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# CONTENTS

## FEBRUARY 2023

### SECTOR 1

- 4 IGNITION**  
The tricky task of ranking F1's fastest drivers
- 6 F1 INSIDER**  
Andretti's plans to enter F1 with Cadillac; more team principal moves; could China be back on?
- 12 F1 ANALYST**  
Ocon and Gasly: a new French dream team?
- 14 UNDER THE HOOD**  
The power and importance of brakes in F1

### SECTOR 3

- 102 SUBSCRIPTIONS**  
Check out our latest subs offer
- 104 PRODUCTS**  
Reviews of the best F1 gear
- 106 FLAT CHAT**  
Is a new man at the top what Williams needs?

### F1 PRO

- 19 STRAIGHT TALK**  
Vasseur's move to Ferrari could be start of a rent-a-boss era in F1

**20 COVER STORY: F1'S FASTEST 50 DRIVERS**

**38 THE 2022 SUPERGRID**

**78 ANDRETTI: AMERICA'S FINEST**

**94 THE LAST WINNING LOTUS**

### SECTOR 2

- 20 THE QUICK LIST 2023**  
A star-studded jury vote to rank the fastest, not the greatest, drivers in 72 years of Formula 1
- 38 WHO WAS QUICK IN 2022?**  
Last year's fastest drivers ranked by one-lap pace
- 42 HUMAN RACING**  
Do the quickest tyre changes actually make a difference?
- 46 GO FIGURE**  
A look at some of the 2022 season's more interesting stats
- 48 THIS MUCH I KNOW**  
Life lessons with Haas team principal Guenther Steiner
- 52 PICTURES OF THE YEAR**  
A selection of 2022's best images from our photographers
- 66 IN CONVERSATION WITH...**  
Fernando Alonso about his first test for Aston Martin
- 68 PATRICK TAMBAY: IMOLA 1983**  
The late Ferrari driver's finest racing hour remembered
- 76 ALTERNATIVE VIEW**  
A Video Assistant Referee in F1? Be careful what you wish for...
- 78 MARIO ANDRETTI EXCLUSIVE**  
The legend on his career and a return of the family name to F1
- 88 F1'S WINTER WONDERS**  
A look at when Formula 1 chose to head south for the winter
- 94 NOW THAT WAS A CAR**  
The last Lotus Ayrton Senna drove, the complicated 99T





Stuart  
Codling



## So who really is the quickest?

**Speed.** With the possible exceptions of noise and glamour, it's what drew you to motor racing, isn't it?

Within these hallowed pages this month we embark on the risky business of quantifying speed and establishing who is the fastest, both in terms of the current crop of drivers and the history of the world championship. I say 'risky' because any such exercise is bound to be contentious, since it potentially treads on the toes of blinkered fandom and tribal allegiances.

So let's set out our stall right here. Our 2022 'Supergrid' (p38), in which we rank last season's drivers in order of pace, is as rigorously mathematical and as laden with caveats as it is possible to be, given the obvious differentiator of car performance. Even when excluding factors such as car damage, wet races, early retirements, and late stops for fresh rubber to bag the fastest-lap point, the grid forms a natural shape with the fastest cars towards the front and the slowest at the back. Unless you're Alex Albon, of course.

Perhaps most interesting and significant are the gaps between those in equal machinery. In the spirit of maths class, Alex Kalinauckas submitted his workings-out in a spreadsheet with multiple tabs.

Ranking the 50 fastest drivers in F1 world championship history (p20) was naturally a less scientific exercise, since Juan Manuel Fangio (for instance) is obviously unavailable to enter into a back-to-back comparison in identical machinery with the likes of Max Verstappen. Nevertheless it

was a fascinating process and, I hope, something which will spark lively debate during the off-season. We reached our final list via a jury panel representing a broad range of nationalities and hands-on experience – some of the members of the jury have worked closely with drivers on the list. If reading it moves you into a dyspeptic frenzy, please bear in mind the intent is to entertain.

While any such survey is prone to recency bias, it was pleasing to note the presence of several long-departed drivers in the final list, including ones whose career achievements perhaps fell short of their potential. For that was what we told all our 'Quick List' jurors: this isn't a roll-call of F1's *greatest* drivers, but the *fastest*. If you want to see a list of drivers ranked by world titles and races won, visit Forix or even, dare I say it, Wikipedia.

What we aimed to do with this list was to celebrate those drivers who ignited our passion for motor racing in the first place: people who were, simply put, sizzlingly quick. While two of the drivers present are multiple champions who have publicly advocated winning at the slowest possible speed, they weren't exactly slow. Unless you think when Jackie Stewart won the 1968 German GP by over four minutes, he was holding back a little bit?

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### Contributors



#### LUKE SMITH

Luke canvassed the great and good of the paddock for their quickest F1 drivers. The result is our fascinating Top 50 feature (p20)



#### ALEX KALINAUCKAS

Alex, meanwhile, focused on more recent times to discover which driver would head the 2022 supergrid (p38)



#### OLEG KARPOV

Oleg had an enjoyable chat with Haas team principal Guenther Steiner for our new and occasional 'Life Lessons' feature (p48)



#### ANTHONY ROWLINSON

Mario Andretti's career, and the return of the family name to F1, were some of the subjects covered in Prof's chat with the legend (p78)

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A Formula 1 race scene with several cars on a track, a large crowd in the stands, and a yellow banner with the Pirelli logo and '150' on the right. The background is dark and atmospheric.

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## COLD RESPONSE TO ANDRETTI FORMULA 1 BID

**01** Amid the soaring success of grand prix racing in the United States, one of America's premier racing teams – led by the son of a legend of the sport – has revealed it has allied with one of the world's leading car manufacturers with the aim of entering Formula 1. Yet F1 is unimpressed.

Michael Andretti's desires to launch a new F1 team have been known since February last year, when they were first announced by his father Mario. "Michael has applied to the FIA to field a new F1 team starting in 2024," he wrote on Twitter. "His entry, Andretti Global, has the resources and checks every box. He is awaiting the FIA's determination."

It turned out, however, that there was little acceptance of the 1978 world champion's assertion – regarding all those 'checked boxes' – within Formula 1 itself.

Convincing the FIA has proved to be almost the only real achievement of Andretti's project so far. In early January,

### CONVINCING THE FIA HAS PROVED TO BE ALMOST THE ONLY REAL ACHIEVEMENT OF ANDRETTI'S PROJECT SO FAR

FIA president Mohammed ben Sulayem announced he had asked his team "to look at launching an interest process for prospective new teams" – and a few days later Andretti Global confirmed an interest. Furthermore, the organisation has unveiled a

partnership with General Motors, which is looking to introduce its Cadillac brand to F1.

The OEM backing seemed designed to finally convince sceptics of the Americans' seriousness, since one of the main arguments last year was that Andretti wanted a piece of F1 more than F1 itself needed a new team. "If someone new wants to come in, everybody's free to pitch that to the FIA," were the words of one F1 team boss, Toto Wolff. "Then the FIA and F1 need to understand how creative that team can be for our business. And that hasn't been the case so far. If a team comes in with an OEM and says 'this is what we want to do,' it's obviously a very different game. And will trigger different considerations."

And while it's not easy to find a company more significant in the automotive world than General Motors, the reaction from F1 itself has been very measured. If the



**FIA president Mohammed ben Sulayem (left) and Formula 1 CEO Stefano Domenicali. The two organisations seem to have opposing points of views on the Andretti entry**

series' executives are indeed animated by interest from such a manufacturer, their statement hid that excitement. "There is great interest in the F1 project at this time with a number of conversations continuing that are not as visible as others," read F1's statement issued as the news about Andretti and Cadillac bid emerged. It appears F1 chiefs are somewhat annoyed by Andretti's frequent public proclamations and would be more comfortable with private discussions.

The current teams aren't enthused either. Last spring, during Michael Andretti's visit to the paddock at the Miami GP, he was only able to secure the support of McLaren and Alpine – and all indications are that the number of supporters has not increased since. Money is clearly one of the teams' main concerns. The presence of an eleventh team on the grid will dilute their share of the revenues; sharing is simply not in their interests.





Cadillac's most recent foray into motorsport is the Cadillac DPi-V.R. First raced in 2017, by a number of teams, it has won IMSA's Daytona Prototype International category twice



PICTURES: MARK SUTTON; JAKE GALSTAD; ANDRETTI

Even the fact Andretti will have to pay \$200m to its future rivals under the terms of the Concorde Agreement is no longer a selling point. F1's financial record in recent years is so compelling that many are convinced the entry fee for new teams should be at least three times as large.

Whether Andretti can increase the popularity of F1, thereby bolstering the championship's revenue, is still in question. From statements made by GM, it does not appear the company has plans to build its own engine like, for example, Audi.

So far, it seems GM is going to settle for a supply contract with one of the existing manufacturers (Honda or Renault are mentioned as the most likely partners) and rebadge its engine. But in that case, GM's involvement will effectively be reduced to mere title sponsorship – similar to the deal currently in place between Sauber and Alfa Romeo. The Italian car maker

**Andretti Global broke ground on its new headquarters project last year (above, right). The Andretti/Cadillac F1 partnership is proof that the company is pushing to expand even further**

has enjoyed having something that looks like a works F1 team without actually paying for one. 2023, however, will be the last season for it as a partner of Sauber's, which will transition to being under Audi's full control.

Despite Michael Andretti claiming to be "1,000%" certain his bid has every reason to be approved by Formula 1, it looks like he still has some convincing to do. The FIA president has remained the biggest supporter of the new project.

"It is surprising that there has been some adverse reaction to the Cadillac and Andretti news," he wrote. "The FIA has accepted the entries of smaller, successful organisations in recent years. We should be encouraging prospective F1 entries from global manufacturers like GM and thoroughbred racers like Andretti and others. Interest from teams in growth markets adds diversity and broadens F1's appeal." ►



## THE GREAT TEAM BOSS JOB SWAP

**02** Having only joined Alpine in February last year, Otmar Szafnauer is entering the 2023 season as one of the longest-serving team principals in F1. Only Christian Horner, Toto Wolff, Guenther Steiner and Franz Tost have held their positions for longer than him. Four teams will be starting the new season with new bosses.

The resignation of Mattia Binotto, though expected, was still the biggest news of the off-season. He had held on to his position as Ferrari team principal even after the early-2020 controversy surrounding the alleged use of an illegal powertrain design, but lost his job after the team achieved its best-ever result under his leadership.

His resignation triggered a domino effect. As was anticipated by Italian media, Binotto has been replaced by Frédéric Vasseur, who in recent years has managed Sauber. The Frenchman, who had a successful career in junior series with his ART team, moved to F1 with Renault but left after just one season. However, his success with the Hinwil-based squad (last year the team, which operates under the Alfa Romeo banner, finished sixth despite being one of the few that operated below the cost cap) has earned him an invitation to the most renowned team in the championship.

Vasseur, who took over at the start of January and – according to the Italian press – has already moved to Maranello, became the first Frenchman to lead Ferrari since Jean Todt, who left the position at the end of 2007. Vasseur is also the first externally recruited specialist since Todt. Stefano Domenicali, Marco Mattiacci, Maurizio Arrivabene and Binotto were all in one way or another already involved with Ferrari



Seidl (left), Stella (centre) and Vasseur (right) all have new roles for the upcoming season. Szafnauer (below) is now F1's fifth-longest serving team principal



when they were appointed team boss.

Andreas Seidl has moved to Sauber in Vasseur's place, although as CEO rather than team principal. The former McLaren boss will now work on preparing the team for the transition to becoming Audi's F1 operation. His appointment was unexpected, but easy to explain. Previously Seidl ran the sporting programme for Porsche, also part of the Volkswagen Group; McLaren CEO Zak Brown revealed that Seidl's switch to Audi would probably have happened anyway in the coming years. Binotto's resignation accelerated the move. Seidl will in turn be replaced by engineer Andrea Stella.

"When it became clear that Fred [Vasseur] was going to go to Ferrari," Zak explained, "[Sauber owner] Finn Rausing, who is someone I've known for a decade, and get along with very well, gave me a call to see if there was a discussion to be had to potentially release Andreas early. My reaction was, if Andrea would be happy to join as team principal, then I'd be very happy to make that change now, which I think puts everyone in their permanent homes for the foreseeable future. Andrea was always our number one choice to lead the team moving forward, that all came together quite quickly."

One team that has started the new year without a boss is Williams. The resignation of Jost Capito came as a surprise, and the true reasons for it are still unclear. Along with him, François-Xavier Demaison has left as technical director. It was not known who would take over their positions before this issue of *GP Racing* went to press. ▶

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THE 2023 SEASON PREVIEW ISSUE

- > Hamilton v Russell: who will come out on top?
- > New boys and old hands... Piastri, Sargeant and the Hulk
- > Aston's new factory and Red Bull's R&D handcuffs
- > All aboard the team principal merry-go-round
- > Did the new rules work and what's changed for 2023?
- > Our guide to all the teams, drivers and races

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## SHANGHAI SURPRISE: CHINA WANTS IN

**03** The organisers of the Chinese Grand Prix may have been a little hasty in agreeing to cancel the 2023 edition of the race. In early December, F1 announced that the Shanghai race would again not take place amid ongoing issues with Covid in the country. Within a month, though, the situation changed.

Soon after the cancellation, the Chinese government – following protests in large cities – announced it was abandoning its draconian ‘zero-Covid’ policy, under which it imposed measures such as sudden lockdowns and curfews. Now those arriving in the country are no longer required to undergo quarantine – which was the primary reason for the cancellation of the race. From 8 January, visitors need only a negative PCR test.

According to reports, shortly after the government’s u-turn, race organisers began to lobby for a reinstatement of the 2023 race, originally scheduled for 16 April. And it seems the supporters of such a move aren’t deterred even by the rapid increase in the incidence of Covid cases in the country. On the contrary, the race – which would be the first since 2019 – is intended to mark a return to normality and be symbolic of the end of the pandemic.

Whether this will be possible is still being determined. F1 has been unable to find a replacement, which would mean a four-week hiatus in the calendar. In theory China’s return would serve the championship’s bosses well, since they had initially planned for next season to comprise a record 24 rounds. However, F1 hadn’t commented officially on the situation before this issue of *GP Racing* closed for press.

There is a specific time pressure due to logistics. A decision will need to be taken in the first weeks of February because the teams would need to send their sea freight to Shanghai at least eight weeks before the race.

The race organisers themselves, according to insiders, have an even tighter deadline. They want the decision to be taken before the Chinese New Year celebrations, which will run from 22 January to 9 February. It’s rumoured preparations are being made to launch ticket sales; despite the tight turnaround, there should be no problem attracting an audience, since it would be the first home race for Zhou Guanyu, China’s first-ever F1 driver.



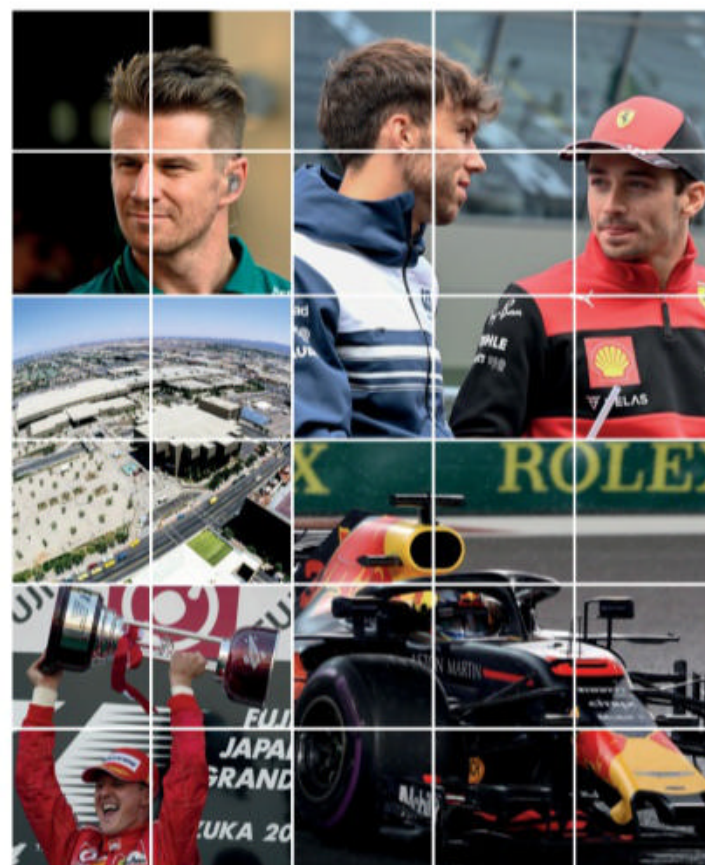
**Formula 1 celebrated 1000 GPs the last time it visited Shanghai. The cancellation of the race for the fourth year running may have been a little premature**

### THE RACE IS INTENDED TO MARK A RETURN TO NORMALITY AND BE SYMBOLIC OF THE END OF THE PANDEMIC

## F1 MASTERMIND

Your chosen specialised subject: the world’s greatest motorsport

- Q1** Which are the four circuits that have each held only five world championship GPs?
- Q2** At which two races in 2022 was there a grand chelem of win, pole, fastest lap and all laps led?
- Q3** Which two drivers were not classified in six races in the 2022 world championship?
- Q4** How many times has Nico Hülkenberg finished fourth, his best-ever finishing position in F1, from his 181 starts: 3, 5 or 7?
- Q5** Which of Daniel Ricciardo’s eight F1 wins was the only one he claimed after starting from pole?
- Q6** Who am I? I started 95 GPs from 2011 to 2015 for Williams and Lotus, winning once and claiming one pole position.
- Q7** True or false: Ferrari hasn’t won the Japanese GP since Michael Schumacher’s success in 2004?
- Q8** Which team claimed all the poles and wins for the three US GPs held in Phoenix?
- Q9** Two manufacturers have achieved a solitary world championship victory with an engine badged only with the manufacturer’s name. Who are they?
- Q10** Who has started more world championship GPs: Charles Leclerc or Pierre Gasly?



**1** Aintree, Bremgarten, Rouen, Valencia Street Circuit  
**2** Australia and Emilia Romagna **3** Yuki Tsunoda and Carlos Sainz **4** 3 **5** 2018 Monaco GP **6** Pastor Maldonado **7** True McLaren **8** Porsche and Westlake **10** 108 to 102



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# THE F1 ANALYST

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PICTURES 

uncompetitive Surtees at Dijon) and was brought back into the Theodore F1 team in 1981. Within months he was teaming up with another Frenchman, Jacques Laffite, at Ligier and for 1982 signed with Arrows. That arrangement didn't last long; he was so upset by his team's reaction to the F1 driver's strike at the first round in Kyalami, over restricted contracts with the sport's authorities, that he just walked away.

"I think that's an aspect of Patrick's character," Wattie says, "on a point of principle he had opinions that he stood by rigidly."

His F1 career appeared to be over, then tragedy re-opened the door. The death of his good friend Gilles Villeneuve in a qualifying accident in Belgium led to an invitation from Ferrari to take the place alongside yet another Frenchman, Didier Pironi, who was challenging for the title. When Tambay joined Ferrari at Zandvoort, his former team-mate Watson was leading the drivers' points battle in his John Barnard-designed McLaren MP4, having won in Belgium and Detroit.

Patrick responded well to the new opportunity: he took a podium finish at Silverstone on his second outing for Ferrari and finished one place behind Pironi in France on a weekend dominated by Renault

rivals René Arnoux and Alain Prost; their own argument afterwards about team orders ultimately led to Arnoux's move to Ferrari the following year. As the 1982 season continued, the event at Hockenheim in Germany was devastated by a huge accident in the wet for Pironi during practice; it ended Pironi's F1 career, but Tambay ended an emotional weekend on an uplifting note by claiming victory. Keke Rosberg finished 3rd that day and began a sequence that would lead to winning an unexpected title at the final round where Watson was still a key contender.

Arnoux and Tambay became team-mates the following January and, despite having very different characters, they delivered Ferrari a constructors' title that took another 16 years to repeat. Tambay's career petered out a few years later but 1983 remains the last time race victories were taken by French team-mates in F1, creating a statistic that opens a question for 2023: can Esteban Ocon and Pierre Gasly deliver an equivalent platform at Alpine?

"I think Ocon is a capable guy, as is Gasly," says Watson, "But I suspect it will be more about competing against each other than it will be about looking at the bigger picture. The chemistry between them is going to need to be handled before the season starts and it could be to the team's detriment."

The pairing of Tambay and Arnoux may have enjoyed some success, but it did only last a single season. Let's see how long Gasly and Ocon can stick together.

## CAN OCON AND GASLY EMULATE TAMBAY AND ARNOUX?

**40 years ago, two French** F1 drivers combined their efforts as team-mates to win the constructors' championship for a key team. Patrick Tambay and René Arnoux achieved eight pole positions and four victories with Ferrari in 1983 but lost out in the drivers' title battle to Brazilian Nelson Piquet. Sadly, Tambay passed away last December at the age of 73 having suffered from Parkinson's Disease.

While Patrick never reached the peak of his F1 ambition, he was hugely respected and an easy person to connect with, as his 1979 McLaren team-mate John Watson remembers:

"We had a very good relationship. Patrick was a very affable, nice guy. He was from a perhaps more sophisticated background than me; he was brought up in southern France, well cultured. He was an easy and comfortable person to have as a team-mate. He certainly wasn't a political animal the way other team-mates of mine have been...."

Tambay had already spent a full season at McLaren in 1978 alongside James Hunt who had won the world championship with the team two years previously. But times had changed; the fantastic development of the Lotus ground-effect car led to Mario Andretti's title (see p78) plus the seventh and final constructors' title for Colin Chapman's outfit. Hunt's frustration prompted him to switch to the Wolf team while 'Wattie' replaced him at McLaren with high hopes for the new M28 car. Sadly it let him and Tambay down.

"For the first two races that year, Patrick didn't have an M28 whereas I did," Watson explains, "he had to continue with the previous M26. I would have thought at the time that he had a disadvantage but arguably he didn't because when McLaren built the M28 they soon realised it needed a significant amount of restructuring to make it work."

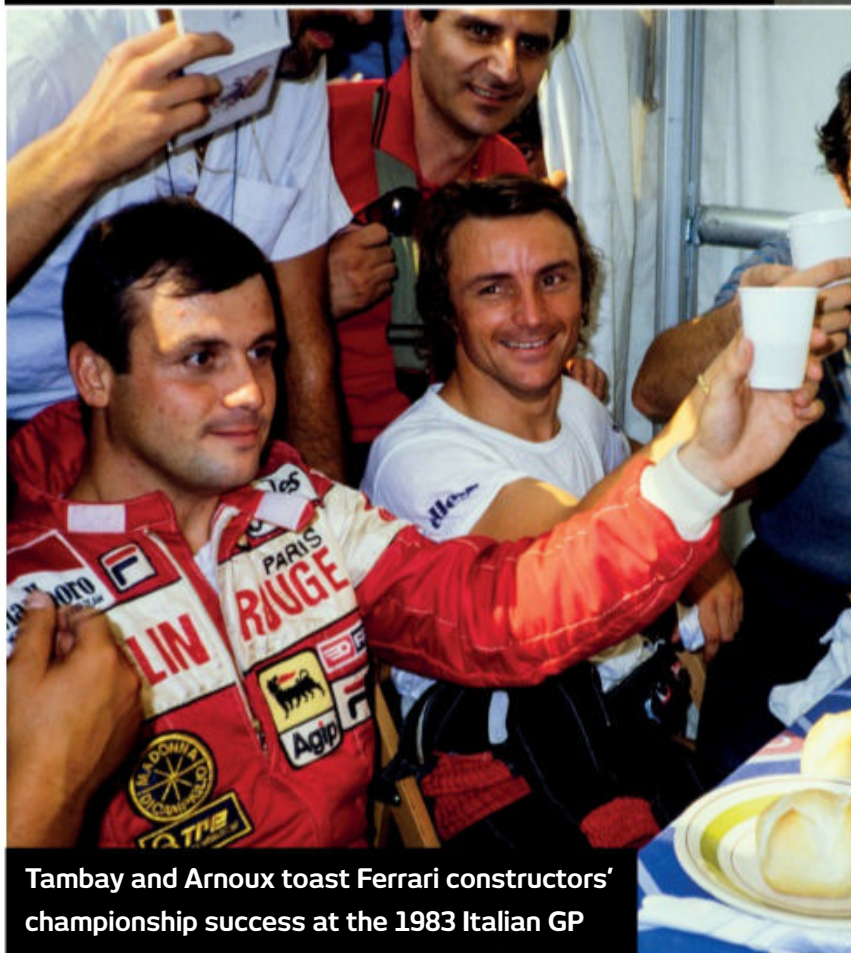
The car was a big disappointment and Tambay was also getting embroiled in a series of mid-grid accidents before failing to qualify at Zolder and Monaco. It was a tough time and by the end of the season he was dropped in favour of another Frenchman, a youngster who had been given a test at Paul Ricard. "He [Alain Prost] was so smooth, absolutely like he was born to it," John recalls.

Tambay was out of F1 for all of 1980 but boosted his confidence by winning the Can-Am sportscar series for the second time and reconnecting with Hong Kong entrepreneur Teddy Yip. Patrick had been given his GP debut by Yip in 1977 at Silverstone (after failing to qualify an

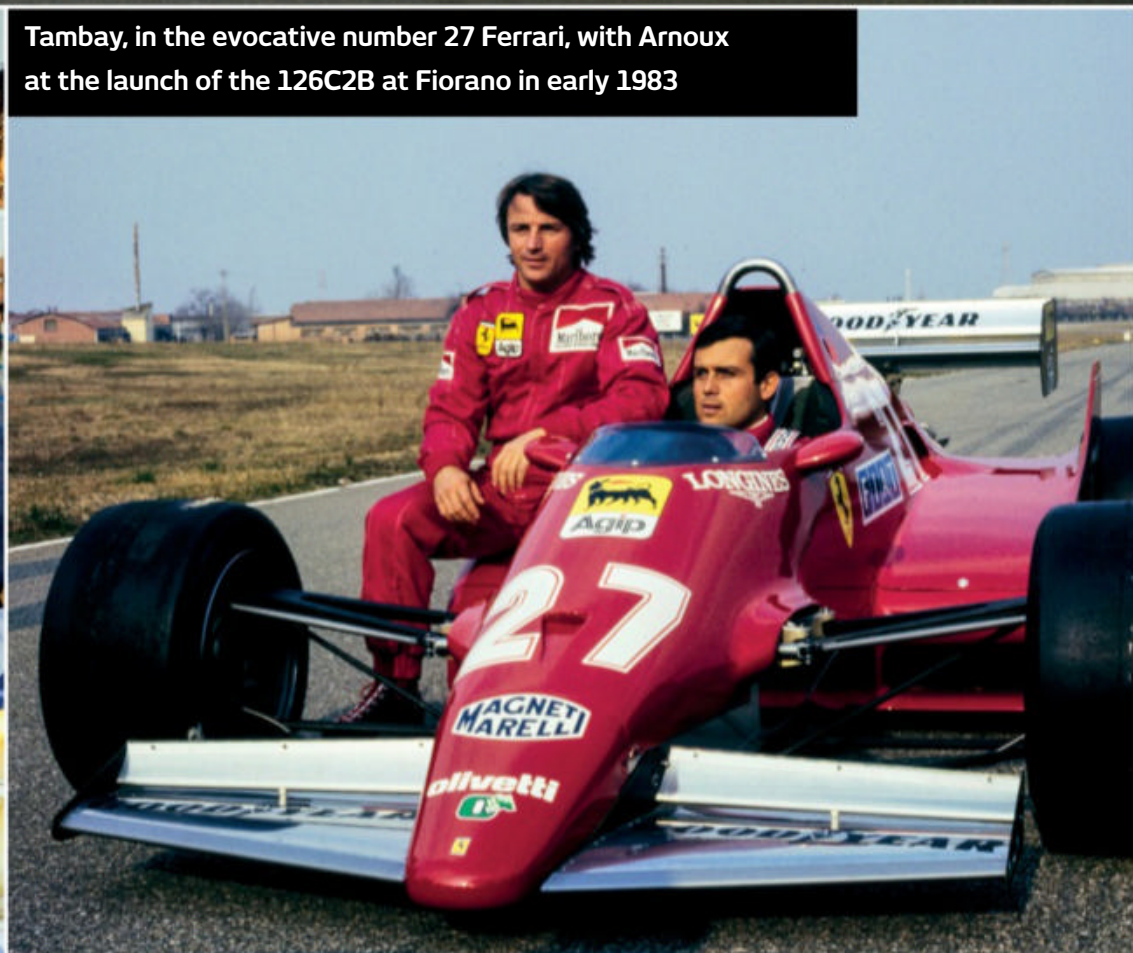




Arnoux with Tambay in 1983. René had been unhappy at Renault in 1982 so moved to join Patrick at Ferrari



Tambay and Arnoux toast Ferrari constructors' championship success at the 1983 Italian GP



Tambay, in the evocative number 27 Ferrari, with Arnoux at the launch of the 126C2B at Fiorano in early 1983



The Dutch GP was the last of four wins Arnoux and Tambay claimed in 1983, with Arnoux the victor



French team-mates Gasly and Ocon will do well to match Arnoux and Tambay 40 years on

PICTURES: MOTORSPORT IMAGES ARCHIVE; ALPINE. ILLUSTRATION: BENJAMIN WACHENJE.





# UNDER THE HOOD

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time you approach the 100-metre board before a roundabout at 70mph on a dual carriageway.

Since there's no anti-lock braking system on a Formula 1 car, the driver needs to modulate the brake pressure by releasing the brake progressively as the speed, and the downforce with it, decreases. This is a very particular skill needed on racing cars and isn't easy to acquire. Get it wrong and a wheel will lock, possibly causing severe damage to the tyre. To make things even more difficult, the braking friction is lower at the start of braking, when the disc and pad are cooler, than at the end of braking when the brakes have got hot. Of course these are relative terms and the disc will probably be

at around 400 degrees at the start of braking, rising to up to 1200 degrees, the temperature of molten lava, by the time the driver comes off the pedal.

When we assess brake performance, we do so largely in terms of two parameters: bite and consistency. Bite is the initial friction experienced when the driver first hits the brake pedal and the brakes aren't yet at the correct operating temperature. Consistency is a measure of how consistent the friction is for the duration of the braking period.

To get this consistency with the enormous duty cycle experienced, F1 cars, in common with military aircraft and some more modern passenger aircraft, use a brake material significantly different from what we find on road cars. A typical road car uses a cast iron brake disc with an organic brake pad. In an F1 car, though, the same material is used for disc and pad, and this material is known as carbon-carbon – a significantly different material to the carbon-fibre composites used in the rest of the car. Carbon-carbon is essentially a pure form of carbon and is both extremely light (approximately 50% of the weight of standard materials) and possesses a higher coefficient of friction at the correct operating temperatures. This peaks at around 0.6, compared with 0.3 for conventional materials.

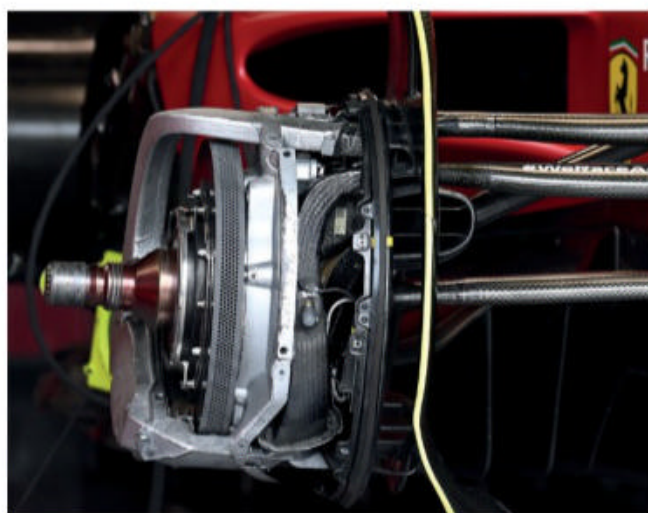
Manufacturing carbon-carbon discs is a lengthy process which takes hundreds of hours. The complexity of the procedure also explains the other major property of carbon-carbon brake discs and pads: cost. A complete car set of brake discs and pads ►

## THE HIDDEN ART OF THE FULL STOP

**Whenever a group of car** enthusiasts gather to talk about performance it's not long before acceleration numbers are bandied about. Very rarely does braking performance get the bragging rights. In absolute terms a Formula 1 car's acceleration is impressive but not necessarily outstanding, since some hypercars now have power-to-weight ratios approaching that of an F1 car and tyre grip becomes a limiting factor. When it comes to braking, however, it's a very different story.

One of the best-performing road cars, the Bugatti Veyron, can brake at around 1.3g. In this context 'g' is a measure of deceleration and is equivalent to losing about 22mph every second. An F1 car's peak braking deceleration is around 5g, meaning it could lose that 22mph in a tenth of a second.

The amazing performance of the F1 car is down to the type of brakes used and the immense downforce and, hence, grip that it has. Of course the magnitude of the downforce isn't constant and diminishes with speed. This means that



**In Formula 1 the same extremely light material – carbon-carbon – is used for both brake discs and pads**

while the peak braking may be nearly 5g the average deceleration during braking is more like 3g – still an impressive figure.

If we consider a hard braking event – I've chosen braking for Turn 7 in Singapore – we can examine data to see how remarkable the brakes on an F1 car are. On his way to pole in 2022 Charles Leclerc approached the corner at around 180mph. He hit the brakes, probably exerting around 1600 Newtons, or 360 lbs in British units, of force on the pedal. Leclerc then came off the brakes to enter the corner at just over 75mph two seconds later. His total braking distance was less than 100 metres. Think of that (but don't try it!) next



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The Bugatti Veyron is one of the best-performing road cars in terms of braking at 1.3g, losing 22mph a second



In Singapore, at Turn 7, Charles Leclerc was able to cut his speed from 180mph to 75mph in under 100 metres



With no anti-lock braking system on F1 cars, immense skill is needed to brake without locking a wheel

costs around £15,000, and the team will probably use 50 sets in a year. The brake callipers don't come cheaply either: a complete car set costs a further £15,000.

Apart from cost, one of the reasons carbon brakes aren't used on road cars is that they wear extremely quickly. To be more exact, carbon-carbon brakes possess very particular properties. A carbon brake has relatively poor performance below about 400°C and has optimum braking performance above 650°C. Unfortunately, whereas conventional brakes wear down through the normal mechanism of abrasive wear that any frictional material experiences, a carbon brake not only suffers wear through this mechanism but also a process called oxidation. Oxidation is in simple terms a burning of the surface of the disc, and at temperatures above 600°C it is accelerated. This means that when the brakes are giving best performance they're also losing mass rapidly through oxidation

which occurs not just on the rubbing surfaces.

On the straights, of course, the ducts are feeding air to the brakes and so they drop below the oxidation temperature. Paradoxically the very air used to cool them contains a high amount of oxygen that accelerates the oxidation process.

The brake ducts themselves are highly complex and different configurations are required depending on the braking severity of the circuit. Teams will always use the smallest duct possible

**“THE BRAKE DUCTS THEMSELVES ARE HIGHLY COMPLEX AND DIFFERENT CONFIGURATIONS ARE REQUIRED DEPENDING ON THE BRAKING SEVERITY OF THE CIRCUIT”**

since large ducts harm the aerodynamic efficiency. The air is fed both through the multiple 3mm diameter radial holes drilled in the discs and across the surface of the disc and pads. The hot air exiting the brakes also has an effect on tyre heating, less so since the introduction of the 2022 regulations, but still a factor.

While not grabbing the headlines that power units get, the brakes on a Formula 1 car are equally important to a good lap time.





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# STRAIGHT TALK

MARK GALLAGHER

[@\\_markgallagher](#)

I well remember pushing a newly offered contract to one side of the desk and explaining I would be leaving.

Quitting a job and a company you truly enjoy is a big decision, but it's hard to imagine how gutted Binotto will have felt after 27 years of commitment to the Prancing Horse. Particularly when the team and lead driver had just finished second in the world championships.

If we've learned anything over the years it's that building a fast car is a first-order priority. Fixing bad pitstops, poor strategy calls and reliability problems can be tackled later. A dozen pole positions showed just how far Ferrari had come last season, yet instead of moving forward as one, new leadership is prioritised.

In Vasseur Ferrari has gone for an outsider with insider knowledge. Six a half years of experience in F1, first with Renault then Sauber, means he knows his way around. His long-standing partnership with Nicolas Todt, co-founder of Vasseur's all-conquering ART team in junior formulae and manager of Charles Leclerc, means he already knows much about Ferrari and the task ahead. He can always call

Nicolas's father for some advice.

Of the other team principal changes only one raises eyebrows, for the others are an inevitable consequence of the contracted rent-a-boss era.

When, at the end of 2021, I sat down with Jost Capito to carry out an interview for this magazine, I found someone happy and confident in himself, his job and the future prospects for Williams. He didn't want to be critical of the previous leadership but admitted to structural and cultural problems at Grove.

Not everyone was pulling in the same direction, there was a tendency to blame, a default towards 'this is not how we do things around here.' This despite the fact that 'how we do things around here' had resulted in a single outlier race win since 2005.

The departure of Capito and technical director Francois-Xavier Demaison is an abrupt change by the team's owner, Dorilton Capital. Unusual that there were no replacements lined up, unless there's a takeover in the wings.

Given recent history it's hard not to have the impression that Williams has a tendency to spit out leaders for which it has little taste. Does the team, in its current form, want to be led? Whoever is handed this tainted chalice will need experience, a thick skin and the unstinting support of Dorilton in the long term. Building a team, in the purest sense, takes years not months. Williams needs to become a team again.

## FORMULA 1 HAS ENTERED THE RENT-A-BOSS ERA

**"I'm not satisfied... We must** continue to progress and that applies to the mechanics, the engineers, the drivers and, obviously, the entire management team. Including the team boss. We have seen far too many mistakes, from reliability issues to driving errors and strategic blunders."

The words are John Elkann's, the Ferrari chairman choosing the eve of September's Italian Grand Prix to deliver an interview in Italy's *Gazzetta Dello Sport*. Hardly a pep talk.

Mattia Binotto's departure two and a half months later didn't come as a surprise. The Italian media had been trumpeting his replacement by Frédéric Vasseur for some weeks. The Scuderia's insistence that there was no truth in the story only added to the feeling that Binotto's time was up.

Being undermined by the boss isn't a nice feeling, although walking away is liberating. After two years running Cosworth's F1 programme



The well-signposted move of Frédéric Vasseur from Alfa Romeo to Ferrari was just one of a number of team principal changes announced before Christmas



# THE QUICK LIST 2023

FORMULA 1'S FASTEST 50





Who are the quickest drivers in Formula 1 history?  
Our jury is an experienced and international panel of experts and F1 insiders (see right). Some of them have worked closely with F1's fastest-ever drivers – so who better to vote on our all-time top 50? We're talking all-out speed here rather than size of trophy cabinet, so the results may surprise you...

## THE JURY

Frédéric Vasseur  
Guenther Steiner  
Andrew Shovlin  
Ricardo Musconi  
Jody Egginton  
Jack Aitken  
Bernadette Collins  
Karun Chandhok  
Maurice Hamilton  
David Tremayne  
Will Buxton  
Jennie Gow  
Roberto Chinchero  
Jonathan Noble  
Ronald Vording  
Christian Nimmervoll  
James Allen  
Kevin Turner  
Matt Bishop  
Andrew Benson  
Tom Clarkson  
Anthony Peacock

## HOW WE DID IT

Each member of our jury was asked to select their 20 quickest (note, not 'greatest'...) drivers from any point in the history of the F1 world championship, from 1950-2022. Their number one pick was awarded 20 points, number two got 19 points, and so on until 20th on their list received one point. While their exact selections remain anonymous, the collective results form a top 50 ranking.

The driver career statistics and fastest-lap ratio are based on actual number of race starts; pole ratio is taken from all qualifying sessions attempted; and qualifying performance against team-mates is based on times alone, regardless of whether they started the race. Events where drivers had no team-mate were discounted.

WORDS LUKE SMITH PICTURES



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50

**JENSON BUTTON** (Great Britain)**GP starts:** 306 (2000-2017)**Outqualified team-mate:** 43% (133:176)**Fastest lap ratio:** 3% (8)**Pole position ratio:** 3% (8)

While not known for his qualifying prowess, Button was able to turn things on when the stars aligned. His 2009 title showed what he was capable of, but arguably even better was his stint at McLaren. Second behind the dominant Sebastian Vettel in 2011 was impressive, and he was untouchable at Spa in 2012. Closer to Lewis Hamilton than many got, proving his critics wrong and increasing his standing among the quickest of the early 2010s.



49

**DAMON HILL** (Great Britain)**GP starts:** 115 (1992-99)**Outqualified team-mate:** 49% (59:61)**Fastest lap ratio:** 17% (19)**Pole position ratio:** 17% (20)

The under-rated (though not by our jury) Hill might have come to F1 relatively late in life, but he took full advantage of his opportunity with Williams. When everything was hooked up, he was hard to beat, being one of the few to say he took the fight to Michael Schumacher. Redemption for their Adelaide run-in came in '96, while later hurrahs for Arrows (Hungary) and Jordan (Spa) showed his lasting quality.

48

**TOM PRYCE** (Great Britain)**GP starts:** 42 (1974-77)**Outqualified team-mate:** 56% (23:18)**Fastest lap ratio:** 0% (0)**Pole position ratio:** 2% (1)

Pryce spent his all-too-brief career with Shadow, a privateer lacking the might to properly compete at the front. It didn't stop Pryce from starring, particularly in the wet, and taking a shock pole at Silverstone in 1975. Most tipped him as a future world champion: his dominant win at the Race of Champions in '75 at Brands Hatch, against a field including Ronnie Peterson, Jacky Ickx and Jody Scheckter, was a sign of what could have been.



47

**FRANÇOIS CEVERT** (France)**GP starts:** 46 (1970-73)**Outqualified team-mate:** 18% (9:41)**Fastest lap ratio:** 4% (2)**Pole position ratio:** 0% (0)

The heir-apparent to Stewart at Tyrrell, Cevert might not have quite matched the pace of his team-mate and great friend for much of their time racing together. But by his final season in 1973, he was a podium regular and shaping up to be a title contender, racing with precision and, importantly, speed. His tragic accident at Watkins Glen meant we never truly got to see just how good he could have been.

46

**JACKY ICKX** (Belgium)**GP starts:** 114 (1967-79)**Outqualified team-mate:** 40% (42:63)**Fastest lap ratio:** 11% (13)**Pole position ratio:** 11% (13)

There was a moment where Ickx looked set to take the 1970s by storm. Reliability cost him a proper shot at the title in '70, a crown he said he was glad not to deny the late Jochen Rindt, before his heyday coincided with the Stewart/Tyrrell juggernaut being so hard to beat. Naturally quick and arguably F1's first true rain-master, Ickx had much unfulfilled potential (thanks to poor career-move timing) which was thankfully realised at Le Mans.



45

**LANDO NORRIS** (Great Britain)**GP starts:** 82 (2019-present)**Outqualified team-mate:** 67% (55:27)**Fastest lap ratio:** 6% (5)**Pole position ratio:** 1% (1)

The reserved, understated vibe of Norris's early years in F1 has given way to him becoming one of the brightest, steeliest talents on the grid right now. An even match for Carlos Sainz in their two years together before destroying Daniel Ricciardo, bagging himself a long-term McLaren deal. A shock pole in Sochi so nearly brought a first win, but it's surely a matter of time. He'll be higher on this list one day.



44

**MASTEN GREGORY** (United States)

---

**GP starts:** 38 (1957-1963, 1965)  
**Outqualified team-mate:** 63% (30:18)  
**Fastest lap ratio:** 0% (0)  
**Pole position ratio:** 0% (0)

The ‘Kansas City Flash’ was so quick he was an idol for a young Jim Clark. Yet he often found himself in the wrong place at the wrong time, never landing the Ferrari seat which had prompted him to up sticks to Italy. Injuries blighted Gregory’s chances with top teams, but he held his own alongside Jack Brabham and Bruce McLaren at Cooper. He’d go on to enjoy greater success in sportscar racing, but was America’s first truly great grand prix driver.



43

**PEDRO RODRÍGUEZ** (Mexico)

---

**GP starts:** 54 (1963-71)  
**Outqualified team-mate:** 62% (32:20)  
**Fastest lap ratio:** 2% (1)  
**Pole position ratio:** 0% (0)

Never truly given the opportunity to shine in F1, Rodríguez showed how quick he was in his sportscar escapades with Ferrari and Porsche. But he was still one of the fastest F1 drivers of his era, matching Jochen Rindt in their time together at Cooper and winning only his ninth GP, at Kyalami. A wet-weather ace with no fear going for overtakes, Rodríguez had so much more to give before his death in 1971.

42

**RENÉ ARNOUX** (France)

---

**GP starts:** 149 (1978-89)  
**Outqualified team-mate:** 50% (78:78)  
**Fastest lap ratio:** 8% (12)  
**Pole position ratio:** 12% (18)

Arnoux mounted a challenge to the likes of Gilles Villeneuve, Alain Prost and Nelson Piquet through his career; his speed yielded more poles than anyone from 1981-83. But this didn’t convert often enough into big results on Sunday, making seven wins a disappointing return. Infighting led to exits from Renault and Ferrari, leaving him to spend the final years of his career making up the numbers with Ligier – a far cry from his undeniably quick peak.



41

**ROBERT KUBICA** (Poland)

---

**GP starts:** 99 (2006-2010, 2019, 2021)  
**Outqualified team-mate:** 47% (46:53)  
**Fastest lap ratio:** 1% (1)  
**Pole position ratio:** 1% (1)

A man whose full potential we sadly never got to see, due to injuries in a near-fatal accident ahead of the 2011 season. Kubica soared with BMW Sauber, spawning ‘Pole on pole’ headlines in Bahrain ’08 and sustaining an unlikely title bid until BMW shifted focus to its 2009 car. A future with Ferrari beckoned before his accident. The man who came closest to challenging Ferrari and McLaren at the height of their mid-noughties battle.

40

**DANIEL RICCIARDO** (Australia)

---

**GP starts:** 232  
**Outqualified team-mate:** 54% (124:107)  
**Fastest lap ratio:** 7% (16)  
**Pole position ratio:** 1% (3)

The McLaren years may have dampened his reputation but, at his peak, Ricciardo was among the fastest on the grid, capable of pulling some magic laps out of the hat. His Monaco poles stand out and, while his wins may have been opportunistic – Red Bull was rarely, if ever, the fastest in his time there – all required him to seize the moment and not miss a beat: Baku, China and Monza were brutally fast days.



39

**DAN GURNEY** (USA)

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**GP starts:** 86 (1959-70)  
**Outqualified team-mate:** 67% (50:25)  
**Fastest lap ratio:** 7% (6)  
**Pole position ratio:** 3% (3)

The only driver Jim Clark truly feared on track. Gurney’s speed was evident from the very start of his career but he hopped from Ferrari to BRM to Porsche to Brabham, never staying in one place long enough to sustain the title challenge his speed deserved. He remained a force through the ’60s, scored Porsche’s only works F1 win in ’62, and is second only to Mario Andretti for American F1 victories.



# 38

## NICO ROSBERG (Germany)

**GP starts:** 206 (2006-2016)  
**Outqualified team-mate:** 61% (126:80)  
**Fastest lap ratio:** 10% (20)  
**Pole position ratio:** 15% (30)

Rosberg benefitted from essentially being in a two-car battle through the final four years of his F1 career. But he managed to hold his own going toe-to-toe with Hamilton, one of the greatest of all time, especially over a single lap. Yes, he was the slower of the two, but not by much a lot of the time, and snared a title when the opportunity came his way. Especially good when factors such as rain weren't a differentiator.



# 36

## GEORGE RUSSELL (Great Britain)

**GP starts:** 82  
**Outqualified team-mate:** 81% (66:16)  
**Fastest lap ratio:** 6% (5)  
**Pole position ratio:** 1% (1)

Russell's one-lap escapades in Formula 1 meant it didn't take long for him to gain the 'Mr Saturday' tag from TV pundits. But it goes far beyond the numbers, impressive as they may be. He put the sluggish Williams on the front row in the damp at Spa with a wet-weather lap for the ages, and made his future stardom clear through year one at Mercedes. To be so close to Hamilton already is a very promising sign.

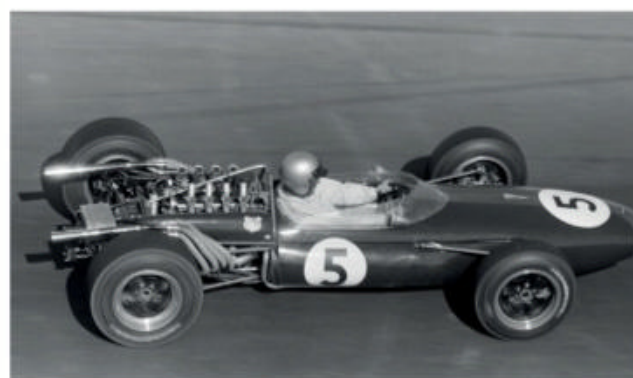


# 34

## JACK BRABHAM (Australia)

**GP starts:** 126 (1955-70)  
**Outqualified team-mate:** 58% (63:45)  
**Fastest lap ratio:** 10% (12)  
**Pole position ratio:** 10% (13)

Brabham's understated style meant he went under the radar compared with many of his contemporaries, but you don't win three world titles – especially against the likes of Stirling Moss, Jochen Rindt and John Surtees – without the speed to back it up. Brabham's technical prowess paved the way for him to drive his own team's car to a title, a feat unmatched to this day, and he was winning races and taking poles in his final season at the age of 44.



# 37

## JODY SCHECKTER (South Africa)

**GP starts:** 111 (1972-80)  
**Outqualified team-mate:** 48% (41:44)  
**Fastest lap ratio:** 5% (5)  
**Pole position ratio:** 3% (3)

Scheckter was labelled a "madman" by Emerson Fittipaldi after their collision at Paul Ricard in 1972, summing up the South African's crash-strewn nature early in his career. But the speed was always there. He honed it, punching above his weight with Wolf before making it work, to the surprise of many, at Ferrari to win the '79 title. Beating Villeneuve in the same team speaks volumes about Scheckter's speed.



# 35

## GRAHAM HILL (Great Britain)

**GP starts:** 176 (1958-75)  
**Outqualified team-mate:** 64% (109:62)  
**Fastest lap ratio:** 6% (10)  
**Pole position ratio:** 7% (13)

The first true media darling of Formula 1. Hill's charm off-track was matched by his determination to succeed on it. He turned BRM around to win his first title and pulled Lotus out of its darkest hour following Jim Clark's death to take his second crown in 1968. He may not have been on Clark's level – but few were through the '60s. To excel so frequently in Monaco was proof of Hill's greatness and sheer pace.



# 33

## CARLOS REUTEMANN (Argentina)

**GP starts:** 146 (1972-82)  
**Outqualified team-mate:** 61% (91:59)  
**Fastest lap ratio:** 4% (6)  
**Pole position ratio:** 4% (6)

Pole on grand prix debut? Par for the course for 'Lole', a driver with a case as one of the greatest never to win a world title, although he came close a few times. Regularly seen as a number two within his teams, he embraced the team-leader role at Ferrari when Niki Lauda quit and duly flourished. He'd come within a point of the crown in '81, his speed displacing reigning champion Alan Jones as top dog at Williams.



# 32 TONY BROOKS (Great Britain)

**GP starts:** 39 (1956-61)  
**Outqualified team-mate:** 48% (22:24)  
**Fastest lap ratio:** 8% (3)  
**Pole position ratio:** 8% (3)

A star of the 1950s whose speed impressed Enzo Ferrari, Brooks was referred to by Moss as “the greatest little-known driver of all-time.” How different it might have been had Brooks won the title in ’59, one he narrowly lost because of a promise he kept to himself not to drive substandard or damaged cars after previous crashes, prompting him to pit for checks after a lap-one knock in the season finale. It handed the title to Brabham.



# 31 JEAN ALESI (France)

**GP starts:** 201 (1989-2001)  
**Outqualified team-mate:** 61% (124:78)  
**Fastest lap ratio:** 2% (4)  
**Pole position ratio:** 1% (2)

Alesi is a perfect example of the difference between a quick driver and a great driver. He set F1 alight when he arrived on the scene, dicing with Senna for the win in just his ninth race. Yet he never converted his undeniable raw pace into solid results: his sole win came in 1995 at the Circuit Gilles Villeneuve, a driver to whom Alesi was frequently compared, albeit without the success to back it up.

# 30 CHRIS AMON (New Zealand)

**GP starts:** 96 (1963-76)  
**Outqualified team-mate:** 68% (45:21)  
**Fastest lap ratio:** 3% (3)  
**Pole position ratio:** 5% (5)

His reputation as the greatest F1 driver never to win a race belies the speed of Chris Amon. The Kiwi raced in an era of stiff competition, and his boyhood dream of racing for Ferrari was dashed by constant reliability issues. He jumped ship to March at just the wrong time, meaning the breakthrough win never arrived. Luck was never on his side, but he commanded the respect of his rivals who regarded him among the very best.



# 29 GIUSEPPE FARINA (Italy)

**GP starts:** 33 (1950-55)  
**Outqualified team-mate:** 55% (34:28)  
**Fastest lap ratio:** 15% (5)  
**Pole position ratio:** 15% (5)

Formula 1’s inaugural champion was Italy’s first hero of the world championship era, claiming his title with Alfa Romeo before becoming a race winner with Ferrari. But his undeniable courage and speed sometimes blurred into a recklessness that would put both Farina and others at risk; Fangio said his one-time team-mate drove in a “crazy way.” One of the quickest through F1’s early years.

# 28 JUAN PABLO MONTOYA (Colombia)

**GP starts:** 94 (2001-06)  
**Outqualified team-mate:** 45% (43:52)  
**Fastest lap ratio:** 14% (13)  
**Pole position ratio:** 13% (12)

Montoya’s haul of poles and fastest laps is even more impressive given they were during the peak of the Schumacher/Ferrari era; seven of his poles came in 2002. Yet if Montoya’s panache and tenacity – the kind that moved him to dive up Schumi’s inside for the lead at Interlagos in only his third race – was matched by his work ethic, success may have been much greater. But there’s no denying his place in F1’s quickest this century.



# 27 JAMES HUNT (Great Britain)

**GP starts:** 92 (1973-79)  
**Outqualified team-mate:** 94% (50:3)  
**Fastest lap ratio:** 9% (8)  
**Pole position ratio:** 15% (14)

Hunt’s depiction in *Rush* as the antithesis to Niki Lauda’s calculated approach was accurate. With raw speed and instinct in bucketloads, Hunt punched above his weight at Hesketh before his McLaren title win, in a season where he was easily quickest over a single lap. His team-mate stats are skewed by a lack of real competition, but it should not detract from his status as one of the quickest pedallers of the ’70s



# 26

## JOHN SURTEES (Great Britain)

**GP starts:** 111 (1960-72)  
**Outqualified team-mate:** 76% (60:19)  
**Fastest lap ratio:** 10% (11)  
**Pole position ratio:** 7% (8)

His championship success on bikes was no guarantee Surtees could do the same in cars – yet he was arguably even better with twice the wheels at his disposal. A second and pole in his opening three GPs set the tone for the F1 success to follow, including the 1964 title with Ferrari. Falling-outs caused Surtees' career to meander, ending partnerships with Lotus and Ferrari, the latter something he regretted. But no matter the car, he was rapid.



# 25

## KEKE ROSBERG (Finland)

**GP starts:** 114 (1978-86)  
**Outqualified team-mate:** 74% (82:29)  
**Fastest lap ratio:** 3% (3)  
**Pole position ratio:** 4% (5)

Rosberg's knack for the spectacular earned him the reputation as F1's first 'flying Finn', but it wasn't until Alan Jones's shock retirement that he got his shot at the big time with Williams. He grabbed it with both hands, winning the title in '82 as he harnessed the aggressive style that made him so quick while delivering a consistency others couldn't match. Still had it, even in his final year with McLaren.

# 24

## MARIO ANDRETTI (USA)

**GP starts:** 128 (1968-82)  
**Outqualified team-mate:** 60% (70:47)  
**Fastest lap ratio:** 8% (10)  
**Pole position ratio:** 14% (18)

Andretti showed his speed in everything he got his hands on. Fifteen of his 18 poles came across '77 and '78 with Lotus, the latter year yielding Andretti's title with the dominant Lotus 79. To have been such an even match for Peterson across the garage spoke to Andretti's quality, as did his ability to stick his car on pole both on debut at Watkins Glen in 1968 and in his penultimate race at Monza some 14 years later.



# 23

## NELSON PIQUET (Brazil)

**GP starts:** 204 (1978-91)  
**Outqualified team-mate:** 73% (149:55)  
**Fastest lap ratio:** 11% (23)  
**Pole position ratio:** 12% (24)

Piquet and Brabham were a formidable combination in the early 1980s, yielding two titles. He remained a force in qualifying even when the Brabham left much to be desired in 1984 and '85. This prompted a move to Williams and a third championship, and he was still quick in his final years at Benetton. An acquired taste, whose abhorrent comments in 2022 rightly made him *persona non grata* in modern F1.

# 22

## EMERSON FITTIPALDI (Brazil)

**GP starts:** 144 (1970-80)  
**Outqualified team-mate:** 65% (61:33)  
**Fastest lap ratio:** 4% (6)  
**Pole position ratio:** 4% (6)

A smooth and clinical style did nothing to detract from Fittipaldi's scintillating pace, seen from early in his F1 career – he won his fourth race. He proved a potent force in the Lotus 72 and was F1's youngest champion in 1972, a record that stood until Fernando Alonso's first title. A similar harmony with the McLaren M23 delivered a second crown two years later. The family team fell flat, but Emmo's speed was never in doubt.



# 21

## CHARLES LECLERC (Monaco)

**GP starts:** 103 (2018-present)  
**Outqualified team-mate:** 68% (70:33)  
**Fastest lap ratio:** 7% (7)  
**Pole position ratio:** 17% (18)

Is there a faster qualifier in F1 right now? Leclerc may only have five wins, in part owing to Ferrari's Sunday struggles, but his raw pace over a single lap cannot be disputed. He ended 2019 and 2022 – Ferrari's only truly competitive seasons since he arrived – with more poles than anyone, and even snared a couple in '21 despite the team's woes. Given the right car, titles and records will inevitably follow for Leclerc.



# 20

## STEFAN BELLOF (Germany)

**GP starts:** 20 (1984-85)  
**Outqualified team-mate:** 12:10 (55%)  
**Fastest lap ratio:** 0% (0)  
**Pole position ratio:** 0% (0)

Monaco 1984 might be remembered for Senna's great arrival, yet it was also where Bellof made his mark as a future star, recovering from last on the grid to cross the line third. He'd been in karts just four years earlier. Outqualified Martin Brundle in their year together at Tyrrell, and would surely have harnessed his spectacular style and searing pace to achieve greater things had it not been for his death in a sportscar race at Spa in 1985.



# 19

## SEBASTIAN VETTEL (Germany)

**GP starts:** 299 (2007-2022)  
**Outqualified team-mate:** 64% (191:109)  
**Fastest lap ratio:** 13% (38)  
**Pole position ratio:** 19% (57)

Vettel's later career exploits may have shifted perceptions over his speed, but there is no denying his greatness through the Red Bull heyday. The sight of Vettel in the garage at the end of Q3, knowing his 'banker' was good enough for pole, became a familiar sight, as did regular half-minute gaps to the field on Sundays. He would often set the fastest lap against his team's wishes – just because he could.

# 18

## ALBERTO ASCARI (Italy)

**GP starts:** 32 (1950-55)  
**Outqualified team-mate:** 78% (29:8)  
**Fastest lap ratio:** 38% (12)  
**Pole position ratio:** 44% (14)

To still hold the (now joint) record of nine consecutive wins in F1's most unreliable and dangerous era points to the quality of Ascari. He stood out with his smooth, calculated – and blisteringly fast – approach. Ascari was Ferrari's first champion and remains one of its favourite sons. His title years yielded 11 wins, 11 poles and 10 fastest laps across 14 races, a hit rate even Senna, Schumacher or Hamilton couldn't match.



# 17

## KIMI RÄIKKÖNEN (Finland)

**GP starts:** 353 (2001-09, 2012-21)  
**Outqualified team-mate:** 48% (168:184)  
**Fastest lap ratio:** 13% (46)  
**Pole position ratio:** 5% (18)

Might have needed the right car to unlock his very best, but boy was Räikkönen rapid when things clicked, perhaps best seen in 2005 even if reliability woes kiboshed his title hopes. The comeback with Lotus proved he'd lost none of his speed, signs of which remained towards the end of his second stint at Ferrari. Try finding a better specialist at Spa, a true sign of all-round rapidity.

# 16

## RONNIE PETERSON (Sweden)

**GP starts:** 123 (1970-78)  
**Outqualified team-mate:** 71% (91:38)  
**Fastest lap ratio:** 7% (9)  
**Pole position ratio:** 11% (14)

Another name in the conversation of the greatest drivers never to win a title, Peterson arguably deserved the crown in 1973. Poor reliability meant nine poles translated to just four wins, leaving him third in the standings. He wouldn't get another real chance at fighting for a title until 1978, where he was seen as the quicker half of the Lotus duo but lacked Andretti's technical skills. F1's 'SuperSwede' remains a cult hero, 44 years after his death.



# 15

## NIKI LAUDA (Austria)

**GP starts:** 171 (1971-79, 1982-85)  
**Outqualified team-mate:** 55% (98:79)  
**Fastest lap ratio:** 14% (24)  
**Pole position ratio:** 14% (24)

A world apart from most of his rivals through the mid-1970s, Lauda took nine poles in '74 and '75, the latter spawning his maiden title. Post-accident, he'd lost none of his edge, even if the Brabham move proved ill-fated. His return to glory in '84 came despite Alain Prost being the quicker of the McLaren drivers, yet Lauda could turn it on when it mattered, proved by his fightback at Estoril to clinch a third crown.



# 14

## JOCHEN RINDT (Austria)

**GP starts:** 60 (1964-70)  
**Outqualified team-mate:** 73% (47:17)  
**Fastest lap ratio:** 5% (3)  
**Pole position ratio:** 17% (10)

A beloved figure of his era, winning acclaim for his bravery behind the wheel through an all-too-short career. Rindt was a star in Formula 2 before finally showing his speed in his fifth F1 season upon joining Brabham. He was even better with Lotus in 1969, and completely untouchable the following year as he won five of the opening eight races. Tragically, he would lose his life at Monza at just 28, posthumously becoming world champion.



# 13

## NIGEL MANSELL (Great Britain)

**GP starts:** 187 (1980-92, 1994-95)  
**Outqualified team-mate:** 48% (91:98)  
**Fastest lap ratio:** 16% (30)  
**Pole position ratio:** 17% (32)

Mansell drove with heart and total confidence in his machinery throughout his career. He reached new heights with Williams in his championship year (1992), taking pole for 14 of the 16 races. His finest hour perhaps came at Silverstone when he gapped the field – including team-mate Riccardo Patrese – by almost two seconds in dry qualifying. He fought the likes of Nelson Piquet, Alain Prost and Ayrton Senna with bravado, and even won the adoration of the tifosi.

# 12

## ALAIN PROST (France)

**GP starts:** 199 (1980-91, 1993)  
**Outqualified team-mate:** 67% (135:66)  
**Fastest lap ratio:** 21% (41)  
**Pole position ratio:** 17% (33)

Prost won against many of the names on this list – but he was firmly put in the shade by Ayrton Senna, particularly over a single lap. It changed perceptions of Prost, given their difference in styles, since the Frenchman's methodical approach hardly screamed 'quick'. Successful right through his career, his ability never appeared to wane. It allowed for a final blast with Williams in '93 to win a fourth title. A driver who would be higher if this list ranked the greatest, not the quickest.





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## 11 FERNANDO ALONSO (Spain)

**GP starts:** 358 (2001, 2003-2018, 2021-present)

**Outqualified team-mate:** 72% (258:99)

**Fastest lap ratio:** 6% (23)

**Pole position ratio:** 6% (22)

If Ayrton Senna raced on instinct and Michael Schumacher through physical and technical mastery, then Alonso is a blend of the two. He dethroned Schumacher with titles in 2005 and '06 before the fall-out at McLaren set the tone for a rollercoaster, title-less career since, often spent hauling substandard cars much further up the grid than they belong. Few argue that Alonso's speed makes him one of the greatest, for all his foibles. Even last year he got the Alpine to the front row in Canada, having lost none of his sharpness. With the right car, a third title isn't unfathomable.

## 10 STIRLING MOSS (Great Britain)

**GP starts:** 66 (1951-61)

**Outqualified team-mate:** 71% (47:19)

**Fastest lap ratio:** 29% (19)

**Pole position ratio:** 24% (16)

No matter what Moss drove, he was quick. From dominating Formula 1 alongside Juan Manuel Fangio in the Mercedes 'Silver Arrows' to achieving great things for British manufacturers such as Vanwall, Cooper and Lotus, the fact Moss failed to win a title is one of racing's great travesties. He was one of the few drivers to truly sustain success through the 1950s, never finishing lower than third in the standings from 1955-61. His Goodwood crash in '62 ended a career that still had so much more to give, but his stats reflect just how good he was – especially when you consider the team-mates he was up against.



## 9 MIKA HÄKKINEN (Finland)

**GP starts:** 161 starts (1991-2001)

**Outqualified team-mate:** 70% (116:49)

**Fastest lap ratio:** 16% (25)

**Pole position ratio:** 16% (26)

He's the third Finn on the list, but Mika Häkkinen is the one we all know as the 'Flying Finn' for a reason. From outqualifying Ayrton Senna on debut for McLaren at Estoril to being Michael Schumacher's fiercest competitor, Häkkinen fought against the very best and often came out on top, even if he *only* won two titles. He outclassed David Coulthard in their time together at McLaren, never losing their qualifying head-to-head. But Mika also had the ability to pull it out of the bag when it mattered in the races, seen no clearer than in his iconic pass on Schumacher at Spa in 2000.



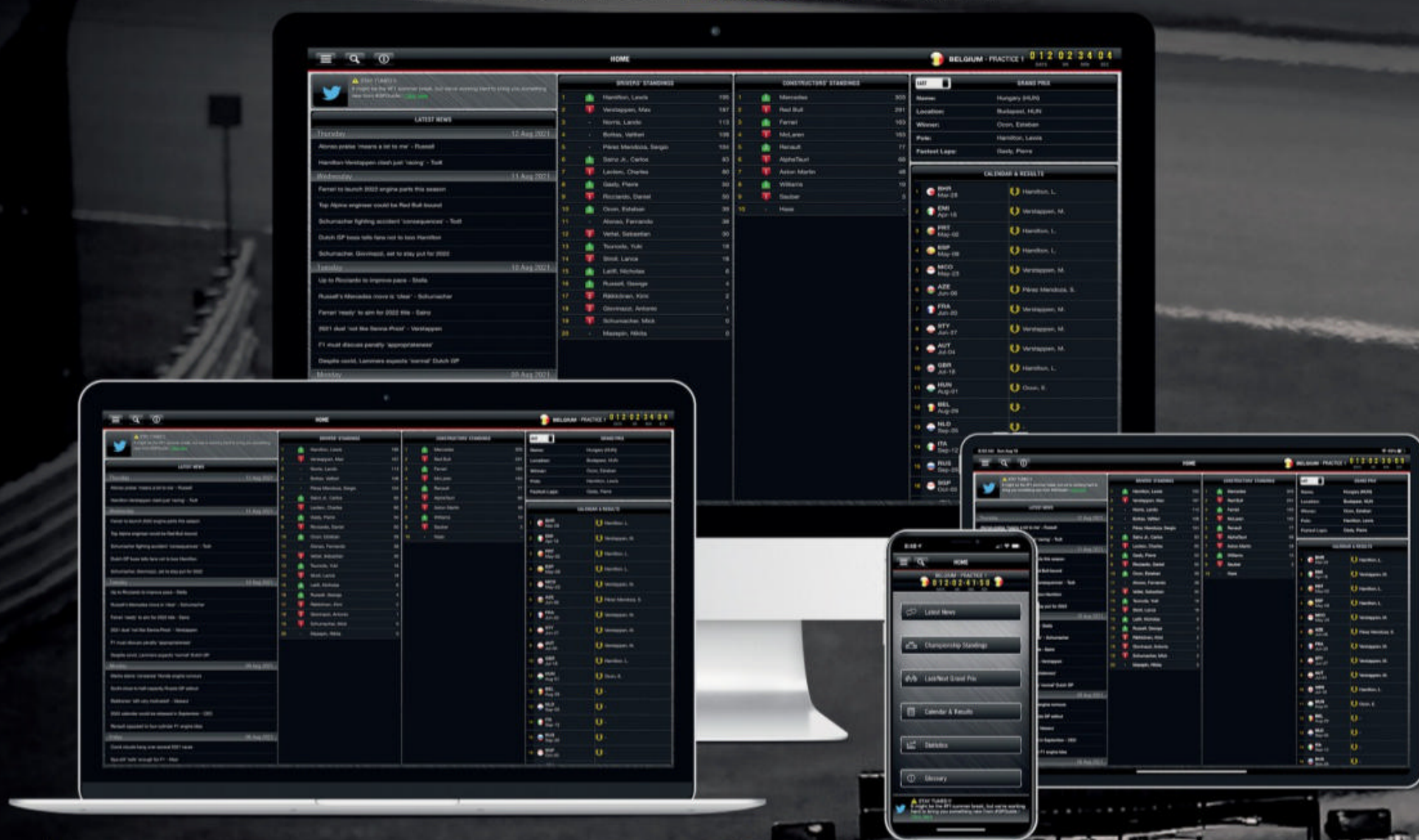


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8

**GILLES VILLENEUVE** (Canada)**GP starts:** 67 (1977-82)**Outqualified team-mate:** 58% (40:29)**Fastest lap ratio:** 12% (8)**Pole position ratio:** 3% (2)

Villeneuve's time in Formula 1 might have been tragically brief, yet he made such an impression his name sits among the greats. His approach was never to take it easy and build things up, instead working in the opposite way: go over the limit, then work your way back. It was a high-risk, high-reward approach, one that paid off as he trounced Ferrari team-mates Jody Scheckter and Didier Pironi in qualifying, both renowned for their pace. Find a picture of Villeneuve's scarlet Ferrari emblazoned with #27, and you have the perfect image of what it meant to be fast in F1.



7

**JACKIE STEWART** (Great Britain)**GP starts:** 99 (1965-73)**Outqualified team-mate:** 80% (82:20)**Fastest lap ratio:** 15% (15)**Pole position ratio:** 17% (17)

We doubt there's such a thing as a quick list in shooting, making JYS's career change one for which we remain thankful. Stewart starred in F3 before getting his chance at the big time in F1, winning at Monza in his first season. It wasn't until 1969 his first pole arrived but Stewart was never one to wring the neck of his cars. A smoother, more methodical approach paid dividends as he unlocked more and more pace, winning his first title in '69. Reliability hurt his title defence before a move to Tyrrell set up the successful partnership that would take him to the end of his F1 career.



6

**JUAN MANUEL FANGIO** (Argentina)**GP starts:** 51 (1950-58)**Outqualified team-mate:** 88% (51:7)**Fastest lap ratio:** 45% (23)**Pole position ratio:** 57% (29)

Arguably the first driver on the countdown with truly dizzying numbers. But that's how much of a star Fangio was. Five world titles looked like an unbeatable landmark for decades. Fangio was never in a race to make up the numbers. In two of his title years, of the races he finished he never crossed the line lower than second, and he had comparatively few incidents or crashes. He didn't take crazy risks – he was so quick, he didn't need to. Huge margins of victory were common, yet it was his fightbacks that showed how fearless Fangio was. At the Nürburgring in 1957, he recovered from losing almost a minute in the pits to beat the Ferraris of Mike Hawthorn and Peter Collins.







5

## MAX VERSTAPPEN (Netherlands)

**GP starts:** 163 (2015-present)

**Outqualified team-mate:** 74% (120:42)

**Fastest lap ratio:** 13% (21)

**Pole position ratio:** 12% (20)

A game changer in F1 whose age forced rule rewrites – minimum age of 18 to get a superlicence – meaning his records may never be beaten. Impressed at 17 with Toro Rosso, justifying his early promotion to Red Bull, then holding off Räikkönen, Ricciardo and Vettel in his first race for his new team to become F1's youngest winner. It was just the start. In the shade of Mercedes' domination, Verstappen ironed out the more erratic elements of his driving. Once he got a car ready to fight for a title in 2021 he took full advantage, defeating Hamilton. Last year was a story not only of his supremacy, but also growing maturity and completeness. Verstappen had it all: raw pace, good tyre management, assured overtaking. A record 15 wins in a season followed, going down as one of the most dominant in F1 history. Verstappen will only get quicker; a frightening prospect for a young man who has already achieved so much.



4

## MICHAEL SCHUMACHER (Germany)

**GP starts:** 308 (1991-2006, 2010-12)

**Outqualified team-mate:** 75% (232:76)

**Fastest lap ratio:** 25% (77)

**Pole position ratio:** 22% (68)

It was clear what a special talent Schumacher was from the moment he put his Jordan seventh on the grid at Spa in 1991, as a late stand-in. The speed was always there, but what turned Schumacher into a true great with so many records to his name – some of which still stand – was his dedication to becoming the all-round package. He redefined approaches to driver fitness, he built teams around him and worked on all the marginal gains that added up to make him, at his prime, unbeatable. The driving standards were questionable at times, yes, and it's clear that during his comeback Michael wasn't the force he used to be, pulling some of his numbers down. He might have lacked the natural gifts of those ahead on the list but, no matter the conditions, he excelled. He didn't just win, but crushed the opposition, so strong was his hatred of losing.







## 3 LEWIS HAMILTON (Great Britain)

**GP starts:** 310 (2007-present)

**Outqualified team-mate:** 65% (202:108)

**Fastest lap ratio:** 20% (61)

**Pole position ratio:** 33% (103)

An instant revelation from his debut season in 2007, when he came within a point – or a better-judged strategy in China – of winning the championship as a rookie. Hamilton shook up the establishment and won a title at the second attempt but, as the years went by, the fit with McLaren didn't quite work. He gambled, as so many greats do, on jumping ship, and found in Mercedes the team with which he would write a new F1 history. Defeat to Rosberg in 2016 hurt but only fuelled Hamilton to reach new heights as he kept getting better with age. Like Schumacher, he took fitness seriously, going vegan and hailing the benefits. He bulked up when F1's weight rules were relaxed and flourished, sweeping to four titles in a row to take his tally to seven.

But above all, Hamilton has raced fairly. Never did he put even a toe over the line when in battle, racing hard but fair – something that often couldn't be said of the drivers he fought. Bar Ayrton Senna, there's never been a better qualifier. And his race management is a skill often overlooked due to his raw speed. The greatest of his generation? Without question.



## 2 JIM CLARK (Great Britain)

**GP starts:** 72 (1960-68)

**Outqualified team-mate:** 84% (63:12)

**Fastest lap ratio:** 39% (28)

**Pole position ratio:** 46% (33)

The 1960s was an era blessed with so many great drivers but none of them came close to Clark. His astonishing hit rate, all achieved while racing for a single team, Lotus, tells the story of just how far clear of the rest he was. Like Fangio, he was rarely in a race without a shot at winning it; he only finished a race in second place once, at Hockenheim in 1963 while battling engine issues. His march to the title that year was among the most dominant F1 has seen: he took seven poles and seven wins in the 10 races.

Clark achieved all of this without ever becoming reckless or looking like he was out of control, rarely having accidents or incidents, again like Fangio. Stewart hailed the smoothness with which his fellow Scot raced, noting that he never made an error or missed a beat. The times when he didn't win, more often than not, it was due to a reliability problem on his car or, as he faced in 1966, an uncompetitive car as opposed to his own lack of pace. That was never in the equation. A rare talent we should have seen so much more of, but what we did enjoy left an indelible mark.





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# 1

## AYRTON SENNA (Brazil)

**GP starts:** 161 (1984-94)

**Outqualified team-mate:**

89% (141:18)

**Fastest lap ratio:** 12% (19)

**Pole position ratio:** 40% (65)

It was never going to be anyone else. Senna embodied what it meant to be a quick Formula 1 driver, so often destroying the competition. Prost might have been the only team-mate to seriously give him a run for his money but, even then, in terms of outright pace, it wasn't close: Senna outqualified him 14-2 through McLaren's dominant 1988 campaign. Even when he was lumbered with a car not capable of fighting for the championship – the early Lotus days, McLaren in '92 and '93 – he wrung every last second out of it, taking it far above where it deserved to be. That opening lap at Donington in 1993 was proof of the magic he could muster, his final year with McLaren arguably being his best in F1.

Senna was no angel. Unlike Hamilton, he went over the line with a ruthlessness that drew criticism. Yet he also drove with a kind of freedom, a purity, what he recognised as a spirituality, that unlocked a level of performance no driver in F1 history could match. Monaco qualifying in '88, when he took pole by 1.4 seconds from Prost and claimed he had gone “beyond my conscious understanding”, was the epitome of that.







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1  
+0.444s

### MAX VERSTAPPEN

Unsurprising to see the champion at the head of this 'grid', while he also claimed the most fastest laps of all in 2022: five.



2  
+0.493s

### CHARLES LECLERC

2022's top qualifier, with nine poles, nearly shades Verstappen largely thanks to Ferrari's early season speed advantage.



3  
+0.536s

### SERGIO PÉREZ

His qualifying deficit to Max was usually more substantial, so this suggests Pérez regularly hit Red Bull's race pace target.



5  
+1.044s

### LEWIS HAMILTON

Set the best race laptime at Silverstone and Hungary – races where Mercedes wasn't struggling with porpoising.



7  
+1.607s

### LANDO NORRIS

His Monaco fastest lap is discounted from our ranking because he got an extra stop for slicks in that wet-dry thriller.



9  
+2.019s

### ESTEBAN OCON

Ends up ahead of Bottas by default, because he had fewer best race laps which had to be removed to find his valid races total.



# QUICK QUICKER QUICKEST

Who was the fastest driver in 2022? Everyone has an opinion, but what does the stopwatch say? Obviously, differing car performance has an effect on ultimate laptime – but it's the *relative* speed of each car/driver package that's fascinating and enlightening

WORDS ALEX KALINAUCKAS PICTURES  **motorsport**  
IMAGES

We're aware that any attempt to rank Formula 1's drivers in order of speed will provoke an emotional response in some quarters, especially the deafeningly partisan echo chamber that is social media. So we set out clear rules for this

exercise based on arithmetic and rigour rather than subjectivity and sentiment.

Formula 1 is a complex business and there are many parameters to consider when assessing outright race pace in the current era.





## HOW WE DID IT

We extracted each driver's fastest lap for each race and worked out how far that was behind the race's best time.

For example Leclerc's 1m34.570s from the Bahrain GP is 0.0s. Verstappen was next and his deficit was 0.870s. We added each deficit and divided that by the number of valid races

to create an average. We excluded outliers such as: Verstappen (Silverstone), Latifi (Austria) and Norris and Schumacher (Austin) – damage from track debris; Schumacher (Bahrain) – early car damage; Perez (Miami) – engine issue; Albon (Spain) – floor breaking without driver error; Alonso (Canada) – engine air leak; Magnussen (Italy) – damage from Turn 1 clash which was not a 50-50.

**4**  
+0.972s

### CARLOS SAINZ

Took two fastest laps last year. The big gap to Leclerc essentially comes down to his struggles getting up to speed early on.



**6**  
+1.070s

### GEORGE RUSSELL

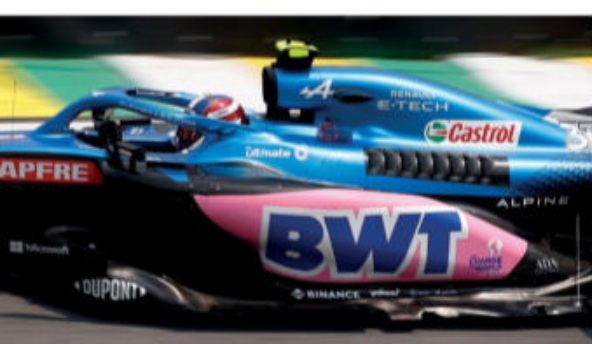
Loses three of his four 2022 fastest laps in our ranking, because they were set chasing the fastest-lap bonus with extra stops.



**8**  
+1.616s

### FERNANDO ALONSO

Differing intra-team strategies explains some of Alonso's advantage over Ocon. But he was often more rapid over a race stint.



**10**  
+2.019s

### VALTTERI BOTTAS

An early season star thanks to the C42 being at the weight limit from the off, which boosted Valtteri's in-race times.



To be clear, we only considered races where the top times were set on dry tyres, so unfortunately Japan had to be excluded.

Love 'em or hate 'em, sprint races are here to stay, but we haven't included the best lap times from

each driver in the Imola, Austria or Interlagos events. This is partly to aid ranking simplicity but also because, generally, the drivers don't push as they would in a full GP and DRS trains regularly form.

Tyre management also brings

an element of the mathematically intangible. Since the tyres are fragile and all drivers now start with the same fuel load – unless teams under-fuel them on purpose – the field's best race times generally come at around three-quarters

distance, after the final stop, with fuel burn-off a factor and the final-stint tyres still healthy. But some races require more tyre management than others – such as Austin and Abu Dhabi in 2022 – and this must be remembered ▶



**11**  
+2.072s

**ZHOU GUANYU**

Hard done by since his Japan fastest lap can't count in our ranking because the race was wet throughout.



**12**  
+2.102s

**MICK SCHUMACHER**

Despite the big gap to his team-mate Mick couldn't save his Haas drive. This show that irregular bursts of pace aren't sufficient.



**13**  
+2.173s

**LANCE STROLL**

Something to show the Stroll haters, although there was a 13-7 qualifying head-to-head defeat to Seb Vettel in 2022.



**15**  
+2.290s

**PIERRE GASLY**

Gasly hasn't forgotten how to be fast or execute races well. This just shows how much harder AlphaTauri had it in 2022.



when looking at these averages, since the strategy variance it creates can't be adjusted for. But we did remove times set by drivers who retired before the typical fastest-lap sweetspot and left in occasions where racers retired afterwards – such as for the Red Bull pair late-on in Bahrain.

The recently introduced fastest-lap bonus point creates an incentive for those who can afford an extra stop to come in for fresh boots very late. So we decided to dismiss this in obvious cases, such as when George Russell stopped late in Singapore, Austin and Mexico City – the latter occasions because he had such a big gap to the midfield. By this point in the race, those gaps have built up because of the deficits in the car packages to the frontrunners rather than individual driver performance. Don't forget this factor since it's the most important one when reading these times.

As well as dropping times set

following late crashes or incidents, we also discounted occasions when drivers couldn't show their best through no fault of their own – for example Max Verstappen hitting debris at Silverstone and getting floor damage when he was clearly the day's fastest driver. Mechanical maladies were reasons for adjusting the total number of valid races used to count towards each driver's average deficit calculation. But lap-one contact generally wasn't, unless it was obviously not one driver's fault – such as for Kevin Magnussen at Turn 1 at Monza.

The impact of late-race Safety

**17**  
+2.403s

**YUKI TSUNODA**

Adjusted to make up for an extra stop for slicks in Monaco. Tsunoda also gained from new rubber in Baku as his DRS was fixed.



**19**  
+2.532s

**KEVIN MAGNUSSEN**

Strange this, given it was Magnussen who made the most of Haas's early season speed. Too many race incidents stifled his pace.



Cars and ensuing added stops was kept in since gains/losses tend to average out over a campaign and are a big factor in succeeding in modern F1, where teams and drivers can be less than generous with the

truth about certain developments (yes, really!). So, we've taken them at their word on various problems and left in examples that aren't sufficiently explained as absolving a driver or team tactic – such as where





**14**  
+2.218s

## SEBASTIAN VETTEL

Like his team-mate, Vettel was a regular lap-one star. But surely better qualifying should also improve race pace?



## THE SUBSTITUTES

Nico Hülkenberg replaced the Covid-afflicted Sebastian Vettel at Aston Martin for two races. Although Hulkenberg was just 19th and 3.631s slower than Leclerc's quickest Bahrain lap, he improved to 11th and 2.017s adrift in Jeddah – going from being behind temporary team-mate Lance Stroll by 1.055s to edging him by 0.795s in race two.

Nyck de Vries made a one-off Williams appearance in place of Alex Albon at Monza. There his best race lap was 13th fastest and 2.594s off Perez's best, but he did beat Latifi by 0.174s.

**16**  
+2.370s

## ALEX ALBON

A fine deficit given Albon was driving the slowest car on pure pace. Plus he regularly had to make maverick strategies work.



**18**  
+2.429s

## DANIEL RICCIARDO

A huge gap to Norris, boosted only by Dan's fine third-quickest Mexico lap – as he pushed to overcome his earlier penalty.



**20**  
+2.723s

## NICHOLAS LATIFI

The 'grid' ends with another non-surprise. Latifi's race pace was poor, as he regularly struggled badly with tyre preservation.




lots of lift-and-coast is required to save fuel. And in the midfield, teams more often split strategies, which means team-mates can't always equally replicate pace.

Interestingly, the Mexico City GP

is an outlier we've left in completely because of its unique challenge. Thanks to the engine performance impact, cooling and different downforce demands of the thin-air, high-altitude event, it's even more

of a race-management affair with very little tyre degradation. This means the drivers must be on top of so many additional variables even if things looks relatively mundane from the outside.

As our 'quick list' topper and 2022 world champion Max Verstappen recently said to *GP Racing*, "People always say, 'Yeah, but you're managing.' I say: "You do it, then! See if you can do it!" 



# CREWS CONTROL

While a quick pitstop *can* make all the difference to the outcome of a race, most team managers say consistency is more important than pure speed. We analyse the fastest pitstops from last season to see which ones – if any – made a genuine impact

WORDS MATT KEW PICTURES  motorsport IMAGES

Pit crews relentlessly rehearse their craft. After all, it's far more logical for teams to save 0.5s every time the tyres need changing rather than risk a prang by asking their driver to find that time on track. But are these practice efforts in vain, or can the slickest of stops define

somebody's day? We've rated the fastest stops from 2022 according to the impact they had on the driver's race, where one signifies no meaningful difference and 10 denotes game-changing transformation. The spread of results certainly shows speed isn't everything...

## BAHRAIN

**Who** McLaren – Daniel Ricciardo

**When** Lap 17

**Stop duration** 2.31s

**Effectiveness rating** ★★☆☆☆☆☆☆

Daniel Ricciardo would have preferred not having brakes that threatened to combust every time he so much as looked at the left pedal because the front ducts were too small. This problem impacted far more than being swapped onto new tyres 0.02s faster than Carlos Sainz on his way to 14th.



## SAUDI ARABIA

**Who** McLaren – Daniel Ricciardo

**When** Lap 8

**Stop duration** 2.41s

**Effectiveness rating** ★★★★★★★★

A similar story in Saudi Arabia. Departing the Jeddah circuit at 04:00 on Saturday morning after drivers had debated boycotting the race due to a nearby missile strike, only to retire his McLaren on lap 35 with mechanical failure, likely linger in Ricciardo's mind more than stopping a tenth faster than his team-mate.



## AUSTRALIA

**Who** Red Bull – Sergio Pérez

**When** Lap 20

**Stop duration** 2.27s

**Effectiveness rating** ★★★★★★★★

Charles Leclerc was dominant down under as he triumphed 20.5s ahead of runner-up Sergio Pérez, who was in turn 5s ahead of Lewis Hamilton after Max Verstappen retired. Given a one-stop strategy was the optimum, Red Bull seizing its chance to pit Pérez 0.15s faster than anyone else had little to no influence.



## IMOLA (ITALY)

**Who** McLaren – Lando Norris

**When** Lap 19

**Stop duration** 2.27s

**Effectiveness rating** ★★★★★★★★

This rating might be considered generous. But let's suppose that the fastest stop of the race for Lando Norris – when intermediates were ditched in favour of mediums – contributed to the good form which allowed the Brit to superbly score the only non-Red Bull, Ferrari and Mercedes podium of the year.





MIAMI (USA)

Who Red Bull – Sergio Pérez

When Lap 41

Stop duration 2.33s

Effectiveness rating ★★☆☆☆☆☆☆

It's back to a nominal rating for an inaugural Miami GP. A faulty sensor that suddenly sapped engine power on lap 19 of 57 hobbled Pérez. While the pain was limited with a reset, he was still robbed of 6mph on the straights for the remainder. Enjoying the two fastest stops of the race did little to ameliorate this loss.



SPAIN

Who Ferrari – Charles Leclerc

When Lap 21

Stop duration 2.23s

Effectiveness rating ★☆☆☆☆☆☆☆

Courtesy of some Maranello magic shortly after Red Bull had required an additional 0.36s to complete its best stop for early spinner Verstappen, polesitter Leclerc could neatly add to his early 13s advantage. But the rapid service was rendered moot by the lead Ferrari's MGU-H and turbo packing up on lap 27.



MONACO

Who Red Bull – Sergio Pérez

When Lap 16

Stop duration 2.30s

Effectiveness rating ★★★★★★★★

It was his earlier switch to intermediate tyres, plus the fumbled double-stack for Ferrari, which played a greater part in Pérez winning in Monaco. But, at least by gaining 0.4s over nearest threat Leclerc during the first round of pitstops, Red Bull was able to increase the pressure on its rival before Ferrari folded.



AZERBAIJAN

Who Alpine – Fernando Alonso

When Lap 18

Stop duration 2.74s

Effectiveness rating ★★☆☆☆☆☆☆

A front jack can cost £200,000 and lasers are used to devise the perfect position for a wheel gun. AlphaTauri brought pitstops down to earth in Baku by using lashings of duct tape in a 21.41s stop to repair Yuki Tsunoda's DRS flap. Alpine's rapid work for seventh-placed Fernando Alonso was largely inconsequential.



CANADA

Who Williams – Alex Albon

When Lap 48

Stop duration 2.38s

Effectiveness rating ★★★★★★★★

Alex Albon finished 0.29s ahead of Pierre Gasly. Albon's first stop was 0.09s slower than his AlphaTauri adversary's but Williams then managed the 2.38s service, 0.27s faster than Gasly's second stop, for a net gain of 0.18s. That went some way to securing the position. But younger hard tyres played a greater role.



BRITAIN

Who Alpine – Fernando Alonso

When Lap 33

Stop duration 2.43s

Effectiveness rating ★★☆☆☆☆☆☆

A driver takes a sizeable jolt at the best of times when their car is dropped off its jacks. Norris took an even bigger blow in FP2 when the rear lifter failed, to send his wheel-less McLaren crashing straight onto its floor. Alpine faced no such issues in its non-race-defining service of Alonso. ▶



AUSTRIA

Who McLaren – Daniel Ricciardo

When Lap 12

Stop duration 2.25s

Effectiveness rating ★★☆☆☆☆☆☆

While the pitlane speed limit introduces a degree of uniformity, there's scope to gain time with a decent run through the entry and exit lanes. Ricciardo spent the least time in the pit box, but Nicholas Latifi enjoyed the quickest run from start to finish. His total time was 21.206s compared with Ricciardo's 21.356s.



FRANCE

Who Red Bull – Max Verstappen

When Lap 16

Stop duration 2.44s

Effectiveness rating ★★★★★★☆☆

Leader Leclerc was informed over team radio that his pursuer Verstappen had just pitted. Leclerc then pushed too hard on ageing mediums, spinning into the barriers. So, Leclerc was very much under pressure from the Red Bull stop. But more because of the threat of the undercut rather than the tyre change itself.



HUNGARY

Who Red Bull – Sergio Pérez

When Lap 42

Stop duration 2.19s

Effectiveness rating ★★★★★★☆☆

The 0.359s that Pérez finished ahead of Leclerc suggests his two stops – a combined 1.45s faster – proved pivotal. However, the small interval came after a late virtual safety car, when Pérez let his tyres cool too much. Prior to that he had been 3.42s clear. That reduces, but doesn't eliminate, the role of those quick stops.



BELGIUM

Who Alpine – Fernando Alonso

When Lap 11

Stop duration 2.22s

Effectiveness rating ★★☆☆☆☆☆☆

Alonso's rapid stop had little impact. But Leclerc showed why it's not just what happens in the pit box that counts. His Ferrari sat stationary for 5.41s as mechanics freed a visor tear-off that had clogged the front-right brake duct. But the bigger cost was a 5s penalty for exceeding the pitlane speed limit by 0.06mph.



NETHERLANDS

Who Red Bull – Sergio Pérez

When Lap 14

Stop duration 2.09s

Effectiveness rating ★★☆☆☆☆☆☆

The most notable part of Pérez's swift service at Zandvoort was running over a Ferrari wheel gun when he sped away from the pit box. But that nicely feeds into Sainz's same-lap shocker. A final-corner call to pit led the red crew to misplace the rear-left tyre to leave the Spaniard sitting prone for an agonising 12.7s.



ITALY

Who Red Bull – Sergio Perez

When Lap 42

Stop duration 2.10s

Effectiveness rating ★★☆☆☆☆☆☆

A 10-place grid penalty for swapping powertrain components and a persistent brake fire placed Pérez down in fifth at the time of his rapid 2.1s stop. But it was not the short duration of this pit visit that counted. Instead, a late switch to softs (in a slower stop) enabled him to steal the fastest-lap point from Leclerc.



SINGAPORE

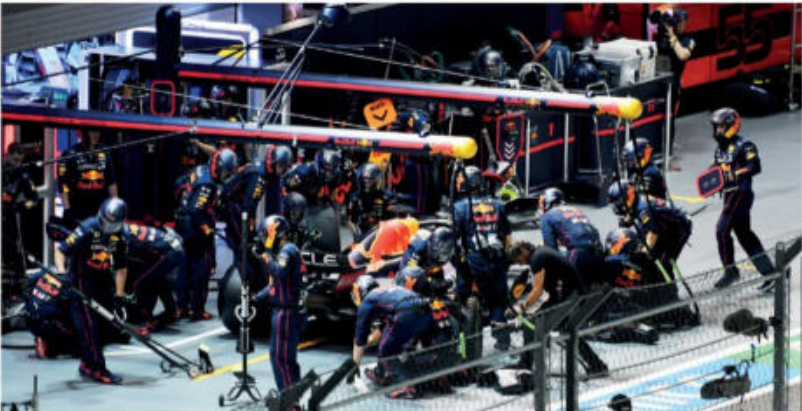
Who Red Bull – Max Verstappen

When Lap 35

Stop duration 2.46s

Effectiveness rating ★★☆☆☆☆☆☆

Verstappen had to abort his Q3 lap to leave enough in the tank to provide a fuel sample. He lined up eighth and then fumbled his launch by triggering anti-stall. Then he locked up in pursuit of Norris, undoing his recovery efforts. These defined Max’s night massively more than stopping 0.03s quicker than George Russell.



JAPAN

Who AlphaTauri – Pierre Gasly

When Lap 19

Stop duration 2.45s

Effectiveness rating ★★☆☆☆☆☆☆

Kudos to Faenza for the fastest pitstop in a race, a feat it hadn’t achieved since 2016. But Gasly had already hit debris to lose his front wing and force an unscheduled service. His subsequent speedy efforts to catch the pack during a red flag incurred a 20s penalty. Topping the charts by 0.01s therefore availed him little.



USA (AUSTIN)

Who Red Bull – Sergio Pérez

When Lap 14

Stop duration 2.13s

Effectiveness rating ★★☆☆☆☆☆☆

The pitstop that really mattered in Austin was the botched 11s job for Verstappen, which thrust Hamilton into contention for victory. But the Dutch ace was able to retake the lead with seven laps to go. That underlined the importance of a happy car and driver combination more than saving a tenth or two in the pits.



THERE’S A TROPHY FOR IT...

While our analysis indicates the majority of the season’s fastest stops didn’t prove tactically transformative, pit work remains a keen avenue of competition between the teams – and there’s even a trophy for it. Since 2015 F1’s official logistics partner, DHL, has presented the Fastest Pitstop Award to the team with the best stops over a season. The points rubric works just like the world championship and, last year, Red Bull won for the fifth time in succession. It reigned supreme in 10 of the 22 events, scoring 534 points to second-placed McLaren’s 427. Slick pitstops can also have a wider effect on team morale. Despite a patchy season on track for McLaren, outgoing team principal Andreas Seidl reckons having one of the best crews in the business will pay dividends once new factory infrastructure comes on line and elevates car performance. He tells GP Racing: “We were able to make a huge step forward [McLaren was eighth in DHL’s charts in 2021]. It’s important for the entire team to see that in specific areas already, we are able to fight with the best in the sport.”



MEXICO

Who McLaren – Daniel Ricciardo

When Lap 44

Stop duration 1.98s

Effectiveness rating ★★☆☆☆☆☆☆

The return of a sub-2s pitstop despite the introduction of bigger tyres and wheel rims for 2022 merits more than a one or two out of 10. But the quickest service of the season and Ricciardo’s late pace on softs – which marked the strongest stint of a dismal campaign – were wasted by his 10s penalty for tagging Tsunoda.



SÃO PAULO (BRAZIL)

Who Red Bull – Sergio Pérez

When Lap 23

Stop duration 2.04s

Effectiveness rating ★★☆☆☆☆☆☆

Red Bull needed to better the fastest pitstop in F1 history (Verstappen, 1.82s, 2019 Brazilian GP) to gain a good effectiveness score. Pérez resumed from his first stop on the rear of Valtteri Bottas and was massively delayed for the next lap. That dropped him behind eventual runner-up Hamilton.



ABU DHABI

Who McLaren – Lando Norris

When Lap 15

Stop duration 2.32s

Effectiveness rating ★★★★★★☆☆

Norris and Esteban Ocon were running near-identical strategies in their dice for sixth. The McLaren driver held on by a second. His two stops ranked first and fourth. Ocon’s two were a combined 0.34s slower. So, Esteban might have gained DRS and been able to pass on the dash to the line had Alpine been neater. GP



# 60 FIGURE

A statistical breakdown of the 2022 season, excluding those pesky sprint races

# 134

LAPS WERE COMPLETED UNDER 41 FULL SAFETY CARS DURING THE 22 GPS IN 2022, 10.36% OF THE TOTAL



# NINETEEN

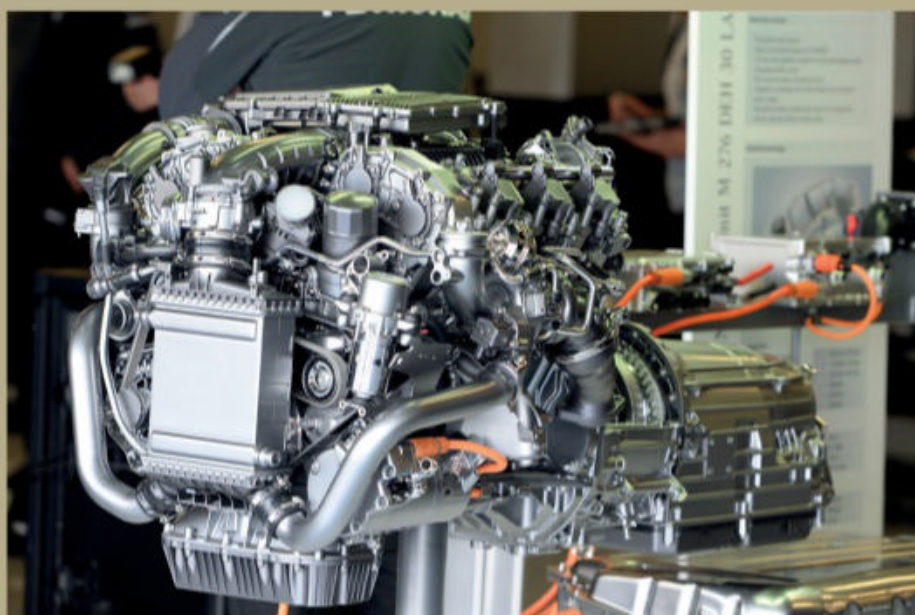
full seasons in Formula 1 for 41-year-old Fernando Alonso

# 3,122

*The number of laps completed by George Russell in 2022 in official practice sessions, qualifying and GPs, 91 more than his nearest rival, Pierre Gasly*



# Two hundred and seventy-eight



consecutive races a Mercedes-engined car has been in the points, going back to the 2008 Chinese Grand Prix



# 34

different drivers ran in at least one practice session in 2022

# TWENTY

GPs in the points for Max Verstappen, Sergio Pérez and George Russell

# 68.19%

of the 22 GPs were won by Max Verstappen



# 148

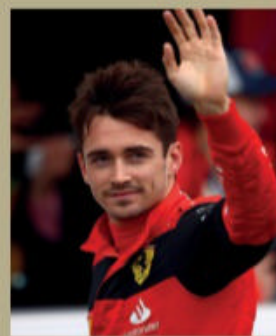
consecutive appearances in Q2 for Valtteri Bottas until his Q1 exit at the Belgian GP

# TWO HUNDRED AND FORTY-TWO

Ferrari's total number of wins and total number of pole positions at the end of the 2022 season

# 14

The most number of places made up in a single race by Carlos Sainz (France, Italy), Charles Leclerc (Canada) and Lewis Hamilton (Italy)



# 2006

The last time the top two in the final world championship standings didn't feature either Sebastian Vettel or Lewis Hamilton



# EIGHTH

The highest position Nicholas Latifi ran in during a GP in 2022, for a total of 22 laps

# 5TH

Red Bull's new position in the list of all-time victories (92) by a constructor, overtaking 81 by Lotus

# SEVEN HUNDRED AND EIGHTY-FOUR

overtakes across the 22 GPs, at an average of 35.64 per race



# 113

In 2022 George Russell became the 113th winner of a world championship GP (including the 10 Indy 500 winners from 1950-1960)



# THIS MUCH I KNOW

INTERVIEW OLEG KARPOV PORTRAIT ANDY HONE

**GROWING UP IN SOUTH TYROL  
YOU CAN BE ITALIAN AND GERMAN  
SPEAKING, AND YOU LEARN A LOT  
MORE, YOU UNDERSTAND THERE  
IS MORE THAN ONE CULTURE.**

I think you're prepared a little bit better for the future.

«« »»

**YOU DON'T NEED A TEACHER TO  
LEARN A NEW LANGUAGE.**

**I LEARNED IT IN A PUB.**

When I went to Mazda to work as a mechanic I didn't speak English, because I didn't have it at school. But I had to speak with other mechanics. I went to one class and left after one hour, thinking, 'I'm not gonna fucking do that again,' and went straight to the pub, where I learned a lot more by actually speaking with people. But I think when you speak two languages growing up, it's easier for you to learn another language.

«« »»

I like ice hockey, because it's a very fast game. I played it myself. As I was growing up it was very popular in my hometown, as our team won the Italian national championship. And that was one thing I got attracted to and I just started to play.

**YOU HAVE TO THINK FAST WHEN  
YOU PLAY ICE HOCKEY. IF YOU'RE  
SLOW, SOMEBODY RUNS INTO  
YOU AND IT HURTS. A LOT.**

«« »»

After races I usually go back to North Carolina. My wife says I spend two months a year on a





# LIFE LESSONS WITH GUENTHER STEINER

plane, but she exaggerates a little.

## **WHEN I FLY I NORMALLY SLEEP.**

From Brazil to Dubai, on a 14-hour flight, I slept 10 hours. In one go. Landed, got a taxi to Abu Dhabi, and slept the whole way. I think I can accumulate, because the next few nights I slept very little, as I had to work on a fucking driver contract.

America and Europe are different. Each of them has got their good sides. And I don't think there's any real bad side of either of them. But **EVERYTHING IS EASIER IN THE STATES**, in my opinion. I don't know what that "easier" exactly means, but you have more opportunities there, more freedom and more privacy, people leave you alone, you know, much more than in Europe. And Europe... maybe if you want a little bit of action and stuff like this, Europe is better.

**MY FIRST JOB WAS AS A DISH WASHER WHEN I WAS 12 YEARS OLD, I DID IT IN SUMMERTIME. I DIDN'T DISLIKE IT. I LIKE TO WORK.**

**"I DON'T NEED 'YES, SIR' PEOPLE AT WORK. I DON'T WANT PEOPLE TELLING ME ONLY WHAT I WANT TO HEAR. BECAUSE THEN YOU DON'T MAKE PROGRESS. I THINK THERE'S ALWAYS SOMEBODY WHO KNOWS MORE THAN ME, OR AT LEAST AS MUCH AS ME, AND I WANT TO HEAR THEIR OPINION. THEN YOU CAN MAKE BETTER DECISIONS."**



**"HONESTY IS SOMETHING I VALUE THE MOST IN PEOPLE. EVEN IF I WON'T LIKE WHAT YOU'RE GONNA TELL ME, JUST BE HONEST. I LOVE THAT, BECAUSE AT LEAST YOU KNOW WHERE YOU STAND. WHATEVER YOU DO OR THINK, JUST DON'T LIE TO ME."**

When I interview someone before I hire them, I just let them talk. If you ask focused questions a lot of people are prepared for it. But

**IF YOU LET THEM SPEAK FREELY, YOU LEARN A LOT MORE ABOUT THE PERSON THAN IF YOU ASK THEM POINTED QUESTIONS.**

When they come to me it usually means they can do the job, as they've been interviewed before. I want to understand their character, how they think. Are they team players? Do they want to work together? Are they here for the right reason?

Money can be a good motivation, but it can only be part of it.

**IF MONEY IS THE ONLY MOTIVATION, IT'S A BAD MOTIVATION. BECAUSE YOU'LL ALWAYS WANT MORE, AND YOU'LL NEVER BE HAPPY.**

For me it was never a motivation. In my life it was always more about what I want to do and then the money came.

**I ALWAYS TRY TO LEARN FROM PEOPLE.**

Working with Niki [Lauda] you could learn from his honesty. Being direct, being confident about what you do. His decision-taking was analytical, but simplistic, very black and white. That made him a good businessman. Carlos Sainz Sr is the most professional and hardworking person I've ever met. He never stops thinking how to do things better. And Colin McRae was almost the opposite. He had so much talent, that guy. He could do anything with the car and didn't need to put any effort into it. I mean, obviously you could ask, 'Why did he not put more?' but he just enjoyed life. He knew how to use his talent, but not get obsessed with it.

**THERE AREN'T TOO MANY STUPID PEOPLE IN FORMULA 1.**

To succeed here you need to work hard, you need to be dedicated and you need to have a good level of intelligence. Otherwise you won't survive here. ►





**“IT’S TOUGH TO MAKE TOUGH DECISIONS. BUT YOU GET USED TO IT. AS LONG AS THOSE DECISIONS ARE FAIR, AS LONG AS YOU’RE NOT BEHAVING UNFAIRLY OR LYING TO PEOPLE, IT’S NOT TOO DIFFICULT.”**

«« »»

## **I DO DWELL ON MISTAKES.**

Or, I think it’s better to say I think about them. Could I have avoided them? How to avoid them next time. I think a lot about that. Because for me that’s the way to get better. If you make a mistake, you have to admit it, either to yourself or to somebody else. Be open about it. Because if you’re in denial, and if you don’t dwell on it, you’ll make the same mistakes again.

«« »»

I always try to be fair. Do I always achieve it? Maybe not. But if I’m unfair, it’s not intentional.

## **I NEVER WANT TO FUCK ANYBODY OVER AND I NEVER HOLD A GRUDGE,**

I’m not vindictive.

«« »»

**SOMETIMES IT’S BETTER IF EVERYONE THINKS YOU’RE AN IDIOT. BECAUSE WHEN THEY UNDERESTIMATE YOU, YOU CAN DO YOUR JOB BETTER.**

«« »»

**I DON’T KNOW WHY I SAY “FUCK” THAT OFTEN. IT COMES OUT**

**AUTOMATICALLY. I THINK I’VE GOT SOMETHING IN MY BRAIN, SOME SORT OF INSTABILITY, THAT THAT WORD ALWAYS COMES OUT.**

«« »»

**I’VE GOT TWO THINGS IN LIFE: MY FAMILY AND MY WORK.**

And I enjoy both of them. I have no hobby. I’ve got no boat or anything. I mean, I just do this: family and Formula 1. And I’ve got my company, which I like, too.

«« »»

**GETTING UP IN THE MORNING TO GO TO WORK IS NEVER AN ISSUE**

I like my job. So it doesn’t feel like I’m working. I think a lot of us here in this industry are privileged to have a job we like to do. You maybe won’t see me working from the office more than eight hours a day. But that doesn’t mean that for another eight hours I don’t think about what to do next.





**“HOME IS WHERE FAMILY IS. IT’S NORTH CAROLINA AT THE MOMENT, WHICH DOESN’T MEAN IT CAN’T CHANGE. YOU CAN SAY IT’S EUROPE IN THE SUMMER, AS WE SPEND MOST TIME IN SOUTH TYROL DURING THE EUROPEAN F1 SEASON.”**

When I dwell on mistakes, I think that’s work, too, because you try to get better. But for me, it doesn’t feel like I’m working.

**IF THE CHOICE IS BETWEEN AN HOUR-LONG WALK OR A TAXI, I WOULD CHOOSE THE WALK. I LIKE WALKING. BECAUSE YOU CAN THINK.**

There’s a sushi restaurant in Suzuka, a few kilometres away from the track, for example. I always walk there, because it’s just a 45-minute walk. I met Crofty [*Sky Sports F1*’s David Croft] there this year, he was waiting for a taxi to go back to the hotel. But it’s

also 40 minutes’ walk away. I was back at the hotel before him, and he couldn’t believe I just walked all the way.



**I SMOKE CIGARS AND I DRINK ALCOHOL ONLY WHEN I’M CHILLED OUT. I NEVER DO IT WHEN I’M UNDER PRESSURE. BECAUSE OTHERWISE YOU GET ADDICTED.**

We mostly eat at home, we always cook ourselves.

**I ENJOY COOKING, BECAUSE I CAN THINK ABOUT SOMETHING COMPLETELY DIFFERENT THAN WORK.**


I need to focus when I cook. Otherwise I’ll chop my fingers off.

**WHEN WE’RE IN NORTH CAROLINA WE EAT FISH EVERY FRIDAY.**

**I AM WHO I AM, AND I DON’T WANT TO CHANGE. WHY SHOULD I? WHATEVER I DO IN LIFE, I WANT TO STAY REAL TO ME. I DON’T NEED TO CHANGE. I’M GOOD. I MEAN, I CAN LEARN, I CAN TRY TO DO THINGS BETTER IN THE FUTURE. BUT MY PERSONALITY – NO, I DON’T WANT TO CHANGE. I WAS ALWAYS A LITTLE BIT LIKE THIS: I DO WHAT I LIKE TO DO, AND THE WAY I LIKE TO DO IT.**

But it’s not a tradition. It’s just because there’s a fishmonger which comes on Fridays, and it’s the best fucking fish you can ever find, so we always buy it.

**I ALWAYS TELL MY DAUGHTER, ‘DON’T GET LIKE ME!’ BUT I LIKE TO THINK THAT SHE LEARNED SOMETHING...**

She’s very confident. I don’t know if you can learn confidence, but maybe she sees that in me, that I’m pretty confident in what I’m doing. 



## ALL REDS AND GREEN

*The rear rain light on Sebastian Vettel's British Racing Green-shaded Aston Martin shines in the gloom of the Singapore GP. In a race that started with all cars on the green intermediate tyres, Vettel used all his experience to finish a battling eighth*





# PICTURES OF THE YEAR

A stunning gallery containing some of the best F1 shots from Motorsport Images and its superb photographers







1



2





2

## 1 RED SEASIDE SUCCESS

Max Verstappen's defence of his world championship had started badly with a retirement in the season-opening Bahrain GP. He bounced back immediately with victory in Saudi Arabia, by the banks of the Red Sea

## 2 BYE, BYE (FOR NOW) DAN

Daniel Ricciardo, smiling as ever, lines up in front of the rest of the McLaren team in Abu Dhabi to say his farewells. The Australian, replaced for 2023 by countryman Oscar Piastri, will now be Red Bull's reserve driver

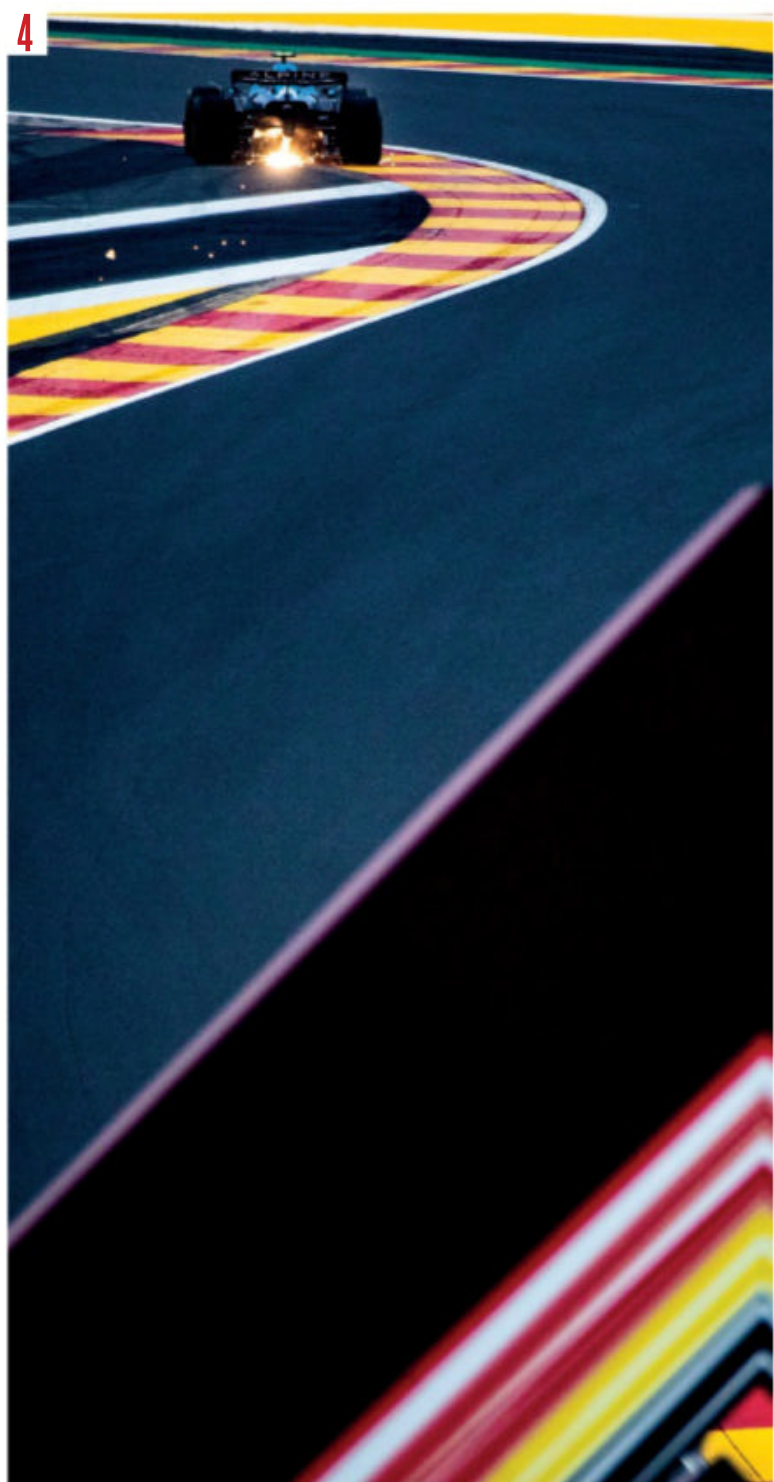
## 3 GOING, GOING GONE

As he pushed just that little bit too hard towards the end of qualifying for the Dutch GP, Sergio Pérez was unable to catch his wayward Red Bull at Zandvoort's penultimate corner. His spin would bring out the yellow flags

## 4 PRAISE BE

Esteban Ocon was full of praise for the Alpine team in Belgium. He reckoned Spa was the team's best performance of the season thus far, and he himself managed a stunning double overtake into the Les Combes corner in the race

4







1

## 1 SAY HELLO, WAVE GOODBYE

*The soon-to-be retired Sebastian Vettel greets the Suzuka crowd as part of his emotional farewell to the Japanese circuit, but he didn't rule out a one-off return to his favourite track if the chance arose*

## 2 STOPPING AND DROPPING

*Lando Norris approaches the McLaren pit for his second and final stop at the Italian GP. Unfortunately it took a couple of seconds longer than normal and Norris rejoined sixth, eventually dropping to seventh*

2



2





3

### 3 HANDS-ON ATTITUDE

*When F1's race directors threatened to enforce a 2005 ban on drivers wearing jewellery, Lewis Hamilton's slightly tongue-in-cheek response in front of the media at the Miami GP was priceless*

### 4 UNLUCKY LIAM

*Liam Lawson's second FP1 outing of the season didn't go quite as planned. The young New Zealander had to park Yuki Tsunoda's AlphaTauri towards the end of the session with a brake fire*

4







## 2 GRIN AND BEAR IT

2022 may well have been Danny Ric's last in an F1 race seat. Throughout a very disappointing season the Australian tried to put a brave face on his predicament but the speed just wasn't there



## 3 WHY IS IT ALWAYS ME?

It's fair to say that Fernando Alonso wasn't massively overjoyed with his Alpine team after retiring from the Mexico City GP. It was his third engine-related DNF in five races and it hurt...

## 1 POINTING THE WAY

With only five 10th place finishes in 2022 prior to the Singapore GP, Lance Stroll substantially increased his points tally by coming home sixth around the damp streets of the Marina Bay circuit





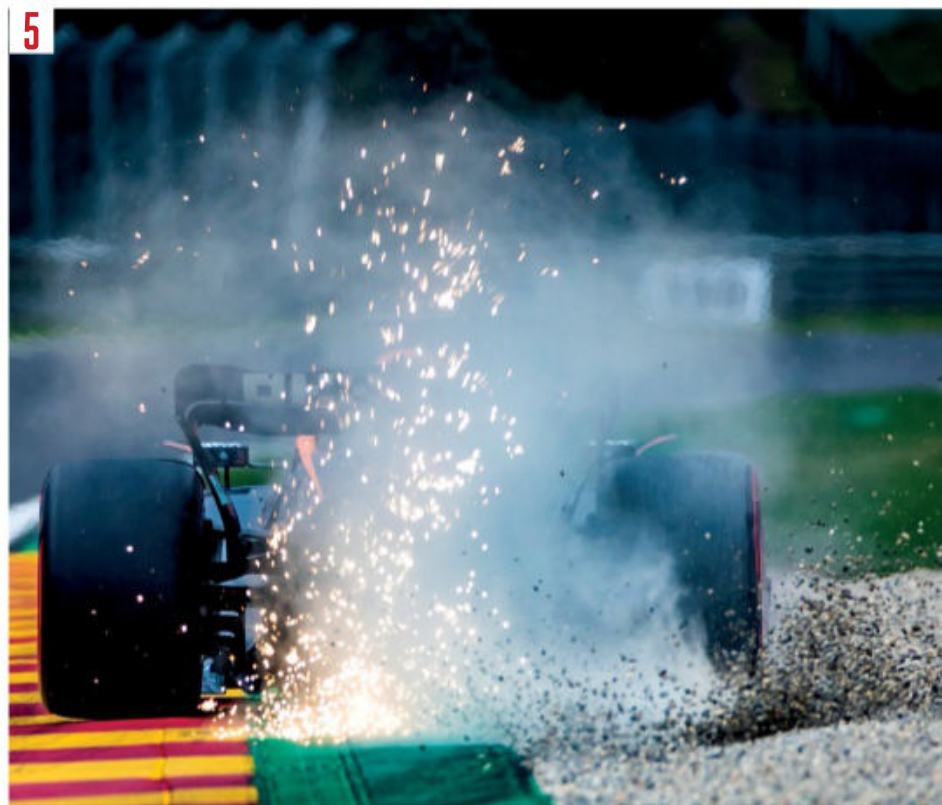
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## 4 CHAMPAGNE RUN NOT OVER

Lewis Hamilton's record of winning a race in every season he has competed in F1 came to a shuddering halt in 2022, but the Briton did still manage nine podiums, including this one in Austria

## 5 SPARKS STILL FLYING

In 2021 Daniel Ricciardo returned from the summer break refreshed before going on to win in Italy. In Belgium in 2022 there was no such rejuvenation, only sparks and gravel...



5

## 6 STREET FIGHTING STAR

Sergio Pérez has become a bit of a street circuit expert. His victory in Singapore in 2022 came on top of success in Monaco earlier in the season, and he also triumphed around the streets of Baku in 2021



6









2

## 1 A LOT TO PONDER

*Charles Leclerc deep in thought ahead of the Dutch GP. He had qualified second behind series leader Max Verstappen but knew even a win wouldn't halt the Dutchman's march to a second championship*

## 2 MIRROR MAN

*Lewis Hamilton admitted that he was glad to see the back of the Mercedes W13, so wouldn't have been happy seeing two of them. But in the damp qualifying in Singapore he had one of his better days*

## 3 RED STORM

*In Hungary Ferrari, and Charles Leclerc especially, had a chance to hit back at Red Bull with Verstappen and Pérez both struggling, qualifying in 10th and 11th. It didn't matter as Verstappen still won...*

## 4 ALL A BLUR IN BAKU

*Azerbaijan was one of Max Verstappen and Red Bull's most dominant 2022 performances. A third one-two in only the eighth race, Max finished 20s clear of Pérez and 45s ahead of George Russell*



3



4



## PICTURES OF THE YEAR

### 1 WE'VE DONE IT!

*The rain-shortened Japanese GP caused a whole heap of confusion but, eventually, it was realised that Max Verstappen's 12th win of the season HAD confirmed his second consecutive world championship crown*

### 2 WELCOME BACK

*Singapore joined Australia, Canada and Japan in making a welcome return to the championship after missing out for two seasons due to the pandemic. And the race turned out to be a cracker*

### 3 JUST WARMING UP

*Remarkably the engine in Pierre Gasly's AlphaTauri emerged unscathed from this fire during FP2 in Singapore. It ignited when the fuel breather was attached but Gasly only lost 10 minutes' running as a result*

### 4 YOU SPIN ME RIGHT ROUND

*It's become the norm for the world champion to go donut crazy at the end of the Abu Dhabi GP. In 2022 Sebastian Vettel decided to crash the party as he bowed out of F1, before taking applause from the spectators*



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# THIS IS...

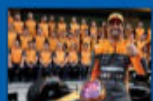
## motorsport IMAGES

Motor racing's biggest and best image resource boasts a century of racing and motoring experience



### STEVEN TEE

GP Racing's principal photographer is still going strong after first shooting F1 cars for a living back in 1984. The managing director of Motorsport Images subsidiary LAT, Steven has continued his commercial work for McLaren on top of his valued role for this magazine



Page 54/55



Page 56



Page 57



Page 59



Page 60



Page 60



### GLENN DUNBAR

Glenn completed his third season as a freelancer at the end of 2022, having originally started work for LAT 20 years earlier. And he continued his work for Aston Martin, shooting on behalf of the Silverstone-based team in addition to his regular race weekend duties



Page 52



Page 57



Page 58



Page 61



Page 61

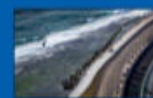


Page 63



### SAM BLOXHAM

Sam started out covering trackdays at various circuits in the UK before joining LAT in 2013. He became a senior photographer at Motorsport Images, covering F1 at the start of 2021 and has also been a regular snapper at Formula E and Extreme E events



Page 54



Page 55



Page 58



Page 59



Page 62



Page 63



### CARL BINGHAM

Already a freelance photographer who specialised in architectural and property imagery, Carl originally joined LAT Images as digital technician back in 2018. This year has been his first season as a regular, both on the Formula 1 circuit and as a contributor to GP Racing



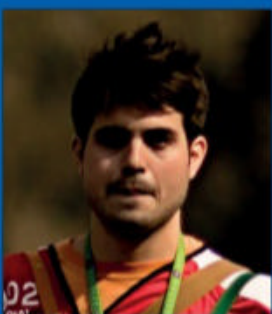
Page 58



Page 61



Page 65



### ZAK MAUGER

Zak is a big part of the LAT Images team, covering mainly Formula 1 over the past few seasons after a number of years photographing F2 and F3. Where he can, Zak likes to combines a scenic landscape, location atmosphere and stunning race cars



Page 55



Page 56



Page 62



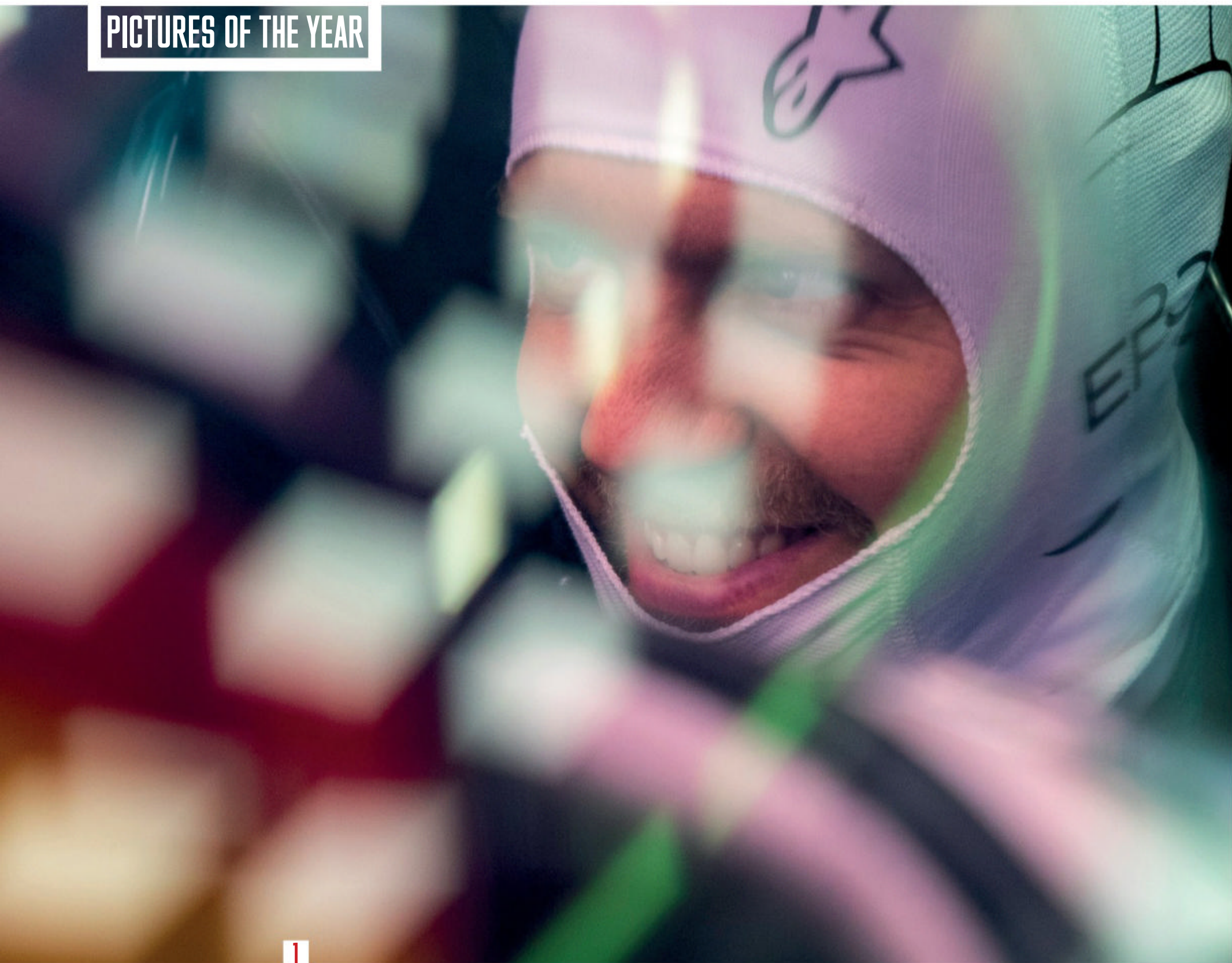
Page 65

## 1. AND RELAX...

The last two seasons of Seb Vettel's F1 career didn't give the four-time world champion much to smile about on track, but the German was a much more relaxed character without the weight of a team resting on his shoulders



## PICTURES OF THE YEAR



1

2

### 2. THE POWER OF HOME SUPPORT

*The return to Australia gave the crowd the chance to cheer home favourite Daniel Ricciardo during the pre-race parade. And it worked, as Dan recorded his second-best result of 2022, finishing sixth*









# FERNANDO ALONSO

After dropping the bombshell back in August that he would be leaving Alpine for Aston Martin, Fernando Alonso wasted no time in getting to work with his new team. The first impressions are good – already better than Alpine in some ways, he reckons – and, while Fernando might be Formula 1's oldest driver, nothing is slowing the two-time world champion down...

**Fernando, you finally got the chance to drive an Aston Martin F1 car for the first time in the Abu Dhabi post-season test before officially starting work on 1 January. What have been your first impressions?**

It's always special, even more when you drive for an iconic brand like Aston Martin. It was the same when I switched to Ferrari as well. Obviously it was only the first day, but you could spot the energy in the team, how motivated everyone is. I felt a very special atmosphere in the garage.

**What are some of the things you noticed during the test that you need to work on with the team?**

First the seat! Because it was a little bit painful on the left side. We did 97 laps compressed in one morning, so it was quite extreme. There are small things to change, and most of them are comfort. It's not really the balance itself or the behaviour of the car. It's things like the shift tones for the gears, for the pitlane, the dash messages when you do a change, how long is the message that pops up on the dash, these kind of things. You're used to one setup and now you try to accommodate. These kind of things are probably the priority now.

**How tricky was it to adjust to driving the Aston Martin, especially when it came less than 48 hours after being behind the wheel of the Alpine in the Abu Dhabi Grand Prix?**

It's always an extra challenge when you change team, because you need to get used to new people, a new way of working and new philosophies. But at the end of the day, what counts is the timed lap on the track. I think on the first run,

I did a 1m26.6s, so it was three-tenths off my best time with Alpine. So the adaptation was nearly over! [laughs]

**Aston Martin came on strong at the end of the year, but could still only finish seventh in the constructors' championship, three places behind Alpine. Did the AMR22 feel like the seventh-quickest car on the grid?**

I was happily surprised by everything. The car wasn't anywhere near what we will run in 2023. It wasn't about getting confident or anything like that, as it's not going to be a continuation of the 2022 car. I don't think there was much of a difference between Aston Martin and Alpine by the end of the season. I felt basically the same as well. I felt a very competitive car.

**The level of performance felt similar, but what about the difference in car philosophy between Alpine and Aston Martin?**

It's very different, because I think the philosophies are very different in how they designed the car and how they run the car. So it was nice to feel the differences a little bit. As I said, the 2023 car is going to be nearly new on everything, so there isn't much really point

in developing this idea much. It was more about controls and other things.

**One of your biggest frustrations last year was the reliability – or lack of it – with the engine in your Alpine. Were you happy with the reliability of the Mercedes in the Aston during the test?**

Yeah. When they told me the engine's mileage I was concerned, because I said that number is a little bit high by my standards... But we did 97 laps no problem. So it was outstanding, for sure.

**Engine performance has largely converged now in F1. Is the feeling of the Mercedes power unit the same to what you had?**

A different feeling.

**Is it a better feeling?**

[smiles]

**Do you feel as optimistic about your future with Aston Martin as you did before your first test with the team?**

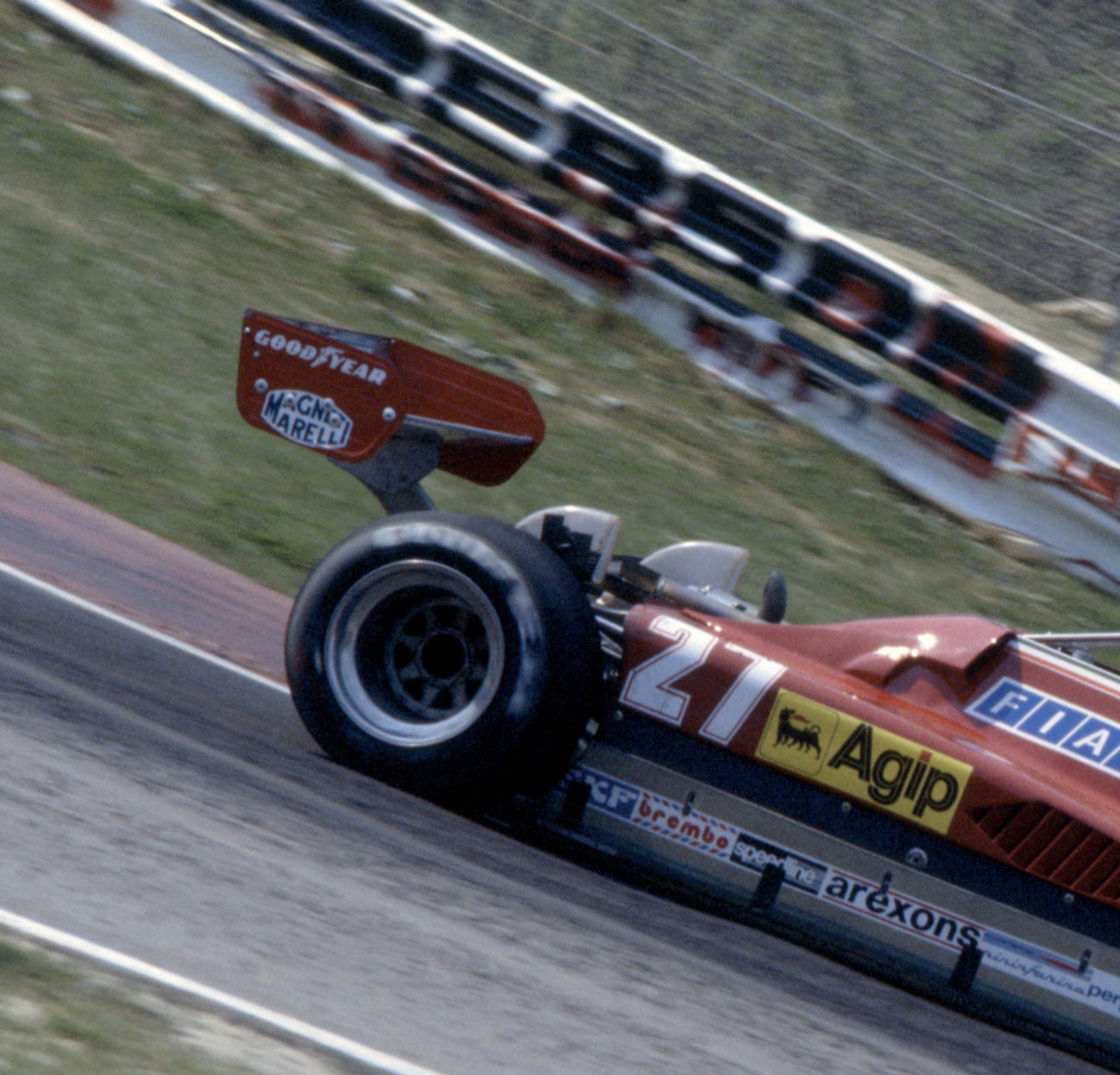
No – I'm much more optimistic now. When I signed for Aston Martin, I was 90% happy. When they started improving and finished the season on a high, I was 100%. Now, I'm 100-plus.

**OBVIOUSLY IT WAS ONLY THE FIRST DAY, BUT YOU COULD SPOT THE ENERGY IN THE TEAM, HOW MOTIVATED EVERYONE IS**

**Aston Martin will be the fifth team you've raced for in Formula 1, and it has big ambitions for the future. How do you approach this new chapter?**

With the same optimism as always, or maybe even more, because I know that this is a new project, maybe the last of my career, and that they have a very big investment. Aston Martin is a historic brand in the world of motorsport, which is an added plus. I'm very happy.





The late **Patrick Tambay** was drafted in by Ferrari after his great friend Gilles Villeneuve's tragic accident in 1982. Taking on Villeneuve's car and iconic number 27, Tambay steadied a team in turmoil – and, the following year, claimed a memorable victory in San Marino, scene of the controversial race many believed had been 'stolen' by Didier Pironi, Villeneuve's team-mate. In their book *27: Patrick Tambay – The Ferrari Years*, Patrick and author Massimo Burbi recall the emotional grand prix weekend that was the high point of Tambay's career



IN THE FOOTSTEPS OF

# GILLES







**There was something different on the pit straight at Imola.**

It was small and yet you couldn't fail to notice it: a Canadian flag on the third slot of the grid. Right where Gilles Villeneuve started his last grand prix on the day he was betrayed by a man he believed was his friend.

Shortly after the loss of Villeneuve, an unknown tifoso had stepped on to the track, probably on a day when no one was there. Surrounded by silence, in a sort of personal ritual, he had painted that Canadian maple leaf on the ground. Nobody had the heart to obliterate it, because they all shared the same pain and sorrow. It was still there when the Formula 1 circus arrived on the edge of the Santerno river for round four of the 1983 season: the San Marino Grand Prix.

The Imola weekend was, as always, all about Ferrari, for the place is as close to Maranello as a Formula 1 race can possibly get. The year before the race had brought the tifosi a Ferrari 1-2 but it ended in acrimony, controversy and, ultimately, tragedy. Not a fond memory for anyone.

Hence the Canadian flag. The fans wanted Gilles somehow to be there, at least for one more weekend, so a proper finale could be written for him. And they wanted it to be written here, at Imola, at home, where everyone loved him.

The man driving what in everybody's mind continued to be 'Gilles' car' carried a heavy burden of responsibility. He was the one channel through which all these hopes and expectations could be turned into reality. In more than one way, Patrick Tambay felt one of them. He shared their grief for Gilles' death and he was now sharing their hope. The difference was that while all they could do was watch, wish or perhaps pray, he had to act.

The final qualifying session was a rollercoaster, with Patrick holding the provisional pole halfway through. In the end he was edged by team-mate René Arnoux and the Brabham of Nelson Piquet.

And so a car with the Cavallino Rampante on its flanks was on pole position. That set the crowd on fire. But Patrick knew ▶







Nothing could have prepared Tambay for the emotional rollercoaster that was the 1983 San Marino GP



something was missing: the Ferrari on pole wasn't number 27. And yet, despite the disappointment, it meant he would be lining up on the third spot of the grid, precisely where Villeneuve started the year before, and right in front of that Canadian flag.

Tambay briefly thought about that but could not dwell on it. He had to keep his cool, be a professional and get on with his job.

Looking around at the track on Sunday morning, it was hard to believe Villeneuve was not racing that day; eight banners out of ten were for him and for the man racing in his name. *Gilles – Tambay due cuori, un numero* ['Gilles – Tambay, two hearts, one number'] said one. *Tambay, vinci per Gilles* ['Tambay, win for Gilles'] read another. When Patrick reached the grid, the Canadian flag, with 'Gilles For Ever' written on top, was at his spot. And something had been added: *Tambay ridacci Gilles*. ['Tambay give us back Gilles'].

Patrick switched off the engine and let his crew push the car to his grid slot. But he stopped before reaching the exact spot. He didn't dare place his wheels on the red and white maple leaf. Looking at the grid, some sensed that there was an additional presence; that 27 drivers, not 26, were about to take the start.

All this was going through Tambay's mind as he allowed himself to look at that little – and yet so huge – sign of devotion to his lost friend. He had never been this close to it doing anything less than 250kmh. Suddenly, the man prevailed over the driver; emotion overcame control.

"There was a lot of pressure in there for me. I felt very emotional thinking about Gilles before the start. There were so many red shirts, flags, self-painted banners, all around the track, it was incredible. I just broke down.

"I was sitting there, crying my eyes out. I was completely broken up. I thought I would not be able to recover for the start of the race. The mechanics were aware of what was happening. They were lined up a few metres behind me, and no one was talking to me. My friends who came to the car to wish me luck, Mauro [Forghieri], Tommaso [Carletti], just walked away. They were embarrassed for me."

It took considerable effort but Patrick had a grip on his emotions by the time engines started. The race of his life was about to begin.

But not for everybody. Piquet stalled his engine. When the

**"I FELT VERY EMOTIONAL THINKING ABOUT GILLES BEFORE THE START. THERE WERE SO MANY RED SHIRTS, FLAGS, SELF-PAINTED BANNERS, ALL AROUND THE TRACK, IT WAS INCREDIBLE. I JUST BROKE DOWN"**



The race of Tambay's life (below and left) was by no means easy, as he was hampered by an engine pick-up problem for half of the race







**Imola in 1983 was undoubtedly the high point of Tambay's F1 career, when he gave the tifosi the win they so desperately craved**

small edge on the straight."

By the time Patrese was pressuring him for the lead, Arnoux had already reached his conclusion: "Patrick's choice was the right one, and I was in trouble."

On lap 6 the Brabham flicked to the left entering Rivazza and went by on the inside. An Italian was leading a race in Italy. But you wouldn't have known it judging by the fans' reaction. As Bernie Ecclestone summarised a little later, "That showed that in Italy, Ferrari is more important than Italian drivers."

On lap 20 of the 60 there was an unexpected turn. Arnoux went into the pits for a new set of Goodyears and enough fuel to go to the end. That was much sooner than planned and certainly dictated by tyre wear. Arnoux rejoined on fresh rubber after just 16 seconds but, with such a heavy fuel load, it was difficult to see him matching the pace of the leaders.

**Patrese followed by Arnoux, Tambay and Prost. The Brabham driver would prove to be the main threat to a Ferrari victory**

Tambay was still out there, his tyres in good shape, his confidence high. He knew he could stretch his stint much longer and make the most of an almost empty tank. Things were looking good; Arnoux wasn't going to trouble him for the rest of the day.

Now it was simply Patrese against Tambay. And then on lap 30, Tambay was flat out into the Tamburello when suddenly... the engine died. It picked up again, then cut once more on the next lap.

"Always at that corner, every time I was going through, the car died, and each time I didn't know if it was going to start again. But it did. I could go on to Tosa and start another lap. But every time I came back to that long left-hander, it died. It was a fuel pick-up problem or something like that, I don't know."

Sitting in the cockpit Tambay was living his personal thriller, thinking each lap he started could be the last of his race. Every time the engine picked up again, it was like a gift. But he needed many of them in order to finish the race; there were almost 30 laps to go.

'At this very moment something very, very strange occurred. I was really beginning to think I wouldn't make it when, going into Tamburello once more, I suddenly got a big bang on the head; like a very strong slap. I immediately

championship leader was eventually push-started, the pack was long gone, through Tamburello and on towards Tosa. Piquet would retire 42 laps later with engine failure.

With his adrenaline in full flow, Patrick was now fully focused on the job in hand. His Ferrari was running nicely, new pull-rod rear suspension making the car's handling better. Arnoux was pulling away and Riccardo Patrese was pushing from behind, but Patrick wasn't worried; he knew it was a long way to the flag.

The Brabham seemed to have a slight edge over the scarlet cars, and Patrese, keen to take full advantage of the absence of his team leader, was desperately looking for a way through, which he finally found on lap 3. Arnoux was already paying the price for his initial rush of speed as he began to experience a tyre problem. On lap 5 there was nothing between him and Patrese. Bouncing over the kerb at Variante Alta, Riccardo overshot his braking point heading into the Rivazza left-hander and missed Arnoux's gearbox by a matter of centimetres.

Tambay was close enough to take note. The guys in front were very hot; maybe too hot.

"I soon began to see Arnoux was having more and more oversteer, so I took it relatively easy at that point. I didn't want to get in trouble with my tyres too soon."

The Ferrari drivers had made a slightly different tyre choice. "We had the same compound," said Tambay, "but my tyres were slightly narrower [by half an inch], and this gave me a





thought I must have hit a bird or something. Next time around, I tried to see if they were traces of it on the track. But there was nothing. I thought that this was a wake-up call to get going; a very strong command to concentrate and stay focused...”

Lap 32 and Patrick was in for his scheduled pitstop. Despite a little problem with the right-front tyre the mechanics had him out in 15 seconds. He left the pits, heading towards Tamburello. Once there, the engine died, and picked up again.

Not only was this problem keeping him on edge, it was also affecting his pace. Even if his car lasted until the flag, how could he beat a Brabham with its engine faltering like this?

Two laps later it was Patrese’s turn to make his routine stop. He halted the car, but overshot his spot. The Brabham mechanics had to readjust their position. Ferrari number 27 zoomed down the pit straight: Tambay was in the lead! The crowd went berserk.

Was it a lucky break? Not really. Patrese had been stationary for 23.3s versus Tambay’s 15s. Once he rejoined, he was trailing the Ferrari by more than 10s. Patrick’s ‘in’ and ‘out’ laps had been much faster.

With 25 laps to go, Tambay seemed to have a comfortable lead. But things looked very different in a racing car with the engine regularly cutting out. There would be no tyre or car management now. Tambay was going to drive his heart out to stay in front.

Throughout the Autodromo Dino Ferrari, excitement quickly turned into tension when it became apparent Patrick’s

advantage was consistently shrinking. The Brabham was gaining, gaining. And yet the track speaker was screaming loudly that Tambay had pulled away slightly. It was not true. But the crowd wanted to believe it – and some of them probably did.

Such was the tension that people in the stands could be expected to forget to breathe. It was no different for those in the pits. “I remember a journalist looking at me and telling me to relax or I was likely to have a stroke, right in the pitlane,” recounts Tommaso Carletti.

As Tambay completed lap 52, Dario Calzavara, Ferrari’s vice sporting director, urged him to push. Patrick responded by briefly and eloquently raising both hands from the steering wheel: “I am flat out!”

Patrese was less than a second behind. At the end of the next lap, the pursuit was over; they were nose-to-tail. Sitting behind the Ferrari for a lap, Patrese had time to evaluate his opponent’s strengths and weaknesses. Patrick was giving his all, but he couldn’t disguise the cutting-out problem through Tamburello. Patrese now knew where to strike.

On lap 54, Patrick had Patrese right in his tow. Going into Tamburello, the Ferrari engine died again and, by the time it restarted, the Brabham was through. Tambay’s lead was lost, much to the dismay of the public, be they spectators in the stands with banners and flags, those at home in front of the TV, diehard fans, occasional viewers, perhaps a kid watching his first Formula 1 race. Each and every one felt powerless as

**On a usual crowded Imola podium, the only man that was of any interest to the Ferrari faithful was Tambay, who had brought car 27 to victory**







**“THEY LIFTED ME OUT OF THE CAR AND THREW ME UP IN THE AIR. ONE TRIED TO GET MY HELMET; ONE STOLE MY GLOVES. I THOUGHT THEY WERE GOING TO TEAR OFF MY OVERALLS”**

Tambay (above) said that he could feel Villeneuve’s presence in the cockpit of his car during the race



the dream victory for number 27 appeared to be vanish.

Patrese went very sideways exiting Tosa. A few seconds later, he negotiated Acque Minerali slightly wide. It all happened very quickly: Patrese’s tyres went on the dirt, and the Brabham slid over the grass and smashed into the tyre wall.

The response of the crowd was immediate and so loud that it was barely possible to hear the engines. Tambay was back in the lead! People could not believe their eyes.

Tambay immediately eased his pace. He was under no possible threat on the track, but there were still five and a half laps to go. “My heart was in my mouth. I was thinking, ‘Please don’t let it stop now!’”

The first to salute him, even before the flag, were his mechanics, who jumped the pitwall and were dancing on the final straight. Rolling at low speed, he could see the Canadian flag again, right where his race had started. But so many things happened in between; there had been so many changes of

**A smiling Tambay ahead of the race (above). By the end (middle) he was relieved the car had survive the final few laps**

fortune in that 300km voyage that it felt like a long time ago.

Imola had its winner. He crossed the finish line punching the air, waving and wanting to radiate his joy to the people who had urged him on so much all weekend.

As at Monza, particularly when a Ferrari wins, no fence can keep the fans from invading the track the moment the chequered flag falls. Tambay was going to savour the lap of honour. There would be no hurry

at all with this one. Then exiting the very same corner where Patrese had spun, the Ferrari slowed and stopped. Tambay had run out of fuel.

He was lucky to live to tell the tale when overjoyed fans surrounded the car in celebration. Under these circumstances, if someone could take away a piece of the driver, it would make an excellent souvenir.

“I was terrified! First of all I realised what a very close thing it had been; I mean, half a lap! Then I saw them getting over the walls and running towards me. They lifted me out of the car and threw me up in the air. One tried to get my helmet; one stole my gloves. I thought they were going to tear off my overalls.”

He was the last to join the ceremony but, as soon as he arrived, it was as though he was the only driver on the rostrum. Prost and Arnoux, respectively second and third, simply disappeared. That day belonged to one man. It was a crowded podium, typical of Imola in the 1980s: hordes of people, politicians, journalists, girls, and others who had no business being there, but were there anyway. A bottle of champagne, a silver plate and at least three different trophies were the prizes for the winner.

If there was a 27th driver on the track that afternoon, Tambay had little doubt about which cockpit he had sat in.

“I drove the race in a dream. I don’t know if you believe in metaphysics or whatever, but I swear it wasn’t me driving that car. It felt as if Gilles was there with me, as if he was doing the work. All around the track there were banners saying ‘Gilles and Patrick; two hearts, one number’, but I knew they were for him, not me. I was just driving his car, and after what had happened the previous year, I desperately wanted to win.”

The Imola victory lifted Tambay to third in the championship with 14 points, just behind Piquet and Prost, who were tied with 15. But that day was not about points; in a way it was not even about cars. It was about personal triumph; it was about memory; it was about friendship.

“Number 27 should have won at Imola in ’82, and I feel a great peace that now it had,” Tambay concluded.

The past was avenged. The future looked bright. The sky was the limit and the present could not have tasted sweeter.

*(\*) Our thanks to Evro Publishing for their kind permission to reproduce this extract.*



# MAURICE HAMILTON'S ALTERNATIVE VIEW

The Formula 1 season finished early to avoid clashes with football's World Cup – and F1's rulemakers think there's much to learn from how the matches are run. But where might the footballisation of F1 take us?

PICTURES  **motorsport**  
IMAGES  
AND SHUTTERSTOCK



"The RDDP (Race Direction Development Programme) has taken learnings of refereeing procedures used by other international sports governing bodies, including football. They are particularly interested in... the ongoing development of football's Video Assistant Referee (VAR) system."

FIA press release, 15 November 2022

At the end of the 2022 F1 season, and ahead of the start of the World Cup, the FIA sent out this release regarding football's VAR. What this actually means in practical terms is hard to fathom

**FEELINGS ARE RUNNING HIGH AMONG** the post-race crowd gathering in the 'Crown & Sprocket'.

"That ref was well out of order," fumes the man in the Red Bull beanie, sucking froth off the top of his pint. "It was bleedin' obvious. Max only went across the white line 'cos your bloke put him there."

"Nuffink to do with Lewis," snorts the Mercedes hoodie, a dribble of Hofbrau running down his chin. "He was running full width of the park and creating chances. If someone puts a sliding tackle up the outside, they gotta expect a couple of wheel studs in the sidepod. I mean, be reasonable."

"It's all very well for you two," sniffs the man in the immaculate red Gucci loafers, drawing in the bouquet from his glass of Lacrima Cavallino Zoppo 2022. "We've got another new team manager. He forgot to tell our drivers about the latest start procedure and they were still out of

their cars exchanging national pennants with that Chinese bloke, Zoo-wosname..."

"This new start business is a bit daft, if you ask me," interrupts the woman in the herringbone jacket and papaya t-shirt. "I mean, the ref may be up on his rostrum thingy with all his video screens and what-not, but who's going to hear him blowing a flippin' whistle in middle of all that noise and the Sky commentators shouting?"

"That's not the worst bit!" chorus a father and son in matching Hilfiger cashmere scarves and gloves. "We were just saying it's so unfair, going flat out in qualifying only to have the ref toss a coin to see who's on pole. What's that all about?"

"Yeah," continues Scarf Junior, "social media's saying your lot gave him the coin knowing it had two heads on it – you know, because of your Mr Halliwell bein' a bit two-faced an' all that..."

"Give over!" sneers the beanie. "Anyway,

what's it got to do with you? Team Ersatz Armco, or whatever you're called, from Division 2. You wouldn't know the difference between the front of a starting grid and the front of TK Maxx."

Scarf Junior's bottom lip trembles. "Dad, get me a whiskey with an ounce of sweet vermouth, a dash of Angostura bitters, a twist of lemon, a..."

"For goodness sake, son!" hisses Senior. "Can't ask for that in here!"

Junior begins to cry.

"Okay, okay. Hang on. I'll send someone round and we'll buy the pub... Anyway, what was all that stuff about Red Bull getting a yellow card during a pitstop?"

"Offside, mate," snorts the herringbone jacket. "Another new rule. The wheel man on the left-front had a foot outside an imaginary line between Mercedes and Ferrari before Pérez came into play. S'not allowed."

## THE BABBLE OF CONVERSATION CEASES AS EYES DIVERT TO THE WIDESCREEEN SHOWING A RED FLAG AND THE FIELD STOPPING ON THE GRID





Some sort of VAR Formula 1-style would add further intrigue and spice to any post-race – or maybe even mid-race – interviews for the crowd to get worked up about...

“Do me a favour!” says the beanie. “Not surprised our manager came out of his area and demanded an apology.”

“The ref put him back in his box – and not before time!” guffaws the Mercedes hoodie. “Oh, look! Here’s a re-run of the stoppage when the ref asked for VAR of the Max and Lewis incident.”

The babble of conversation ceases as eyes divert to the widescreen showing a red flag and the field stopping on the grid. Verstappen climbs

from his car and dramatically falls to the ground before clutching his left leg and writhing in agony.

“Get off the floor, y’ bleedin’ wuss!” splutters the herringbone jacket.

“Be fair,” says the beanie, in a hurt tone. “That’s an old injury from when Checo sort of accidentally stood on his foot at Interlagos.”

“Was that,” smirks the hoodie, “before Max had been asked if he could see his way clear, if he didn’t mind, to allowing Checo to overtake?”

Or was it after the request from the side line had allegedly not been sent once they realised Max didn’t want to hear it, assuming they’d sent it – which they may or may not have done depending on who’s asking?”

“Very funny, I’m sure,” says the beanie, feigning indifference and loudly draining his pint. “Oh, wait. Here’s DC’s interview with Lewis. Someone turn the volume up.”

“Lewis!” says David Coulthard. “While we’re waiting, could I just ask, were you under-rotating your front axle because of tyre deg inducing a lack of grip from the hard compound which was 27 and a half laps old, the same as the rears which were over-rotating on the rear axle? Or did you just screw up?”

“First of all, can I just say I’m so grateful to this wonderful crowd coming out here and giving us all this tremendous support on such a great day. And I’m so grateful to the team here and back at the factory for all their hard work. It’s been a really great race...”

“Blimey,” says the herringbone jacket. “He thinks it’s all over...”

“It is now,” giggles the beanie as the recording shows Verstappen walking briskly across and delivering a hefty kick to Hamilton’s right shin.

“What the f...!” shouts the hoodie. “That’s bang out of order! How did he get away with that?”

“Blame the FIA,” sighs the Gucci shoes while idly running a finger around the top of his empty glass. “They misunderstood when someone mentioned ‘allowing a free kick’ and... hang on! Here’s a text: our new manager’s just been sacked! Gawd! It’s worse than bloody football... Drink, anyone?”



Even though VAR was first trialled in football back in 2017, and is now widely used in many major leagues across the world, it is still able to provoke huge controversy









# THE LAST AMERICAN HERO



As new US hopeful Logan Sargeant joins the grid for 2023, it's 40 years since America's last Formula 1 champion moved back Stateside after making a fairytale comeback with Ferrari. But as **Mario Andretti** reveals, his passion for F1 remains fervent and the Andretti name isn't done with it yet...

WORDS ANTHONY ROWLINSON PICTURES 

## THINGS WERE DIFFERENT, THEN.

You could be racing on a US dirt oval on a Saturday and attempting to start your first Formula 1 grand prix – the Italian, at Monza – on the Sunday. You could jet overnight from Indiana to Milan, with your chief championship rival as your wing man – the guy for whom you'd also found an F1 ride that weekend with the BRM team, so you could tow each other around Monza's long straights like you did back home. You could pass through customs and commandeer the waiting Mini, previously steered by a Lotus mechanic, because you, Mario Andretti, and your partner in crime, Bobby Unser, were really in a dreadful hurry.

You might even be able to dupe a track security guard by faking your pass, gunning your engine before he knew what was happening and arriving *finally* in the Monza paddock where Lotus team boss Colin Chapman, the man who had promised you a Formula 1 drive “any time you were ready”, would greet you with bad news.

“There's been a protest,” he would tell you bluntly. “You can't race.”

And, rules being rules, for all the Herculean efforts of your continent-straddling caper, you'd be turning away from the Lotus 49B you'd already lapped fast enough in practice for 10th on the grid. Why? Because you had fallen foul of a rule that said drivers couldn't start more than one race in the same 24-hour period.

So despite two days of transatlantic track-hopping, you'd be leaving the circuit where you'd witnessed your

hero, Alberto Ascari, racing in the 1954 Italian Grand Prix when you were just 14, the year before your family set sail for the US in pursuit of a more prosperous life.

You, Mario Andretti, would have to wait another day to make your F1 debut proper. But Monza, in September 1968, was where it began.

The invitation to race for Lotus dated back a few years, to the May '65 day Andretti had met Chapman at Indianapolis, where he and his sublime champion, Jim Clark, were preparing to win the 500.

Chapman made good on his promise by offering Andretti a ride in two late-'68 grands prix – the first at Monza, the second being the USGP at Watkins Glen, a month later. While it seems unimaginable, now, that the corseted world of Formula 1 would allow a driver to race a third top-team car for a brace of season-closing GPs, strictures were less tight back in the day, ▶



as Andretti recalls in that lazy drawl, full of bonhomie: “To me, yeah, it was normal... the things that we were allowed to do then.

“It went back to 1965, at Indianapolis, when I befriended Colin and Jimmy. My objective was to enter Formula 1 sometime during my career. When we were saying our goodbyes, I said to Colin: ‘Some day I would like to do Formula 1.’ And Colin said: ‘Mario, when you think you’re ready, call me and I will have a third car for you.’ You could not do that today, but he was true to his word. How sweet was that?”

There’s no lingering bitterness that what might have been the most perfect F1 debut was scuppered by a rules-stickler protest. And besides, the rush of the racing calendar soon had Andretti back in the 49B’s cockpit at The Glen, where he carved its contours swiftly enough to place the Lotus on pole for his first dedicated grand prix. The regulars took note.

“That was a car that felt very, very good to me immediately,” Andretti recalls, “because the experience I had in single-seaters at that level were Indycars and they were obviously much heavier, not as nimble. But I got into an F1 car and ‘Oh, my God, this car is doing exactly what I want it to do.’”

The dream came with a caveat. Andretti’s 49 was a third Lotus in the days when the team struggled to field even two front-line cars. Champion-to-be Graham Hill had all the top kit; Jackie Oliver in the second car had best of the rest. For Andretti, in car number three, it was a case of ‘make do and mend’.

“It was a spare car and that’s why I think I didn’t finish, because we didn’t have a fresh engine in it. And Maurice Philippe, my engineer, had told me clearly to try to be very ginger on everything – clutch, and so forth. And he told me I had a test engine with miles on it, and



**“I’D WANTED FORMULA 1 SO BAD, BECAUSE THAT’S WHERE MY PURE LOVE WAS AT THE VERY BEGINNING OF MY LIFE – IT’S WHAT DREW ME TO THE SPORT ITSELF. AND THEN COLIN BEING SO WILLING TO GIVE ME THIS OPPORTUNITY”**



eventually it was the clutch that went. And there’s only so much you can do to look after a clutch. But that’s what took me out of the race.”

Andretti might also have pointed out the broken fastener that loosened the nosecone and left his front wing dragging along the track, lessening downforce. The loss of balance allowed the chasing Jackie Stewart to pass before Andretti retired, but the new kid on the block had made his point.

“Well, it couldn’t really have been any better than that,” he says, “you know, from a personal satisfaction point of view. I’d wanted Formula 1 so bad, because that’s where my pure love was at the very beginning of my life – it’s what drew me to the sport itself. And then Colin being so willing to give me this opportunity. It was golden. And then of course, together, we achieved the ultimate goal

of the world championship.”

Andretti’s 1978 title-winning year, driving alongside ‘Superswede’ Ronnie Peterson, is the stuff of F1 legend. The swooningly gorgeous Lotus 79 cars, whose slick black bodywork hid revolutionary underfloor aerodynamics that dramatically increased cornering grip and speed, dominated the championship and gave Andretti the drivers’ crown, at the Italian GP.

Infamously, of course, there was tragedy amid triumph. At the start of the Monza race Peterson’s Lotus was tagged by James Hunt’s McLaren, nudging it into a fiery impact with the barriers. Peterson, with serious leg injuries, was pulled from his car by Hunt and fellow driver Clay Regazzoni, then taken to hospital.

Andretti won the restarted race, though he was later penalised by a minute for jumping the start. Through the chaos, which had eliminated Peterson – his only serious title rival – from contention, Andretti emerged as world champion at the circuit where he had been bewitched by F1 as a teenager and where he had won the grand prix, undisputed, a year earlier. ▶

**Andretti was on pole for his first F1 start, the 1968 US GP at Watkins Glen. He was chasing leader Jackie Stewart until a bodywork failure (below) preceded a race-ending broken clutch**



**Colin Chapman (above, left) with Andretti in 1968. The Lotus boss had first met Andretti in the run-up to the 1965 Indianapolis 500 and promised Mario a car for when he wanted to switch to F1**







Andretti's F1 race debut was delayed after he and Bobby Unser were banned from the 1968 Italian GP despite having practiced (left)





Andretti was racing back in America when Enzo Ferrari asked him to step in to replace the injured Didier Pironi at Monza in 1982. Mario amazingly put the 126C2 on pole



After two mediocre years at Lotus, following his title-winning season of 1978, Andretti switched to the works Alfa Romeo outfit but the car was unreliable







**“WE DROVE TO THE HOSPITAL. I TOOK THE AUTOSTRADA AND AS I WAS GETTING OFF AT THE TOLLBOOTH, THE GUY SAID: ‘ARE YOU GOING TO THE HOSPITAL?’ AND I SAID: ‘YES.’ AND THE GUY SAID: ‘RONNIE JUST DIED. I HEARD IT ON THE RADIO.’ I WAS TOTALLY DEVASTATED. DEE ANN AND I HAD JUST BEEN TALKING ABOUT HIS REHABILITATION”**



**Mario’s first F1 win came in his first race for Ferrari, the 1971 South African GP. He drove sporadically for the Scuderia in 1971 and 1972 alongside his Indycar commitments**



**Andretti in the Lotus 79 at Monza in 1978, the race which confirmed his title but also robbed him of his friend and team-mate Ronnie Peterson**

Still, though, brooding Monza would have the final say. During the night, post-race complications from Peterson’s treatment resulted in blood clots and a stroke. He died in his hospital bed.

In the biography, *A Driving Passion*, Andretti recalls: “I got up Monday morning with Dee Ann [Mario’s wife] and we drove to the hospital. I took the Autostrada and as I was getting off at the tollbooth, the guy said: ‘Are you going to the hospital?’ And I said: ‘Yes.’ And the guy said: ‘Ronnie just died. I heard it on the radio.’ I was totally devastated. Dee Ann and I had just been talking about his rehabilitation.”

Across a quarter of a century, Andretti and Monza had gone full circle. From teenage

infatuation, to adult consummation, albeit in the most challenging circumstances. And *La Pista Magica* held one more enchantment for this favoured son.

It was cast in 1982, as a coda to Andretti’s F1 career, which had petered out post-title, Mario hampered by uncompetitive Lotuses in 1979-80 and an abortive 1981 adventure with Alfa Romeo.

For ’82 he was back Stateside, racing Indycars again, though his F1 potential hadn’t been forgotten. He was called upon by Williams for the Long Beach GP, to sub for Carlos Reutemann, who had quit without warning right after the preceding Brazilian race. Then, a few months later, came the call from Ferrari.

The Scuderia, frontrunner with the powerful

and elegant 126C2, had endured the most torrid season. Its drivers, Gilles Villeneuve and Didier Pironi, had gone to war over disputed race tactics and during qualifying for the Belgian Grand Prix Villeneuve suffered a fatal accident. Seven races later, champion-elect Pironi was left with career-ending leg injuries after an accident during qualifying for the German Grand Prix.

It didn’t take long for Enzo Ferrari to patch a call through to Andretti. The two had history. Andretti had raced part-seasons for Ferrari in 1971 and 1972; indeed, he had won his first grand prix with Ferrari, South Africa ’71, in his maiden F1 race with the team. There was mutual respect. And at Monza, in qualifying for the ’82 Italian GP, there was about to be one hell of a final ▶





## ANDRETTI ON FERRARI'S F1 RENAISSANCE

The 2022 Formula 1 season might have ended with Ferrari team principal Mattia Binotto falling on his sword but it also marked a competitive resurgence after several years playing third fiddle to Mercedes and Red Bull Racing. Five races into the season, Charles Leclerc was at the top of the drivers' table and Ferrari was leading the constructors' championship – before Red Bull accelerated past.

For one Italian-American, the return of the reds is most welcome.

"What would Formula 1 be without Ferrari," asks Andretti. "Let's face it, there's something very special about them. They've been there from the very beginning and to see them come back and being competitive again, that's a great thing for F1."

"For the tifosi and for individuals like myself," he continues, "it puts F1 in a very good place, in my opinion, because I don't know if another team has a stronger fan base around the world, than Ferrari. So it's a good thing for everyone when Ferrari is competitive. And that's a beautiful thing to see right now."

PICTURE: GLENN DUNBAR

fling, on what some who were there recall as Monza's greatest day.

"They needed a driver and I felt very privileged that Mr Ferrari thought of me," says Andretti. "Of course, I accepted and then I had the opportunity to test, because I had not driven the turbocharged F1 engine at the time. It was not easy, actually, to adapt, because the basic normally aspirated engine was only 1.5-litres, with not much power, but then when the turbo power came on, it was like... like... like a charge of dynamite."

Ferrari being Ferrari, there was lunch (steak and pasta) before testing and Andretti counts the one-to-one time with the Old Man among his most treasured experiences.

"You know, I loved to do that," he says. "It was

the one time that you could just have some good conversation with the man. And it was always a golden opportunity to do that. His drivers at the time didn't speak much Italian, so that's the best part for me. He loved that, talking in Italian. That's why I could deal with him directly. He always treated me with respect, right back to 1971, when he offered me the number-one drive that I couldn't fully accept because of my racing commitments in the US."

A decade on, they were about to conclude some unfinished business.

"We went straight to the track [Ferrari's private circuit, Fiorano], because I was going to do a shakedown. And I took a few laps – no corner workers, no safety there, I remember. I

★★★★★

**"I KNEW I FELT GOOD ENOUGH TO JUST LEAVE THINGS ALONE AND THEN GO TO MONZA, AND THE THING THAT HELPED ME IN MONZA, I HAD SOME LITTLE TRICKS ON MY OWN, YOU KNOW, TO REALLY TUNE THE CAR SO IT'S AS PERFECT AS I COULD POSSIBLY HAVE IT. AND IT WORKED OUT. I FELT THAT I COULD BE A FORCE TO BE RECKONED WITH"**

★★★★★

was feeling good and said I would like to do some more running... I was liking what I felt. So they brought in all the security people and so forth and I kept running for 87 laps – after a steak lunch!"

By the end technical chief Mauro Forghieri had turned up the wick on the V6, to give Andretti a taste of how the car would behave under full boost. "I set a record that lasted eight years."

Ferrari was keen to do another day's testing, but Andretti was confident he had the 126 in a sweet spot and declared: "No, I don't want to touch a thing."

Instead of more track time, Andretti chose headspace and took off next day with Dee Ann for a motorcycle blast through the Abetone Pass. "I knew I felt good enough to just leave things alone and then go to Monza," he says. "And the thing that helped me in Monza, I had some little tricks on my own, you know, to really tune the car so it's as perfect as I could possibly have it. And it worked out. I felt that I could be a force to be reckoned with."

The cold stats say Mario Andretti, in a Ferrari, beat Nelson Piquet's Brabham to pole position by 0.035s. The cold stats say nothing of passion.

Andretti chuckles: "Luckily, I just put it in there. But it was... it was amazing, the lap that I did. I almost had the back end break loose through the Lesmos... I was almost sideways... ▶



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## WILL ANDRETTI ENTER F1?

Last year, for the first time since 1984, the USA hosted two grands prix, in Miami and at the Circuit of The Americas in Texas. This year three US races are scheduled as Las Vegas returns to the calendar – and now F1 is commandeering The Strip rather than being relegated to a joyless car park.

Driven in part by the success of Netflix series *Drive to Survive* and various fan-focused initiatives put in place by F1's American owner Liberty Media, F1 is enjoying a boom in the US, which is plain to see in the eyes of the country's last world champion.

"You have no idea," Andretti declares. "Somebody should walk my walk. The excitement that there is about F1, even at Indycar races. I was at Long Beach for the Indycar race and some fans walked past me shouting: 'Mario! Formula 1! Formula 1!'"

That the moment is ripe for a fully fledged American team entry into F1 is not lost on the family. Mario's son Michael, an ex-F1 driver and past Indycar champion, has been aggressively pursuing an entry slot and came close to buying out the Sauber team in 2021, only for talks to founder. As recently as last year the Andretti organisation was understood to be in talks to acquire Haas and rebrand it in 2024, though talk of that also lapsed into silence. But an opportunity has now presented itself, one which would not involve buying an existing F1 team.

In early January, FIA president Mohammed Ben Sulayem made it known the governing body would "look at launching an expression of interest process for prospective new teams". While the details of how this process might work have yet to be announced, certain wheels have been turning in the background for several months. Michael Andretti has now gone public with the plan: to partner with General Motors and enter a new team under the Cadillac brand (see p6).

Should an American driver be required, Colton Herta remains a prime candidate. The Indycar hot shot raced for Andretti Autosport, was on McLaren's books as a development driver in F1 last year, and was nearly snapped up by AlphaTauri to race, only to fall short of qualifying for a super licence. Andretti Sr is a fan, even though it ultimately won't be his call.

"Somebody should pick up this young man," says Mario. "If you look at his record, it's perfect for F1. He was racing in England on his own when he was 15 and he really wants it like I wanted it. So I fully endorse that young man. I see a definite pure passion to do it and the ability to adapt. When you are driven by that type of desire and passion, that's what works and I see that."



PICTURES: JAKE GALSTAD; MICHAEL LEVITT

**Mario believes US hot shot Colton Herta (above, and top) would be high on any Andretti team's driver list should son Michael Andretti secure an F1 entry**



**"IT WAS SO INCREDIBLY SATISFYING, TO DO IT FOR FERRARI WHERE THEY'D HAD SUCH A TERRIBLE SEASON, AND THE REACTION FROM THE TIFOSI WAS INCREDIBLE – EVEN BY THEIR STANDARDS. THERE WERE TWO OR THREE MINUTES LEFT IN QUALIFYING AND THEY WERE ALREADY OUT ON THE TRACK WHEN I WAS ON MY COOL-DOWN LAPS"**



but I kept my foot in and I thought 'I hope this is good enough' because I could never duplicate that. It was extremely satisfying."


Rapture.

"It was so incredibly satisfying, to do it for Ferrari where they'd had such a terrible season, and the reaction from the tifosi was incredible – even by their standards. There were two or three minutes left in qualifying and they were already out on the track when I was on my cool-down laps. You know, the emotion that the tifosi in Italy show is something that you don't experience anywhere else, because they don't respect the rules. They just do what they need to do. Those are such great moments."

For an American idol who'd always worn his Italian heart so proudly on his flameproof sleeve, there could have been no sweeter experience.

"You have no idea how much this meant to me in every way," he says. "You know I'd won in Monza and I clinched the world championship in Monza. It was Monza that actually ignited my passion for the sport. Monza was the Mecca."

Race day didn't deliver the win a Hollywood script might have demanded – a failing turbo limited Andretti to third place. But as a final flare in a storied F1 career, it took some beating. (A non-score in his concluding grand prix, in Las Vegas, two weeks later, was largely forgettable.)

"I may have a US passport, but my blood is Italian," Andretti reflects, "and that will never change. The experiences I had at Monza, with Ferrari, and with Mr Ferrari... Those moments are precious for the rest of my life." 





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Modern Formula 1 fans have grown accustomed to a lull in racing during winter in the northern hemisphere. But there was a time when teams headed south of the equator rather than bunkering down in the factory. And why not? There was fun to be had, money to be made and reputations to forge...

# DAYS OF WINTER SUN

WORDS MAURICE HAMILTON PICTURES  motorsport  
IMAGES



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**HEN MAX VERSTAPPEN** files off to the Bahrain Grand Prix – or any F1 race, for that matter – he won’t give a second thought to how his car will get there. It will be assumed that the Red Bull RB19 will arrive as

immaculate as it left Milton Keynes.

Compare this with the travel arrangements laid out for Denny Hulme in the winter of 1966/67. The world champion-elect had to load his Brabham onto a trailer and tow the BT11/22 behind a Ford Zodiac saloon car from Surrey to Liverpool in time for the race car to be loaded onto a ship bound for New Zealand. The voyage was estimated to take five weeks, during which time Hulme and his boss, Jack Brabham, would take part in the South African Grand Prix on 2 January 1967 before hurrying to Auckland for a non-championship race seven days later. When they finally reached the Pukekohe circuit, Denny was appalled to see the state of his car.

“We thought the car would have been off the boat about a week before it actually did,” wrote Hulme in his column in *Motor Racing*. “When it did come off the boat, it was in the worst condition you ever did see. It was absolutely incredible; you would have thought it had been towed there all the way behind the boat, instead of coming in the hold. Apparently, some of this condition stemmed from the time it spent on Liverpool docks waiting to be slung aboard. It took a couple of days to get the car into shape.”

Hulme thought he was lucky when Brabham’s car didn’t arrive at all due to a strike at Qantas Airways. But then Jack commandeered Hulme’s fettled machine while Denny was offered a drive in a 1963/64 ex-works F1 Brabham that had been sold by Jack to a Kiwi privateer the previous year. All of which helps explain why Brabham and his team should go to all this trouble for a few short races on the other side of the world.

Known as the Tasman Series, these races in New Zealand and Australia may not have counted for the F1 world championship, but its value was priceless as a pre-season test for various developments, plus a ready market for soon-to-be-redundant F1 cars after they had been raced successfully and impressed potential buyers. And last, but not least, here was an opportunity to enjoy a few weeks in the South Pacific summer.

The strength of such attractions was evident in 1966/67 by the Tasman Series attracting the



**Jim Clark at Levin in New Zealand in 1967. The Scot would claim the second of his three Tasman titles that season**

aforementioned works entries from Brabham (the reigning constructors’ world champion), a Lotus for Jim Clark, plus BRMs for Jackie Stewart and Richard Attwood. A third BRM to be shared by Piers Courage and Chris Irwin amounted to the 1960s equivalent of the current FP1 opportunity for rookies. Clark would come out on top after winning five of the eight races (including two non-championship rounds) spread evenly through New Zealand and Australia.

Local motor sport fans were becoming accustomed to embracing the presence of F1 royalty. It hadn’t always been like that before the creation of the Tasman Series despite the best efforts to draw big names to the southern hemisphere. In 1953, for example, public roads in an Australian city had been closed for a motor race for the first time as a 3.1-mile circuit was laid out in Melbourne’s Albert Park (very different to the track used today). The 64-lap race was won by Australia’s Doug Whiteford in the 4.5-litre Talbot-Lago used by Louis Chiron to win the 1949 French GP at Reims.

Different days, maybe, but some things never change. Whiteford was the subject of a post-race protest. “Whiteford,” reported *Autosport*, “was reputed to have had more than three mechanics working on his car during his short pitstop. This could have been so, in that the pit area was

neither properly barricaded nor policed and it is understood that in the excitement a spectator did assist. Yet had Whiteford taken as much as 10 minutes to change the wheel, it would not have affected the result.”

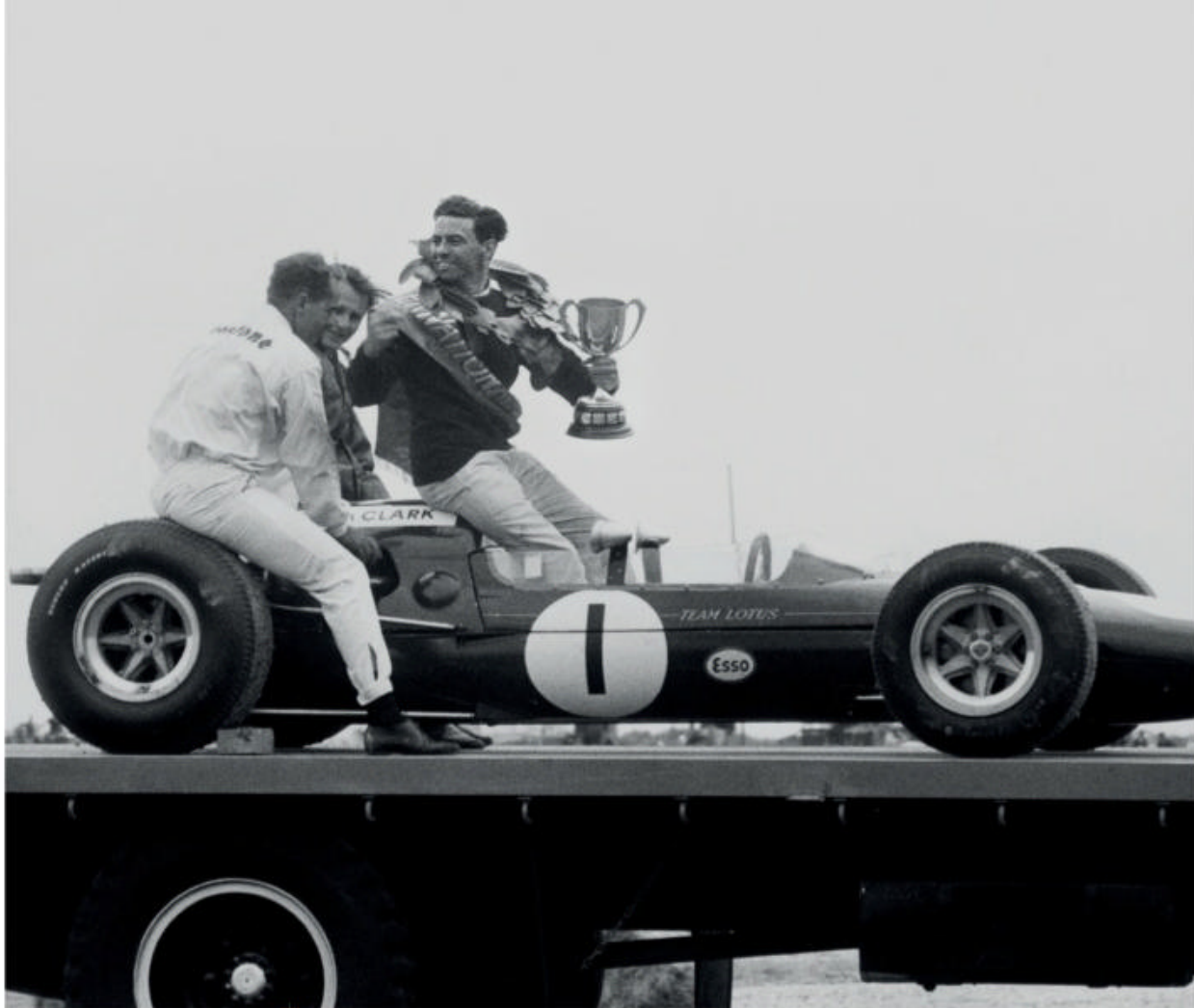
Such a massive winning margin tells you about the need to inject foreign participation. British private entrants Reg Parnell and Peter Whitehead were tempted to enter the 1957 New Zealand Grand Prix, the long journey being made worthwhile by a one-two finish for the Englishmen and the subsequent sale of their ex-works Ferrari Super Squalo F1 cars.

News of this profitable venture appealed to a certain Bernard Charles Ecclestone. In late 1957, the Suffolk-born motor trader bought two Connaught F1 cars at the failed team’s closing down auction and dispatched them to New Zealand; Ecclestone instructed his drivers, Stuart Lewis-Evans and Roy Salvadori, to sell the Connaughts after they had been raced. Lewis-Evans was to prove a better driver than a salesman when he excitedly phoned Ecclestone with the news that the unwieldy and unreliable cars had proved difficult to shift – but he had successfully negotiated their sale in exchange for a stamp collection. Bernie’s response was reportedly short and sharp. The cars were immediately shipped back to Britain.

When Brabham, Stirling Moss and John Surtees were among the F1 names to regularly win the New Zealand and Australian Grands Prix, it was decided to formulate the Tasman Series, beginning in January 1964. A maximum engine capacity of 2.5 litres was stipulated to prevent Europeans arriving with faster, more powerful

**LOCAL MOTOR SPORT FANS WERE BECOMING ACCUSTOMED TO EMBRACING THE PRESENCE OF F1 ROYALTY. IT HADN’T ALWAYS BEEN LIKE THAT BEFORE THE CREATION OF THE TASMAN SERIES**





**The Tasman Series started in 1964 but the first international champion was Jim Clark, who took the title in 1965**

machinery. But that didn't deter Bruce McLaren from suggesting that his employer, Cooper, adapt its successful F1 car specifically for the newly created series. When John Cooper rejected the idea, the Kiwi decided to do it on his own – thus forming the nucleus of the McLaren team we know today. Costs were amortised by building a second so-called Tasman Cooper for Timmy Mayer, a promising young American. McLaren won his home grand prix and the championship, but this came at a terrible price when Mayer was killed during practice for the final race at Longford in Tasmania.

**Piers Courage (left) and Jochen Rindt relaxing at Lake Taupo in New Zealand, during the 1967 Tasman Series**

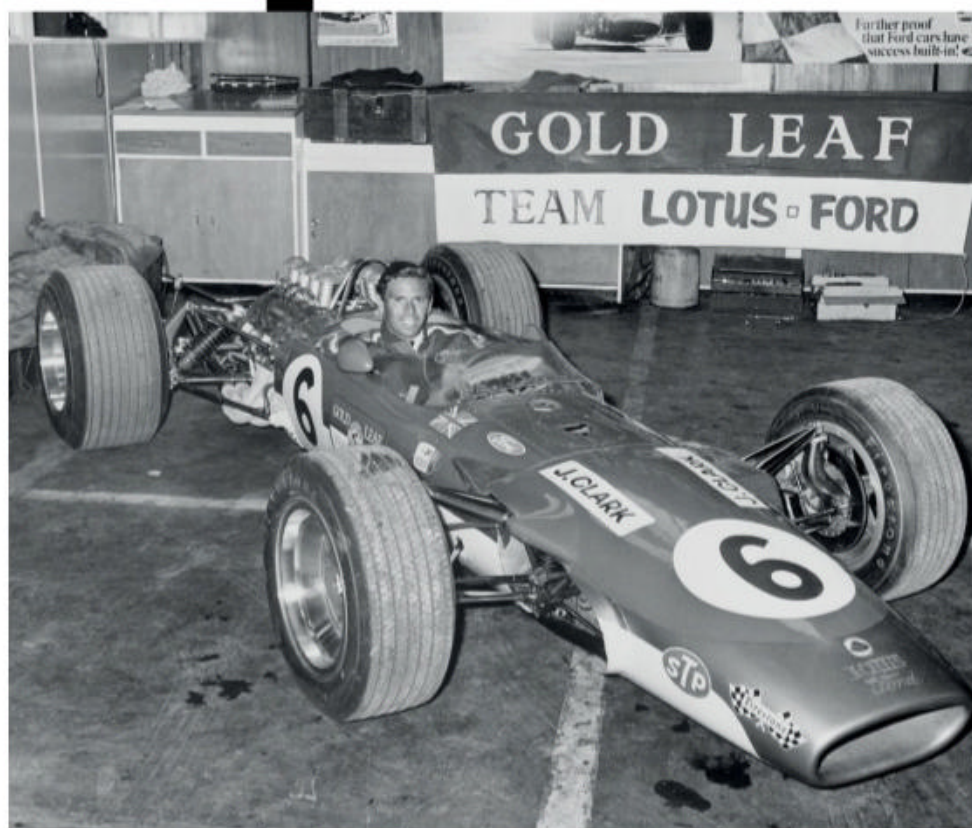
The 4.3-mile Longford road circuit, with its wooden bridges, viaducts, railway level crossing and 175-mph straight, was the outlier in a series that had the bumpy and tight 1.1-mile Levin track in New Zealand at the opposite end of the scale, both geographically and challenging. ►



## NEW GOLD DREAM

**The paint scheme quietly** revealed on Jim Clark's Lotus in a Christchurch garage in January 1968 would reverberate around the racing world. Gone were the traditional Lotus colours of British Racing Green with a broad yellow stripe running fore and aft. In their place, the garish red, white and gold combination found on a brand of cigarette packets. It was like a Ferrari turning up today in the kaleidoscopic colours of a vape kit, with not a hint of red to be seen. Rules forbidding commercial sponsorship had not simply been relaxed; they had gone up in a cloud of tobacco smoke.

Previously reliant on trade support, the F1



teams had been shocked at the end of 1967 when Esso, a motor sport stalwart, announced a total withdrawal of financial help. Realising this was evidence of a trend, the sport's governing body agreed to a fundamental change in sponsorship collaboration. It was a monumental decision.

Lotus boss Colin Chapman, forever thinking outside the box, had been the first to light up and draw heavily on a welcome source of new money. After reaching agreement with Imperial tobacco, owner of the John Player brand, Chapman had been happy to air brush tradition by adopting the 'Gold Leaf Team Lotus' name.

When the deal was signed between the second and third rounds of the Tasman Series, Clark's Lotus 49T was hustled into a local Ford dealership for this massive make-over. It was hard-baked in global exposure a few days later when Clark won the Lady Wigram Trophy. Commercial motorsport sponsorship – and not a little outrage – was instantly running at full throttle.



## BUDGETS WOULD COME INCREASINGLY INTO PLAY AS THE FORMULA 1 CALENDAR EXPANDED AND BEGAN TO INTRUDE AT EITHER END OF THE TASMAN 'HOLIDAY' PERIOD

In between, visits to a fast airfield circuit at Wigram and a temporary track utilising facilities at a horse racing course at Melbourne's Sandown would contribute to racing venues that frequently appeared to interrupt a full-on social life.

Writing in his *Autosport* column in February 1968, McLaren recalled: "We spent a few days at Lake Taupo swimming, shooting, skiing and fishing. We had a few barbecues too, but none to beat the spread put on by [Ferrari driver] Chris Amon's mother and father at their beach house. The stack of steaks and sausages waiting was just fantastic – it could have fed an army. I counted 50 people there and, after the 'Kiwis versus Poms' cricket match on the lawn in the afternoon, they made a fair-sized hole in the food."

The 1968 Tasman Series ensured Piers Courage would be able to put food on his table for the foreseeable future. Still struggling to become fully established on the F1 scene, the Englishman made a last throw of the dice by borrowing the £4,300 necessary to purchase a well-used McLaren M4A F2 car and raising a similar amount to pay for the trip to the Antipodes. Shaking off a reputation for crashing more often than not, Courage was the only driver to finish all eight races. Better than that, he was the winner in wet and scary conditions at Longford; a superb drive that secured an F1 contract with BRM and led to GP podium finishes with Frank Williams. Courage's Tasman gamble was made complete when he sold

the M4A at a profit and enjoyed the additional bonus of saving the return shipping cost.

Expenses would come into play the following year when Amon wanted to continue racing in front of his home crowd. Enzo Ferrari agreed to let Chris and Derek Bell have two of the beautiful little F2 cars with 2.4-litre V6 engines; perfect for Tasman territory. There was just one proviso; Amon would have to finance the entire trip. Bell and his mechanic were dispatched from England to pick up the Ferraris in Maranello. Derek takes up the story in his autobiography.

"There was a major drama at the Italian border," wrote Bell. "Two confused Englishmen with a Transit van and a trailer carrying two single-seater Ferraris, en route to England to

go to Australia and New Zealand. The Italian customs officials looked pretty doubtful, so they made us wait. There was a football game on and these damned officials kept rushing off to hear how their team was doing. From Ferrari's point of view, this was a very low-key operation, and we didn't have the right paperwork. We had to wait all day before they decided to let us through. After that, the whole Tasman trip was really fantastic [Amon winning the championship, with Bell finishing fourth behind Jochen Rindt's Lotus and the Williams Brabham of Courage]."

Budgets would come increasingly into play as the Formula 1 calendar expanded and began to intrude at either end of the Tasman 'holiday' period. Rising costs also prompted race




Graham Hill leads Piers Courage and Jochen Rindt at Lakeside in 1969, the last season to feature high-profile international drivers

Hill (above), seen here at Lakeside in 1969, was a regular in the Tasman Series but only managed three race wins



organisers to incorporate the cheaper alternative of F5000 cars, by which time the F1 team owners had begun to conclude it was no longer worth the special effort, particularly when reducing 3-litre F1 engines to the 2.5-litre capacity required for the Tasman.

The racing holiday down under may have finally ended in 1975 but memories would endure of close racing, exceptional socialising and, quite often, a major effort needed just to reach this very special motor sport environment 10,000 miles from home. 





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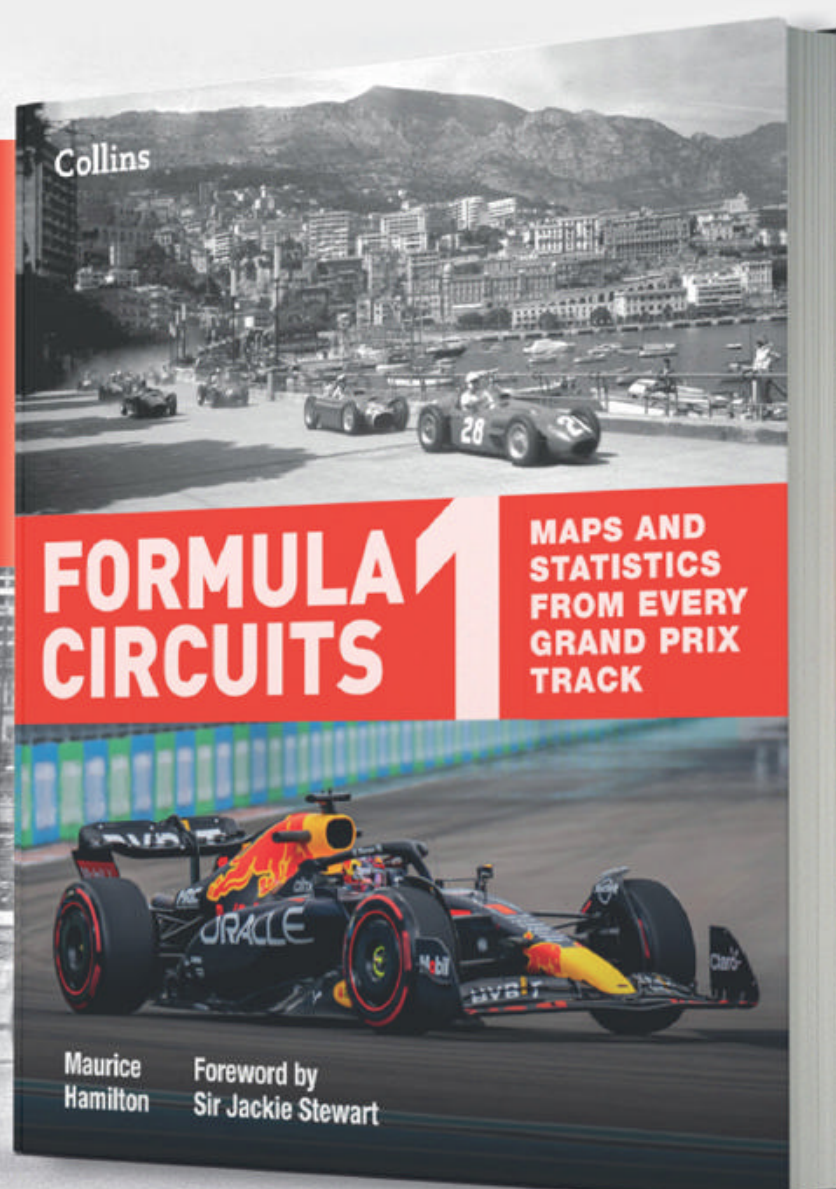
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# LOTUS 99T







# NOW THAT WAS A CAR

No. 115

WORDS  
STUART COOLING  
PICTURES  
JAMES MANN

The complicated winner that proved  
to be Senna's swansong at Lotus





**I**t would be unfair to call the 99T the car that killed Team Lotus, but the circumstances surrounding its conception would hasten the end of a company which was already struggling to live up to its hallowed reputation.

The 99T's predecessors, the 97T of 1985 and 98T of 1986, overseen by technical director Gérard Ducarouge, had been competitive enough to win races but insufficiently reliable to build a championship challenge. Engines and gearboxes had been unreliable and the swap from Pirelli to Goodyear tyres hadn't delivered all the performance gains anticipated. Star driver Ayrton Senna was beginning to chafe.

Renault had solved one problem and created another by withdrawing from Formula 1, first as a team at the end of 1985 and then as an engine supplier at the close of '86. Lotus now needed a new engine supplier and, having witnessed first-hand the seemingly ever-improving thrust and durability of Honda's turbocharged V6, Senna wanted nothing else. He made it clear to team manager Peter Warr that if this could not be arranged, he would walk – and there were plenty of other teams as desperate for Senna's services as Warr was to retain them.

By July 1986 Warr had reached an agreement with Honda in which he would receive engines one development step behind those in the Williams cars, and replace second-driver Johnny Dumfries with Honda's preferred choice, Satoru Nakajima. This only went some way to placating Senna, who insisted on a higher development budget before signing the heads of agreement for a new contract.

Player's tobacco, whose iconic black-and-gold John Player Special brand had, barring a brief hiatus, been associated with Lotus since the early 1970s, balked at increasing its input beyond \$2.5m a season. Reluctantly Warr looked elsewhere





**THE 99T WAS VERY MUCH AN EVOLUTION OF THE 98T, THE FIRST LOTUS TO FEATURE A MOULDED CARBON MONOCOQUE**



and succeeded in whistling \$7m a season for three years from RJ Reynolds, owner of the Camel brand. From 1987 onwards Lotus F1 cars would be yellow rather than black.

Senna responded by claiming Lotus had broken the heads of agreement (which named Player's as title sponsor), so the two parties would have to reach a new one – in which he was paid more for his 'trouble', \$5m over two years with an option on his side to leave after one. Thus a substantial chunk of the funds which should have been spent on the development Ayrton demanded went into his pocket instead.

Structurally and aerodynamically the 99T was very much an evolution of the 98T, the first Lotus to feature a full-carbon monocoque 'tub' that was moulded rather than assembled from separate elements bonded together. When the car first broke cover observers were surprised to note its somewhat bulky appearance, since one of the notable features of the previous year's Williams-Honda FW11 had been a low-profile rear deck and engine cover, a consequence of the RA166E V6 having much flatter inlet plenums than its predecessor. Had Lotus missed a trick?

Yes and no. Lotus's less sophisticated tooling facilities for carbonfibre, and the methodology of the moulding, limited the complexity of the shapes it could achieve. Plus the 99T was just over 6cm shorter in the wheelbase than the FW11, and nearly 13cm shorter than the new FW11B: Lotus had a long-standing aversion to long wheelbases which stretched back to the Chapman days, reckoning them agility-sapping.

Plus the 99T had to accommodate additional hardware in the form of a new active suspension system, baked in to the race car at Senna's insistence after he tested it back-to-back with a passively suspended example. While these tests were naturally inconclusive in terms of measuring the 99T's pace against rival cars, what they did suggest to Senna and the engineers was

that it could be faster over a race distance by extracting more life and performance from its tyres.

The computer-controlled Lotus active suspension was far more complex than the one introduced by Williams later in the 1987 season, which was derived from a road car project developed by AP. Lotus's system had its roots in F1, since the team had first evaluated hydraulic suspension with electronically controlled anti-roll bars in 1983, but in the interim it had been developed with road cars in mind ▶



**1986 LOTUS 99T**

**NOW THAT WAS A CAR**

No115





by Lotus Engineering, a separate company within the Lotus Group. While the Lotus setup was fully active, in that it could manipulate the springing and damping to control hub motions, and prevent squatting and diving under acceleration and braking as well as maintaining a fixed ride height, Williams' system was simply 'semi-active'. All Williams wanted to do was maintain its car at a consistent height above the track surface, thereby keeping it at optimal aerodynamic efficiency.

As Frank Dernie, the architect of the Williams system, said: "I didn't give a damn about ride quality. The driver is paid to deal with bumps."

Posterity might enshrine Lotus's active suspension as a case of over-engineering but, in period, memories of the original ground-effect era were still fresh. The original Lotus system had been conceived as a potential cure for aerodynamic porpoising after fitting stiffer springs hadn't worked. And the team had been labouring with tyres for several years previously; a fully active system offered the tantalising possibility of finding a more optimal balance of grip vs degradation than passively suspended rivals.

While this proved to be true, it wasn't enough to offset some of the disadvantages. While it's widely claimed the active hardware added 25kg to the car's weight and cost 12bhp, team insiders have cast doubt on these figures. No acolyte of Chapman would have added that much mass to a racing car without good reason, and the power demand varied according to how hard the system was working.

What became clear over the course of the season was that the passively suspended Williams FW11B was faster than the active 99T and the margin grew when Williams added its







## IF SENNA WAS STRUGGLING WITH THE 99T, THERE WERE FEW SIGNS ON THE LAP CHART. FOR NAKAJIMA, AN F1 ROOKIE, IT WAS HUMILIATING

semi-active system at Monza. Simplicity was a virtue: there was less to go wrong, less to *adjust* on the Williams. Lotus's system supposedly offered something in the region of 60 variables, making it tricky both to set up for optimal performance and to debug when something went wrong – as at the opening round of '87 in Brazil when handling issues forced Senna into the pits after he had qualified with and ran among the frontrunners.

There was also the question of that intangible element of a racing car: feel. Active and semi-active cars transmit fewer sensations through the driver's touch points, potentially robbing them of the ability to balance the nervy equilibrium of fragile rubber on asphalt. It doesn't matter whether a car's limits of grip are higher if the driver can't feel where they are because there's no communication.

As would later be the case when Nigel Mansell and Riccardo Patrese drove semi-active Williams cars in 1992, one pilot thrived while the other floundered. If Senna was struggling with the 99T, there were few signs on the lap chart. For Nakajima, an F1 rookie, it was humiliating. While not out

LOTUS 99T

NOW THAT WAS A CAR

No115

of the same drawer as Senna in terms of talent, he was a better driver than his results and times – often up to four seconds a lap slower than Senna in qualifying – would suggest.

Nevertheless Senna claimed the first grand prix victory for an actively suspended Formula 1 car. Though the win in Monaco owed something to fortune, in that Nigel Mansell was slowed by the effects of a broken exhaust while leading, Senna put himself in the position to inherit by qualifying second and running in that position until the crucial moment.

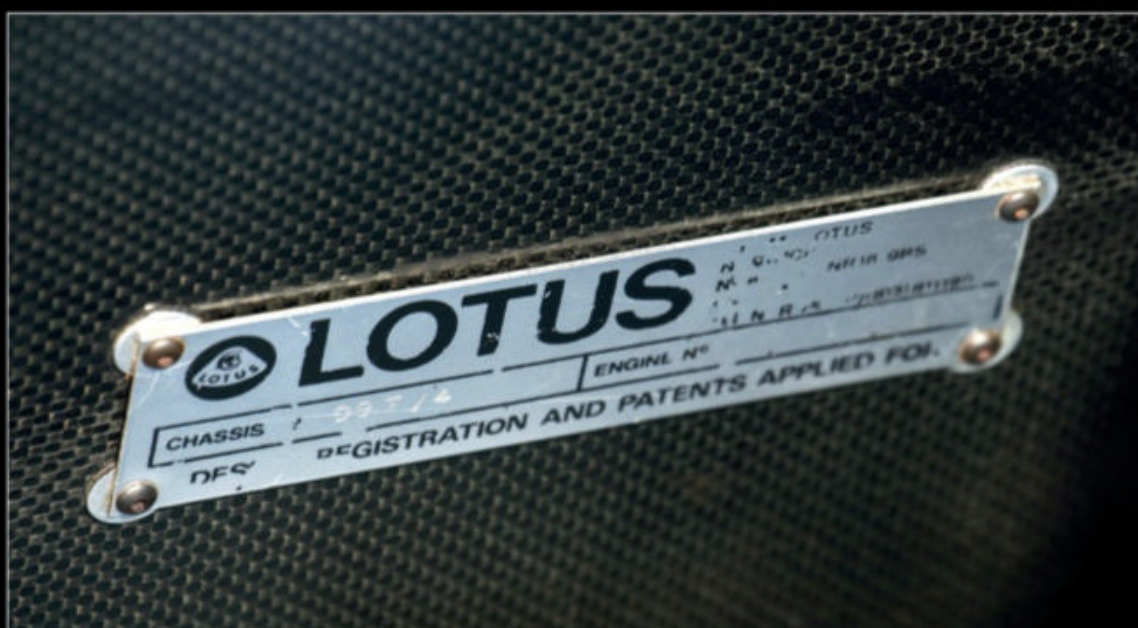
It was at the following race, on the bumpy parcours of the unloved Detroit street circuit, where the 99T decisively benefitted from the advanced technology under its skin. Mansell was on pole again but, after running away into the lead, began to suffer the debilitating effects of cramp. Senna, driving at a more measured pace and protecting his brakes, took full advantage of this and the 99T's *simpatico* with its tyres, building an unassailable lead as he drove to the end without stopping while others broke for the pits to change tyres – either because they had to or, in the case of third-placed Alain Prost, because their teams *thought* they had to.

Senna would claim five more podiums that season to add to these victories and his second place at Imola – six if you count the second in Adelaide which was struck off when the scrutineers deemed his brake ducts too large. But the ability to run a race without stopping for tyres proved less beneficial than expected, except perhaps at Monza, but there Senna squandered the lead when he outbraked himself at the Parabolica while working through traffic with eight laps to go. At Jerez he looked to be channelling the spirit of the late Gilles Villeneuve's 1981 victory on Spanish soil as he held off a conga ►





pic to come



line of cars for second, but his tyres gave up in the final laps.

But for the DSQ in Australia, Senna would have finished second in the drivers' championship. That, of course, would still have been no use for such a relentlessly competitive individual. By August Warr had learned – from Honda – that Senna was leaving for McLaren before Ayrton served notice. The reason Honda knew was that it, too, would be working with McLaren in 1988. Astutely, Warr took advantage of Williams' reticence to have Nakajima and retained the Japanese driver for the following season – and cut a deal with Nelson Piquet, who became world champion at season's end.

Piquet, though he brought the number one plate to Lotus and ensured continuity of Honda engine supply at Williams' expense, wasn't an equal or advantageous exchange for Senna. Having shunted his Williams into the wall at Imola's daunting





LOTUS 99T

NOW  
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A  
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No115

## BY AUGUST WARR HAD LEARNED – FROM HONDA – THAT SENNA WAS LEAVING FOR McLAREN BEFORE AYRTON SERVED NOTICE

Tamburello corner the previous season, he'd lost 80% of his depth perception – not that he would admit that until years later – and was driving on instinct. Also, Lotus's next car would be hamstrung by internal politics. Having funded development of the active system and sent engineers at its own expense to races in 1987, Lotus Engineering now wanted to be paid to justify the cost on its own balance sheet. Warr refused – money was tight after so much Camel cash had gone to Senna and now to Piquet – and the 100T would be passively suspended.

Frustrated by Warr's intransigence with the engineering team and dubious about Piquet's recruitment, both Ducarouge and designer Martin Ogilvie made up their minds to leave and duly handed in their notices during the course of a 1988 season in which the neater-looking but no faster 100T claimed just three podium finishes in Piquet's hands. Lotus would never win another grand prix, and its slide towards extinction had begun. 🏎️

### RACE RECORD

**Starts** 32  
**Wins** 2  
**Poles** 1  
**Fastest laps** 3  
**Podiums** 6  
**Championship points** 64

### SPECIFICATION

**Chassis** Carbonfibre monocoque  
**Suspension** Double wishbones with pullrod-actuated, computer-controlled hydraulic rams  
**Engine** Turbocharged Honda RA166E V6  
**Engine capacity** 1494cc  
**Power** 1000bhp @ 11000 rpm  
**Gearbox** Six-speed manual  
**Brakes** Carbon discs front and rear  
**Tyres** Goodyear  
**Weight** 540kg  
**Notable drivers** Ayrton Senna, Satoru Nakajima







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## FERRARI 1960-1965 – THE HALLOWED YEARS

**Author** William Huon  
**Price** £75  
[evropublishing.com](http://evropublishing.com)

The first half of the 1960s was a time of rapid change at Maranello as Enzo Ferrari flirted with selling out to Ford while his team battled on several fronts in sportscars and single-seaters. There was disruption as disaffected engineers and management walked out, but victories kept coming; while domination gave way to lean years in F1, Ferraris still commanded the top placings at

Le Mans and in other enduros. Author William Huon, whose previous works include a biography of Enzo Ferrari and a history of the 250 GTO, chronicles Ferrari's racing activities each year from 1960-65 in depth; originally composed in French, the text has been translated by Le Mans commentary legend David Waldron. Photography is from the archive of the late Bernard Cahier.



## TAG HEUER CARRERA CHRONOGRAPHC

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TAG Heuer's Carrera series has enjoyed a long association with motor racing, for the very first timepieces were designed to be highly legible at speed (plus, of course, the company ensured they were placed upon the wrists of some of the most successful drivers of all time, including Ayrton Senna). The 1970 Heuer reference 1158 CHN timepiece was the first to feature a yellow gold dial and this new design

inverts that look by juxtaposing 18K 3N-plated chronograph counters, hour markers and hands with a black sunray brushed dial. Naturally the black-and-gold look evokes the JPS Lotus liveries of the 1970s and '80s. Powered by the Calibre Heuer 02 movement, the new Carrera has a 42mm case made of solid 18K 3N gold, bound by a large-scale black alligator leather strap with a gold pin buckle.







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The **Airfix brand** should require little introduction to *GP Racing* readers of a certain age – it's the UK's oldest scale model kit manufacturer, and mere mention of the name should evoke heady memories of the smell of glue and enamel paint. In recent years it has expanded its remit beyond the instruments of warfare and now offers scale recreations of performance and racing cars as well.

Airfix's starter kit range is aimed at young and first-time kit builders, offering "the perfect start to your modelling journey". The latest additions to the range are a 1:43 scale Bugatti Chiron, Jaguar E-Type and Pagani Huayra. Buy a gift set or starter set before 31 January 2023 and you will have an opportunity to win a flight in a real-life Spitfire aircraft.



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maintain the elegantly minimalist Mondaine look, with a white dial, red crown and red seconds hand, and unfussy markings. The straps are available in brown or black with Mondaine's signature red internal lining, and are formed from the organic byproducts of wine production using "an innovative upcycling process".







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## IS CHANGE AT THE TOP WHAT WILLIAMS REALLY NEEDS?

**Jost Capito** was just five days short of his two-year work anniversary at Williams when news broke in mid-December of his departure. Supposedly, the 64-year old had done team owner Dorilton Capital a massive favour by delaying his retirement by a couple of seasons to helm the private investment firm's latest acquisition. In late 2020 Capito taking charge felt like a massive coup for Formula 1's nailed-on backmarker.

That sense didn't diminish when, in March 2021, Capito brought Francois-Xavier Demaison on board as technical director. These pals had been at the heart of Volkswagen's World Rally whitewash with the Polo from 2013 to 2016. Plus, with Demaison's heavy involvement in the record-smashing electric VW ID. R, he commanded

respect well beyond the rough stuff. Yet, fewer than 21 months later, he too was served a P45.

In the exit announcement, Dorilton chair Matthew Savage thanked Capito for postponing his time on the golf course. But previously, there had been no suggestions Jost was recruited purely on an interim basis and had itchy feet. Everyone thought this was a longer-term union. With Capito's key hire jettisoned also, it's not



**The removal of Capito and his key hire Demaison (right) in December leaves Williams searching for new blood at the top**

unreasonable to infer this split wasn't quite as mutual or cordial as has been presented.

When Williams was bought by Dorilton, the team issued a statement which read: "This marks the beginning of an exciting new era in the history of Williams, which with its new owner, is well positioned to capitalise upon the sweeping rule changes coming into Formula 1 with the new Concorde Agreement." A bald reading of the statistics would say Capito and 'FX' have fallen short in this respect. After a point-less 2020, the concern climbed to eighth in 2021 but crashed back to the bottom at the dawn of F1's second ground-effect era. Any hope of the major regulatory reset offering Williams a gilded opportunity proved a flight of fancy.

Nevertheless, there remains plenty of anecdotal evidence that Capito and co could only do so much to impact the on-track results. It is said Williams has a culture problem the new management struggled to change. That could also be listed as a failure of leadership, since it's

most unlike McLaren's revival under former team principal Andreas Seidl and Mercedes' decade of dominance. These have both occurred with a clear and public 'no-blame' philosophy. Although unkind, it's not untrue to report some paddock talk of Williams requiring a top-to-bottom clear-out. Come to mention it, there was one team source who reckoned as early as Monza in September that Capito's days were numbered.

Recent years show Williams has a fair amount of churn at the top. But it was meant to be more stable this time. This isn't Ferrari disposing of Mattia Binotto, who was promoted to the top by a previous regime. Capito was Dorilton's chosen one from the off and it deferred to his judgement when signing 'FX'. It was also under this Capito premiership that investment had been pumped into upgrading the windtunnel and Grove factory. Now, part-way through the restructure, the vision has changed. An even greater change of tack might well follow under the guidance of Capito's successor given there will be little continuity at the top.

The alternative view is, of course, that after a brief glimmer of a revival, Williams remains F1's slowcoach. And if Dorilton wants a return on investment or to sell its franchise for a raging profit in this time of Netflix boom, then last place just won't do, and someone must pay the price.

**THE ALTERNATIVE VIEW IS, OF COURSE, THAT AFTER A BRIEF GLIMMER OF A REVIVAL, WILLIAMS REMAINS F1'S SLOWCOACH**

PICTURES: MARK SUTTON; ILLUSTRATION: BENJAMIN WACHENJE



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