described his Lotus as "painted to the road"; at Ontario, Jones came in after his first run with his eyes wide open: "Bloody hell. Now I understand what Andretti and [Ronnie] Peterson have had. The car has so much grip I can't slide it."

It took a while to iron out new-car niggles, but once the Cosworth DFV-powered FW07 got into its stride Williams was almost unstoppable. At Silverstone for the British Grand Prix – perfect timing, Frank – Jones hooked it up and stuck it on pole position, six-tenths quicker than Jean-Pierre Jabouille's turbo Renault, on a proper power circuit. Along the pitwall, all eyes turned to the Williams boys. Who was the 'wanker' now?

In the race, Jones scorched into a comfortable lead, only for a new weld on the water pump to crack, and the leak led to a piston failure. Still, by 1979 there were two Williams cars on the grid, Swiss veteran Clay Regazzoni having joined the team. Once an F1 loose cannon, 'Regga' was now in the autumn of his career but picked up a final victory that day – and the first of the team's 114. "Bravo, Frank," purred Clay at the press gathering.

After Silverstone, Jones swept to four wins in five – Germany, Austria, Zandvoort and Montréal. It was too late, partly thanks to a convoluted points system, to stop Scheckter's Ferrari winning the title, but Williams had more than made its point – with a little help from circumstance. Instead of capitalising on his glorious 79, Chapman was busy shooting off down cul-de-sacs with ill-considered innovations. Ligier could have been a problem, but lacked the hard-edged consistency and solid engineering logic upon which Williams was built. As for Ferrari, its perseverance with the still-successful flat-12 would soon play against it, being the wrong shape to properly harness ground effects downforce, while Renault's turbo – the true indicator of what was to come – was still a grenade with a hair trigger. So 1980 would be Jones's year – although not without a fierce fight from another new force who would play his own significant role in the Williams story further down the line.

Nelson Piquet had enjoyed a privileged upbringing in Brazil. Life didn't have to be difficult, but to his credit he'd made it so by heading to cold and dreary 1970s England to make his name in Formula 3. In 1980, his second full season with Bernie Ecclestone's Brabham, Piquet would prove that privilege hadn't made him soft. The kid was street-smart, hard-edged and fast. He and wheeler-dealer Jones were poles apart and yet remarkably similar. No wonder they couldn't stand each other. Piquet led Jones by a point at the penultimate round in Montréal when the pair clashed at the first start. Forced to take his spare BT49 for the restart, Piquet charged into the lead – only for his engine



Silverstone opened the floodgates for the team, and especially Jones. He won the next race, Germany (below), with Regazzoni second, and followed that up with victories in Austria, Holland and Canada (bottom)







Time to celeberate after all of the hard times. It was fitting that the team's first win came on home soil

IT TOOK A WHILE TO IRON OUT NEW-CAR NIGGLES, BUT ONCE THE COSWORTH DFV-POWERED FW07 GOT INTO ITS STRIDE WILLIAMS WAS ALMOST UNSTOPPABLE

to fail. Jones was champion, Williams having already tied up its first constructors' crown.

The FW07 would deliver another constructors' title in 1981, but what would become a familiar Williams trope would first raise its head as the team failed to properly manage tension between its drivers. In 1980 Regazzoni had made way for Carlos Reutemann. The Argentinian was still a great driver but had endured a lacklustre time at Lotus and accepted clear number two status to Jones when he joined Williams. The pair kicked off 1981 with a one-two in Jones's favour at Long Beach, but in Rio Reutemann ignored an order to cede his lead to the world champion and won in defiance. They hadn't got on before – now the atmosphere was poisonous. Both would claim two victories each over the course of the year, but it was Reutemann who headed to the Caesars Palace finale in Las Vegas with the title within his grasp. What really happened that day? Carlos started from pole, but simply disappeared in the race and slipped out of the points, complaining of a notchy gearbox (the team found nothing wrong). Jones won, but Piquet made sure of the fifth place he needed to be champion by a single point. After one of F1's strangest title denouements, Reutemann went home having spoken barely a word.

This was a time of transition for Williams and its drivers. Jones had already shocked the team at Monza by telling them he intended to retire at season's end (Vegas was a fitting sign-off for its first and forever favourite talisman), leaving Frank and Patrick little time to find a suitable top-line replacement. They had a performance test booked at Paul Ricard and chose Keke Rosberg to drive, with little thought of signing him. But Dernie reported back emphatically that here was the answer to their problem.

For cock-sure Rosberg, Williams was the career salvation he desperately needed. For the first time, the Finn's certainty about his gilt-edged F1 future had faltered after a miserable season at Fittipaldi. Until Jones dropped his bombshell, Keke had nowhere to go. Thus out of mutual necessity grew another key Williams partnership, and Rosberg emerged as the perfect successor to Jones.

Reutemann too would soon depart, from F1 entirely and for good. He was outqualified by Rosberg in the 1982 season opener at Kyalami, but finished second in the race, then outperformed by his team-mate at a controversial Rio grand prix (Keke finished second to Piquet, but both were disqualified for being underweight). And that was it. Reutemann quit and went home. In the wider world, tensions between his country and the UK over sovereignty of the Falklands Islands would spill into a short but brutal war in April, and for Carlos it was all too uncomfortable. F1's loss would

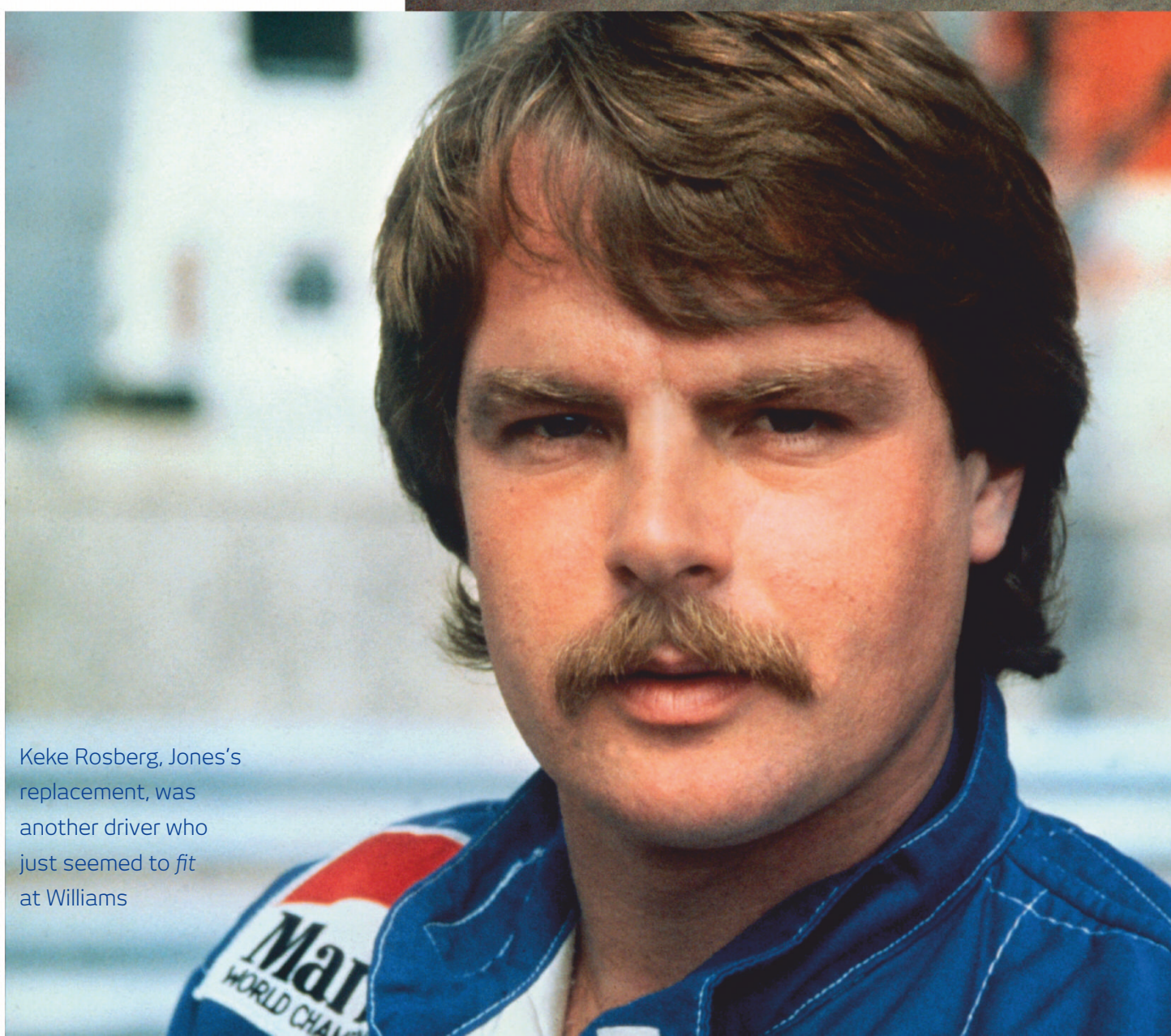


In Brazil, in 1981, Reutemann was the sole Williams driver on the podium as Jones refused to turn up, yet Carlos so nearly won the title that season





The DFV was competitive in 1982, but a turbo engine would soon be needed if the team was to stay at the front



Keke Rosberg, Jones's replacement, was another driver who just seemed to *fit* at Williams



Despite a power deficit to the turbo-engined cars and only one win, the Swiss GP at Dijon, Rosberg ensured the team claimed another title in 1982

AFTER PICKING ITS JAW FROM THE FLOOR (TWICE), THE WILLIAMS TEAM DID WHAT IT HAD ALWAYS DONE: KNUCKLED DOWN AND WENT AGAIN

be Argentina's gain as he embarked on a high-profile and successful career in politics.

Turbulence for Williams, then, but F1 itself was in greater turmoil over the course of a deeply troubled season. The FISA-FOCA war for control of the sport was the wider context that even led to a race boycott by the British 'garagiste' teams at Imola, then Gilles Villeneuve died in a senseless qualifying accident at Zolder and Didier Pironi was launched into a leg-smashing crash in the spray of Hockenheim. Through the chaos and gloom, Rosberg kept his head as 11 drivers scored race wins, his single success at Dijon – plus an unforgettable near-miss after a fantastic chase of Elio de Angelis's Lotus in Austria – proving enough to clinch the title. He'd done so in a tidy FW08 powered by a £7,500 off-the-shelf DFV against the growing force of the turbos – yet despite that remarkable achievement, Williams was all too aware which way the wind was blowing.

Without access to a turbo, the team was having to box clever – as usual. Development of a smart and potentially game-changing six-wheeler – four at the back rather than at the front like Tyrrell's 1976-77 P34 – was designed not only for improved traction, but more importantly for reduced drag to keep up with the turbos on the straights. Realising this was no gimmick, the FIA moved quickly to ban four-wheel drive – then pulled the rug even harder in what seemed a wider-context politically motivated decision to ban ground effects, just months before the 1983 season. After picking its jaw from the floor (twice), the Williams team did what it had always done: knuckled down and went again. New challenges lay before it – but for Frank, what was new? He'd already come an awful long way from those days in the Bennet Road call box.

These are unprecedented times

The health of our family, friends and our community has to be our no. 1 priority right now. Working remotely, not being able to see friends and with no live sport on the TV can make it really tough to stay positive though!

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Ronnie Bucknum in his Honda RA272 | 1965 Monaco Formula 1 Grand Prix
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NOW THAT WAS A CAR

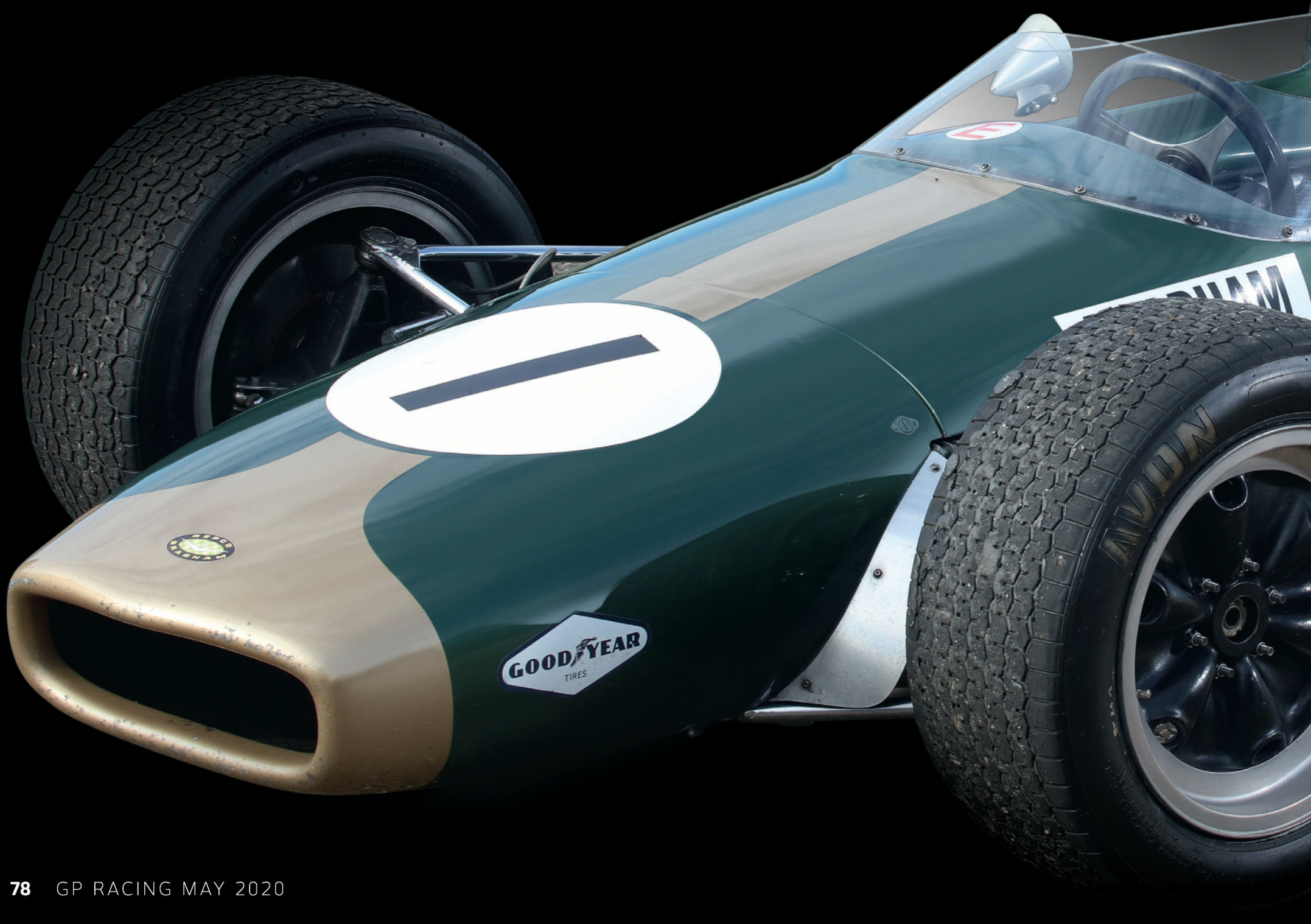
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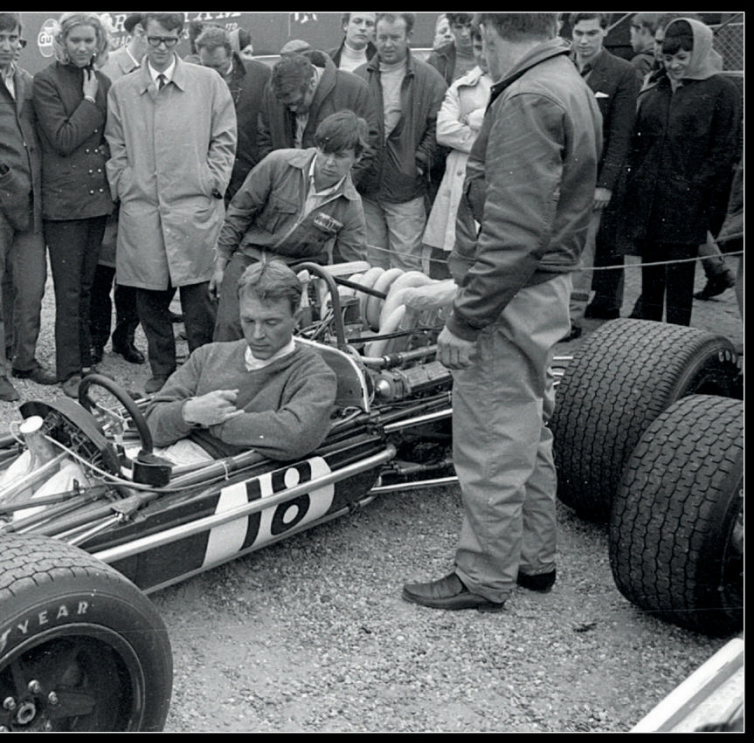
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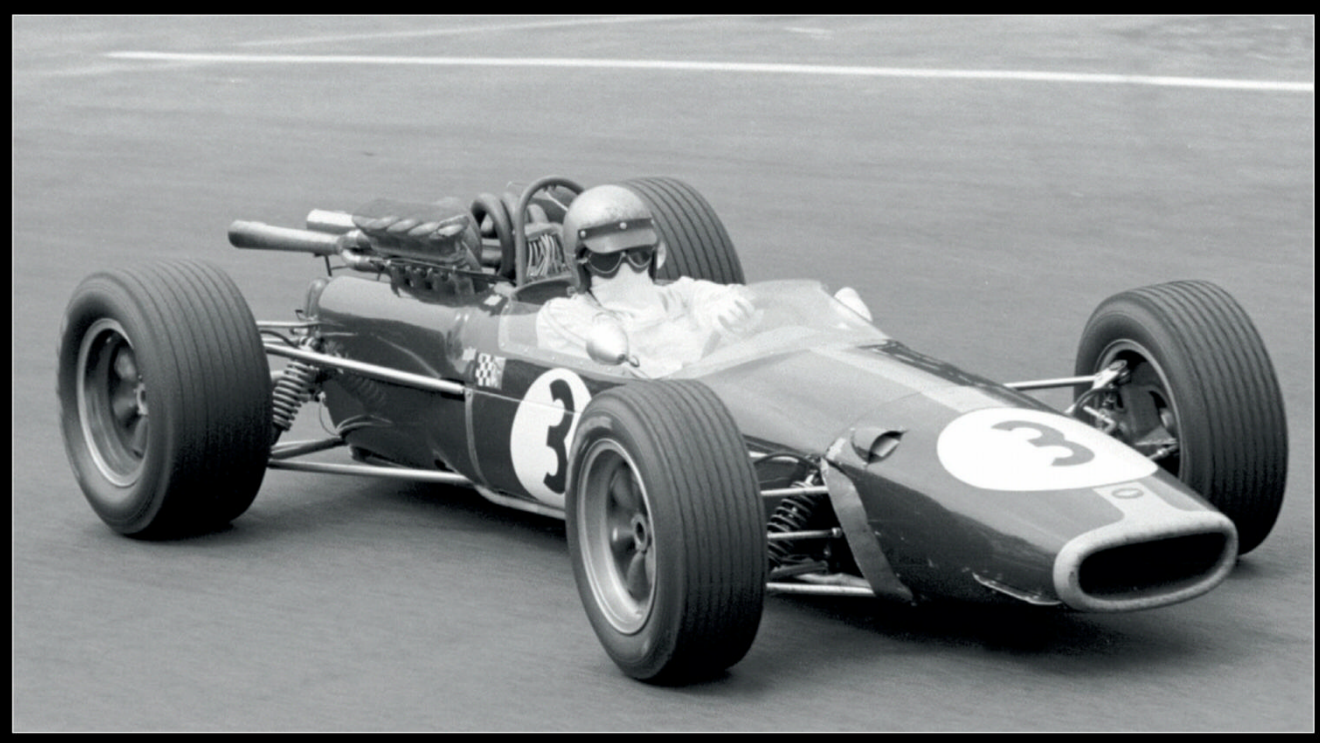
THE BRABHAM BT24



When Black Jack's thunder from Down Under defeated something special from Hethel




18


3
3


REPCO — BRABHAM
29
FESTIVAL OF SPEED

NOW THAT WAS A CAR
No.86

THE BRABHAM BT24



History rightly records the Lotus 49 as one of the seminal grand prix cars of the 1960s. Conjoined with the Ford-Cosworth DFV engine, it rendered its opposition obsolete at a stroke. And yet it was beaten to the world championship in its first year by one of those very dinosaurs.

Appearing for the first time on the same weekend as the Lotus – Zandvoort 1967 – Brabham's BT24 was everything Colin Chapman's masterpiece of lightweighting wasn't. From its steel spaceframe chassis and glassfibre bodywork to its simple coil-over-springs suspension, it was a work of pragmatism and simplicity rather than restless innovation. Still, at least it had bespoke-designed, cast magnesium suspension uprights rather than the ex-Triumph Herald forgings used by its predecessors.

These differences cut to the heart of what marked Brabham out from Lotus in the 1960s. Both businesses relied on selling cars to supplement their prize money from racing, but whereas Chapman brazenly shifted lesser machinery to his customers, Brabham built a reputation for supplying competitive products to anyone. Indeed, Jack Brabham himself had learned this the hard way when his young racing organisation acquired a Lotus 24 in 1962, only for the works team to unveil the vastly more advanced and competitive Type 25.

Having set up shop under his own name at the turn of the decade after winning his first two world championships as a works Cooper driver, the entrepreneurial and mechanically gifted Brabham built his business gradually. In partnership with fellow Australian Ron Tauranac, whose diligent and focused engineering became a cornerstone of the Brabham brand, Jack sold competitive chassis for the junior formulae while gathering momentum in Formula 1.

The abrupt doubling of the maximum engine capacity for 1966 proved decisive: Brabham teamed up with Australian automotive components giant Repco to assemble a new three-litre V8 based on existing stocks of an abandoned Oldsmobile road car unit. It wasn't hugely powerful but the aluminium block was lighter than the equivalent V12 a cash-strapped

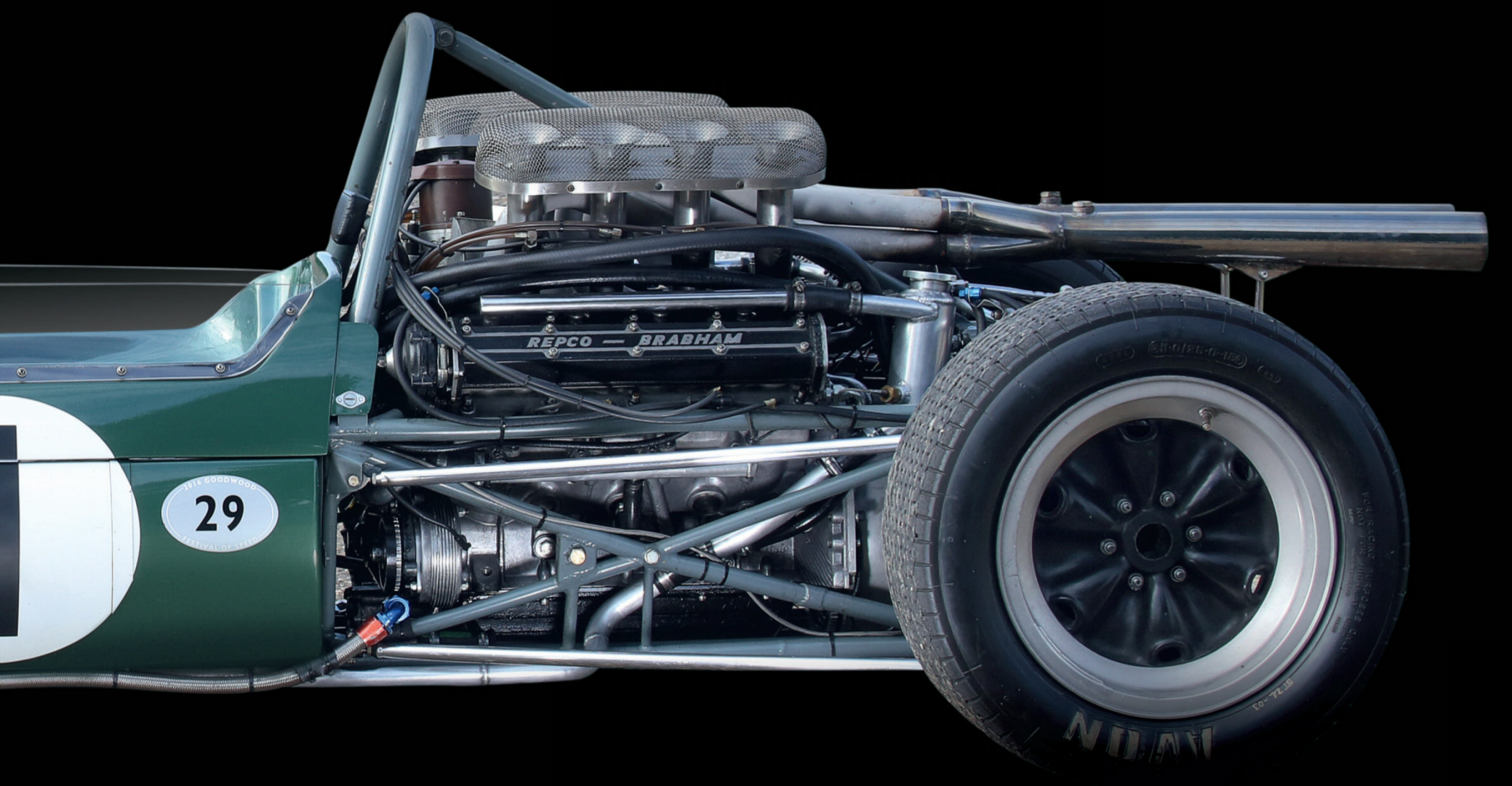


Ferrari had been forced to repurpose from its sportscar efforts. Meanwhile, the other British 'garagiste' teams struggled to find engines at all, since the likes of BRM and Coventry Climax had frittered away time fighting against the new regulations rather than developing products compliant with them. In this chaotic environment, Brabham became the first driver to win the world title in a car bearing his own name. His BT19 wasn't innovative or even particularly integrated – the chassis had been sitting around in the workshop for months, waiting for a 16-cylinder engine Coventry Climax decided not to build – but it was solid, reliable, easy to work on, and could be coaxed into a four-wheel drift. Brabham clung on to his "Old Nail" even after Tauranac produced a better-integrated model, the BT20.

The 1967 BT24 was therefore Brabham's third shot at producing a three-litre F1 car, but still Tauranac resisted the pull of fashion, keeping faith with a steel spaceframe structure even as his rivals embraced aluminium monocoques. His reasoning was sound: a properly designed and built spaceframe was light enough to be in the competitive ballpark, stiffer than a monocoque designed by someone who didn't know what they were doing, and easier for a customer to fix if they crashed it. Similar logic governed the suspension layout; Lotus mounted its springs and dampers inside the car body and actuated them via rocker arms, calculating that the aerodynamic benefit was worth accepting the rockers' relative lack of stiffness. Tauranac conducted some (albeit primitive) windtunnel tests at what is now the MIRA research facility and concluded the opposite. Accordingly, Brabhams continued to feature solidly engineered suspension setups with the springs



"TAURANAC RESISTED THE PULL OF FASHION, KEEPING FAITH WITH A STEEL SPACEFRAME STRUCTURE EVEN AS HIS RIVALS EMBRACED ALUMINIUM MONOCOQUES"



and dampers sitting in the airstream.

The BT24 was lighter than the BT20 and slightly narrower, with the fuel tanks repositioned within the chassis frame. As well as specifying bespoke uprights for the first time, Tauranac adjusted the suspension design to be narrower at the front and wider at the rear, to suit the preferred handling characteristics of Brabham and team-mate Denny Hulme. The majority of the differences were behind the driver, where the new Hewland DG300 gearbox was mated to the new Repco 740 engine.

The key to the competitiveness of the Repco V8 in the first two seasons of the three-litre era was the very reason General Motors had dropped the original unit from mass production. Aluminium is light but expensive and tricky to work with, and the ratio of imperfect castings to useable ones was too much for GM's bean counters. Brabham had seen a Buick-badged version of the V8 in a Scarab in Australia in 1962, and three years later he approached long-time sponsor Repco to produce a 2.5-litre variant for Tasman racing and a three-litre for F1.

Having predicted the chaos of the 1966 F1 season perfectly, Brabham was equally aware that he couldn't count on his rivals being in disarray for long. Just as the BT24 was a finessed evolution of its predecessors, the Repco 740 engine was a careful progression of what had gone before. With the original V8, Repco had acquired 26 Oldsmobile blocks (similar to the Buick, but featuring six head bolts for each cylinder rather than five) and re-machined them to more exacting standards, then mated them to a new bottom end and new cylinder heads designed by Brabham along with Repco's Phil Irving in a rented flat in Clapham during 1964. Reliability and serviceability were prioritised over power – for instance, the cylinder heads could be removed without disturbing the timing gear.

NOW THAT WAS A CAR
No.86

THE BRABHAM BT24

The fundamentals of the 740 block were similar to before, but the design and casting was undertaken by Repco, enabling it to remove some of the redundant areas of the Oldsmobile design, which had used pushrod valvegear. On the 620 engine Repco had covered and filled the various voids and pipes with aluminium plates and epoxy resin, a facet picked up on rather sneeringly in some quarters of the specialist press.

Besides neatness, one of the prime motivators for redesigning the block was Brabham's desire to relocate the exhausts to the centre of the vee, neatening the airflow around the flanks of the car and avoiding an awkward journey for the exhaust pipes between the chassis rails. Accomplishing this involved redesigning the cylinder heads from top to bottom, including new stud patterns which in turn required changes to the block. Revising the structure to remove redundancies from its road car roots enabled Repco's engineers to shave 15kg from the finished item, which output an honest 330bhp, a gain of 20bhp over the original.

Repco fell behind in the design of the new block and the 740 didn't appear until Monaco in 1967, round two, where Brabham raced in his "Old Nail", the BT19. A broken conrod put him out on the first lap, resulting in further delays while Repco investigated the cause. The company's physical location also caused a host of logistical difficulties.

"The airfreight was always a bind," Brabham recalled years later. "I often think back and wonder how the hell we actually won a world championship with all the problems we had – twice we had engines lost between Melbourne and London.

"One time the plane carrying our engines had technical trouble in Cairo. They put the passengers on another plane but all the cargo, including our engines, went back to Melbourne.

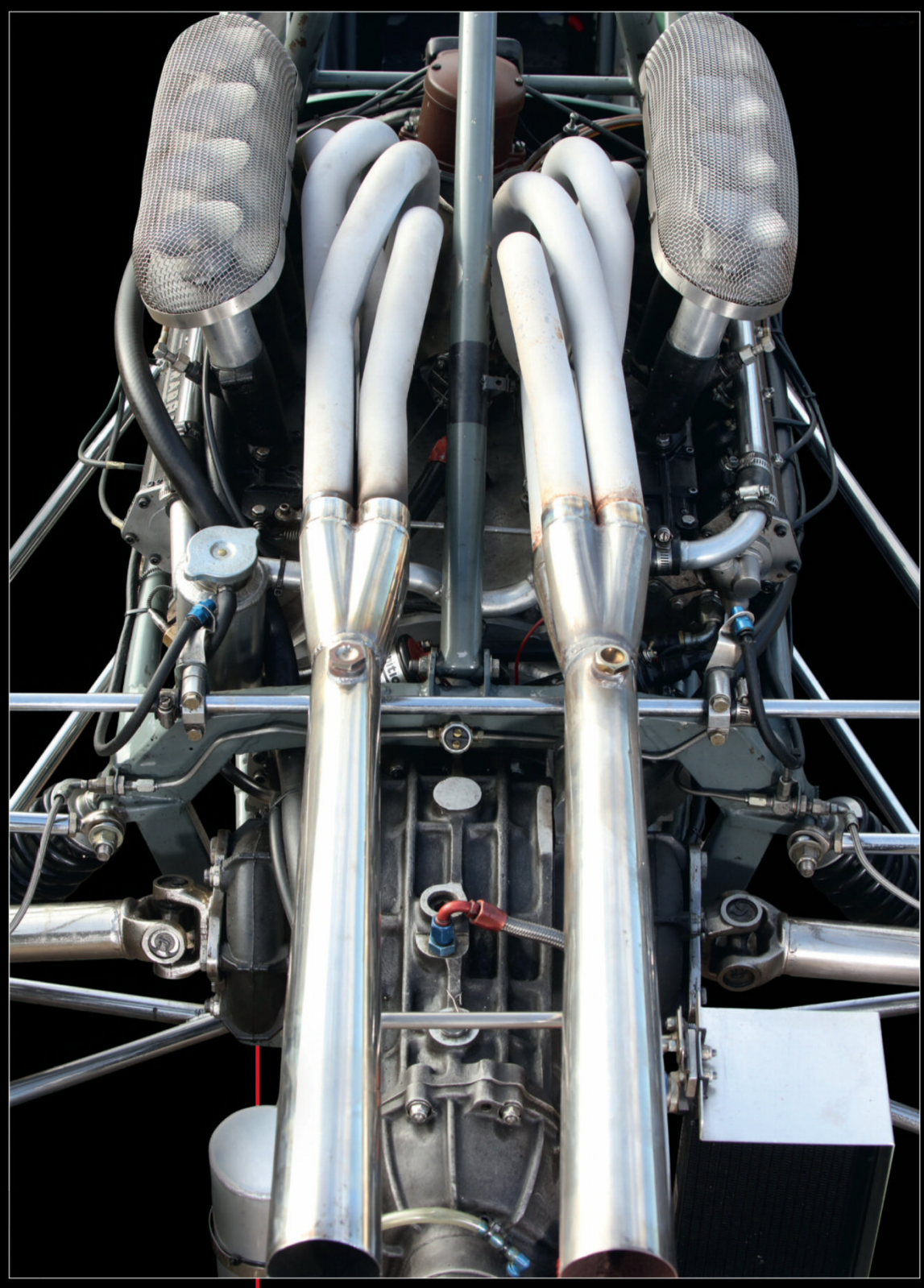
"ONE TIME THE PLANE CARRYING OUR ENGINES HAD TECHNICAL TROUBLE IN CAIRO. THEY PUT THE PASSENGERS ON ANOTHER PLANE BUT ALL THE CARGO, INCLUDING OUR ENGINES, WENT BACK TO MELBOURNE" JACK BRABHAM











"Another time, I insisted on being there when they actually loaded the engine onto the plane. When I got to the other end they said there was no engine. I rang British Airways every day for three weeks, asking them where it was. They said they didn't have it. Then I got a call saying 'We've had an engine here for three weeks. When are you going to pick it up?'"

Hulme won at Monaco in a 620-engined BT20. The next round was the Dutch GP at Zandvoort, where Jim Clark took the new Cosworth-powered Lotus 49 to a momentous debut victory. Brabham ran the BT24 in practice but wasn't ready to trust the engine yet, so he raced with the venerable BT19 to second behind Clark, with Hulme third in a BT20.

The BT24 finally made its debut in round four, at Spa, with Brabham at the wheel, but its new engine succumbed to oil pump failure. Thereafter, with the 740 engine debugged, the team rediscovered its mojo and Hulme finished six of the last seven rounds on the podium in his BT24 – including a decisive win at the Nürburgring, where Clark qualified 9.4 seconds faster but retired from the lead when his suspension collapsed. Brabham won in France and Canada and was second in Italy.

Thanks to superior reliability and consistency, and an abstruse points system (each driver dropped his worst result from the first six and final five rounds), Hulme and Brabham beat four-time race winner Clark into third place overall. Their two wins and two retirements apiece trumped his four wins and four retirements.

Lotus would have the last laugh, though. Once the teething troubles of car and engine were sorted, the 49 went on to dominate 1968 and establish itself as one of F1's engineering milestones. Repco's next-generation engine, with multivalve heads, was unreliable and not powerful enough, and the company withdrew.

RACE RECORD

Starts 29
Wins 3
Poles 0
Fastest laps 1
Other podiums 9
Driver's championship points 79
Constructors' points 49

SPECIFICATION

Chassis Steel spaceframe
Suspension Double wishbones, coil-over shock absorbers (f), double wishbones with upper radius rods, coil-over shock absorbers (r)
Engine Repco 740 90-degree V8
Engine capacity 2994cc
Power 330bhp@8,800rpm
Gearbox Hewland DG300 five-speed manual
Tyres Dunlop
Weight 508kg
Notable drivers Jack Brabham, Denny Hulme

motorsport IMAGES

SHOWCASE

MONACO

THE JEWEL IN F1'S

With the 2020 Monaco GP cancelled and off any revised
a look at the race all drivers want to win and what makes it



CROWN

calendar, we take so special

This fantastic shot from high up on Le Rocher (the Rock) overlooking the city and harbour is from 1965 when the circuit still had the Gasworks hairpin (bottom left of picture). The swimming pool had been built four years earlier

MONACO
THE JEWEL IN F1'S CROWN



At Monaco, Red Bull's Energy Station hospitality area is expanded to include a small swmming pool. After Daniel Ricciardo put the disppointment of 2016 – when a pitstop error robbed him of certain victory – behind him to win in 2018, he celebrated in typical Dan fashion with this swallow dive



Accidents of this magnitude at Monaco are thankfully reasonably scarce, but when they do happen it's not usually at slow-speed corners like Rascasse. Four laps from the end of the 2010 race, Jarno Trulli (Lotus T127) went for a gap he thought Karun Chandhok (HRTF1) had left. This was the result



The first ever world championship F1 race at Monaco in 1950 didn't get off to a great start when a large wave flooded the track at Tabac. Second-placed Nino Farina crashed and eight other cars – half of the field – were also wiped out, plus the corner needed careful negotiation for the remainder of the 100 laps



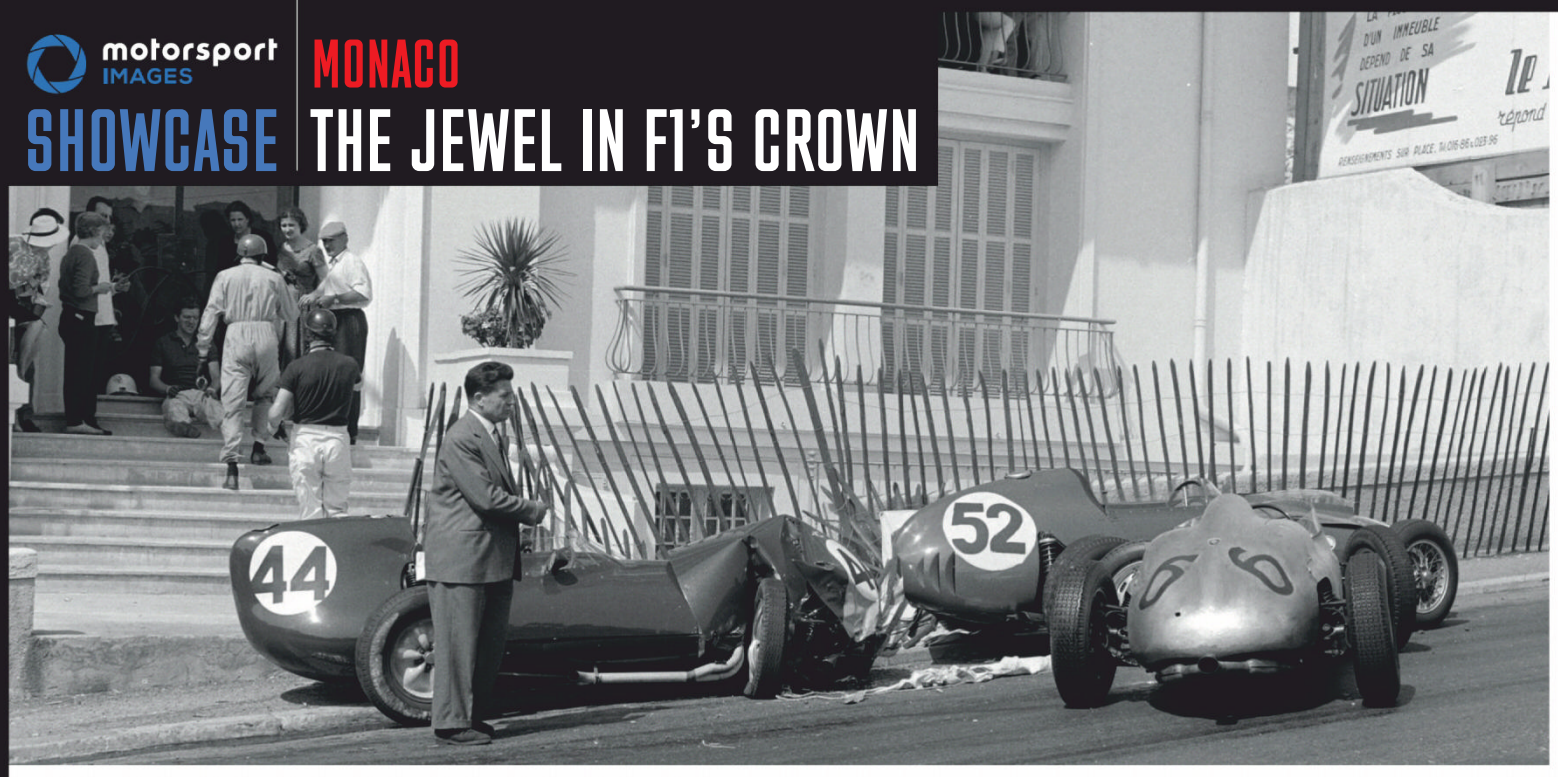
Nigel Mansell won the first five races of 1992 but had never won Monaco, race six that season. He led comfortably for 70 laps until forced to pit with a loose wheel nut. His much quicker Williams emerged behind Ayrton Senna's McLaren and, try as he might, Mansell couldn't find a way past

Last season's Monaco GP was the first race held following the death of triple world champion Niki Lauda. In a tribute to Lauda all 20 drivers, and a number of his contemporaries, sported trademark red Lauda caps with 'Niki' emblazoned on them as they gathered to pay their respects



For many years the pavements and walls had been Monaco's natural barriers. Then, in 1968, Armco was introduced for the first time in certain locations. The run-up to Massanet and Casino Square was one such area and it meant photographers had to be creative to get their best shots...

MONACO
THE JEWEL IN F1'S CROWN



Lack of Armco barriers until 1968 meant that when a driver or three had an accident, it was the most natural thing to join the spectators on the steps to survey the wreckage. Wolfgang von Trips, Cliff Allison and Bruce Halford did just that after they collided on the second lap of the 1959 race

If you're only destined to win a single GP then what better place to do it than Monaco. In 1996 Olivier Panis had only qualified his Ligier 14th at a circuit renowned for being difficult to pass on, so few contemplated what would happen come race day. Quickest in the warm-up, Panis was fourth by lap 30 in a race of attrition, passed Eddie Irvine for third on lap 36, and when Damon Hill and then Jean Alesi retired from the lead the path to victory was clear





Graham Hill celebrates his first Monaco win in 1963. Although his tally of five Monaco GP victories was subsequently overtaken by Ayrton Senna, for many Hill will always be the 'King of Monaco'. It was fitting, then, that his final world championship F1 win in 1969 was his final Monaco triumph

It was a shock when, in 1981, Gilles Villeneuve claimed his first win anywhere since 1979 at Monaco. Villeneuve's Ferrari 126C was almost undriveble around the street circuit due to turbo lag, but he took advantage of a misfire in Alan Jones' Williams FW07 to snatch the lead into Ste Devote on lap 72 of 76

The early stages of the 2013 race with winner Nico Rosberg at the head of the field. Sadly, those spectators in the apartments that overlook the chicane didn't see any action at the front from one of the few 'possible' overtaking places on the circuit as Rosberg led from start to finish



MONACO
THE JEWEL IN F1'S CROWN



When Wolfgang von Trips retired from third in 1957 there were only six cars running with nine laps to go. Jack Brabham inherited the place but the engine in his Cooper T43 gave up at Casino four laps later. Brabham, undaunted, coasted and then pushed his car home for sixth and the final point

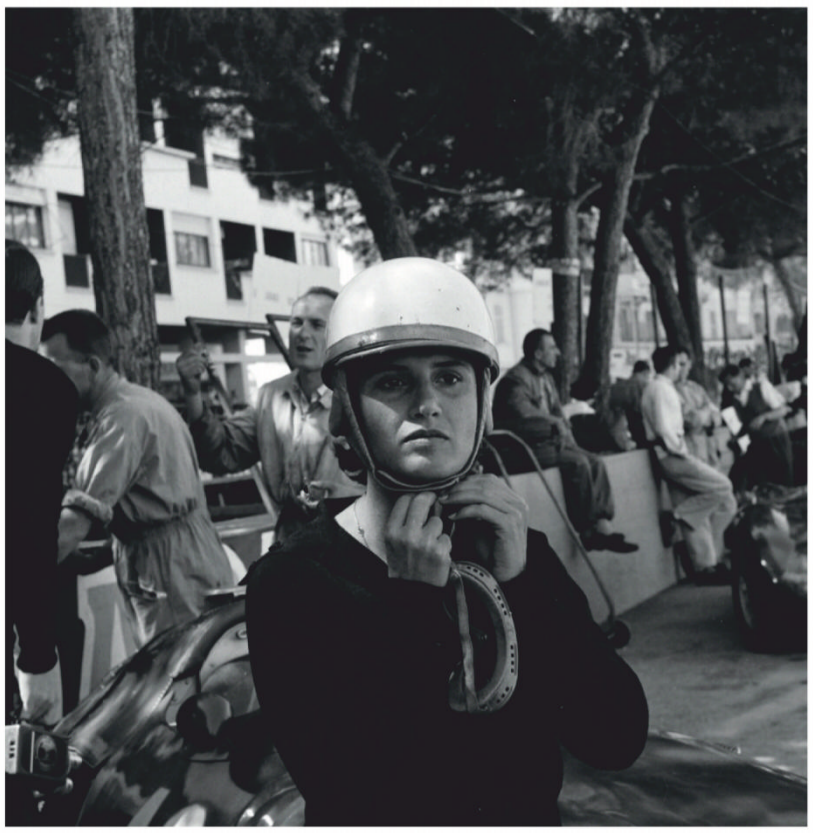


The first corner of the opening lap at Monaco always has the potential for chaos and 1995 was a classic example of this. David Coulthard's Williams was pincered by the Ferraris of Jean Alesi and Gerhard Berger at Ste Devote and rotated to face the approaching Ferraris and the rest of the field

The beauty of Monaco for many years was how close the photographers could get to the cars. Combine that with the relatively low speeds in certain places and the drivers could actually recognise particular snappers. This is Dan Gurney 'waving' to David Phipps in 1960



Maria Teresa de Filippis had already finished fifth in the non-championship Syracuse GP in 1958 when, a month later, she tried to become the first woman to compete in a world chmpionship event at Monaco. She failed to qualify her privateer Maserati 250F, but did go on to make three starts in her F1 career





The construction of the Rainier III Nautical Stadium in 1961 resulted in the biggest change to the circuit since the 1920s. The swimming pool section, first used in 1973, allowed for more grandstands and moorings and crucially a new pit complex, which Ayrton Senna passes on his way to victory in 1993

Monaco's famous tunnel section is the fastest part of the circuit and while it remains a test for drivers it's become less of a challenge for photographers. As cameras and technology have improved, so has the quality of the images from in the tunnel, as this stunning shot of Sebastian Vettel from 2013 shows

Monaco was the only wet race of 1984 and the conditions contributed to a decision that, even now, is mired in controversy. Ayrton Senna (Toleman) was, potentially, on course to record a first F1 win when the race was red-flagged by clerk of the course Jacky Ickx at the end of lap 32, just as Senna closed on leader Alain Prost. The result was taken from the end of the previous lap and Prost declared the winner







What is notable about this shot of Prince Rainier III and Princess Grace on a lap of the circuit in 1964 is not that they are in an Alfa Spyder. The striking thing, given what the quayside looks like on a race weekend now, is the total lack of yachts. It resembles what it actually was, a working harbour...

FINISHING STRAIGHT

VIRTUAL F1

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NORRIS HELPS SPREAD THE SIM MESSAGE

While the new Formula 1 season remains on hold owing to the ongoing COVID-19 pandemic, Esports has emerged as an important outlet for drivers and fans looking to entertain and connect with one another. As well as focusing on home-based training programmes to maintain their fitness for any potential resumption of racing, several drivers have embraced sim racing as a good way to stay sharp.

Leading the charge has been Lando Norris. The McLaren driver has been prolific in sim racing for a number of years, but has moved up another level while isolating at home in Woking. Norris is streaming himself playing racing games up to five days per week, staying in touch with fans and keeping them entertained – and, importantly, encouraging people to stay safe at home.

"Everyone is kind of forced into sharing and looking at Esports, because that's the only thing that can really go on right now," Norris says. "But at the same time, I think it's grown massively, only in these last few weeks, and I think it's only going to continue to grow."

Norris has been working closely with many of his peers to get more of them on-track together, forming a group of six F1 drivers regularly taking part in events. Ferrari's Charles Leclerc, Red Bull's Alex Albon, Alfa Romeo's Antonio Giovinazzi and the Williams duo of George Russell and Nicholas Latifi have all joined the Esports bandwagon, becoming regular streamers alongside competitive events put on by F1 on regular race weekends.

"We as drivers have done a good job, trying to set up these competitions and get together," says Norris. "There's a lot of WhatsApp groups and so on where everyone is talking and chatting and trying to set these things up."

The sextet united to establish a new charity series called 'Race for the World' last month, raising funds for the World Health Organisation's COVID-19 Solidarity Response Fund. Norris went the extra mile by shaving his hair on a live stream. He agreed to do so after fans donated more than $12,000 to the WHO fund, and received the nickname 'Baldo Norris' in the process.

THE DRIVERS HAVE ENJOYED VARYING FORTUNES SO FAR IN THEIR ESPORTS VENTURES

The drivers have enjoyed varying fortunes so far in their Esports ventures. Ferrari star Leclerc was immediately successful, winning on debut in F1's 'Virtual GP' series, dominating the race from pole. But for George Russell, the learning curve has been steeper, especially when racing against known names from the sim racing world.

"I was like, 'Blimey, I'm going to have to put a bit of effort in here!'" Russell says. "The level is really high now."

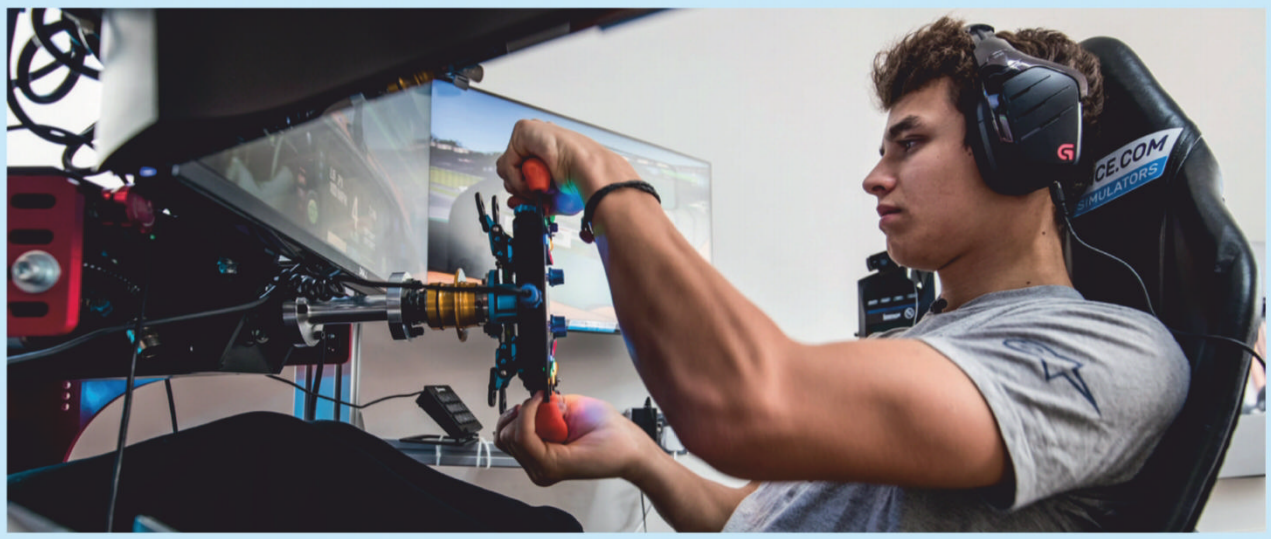
It's very, very difficult," adds Latifi. "I could spend all the rest of the hours that I'm self-isolating and still wouldn't get to the level of these [sim racer] guys."

Since the F1 2019 video game used in the Virtual GP series isn't a completely accurate simulation, there are a number of tricks the drivers must learn to maximise lap time – even if it sometimes contradicts their real-world instincts. That's also why some drivers more accustomed to full-on simulators have been a trifle reluctant to get involved.

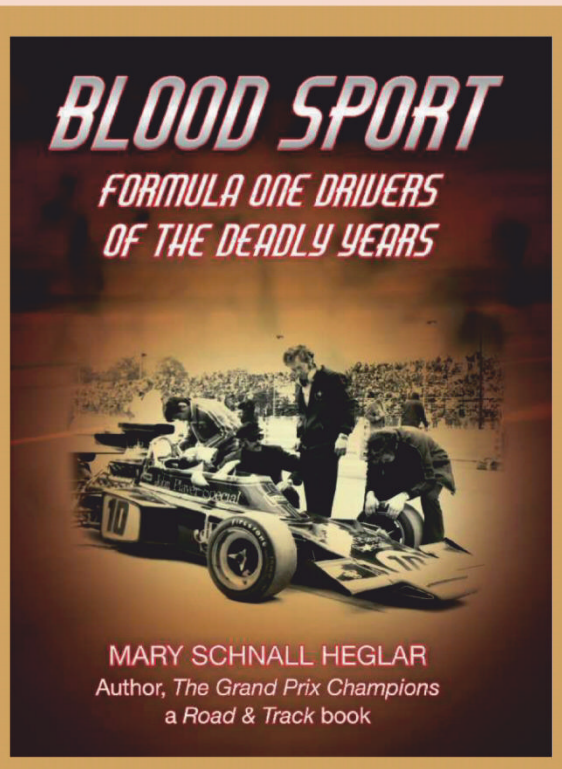
"There's a lot of little secrets you have to know about," says Norris. "For new people coming in, those things can easily be one or two tenths per lap, and that's quite a lot of time come the end of a normal lap.

"When you get these pro drivers on, and they start to learn these things and get up to speed, then it becomes more interesting, and the competition becomes tough."

Norris has always been a serious sim racer, with this fantastic setup at home



PICTURE: SAM BLOXHAM. ILLUSTRATION: BENJAMIN WACHENJE



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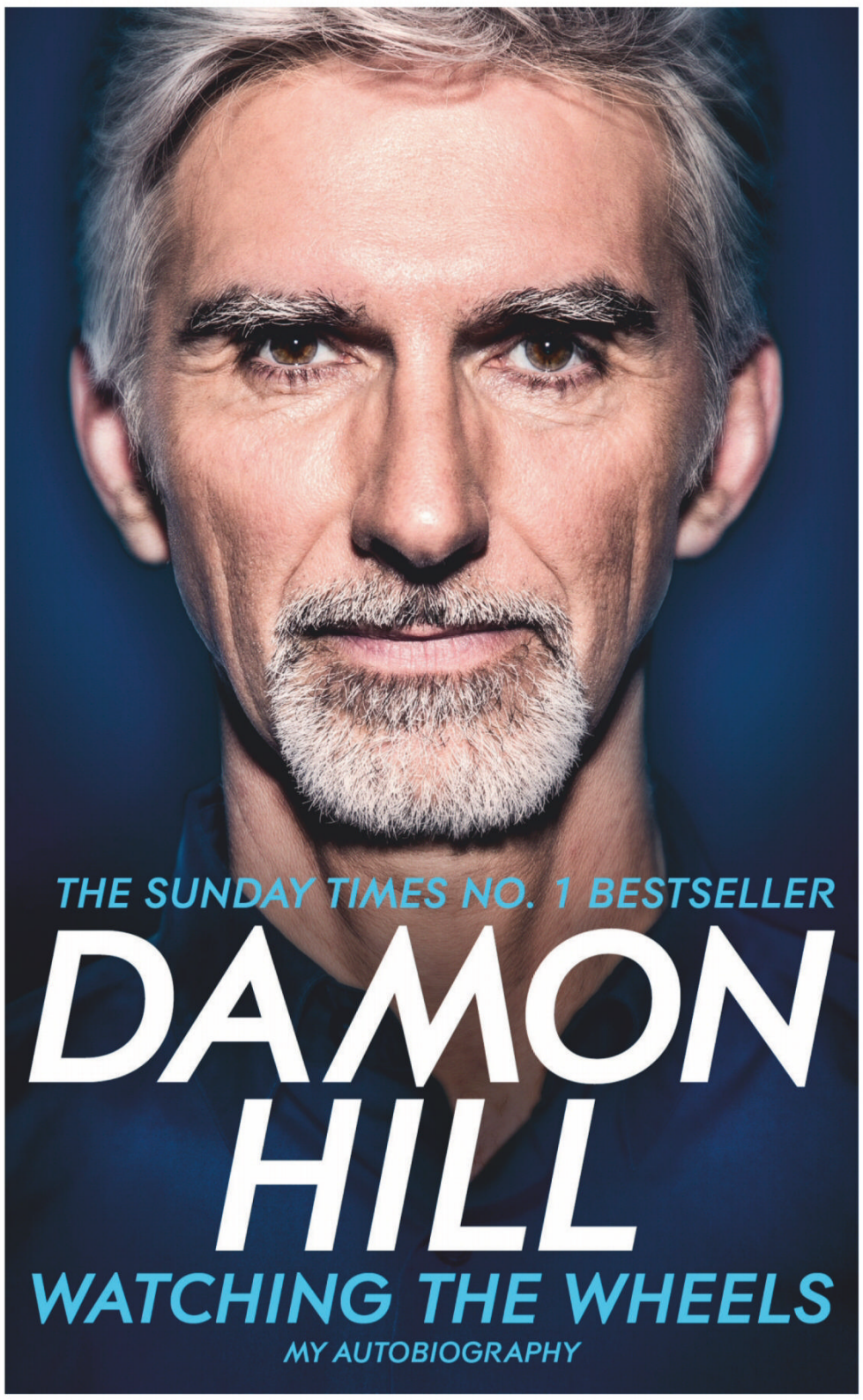
Available on Amazon Prime Video, YouTube Movies, Google Play

The only drawback to this poignant, finely crafted and emotionally powerful documentary about the life and death of Bruce McLaren is that there's very little shade to the personality of the man himself. He was a thoroughly nice bloke who seldom had a cross word with anybody – which is why he inspired such remarkable dedication and loyalty in the people who joined him on his journey from humble beginnings in New Zealand to the upper echelons of motorsport.

Combining archive footage and contemporary interviews with specially shot, dramatised footage, *McLaren* follows Bruce from childhood and his struggles with the disease which left him with a permanent limp. He was so loved by his friends and colleagues that they continue to grieve, decades on – many of the interviewees are moved to tears as they relate the events of 2 June, 1970, when Bruce was killed while testing a CanAm car at Goodwood.







WATCHING THE WHEELS:
MY AUTOBIOGRAPHY

Author Damon Hill

Price £8.99 (paperback) £7.49 (Kindle)

panmacmillan.com

Greatly under-rated as a driver, 1996 world champion Damon Hill is a remarkably thoughtful and eloquent writer – as *GP Racing* readers will remember from the columns he contributed to these very pages. *Watching the Wheels* is a fascinating read, if occasionally difficult – not for any fault in the prose, but for the honesty with which Damon describes the battles with his various demons, principally depression.

He tracks the source of this to the death of his father Graham, the double world champion who died in a plane crash when Damon was 15, describing it as "the night the points on the railway track of our lives were instantly switched from one destination to a completely unanticipated one".

Stalked by self-doubt, and fear he might meet the same fate as his father, Damon built a successful career in motor racing and endured the death of his team-mate, Ayrton Senna. The fear haunted him to the end of his career, when he parked a functional car after 21 laps of his final race. In the book he speaks of his "sadness that it had ended like this, relief that I was unhurt and alive, and shame that I had let the team down".

It's an eloquent and compelling work which ranks among the most essential sporting autobiographies.

SENNA

Price £2.49-£3.49

Available on Amazon Prime Video, YouTube Movies, Google Play

We've recently passed the 26th anniversary of Ayrton Senna's death during the 1994 San Marino Grand Prix at Imola. This remarkable and award-winning biographical film, written by Manish Pandey and directeed by Asif Kapadia, tells the story of Senna's life and racing career from 1984 to 1994 through a series of interviews interlaced with archive footage, much of it previously unseen.

It's a deeply moving film, although it has drawn criticism from some quarters over its shallow and one-sided portrayal of Alain Prost as a villain. But it's also a great work of storytelling and the producers are thoroughly invested in the passion and personality of Senna – indeed, he comes over as an almost mystical figure.

Though the fact of his death is known it retains its power to shock, and *Senna* builds powerfully towards the events of that fateful weekend at Imola.

At 145 minutes it's long but the pace never sags; if you can track down a copy of the UK Blu-ray edition, it featured an alternative 162-minute cut.



FERRARI: RACE TO IMMORTALITY

Price £2.49-£3.49

Available on Amazon Prime Video, YouTube Movies, Google Play

Ferrari: Race to Immortality tracks a pivotal decade in Ferrari's racing journey: the 1950s, a period in which the company's legend was built on feats of great heroism amid off-track dramas and many tragedies. At the centre of it all, Enzo Ferrari pulled the strings of his growing empire.

Like the similarly excellent *Williams*, this film rises above the typical motor racing documentary milieu by drawing on the female perspective, including first-hand testimony from Louise King, the wife of Peter Collins, and Jean Howarth, Mike Hawthorn's fiancée. Collins and Hawthorn, two colourful characters who helped define the image of racing drivers as playboys, were among many Ferrari pilots to meet sad and premature ends during this era. The team's prominence in motor racing was earned through death as much as sporting triumph.

Besides the high-quality interviewees, *Ferrari: Race to Immortality* also boasts some extraordinary archive footage, much of it rare or previously unseen. The film's only real weakness is the occasionally syrupy and heavy-handed soundtrack.





HEROES

Author/director Manish Pandey

Price From £3.99/month

motorsport.tv

The first Motorsport.tv Originals film comes from the pen of the acclaimed writer of *Senna*, Manish Pandey.

Tagged "Four drivers, five stories, one journey", *Heroes* brings together double F1 champion Mika Häkkinen, Le Mans legend Tom Kristensen, WRC's only female rally winner Michele Mouton, and former Ferrari driver Felipe Massa. It brings their recollections of their careers alive with archive footage. And there's a fifth person in the story, tying all their narratives together through personal connections: Michael Schumacher.

Heroes packs an emotional punch as you follow the guests through the highs and lows of their careers, from their successes to the moment they realised it was time to walk away.

WILLIAMS

Price £2.49-£3.49

Available on Amazon Prime Video, YouTube Movies, Google Play

Besides being a chronicle of one of the most successful Formula 1 teams of all time, this film offers an extraordinarily intimate look into the heart of the Williams family itself.

What elevates it from the biographical norm is its warts-and-all-approach, and a novel storytelling conceit: the foundations of the narrative are the words of Lady Virginia Williams, who died in 2013. Tape recordings she made for the ghost-writer of her book *A Different Kind Of Life*, which described her marriage to Sir Frank Williams and how his accident in 1986 affected it, run through the film and offer poignant counterpoints.

There are interviews with Nigel Mansell and Sir Patrick Head, as well as many others involved in the team from the early days, but it's the internal travails of this family business which make the film so compelling. Offspring Claire and Jonathan are estranged from one another, on account of her being given the position in the team he expected to be his, while Sir Frank himself is emotionally distant and inscrutable.

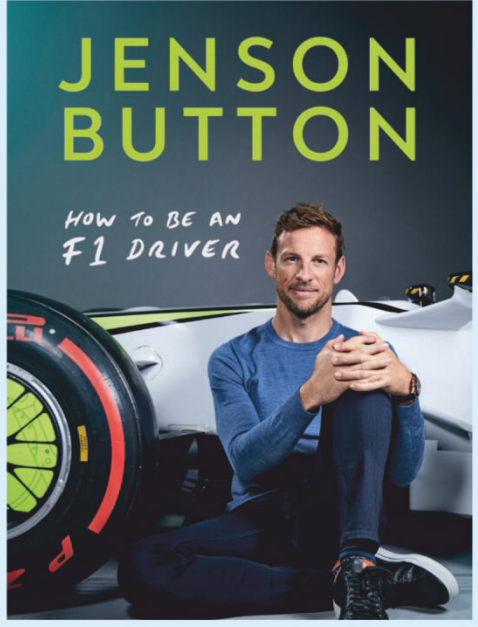
Many critics view this film as being at least on a par with *Senna*, and it's certainly more nuanced in the treatment of its subjects while still packing an emotional punch.

HOW TO BE AN F1 DRIVER

Author Jenson Button

Price £7.49 (paperback), £5.49 (Kindle)

blinkpublishing.co.uk



2009 Formula 1 world champion Jenson Button has already published an autobiography but this latest work, published last October, is an interesting companion piece which generally doesn't look to cover the same ground. Instead we find the freshly 'retired' Jenson (he's since returned to the cockpit 'virtually' in an F1 Esports event) reflecting on aspects of his life and career from the point of view of someone who no longer has a large entourage attending to every aspect of his daily life.

There is a slightly random and unvarnished feel to the structure and prose, as if this is all pouring out of Jenson's head in his own words, rather than being processed via the medium of a professional ghostwriter. The effect is endearing and it will play well with his multitude of fans. You may feel inclined to play the smallest violin in the world when a multimillionaire recounts his discombobulation at having to pay bills for the first time, or contemplating the absurd expenses of owning a yacht, but there's also much to amuse. And, of course, there's a lot of interesting details about his craft and technique, how he apprached racing, and how he sees himself in the context of his on-track rivals.





FLAT CHAT

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HEADING FOR BUBBLE TROUBLE?

Albert Einstein once remarked the definition of insanity is doing the same thing over and over again and expecting different results. Except, of course, he didn't. But then, as George Washington once observed, people can't help posting photos of dead celebrities on social media alongside a wise quote they almost certainly never uttered.

Still, that original pronouncement is no less valid for being frequently misattributed to a deceased Nobel Prize winner. And it sprang to mind because Formula 1 is about to venture – albeit more cautiously – down a road upon which it once blundered. Back in March, as the entire circus beat a complacent, globetrotting path to Melbourne, the anti-coronavirus plan – such as it was – revolved around keeping COVID-19 outside the paddock. People (real ones, not dead celebs) often say F1 exists in its own bubble, and here was the epitome of that mindset: all you had to do was keep the virus out. Stick a few more tensabarriers up. Cancel the autograph sessions. All will be well.

F1 is now drawing plans to go racing again and, in common with many sports grimly contemplating cashflow issues and keen to get the cash registers singing again, it's likely to do so without spectators just to fulfil what contracts it can and get TV revenue flowing again. That way the thousands of people who work in the F1 industry can return to a gainful employ of sorts.

The target at the time of writing is to begin the season at the Red Bull Ring on the original date planned for the Austrian Grand Prix, with a minimum number of personnel travelling and subject to strict testing, screening and quarantine procedures (see F1 Insider, p16). The rest of the calendar will be redrawn according to circumstances in the hosting countries – a moving target, given the possibility of a 'second wave' if nations lose social distancing rigour.

Imagine Austria 2020 but with no spectators and minimal team personnel



In effect this is the 'bubble' strategy again, albeit a more nuanced and realistic version. To make this methodology work, the testing applied to team personnel must be reliable, and the evidence so far in terms of false positives and negatives suggests it isn't. The distancing from other teams must be adhered to strictly. Logistically, getting everyone to and from the various venues will be supremely challenging. It's going to be risky and expensive – and, potentially, an HR nightmare. Will personnel – including the drivers – actually want to travel?

IT'S GOING TO BE RISKY AND EXPENSIVE – AND, POTENTIALLY, AN HR NIGHTMARE

And even if testing and screening can be performed enough to be reliable, it has to be acceptable. This is where public opinion becomes involved: imagine the headlines if something so frivolous as a sport were to be seen putting a burden on testing resources and, perhaps, hospital beds? Imagine the fury at the charter flights required to transport each team separately.

The UK government is supporting attempts to restart sporting activity because it recognises the importance of sport to the fabric of our lives and our mental health. It's also pretty useful for keeping people indoors, watching TV, instead of fraternising outside. To that end, the authorities who govern elite-level football and rugby are drawing up plans to begin again along similar lines to F1: isolation of participants, frequent centralised testing, and events on neutral territory behind closed doors.

Elsewhere in Europe, though, the football season is over, and some national leagues have been declared null and void as governments grasp an unavoidable fact: COVID-19 will remain endemic and be something we have to live with for the foreseeable future. All we can do is cope with its existence until such time as a vaccine can be developed.

That's going to take a while, even if good ol' Donald Trump is promising vaccines by Christmas. As Chairman Mao said, never believe anyone who offers magic-bullet solutions to complex problems...

F1 Racing now has a podcast!
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