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GARY ANDERSON RATES  
NEW-LOOK RACERS





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## POLE POSITION

# Formula 1 nose jobs are tricky to see past

**IT'S OFTEN SAID THAT A FAST CAR IS SIMPLY AN** extension of its owner's manhood; Formula 1 appears to have taken that quite literally in the nose design of its new generation of machinery.

We knew they were coming (double entendre not intended) thanks to some poorly-considered technical regulations, yet it was still shocking in the Jerez pitlane to witness the various interpretations of the rulebook – the Toro Rosso and Force India being chief offenders in the eyesore stakes. Even Adrian Newey, crown prince of F1 design, was forced to remark: "Not many owners of these noses could say they really love them."

The only saving grace is that the diversity of these designs is utterly remarkable when you reflect on the lookalikes we've been forced to watch in recent years. My advice is to see past the ugliest of the noses; when they get out on track it's all about how they run and not what they look like.

Gary Anderson has examined all the cars that broke cover this week (bar late-starter Marussia), starting on page 18 and wrapping up on page 74 with how Lotus's crab-like design compares.



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## PRIVATE EAR



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# THE BIG PICTURE

Not the start Lewis Hamilton or Mercedes wanted to their F1 season, as a suspected front-wing failure pitched the Briton into the Turn 1 barriers at Jerez









# THE BIG PICTURE

Kimi Raikkonen made his return to Ferrari – but got off to an ignominious start when his F14 T broke down on its out lap and he returned to the pits in a SEAT Ibiza!









# THE BIG PICTURE

Force India's Sergio Perez in action just before his VJM07 ground to a halt on the opening day. Its nose was the talk of the pitlane, until the Caterham appeared











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# Jonathan Noble

## F1's newshound

Fans have been up in arms over the aesthetics of the new-generation F1 cars, but shouldn't we embrace the visual variety we've been missing?

**A**n anteater, a proboscis monkey, a crooked crab and a beluga whale walk into a bar. The bartender looks up and asks, 'Is this some kind of Formula 1 joke?' Judging by the initial reaction to the new 2014 cars, many fans have indeed been laughing about the ugly nature of the contemporary F1 beasts.

One of the oddities of this year's F1 regulations is that the chassis and nose-height rules are mismatched – and it's left the latest generation of cars sporting some pretty quirky front ends. Indeed, many fans have complained that the looks of the 2014 cars are a turn-off.

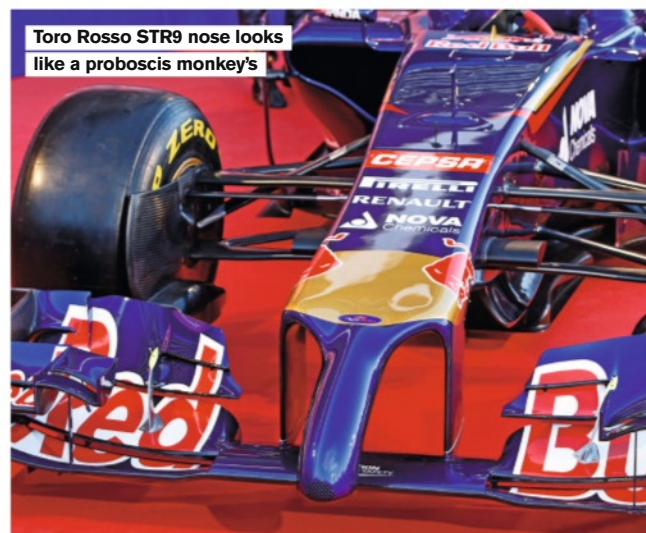
Caterham boss Cyril Abiteboul backed up those views by suggesting that the noses were a problem for F1's image – because they moved grand prix racing away from purveying an iconic dream.

"I think F1 is still show business and it should still be attractive to people," he said last week.

"Kids should be dreaming when they see an F1 car. I don't know about the dream or nightmare you will be having when you look at those cars."

While I'm sure I'm not the only one to have muttered a few choice words when catching a first glimpse of 2014 machinery, time has already healed a lot. And the designs have grown on me.

For on the flipside there's also been something truly liberating for anyone who has followed the sport for years about what's happening this season.



technical chiefs nearly a year ago – but there is little point in ruining those moments right now.

What the delivery of ugly noses has reminded us is that F1 designers will do anything in their pursuit of creating the fastest car – even if it means coming up with something not too aesthetically pleasing. There's

**“The ugly noses remind us that designers will do anything in their pursuit of the fastest car”**

It's hard to recall a time when we were treated to such visual variety between each F1 car. We're not talking about detail iterations here – they're all unique.

Year after year we've had machines roll out with pretty much the same concept, and a team going off and doing its own thing being a once-in-a-blue-moon event.

Gather together some silhouettes of F1 cars from the past five seasons and you'd be hard pressed to name the chassis and year.

Silhouette out this year's cars and it would be fairly easy right now to get the majority of the grid spot on. Such a level of diversity is surely a good thing?

The Lotus 'crooked crab' nose, the Ferrari 'beluga', the Toro 'proboscis monkey' and the various 'anteaters' have delivered a variety to F1 that's refreshing.

Yes, perhaps the rules could have been put together better to iron out the ugliness potential in the first place – as Bob Bell warned behind closed doors to fellow

something quite exciting about that.

There are no world championship points at stake for delivering a beautiful car (and certainly no ludicrous double points for it...), all that matters about an F1 car is that it's quicker than everything else.

Evolution works in similar ways. Creatures that aren't necessarily viewed by humans as beautiful have turned out that way because nature has dictated that they're the fittest and the best.

The male proboscis monkey with the largest nose may be a laughing stock right now, but he's the most attractive to the ladies of his group. So too is one of the other nose solutions that we've seen this week. It could well come out on top and be the one to have.

If you were an F1 driver on the grid right now, would you want an ugly but quick car or pretty and slow one?

You don't need to debate it with your animal mates in the bar to work out the answer. ☼



# This week in motorsport

## MENU BACK IN THE BTCC

Two-time British Touring Car champion Alain Menu will return to the series full-time in 2014 with Team BMR.

The 50-year-old Swiss, who won the championship for Renault and Ford during the BTCC's Super Touring era, will race one of the Volkswagen Passats acquired from Team Hard last year by Warren Scott's squad.

"The best times of my career have been in the BTCC," said Menu. "I want to have fun – this is a very important part of racing for me. It

will be nice to race against people like Matt Neal again, and Gordon Shedden was trying to break into the BTCC just as I left so I'm looking forward to racing against him. Jason Plato has matured since we were team-mates too, so I'm sure we will get on well."

BMR, which first approached Menu about the drive in early December, also confirmed that BTCC race winner Aron Smith will join Menu, Scott and Jack Goff in the team's 2014 line-up.



Menu shakes on deal with Scott

### MENU IN THE BTCC

36 wins

2 championships

1992-2000 active years in the BTCC

3 starts for Vauxhall in 2007

Runner-up three times



Menu was a Super Touring star in BTCC

## Vandoorne in McLaren/ART deal

McLaren has strengthened its ties with single-seater team ART Grand Prix for 2014, which includes placing Formula Renault 3.5 runner-up Stoffel Vandoorne at the team in GP2 this year.

The Belgian will be joined at the team by Japanese Super Formula ace Takuya Izawa as part of what team boss Frederic Vasseur described as "working hand in hand with McLaren and Honda".



## REMEMBER WHEN

2006 GP2 SEASON



The last time ART Grand Prix ran a McLaren junior driver in GP2, it took Lewis Hamilton to the 2006 title as a rookie.



For all the breaking news, visit **AUTOSPORT.COM**

## Tiny ZEOD engine revealed

Nissan has unveiled the petrol engine that will form part of the powertrain of its ZEOD Le Mans 24 Hours racer. The unit is small enough to fit into an overhead locker on a passenger plane.



## Sarrazin to test Toyota WRC

Toyota endurance driver Stephane Sarrazin will play a key role in the development of the Yaris WRC when it starts running in March.

Toyota's return to the World Rally Championship was discussed by president Akio Toyoda when he made an impromptu appearance on J-Star's coverage of the Monte Carlo Rally powerstage earlier this month.

Speaking about WRC publicly for the first time, Toyoda said: "Toyota would like to come back to the WRC, but it is difficult to give a concrete timing to this. I said the same thing two years ago, but it's gradually getting closer."

## Petrov gets Mercedes DTM run

Ex-Formula 1 racer Vitaly Petrov joined Mercedes' DTM pre-season test programme at the Algarve circuit last week, driving its latest-spec C-coupe (pictured). The series held its first race in Russia last year at Moscow Raceway, a race Petrov attended.



Zanardi with  
ROAL team boss  
Roberto Ravaglia

## Zanardi makes GT test debut

Alex Zanardi's return to motorsport after a four-year absence stepped up a gear last week when he had his first taste of the BMW Z4 GT3 that he will race in the Blancpain Sprint Series.

Zanardi plans to make minor changes to the brake pedal and hand-throttle set-up, which were taken from the BMW he raced in the World Touring Car Championship until 2009.

## NASCAR qualifying transformed



NASCAR has overhauled its qualifying format for 2014.

With the exception of the Daytona 500, the system of one car running at a time has been scrapped.

On circuits of 1.25 miles or longer, a three-part system will be used, with the top 24 cars progressing from

a 25-minute opening session.

Then, after another 10-minute session, the top 12 will move into a five-minute showdown for pole.

On shorter tracks a two-round format will be used, with the fastest 12 from a 30-minute opening session moving to a 10-minute pole decider.

## Senna eyes electric series



Bruno Senna is the latest ex-F1 driver interested in racing in Formula E. Also added to its 'drivers' club' this week were Sebastien Bourdais, Narain Karthikeyan, Christijan Albers and Franck Montagny.

## In brief



### AUDI DTM SHUFFLE

Audi has reorganised its DTM line-up for 2014, with two-time champion Timo Scheider joining 2013 title winner Mike Rockenfeller at Team Phoenix. Jamie Green also leaves Abt to partner rookie Nico Muller at Team Rosberg, while Edoardo Mortara and Miguel Molina move across to complete Abt's four-car line-up.

### TOYOTA P1 DEBUT

Toyota's 2014 LMP1 contender had its first test run at Paul Ricard last week. The manufacturer described the three-day effort, carried out by Alexander Wurz and Anthony Davidson, as "the best roll-out we've had" since its return in 2012.

### WORLD RX FOR JORDAN

British Touring Car champion Andrew Jordan will make a one-off return to rallycross this year to contest the British round of the World Rallycross Championship at Lydden Hill, racing an OMSE-run Ford Fiesta.

### BTCC MERC TO TEST

Cicely Racing's new Mercedes A-class BTCC challenger is set to make its track debut at the end of February. The car, which will be raced by Adam Morgan, carries over "a lot" of the parts from the team's 2013 Toyota Avensis thanks to the NGTC rules.

### TRS HOTS UP

Jann Mardenborough won the Denny Hulme Memorial Trophy feature race in New Zealand's Toyota Racing Series at Highlands Motorsport Park last weekend. The Welshman trails championship leader Martin Rump by just two points in the standings.

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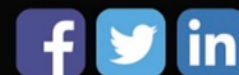
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# The Secret Driver

## Hidden truths from the paddock

Numerous pitfalls exist along the path to the top for young drivers and bad 'management' during career progression is one such hazard

**R**ecently I got asked: 'If I had the chance to retrace my footsteps from karting to Formula 1, how would I do it today? What formulas would I aim for?' For many young father-son partnerships this is the million-dollar question. In fact, I could see this particular individual waiting and hoping for me to deliver some magical advice, but in truth, I actually felt sorry for him and his son.

With the benefit of hindsight I am now very well informed, but surely there should be a structure in place today whereby the right advice is readily available to everyone, not just those with key contacts in the sport? Sadly there is no such structure so young drivers and their parents are still having to learn by their mistakes, wasting huge amounts of money in the process.

Motorsport is different to most other sports. It's not like football, rugby or cricket, which are easily accessible at a grass-roots level. Unless you have a parent who knows and understands the sport it's very difficult to progress past having an

world and delivering nothing. Chasing a dream can lead us, or those around us, to become blinkered and detached from reality. Staying grounded and realistic is very important when making career-defining decisions. Determining what is good advice and what is bad advice when you have no experience within the sport is tough.

Don't be scared to recognise that you know very little about what you're trying to achieve. That doesn't mean jumping into bed with the first timewaster who knocks on your door (and there will be many), but actually carefully researching who to speak to and why. Approach individuals who do not have a hidden agenda and so will offer impartial advice. Remember: there are only a handful of individuals capable of picking up the phone to an F1 team, and nine times out of 10 they will not be knocking on your door, you will be knocking on theirs.

This is why, personally, I'm not that keen on young drivers having managers, unless they have the necessary knowledge and communication skills to develop young talent. Performance development is an in-depth science but, sadly, this is not recognised by all in this side of the sport, which is precisely why national governing bodies should police the personnel offering their services in this area.

**“Learning is crucial to your development. The wrong environment is extremely detrimental”**

interest. Involvement is expensive and, should you be lucky enough to progress your hobby into being an owner/driver, the sport thereafter has little or no structure to follow, leaving you exposed to poor decision making. Couple this with there being no governance over the personnel allowed to work in the sport and suddenly you are very vulnerable to believing the wrong advice.

This leaves today's young hopefuls with a maze of opportunity and few clues about what move to make next. If this wasn't counter-productive enough, enter stage right 'The Driver Manager'.

Driver managers, or agents, as they are known in other sports, are individuals who are normally employed with the responsibility of being able to guide and advise young drivers and their parents in the right direction. Unfortunately this is not always the case. There are plenty of individuals offering bad advice and guidance, and, worryingly, making money out of promising the

I would much prefer seeing young drivers and their parents opting for a positive support network to help them manage the responsibility of good practice. The benefit of having a good support network for a young driver and his father is to obtain good advice. Certainly moving from karting to a single-seater environment can be quite tricky. You can't always trust the teams. Primarily they are looking after themselves, not necessarily the long term development of your career.

Learning is crucial to your development at the beginning of your career; not results. Your learning will be shaped by those you have teaching you, meaning the wrong environment will be extremely detrimental to your progression as a young driver.

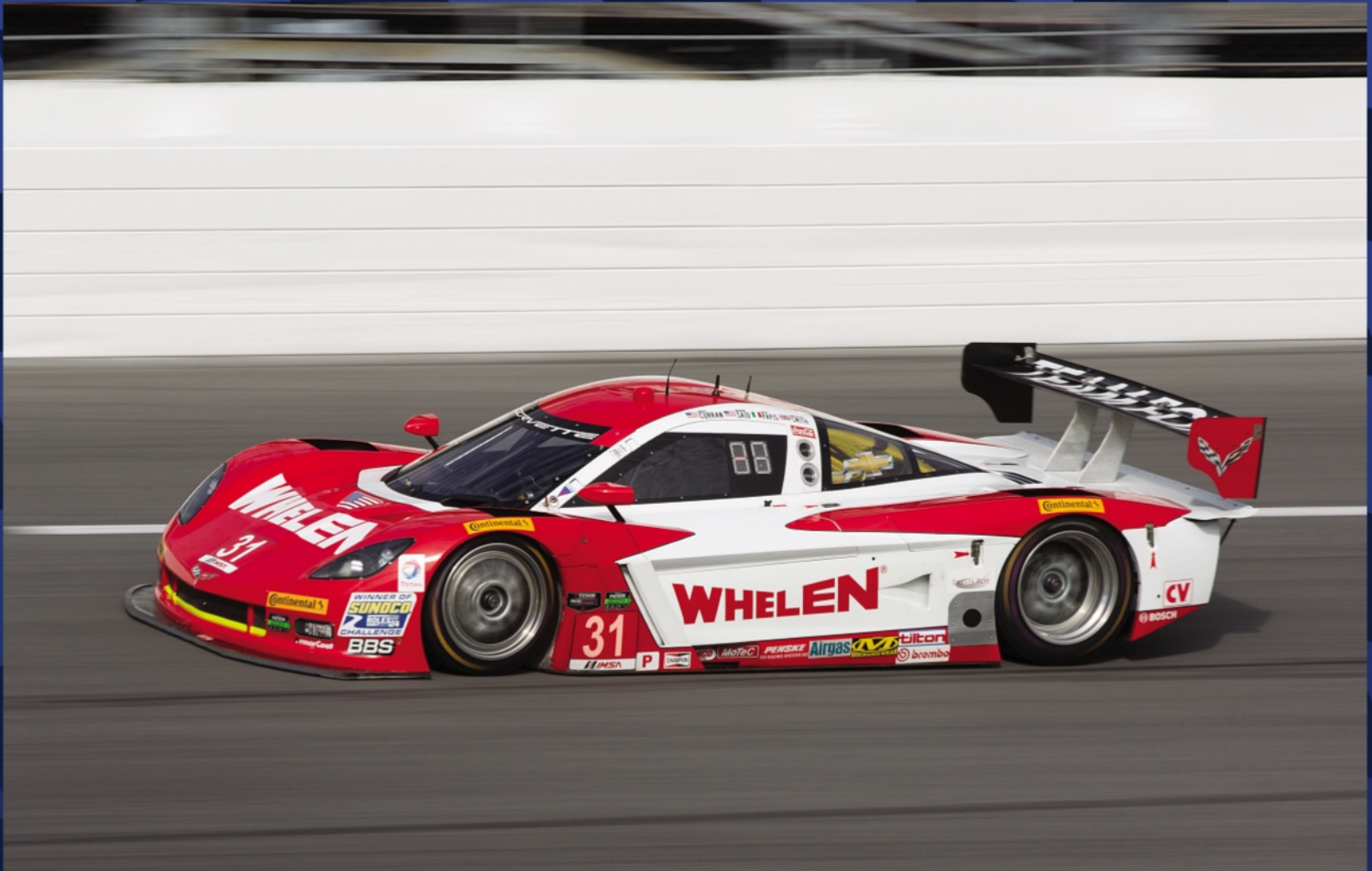
I hope in time that a structure will be put in place whereby the father-and-son-versus-the-world scenario no longer exists and good advice and clear progression becomes common practice. ❧





# What a w

## Challenge winners c



Bradley Smith proved himself as a worthy winner of the Sunoco Rolex 24 At Daytona Challenge showing great speed in the Marsh Racing run #31 Whelen Chevrolet Corvette Daytona Prototype. Bradley consistently matched the other team members (Eric Curran, Boris Said and Max Papis) lap times establishing that a winner of the Sunoco Daytona Challenge can cut it on the big stage. "The Rolex 24 is a fast and furious race where you can not relax for a second. I've had an amazing time and learnt loads, never overtaken so many race cars in my life and I'm totally exhausted. If someone gave me the chance to do this race again - yes definitely, definitely, yes, yes, yes!"

Finishing result 10th in class

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# weekend!

## ut it on the big stage



Lewis Plato, the 2014 Sunoco IMSA 200 Challenge winner, had a fantastic weekend racing the Mitchum run Sunoco Camaro with 2013 TransAm Champion Cameron Lawrence. They ran as high as third before multiple yellow flags saw them loose ground through pit stops. "Racing the Sunoco Camaro in the BMW Performance 200 is the most fantastic race I've ever done - wow! If I got the chance I would be back in a heartbeat"

Finishing result 20th overall



Photographs by Jakob Ebrey



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# The car they all must beat

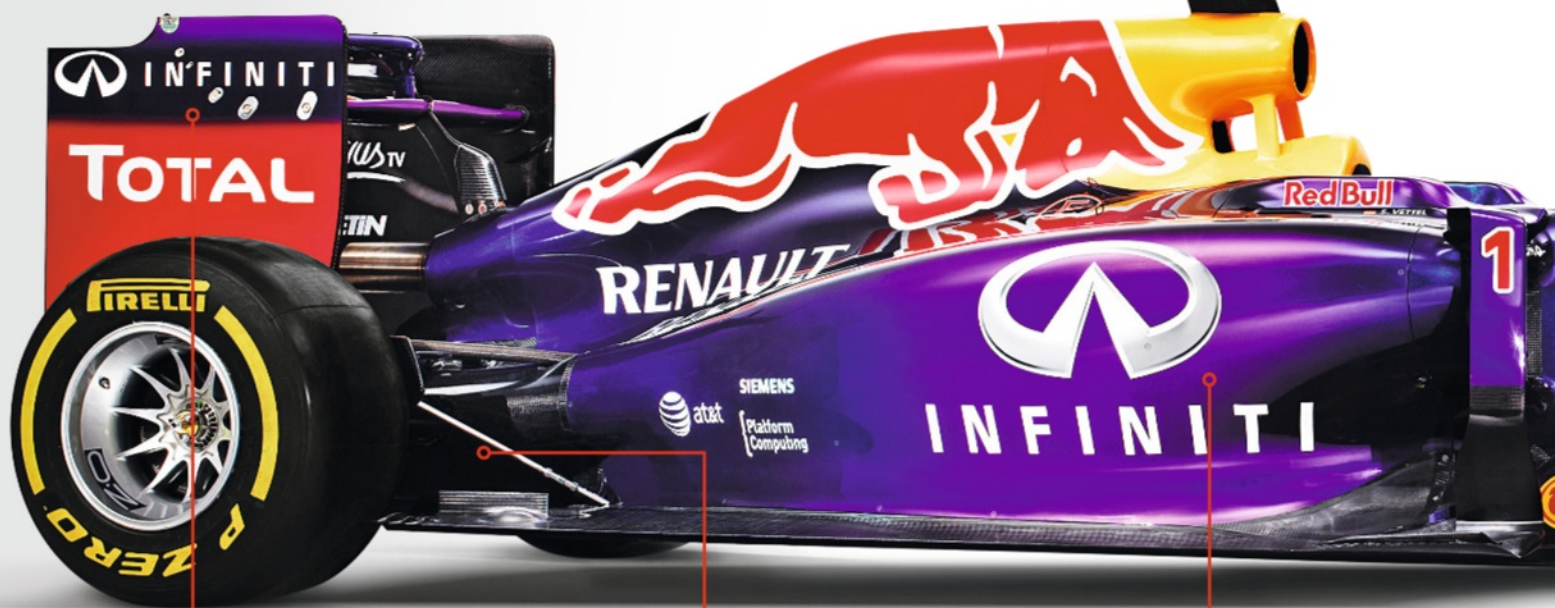
The huge raft of rule changes could derail the world champion team – or will Newey pull it off again? By **GARY ANDERSON**

## RED BULL-RENAULT RB10

Red Bull is the team everyone else is looking at nervously, to see if it has plumped for the same aerodynamic concepts. Unsurprisingly, the RB10's interpretation of the nose regulations is a little different to the opposition's – remember, this is the team that used the major rules change

in 2009 to leap from the midfield to the front.

While new-era F1 offers the rest a chance to steal a march on Red Bull, it also offers the team that has dominated for the past half-decade a chance to reassert itself, and Adrian Newey and his men to show exactly why they're so good.



### REAR WING

Red Bull has opted for a single, central support that comes forward of the exhaust-pipe outlet. This carries much of the load of the rear wing, stabilised with the endplates attached to the floor. The main plane is also shallower, as per the new regulations.



### SUSPENSION

The team has retained its pullrod rear suspension, as well as its front pushrods. This is logical as the team had a good grasp on tyres in the second half of last year, which aided its domination.



### SIDEPODS

Because of the extra cooling demands of the 2014 engines, the sidepod inlets are slightly larger than they were last year. The details around the leading edge of the sidepods and bargeboards is largely unchanged because the regulations governing that area are similar. There would be no reason to change that unless the nose was a failure.



“New regulations that force Adrian Newey to scratch his head are never good for the opposition. Why else do you think he doesn't have much hair?”

## ENGINE COVER

The airbox intake and engine cover are very tightly packaged. We're seeing round, triangular and oval shapes, but the round shape of the Red Bull is the best way of controlling the airflow. When the airbox 'blocks' and the air spills around the side, this gives a uniform flow, minimising the negative effect on the rear wing.



## ENGINE

Red Bull is running Renault's new 1.6-litre turbocharged V6 engine with 160bhp energy recovery systems. The car has been developed closely with Renault, meaning the team has had the chance to optimise the integration of the chassis and power unit.



## FRONT WING

The new rules have narrowed front wings by 150mm, so the desire to continue turning the airflow around the outside of the front wheels means the endplates are a little different. The front wing itself looks similar, with at least six elements at the outboard end. The more elements you have, the more potential there is to control the airflow-separation problems. That's what a racing car is about: consistent rather than peak, unstable downforce.



## NOSE

New regulations dictate that the height of the nose drops from a maximum of 550mm to 185mm this year, which is why there are some unusual designs on show. Teams still want to keep the nose as high as possible, and Red Bull has done this by having the top of the nose and the start of its crash structure 250mm above the reference plane. An aerodynamic 'pod' hangs down to comply with the rules, and I doubt this has much to do with passing the crash test. The nose itself is very narrow, which is a Red Bull trait, because airflow going around the corner of the nose doesn't just stay attached to the surface and you need as smooth a transition as possible to avoid separation.



# Finding Red Bull's weak spots

**One team has dominated Formula 1 for the past four years, but the new rules offer hope to the others. EDD STRAW highlights the potential pitfalls Red Bull must avoid to stay at the top**

**A**fter 47 wins, and four drivers' and constructors' championships each since 2009, Red Bull starts from a clean sheet of paper with its 2014 car. Just as the Milton Keynes squad capitalised on the major change in regulations in '09 to leap from the midfield to the front, its rivals will be hoping to steal a march on F1's dominant force this season.

Red Bull still has everything it needs to be at the front. It has a big budget, first-rate facilities and chief technical officer Adrian Newey. It remains arguably the best-run team on the grid.

But just as 2009 offered opportunities to take a leap forward, Red Bull's status as the pre-eminent team could unravel if it falls short in any area...

## ENGINE

Red Bull has *de facto* works status with Renault. The French marque won 60 of the 147 races held during the 2.4-litre V8 engine era – more than any other manufacturer – and 10 titles, so it would be a mistake to underestimate its skills. But with the new 1.6-litre turbocharged units, all bets are off as far as who has the best engine.

"It is possible that one manufacturer will do significantly better than the others, at which point you might end up with that manufacturer's

cars at the front of the grid," Newey has warned in the past. "You could end up with an engine manufacturers' championship."

While the car itself will still be important, given the complexity of the energy recovery systems in particular, it is possible that one manufacturer could have a significant advantage.

If Mercedes or Ferrari is well ahead of Renault, Red Bull will be in trouble.

## GEARBOX

Red Bull produces its own gearboxes and there are hints that it has struggled to produce a unit that can deal with the prodigious torque delivery of the new engine.

Given Newey's well-earned reputation for aggressive packaging, the new eight-speed 2014 gearboxes were always going to be a potential weak point. But the flipside of the coin is that if Red Bull can pull off an ultra-compact gearbox, it will allow more space to maximise the downforce produced at the rear of the car.

## CONCEPT

Newey has consistently referred to the 2009-13 Red Bulls as a family of cars with DNA traceable directly to the RB5 that allowed the team to claim its first win in China five years ago. By producing



**Hopes raised for rivals as Vettel falls asleep at the wheel**



**Can Vettel and team maintain title form?**

a car with fundamentally the best aerodynamic concept, even though it started life without the controversial double diffuser, Red Bull had the foundations needed to develop continually throughout the regulation cycle.

By contrast, its underachieving rivals often spoke of clean sheets of paper as they struggled to get back on level terms. There is no reason why Red Bull should not produce a design that sets the design tone for the coming rules, but Newey is not infallible (as the unraced McLaren MP4-18 of 2003 proves). If the concept isn't right, Red Bull could struggle.

## RELIABILITY

Red Bull's reliability record has not been perfect in recent years and, with cooling of the engine and ancillaries set to be critical this year, any shortcomings in this area could create problems.

Newey will, rightly, try to use as much of the airflow passing over the car to generate downforce and therefore performance, but there is a tension between that and the need





## RED BULL 2009-2013

<b>94</b>	<b>WINS</b>
<b>RACES</b>	<b>47</b>
<b>57</b>	<b>41</b>
<b>POLES</b>	<b>FASTEST LAPS</b>
<b>4 CONSTRUCTORS' CHAMPIONSHIPS</b>	

This will have allowed it to understand how to set up its car to get the best from the rubber. But if thermal-degradation struggles remain, the Pirellis could be a significant limiting factor to Red Bull, even if it produces the quickest car.

## DRIVERS

Sebastian Vettel can legitimately be called one of the all-time greats after his incredible achievements over the past four seasons. While some question his adaptability, he has excelled during the past six seasons in a wide variety of conditions. The way he got the most out of exhaust-blown downforce by tweaking his driving style suggests changing the way he drives to suit the demands of the car is not beyond him.

But there are bigger question marks over Daniel Ricciardo, who replaces the dependable Mark Webber this year. Ricciardo is capable of being stunningly quick, and put in some strong race drives for Toro Rosso last year, but will need to match the developmental contribution made by Webber, not to mention scoring points heavily and at least picking up the occasional win.

While not a completely unknown quantity, it remains to be seen how he adapts to life at Red Bull's A-team.

## STRATEGY

Red Bull has emerged as a strategic powerhouse in recent years, but it's much easier to do that when your car is the strongest in the field. The way in which energy recovery systems are used given the 100kg fuel limit in 2014, particularly the energy harvested from the turbo that can be deployed directly without limits, will be the key to success this season.

This will create a completely different set of challenges for Red Bull. And given the need to use fuel most efficiently, the team's favoured strategy of piling on the downforce and aiming to stay clear of attack may not work so well. More drag can also have a detrimental effect on fuel use. ❧

**'Red Bull has been a strategic powerhouse, but it's much easier to do that when your car is the strongest'**



to channel some of it for cooling.

While any such problems will be dealt with relatively quickly, there will be teams who are unable to complete the necessary running during pre-season testing to fully understand the best way to run the engines in race conditions. This means Red Bull could not only lose points in failing to finish races, but also through falling behind the learning curve early on.

## TYRES

Red Bull complained extensively about the characteristics of the high-degradation tyres early last season. The rubber certainly shrouded the potential of the RB9 and, after its complaints fell on deaf ears, the team lucked in when a series of tyre failures at Silverstone forced Pirelli to change the construction of its rubber.

This year's Pirellis are expected to be more conservative and Red Bull will have gathered significant data from last December's tyre test in Bahrain, which Ferrari, Mercedes and Toro Rosso also attended.

COATES/LAT



# Time to take on the big boys

This is Force India's big opportunity to break free from the midfield and claim some big scalps. By **GARY ANDERSON**

## FORCE INDIA-MERCEDES VJM07

It really is time for Force India to move up a slot in the championship having finished sixth or seventh in each of the past four seasons. The car is a good package designed for reliability and that's vital for the smaller teams, because there will be big points on offer early on in the campaign.

Granted, Red Bull, Ferrari, Mercedes and

McLaren should be ahead, but there are question marks over Lotus, which missed Jerez, so now is the time to take the bull by the horns and break into the top five. Thanks to its alliances with Mercedes and McLaren, there is no reason why not because the difference in size of the teams isn't as big as it looks, given it is buying in so much kit.

### SECONDARY INTAKE

The sidepod inlets are similar in size to last year and this is because there is a secondary intake behind the main airbox inlet. Any airflow used for cooling can't be used to produce downforce, so this intake high on the car is feeding some of the cooling demand, allowing more of the airflow around the leading edge of the sidepods to be used to create downforce.

### REAR WING

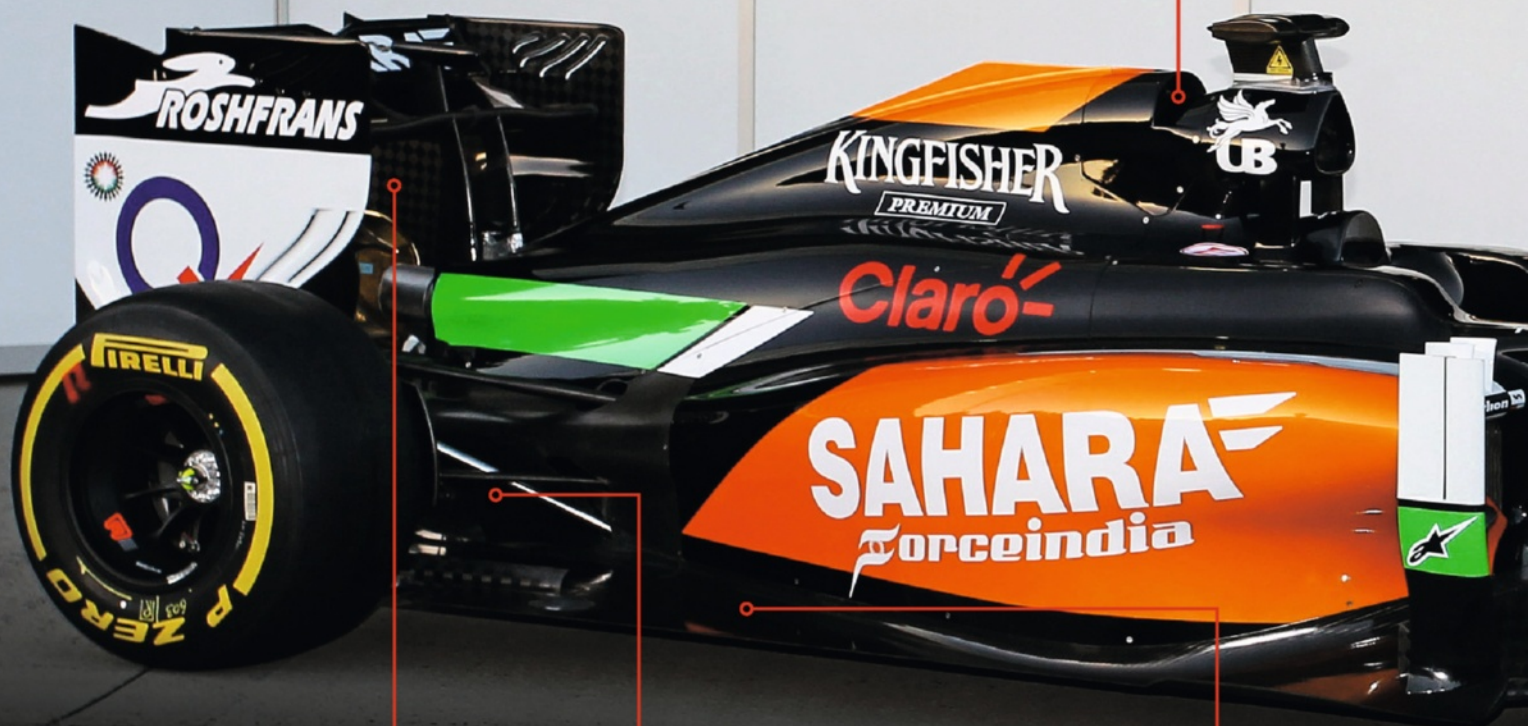
The rear wing is mounted on two central pillars, one each side of the exhaust pipe, where there is a small monkey seat. This is made to work harder by the high-speed exhaust gas emerging from the tailpipe. With the electric motor on the turbo you can run high turbo speeds, even during braking, which will create exhaust gasflow and downforce.

### GEARBOX

The team has switched from a McLaren to a Mercedes gearbox. As it takes the complete unit, it is committed to the Mercedes rear suspension geometry, apart from what can be influenced by its own upright assembly. This does limit the potential but saves a major design and manufacturing process.

### COKE BOTTLE

The Coke bottle on F1 cars has been compromised by the need to harness exhaust blowing to generate downforce. Now that the exhausts have moved, teams are returning to a more aesthetically pleasing Coke-bottle area with the rear sculpted to make up for some of the downforce that has been lost.





"Now is the time to reap the rewards of stopping development early last year to focus on 2014"

## FRONT WING

A lot of work has been done in this area. The front wing is much more complicated with more turning vanes on the upper surface to turn the air around the front wheels. Also, the front-wing endplates have more vertical turning vanes to try to achieve this. Force India is the first team to make a reasonable commitment in developing to adapt to the narrower front wings with a very different package.



## NOSE

It has opted for the anteater style nose, which after seeing the Mercedes and Red Bull solutions is starting to look like it's not the best approach to tackling the problems posed by the rules. Also, the nose itself is very square on the corners, so when you get airflow going around those corners, which will inevitably happen with the upper nose profile, you can very easily get separation problems. Red Bull, by comparison, is much more rounded. I'm sure there will be developments in this area.





# F1's most likely giantkiller

**Force India has punched above its weight in recent years. With 2014's major rules change, returnee Nico Hulkenberg is the perfect man to take on the big guns, reckons EDD STRAW**

**C**an anyone at Force India believe their luck? The Silverstone-based team is a strong midfield operation with lofty ambitions, but a squad at that level would traditionally only have a genuine top-line driver on its books while it's on the way up.

With Force India having lost Nico Hulkenberg at the end of 2012, most will have assumed that was the last it would see of the German. But circumstances — namely Ferrari's decision to re-sign Kimi Raikkonen, McLaren's fears over his 1m84cm frame and Lotus's need to bring in PDVSA backing and therefore Pastor Maldonado — have allowed the return of the 26-year-old, whose performances Fernando Alonso has described as "superb", to the fold.

There's no secret that it's a marriage of convenience on Hulkenberg's side and opportunism on Force India's. Nobody would pass up a Ferrari seat for one with Force India and the vagaries of the driver market are responsible for Hulkenberg washing up back at his old team. Strange how things work out...

"Yes and no," says Hulkenberg when asked if it's a surprise to be preparing for a new season

back at his old team. "Sometimes things don't go to expectation and life has a different route prepared for you. Then it's a matter of adapting and going forward with the situation. I'm certainly happy and comfortable with the position I'm in at the moment.

"Force India is well established now and we have high aims for this year. But it's difficult to be more concrete. With all of the rule changes, it's impossible to define a proper target."

## OPERATING AT HIS PEAK

Hulkenberg returns to Force India a better driver. Or rather, an even better driver. His 2012 season was very strong, particularly in the second half of the year, but at Sauber last term he put together what he rates as his best campaign. In the first half of 2013, it was easy to dismiss him as struggling, but given the quality of the machinery at his disposal Hulkenberg was doing an excellent job to drag it to occasional points finishes.

Once Sauber was able to put on a major upgrade in Hungary, things improved dramatically: fifth at Monza; fourth in the Korean GP; sixth in Japan and the USA. All were outstanding results close to, or at, the

**Back with team boss Vijay Mallya**





“There is always stuff to improve and learn. It’s a continuous work in progress but I feel that I’m ready to deliver the next step – and the big step” NICO HULKENBERG



maximum of the potential of the machinery. These performances show exactly why Force India should be very happy to have him back.

“I think 2013 was my best year,” says Hulkenberg. “Looking at the first to the last race, I was quite happy with the way I was performing. I was very consistently close to my maximum and very often we matched the maximum of the car, or even got out a bit more.

“I’m confident that I’m capable of winning races and doing a good job over an entire season consistently. You saw that last year, but there is always stuff to improve and learn. It’s a continuous work in progress but I feel that I’m ready to deliver the next step – and the big step.”

The big step, of course, is winning races and challenging for world championships.

There is little doubt that Hulkenberg is capable of doing that, even though he has yet to stand on the podium.

The only problem is that he isn’t in the obvious place to be able to achieve such results. With due respect to Force India, he should be lining up for one of F1’s biggest teams.

Unfortunately he isn’t. Some would wallow in self-pity or complain about their lot – there are plenty of drivers at all levels who opt for that route – but as Jackie Stewart is so fond of explaining, mind management matters in sport, doubly so in motor racing. Hulkenberg not only talks a good game when it comes to compartmentalising the disappointment of not being with a top team, but the way in which he conducts himself shows he buys into it too.

“I’m not thinking about that at the moment,” he says, drawing a line under any frustration he feels. “It was a couple of months back, last year, and we have to get on with life. I’m happy with where I am, it’s an exciting time and that’s where the main focus is at the moment.”

Although Hulkenberg has been away for 12 months, Force India does at least partly offer the stability he has lacked in recent seasons. His move to Sauber ultimately did not pay off. At the ▶





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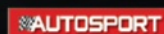
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Hulkenberg led 2012 Brazilian GP, his last start for Force India

► time it made sense: he was moving into a team with a close alliance with Ferrari and came very close to being picked up by the Scuderia. At the time he signed his option with the Swiss squad, he would move on if Force India failed to be in the top six of the constructors' championship at the allotted time. Sauber was getting better results at the time too.

### IN THE TOP TEAMS' WAITING ROOM

The move did allow him to catch the eye in the second half of the year, but chances are he would have had similar opportunities with Force India earlier in the season. You wouldn't blame him for having half an eye on a move to a top team given that the collective myopia of the big guns will eventually clear and recognise that, yes, Hulkenberg is a driver who belongs among the Vettels and Alonsos. But after being forced out of Williams, spending two years at Force India – first as reserve and then as race driver – then moving to Sauber and back, there is some appeal to building a consistent platform to build from.

"There's an element of that with moving around," he says of whether bouncing around the midfield teams has been a hindrance. "It would be good for me to settle in somewhere and have that kind of stability because I haven't had that so far in F1. But some careers are like this and mine seems to involve more changing!"

He certainly has reason to be happier at Force India than at Sauber. There were difficulties between the team and driver in 2013, partly because Hulkenberg is, like all top drivers must be, someone who likes to try to drive a squad forward. His attitude was questioned to the point where Sauber, astonishingly, might well have discarded him even if they had a completely free choice of drivers.

Force India has created a situation where Hulkenberg is committed for more than just a one-year appointment (except in the case of a significant buy-out from a big team) and, to his

**"It would be good for me to settle in somewhere and have that kind of stability because I haven't had that so far in F1"**

NICO HULKENBERG

credit, the German is hopeful that his new-old team can work its way up the grid.

"That's the idea," he says. "Since Vijay [Mallya, team principal] took on the team he has been really passionate about it and worked hard to push the team forward. Everyone here is trying to take the next step. It's not easy, because there are a lot of good, established teams at the front with big budgets. But Force India has been very effective if you look at what they made of the budget and we'll try to continue this trend."

"Since I was last here, the team has grown, the infrastructure is better and there are more people working here. They have modified the factory quite a bit, restructured, so it's a really positive sign that things are taken seriously and they're setting it up to take it to the next level."

Realistically, Force India needs circumstances on its side to rise above the sixth place it claimed in the constructors' championship in 2013. But in Hulkenberg, it has a driver who will drag the absolute maximum out of the machinery.

When you have someone like that in the team, you know that you are going racing very seriously. 🏎️

## THE BIG TEAMS: WHY HULKENBERG HASN'T BEEN PICKED UP

We know what you're thinking. If Nico Hulkenberg is as good as AUTOSPORT keeps claiming, why hasn't he been signed by one of the big teams? Like a house in an estate agent's window that looks to be a bargain but has been on the market for 12 months, there must be something wrong, surely...

The conclusion that something is amiss is correct, but not in the way you might think: Hulkenberg being stranded with a mid-size team is a consequence of a spectacular lack of imagination from the leading teams.

McLaren should have signed him for 2013, but opted for Sergio Perez. The Mexican is a decent driver, but his performance relative to Hulkenberg at Force India this year will prove to even the biggest sceptics that the German is the better performer. To sign him for this year in place of Perez would have been an admission of error, surely more significant than the extra 10cm of height he has over Kevin Magnussen, who has deservedly graduated to F1 this year.

Ferrari understandably went for the proven quantity of Kimi Raikkonen, even though he is a more costly option who is unlikely to be more effective, while Red Bull already has a proven German superstar in Sebastian Vettel and, logically, opted for Daniel Ricciardo from its own stable.

As for Lotus, team principal Eric Boullier – one of F1's better talent spotters – recognised Hulkenberg's ability, but had to secure the future of the team by taking Williams refugee Pastor Maldonado to partner Romain Grosjean.

Combine those factors with questionable management in the past, in a sport full of teams that seem overly responsive to pushy agents, and you can see exactly why Hulkenberg is where he is in 2014.

Pressing on with Sauber in 2013



CORTES/LAT



# Sauber on a sound footing

The team has played it safe with the C33, which could help its drivers Sutil and Gutierrez score well, says **GARY ANDERSON**

## SAUBER-FERRARI C33

The new Sauber is a good, conservative design with nothing on it that raises concerns so there's no reason why the team can't build on its success in the second half of 2013. Provided, of course, the Ferrari engine is up to it.

It's what we've come to expect from Sauber:

a very sensible car, ideal for providing a good platform to build from. Any small team needs to have a good, reliable package from the start and with the experienced Adrian Sutil and improving Esteban Gutierrez, there's a chance early in the season to score good points.

### EXHAUST TAILPIPE

As per the 2014 regulations, the exhaust exits at the rear of the car at a set height. Chances are, Ferrari has decided it wants a bigger diameter tailpipe, perhaps 120-130mm, which is why the rear wing supports might be curved around it.

### COKE BOTTLE

This is a neat and tidy design. There are some winglets on the floor and a couple of splitters. Everyone aims to bring as decent a velocity of airflow over the top of the floor as possible to help the brake ducts now that the exhaust gas isn't there to blow them.

### REAR WING

Sauber has curved its rear-wing pillars, apparently around the exhaust exit. The rules dictate that the supports can be no more than 150mm apart above a certain height, so this is why there is the curve rather than simply placing the pillars further apart. Also, the further apart the pillars are the worse it is aerodynamically.

### SIDEPODS

Last year's Sauber featured narrow sidepods and the cooling demands of the new engines mean that they appear to have gone wider again even though the detailing is similar. The narrow sidepod didn't offer much of a benefit last year because it reduces available surface area and therefore the potential to generate more downforce.



"A neat and tidy, well-thought-out and characteristically low-risk package from Sauber"

## ROLLBAR STRUCTURE

The rollbar structure is much more open. The air comes off the top of the driver's head and you want to get it to attach to the engine cover in order to separate the airbox inlet from the driver's head.

## FRONT WING

The launch-spec front-wing endplate design is an adapted version of last year's, despite the fact the front wing itself is 150mm narrower. It will be sensitive to circuit characteristics so to understand how it works with steering lock and rideheight, you need to do some running. Expect major developments in that area. The biggest factor will be the steering lock, because it will take a bigger angle before the airflow clears the front wing.

## RADIATOR INLETS

These are big and rectangular. Small teams always want to start in a conservative direction with cooling because it's easier to overcool and work backwards than to increase cooling if you are in trouble.

## NOSE

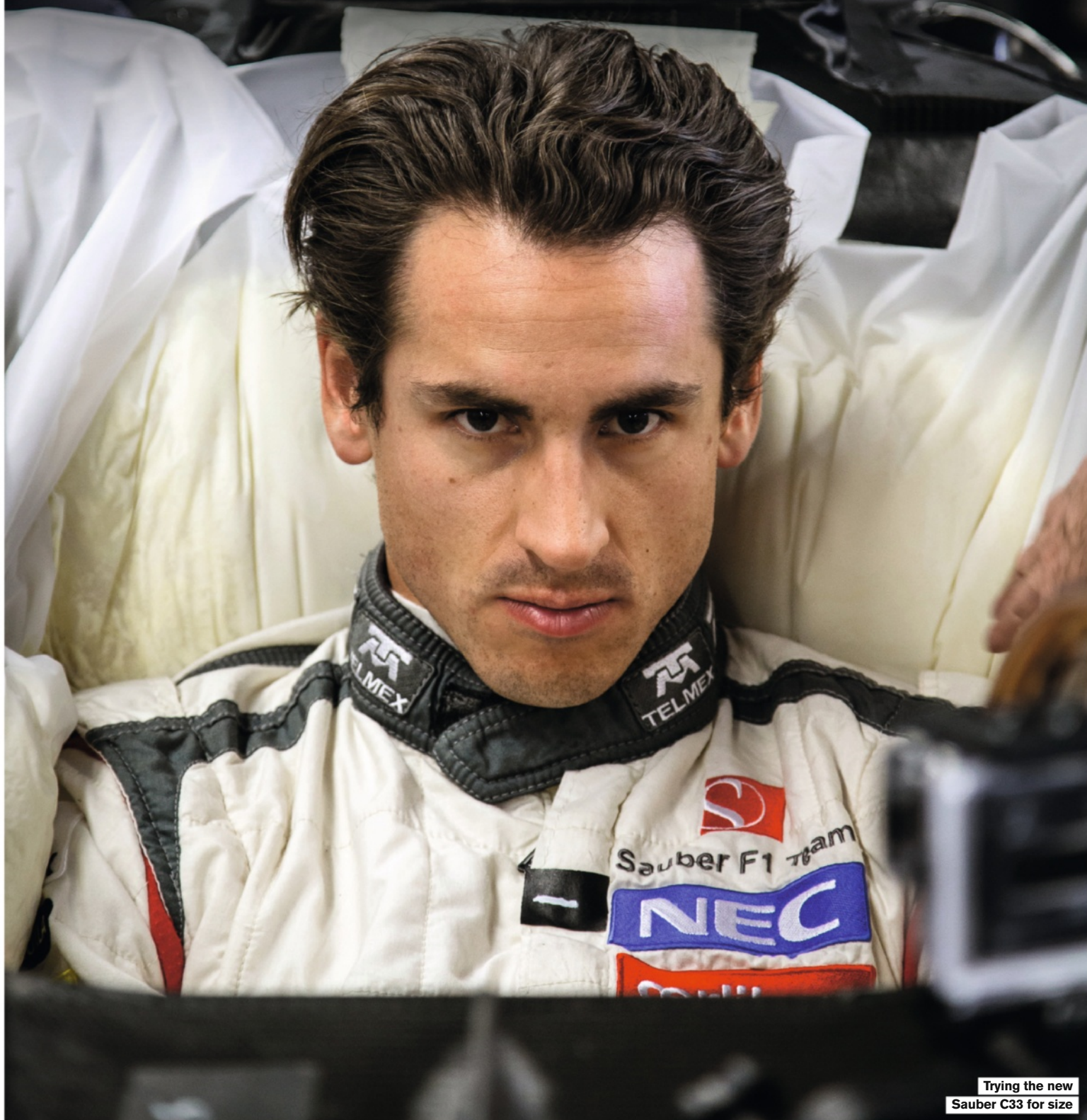
Sauber's is one of the more pleasant designs because it features a main central structure, like an elephant's trunk. The mounting of the nose and the wing fairings seem more of a well-thought-out solution to the problem rather than a lash-up. It's more integrated than some others. The team has raised the nose to get more air between the pillars and the elephant's trunk to get more air under the car. The pillars are more rearwards as well.





# Sutil's Sauber shift

The most uninspired driver move of the season or a seismic shift in the midfield? **MATT BEER** asks Adrian Sutil if he can make Sauber shine



Trying the new  
Sauber C33 for size



**W**hen the music stopped on Formula 1's tortuous 2013-14 silly season, precisely half the driver/team combinations had changed. Yet the break-up of the field's second-longest-running partnership, as a seasoned racer quit for his team's closest rival, attracted scant attention.

F1's vocally fervent social-media fanbase gives an easy snapshot of a driver's public allure, and Adrian Sutil's move to Sauber caused few pulses to race or spines to tingle. And perhaps that's unfair. Sauber's persona oscillates between anonymous midfielder and the bold convention breaker that plucked Kimi Raikkonen from Formula Renault, threw Kamui Kobayashi a lifeline and appointed F1's first female team boss. Similarly, Sutil has had his moments in the underdog limelight, and his low-key reputation belies a passionate appreciation of racing – someone who phoned Porsche up with a wish-list of classic 1970s Le Mans cars to drive at Goodwood, and who mentions Sauber's four decades of motorsport history as an attraction.

His relationship with the team currently known as Force India lasted 112 grands prix, beginning with three genuinely eye-catching 2006 practice outings with what was then Midland before his 109 starts with the team, initially under the name Spyker. Recent years were spent solidly on the fringe of the top 10, but back in 2006 "they were absolutely at the back of the field with no chance" in Sutil's words.

His utter anguish in Monaco in 2008 when taken out of fourth by Kimi Raikkonen's Ferrari viscerally expressed a fear that the one big opportunity of his F1 life might have been rammed away. His excellent low-grip sensitivity had helped him thrive in the damp then, just as it had when he set the pace for Spyker in practice a year earlier.

After so many years of going to work at Silverstone, it's little surprise that Sutil's mental switch to being a Sauber man isn't quite complete. In his conversation with AUTOSPORT, Force India often becomes "we" while Sauber remains, for now, always "they". But he doesn't expect to be an outsider for long, citing Hinwil's close-to-home location and German being the team's primary language as major factors in his choice – and it was, he politely



**"In Bahrain with my race pace I almost could have won. We gave away a lot of points"** ADRIAN SUTIL

emphasises, entirely his own choice.

"I was actually speaking to Sauber in February 2012 – that's when Monisha Kaltenborn called me when I had no drive and she said she wanted to talk about 2013. So we were in contact for a while.

"Last year it was nice to come back into the sport with a team I knew. Now it's very exciting to have a new challenge. I was a Force India driver for so many years. There's a time in your life when you need a step, to move somewhere else, experience something new. I felt last year that it was about time.

"When they announced [Sergio] Perez, it was already decided with Sauber."

He had taken a similarly measured approach to his 2013 comeback. Pitched against Jules Bianchi in a testing shoot-out for the Force India seat, Sutil emerged from the cockpit at the end of his audition day with the sanguine air of a man who knew he had done his utmost and was comfortable with leaving the rest to fate. Those broadened horizons showed in his driving once back on the grid too.

"The start of the season was very nice," he says. "The car was good and, even with a lack of experience from my year of not driving, I went to the first race and led for 11 laps – I'd never done that before. I was in good shape, relaxed and didn't expect much, and sometimes it's good to just drive without too much in your mind.

"I got better over the season, but the car got slower. If you could choose, you'd probably want to start a bit slower at the beginning and end up strong. The opposite way is always more difficult mentally. It was a shame that for four races I had zero points due to pitstop problems – I think that's where we lost our position against McLaren. In Bahrain [where he punctured early on] with my race pace I almost could have won. The car was very, very fast. We gave away a lot of points. It could have been an exceptional season for Force India."

Even so, it still outscores his 2014 squad by 20 points. Yet Sauber's '13 campaign was a slow-burner that blazed once the team came to understand its design properly. In the second half of the year, the scores were Force India 18, Sauber 50. And while Force India switched focus to 2014

## WHAT'S IN A NUMBER?

Picking #99 puts Sutil at the foot of Formula 1's entry list – and that suits this vociferous supporter of the permanent-number system just fine.

"I like to go in different ways; I'm not scared of it," he says. "I was sure no one else would think about choosing #99. I can say I'm going for the max!

"I think you can learn from NASCAR. You can do better marketing of yourself as a person and a race driver if you have a number as a reference."

For IndyCar fans, the #99 is synonymous with the late Greg Moore (below with Juan Pablo Montoya), a fact Sutil is thrilled to discover.

"Wow, that's wonderful," he says. "Greg Moore was definitely a driver I looked up to when I was young – he was a great driver. It shows that some really nice stories about numbers will come up."



## MOST F1 STARTS WITHOUT A PODIUM

If a top-three finish eludes Sutil between now and the Hungarian GP, he'll break the record for the most F1 starts without a podium.

1	Pierluigi Martini	119
2=	Adrian Sutil	109
2=	Philippe Alliot	109
4	Pedro Diniz	98
5	Ukyo Katayama	94
6=	Marc Surer	82
6=	Jonathan Palmer	82
8	Vitantonio Liuzzi	80
9	Piercarlo Ghinzani	75
10	Satoru Nakajima	74

early, Sutil reckons Sauber balanced dual-development programmes admirably, and is "not so far behind" despite its rivals' headstart.

Sutil's Sauber forerunners Nico Hulkenberg, Perez and Kobayashi were all men on the rise, their ultimate potential then an untapped unknown. Eight years on from his F1 arrival, it's fair to say the paddock knows where Sutil stands. No one will lament that he is a world champion lost if he never gets into a bigger team. But some will feel he had a grand prix win or two in him.

Sauber knows it has signed someone dependable, quick, experienced and wise. Setting Twitter hearts fluttering wasn't on its list of requirements. 🏎️



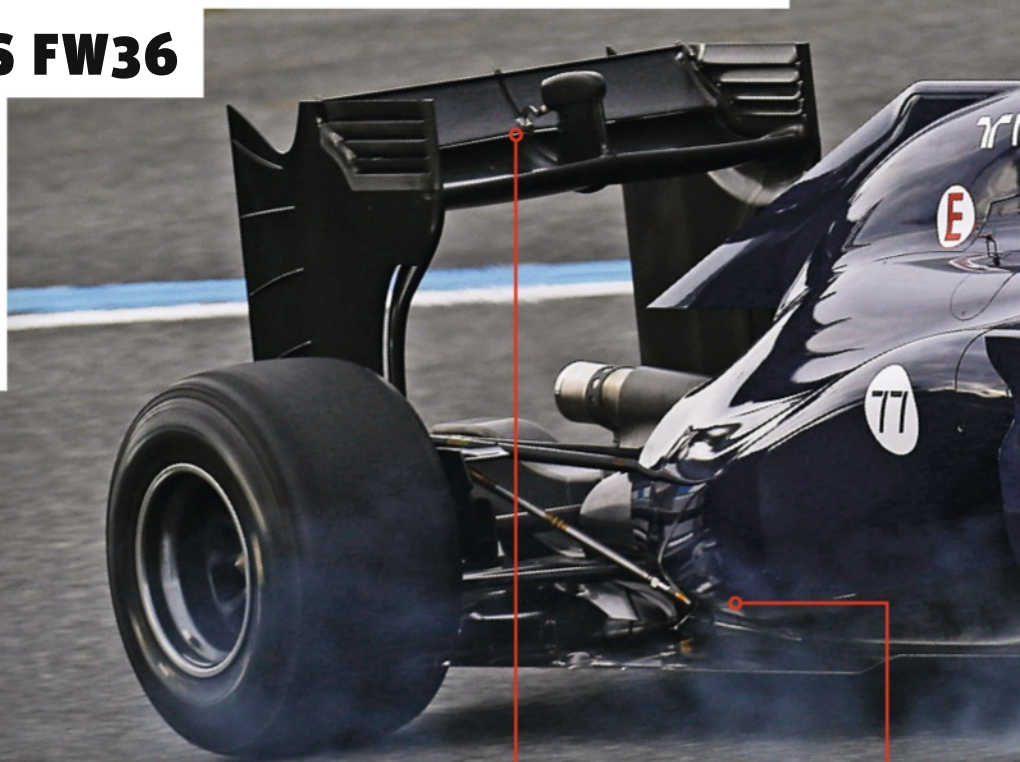
# Big gain required after struggles

The sleeping giant has toiled to reawaken despite flash-in-the-pan Spanish Grand Prix victory in 2012. By **GARY ANDERSON**

## WILLIAMS-MERCEDES FW36

Williams underachieved in 2013 and after making major changes to the team structure, notably bringing in Pat Symonds as chief technical officer, a big step forward is expected for a team that has the resources to at least be consistently scoring points.

Pat has a huge amount of experience in winning with both Michael Schumacher and Fernando Alonso at Enstone (as Benetton and then Renault) and he's without doubt one of the guys in the pitlane who you would like on your side if possible.



### REAR WING

This is endplate-mounted onto the floor so as not to have the support pillars in the central section. The Williams is relatively clean in terms of the monkey-seat area, but I'm sure we will see that soon because it's very beneficial for the stability of the car.

### COKE BOTTLE

This is a treatment you would expect to maximise the downforce produced now that the exhausts have been moved. The cooling exits at the back of the sidepods are just at the leading edge of the rear tyre and this is because this is the first place where the regulations allow you a hole in the bodywork. But having them in this position can cause a problem with the airflow to the centre of the diffuser. Other teams exit the hot air out of the centre of the engine cover around the exhaust pipe as this is the most benign area.

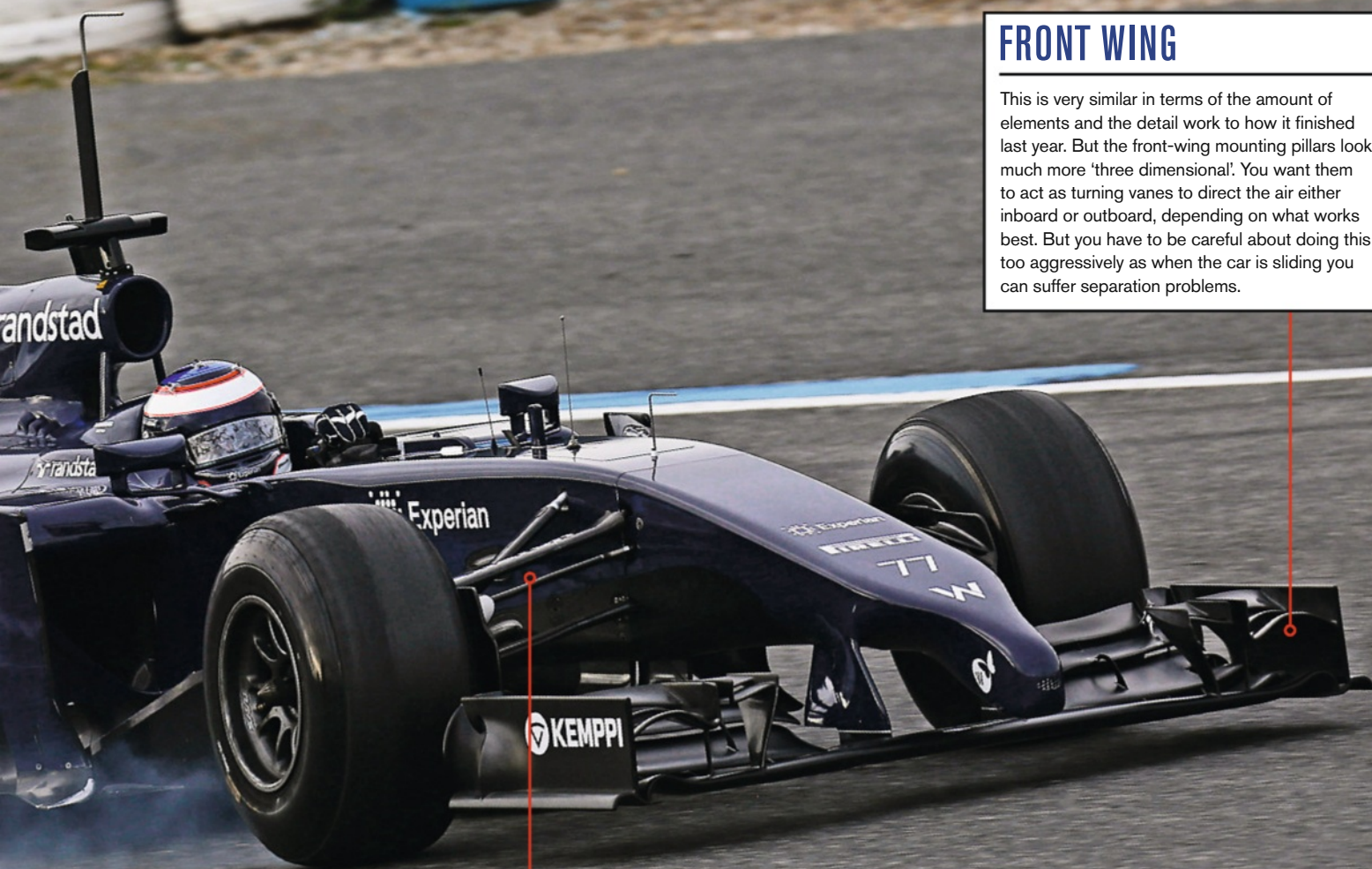




“I’ve seen better interpretations of the anteater nose than Williams. It appears to be a basic launch-spec car”

## FRONT WING

This is very similar in terms of the amount of elements and the detail work to how it finished last year. But the front-wing mounting pillars look much more ‘three dimensional’. You want them to act as turning vanes to direct the air either inboard or outboard, depending on what works best. But you have to be careful about doing this too aggressively as when the car is sliding you can suffer separation problems.



## FRONT SUSPENSION

Pushrod-operated front suspension is carried over from last year. The wishbones have quite a lot of angle on them where they join the chassis, which is a question mark for tyre performance.



## NOSE

The anteater style nose is probably the most basic we’ve seen so far. The nose is longer so the height of its main section looks a lot lower than others. The square edges on the nose will make it difficult to keep airflow attached, which can hurt the car.

## ENGINE

Williams’s switch from Renault to Mercedes engines creates a bit of a learning curve as far as cooling is concerned because not every unit’s heat-rejection requirements are comparable. That’s why the FW36 has conservative inlets in the sidepods for cooling.





# Bottas: making a name for himself

**As an F1 rookie, Valtteri Bottas was one of the hidden gems of 2013, with his performances in a poor car earning him a place in AUTOSPORT's top 10 F1 drivers.**

**EDD STRAW** asked him about his development, hopes for 2014 – and the number 77

**Last year wasn't the rookie season you would have dreamed of, given how uncompetitive the car was. How satisfied were you with the progress you made in 2013?**

I'm quite happy with it. You can never be too satisfied because I'm very keen to get better. But as a rookie season, looking at the results compared to the car we had, I can be happy – although I still feel that there is more to come.

**Does it make any difference going into this season with points on the board after that strong run to eighth at Austin?**

Yes, it was very nice to have those points. So I know that if the pace is there I can score points and it's quite straightforward. It's nice to go into this season with those first points taken.

**What are your main areas to improve?**

I can't point out any specific problem areas – it's just everything. This season especially, there will be a lot of new things and dealing with those – the engine, how the cars behave, completely new tyres – will be important.

**You talked about the need to be more aggressive at times during the second half of last year. Is there going to be a change of mindset now you have a year's experience?**

At the end of last season, I found the right level

of aggression so I'm not giving too much thought to that. It all comes logically from calculating the risks, as you don't want to get overtaken and you need to go forward. The Austin race was a good example, with the right level of being aggressive but still bringing the car home.

**Felipe Massa is a hugely experienced team-mate. What do you hope to learn from him, and will it better to have him alongside you than Pastor Maldonado?**

Yes, there's the possibility I can maybe learn more from Felipe. And as a reference, Felipe is very good because he has spent so many years in F1 and everyone knows what he's capable of. It's a great challenge for me and together we can push the team forward.

**Everybody is talking about Felipe as the team's lead driver, but given your form last year you must go into 2014 expecting to beat him...**

I don't see Felipe as the lead driver. We are both in an equal position and my goal is to be quicker than my team-mate so I'm not going to be in the background. I will be pushing very hard. He seems like a very neutral guy and he is at Williams to do his best and give everything to the team.

**You remained upbeat throughout last year despite the difficulties. Williams has struggled**

**more than it has succeeded in the past decade, so why are you so confident that the team is on an upward curve going into this season?**

The rule changes; the new engines, no more blowing exhaust, the aero regulations, many new people joining in the aerodynamic department and also new engineers. The feeling at the factory is very good and everyone is pushing very hard. You can never promise anything about how good the car is until you see how it performs and how the updates work, but I really have a good feeling that this season is going to be better than last year. By how much, we will see.

**After one season with poor results because of the car, is it important for your standing in the sport to be getting regular top-10 finishes and establishing yourself in everyone's minds as a serious F1 driver?**

Yes, every season in F1 is very important. Last year was my first year and in a difficult car. If this year's car is quicker I am aiming for much better results. If the car is competitive, there is always a better chance to shine.

**You are the 'second' Finn on the grid, so does it help to have everyone in Finland focused on Kimi Raikkonen rather than piling unrealistic expectations upon you?**

It's always the case. I just do my best to get the results. It's nice to have the support from Finland but it really doesn't matter whether there's another Finn or not. The Finns support both of us.

**Over the past year you've built up a following for your brand and you've chosen #77 to fit in with a variation of your name – BO77AS – so are we going to see you develop that through the year?**

Let's hope so. I really like the number 7 and I thought 'why not make it double seven?' because it fits in with Bottas quite well. Hopefully I can take that number to some high positions.

**Hopes are high at Williams for this year because of the new rules, new tech boss Pat Symonds coming in, the arrival of Mercedes... What's the vibe like at Williams?**

Everything is well timed but at the same time everyone is working very hard. There have been a lot of engineering meetings in the run-up to the first test at Jerez and they're hard at work building the car, but it's nice to know everything is going to plan. There's a positive feeling and

New team-mates:  
Bottas chases Massa



BATCHelor/XPB





there have been no big issues with the car. We just need to see how it goes on the track then develop from there.

**If the car does perform well, do you believe you are ready to compete regularly with the top drivers?**

Yes, definitely. I'm ready to compete with anyone at the front and the quicker the car, the better it will be. That's why I'm in Formula 1, not just to drive around but to fight for the best positions, and I'm ready now I have one full season behind me and so much support from the team. I am ready to go. ►

**"It's nice to have the support from Finland but it really doesn't matter if there's another Finn or not"**







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# “He tells me that when he kartered as a boy he loved going out on slick tyres when it was raining”

Valtteri Bottas's engineer tells **EDD STRAW** the secret to the speed of last year's star rookie

**V**altteri Bottas's astonishing third place on the grid for last year's Canadian Grand Prix was achieved at the wheel of the uncompetitive Williams-Renault FW35. The karting anecdote in the headline above comes from Jonathan Eddolls, the Finn's race engineer during 2013 and who will continue to work with him this year. The watching world saw only occasional glimpses of Bottas's quality in 2013 thanks to the team struggling in the lower reaches of the grid, but Eddolls had a warts-and-all look at the Finn's progress.

It's obvious that race engineers will talk up their charges, but they also have a unique insight into the qualities of the drivers they are working with. Above all, what stands out about Bottas is not his pace – that's a given – but his approach. Last year he was stuck with a poor car, but while others would have risked burying their F1 careers with performances to match the machinery, Bottas never wavered in his effort and could be relied upon to bring the car home in about as good a position as might have been expected.

“He finished every single race, bar Budapest because the car broke down,” says Eddolls. “That's one of his strengths. There is never a weekend where he is not 100 per cent motivated, and that motivated everyone else.”

That qualifying performance in Canada was his standout moment. While his eighth place at Austin was impressive, a scruffy Q3 lap cost him an even better grid position. Then again, that was perhaps a consequence of laying it on the line on a very low-grip track that gave him a chance to shine. But in the wet of Montreal, he flew.

In the race he didn't allow his lofty starting position to throw him

in what was only his seventh grand prix start. He finished a lapped 14th, but the maturity needed to accept that this was his fate reflects a steely character.

“We were under no illusions that we weren't going to struggle in the race,” says Eddolls. “We had a car that was well out of position in the dry, probably the ninth quickest. He had some good battles in those early laps, keeping it clean and showing his maturity. He just tried to get the best result he could.”

The contrast between Bottas and his 2013 team-mate, Pastor Maldonado, was stark. Both were capable of being very quick, but it was the Finn who had comfortably the better season thanks to his

more-rounded approach. The differences between Bottas's constructive approach and Maldonado's increasingly vocal complaints did not go unnoticed inside the team.

“He shows in qualifying that he really has got the pace and he is a very strong racer,” says Eddolls. “He is a much calmer driver and that mentality that he brings to the working environment he brings to the car as well. You don't see big snaps or massive wheelspins.”

“He learned very quickly with the tyres. We knew that was one area we needed to work on. But after a couple of long runs in testing, he knew how to do it. He's very good at looking at the data with us, he

understands what he's looking at and, when you're talking about things, he's on the same wavelength and knows exactly what you mean. He goes out and you can see the change of driving style in the data.”

The acid test for Bottas will be how he stacks up to new team-mate Felipe Massa. The ex-Ferrari man is vastly experienced and capable of being quick, but there are plenty within the team who expect Bottas to lead the way.

Bottas was the sleeper hit of 2013. But if he continues to develop and defeats Massa driving a Williams that is as competitive as it should be, there will be many more headlines this year. ☘



Eddolls (right) with his man Bottas

DUNBAR/LAT



# Best looking of the bunch

An elegant solution to the new nose-tip regulations, but will new Mercedes be as quick as it looks? By **GARY ANDERSON**

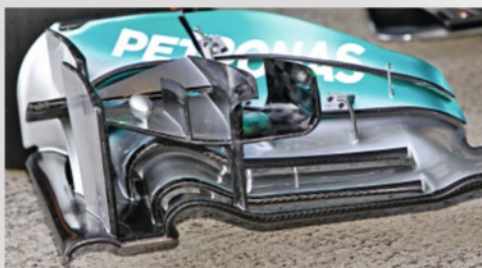
## MERCEDES F1 W05

This is an important year for Mercedes and it has hit the test track with a well-packaged car. There is nothing too exciting about it at the moment, but it's certainly one of the best-looking cars out there.

The key to success this year is going to be maximising running through reliability, and Mercedes was the first out of the garage on

Tuesday morning, so the team should have the platform to score big points early on if it can get the powertrain sorted.

Mercedes has two quick drivers and has the people and resources to take the next step. Finishing second won't be good enough, and the car looks like a sensible platform to build from to take the fight to Red Bull.



### FRONT WING

A similar package to last year, turning the airflow around the outside of the front tyres. But each side of the wing is 75mm narrower, so this turning mechanism may need to be more aggressive. This area of the car is very circuit-dependent.

### NOSE

This is one of the neatest solutions and very much a case of interpreting the regulations as written. With the front crash structure in the nose, its centre has to be at 185mm above the reference plane and that is literally what Mercedes has done. The nose is elongated, so it's wide and shallow to achieve the necessary frontal area. It's a simple solution, nothing too trick, and I'm sure that if it can be re-evaluated if another theory works better.

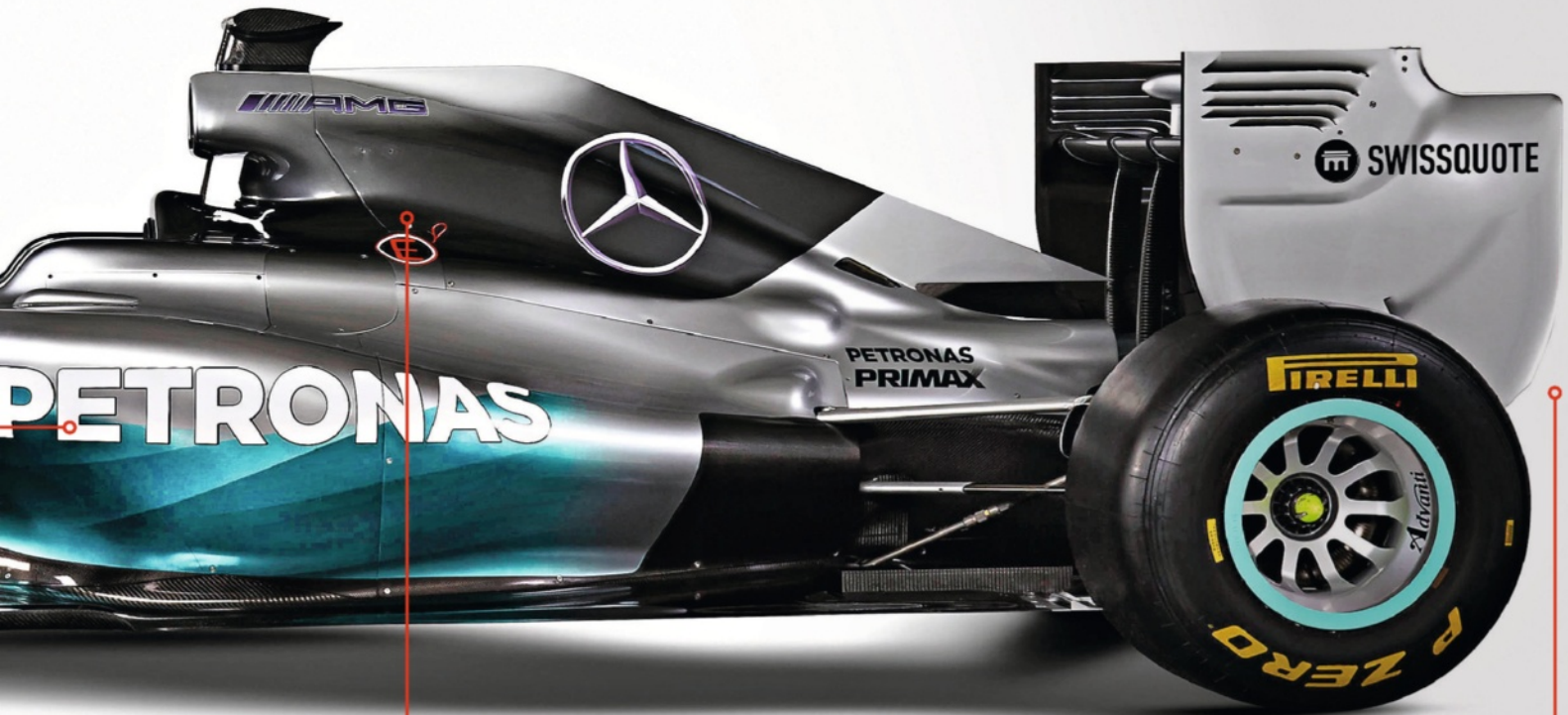


### SIDEPODS

The radiator inlets are a bit bigger to cope with the extra cooling demands of the new power units (the exits are also larger). The leading edge of the sidepod detail is similar to 2013; not surprising as the rules governing this area are largely unchanged.

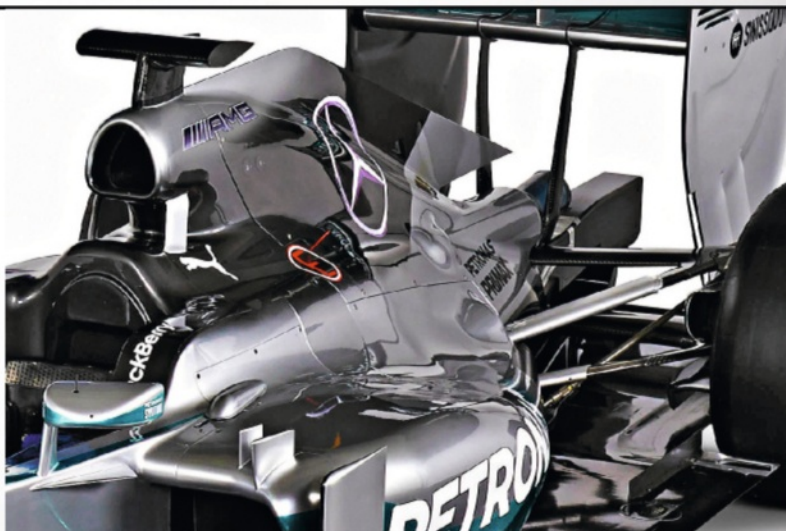


“It’s time for Mercedes to challenge for the championship. With the new rules, it has everything it needs to do that”



## ENGINE COVER

It looks like the engine is almost clingfilm-wrapped, which is very noticeable compared to some of the bulbous designs of other cars. The air comes in through the rollhoop, into the turbo, then back out into the airbox, so there's a 'bunch-of-bananas' pipework system. Mercedes has presumably kept this very neat and tidy to achieve this packaging. As Merc is a full works squad, the team at Brackley has worked very closely with Mercedes AMG High Performance Powertrains at Brixworth just up the road.



## REAR WING

Mercedes has opted for central mounting pillars. There is nothing trick about the exhaust system yet, but it will be interesting to see if the team explores the Toro Rosso-style design, with the aggressive monkey seat working with the exhaust exit.



# Mercedes takes the 'whole-istic' approach to F1

**F1's regulation revolution should give the edge to the works teams. EDD STRAW explains why the 2014 season is set up perfectly for Mercedes to make the jump to title contender**

**T**alk of designing "a whole car" for Formula 1 sounds like one of those meaningless phrases that gets bandied about during launch season. Paddy Lowe, Mercedes' executive director (technical) describes the team's 2014 machine in those terms. But in this case, when you consider the implications not only of the new engine regulations, but also the nature of the Silver Arrows team itself, it makes a lot of sense.

Since recreating its works team by taking over the Brawn squad ahead of the 2010 season, Mercedes — using its own engine, which was developed in harness with rival squad McLaren in the middle of the last decade — has been working with a family of cars based upon original work by Honda and Brawn. To call them cut-and-shuts would denigrate the craft that has gone into the cars, but you get the general idea.

With brand-new engine regulations demanding a 1.6-litre turbocharged powerplant with potent energy recovery systems, as well as a

raft of aerodynamic changes, the 2014 Mercedes really is the mythical 'clean-sheet-of-paper' design. The Brackley-based chassis side of the operation is no longer building a car built to well-established engine architecture, the parameters of which have long since been frozen. For the past two years, it has been working closely with Mercedes High Performance Powertrains, 30 miles up the road from the race team's Brackley base in Brixworth, to create the F1 W05. Ambitions are high and the objective is nothing short of the marque's first world championship as a works team since 1955.

"F1 has always been about designing a whole car to beat your competitors," says Lowe. "I have felt that, on the engine side, it has been so unnaturally limited in terms of the leverage they have to generate performance and that hasn't felt comfortable through that frozen engine period.

"It's great that we are back to more of a 'whole-car programme' and, in that context, the collaboration between the two companies at Brixworth and Brackley is fantastic. It has been



**New car was shaken down at Silverstone**

good fun and it will be very satisfying if we can produce a good result from here."

While it's accurate to say that during this week's first pre-season test at Jerez — which concludes tomorrow (Friday) — the focus will have been on understanding the hugely complex new powertrains, it's no longer so easy to differentiate between the car and the engine sides. While the Mercedes customer teams — McLaren, Williams and Force India — must build their cars around the engine, the factory team's car and engine package have fed into each other at every step of development.

"One of the aspects of working very closely together is that you collectively design the whole car, so the line of 'where does the power unit end and the car begin?' becomes very blurred," explains Andy Cowell, managing director of Mercedes HPP. "It's a beautifully formed car, so Jerez is all about understanding the whole car and getting into running it around the racetrack and learning about everything, from its functions and cooling to the performance aspects of the vehicle dynamics and

**Merc's new turbo power unit and ERS package**







## ROSBERG AND HAMILTON: A COMPLEMENTARY PAIR

Mercedes is unique among its title rivals on the 2014 grid in fielding an unchanged line-up this season. Save for Marussia, every team has made at least one change. Given the learning curve teams will be on during the 12 days of pre-season testing, stability in this area can only be an advantage.

And given that Lewis Hamilton and Nico Rosberg have very different approaches both on and off-track, this should ensure Mercedes has all bases covered in terms of how to extract the best from the car.

"We have got two great drivers and they are very different," says Lowe. "But they are both very strong in their own ways. One of the great strengths of the team is our driver line-up and they'll both be learning from each other as to how to get the best from the car."

Rosberg is ideally suited to the kind of cerebral approach the 2014 regulations demand. While he lacks the ultimate, single-lap pace of Hamilton, he works extremely hard and showed last year that he is capable of winning grands prix on a regular basis. As for Hamilton, he's not as crude a driver as some portray him, but his ability to grab a car by the scruff of the neck and drag a time out of it is outstanding.

It's too early to make definitive conclusions as to which driver the new formula will better suit, and this is something even the team is looking forward to finding out during testing.

"That's one of the areas that we need to discover," says Lowe of the extent to which the drivers will need to adapt their driving to the new cars. "We have learned as much as we can from simulators, but it will be a different task to drive the car than it was before."

"How much that will play to different drivers' strengths and weaknesses remains to be seen."

**"It's a beautifully formed car, so Jerez is all about understanding everything and how the parts interact"** **ANDY COWELL**



aerodynamics and how they interact."

On paper, everything is in place for Mercedes to fulfil its potential in 2014. Having set lofty targets of fighting for the championship in its first season after acquiring the Brawn team, it was largely a story of disappointment with only the occasional podium. A breakthrough win, with Nico Rosberg in China, early in 2012 was not as significant a step as was hoped given that development of the car tailed off alarmingly in the second half of the season. But last year was significant. Ross Brawn had gradually built up the technical structure of the team, recruiting Bob Bell (technical director), Aldo Costa (engineering director) and Geoff Willis (technology director), and the rewards of those appointments started to become apparent.

Mercedes can legitimately argue that it underestimated the challenge of taking over a Brawn squad that had, following Honda's withdrawal, been hastily scaled down in 2009. That has certainly held it back, but its increase in budget, recruitment of Lewis Hamilton and ▶



**Hamilton and Rosberg:  
two very different winners**





Mercedes has high hopes for its F1 W05 contender

ETHERINGTON/LAT

► finishing second in last year's constructors' championship last year prove that firm foundations are now in place. So it's no surprise that Mercedes heads into 2014 as one of the strong favourites. After all, if every team fulfilled the same percentage of its potential, Merc would be right up there. The bottom line is that there are no more excuses.

"Expectations are high and we are building on a great season from 2013," says Lowe. "Certainly, our ambitions are to get to the top step rather than the second step this year in the championship, so the momentum is in that direction. There are a number of factors that are arguably swinging in our favour.

"But we have huge respect for our competitors and I'm pretty wary of this notion of being considered favourites. F1 has a habit of throwing in curveballs so who knows what will happen? With all of the analysis that you can do these days, there are still factors around car performance that are not that well understood. Things can fall in and out of your lap in terms of underlying performance so I don't want to predict where we will be."

Central to the hopes of Mercedes will be the engine. The effort that has been put in at Brixworth has been enormous and the portents are good. With the energy recovery systems being critical to the success of the power unit, Mercedes HPP has significant experience of this kind of technology, both through its KERS work in F1 and on road-car projects.

**"Expectations are high, certainly our ambitions are to get to the top step rather than the second one"** PADDY LOWE

For all the engine manufacturers, there are question marks over reliability, with the rumour mill insistent that this could be a particular Achilles' Heel for Mercedes. But until the engines started running at Jerez on Tuesday, this was nothing more than speculation. Cowell is as confident as it is realistic to be, and admits that there have inevitably been bumps in the road during development. As for the relative performance of the Mercedes, Ferrari and Renault powerplants, it will take a long time for that to become clear.

"Right at the start, we put a plan together and we have completed all of the development iterations that we wanted to do," explains Cowell of progress with the engine. "We are very ambitious as a group and so we set aggressive



Lowe with Lauda, Hamilton and Wolff

COATES/LAT

targets. When you're developing a system as complex as the new power unit and those six aspects that add together to make the power unit [the internal combustion engine, control electronics, MGU-K, MGU-H, turbocharger and energy store], you end up with compound risk where one aspect can slow down the development of other areas. Then you have problems with those, and it slows down other bits. That's life in the development loop of new technology.

"Are we exactly where we would like to be? No. I doubt whether anybody ever is when they're developing new challenging technology, but we're all working together exceptionally hard. I don't know of anybody who is not proud of what has been achieved, so we've not left stones unturned





Hamilton wants second F1 title...

DUNBAR/LAT



...and Rosberg quite fancies a first

COATES/LAT

and Jerez is going to be fascinating, as is Bahrain [the subsequent test]. When we get to the first race in Melbourne, and the challenge of the sessions being a fixed period of time, that will be the acid test."


No matter how good the power unit is, it will need to be mounted in a serious chassis. Last year, Mercedes produced a very effective car aerodynamically. While Red Bull left it and everyone else for dead in the second half of the season, what was encouraging was that Mercedes matched or exceeded the development of its other rivals, namely Ferrari and Lotus, over the year. That was previously a weakness, suggesting that significant strides have been made in aerodynamic understanding at Brackley.

With the new engines attracting all the publicity, changes to the car have been thrown into the background. But these are very significant, particularly the elimination of exhaust-blown downforce and the narrowing of the front wing by 175mm, which will allow the aerodynamicists to play their part. This year will be a chance for Mercedes to show that its strong performance on that side in 2013 was no fluke.

"The aerodynamic changes are of a similar order of magnitude to 2009," says Lowe. "We've got the changes in nose height and nose regulations, the narrowing of the front wing, changes of furniture down the car, changes to the rear wing and the loss of the lower element, the change to the top element, and then the loss of exhaust blowing is probably the most significant of all. When you put all of that together, that's a really big set of changes and we have been working very hard to respond to that."

"Aerodynamics will have a significant impact on the championship. When the cars come out next week, we'll be looking just as eagerly at the range of aerodynamic solutions as we will at the range of powertrain solutions because it will be equally important."

With winning both the drivers' and constructors' championship the obvious aim – Lowe describes that as "realistic" – the 'whole-car' approach means that there is a lot to get right and a lot to get wrong.

The time is right for Mercedes finally to emerge as a leading force in F1. The pressure is on. 

## STEPPING INTO ROSS BRAWN'S SHOES

Since his start in Formula 1 with Williams in 1978, Ross Brawn has contributed to 20 drivers' and constructors' world championships, peaking with leading his eponymous team to a double in 2009. He stood down as Mercedes team principal at the end of '13 and it is into his massive shoes that Paddy Lowe must step.

The 51-year-old is, more or less, Brawn's replacement, although the role has effectively been split. Lowe holds the title of executive director (technical), while Toto Wolff is executive director (business). So Lowe is now the technical top dog at Brackley.

"Ross is a guy with an incredible record in F1, perhaps the best record out there overall, and someone that I really like personally and admire," says Lowe. "You can see his influence in the team today."

"But I have reached the stage in my career where I can see further opportunities and things we can do to make steps, so I want to build on Ross's creativity to take things further over the next few years."

The feeling will be familiar to anyone who has taken a position previously occupied by somebody who has achieved so much. Lowe respects what Brawn has done and has been left a technical team that is well structured and on an upward curve, but he has his own clear ideas about how things can be developed.

After all, having hit a glass ceiling as technical director at McLaren, Lowe was on the lookout for a team-principal role and could have ended up taking that position at Williams before being picked up by Mercedes. He is a quieter, slighter figure than Brawn, but that belies the fierce ambition and keen intellect required to make a go of leading a team.

Lowe only joined Mercedes last June after an early release from McLaren, so it would be a mistake to judge him solely on how 2014 goes, whether it's a triumph or a disaster. But in the long term, he will only be able to prove he has the ability to match his ambition by delivering the first full works Mercedes world championship since 1955.

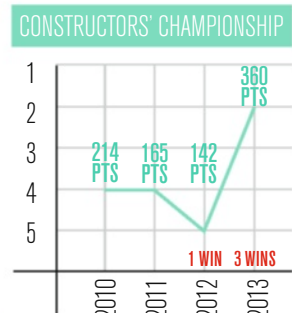


Lowe plans to scale heights

ETHERINGTON/LAT

### MERCEDES IN F1 2010-2013

**77** RACES  
**9** POLES  
**15** PODIUMS  
**4** WINS  
**4** FASTEST LAPS





# Things can only get better

Last year's challenger was a disaster by McLaren's standards, so has it learned from its mistakes? By **GARY ANDERSON**

## McLAREN-MERCEDES MP4-29

You learn more from a bad year than a good one, so 2013 was a great learning experience for McLaren.

The biggest concern was that it never seemed to get on top of the fundamental problem. Yes, the car got faster, but so did everyone else's, so the gap to the leading

teams was much the same. That's never good for confidence.

McLaren has gone through a winter of major change, and that always takes time to settle. Can Ron Dennis pull it all back together? A glance at McLaren's trophies in 10 months' time will answer that.



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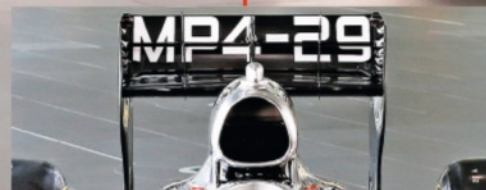


### NOSE

McLaren's concept is broadly as expected, with its ant eater nose sticking rather rudely out. Teams want to maximise the mass airflow between the front wheels as this is vitally important to overall performance. Minimising the aerodynamic blockage created by the front wing and nose is also critical.

### FRONT SUSPENSION

McLaren is the first team to have gone for a more 'standard' suspension geometry, and this could be a big benefit as it will make better use of the available front-tyre contact patch. The team has also returned to a pushrod design after one year running the pullrod. With this year's lowered chassis front, you would expect McLaren to have stuck with the pullrod, but the pushrod does fit in better with the new suspension geometry.

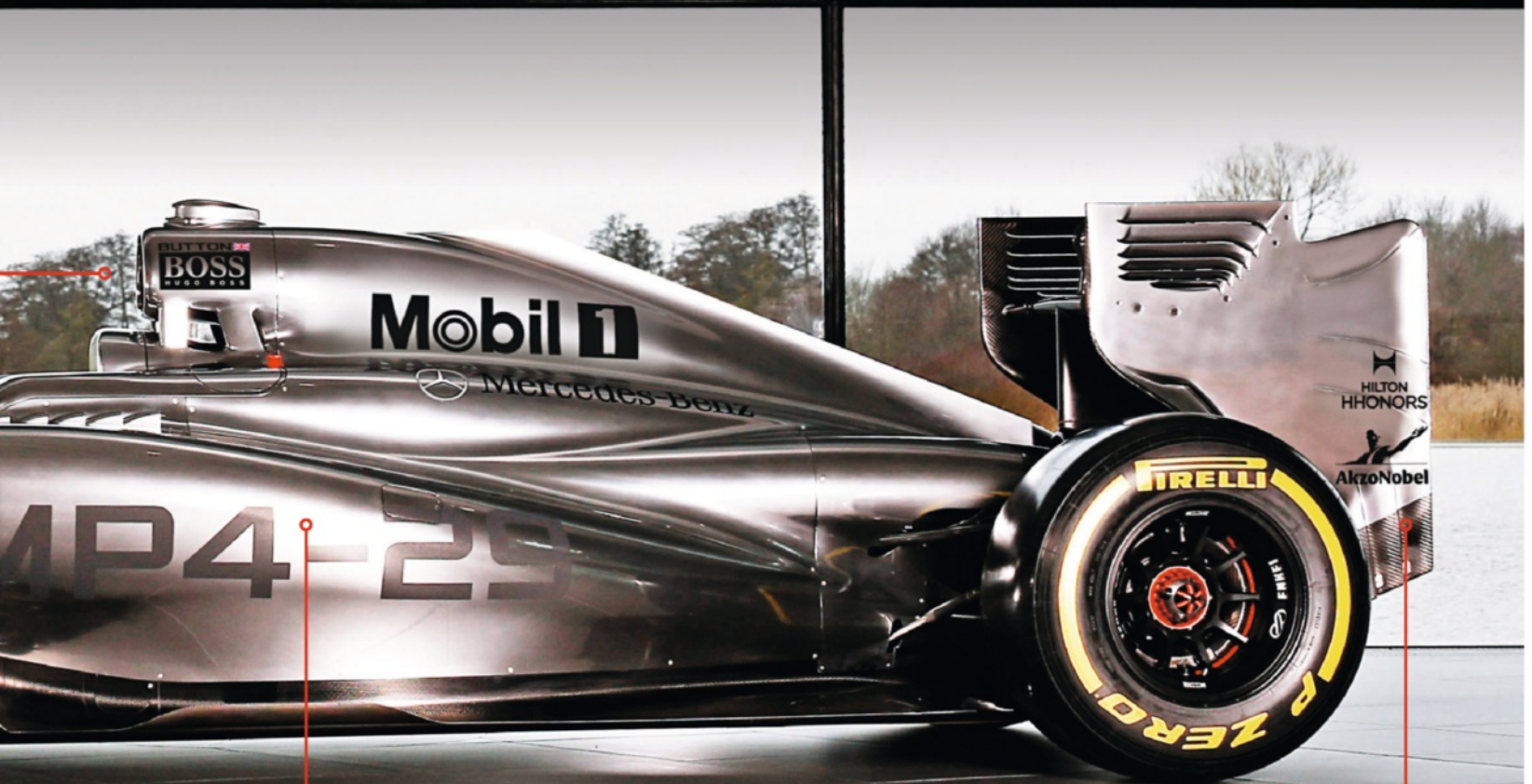


### AIRBOX

The size of the airbox inlet is surprising. It's possible that it splits into two ducts, with one feeding something else, because you'd expect a smaller one for the 1.6-litre V6 turbo than was required by the old 2.4-litre V8s. Minimising the size of the inlet is good for the performance of the rear wing because when the airflow can't be used by the engine, it effectively backs up the inlet system and the airflow spills around the sides of the engine cover. This would disturb the airflow to the rear wing.

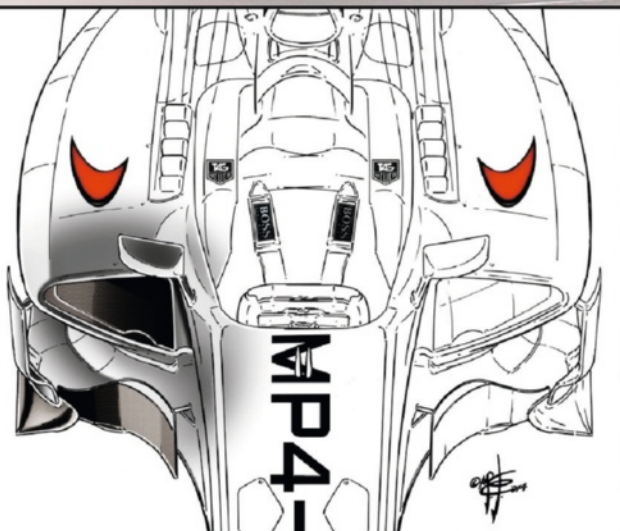


“McLaren’s front-suspension geometry will make better use of the front tyres, as opposed to neglecting them for aero reasons”



## SIDEPODS

The radiator inlets are larger than last year. This is because of the extra cooling required for the intercooler. The air-inlet system is turbocharged, and while increasing its pressure it creates heat. If the inlet air is not cooled you will lose all the extra power the increased pressure will potentially give.



## REAR WING

The rules eliminate the beam wing, which was where the teams mounted their upper wings via the endplates. McLaren has a central mount system, but the lack of beam wing is going to be difficult to overcome as, on top of downforce, it helped the rear of the car work together aerodynamically. As such, some teams may struggle with lack of rear-end stability under braking.



# McLaren's new revolution

**Ron Dennis has returned to the helm so there's more at stake for MP4-29, McLaren's last Merc-powered car. By JONATHAN NOBLE**

**T**here was a time when McLaren's 2014 campaign looked like being a period of consolidation ahead of the start of a bright new chapter with Honda next year. Instead, before a wheel had even turned on its striking looking MP4-29, revolution was sweeping through the corridors of power at Woking.

After what was, to all intents and purposes, a boardroom coup, the return to F1 influence of Ron Dennis marks the start of a new era for McLaren. Although outgoing team principal Martin Whitmarsh didn't have a bad record at the team – winning 20 of his 94 races in charge – for a man as driven as Dennis it was not good enough. He'd wanted his successor to be even better.

Several times since stepping down in 2009 Dennis had tried to get the backing of the board to return to a position of control, but each time he had been knocked back. Even in the middle of 2012, when McLaren had been battling for the world championship, Whitmarsh suggested that Dennis was moving to overrule it.

Talking about the long-term ambitions that sporting director Sam Michael had on the top job at the team, Whitmarsh had alluded to Dennis when he said: "I think that [Michael's determination] is healthy because there probably wasn't anyone in the company, below me at least, who wanted my job..."

Fast forward on a year from those comments

though and things were very different. For it was clear that after 2013, change was needed.

McLaren's campaign last year was a disaster. It wasn't just that the team failed to score a podium finish for the first time since 1980, but that it had got into that situation in the first place. From having ended the 2012 season with the fastest car, McLaren had somehow conspired to create a dud for the following campaign.

Its decision to go all aggressive had been fuelled by a fear that it had reached the development ceiling of its MP4-27 – which meant that it risked being overtaken by rivals who still had wriggle room with their cars. The plan backfired massively; and it was the team's failure to ensure there was a cohesive development plan to bring the work of its various design departments together that really cost it.

In theory the individual components should have delivered a competitive machine, but when they came together it did not happen. It really was a case of two plus two equalling three.

But worse than the car not working was the fact that there was too much dithering at the start of the campaign about what to do.

Factions within the factory were pushing for the team to swiftly bring back the 2012 car, while others believed that sticking with the 2013 model would be better.

It took Whitmarsh until the Malaysian GP to be convinced that the MP4-28 was worth

**Dennis: master of all he surveys once more**

**Whitmarsh (r) appears out of favour at McLaren**



sticking with. But valuable time had been lost debating what to do, rather than complete commitment from the off. Questions about his leadership qualities began to emerge.

Ultimately, it boiled down to McLaren having both over-complicated a situation – by going all radical with its 2013 car – and then underestimating the complexity of what it would take to make it quick. Not a good combination.

Yet the frustrations lying within Dennis ran deeper than just the 2013 car performance.

The departure of technical director Paddy Lowe on the eve of the new-car launch had been a blow too. It had been prompted because he had been eager for grander responsibilities beyond his then role. With little evidence that his aspirations were being taken seriously at McLaren – and Sam Michael having thrown his hat into the ring as a future team boss – Mercedes swooped and took Lowe away.

For a team like McLaren, one of the true big boys of the field, it was not good enough that there was no high-profile figure drafted





## THE END OF THE MERCEDES ERA

There was a time when McLaren and Mercedes seemed to be in it together for life. From bringing the 'Silver Arrows' back in to F1 to title successes for Mika Hakkinen and Lewis Hamilton, the tie-up pointed towards one that was locked down forever.

But things change quickly in F1 and it was McLaren's road car ambitions to deliver an automotive challenger to Mercedes' sportscars that proved the catalyst for the Three-Pointed Star to do its own thing.

As Ross Brawn's eponymous team became Mercedes, McLaren shifted to a pure customer outfit – something it was never going to be happy with in the long term. That's what prompted it to pursue other avenues, which eventually resulted in it agreeing a deal with Honda for 2015.

McLaren's tie-up with the Japanese manufacturer means that its time with Mercedes is coming to an end, and that means a change in the way they will work together for this first year of the 1.6-litre, turbo-engine regulations. Mercedes will have understandable concerns that any knowledge it shares with McLaren could well find itself in Honda's hands.

While there's no suggestion that the German manufacturer will deliberately hinder McLaren, or give it second-rate treatment, equally it will not be going out of its way to give it anything beyond what its contract stipulates. It will do exactly what it has to do to the letter. McLaren itself has had to set up separate divisions inside Woking to deal with the Honda project, and ensure that information is not spread between the two companies.

But that will not take into account the inevitable suspicion among individuals that knowledge will move around. It's this fear that will likely prompt a lock-down of McLaren knowing anything from Brixworth that's not absolutely essential.

in to replace him and shake things up.

The team had the window of opportunity to grab James Allison from Lotus, but Ferrari beat them to it. In the end, it was only in the latter stages of the campaign that things began to move – with the capture of Matt Morris from Sauber, and the agreement reached with Red Bull head of aero Peter Prodromou.

It was too little, too late – and amid a late call to complete the mandatory FIA crash tests for its 2014 car, just seven days before the first test, it was clear that things were not ideal.

Matters were not much better on the commercial front either. While Whitmarsh had moved to secure the long-term commitment from Honda, and the commercial bonuses that the deal brings as well, McLaren was left lacking a title sponsor.

The team had hoped to nail one down before the end of the 2013 campaign – which is why it originally proposed a December 2 announcement – but it never managed to sign one. It was amid all the car, staffing and commercial issues, which

were not being delivered to the obsessively perfect levels that Dennis strives for, that led to him pleading for – and getting – the support of the shareholders in ousting Whitmarsh from his CEO role.

But to view Dennis's return as the quick-fix that will get McLaren back to the front of the grid would be wrong; it's very much the start of a massive overhaul that's going to take time. As its managing director Jonathan Neale said last week: "There's a responsibility to move the organisation – and our processes – forwards.

"There's a huge amount of talent and potential already extant within the organisation, but there's always more to discover... this is a long-term process, and this year will be about developing and growing McLaren to a position where we can once again fight at the front."

In fact, Dennis' appointment is not about him trying to return to the glory days of the past where he was the man making the calls on the team radio to engineer victories. He has no ambition to be on call 24/7 for the F1 team. ►



McLaren has gone it alone with supercars like the P1



Team principal role should be filled by Eric Boullier



Peter Prodomou returns from Red Bull...



...with Matt Morris moving from Sauber

**“There’s a huge amount of talent and potential within the organisation, but there’s always more to deliver”**

McLAREN MD JONATHAN NEALE

► He doesn’t want to sit on the pitwall day after day managing the weekend’s goings-on.

Instead, Dennis is focussing on bigger-picture stuff and installing the right people and the right infrastructure to move things on. The first priority is of course the team principal role – which looks set to be filled by Eric Boullier.

It was clear from the moment that Dennis swooped back into a position of influence that Whitmarsh’s days were going to be numbered. New bosses don’t talk of big changes to come, without it meaning that those who were in control beforehand are moved aside.

What wasn’t clear though was exactly who Dennis was going to choose to lead the team. The instant speculation surrounded Ross Brawn, who had stepped down at Mercedes following the arrival of Toto Wolff and Paddy Lowe.

But instead, and causing a fair bit of surprise last week, it is Boullier who appears to be the one Dennis will install at the helm of the F1 operation. Boullier has impressed greatly since arriving in F1 with Lotus in 2010. He’s faced his

fair share of challenges in his time – having lost Robert Kubica on the eve of the 2011 campaign, delicately balanced his team on a financial tightrope, coped with staff exodus and dealt with the gamble in signing, managing and overcoming the troubled departure of Kimi Raikkonen.

Through all those dramas, Boullier kept Lotus as a competitive force. Indeed, during the most stressful time – as he battled Raikkonen’s pay dispute, the saga of Quantum Motorsport’s funds that never arrived and pulled miracles to keep the team going – his outfit was still Red Bull’s main threat for race wins. Impressive stuff, really.

It’s those qualities of leadership that point to Boullier bringing some strength and stability to McLaren, where resources will not be such a problem. With the background of a ‘racer’ rather than the corporate businessman, his skillset could prove the perfect complement to Dennis.

Boullier will not have to get involved in the wider concerns of the McLaren Group organisation as Whitmarsh had to do with his CEO role. Equally, Dennis will not have to waste

time meddling in the day-to-day running that could frustrate him. They can happily maintain their own spheres of influence. Perhaps the key to this relationship working is Dennis not interfering too much and letting Boullier get on and do his job.

There were times during Whitmarsh’s time at the team that he grew frustrated at Dennis’ on-going interference, whether it was the future of the Mercedes partnership or attempts to both convince Lewis Hamilton to stay and persuade Mercedes not to take him at the end of 2012. If Boullier is left alone, continuing the Lotus trend of keeping his head down while its big boss Gerard Lopez made key decisions, then it should work well.

Any Boullier appointment is just the start of the process that McLaren has to go through. At its heart it’s an engineering-led company so it’s the strength of its technical staff that will be a factor in any return to on-track success.

Dennis had his own views on how the technical structure at the team should work






MP4-29 will be under scrutiny from all angles

during his tenure and that matrix management was ultimately one that left Adrian Newey frustrated and open to the offer from Red Bull.

If Dennis accepts that things have changed in F1 and that the returning Peter Prodromou and new-recruit Matt Morris can push for and mould a structure that works right now, then the team could make a success of it all.

These, however, are all issues for the longer term. Perhaps the biggest immediate bonus of Dennis's return is that it has reinstalled belief at McLaren. Just as drivers need to have confidence in their machinery if they're going to extract the maximum from themselves, so too does a team's staff need confidence in the organisational structure for the good of the whole operation.

Dennis's comeback has fired up the staff and delivered a clear message that things are going to change for the better. But there's no illusion that it's going to happen overnight either.

McLaren's recovery is a work in progress. But it's progress that this famous team needs if it's to rediscover the glory days. 



The 2013 car failed to land a podium all year

COATES/JAT



# Is this the car Alonso craves?

Despite the efforts of Fernando Alonso, the Scuderia has struggled to produce a Red Bull beater. By **GARY ANDERSON**

## FERRARI F14 T

In recent years Ferrari has failed for many reasons. In 2012 the car was a dog but Fernando Alonso wrung its neck. Last year it started well, but fell away and Alonso seemed to lose heart as Ferrari showed it lacked in understanding of the development direction required. By rehiring Kimi Raikkonen, Ferrari is keeping Alonso honest.

Former Lotus design chief James Allison has also been recruited — as technical director — and he has a clear understanding of what makes a current F1 car quick. It will be difficult for him to stamp his authority on the 2014 car having joined during last year, but if things don't go well at Ferrari I can see an implosion.



### FRONT WING

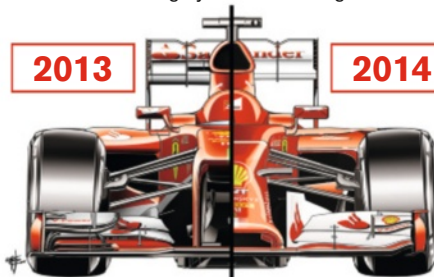
The front wing and endplates are in line with last year's package and, as it's a bolt-on component and highly sensitive to ride-height and steering-lock changes, circuit knowledge will drive the design direction. I'm sure we'll see many different solutions before the final package hits the track.

### NOSE

The nose treatment is a huge surprise. It doesn't follow, given the knowledge accumulated over the past few years. The mass airflow between the front wheels is vital to the overall aerodynamic performance of the car and it seems Ferrari has not looked for the grey areas in the regulations.

2013

2014



### FRONT SUSPENSION

The pullrod front suspension has been retained. After two seasons with this system, Ferrari will have got on top of any packaging problems. To use the old saying, if it ain't broke don't fix it, as it's very easy to create more problems.





## HISTORY REPEATING?

New cockpit-headrest regulations were introduced in 1996. Back then, Ferrari read the rules and applied them to the letter to produce the ugly F310. As with Adrian Newey at Williams, for the Jordan 1 found a more elegant solution that proved to be the right way to go. It seems Ferrari might have done a similar thing with its interpretation of the nose rules.

“The car gets the ugly-duckling award but as we have seen there are other solutions that make even this nose look pretty”



## COKE BOTTLE

The sidepod Coke-bottle area on the past two Ferraris confused me. The team seemed to give up on it as an influence on the overall aero package in pursuit of downforce from the exhaust-blown diffuser. But if you want a car that's faster than the others, you can't afford to give up anything. The rule change moving the exhaust outlet's exit to the centreline of the car allows the Coke bottle to be optimised for overall downforce. With the lower beam wing outlawed this area is going to be even more important to help with stability under braking.



## REAR WING

With the beam wing now a thing of the past, the rear wing is mounted on central pillars. Some teams were trying to mount the wing by its endplates to the underfloor, and I'm sure some will succeed, but this central pillar system is the most efficient way of doing it.





Despite his outbursts  
the tifosi adore Alonso

THOMPSON/GETTY



# Ferrari in 2014: the BIG questions

**It got close, but Ferrari never quite managed to deliver a title during F1's last rules cycle. JONATHAN NOBLE looks at the big questions the Scuderia will be facing this season**

## DRIVERS

### IS ALONSO GOING TO STAY?

No one could deny that Fernando Alonso was a frustrated man in 2013.

He'd gone into the year with every belief that he had a car capable of gunning for the title, and victories in two of the first five races seemed to bear his view out. But it all went wrong mid-season. An update that came on board for June's Canadian Grand Prix didn't deliver, and a further package for the British GP was also a failure.

When Alonso was told in July in Hungary that the car he would be using that weekend was pretty much unchanged from the Spanish GP back in May, the toys went out of the pram.

How serious his overtures to Red Bull and Lotus were will probably never be known, but the speculation about his interest served its purpose in letting his chiefs know he was not a happy man. The message was clear: if they wanted him to remain committed to the cause, he had to be given a car capable of winning.

Alonso's actions in Hungary — and especially the public ear-tweaking he got from Ferrari president Luca di Montezemolo — have continued to leave questions surrounding the two-time champion's future.

They have also prompted rival teams such as McLaren to up their attempts to lure him away.

Ultimately, whether or not Alonso sees out his career at Ferrari will depend upon the competitiveness of its car. The truth of the situation is that Alonso and Ferrari want nothing more than to win with each other.

Should Ferrari do the job with its 2014 car, and success follows, then there will be no reason for Alonso to look elsewhere. All the frustrations of the past, which bubbled over in the second half of last year, will be gone.

What happens if Ferrari

struggles this year though is anyone's guess.

Alonso is a man driven to succeed and, having given his all to Maranello in recent years, he may feel that if it doesn't happen now, it never will.

The vultures will be circling if Ferrari's season is in tatters. Alonso will then face the biggest choice of his career.

### CAN RAIKKONEN WIN THE TITLE AGAIN?

It's amazing to think that Kimi Raikkonen returns to Ferrari in 2014 as its most recent world champion. But of more interest to fans is whether or not he can be its next.

That 2007 title winner Raikkonen is still one of the very best drivers in F1 is under no doubt. His performances at Lotus were consistently strong and he won races in both seasons since his comeback. But equally there have been some questions about elements of his performance that suggest that he may not be able to take on an Alonso or a Sebastian Vettel at the top of their game.

At Lotus, there were occasions when a couple more tenths of commitment in qualifying — or not hesitating on overtaking moves such as in the 2012 Bahrain GP — could have changed results significantly.

That Romain Grosjean (once he got on top of his early-season issues last year) was able to outshine Raikkonen in the second half of the campaign was not the most ringing of endorsements for the Finn's status as a clear number one.

What Raikkonen does bring though is a mega image, for he is arguably the most popular driver on the grid. And he has a sublime racing instinct. Throughout ▶

**Raikkonen has work cut out to win a second Ferrari title**





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► 2013 he showed that he could finish on the podium even on those weekends when disastrous qualifying efforts had appeared to leave his hopes in tatters. Staying out of trouble and plotting his way through the field were his forte.

As well as needing to deliver more in 2014 if he is to beat Alonso, Raikkonen is going to have to work harder than he ever has. The all-new technology, allied to races that are going to demand some clever thinking, tremendous feedback and communication with the pitwall, will help those willing to knuckle down, and hurt those who couldn't give a damn about anything other than driving.

There are no doubts that Raikkonen will be up with Alonso wherever the Ferrari is on the grid. Indeed, that's one of the reasons he was brought on board, in the light of the fact that Felipe Massa's contribution to the points tally in the championship fight was lacking. Yet beating Alonso on speed alone – and certainly by enough to win the title in a straight head-to-head fight – is going to be a tall order.

Raikkonen doesn't like the politics that Alonso is so adept at, and it's questionable whether he has the real hunger to dig extra-deep to do what it takes to overhaul the Spaniard if they get involved in a real on-track tussle.

Nevertheless, winning the 2014 title may not be about out-and-out speed. Raikkonen's sublime consistency and ability to finish races could pay dividends in a season when reliability is going to be such a huge factor. And should he notch up some early successes to build up a decent points advantage over Alonso, then that could force Ferrari's hand to throw its weight behind him if the championship looks like it's going to be closely fought.

That would make for some very interesting times in the pit garage...

## TEAM AND CAR

### IS DOMENICALI'S JOB ON THE LINE?

It's hard to think of a higher-pressure job in F1 than that of team principal of Ferrari, with the only expectation on the team being to win. As Alonso was at pains to suggest several times last year, Ferrari is the only team where finishing second is a disaster.

That Stefano Domenicali has not led Ferrari to a drivers' championship since taking over in 2008 has already prompted some to suggest that he has had his time, and that some fresh blood is needed. But to base a verdict on Domenicali's tenure solely on number of titles won would be wrong, because it would ignore the behind-the-scenes revolution that he has had to undertake to push the team forwards.

Ferrari has had to change a lot in the past few years to cope with the shifting demands of F1. The massive cutback of in-season testing (which returns this year) plus the emphasis on highly complicated aerodynamic models relating to exhaust airflow did not play to the team's strengths.

That's why there has been a technological overhaul going on in Maranello, with Domenicali securing the funding for new simulation facilities and the green light for a new factory.

It was also his decision to shut down Ferrari's windtunnel last year so it could be improved and brought up to a par with other those of other teams. That's now back in action.

Domenicali was the driving force for luring Pat Fry away from McLaren, and then getting



Will di Montezemolo keep faith in Domenicali (right)?

➔ P66 TORO ROSSO

MASON/GETTY

**“To base a verdict on Domenicali's tenure solely on the number of titles won would be wrong”**

Lotus's James Allison back on board to provide fresh technical leadership.

All of these areas that Domenicali has worked upon have long lead times before their impact is felt. But the first fruits of those efforts should be seen this year.

What must come in 2014 is progress, and proof that the action that has been taken is actually reaping rewards. That Domenicali has not shouted about the work he has done says much about the security he feels. He's a man who deals in hard facts rather than sound bites.

Equally, di Montezemolo knows that Ferrari's failure to win a title in recent years has been as much about luck on individual days as it has been about the influence of management. Had the strategy worked out better in the Abu Dhabi GP 2010 season finale, and Alonso not got embroiled in Turn 1 crashes at Spa and Suzuka in 2012, Ferrari could be two titles up already.

Domenicali looks set to continue at the head of Ferrari's pressure cooker for a while yet.

## ENGINE

### CAN FERRARI COMPETE WITH MERCEDES AND RENAULT ON ENGINES?

There's uncertainty even now about how the new 1.6-litre turbo power units are going to perform, and the intrigue over how the form book will be set has been going on since last summer.

The word on the street was that Mercedes had the fastest and lightest engines, the Renault was the most efficient – and Ferrari was struggling.

How true that scenario proves to be will only become clear after several races this year, but there has been little indication from Maranello that it seems particularly worried about its efforts.

Di Montezemolo has been at pains over the winter to emphasise that, while his team's strength has never been in aerodynamics, it has historically been excellent in the mechanical areas of the car.

That much seemed to be borne out last year, for as much as Ferrari lacked in the key blown-floor area of performance, its engine was producing plenty of power judging by its qualifying positions relative to Mercedes at high-speed Monza.

Success in 2014 is all about a 'package' though, and Ferrari's greatest strength will come from the way in which its chassis and engine departments effectively work under the same roof. That should bring tangible benefits in terms of getting the cooling and aerodynamic requirements spot-on, and allowing the whole car to come together as one.

It's a luxury only Mercedes shares, and it could yet prove to be the single factor that helps the works teams get a head start this year. ☒





# Just how good was Kubica's Monte?



**He set fastest stage times and led the rally after the opening two tests, but he crashed (again). DAVID EVANS examines ex-F1 star Robert Kubica's Monte Carlo Rally in detail**

**E**nough of the superlatives. Let's take the emotion out of the equation. Let's be brutal, let's be honest... how good was Robert Kubica's Monte Carlo Rally? First, the facts. This was Kubica's second World Rally Championship outing in a factory World Rally Car. And his second retirement. And third crash. Between them, Rally GB and Monte Carlo included 37 stages, the Pole made the finish of 12.

There's no arguing with any of the above. Those are the statistics, those are the facts. Shall we look beyond them?

Let's start with the Monte. This was Kubica's first start on this event (he retired on the prologue stage in 2010), which meant he had never seen any of these roads at competitive speed. Ahead of the opening round of this year's

WRC, Kubica contested – and won – the Jänner Rally in Austria. The conditions on the opening round of the European Rally Championship would offer a taste of what was to come in the French Alps, but not much more. In addition to that, he had tested his Fiesta RS WRC for a couple of days before Christmas.

Digging deeper, let's look into SS1, Monte Carlo. The 15.83-mile Orpierre-St Andre de Rossans stage made for a very complicated start. Not run in recent years, the road climbed to just over 1000 metres for the first six miles before dropping down to the finish at 657 metres.

Tight, twisty and very technical, this was a tough start. The constantly changing nature of the road would offer no rhythm for the driver, no chance to build confidence. And then you add the weather into that equation. The weather on the first morning caught everybody out (everybody

except world champion Sebastien Ogier's dad, who was spectating in the stage and called his son to tell him his choice of slicks was "crazy").

As the cars left service in Gap at just after 0600, the temperature began to drop quickly. The teams had been reliably informed of rain, possibly heavy rain, falling for the duration of the stage. The drop in temperature turned that rain into sleet and snow. Ogier smacked the Armco at the first corner. Thierry Neuville chopped a telegraph pole in two just four miles in. This tough stage just got tougher.

Factors working in Kubica's favour at this point were the road-cleaning effect – the nine cars ahead of him were undoubtedly spreading the slush to the side to offer a little more contact for his Michelin slicks. It should be noted that the slick we're talking about isn't the pure, treadless version we see on Formula 1 cars, it's a moulded





Kubica led first time  
out in a Fiesta WRC...

BETTOL/GETTY

slick that contains tread across the whole tyre but is more heavily treaded on the outside shoulder. But, even in its super-soft form, which the drivers were all using, it was a very, very long way from being the perfect cover.

So, Kubica was on the line with some cleaning done for him up front. That, however, has to be balanced by the fact that he's leaving that line at 0746. It wasn't completely dark, but equally the sun hadn't yet shown its face. Half-light is far from easy to drive as you constantly try to look beyond the spotlights. Oh, and another thing, Kubica's main spots weren't secured properly after he worked on the car ahead of the stage — so they were bouncing around in the high-speed bits.

So, taking all that into consideration, here's an analysis of Kubica's run through 15.83 miles. Split one came at 1.42 miles and the only driver to get within a second of him was Kris Meeke, running two cars further back. He was 0.4 seconds slower than Kubica. Ogier dropped 6.1s to Kubica in split one — don't forget, he'd biffed the barrier already. Split three was the only one of five where Kubica wasn't quickest, Bryan Bouffier beat him into second by 1.8s over that particular 3.47 miles.

In the final sector, the stage came through some real twisty stuff and turned left onto the D116, an open and faster road. And from then on, it was much higher speed all the way to the finish. Big commitment here bagged Kubica an astonishing final split; Ogier was second, a second a mile down on the LOTOS Fiesta.

Crossing the line, Kubica was fastest by 14.3s to former Monte winner Bouffier, who was running right behind him through terrain he knows very, very well.

"Hardest stage of my life," was the leader's appraisal. And it's not hard to see why. The road was a horrific mix of slush, running water, black ice and snow — the sort of stage for which a driver need all of his experience, guile, rallycraft and know-how.

The Monte was Kubica's ninth WRC start and only the 40th rally he has started in his 29 years; experience, guile, rallycraft and know-how are all on his 2014 wish list.

The second stage offered more rhythm along with a super-quick downhill section from the Col de Pommerol. Kubica was beaten by three drivers in the first split, but from then on he was unbeatable and sensational in the fast section. There was slightly less slush and snow, but more mud from the cars cutting ahead. But the patchwork of concrete, asphalt and just about ▶



...and he's not fazed by  
the pinnacle of rallying

MCKLEIN

## KUBICA'S RALLY HIGHS AND LOWS

### CANARIES RALLY 2013

Start of his new career. Won all eight stages on the opening day to establish a comfortable overnight lead before crashing on day two.



### AZORES RALLY 2013

Led an ERC round for the second event in succession, but a lack of experience of the fog and constantly changing grip levels caused him to crash again (above).



### ACROPOLIS RALLY 2013

First WRC2 win. Dominated the category on the Greek event, despite running in the dark for the first time. Went on to secure the WRC2 championship title in Spain.

### RALLY GB 2013

Debut with the factory Citroen team. Forced into a co-driver change just ahead of the rally, which undoubtedly contributed to two shunts.



### JANNER RALLY 2014

First international win came on his debut with the M-Sport team. Victory followed an inspired tyre choice and hugely committed run through the final stage.

### MONTE CARLO RALLY 2014

Perfect start to WRC debut with M-Sport, leading after the first two stages. Never ran lower than fourth until he crashed in SS9.



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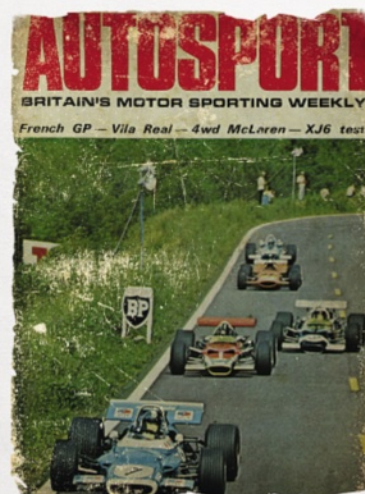
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► every other take on what constitutes a sealed surface makes for a constant guessing game. Will it grip?

It does. Two stages in, two stages won and Kubica has a 36.8-second lead over Ogier.

He was almost as bemused as anybody else.

“There were a lot of drivers with a lot more experience of this rally and these conditions than me,” he says, “and if they couldn’t get it right, what chance did I have?”

Getting it right would have meant a winter tyre on SS1 and, according to Ogier, the potential for a five-minute lead.

Kubica might not yet have that ability to second-guess the conditions or the complex mountain meteo, but what he does have — and what shone through brighter than anything — is a peerless natural talent behind the wheel and a breathtaking feel for what the car is telling him. Add to that a shocking appetite for data and detail and you’re getting close to figuring out how he did what he did on day one of the Monte.

Another big thing for Kubica is that, in terms of world motorsport, he’s coming back down to a World Rally Car. For his colleagues in the service park, the World Rally Car has always been the ultimate goal, the realisation of the dream. Kubica’s F1 dream machine came with almost three times as much horsepower and weighed half as much. He lived that dream and drove that car.

Now, his situation is different. Coming from the hi-tech, mind-bending speed of F1 means he can take the WRC at face value. He’s not scared of the car or the rallies. That relative freedom from fear of his surroundings means he can and will more easily and willingly explore the limits of the car.

Is that what we saw in Wales last year? A man exploring the limits? Probably, yes. But at the same time, Kubica was coming to terms with



Rally GB in November ended like this

MCKLEIN

being told what to do in a foreign language — left and right in Italian bear no resemblance to their Polish equivalents. And he’s impatient as well. Don’t forget, this was a driver being tipped to be a Formula 1 world champion by now, which goes some of the way to explaining his relative ambivalence to the WRC2 title last season. He had eyes for the big prize.

Kubica’s speed, ability and bravery are absolutely beyond question. But that won’t be enough for him to be a world champion on this side of the fence. He will need experience and he will need to get to the end of rallies. He knows that better than anybody and he knows he will need to temper his desire to fast-track, which might bag him the odd rally win. The bigger picture requires more solid foundations.

His exit from Monte Carlo was part bad luck

and part lack of experience. The braking distance for that particular unseen third-gear corner was lengthened when the grip level dropped, a nuance picked up by the other drivers. Experience is everything in the mountains.

And the next round of the World Rally Championship will test him more than any other of the remaining events this season. Rally Sweden will be his first full snow rally and his first time driving on proper studs. If we have pukka conditions, he’ll have to learn to go a gear higher into corners then lean on the snowbanks on the way out, but if it’s a wet, miserable winter on the Swedish-Norwegian border next month, then it’s all about keeping it clean and holding onto the studs. Either way, it’s going to be a big ask.

And, on the evidence we’ve seen so far, Kubica’s got a big answer. 🏆

“There were a lot of drivers with a lot more experience of these conditions than me” ROBERT KUBICA



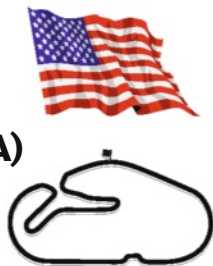
RK's early lead stretched to more than half a minute

BETTON/GETTY



# Daytona 24 Hours Daytona (USA)

January 25-26

United SportsCar  
Round 1/13

## RESULTS

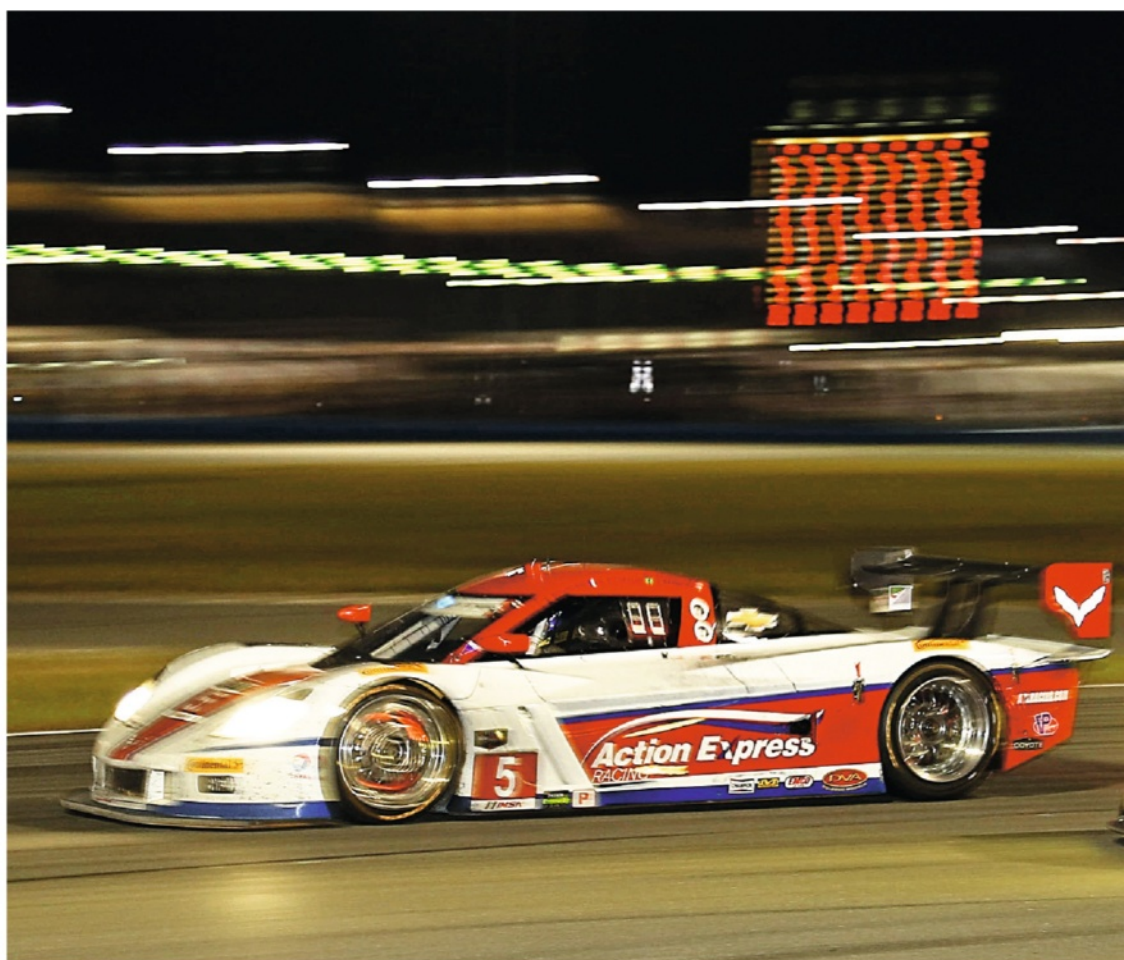
695 LAPS, 2474.20 MILES

- 1 J Barbosa (P)/C Fittipaldi (BR)/S Bourdais (F)**  
P Action Express Coyote-Chevrolet Corvette DP (Q3-1m38.658s) **24h00m34.760s**
- 2 R Taylor (USA)/M Angelelli (I)/J Taylor (USA)/W Taylor (USA)**  
P Wayne Taylor Racing Dallara-Chevrolet Corvette DP (Q6-1m39.023s) **+1.461s**
- 3 Burt Frisselle (USA)/Brian Frisselle (USA)/J Martin (AUS)/F Giroix (F)**  
P Action Express Racing Coyote-Chevrolet Corvette DP (Q4-1m38.838s) **+19.489s**
- 4 R Westbrook (GB)/M Valiante (CDN)/M Rockenfeller (D)**  
P Spirit of Daytona Coyote-Chevrolet Corvette DP (Q2-1m38.487s) **-2 laps**
- 5 K Graf (D)/L Luhr (D)/A Brundell (GB)**  
P Muscle Milk Pickett Racing ORECA-Nissan Q3 (Q10-1m39.829s) **-3 laps**
- 6 N Tandy (GB)/R Lietz (A)/P Pilet (F)**  
GTM CORE Autosport Porsche 911 RSR (Q25-1m44.582s) **-16 laps**
- 7 B Auberlen (USA)/A Priaulx (GB)/J Hand (USA)/M Martin (B)**  
GTM BMW Team RLL BMW Z4 GTE (Q31-1m45.672s) **-16 laps**
- 8 O Pla (F)/R Rusinov (RUS)/G Yacamán (CO)/O Webb (GB)**  
P OAK Racing Morgan-Nissan LMP2 (Q22-1m43.420s) **-17 laps**
- 9 J Bennett (USA)/J Gue (USA)/C Braun (USA)/M Wilkins (CDN)**  
PC CORE Autosport ORECA-Chevrolet FLM09 (Q13-1m41.777s) **-17 laps**
- 10 T Kimber-Smith (GB)/E Pitolocchio (YV)/M Marsal (USA)/R Huff (GB)**  
PC 8Star Motorsports ORECA-Chevrolet FLM09 (Q52-no time) **-18 laps**
- 11 J Overbeek (USA)/E Brown (USA)/S Pagenaud (F)/A Lazzaro (USA)**  
P Extreme Speed Motorsports HPD ARX-03b (Q15-1m41.885s) **-19 laps**
- 12 M Goossens (B)/D Farnbacher (D)/R Hunter-Reay (USA)**  
GTM SRT Motorsports (Riley) SRT Viper GTS-R (Q24-1m44.506s) **-20 laps**
- 13 R Matos/G Casagrande/J Campos (BR)/D Ostella (CDN)/T Drissi (US)**  
PC Performance Tech Motorsports ORECA-Chevrolet FLM09 (Q17-1m42.053s) **-26 laps**
- 14 D Muller (D)/J Edwards (USA)/G Rahal (USA)/D Werner (D)**  
GTM BMW Team RLL BMW Z4 GTE (Q30-1m45.667s) **-27 laps**
- 15 S Dixon (NZ)/T Kanaan (BR)/M Franchitti (GB)/K Larson (USA)**  
P Chip Ganassi Racing Riley-Ford EcoBoost DP (Q6-1m38.948s) **-28 laps**
- 16 O Gavin (GB)/T Milner (USA)/R Liddell (GB)**  
GTM Pratt & Miller Chevrolet Corvette C7.R (Q27-1m44.729s) **-29 laps**
- 17 G Jeannette/F Montecalvo/M Guasch (USA)/D Cheng (PRC)**  
PC PRI/ Mathiasen Motorsports ORECA-Chevrolet FLM09 (Q21-1m43.156s) **-33 laps**
- 18 T Bell/S Tucker/B Sweedler/J Segal (USA)/A Pier Guidi (I)**  
GTD Level 5 Motorsports Ferrari 458 Italia (Q37-1m47.062s) **-33 laps**
- 19 T Pappas/S Pumpelly (USA)/N Canache (YV)/M Winkelhock (D)**  
GTD Flying Lizard Motorsports Audi R8 LMS (Q50-1m48.045s) **-33 laps**
- 20 J Heylen (B)/M Snow (USA)/M Seefried (D)**  
GTD Snow Racing Porsche 911 GT America (Q46-1m47.649s) **-33 laps**
- 21 M Salo (FIN)/M Aleshin/B Rotenberg/S Zlobin (RUS)/M Mediani (I)**  
GTD SMP/ESM Racing Ferrari 458 Italia (Q40-1m47.361s) **-33 laps**
- 22 S Neiman (USA)/D von Moltke (ZA)/F Albuquerque (P)/A Latif (GB)**  
GTD Flying Lizard Motorsports Audi R8 LMS (Q52-1m48.140s) **-34 laps**
- 23 T Borcheller/S Tucker/G Cosmo/M LaMara (USA)/M Valverde (CR)**  
GTD Level 5 Motorsports Ferrari 458 Italia (Q39-1m47.348s) **-34 laps**
- 24 R van der Zande (NL)/M Schultis (D)/E Lux (USA)/S Bird (GB)**  
PC Starworks Motorsport ORECA-Chevrolet FLM09 (Q14-1m41.815s) **-36 laps**
- 25 D Cameron (USA)/P dalla Lana (CDN)/A Farfus (BR)/M Palttala (FIN)**  
GTD Turner Motorsport BMW Z4 (Q42-1m47.418s) **-36 laps**
- 26 L Keen/C MacNeil/S Lewis (US)/S Gisbergen (NZ)/LP Dumoulin (CDN)**  
GTD Alex Job Racing Porsche 911 GT America (Q45-1m47.647s) **-39 laps**
- 27 J Bomarito (USA)/R Bell (GB)/K Wittmer (CDN)**  
GTM SRT Motorsports (Riley) SRT Viper GTS-R (Q26-1m44.611s) **-42 laps**
- 28 K Giermaziak (PL)/H Cisneros (USA)/W HENZLER (DK)/N Thiim (DK)**  
GTD NGT Motorsport Porsche 911 GT America (Q47-1m47.742s) **-43 laps**
- 29 D Serra (BR)/F Longo (BR)/X Negro (BR)/M Gomes (BR)**  
GTD Scuderia Corsa Ferrari 458 Italia (Q35-1m47.052s) **-46 laps**
- 30 T Vilander (FIN)/A Balzan (I)/J Westphal (USA)/L Case (I)**  
GTD Scuderia Corsa Ferrari 458 Italia (Q34-1m47.028s) **-48 laps**
- 31 A Lally (USA)/J Potter (USA)/W Henzler (D)/JF Dumoulin (CDN)**  
GTD Magnus Racing Porsche 911 GT America (Q44-1m47.572s) **-50 laps**
- 32 K Estre (F)/P Lindsey/C de Philippis/J Hart/M Vess (USA)**  
GTD Park Place Motorsports Porsche 911 GT America (Q45-1m47.587s) **-50 laps**
- 33 K Wilden/D Empringham (CDN)/R Randall/J Farano (USA)**  
GTD Scuderia Corsa Ferrari 458 Italia (Q56-1m48.758s) **-50 laps**
- 34 J James (GB)/M Farnbacher (D)/M Holzer (D)/A Riberas (E)**  
GTD Alex Job Racing Porsche 911 GT America (Q49-1m47.952s) **-56 laps**
- 35 J Pace (USA)/B DeFoor (USA)/F Beck (USA)/D Hinton (USA)**  
P Highway to Help Riley-Dinnan/BMW DP (Q12-1m41.587s) **-64 laps**

In each car, first-named driver started race; driver in italics set qualifying time.  
Winners' average speed: 103.05mph. Fastest lap: Bourdais, 1m39.180s, 129.22mph;  
PC: Bird, 1m43.016s, 124.41mph; GTLM: Tandy, 1m44.914s, 122.16mph;  
GTD: Christopher Haase (Audi R8 LMS), 1m47.194s, 119.56mph. There were 87 starters.

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FORIX



## Song remains the same as heavyweights rock

This may be a new era for US sportscar racing, but it brought a typical Daytona V8 gruntfest to the flag. **GARY WATKINS** reports

THERE WAS A NEW NAME ABOVE THE DOOR, A BUNCH of different cars and an aura of expectation hanging over the place. But it was business as usual in the Daytona 24 Hours at the start of the brave new world of the United SportsCar Championship: a trio of Daytona Prototypes all on the lead lap were bunched up behind the safety car with minutes to go, and then released for one final dash to the flag.

Not that there's anything wrong with that, although the odd LMP2 in the mix wouldn't have gone amiss. The 52nd running of the US enduro produced the kind of ultra-close finish that has become *de rigueur* at Daytona. This time the margin of victory was 1.4 seconds at the end of a fight between a trio of Chevrolet-engined Corvette DPs. The winners were the Action Express team and drivers Joao Barbosa, Christian Fittipaldi and Sebastien Bourdais, who produced a near-faultless run interrupted by one unscheduled stop to clean the radiators and a penalty for avoidable contact.

Barbosa reprised his and Action Express's 2010 Daytona victory after keeping his Coyote-Chevy firmly in the lead through an eight-minute, five-lap run to the flag after the 16th and final yellow-flag period of the USC opener. His immediate pursuer, Max Angelelli, aboard the Wayne Taylor Racing Chevy-powered Dallara, wasn't able to get close enough to mount a challenge for the lead, while the second Action Express entry, managed by the

British Delta Motorsport squad and driven by John Martin at the end, finished a further 18s behind.

The winner always appeared likely to come from this trio. The 'Vette-lookalikes had an edge over all their rivals around the 3.56-mile Daytona International Speedway last weekend, and the two other Chevy-motivated DPs dropped out of contention early on — one in dramatic style and the other in insidious fashion.

The GAINSCO/Bob Stallings Racing Corvette-bodied Riley that Alex Gurney had qualified on pole crashed out of the race at the end of the third hour when Memo Gidley slammed into the back of Matteo Malucelli's slowing Risi Competizione Ferrari in the infield (see story, p63). The Spirit of Daytona Coyote, which had started alongside the GAINSCO entry, was never quite the same force as it had been in practice and qualifying and eventually slipped off the lead lap in the 13th hour, its drivers complaining that the engine was never quite the same after an early sensor failure.

There was ultimately little to choose between the three cars that ended up on the podium. The WTR Dallara, which Angelelli shared with brothers Ricky and Jordan Taylor and their father Wayne, came into its own during the night and appeared to have the narrowest of edges, but as the temperatures rose on Sunday the balance flipped around in favour of the winning Action Express Coyote.





**Winning Action Express  
Coyote Corvette puts lap  
on GTLM runner-up BMW**



**Scoring pylon and  
banking means start  
of racing season**

This was no surprise to the Action Express squad. It had worked hard since the official Daytona test at the start of January, the 'Roar before the Rolex', to produce a car that quick when the temperatures were at their highest, according to team manager Gary Nelson.

"We were quick when it was cold, but the car wasn't good in the high temperatures," he said. "We left the Roar saying we have to get better on a hot track, because the likelihood was always going to be that the race finished in relatively warm conditions. We gave up a little bit of our pace in cold conditions to make sure we were quick if it was warm."

WTR boss Wayne Taylor didn't disagree: "We definitely had a quick car in the night, but we seemed to suffer more in the heat."

Taylor also expressed surprise that the Action Express car was slightly quicker on the flat-out banking, which ultimately gave Angelelli no chance of overhauling the leader over the final five laps.

The Italian, who has stepped down from full-time driving duties this season to concentrate on a management role at the team he co-owns, had made inroads into Barbosa's lead after taking over from

Ricky Taylor late in the 23rd hour. He closed the gap to nine seconds after the penultimate round of stops, only for Barbosa to extend the lead to 15s.

Another safety car period wasn't what the Portuguese was hoping to see. The winning Action Express crew had been nursing a baulky gearbox for the second half of the race and was worried that one botched shift might give Angelelli his chance.

"I didn't want to see the yellow flags, because I was struggling with the gears," he said of what was clearly a cynical safety car given that the Porsche that had just gone off was already back on track when the yellow flags flew. "I was surprised by that, but I just had to deal with it."

And deal with it he did. When the safety car peeled off, he had one car between himself and Angelelli, which meant he was able to get the jump.

The Action Express Coyote was over a second clear at the end of the first lap after the green and nearly two a lap later. Angelelli had nothing in the tank to take the fight to Barbosa.

There was no fairytale for 57-year-old team boss Taylor Sr who was, at once, making a comeback and saying goodbye to professional racecar driving at



**The first podium  
of the new USC**

Daytona. Tempted out of retirement by the chance to join his two sons, he completed a solo stint in the car shortly after nightfall and has now hung up his helmet for good.

The second Action Express car, in which Martin was joined by Burt and Brian Frisselle and Fabien Giroix, was in the mix all race long, though it too had a gearbox problem almost from the beginning of the race. The Action Express cars, it should be pointed out, opted against running a paddleshift system like most of their rivals.

Those rivals included three Riley DPs running the new Roush-Yates twin-turbo EcoBoost engine, two from Chip Ganassi Racing and one from Michael Shank Racing. All three were initially in the hunt despite being down on straightline speed to the Chevrolets. The deficit hadn't been apparent at the Roar, but the late restrictor change for the DPs appeared to affect the turbo cars more than the big-capacity normally-aspirated Chevy V8.

That disadvantage turned out to be irrelevant, because only the Shank car finished. AJ Allmendinger, Justin Wilson, Oswaldo Negri Jr and John Pew ended up in 47th position after losing nearly three hours to a gearbox change.

Ganassi, which was bidding for a fifth Daytona victory in the 10 seasons since it joined the sportscar ranks, left the speedway empty handed. The #01 car in which Scott Pruett was bidding for a sixth victory was out of contention in the 11th hour when he hit the wall on the exit of the Bus Stop and needed a long stop for repairs. The car retired with engine problems in the closing stages.

The #02 car, shared by Scott Dixon, Tony Kanaan, Marino Franchitti and Kyle Larson, remained on the lead lap until the 20th hour when Dixon sustained a puncture. It also succumbed to engine issues, this time in the final hour.

The best of the LMP2 machines, the Muscle Milk ORECA-Nissan 03, finished fifth in the hands of Klaus Graf, Lucas Luhr and Alex Brundle, but was never quite in the game. The car lost a lap with a puncture in the opening hour. It was never able to get back on terms and lost a further two laps with an electrical fire in the cockpit in the closing stages.

OAK Racing's Morgan-Nissan LMP2 showed what might have been possible with one of the European-style machines that make up the USC's Prototype division together with the DPs and the DeltaWing. The car had the pace to run with the DPs, though not to overtake them courtesy of inferior straightline speed, and Pla claimed second fastest race lap in the car he shared with Gustavo Yacaman, Oliver Webb and Romain Rusinov.

They ended up eighth after losing 40 minutes replacing an alternator. The shame was that it was a failure never before been encountered by OAK.

Pla was sure that they could have finished on the lead lap and that would have given them at least a chance of a podium. Which suggests that the future is brighter for the USC than it looked on a weekend where it seemed as though not a lot had changed at Daytona. ►



Porsche, co-driven by  
Tandy, had late scare



LEVITT/LAT

GTLM

## Works 911 gets it in the bag despite late emergency call

PORSCHE THOUGHT IT HAD THE GT LE MANS CLASS in the bag with little over half an hour to go. Its surviving CORE Autosport-run factory 911 RSR driven by Patrick Pilet, Nick Tandy and Richard Lietz had a lead of nearly two laps and was cruising. Yet 20 minutes later Pilet was racing pedal to the metal for the victory.

Porsche's surviving GTLM entry had outlasted its true rivals for the class win, Chrysler's SRT Viper GTS-Rs and the two new Chevrolet Corvette C7.Rs, which left the best of the Rahal BMW Z4s in the hands of Joey Hand as its nearest competitor. The BMW got itself back on the lead lap when Pilet made his final fuel stop under the safety car with 30 minutes to go. The Porsche rejoined just behind on the track, and a waveby put Hand within striking range for the final eight minutes.

Hand was just 3.6s behind after the first green-flag lap, then closed to under a second before he had to back off after being squeezed high on the banking by a GTD-class Ferrari. The BMW's momentum was lost and the Porsche made it home 2.8s in the clear. "I thought I could do it if he got bottled up in traffic, but when that Ferrari hung me up against the wall I knew it was over," said Hand, who shared his Z4 with Andy Priaulx, Bill Auberlen and Maxime Martin. "I shouldn't be complaining because we came here thinking we'd be lucky to finish in the top five."

The reason for the last comment was the BMW's lack of straightline speed in comparison to the Porsche, Chevrolet or Viper, which ensured that the two Rahal Bimmers never truly challenged until

those final laps. The Hand car had lost its two laps earlier in the race courtesy of a stop-go penalty and time lost to attention to its air filters.

The Porsche had looked home and dry once the #4 Corvette shared by Oliver Gavin, Tommy Milner and Robin Liddell ran into gearbox problems in the 22nd hour. Up to that point, said Tandy, it had been "a game of cat and mouse".

The two cars were evenly matched: the Porsche was quicker on the front stretch; and the Corvette had the edge on the infield. It was anybody's race, reckoned Liddell. "We definitely had a chance," he said. "We were able to run in their tow and catch up a bit, but I'm sure if they were behind they would have been able to drive past."

The #4 Corvette had shown prodigious pace, catching up from two laps down after it needed attention when a water-temperature alarm went off twice in the space of two laps. The system was bled and the car fought back into contention.

The sister car, driven by Jan Magnussen, Antonio Garcia and Ryan Briscoe, encountered a similar problem later in the race, believed to be caused by an air-lock in the cooling system, and went out with engine failure.

The two Vipers led the class for much of the first quarter of the race and perhaps had the edge on both the Porsche and the Chevrolet. The car Marc Goossens qualified on pole lost time with a powersteering leak in the seventh hour, while Jonathan Bomarito damaged the front end of the sister car leaving the pitlane approximately one hour later.



Corvette dropped back  
with late problem

LEVITT/LAT

## IN THE PADDOCK

### Gary Watkins



YOU'VE GOT TO HAND IT TO SCOT ELKINS, THE embattled competitions boss of IMSA, the United SportsCar Championship's sanctioning body. He stuck to his claim that the Adjustment of Performance between the Daytona Prototypes and the LMP2s was more or less correct and then, at least in part, was vindicated.

The result sheet would suggest that the P2s were nowhere last weekend, but that was patently not the case. The Muscle Milk ORECA was on course to finish only one lap down prior to a late electrical fire. And OAK Racing's Morgan would probably have finished on the lead lap but for alternator problems early on.

The P2s had the pace to keep up with the DP's, if not truly race them. Pla's second-fastest race lap and quick times from the delayed Extreme Speed HPD in David Brabham's hands during the night were proof of that.

The USC opener suggested, against expectations, that IMSA does have the ability to balance two very different types of racing car – or "an apple and a banana" as Elkins put it. That has to be good news for the series, though not necessarily for IMSA's competitions guru.

He has to start again to match the cars for an entirely different type of circuit in time for the Sebring 12 Hours in March. There'll be no end to the sleepless nights for a man who looked distinctly frayed around the edges last week.



ORECA was top  
LMP2 finisher, fifth

LEVITT/LAT

## BIG NUMBER

# 40

The number of overall and class victories the Porsche 911 and its derivatives have now notched up in the Daytona 24 Hours following the triumph for Nick Tandy, Richard Lietz and Patrick Pilet in GT Le Mans last weekend.



# Level 5 Ferrari wins it twice

THE LEVEL 5 FERRARI TEAM WON the GT Daytona class twice over.

The team's lead Ferrari 458 Italia shared by Alessandro Pier Guidi, Townsend Bell, Jeff Segal, Bill Sweedler and Scott Tucker was the first GTD car to cross the line at the end of the 24 Hours, yet it wasn't initially declared the class winner. Nearly three hours after the end of the race a penalty against the car was overturned and Level 5 was declared the winner.

The shenanigans followed a last-lap clash between Pier Guidi and the chasing Flying Lizard Audi R8 LMS driven by Markus Winkelhock. The Audi driver got a run on the Ferrari and made a bid for the lead around the outside of the kink in the infield, only to be given no room

and to run off the road.

The race director immediately made a call of "avoidable contact", which came with a 75-second time penalty that dropped the Ferrari to fourth in class. That decision was subsequently overturned by sanctioning body IMSA's supervisory officials, handing the win back to Level 5.

The fact that there had been no contact was irrelevant to their decision, according to IMSA competitions boss Scot Elkins.

"It is called avoidable contact, but contact isn't necessary to invoke the penalty," he explained. "We came to the conclusion that it was a racing incident."

It's difficult to argue against the contention that Level 5 Motorsports and its lead entry

deserved the victory in an ultra-competitive class. Pier Guidi and his team-mates were never off the lead lap, and led for longer than anyone else, which wasn't bad considering that the team hadn't taken delivery of its pair of Ferraris until days before the official Daytona test.

Winkelhock, who shared his Lizards Audi with Tim Pappas, Nelson Canache and Spencer Pumpelly, begged to differ. He argued that Pier Guidi had given him no room at the kink and had, as the race director called, forced him off the track.

The Lizards played a long game at Daytona. The team didn't chase a qualifying time, ending up 18th in class, but slowly moved up into contention with the final safety car.



Moment of truth, as Audi bounces across the grass

## Gidley seriously hurt in shunt

MEMO GIDLEY SUFFERED LEG, ARM AND BACK injuries in a horrific incident early in the race when his GAINSCO/Bob Stallings Riley-Chevrolet ploughed into the back of Matteo Malucelli's slowing Risi Ferrari in the infield.

The American, who had taken over the GAINSCO car from polewinner Alex Gurney, was passing a GTD Ferrari that moved wide ahead of the kink when he jinked to the inside. Unsighted, he had no chance of avoiding the GTLM-class 458 Italia, which had lost drive out of the preceding hairpin.

Gidley was conscious throughout his extrication, after which he was taken along with Malucelli to the local Halifax Health Medical Center in Daytona Beach. His leg and arm injuries were operated on overnight and he was scheduled to undergo further surgery on what was described as an "unstable back injury" in the early part of this week.

Malucelli was kept in hospital overnight for before his release on Sunday afternoon.

The reason for the Risi car slowing was unknown at press time. The car had been impounded, along with the Riley, and was transported to the NASCAR research-and-development centre in Concord, North Carolina for investigation on Monday.

The race was red-flagged and suspended for an hour as a result of the accident.



The remains of the Riley wreckage

CORE's quartet spray the bubbly



LEVITT/LAT

## PC VICTORS QUICK TO THE CORE

CORE Autosport (which ran the GTLM-winning Porsche) completed an impressive double by taking victory in the Prototype Challenge class with Colin Braun, Mark Wilkins, James Gue and team boss Jon Bennett. Their ORECA-Chevy FLM09 ran faultlessly to record a one-lap victory over the 8Star Motorsports entry shared by Tom Kimber-Smith, Rob Huff, Enzo Potolicchio and Mike Marsal, who were challenging for the lead before Huff was rear-ended in the closing stages.

## PROBLEMS SLOW ASTON

Early powersteering problems blunted Aston Martin Racing's GT Le Mans class challenge. A long delay in the seventh hour left the Vantage GTE shared by Darren Turner, Stefan Mücke, Richie Stanaway, Pedro Lamy and Paul Dalla Lana a distant eighth in class at the finish.

## SMITH MAKES IT HOME

The Marsh Racing Coyote-Chevrolet, in which British Radical ace and Sunoco Challenge winner Bradley Smith, made his international sportscar racing debut made it to the finish of the 24 Hours despite two significant delays, including a throttle-linkage problem.

## DIFFICULT START FOR MAZDA

Mazda's pair of turbodiesel Lola P2s endured a disastrous debut. With their SKYACTIV-D engines turned down in an effort to make the production-based powerplants last the distance, the two cars were both more than 10 seconds off the pace. Neither of the SpeedSource-run cars made the finish, retiring with overheating problems and a thrown oil belt respectively.

## DELTAWING HAS LEGGES ON P2s

The DeltaWing-Panoz/Mazda DWC13 failed to finish after encountering a series of problems that culminated with transmission failure in the 17th hour. A disappointing race followed an impressive qualifying performance by Katherine Legge to line up eighth, exactly one second from pole and ahead of all the LMP2 entries.



DeltaWing went out at two-thirds distance

WILLIAMS/LAT



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# Fifteen questions for Martin Brundle

## Q When were you happiest?

## A Standing on the podium at Le Mans



LAT

**Who has been your fiercest rival?**

[After a pause] It had to be Ayrton Senna in Formula 3. I hesitate, because I also think of Michael Schumacher when we were team-mates in F1, but I think the most intense battle I ever had was in 1983. The head-to-head with Ayrton was every qualifying lap, every lap of the race; he won, I won, we hit each other on the track – just so many experiences in one F3 season. We had a few epic battles in F1, too.

**Who was your childhood hero?**

Funnily enough I was talking to Jackie Stewart about this just recently. I remember watching Jackie and Graham Hill on BBC *Sports Personality of the Year* with their brilliant banter. There was hardly any F1 on TV back then, and that really motivated me, so I first went to the British Grand Prix at Brands with my uncle, and then to Silverstone, to watch Jackie and Graham. My uncle was a Jim Clark fan, though!

**When were you happiest?**

Standing on the podium at Le Mans after we'd won in the Jaguar in 1990. That was a spectacular moment, looking down at the sea of fans – brilliant.

**Which living person do you most admire and why?**

Until last year I'd have said Margaret Thatcher, then I might

have said Nelson Mandela, so I'll say Sir David Attenborough. His broadcasting skills and his utter, tireless dedication to poke about and tell us things – I've always loved his wildlife shows since I was a kid.

**What has been your most embarrassing moment?**

In a racing car, it was crashing into the pitwall exit at Daytona in 1988, although we went on to win. On a personal level, I was chatting to this guy on a boat. DC [David Coulthard] was there, Jenson, Bono, Guy Laliberte [Cirque du Soleil co-founder] and this other chap. I showed him around the boat, was talking for a good half an hour, and eventually I said, 'So what do you do then?' DC and JB just stared at me... Turned out I'd been talking to The Edge from U2! He didn't have his beanie hat on, that's why I didn't recognise him.

**What is your most treasured possession?**

In my lounge I've got a beautiful cabinet with all my racing trophies and also some BAFTA and RTS awards from my TV career. There's also my E-type Jag and my motorbike.

**Who would play you in the film of your life?**

I once went to a fancy dress party at Damon Hill's place dressed as Bruce Willis. I do an incredible Bruce Willis, so it would have to be him.

**What is your favourite smell?**

Warm bread.

**What is your guiltiest pleasure?**

Whisky, single malt. Dalmoor or Dalwhinnie.

**To whom would you like to say sorry and why?**

To the family for being absent as they grew up, for missing all the birthday parties, plays and musicals. And if I've miscalculated anything in



Happy Brundle: on the podium with Price Cobb and John Nielsen at Le Mans

GETTY IMAGES

my commentary – I'll apologise if I've ever called something wrong.

**What does success feel like?**

Exactly the opposite to failure. For me it's the Monday after the race, you open your eyes with one of two feelings: your heart either sinks or it's full of utter joy depending on if the race went wrong or right. A good one, you get out of bed with a spring in your step – that is brilliant.

**What has been your biggest disappointment?**

The 1994 McLaren and the British GP in particular. It should have been one of the highlights of my career, and it blew up on the startline – I almost toasted my mate Mark Blundell behind me!

**If you could edit your past, what would you change?**

A lot. I'd have been more focused. I'd have been more ruthless too. A lot, lot more selfish.

**How do you relax?**

On my motorbike, in my helicopter and in the gym. I'm not very good on sunny holidays, but I like skiing. I'd say I'm most relaxed when I'm riding my motorbike though.

**When was the last time you cried?**

The last time I cried properly was at my dad's funeral in 1996. I do get a bit teary when I see a sad movie on a plane. DC says the same – it must be the altitude. ☹



British GP 1994:  
Brundle 'toasts'  
Blundell's Tyrrell

COOPER/ALLSPORT



# STR aims to nose ahead

Red Bull's little brother revealed a challenger with a few nice tweaks – but *that* awful nose. By **GARY ANDERSON**

## TORO ROSSO-RENAULT STR9

The Toro Rosso was the first car we saw in the flesh on Monday and showed the nose to be a very questionable component when it comes to how a Formula 1 car should look. But STR has built the car to the regulations, so it is the rulebook that should be questioned.

The team has restructured in recent years and by moving to Renault engines can work more closely with Red Bull. It has produced a neat and tidy, professional car which is the objective for any small team.

Although the nose of the car is attention-grabbing, it's the work at the rear that is certainly the most interesting.

### AIRBOX INTAKE

What appears to be a single large intake is actually split horizontally. One half is a cooling duct, while the other feeds air to the turbocharger.



### NOSE

This is a simple concept. The anteater design is there both to pass the crash test and satisfy the nose-height rule. But it allows you to retain as high a front end as is possible within the constraint of the regulations.



### FRONT WING

The outboard sections are a little more sophisticated than previously, although the concept is not that different. The endplates themselves are simpler, with a big right-angled flap at the back of them to try to turn the airflow around the outside of the front tyres.

### FRONT SUSPENSION

A more conventional geometry, with flatter wishbone angles rather than a dramatic angle up to the chassis. In 2013, cars with the most angular geometry ended up with the outside front tyre rolling into positive camber, so to combat that you run more negative camber when the car is static. That drags the inside shoulder of the front tyre, which led to a lot of wear problems.





## REAR WING

The rear of the floor has been stiffened up and the rear wing is mounted directly to the floor, rather than with central pillars. Achieving this was not easy for the team but it's possible to make it work. But it could easily weigh a lot more than two central mounts.

"The Toro Rosso proves exhaust-blown downforce-producing devices haven't completely disappeared from Formula 1"



## GEARBOX

The gearbox features Red Bull's eight-speed internals, but the decision was made to produce its own aluminium casing. This allowed Toro Rosso to control its own destiny in terms of rear-suspension geometry rather than be locked in by Red Bull's mounting points.



## SIDEPODS

These are noticeably bulbous. They may be doing something under the bodywork that we can't see. With the 2014 cooling requirements the car has eight different radiator systems for various fluids, so the packaging demands are difficult.

## TAILPIPE WING

The reason STR was so keen to mount the rear wing to the floor was to accommodate the rather large two-element monkey-seat wing above the exhaust pipe. The velocity of the exhaust gases will make this work harder, producing more downforce than you would get with normal car airspeed.





# Kvyat takes his biggest step

**Scuderia Toro Rosso's new teenager Daniil Kvyat faces a big challenge in his rookie F1 season. EDD STRAW asks the Russian teenager if he's ready for his graduation**

**C**ontrary to what you might have heard, Daniil Kvyat is ready for Formula 1. He will still be a teenager when the season starts, pitched in at the deep end in the biggest of all of motorsport's leagues without so much as any testing in GP2 or Formula Renault 3.5, let alone any races in those two categories that sit immediately below F1 in the single-seater pyramid.

But while you could argue he could be better prepared, during 2013 he proved he is made of the right stuff. Provided Red Bull gives him the time to develop – realistically three seasons – his promotion to Toro Rosso will not have been the foolish move that some concluded it was.

Speaking to Kvyat, he is not the kind of callow late-teenager you might mistakenly assume. He's articulate and, more importantly, his mindset – respectful but not overawed – is right. He's fully aware of the challenge he faces, especially as rookies have it harder than ever in attempting to cut it at the top level, but he'll not overcomplicate things.

"In the end, Formula 1 is also a racing category," he says, matter-of-factly. "Everybody talks about 'F1, F1...' like it's something unbelievable, totally different. But no, it's a racing series. A top racing series and you have to multi-task more, but in

the end you just have to adapt."

'Adapt' is the key word. The moment Kvyat was unexpectedly announced as Toro Rosso's replacement for Daniel Ricciardo last October, the armchair critics and Twitterati started wailing about how difficult it will be for him to do just that. While there were commercial reasons on Kvyat's side that meant it suited Red Bull to promote him, had Antonio Felix da Costa met the standards he set for himself in FR3.5 in 2013 there is no doubt that one side of the Toro Rosso garage would have a Portuguese flag above it this season.

Kvyat did prove a lot last year. He won the GP3 title, as new F1 rivals Esteban Gutierrez and Valtteri Bottas did previously. After a poor first half of the year, he dominated the second. But it was his parallel programme in the Formula 3 European Championship that really impressed.

Ineligible for points (he missed three of the triple-header meetings, including the first two) he stuck his Carlin entry on pole for his debut at Hockenheim after nothing more than a shakedown test at Pembrey. It was the first of five pole positions. Thanks to iffy getaways, he only converted the last of these poles – at Zandvoort – into victory (this following his first 'proper' F3 test), but he'd made his point.

"Zandvoort was a great weekend," he says. "I



**Youth opportunity:**  
sliding into Toro Rosso



**Kvyat starred in wet practice at Interlagos**

think it was actually the weekend after which the F1 decision was made. I proved that I could do it in GP3, but to win in two categories in the same year means a lot. It was important in proving myself."

It was also the ability to recover from problems that, according to Red Bull driver programme boss Helmut Marko, gave Kvyat the decisive edge over his rivals for the seat. Marko's summary was simple: "All three of them had problems with their team or their car and at the beginning it was mainly on the car of Kvyat. But it didn't affect him [mentally] like it did with da Costa."

Tyre management was the MW Arden GP3 team's big problem and Kvyat looked anything but title material early on in the campaign.

"It was really tough after race one in GP3 at Barcelona," he admits. "I was almost a lap down; the small technical issues of the other drivers are nothing in comparison. We had to work hard and others would have given up, but we didn't. You will have problems, but you have to not moan about them; you have to find the solutions. That's what makes the difference."

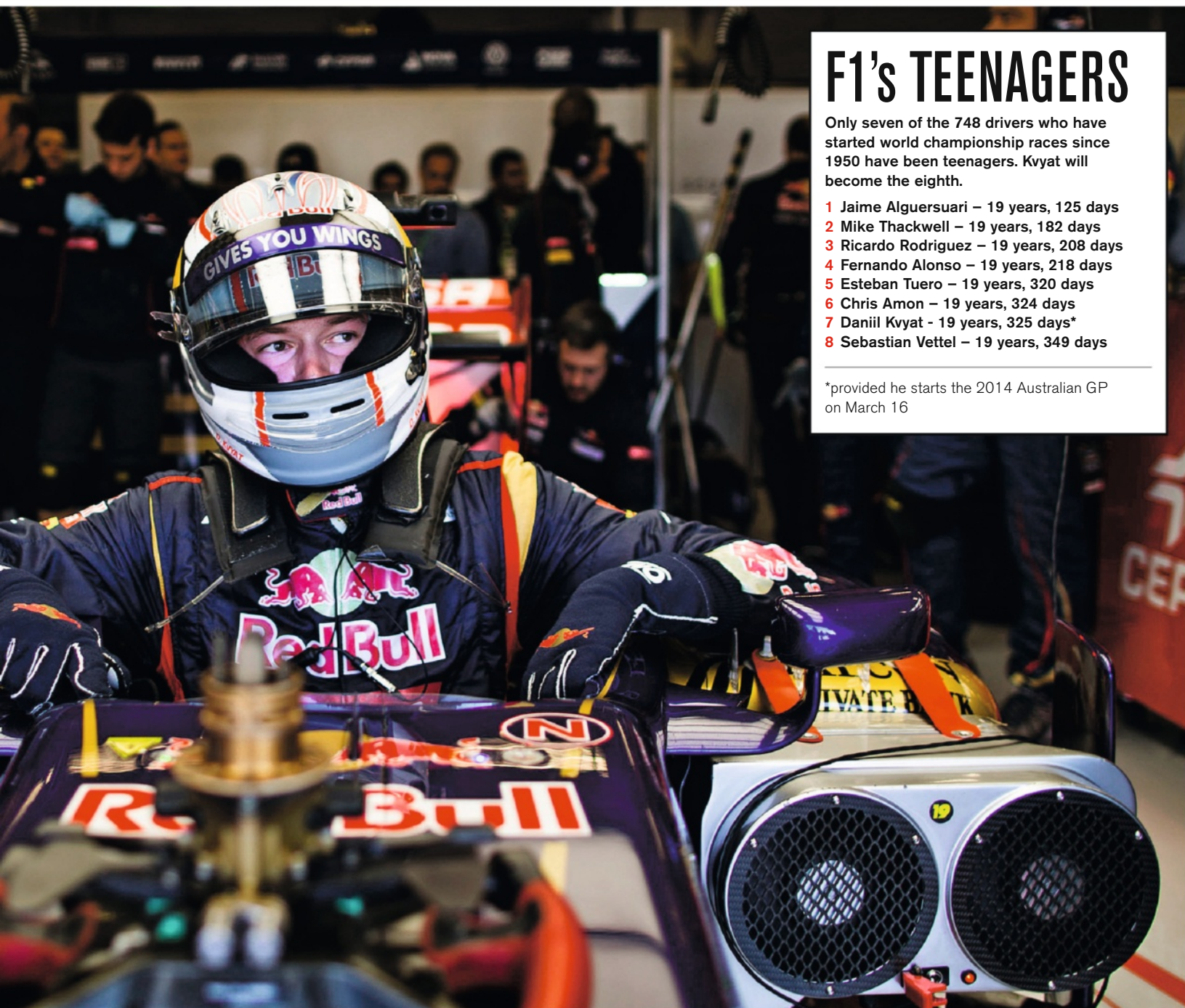


## F1's TEENAGERS

Only seven of the 748 drivers who have started world championship races since 1950 have been teenagers. Kvyat will become the eighth.

- 1 Jaime Alguersuari – 19 years, 125 days
- 2 Mike Thackwell – 19 years, 182 days
- 3 Ricardo Rodriguez – 19 years, 208 days
- 4 Fernando Alonso – 19 years, 218 days
- 5 Esteban Tuero – 19 years, 320 days
- 6 Chris Amon – 19 years, 324 days
- 7 Daniil Kvyat – 19 years, 325 days\*
- 8 Sebastian Vettel – 19 years, 349 days

\*provided he starts the 2014 Australian GP on March 16



FOX/GETTY

**“You always have to try to discover the limits of the car as fast as possible and never take it easy”**



FOX/GETTY

With such an attitude, it's no wonder that Kvyat is so well liked by Marko. It's a mindset that will be critical if Kvyat is to capitalise on what is a make-or-break opportunity that would likely shatter the careers of most drivers. Red Bull sees him as a project for the long term, but he can't afford to think he'll get a free pass if he doesn't make respectable progress in 2014.

When asked if he can treat it very much as a learning year, he responds: “No. You have to treat it like a normal championship because you can never know what's going to happen. You always have to try to discover the limits of the car as fast as you can and never think that you have time and can take it easy. It doesn't work like that. You have to be on it as quickly as you can. I will try to do my job, nothing more, nothing less.”

He will have just six days of pre-season testing before making his debut in Australia in March. But he has already built up some experience, completing 22 laps in the Toro Rosso in the young-driver test at Silverstone last July before chucking it in the gravel (“That's normal... I was

pushing hard”) and then running in Friday practice at Austin and Interlagos after completing 250 miles at Misano driving a 2011 machine. That's a hell of a lot more mileage than Toro Rosso gave Jaime Alguersuari prior to his mid-season debut as a 19-year-old in 2009.

Kvyat could certainly have made use of more experience, but he will not be out of his depth. One thing's for sure, he certainly won't be overawed by sharing the grid with drivers of the calibre of Sebastian Vettel and Fernando Alonso. “Everybody started from the same point,” he concludes. “They worked on themselves and became a big name. It doesn't matter who's who, you just have to do your best.”

It remains to be seen whether or not Kvyat becomes a name at this level. But the raw material is there and, while the step from GP3/F3 level is daunting, he has the right approach to make a go of it. And with so many writing off a driver whose name they had first heard only moments before he landed the drive, he certainly has the potential to be one of the season's surprise packages. **W**



# Time to start performing

After being beaten by Marussia last year, Caterham knows it has to substantially raise its game. By **GARY ANDERSON**

## CATERHAM-RENAULT T05

This is year five for Caterham (formerly Lotus), so it's time to start giving at least the back of the midfield a hard time. Not only has it been running 10th and 11th in the championship, but more significantly it has just been too far away on lap times.

Technical director Mark Smith, who I worked with in the early days at Jordan, is a very good and capable designer, but he needs a strong team working under him. Aerodynamics remain important this year, and that knowledge base is still an area where the team can improve in order to give Mark what he requires to produce an even better package.



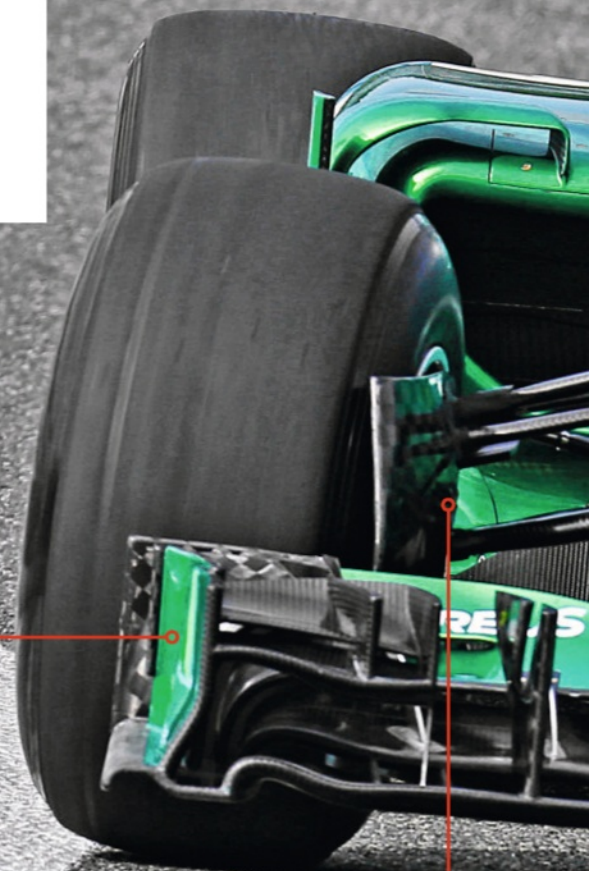
## SIDEPODS

The undercut and the sidepods themselves do look very large relative to the other cars. Housing the cooling systems isn't easy, but the bit that is really bulbous is the exit cooling duct just inside the rear tyre. This Coke-bottle area is crucial to good airflow to the back of the car, which helps downforce.



## FRONT WING

This features a lot more detail work on it than many rivals', with turning vanes early on in the profile. When you go off the beaten track with the nose, you need to create the whole package, so that's why so much effort has been put into this.



## SUSPENSION

Caterham has switched to pullrod front suspension. With the low chassis and the high-angled wishbones, that's a solution that is practical for this regulation change, although I'm not sure it's necessary. It means that the tyres' contact patch moves around a lot, and it will be detrimental to the performance of the front tyres.





"Caterham has gone out on a limb with this car. Tony Fernandes has put the pressure on for the team to up its game and I'm not sure the two go together"

71

## NOSE

Caterham has produced another interpretation of the front-wing design whereby the chassis itself is faired in as high as possible, with a wedge-shaped device attached to it. Underneath that hangs a pod that complies with the crash-structure regulations, and two very small and narrow wing-mounting pillars. It's not the most aesthetically pleasing but it's about whether it functions or not. The danger is that the pillars are too short to use as turning vanes to realign the airflow, even though there will be reasonable airflow between the front wheels.



## REAR WING

The rear wing has twin central pillars with the exhaust between them. There is a small monkey seat hanging out of the back just above the exhaust, which will produce a bit of downforce, but it's not very aggressive yet.



# Is this the best chance for Caterham and Marussia?

**New rules, new cars, new order? JONATHAN NOBLE assesses whether F1's tail-end charlies can move up the grid this season, or at least closer to the established teams**

**A**mid all the excitement of Formula 1's 2014 rules revolution, it's been all too easy to imagine that the changes are going to deliver a totally new ranking to the sport.

With this year's clean slate of rules, a common theme bandied about is that there will be a levelling of the playing field – and that backmarkers Caterham and Marussia have as much opportunity to succeed as top-end powerhouses Red Bull and Mercedes.

That's not quite the reality.

While new rules do offer some great opportunities for F1's minnows – especially if they can keep their machines together early on while the frontrunners hit trouble – ultimately new rules always favour those squads with the bigger resources. The F1 giants can spend more in pursuing different avenues of development to find the optimum; they can push their designs later, and they can spend more on targeting improvements to every area of the car,

irrespective of the cost/result balance.

"My personal view is that I really don't see big regulation changes as a levelling of the playing field," explains Caterham technical director Mark Smith.

"They are an opportunity, but I don't think the playing field becomes level. If I had 50 per cent more resource at my disposal I would perhaps have examined one or two other solutions in parallel, whereas we have to focus on our solutions and freeze them fairly quickly."

## POINTS OPPORTUNITY

It's unlikely that there'll be a dramatic resetting of the performance order to the extent that Caterham or Marussia battle at the front, but the new rules do at least offer the chance for the teams – both scoreless in their first four years of F1 – to make their long-awaited points breakthroughs.

Engineers up and down the grid are in no doubt that reliability is going to be a key factor early on, and if you can get your car to the finish line in

full working order the chances are that you'll be inside the top 10.

That perhaps is the best opportunity both teams have of getting a day in the sun. And after the torrid time both outfits have had in moving forward over recent years, few would begrudge them a headline-grabbing result if it came as the consequence of reliability chaos further up the order.

But amid a likely rapidly changing performance situation early on in 2014, as the teams at the front converge on their understanding of how to do the best job, just being reliable is unlikely to be enough to sustain Marussia and Caterham throughout the full campaign.

To achieve their longer-term ambitions – especially with the battle for 10th place in the constructors' championship being so valuable this year (see panel, top right) – performance is important too.

## FINDING SPEED

Both teams have reason to feel that progress has been made on this front, and that elements that were holding them back have now been removed.

Marussia's biggest boost comes on the engine front, for its new partnership with Ferrari brings with it full-on manufacturer backing.

It ensures that, for the first time since it entered the sport, it has power parity with the opposition, so it can have no excuses that the lump of metal in the back is holding it back.

The Ferrari deal includes gearbox too, so Marussia does not have to devote valuable resources to that area of the car, and can leave the real hard work of the 2014 power-unit regulations to Maranello.

Yet Marussia is also aware that the ever-tougher financial situation of F1 – which includes increased costs for engines – does not afford it much room for manoeuvre. That will limit the financial freedom it gets to push things on aerodynamically, which will still remain a big battleground this year.

Finishing 10th this year is of vital importance, because it could provide the financial fillip that would lift the team up to even bigger ambitions.

**Marussia delight at 10th place in the 2013 points**







Caterham v Marussia fight could have extra edge

## MILLIONS OF POUNDS AT STAKE

The fight between Marussia and Caterham is going to have an added intensity in 2014, as they could be going head-to-head for tens of millions of pounds in prize money.

F1's commercial rights income has only ever rewarded the top 10 teams, although a £6million 'Column 3' bonus payment has been given to squads that have failed to join the exclusive club since 2010.

Last year Marussia finished 10th, securing around £6m out of what is called the Column 2 fund. But bigger prizes are reserved for teams that finish in the top 10 for two seasons out of three – that Column 1 payment is worth around £18m.

Up until now Caterham has taken that home – and will do so again this year because it was 10th in 2011 and '12. But the team could fall out of that club if it finishes 11th again this year, which would leave it taking home just the £6m Column 3 money.

Marussia stands to trouser the Column 1 money if it can finish in the top 10 again, and this would be a massive boost to its tight finances.

But one scenario where both get their Column 1 money is if they can beat one of the established teams in the constructors' championship.



Caterham has settled into Leaffield HQ

FERRARO/LAT

**'Last year was a huge disappointment for Caterham, and had its roots in complacency'**



Fernandes could quit if 2014 form is poor

COATES/LAT

As sporting director Graeme Lowdon said about the chasing of bigger prize money: "This gives us something to build on in terms of commercial platform and that's good. It's progress – if you're not moving forward in F1, you're going backwards!"

### IMPROVEMENT VITAL

Caterham owner Tony Fernandes remains committed for now to digging into his pockets for the team ahead of what he views as a key campaign. If it doesn't shape up, the Malaysian says he's out.

Last year was a huge disappointment, and one that had its roots in complacency because the team felt it could campaign what was effectively a year-old car to beat Marussia. It was proved wrong early on.

While Caterham paid a big price for not pushing on with its 2013 car, that decision also meant more resources were devoted early on to '14, which should in theory pay off.

There are good reasons to believe that its

infrastructure is in better shape too. The team will benefit from the stability of having been in its Leaffield HQ for more than a year now. Processes should be improved, and staffing structures bedded down nicely.

There is also a new windtunnel deal agreed with Toyota to use its 60-per-cent-scale facility in Cologne.

But amid all the optimism and reasons to feel that 2014 should be better for both Marussia and Caterham, ultimately there's so much uncertainty surrounding F1 that no one can say for sure how competitive anyone is going to be.

What 2014 will be, though, is make-or-break for F1's minnows. There may not be a levelling of the playing field, but it's important that Marussia and Caterham do make the most of the opportunities given to them. They have to start racing with the more established teams on the grid.

If it doesn't happen this year, then it's unlikely that it ever will. ❧



# Lotus design stretches

**Enstone squad wasn't ready for this week's Jerez test, but it still managed to cause a stir by releasing this image of a 'twin-tusk' nose design unlike anyone else's**

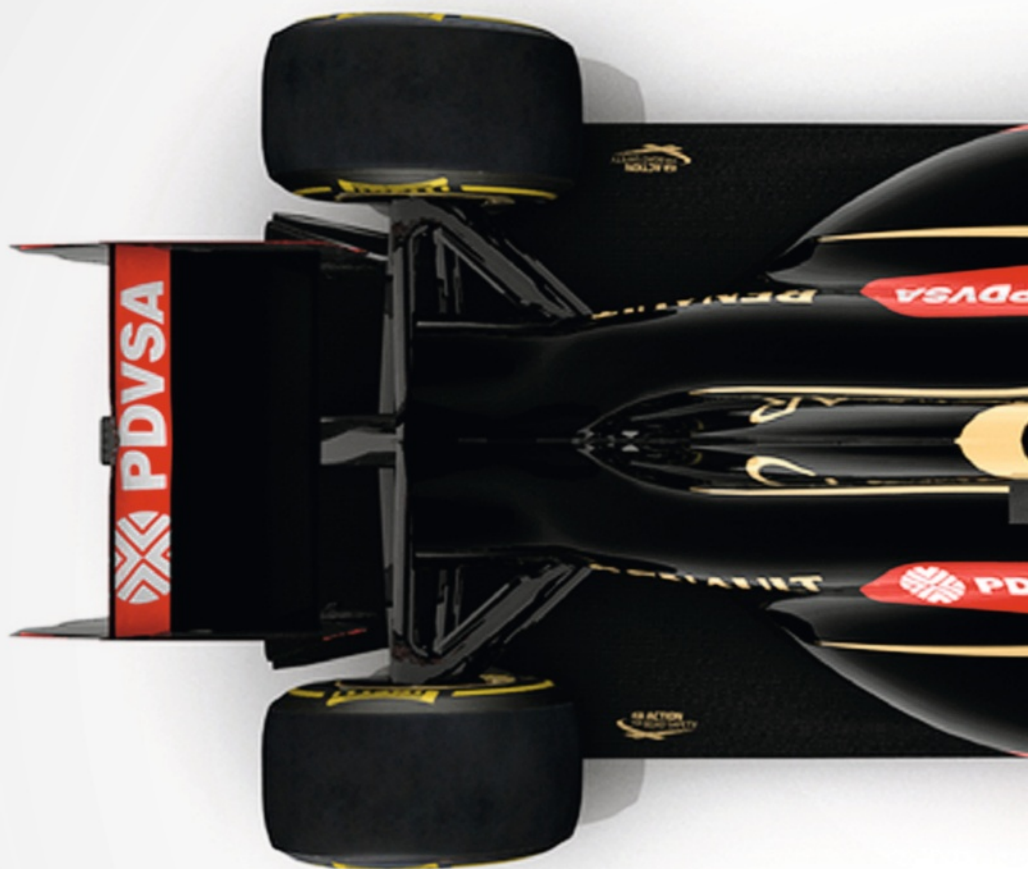
Nose design has been *the* big talking point of Formula 1's class of 2014. Whether it's the anteater, the platypus or the twin-tusk concept, there are some weird, wonderful and often aesthetically offensive designs that have led many to question the new rules package.

"I don't like these noses, to be honest," says Toro Rosso team principal Franz Tost.

"I think this is not F1-like. This is how the engineers have found the best solution from the aerodynamic point of view, but I don't think that these noses should have a big future."

The controversial noses are a result of a confluence of a rule change lowering the maximum height of the nose to 185mm at the front (measured 50mm from the tip) combined with teams' desire to keep the chassis as high as possible.

In order to maximise airflow under the car, some have chosen to keep the nose high for as long as possible before meeting the regulations with the unsightly anteater nose plunging downwards – none more so than the Caterham.



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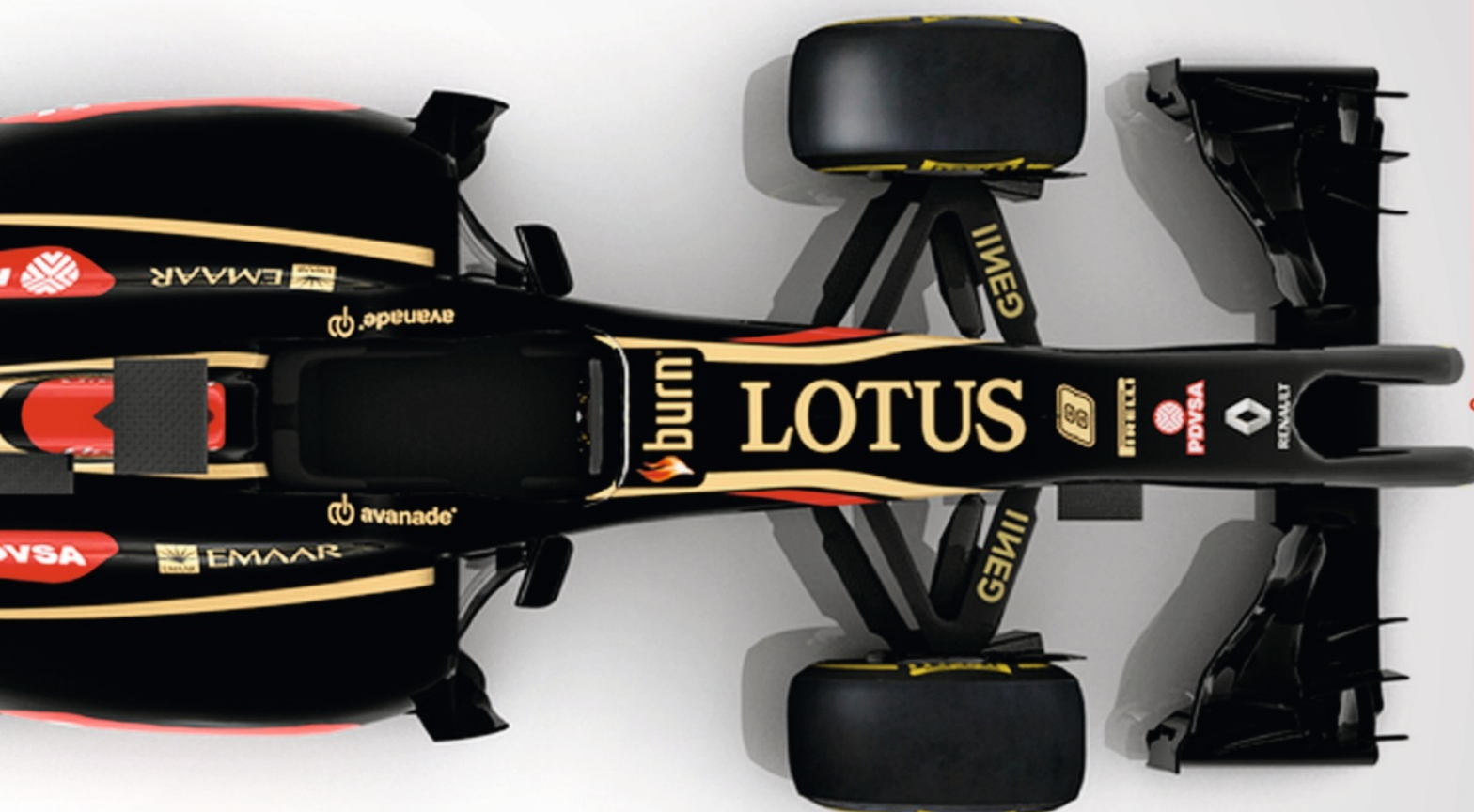


# nose rules to the limit

## TWIN-TUSK EXPLAINED

The rules mandating a single nose tip, to be mounted far lower than before and with a minimum cross-section, were introduced for safety reasons. In order to meet the single-lower-nose-tip regulation,

the two tusks are of unequal length, so the longer one forms the mandatory nose tip, while the other is short enough to avoid being considered part of the nose tip when applying the regulations.



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WILLIAMS



CATERHAM

## EXPERT VIEW



**Gary Anderson**  
AUTOSPORT technical expert

When the new regulations governing the height of the nose were released, the first job would have been to try to make the front-wing pillars do the two jobs you need the nose to do – act as a crash structure and support the wing. It seems that Lotus has committed to this approach.

The regulations demand that the tip of the nose has a single, cross-sectional area of at least 9000mm<sup>2</sup>. So one of the 'tusks' is slightly longer than the other to satisfy the demand

that it is a single surface.

But there are disadvantages to this approach. While some of the aerodynamic blockage is removed from the centre of the car by not having the elephant trunk-style nose, what you gain there you lose by the wing pillars both having to be very thick. There is nothing in the regulations saying that two tusks would have to be symmetrical, but the fact that they are both roughly 90mm wide suggests both are needed in order to pass the crash test,

not just the one that is nominally the nose.

This also means that Lotus cannot do what other teams have done by making the front-wing pillars into bargeboards. They are too thick and simply create a blockage.

Superficially it may seem a very innovative approach, but I see it simply as adapting the pre-2013 philosophy of nose design to the new regulations. Perhaps some more lateral thinking is required.

It's important to note that this is only a rendering of the Lotus. The team has a history of releasing images that are very different to its real car, so let's wait and see what hits the track in Bahrain next month.



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Volkswagen Castrol Cup is really impressive series – great cars, fantastic prizes in affordable price – Andreas Mikkelsen, Volkswagen Motorsport rally driver.

In the 2014 Volkswagen Castrol Cup will be held for the second season. Cup's organizer plans further increase of the attractiveness of competition. Thanks to the cooperation with Volkswagen Motorsport, Volkswagen Racing Poland team will prepare new versions of the GTI Golfs, with modified aero package and engine with extra power.

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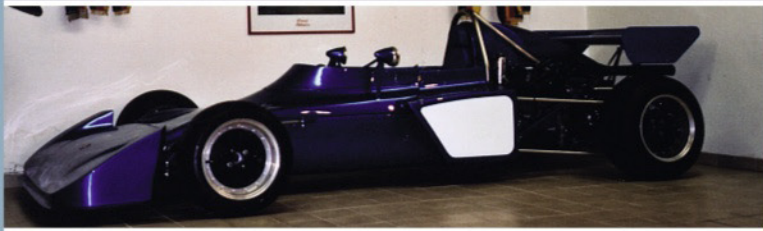


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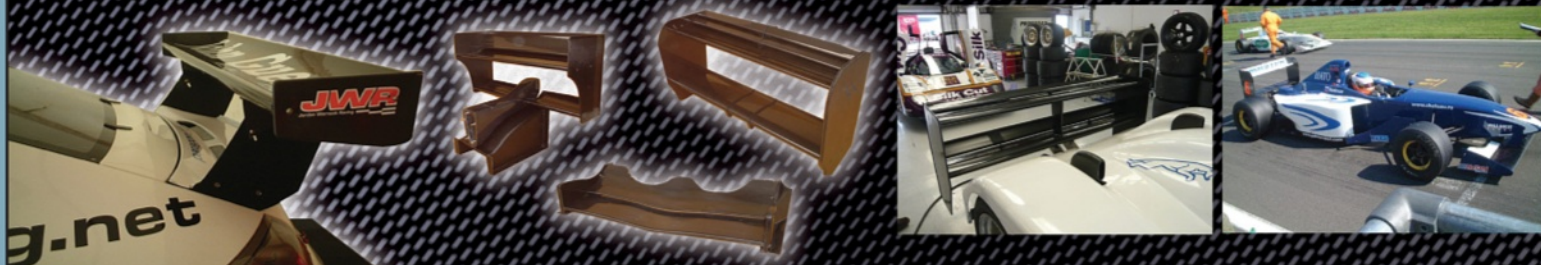
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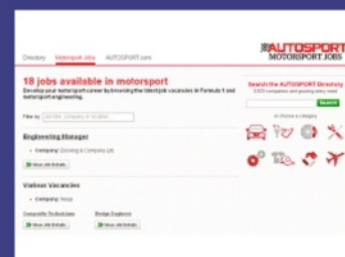
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Huff will drive Rover

in 1980 BTCC livery

**SCOTT MITCHELL**  
EDITORIAL ASSISTANT

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## IF EVER PROOF WAS NEEDED

of the prosperity of Britain's fantastic historic racing scene, the two newest entries to the revived Goodwood Members' Meeting surely offer it.

The cars that factory Aston Martin GT ace Darren Turner and world champion touring car driver Rob Huff will race at the 72nd MM at the end of March are a far cry from what they race to earn their living. But it's a brilliant example of the appeal that racing some classic British machinery at one of the greatest venues for historic racing.

The 'newest' addition to the Goodwood roster looks in fine health, and already promises to be a fitting curtain raiser for the 2014 season, especially if the eye-catching Kenny Brack manages to get his hands on something as spectacular as the Ford GT40 in which he wowed last year.

From a thriving historic event to an ever-improving contemporary series, and British GT has landed another coup this week. Alexander Sims, one of the best young racers outside of Formula 1, will bring to BGT with Ecurie Ecosse what Nick Tandy did with Trackspeed last year, and with Marco Attard back for another season the Barwell-run squad should be a title contender once again.

Another man out racing from the outset this season will be Formula Ford Festival winner Niall Murray. The young Irishman had a superb end to his first year in single-seaters, but it was soured by the Motor Sports Association's ruling that he be banned for six months for "withholding evidence". The decision from Motorsport Ireland not to impose that ban for fear it could hurt his career will probably stoke a few flames, but for Murray it's a welcome reprieve.

## Star Brits to race at Goodwood

Rob Huff and Darren Turner join entry list for 72nd Members' Meeting

FORMER WORLD TOURING CAR champion Rob Huff and Aston Martin factory sportscar driver Darren Turner have joined the entry for the revived Goodwood Members' Meeting on March 29-30.

Huff will drive a recreation Group 1 Rover SD1 in the two Gerry Marshall Trophy races for tin-tops built up to the end of 1982. He has been invited to race the V8-powered Rover, in which Tim Scott Andrews has been a regular in Classic Touring Car Racing Club events, through his long-time engineer at the RML Chevrolet WTCC squad, Duncan Laycock.

The plan is for the Scott Andrews car to be turned out at Goodwood in the same Triplex/Esso livery in which Jeff Allam and Rex Greenslade raced the David Price Racing-built and run factory Rovers in the 1980 British Touring Car Championship.

"Duncan knows the owner well and when I was asked if I would drive it, I jumped at the chance," explained Huff.

"The best thing is that when I was a kid my grandad would pick me up from school in his Rover, so I always wanted to have a go in one. The opportunity to race one is mega."

Huff will also join in the turbo-era Formula 1 demonstration in an ex-Rene Arnoux Renault RE30B owned by British GT regular Richard Meins, whose prototype Ford GT40 Huff raced at last year's Goodwood Revival.

Meanwhile, Turner will compete in his own Austin-powered Turner Mk1 in the Tony Gaze Trophy open to pre-1959 sports and GT racers. He bought the car because the marque shares his name and will not see it until a test next month.

"I can't wait to get out there in my little Turner," said the 39-year-old, who is planning to drive the car on the road from his hotel to the track. "I haven't actually seen the car yet: I bought it from Switzerland, and it went straight to CCK Historic to be restored."

Meanwhile, the cars for two of the 'House Captains' have been revealed.

Jochen Mass, Darnley House captain, will drive a BMW 2002Ti in its '71 Warsteiner livery alongside Simon Diffey, while Methuen's Anthony Reid will drive a Triumph Dolomite Sprint. Reid will share the ex-Gerry Marshall car, which will run in a '79 Triplex livery, with Timothy Morley.

Gregor Marshall, son of the late Gerry, will share his own Vauxhall Viva GT to compete in his father's tribute race. Former Indianapolis 500 winner Kenny Brack, who starred at last year's Revival driving Red Bull Formula 1 design guru Adrian Newey's Ford GT40, and Le Mans 24 Hours victor Jackie Oliver have also joined the meeting's entry list.



Mk1 Turner  
will race

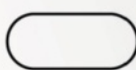
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**Sims will race  
Barwell-run Z4  
for Ecosse squad**

British GT

# Sims to British GT with Ecurie Ecosse

## NEW FACTORY BMW DRIVER

Alexander Sims will make his British GT debut this year with Ecurie Ecosse.

The 2008 McLaren AUTOSPORT BRDC Award winner will line up alongside Marco Attard in the Barwell Motorsport-run Z4 GT3 for six of the season's seven rounds.

Sims is confident that he will be able to fight for wins but concedes that missing the two races at Snetterton due to a clash with his Nurburgring

24 Hours commitments may stop him mounting a personal title attack.

"It's fantastic to be back racing in a British championship and really exciting to be coming back to British circuits," Sims told AUTOSPORT.

"Last year the level was pretty damn high at the front but I would hope I would be up to speed very quickly. I'm not saying it's going to be a breeze, but we should consider ourselves contenders.

"It's probably unlikely that I'm going to be in the running myself, unless Marco non-scores, so I hope I can do a good job for the team and him. That's my main aim."

Attard won once in 2013 alongside Oliver Bryant, and was in the mix for the title heading into the final round. He is optimistic they will be capable of fighting at the front again this year.

"I've got good faith in Alexander," he said. "It's a matter of him pushing

me more and more. Hopefully we should be up there."

Bryant will now head up the team's maiden campaign in the Blancpain Endurance Series, and Attard said he would be first choice to stand in for Sims when he is absent.

"I'm not sure what we're going to do for Snetterton," he added. "But we'll probably get Ollie in.

"He did a bloody good job last year and is a safe pair of hands."

British GT

## GT4 champ Parfitt hopes to keep status quo with switch to Century

### BRITISH GT4 CHAMPION RICK

Parfitt will return to the category this season with last year's class rival Century Motorsport.

Parfitt, who clinched the 2013 title alongside Ryan Ratcliffe at the Donington Park finale, will partner GT debutant Tom Oliphant in a new GT4-spec Ginetta G55.

Century's rivalry with Parfitt's old team, Optimum Motorsport, boiled over at the penultimate round of last season, where Parfitt crashed heavily and blamed it on contact with the team's outgoing driver Declan Jones.

Although that led to a bitter dispute, in which Jones refused to sign a waiver allowing Optimum to ship across a replacement G50, Parfitt insists he is looking forward to the new partnership.

**GT4 rivalry was  
fierce in 2013**



"Winning the title last year was something I could have never imagined, so retaining the title is my obvious aim for 2014," he said.

"Century have built up a great team and reputation, clearly highlighted last season as our toughest rivals. I'm very happy to be joining them for 2014."

### Ginetta GT5 Challenge

## Scottish Mini frontrunner Covey set for GT5 Challenge campaign

### FORMER SCOTTISH MINI TITLE

winner Vic Covey Jr will contest the Ginetta GT5 Challenge this season with his own race team.

Covey returned last season to the Scottish Mini series, which he won in 2008, to take fifth in the 2013 points. His Ginetta G40 will race under the Covey Agency Racing banner.

"I am focused on enjoying the racing while competing at the sharp end of the field," said Covey, who contested a single Renault Clio Cup UK campaign in 2012, finishing 12th overall.

"While I am seeing this as a learning year, I would hope to secure some podiums before the season is out."

● World karting ace Lando Norris will contest the second half of the the Ginetta Junior championship with HHC Motorsport. Esme Hawkey will also join for the final three races, while Jack Rawles returns for a full season. Thirteen Juniors have already signed up, and seven more are expected soon.



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## Porsche Carrera Cup GB

## Clio star Files plotting late Porsche Carrera Cup GB switch

## RENAULT CLIO CUP UK CHAMPION

Josh Files is hoping to switch to the Porsche Carrera Cup GB this season.

Files, who claimed the domestic and European Clio titles in 2013 with Team Pyro, wants to move into the Carrera Cup with the Mark Hunt-run squad.

He had initially targeted an immediate move into the Formula 1-supporting Porsche Supercup, but is now hoping to strike a deal to race in Britain instead.



Files hopes to leave Clios

"I'm eyeing up Porsche Carrera Cup GB for 2014," said Files, whose options for 2014 also include repeating his UK and Eurocup Clio campaigns.

"A year in Porsche Carrera Cup GB followed by two years in the Supercup – that's the plan we've got.

"It's a difficult one at the moment. We won't find out where we'll be racing until the middle of February. Hopefully there's a way. I do think it will come off but if it doesn't, then it doesn't."

Meanwhile, Rob Smith is the latest driver to be confirmed at Pyro for the turbocharged Clio's introduction to Britain. The 21-year-old, who is entering his third season in the series, joins the previously confirmed Mike Bushell at the team.

Team boss Hunt is eyeing a four-car team in the UK series and a further two in the European. Pyro owns five cars, with Finlay Crocker running with the team with his own privately-owned entry.

## 360MC Six Hours

## 360MRC Six Hours will return to 'spiritual home' Snetterton for 2014

## ORGANISERS OF THE 360 MOTOR

Racing Club Six Hours are hoping the race's return to Snetterton will coincide with its biggest entry yet.

The six-hour event moved to Donington Park in 2013 for logistical reasons, but is back on the Snetterton 200 layout for this year's iteration.

It has already attracted 23 entrants and will be supported by a 40-minute race for allcomers and a special sprint race.

The event, which first ran in 2010, was inspired by the Willhire 24 Hours, and 360MRC chairwoman Claire Smith said it was important for it to be heading back to Snetterton, the race's 'spiritual home'.

"It was always on the cards that we would return to Snetterton," she said.

"Although Donington is a lovely circuit, it's not the spiritual home of the 360. Snetterton was and still is. It's only right the race should return home.

"The provisional entry is 23 at the moment. There will be attrition no doubt but also we hope to get more entries. All we hope is that it continues to grow, which it has every year."



Snetterton will host race again

## Speed trials

## Brighton Speed Trials saved after public support wins over council

## THE BRIGHTON SPEED TRIALS

will go ahead in 2014 after massive public support helped reverse a decision by the local council.

The Brighton and Hove Motor Club event, which first started in 1905 and has been held annually since 1932, was under serious threat after the local council initially

denied its application to run in 2014.

More than 12,400 people signed an e-petition in protest, and the council's Economic Development and Culture Committee voted unanimously last week to allow it to run on September 6, and plan the event up to 2016.

The BHMC's Ruth Reynolds, whose petition on the council website attracted unprecedented traffic, said: "The unanimous decision left us gobsmacked."

Club chairman Tony Scott, who hailed the widespread support the campaign received, added: "It is a major victory not just for the club but for the heritage of Brighton, its residents and businesses, and the history of motorsport.

"This year promises to be the best ever."



Historic event will run in 2014

## HUMBLE PYE

## The voice of club racing



Belgiorno-Nettis sizes up Bonney's Begg

## Ferrari turns heads in New Zealand but Lyons truly stars

While some owners have managed it from home, running a Formula 1 car of the post-1965 1500cc era is an undertaking not generally tackled without deep pockets and professional help. A Cosworth DFV car is one thing, but I admire Italo-Australian Guido Belgiorno-Nettis's resolve not only to use his Ferrari 156/85s but also to race one, run by a crew of two, as he has at Hampton Downs, New Zealand these past two weekends.

Spares are available, but don't grow on trees. But Belgiorno-Nettis – who I saw in one of the sizzling 1500cc V6 turbocars at Eastern Creek in 2010 – had the resources to acquire the ex-Stefan Johansson chassis 082 as a T-car for his ex-Michele Alboreto 079, which came from sponsor Count Zanon's collection. Its parts have been vital.

The visiting equipe has starred at the fifth NZ Festival of Motor Racing, which celebrated Ferrari. Cheered by hundreds of marque fans, many of whom arrived in 'Fezzas', GB-N topped his sojourn with second place to 23-year-old birthday boy Michael Lyons (Lola-Chevrolet T400) in Saturday's heat of the hugely-popular MSC NZ F5000 Tasman Revival Series, which now moves south to Christchurch's Ruapuna Park.

Having qualified fourth, the invitee battled through the V8s from the back to fifth in the final, enjoying the

company of the unique ex-Jim Murdoch Begg 018 – built at Drummond, near Invercargill, by the late George Begg – of series logistics king Calven Bonney and Aaron Burson in one of his family's two McRae GM1s en route.

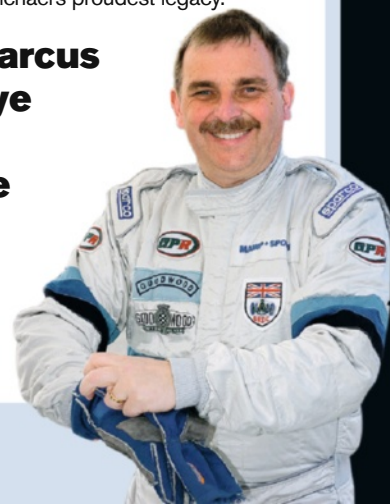
Regular Ferrari GT pedaller Lyons claimed all five races declared at the twin-legged Hampton Downs showpiece in his ex-Al Unser car (last Sunday's heat was abandoned after Brett Willis shunted his T330 early), stretching his victory roster at the North Waikato venue to 13.

The Anglo-Irishman's quest was simplified when period NZ F5000 hero Ken Smith's engine blew while leading the first meeting's opener, ending the Lola T332 ace's season. Clark 'Metalman' Proctor, a maiden F5000 winner here last year, qualified second for leg two but transmission issues dogged his March 73A again.

Lyons had a fright when an exhaust header cracked and cut a rear tyre in Sunday's finale, but he nursed his steed home clear of defending champion Steve Ross (McRae GM1) and Andrew Higgins's sister Lola T400. Stamping his authority on the results as in 2012 was good, but reducing his lap record from 59.840s to 59.483s is Michael's proudest legacy.

## Marcus Pye

**"Lyons claimed all five races at the Hampton Downs showpiece, stretching his circuit win roster to 13"**





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## In brief



HAWKINS

## Monster RX7 runs

Stacy Vickers tested his revamped Mazda RX7 at Brands Hatch last week as he prepares to make his circuit racing return. He said driving the turbocharged monster (pictured), which he will race in CSCC Special Saloons and CTCRC Thunder Saloons, was completely different to the normally-aspirated machine it was before.

## Pageant date set

The 2014 Cholmondeley Pageant of Power will run from June 13-15 this year. The event, based at Cholmondeley Castle in Malpas, Cheshire, is in its seventh year, and will include a supercar display, aerial acrobatics and daredevil water stunts. Denim-clad rockers Status Quo will perform on June 13. Tickets can be purchased at [www.cpop.co.uk](http://www.cpop.co.uk).

## More fun for Hillspeed

Top British racing team Hillspeed will return to the annual Fun Cup 25 Hours at Spa-Francorchamps in Belgium this year with an expanded two-car entry. Its five-man line-up earned a double podium last year, with rostrums in the British and Petrol classes. The drivers have not been confirmed.

## FF1600 at Silverstone

The Formula Ford 1600 Super Series will kick off its season on the Silverstone Grand Prix circuit on April 26. As revealed by AUTOSPORT last year, the race – which is for the Jim Walsh Trophy – will be the first time in a decade that contemporary FF1600s have run on the circuit's largest configuration.

## Florida Winter Series

Dennis van de Laar, Tatiana Calderon and Antonio Fuoco shared the wins as the new Florida Winter Series kicked off at Sebring. Van de Laar (pictured) beat Fuoco to win the opener, his first single-seater victory. Calderon retired from that race, but made full use of the reversed grid to win race two. Fuoco took the victory in the finale, finishing well clear of Ed Jones and van de Laar.



MSA criticised Murray's post-race behaviour

## Formula Ford 1600

## Murray cleared to race after licence tribunal

## FORMULA FORD FESTIVAL WINNER

Niall Murray has been cleared to race this season after Motorsport Ireland decided not to impose a licence ban.

The Irish governing body had been advised by its UK equivalent the Motor Sports Association to ban Murray for six months after it judged he had withheld evidence over a yellow-flag dispute during the Festival final at Brands Hatch.

A tribunal of inquiry convened on January 16, at which Murray, recently named MI young driver of the year, gave evidence. It also heard from his brother, former British Touring Car racer Eoin, and Brands clerk of the course Bernard Cottrell.

Tribunal members agreed the camera was handed over without a memory card installed – clearing Murray of removing it himself – and said the team “committed a

dishonest/fraudulent act” in doing so.

They also said the team should have notified Cottrell when the footage became available to view. Murray, as the named entrant, was fined €1500 but not banned.

A statement read: “The Tribunal members do not wish to blight the career of an up-and-coming young driver and feel that suspension of his licence would be too severe.”

## British Formula Ford

## Rosso, Kruger back in FFord

## BRITISH FORMULA FORD RACE

winners Juan Rosso and Jayde Kruger will return to the series in 2014.

Argentinian Rosso, who took a clean sweep of wins at the Brands Hatch finale, was the only driver other than runaway champion Dan Cammish to win more than one race in 2013. He will stick with Jamun Racing as half of an expected two-car team.

South African racer Kruger joined the series at the fourth round last year as Rosso's team-mate at Jamun, and took one win, at Silverstone. Although no official confirmation has been made, AUTOSPORT understands that he will join James Abbott in the Radical set-up.



Rosso trebled up at Brands

EBREY/LAT



FR BARC's Snett round is on Motors

## Formula Renault BARC

## FR BARC gets live TV date

FORMULA RENAULT BARC WILL receive live television coverage of its round at Snetterton at the end of August.

The meeting, run by the British Automobile Racing Club, has been chosen for dedicated motorsport television channel Motors TV's annual Live Raceday event.

It means that the August 30/31 FR BARC round – which will be the first of two televised rounds of the series, before its Silverstone British Touring Car Championship support slot – has been

expanded from two races to three.

Championship promoter Simon North said the announcement was a big boost for both organisers and competitors.

“We really are thrilled Protire Formula Renault will form part of the Motors TV Live Raceday at Snetterton,” he said. “It's a fantastic opportunity for competitors and their sponsors to enjoy the rare treat of live television coverage.”

The Live Raceday was introduced in 2010 at Mallory Park, and has also included events at Castle Combe.

## Donington Historic Festival

## Donington slot for 1000cc F3

HISTORIC FORMULA 3 AND THE Martini Trophy will race at the Donington Historic Festival this year for the first time.

The May 3-5 event will be the UK curtain-raiser for the two Historic Sports Car Club classes, which each boast expanded calendars in 2014.

Historic F3, for one-litre models built between 1964 and 1970, has grown its

schedule to seven standalone encounters and organisers are hopeful of a 30-car grid to kick off the new season.

Meanwhile, the Martini Trophy races will be the first at the circuit for the category since it was launched. The two-litre sportscar class, which also incorporates Sports 2000 models, is now in its fifth season of competition.



Historic F3 series is growing



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## THIS WEEK

LETTERS • BEST PICS • LATEST GEAR • ON TRACK &amp; SCREEN • ONLINE

## What you think of the motorsport news of the past week



THOMPSON/GETTY

## Enjoy F1's new variety show

No sooner are cars unveiled at the start of a new era of regulations than come the complaints. Just as with previous snow-plough full-width wings or stepped noses, the designs are considered ugly.

We have the anteater McLaren, the platypus-billed Ferrari and the asymmetric tusks of Lotus's rogue elephants. Isn't this what we want? Cars that present different

solutions to the problem of designing a fast F1 car, that if displayed in plain white would be easily distinguishable from each other.

Of course, some will be more successful than others and over the duration of the current regulations perhaps they'll once again gravitate to a common pattern.

But until then, vive la difference!

**Paul Irwin, Bexleyheath**

**Ugly, ugly, ugly! Formula 1 –**

stop being so inward-looking and look in front of you. The new cars look terrible, embarrassing even.

All that money, talent and technology and you come up with these awful abominations. Get it sorted now!

**Keith Cordell**  
**Llangollen, North Wales**

**Having read your excellent**

articles on the previous F1 turbo era in last week's magazine, it dawned on me just what a class act Rene Arnoux had been in his prime.

I started following grand prix racing in 1986, by which time Arnoux's star was somewhat on the wane and, as such, I hadn't fully appreciated his talent and achievements: second in the list of poles (and starts), third in the list of fastest laps, fifth in the list of wins (behind Senna, Prost, Mansell and Piquet).

Anyone who tamed the automotive beasts of the era to the extent that his stats show is surely worthy of an AUTOSPORT retrospective.

**Jonny Britz**  
**Farnham, Surrey**

**Regarding your recent list**

'Top 25 drivers who never won the F1 title', I don't think you'll have many people disagreeing with Stirling Moss at No.1, but Robert Kubica at No.3?

I seem to remember a short F1 career with one lucky win, and Nick Heidfeld more than holding his own against him in his last year.

OK, maybe he had potential to win more races given the right machinery, but that probably applies to most of the grid. Someone who should have been on your list, though, is Bruce McLaren.

**Steve Bodrog**  
**By email**

**It's good to see that Mercedes**

still has faith in Paul di Resta in giving him a drive in the DTM again. The best of luck to him in the season to come.

The same to Mark Webber with his Porsche sports car drive this year. It's also going to be good to see the BTCC with the Honda estate, and the WTCC with Sebastian Loeb in the new Citroen team.

It's already a joy to see Kris Meeke on the podium at the Monte Carlo Rally.

A very exciting season in prospect...  
**Patrick Wickham**  
**By email**

**CORRECTION**

On page 19 of last week's issue we erroneously stated that Michele Alboreto won the final race of 1983 at Las Vegas for Tyrrell. He'd won the last round in '82 there, but the final non-turbo victory of the era was his at Detroit in June 1983.



# In pictures

Our snappers roaming the globe from Jerez to Daytona via Chamonix

## FORZA MICHAEL!

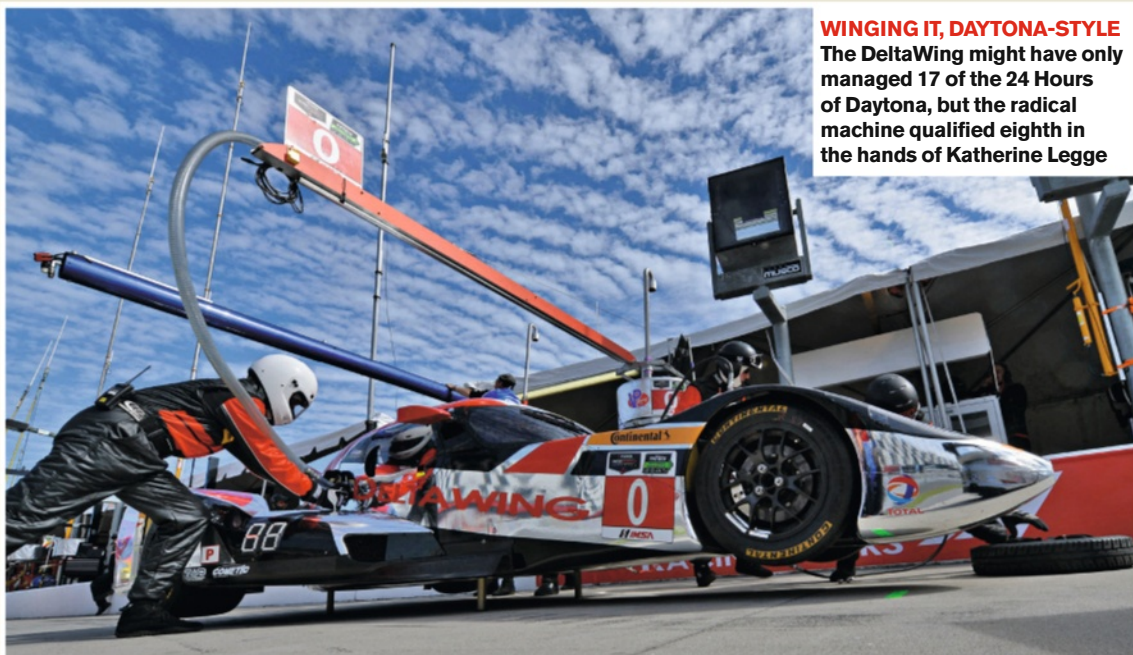
Before testing kicked off at Jerez in Spain this week, Ferrari's team sent old boy Michael Schumacher its best wishes following his skiing accident just after Christmas



FERRARO/LAT

## WINGING IT, DAYTONA-STYLE

The DeltaWing might have only managed 17 of the 24 Hours of Daytona, but the radical machine qualified eighth in the hands of Katherine Legge



DOLE/LAT

## HE DID LEAVE HIM SOMEROOM

Alessandro Pier Guidi and Markus Winkelhock went toe to toe on the final lap of the Daytona 24 Hours for the GTD win, and the Ferrari came out on top



WILLIAMS/LAT

## DON'T LOOK DOWN!

Former McLaren AUTOSPORT BRDC Award winner Jake Dennis was part of the MSA's Team UK training camp in Chamonix at the weekend, where they underwent a series of tests and challenges



MALCOLM GRIFFITHS

## In the shops

Desirable new releases

### SENNA-INSPIRED LUGGAGE

From £30 – [caracalla1947.com](http://caracalla1947.com)

Inspired by Ayrton Senna's success, this Senna Foundation-approved range of luxury Tuscan-leather luggage comprises keyring, wallet, wash bag, messenger bag and holdall – all carrying Ayrton's signature, the #88 (the year of his first F1 title) and his trademark #1 racing number.



### PORSCHE SPORT 2013 BOOK

£45 – [autosport.com/shop](http://autosport.com/shop)

This 293-page annual review of the German marque's racing activities from 2013 includes highlights from all the major national racing series in which it competed, as well as the big international enduros at Le Mans, the Nurburgring, Spa and Daytona. The info is complemented by great photography and, like the cars, is very well engineered.



### LOEB CITROEN DS3 WRC 1:43

£52.99 – [autosport.com/shop](http://autosport.com/shop)

Spark's latest rally car release comes in the shape of Sebastian Loeb's Citroen DS3 WRC from the great Frenchman's final event, the 2013 Rally of France. To commemorate the nine-time champion's swansong, Citroen painted the car in a one-off, black-and-gold livery with facts and figures adorning the car's flanks. Only 1200 replicas have been made worldwide so this one's firmly in the collectible class.





## WHAT'S ON

## ON TRACK AROUND THE WORLD

## EUROPEAN RALLY CHAMPIONSHIP

Rd 2/12  
Rally Liepaja, Latvia  
January 31-February 2  
[fiaerc.com](http://fiaerc.com)

## ANDROS TROPHY

Round 6/7  
Super Besse, France  
February 1  
[tropheeandros.com](http://tropheeandros.com)

## TOYOTA RACING SERIES

Round 4/5  
Hampton Downs, New Zealand  
February 1-2  
[toyotaracing.co.nz](http://toyotaracing.co.nz)

## FLORIDA WINTER SERIES

Round 2/4  
Palm Beach, USA  
February 4-5  
[floridawinterseries.com](http://floridawinterseries.com)



TRS moves to New Zealand's North Island

# AUTOSPORT GREAT DEBATE

## Intra-office talking points: ARE THE 2014 FORMULA 1 CARS THE UGLIEST EVER?



# YES

SAYS HENRY HOPE-FROST SUB-EDITOR

Any doubts you might have had over whether the new crop of Formula 1 cars is the most – let me start as politely as I can – ‘visually unappealing’ in the history of the sport can be dispelled with a quick glance at Twitter and Facebook.

The social-media sites that assuage our thirst for instant news/gossip/scandal have this week been rife with mickey-taking and comedy comparisons. I’ve noticed anteaters, Proboscis monkeys, Beluga whales, aardvarks and platypuses getting all sorts of negative press as each machine has broken cover. And when these aesthetically challenged but otherwise innocent creatures are compared to racing cars, something has gone badly wrong.

The sport’s powerbrokers may well be laughing all the way to their off-shore vaults, chanting ‘any publicity is good publicity’ as they go, such has been the worldwide ‘interest’ in whatever horrible nosejob has been unleashed on fans, but the wider world is laughing at F1 right now.

A classic example of how this ridiculous situation – based, remember, on an ill-conceived regulation – has got out of hand came on Monday when the Toro Rosso STR9, complete with comedy phallus, broke cover.

Legendary ‘bedroom-gymnastics’ emporium Ann Summers was moved to tweet: ‘So it looks like Toro Rosso have taken inspiration from our sex toy collections’. Great work by Summers’s marketing department but a damning indictment for the world’s sexiest sport.

Closer to home, many of my friends, who wouldn’t pretend to know what DRS or KERS are have been on to me, usually opening the dialogue with: ‘what the f\*\*\*...’ And, in return, I’ve had to justify why this has happened and how such clever, driven, resource-rich folk could come up with something so absurd.

And the worst thing? They all knew it would happen and nobody did anything about it. Only now are some teams publicly declaring that it’s spoiling the image of F1.

They’re not kidding.



'79 Ensign was no oil painting



# NO

SAYS EDD STRAW F1 EDITOR

Nobody in their right mind would attempt to argue that Formula 1’s class of 2014 is the most aesthetically pleasing in history. But it’s not the worst.

For starters, you have to factor in the shock of the new. The noses look very different to those we became accustomed to under the previous generation of regulations, and those ‘snowplough’ front ends sparked derision when they first appeared. But it wasn’t long before looking back at a 2008 car, with its comparatively narrow front wing and low rear wing, seemed grating in comparison.

The Ferrari F14 T has had more than its fair share of critics. But look back at some of Ferrari’s best-looking cars and they are far from classical beauties. Take the 1971 312B, for example. It’s stunning, but you can see a family resemblance in the nose.

If you want to know what a really ugly grand prix car is, type some of these into Google Images: McLaren MP4/10, Hesketh 308, March 711, Williams FW26 (walrus-spec), Eiffelland 21, Wolf WR5, Forti FGO1, Tyrrell 001, Brabham BT34 (lobster claw), AGS JH22...

That’s just a list of 10 cars off the top of my head. Doubtless, many of you are furious as some were hugely successful and stunningly effective cars. But they can be iconic, innovative masterpieces without looking gorgeous. Take the Brabham BT34 – it’s a legendary car and looks purposeful, but it’s not beautiful and the only reason it feels sacrilegious to claim it’s ugly is because of familiarity.

After all, a quick racing car will gain a degree of beauty of its own. F1 cars have a history of combining form and function

to the best of the technology of the time and that remains unchanged.

The 2014 noses do look grating and F1 needs to put more effort into preventing unnecessary unsightliness because visuals are core to its popularity.

But you have to look to the 1970s for F1’s ugliest era. Those cars were innovative, remarkable, cool, purposeful, iconic, distinctive, glorious and sexy but they were not, in any way, objectively beautiful.



Your guide to the best events taking place in the UK and around the world – plus TV and online

## ON TELEVISION



The ERC crews head to Latvia

### THURSDAY JANUARY 30

#### 0810-0900 Motors TV

Toyota Racing Series:

Terretonga Highlights

1825-2000 Motors TV

Andros Trophy:

Lans en Vercors Highlights

2100-2115, 2300-2315 Sky Sports F1

F1 Jerez testing: day-three round-up

2115-2135, 2315-2335 Sky Sports F1

F1 Jerez testing:

Ted's day-three notebook

### FRIDAY JANUARY 31

#### 1135-1445 Motors TV

USCC: Daytona 24 Hours Highlights

2100-2115, 2300-2315 Sky Sports F1

F1 Jerez testing: day-four round-up

2100-2115, 2315-2335 Sky Sports F1

F1 Jerez testing:

Ted's day-four notebook

### SATURDAY FEBRUARY 1

1100-1135, 1500-1535 Sky Sports F1

F1 Jerez testing: day-one round-up

1135-1210, 1535-1610 Sky Sports F1

F1 Jerez testing: day-two round-up

1210-1245, 1610-1645 Sky Sports F1

F1 Jerez testing: day-three round-up

1245-1320, 1645-1720 Sky Sports F1

F1 Jerez testing: day-four round-up

#### 1410-1720 Motors TV

USCC: Daytona 24 Hours Highlights

1515-1545 BT Sport

The WRC Magazine

1600-1700 Sky Sports 4

Max Power

1855-2000 Motors TV

Toyota Racing Series: Timaru Highlights

2300-2330 Eurosport

ERC: Rally Latvia Day 1

### SUNDAY FEBRUARY 2

0630-0700 Eurosport 2

ERC: Rally Latvia Day 1

1330-1405, 1800-1835 Sky Sports F1

F1 Jerez testing: day-one round-up

1405-1440, 1835-1910 Sky Sports F1

F1 Jerez testing: day-two round-up

1440-1515, 1910-1945 Sky Sports F1

F1 Jerez testing: day-three round-up

1515-1550, 1945-2020 Sky Sports F1

F1 Jerez testing: day-four round-up

2300-2330 Eurosport

ERC: Rally Latvia Review

### MONDAY FEBRUARY 3

0530-0600 BT Sport

The WRC Magazine

0730-0800 Eurosport 2

ERC: Rally Latvia Review

## ONLINE

### HOT ON THE WEB THIS WEEK

YouTube KIMI RAIKKONEN ANSWERS FANS' ONLINE QUESTIONS



SEARCH FOR: F1 2014 - Ferrari F14 T launch - Raikkonen answers the fans (6:59)

Scuderia Ferrari managed to persuade the returning Kimi Raikkonen, its last world champion, to answer questions posed online by fans during the recent launch of its F14 T. And The Iceman, in his inimitable style, did his best...

### AUTOSPORT+

Exclusive content coming up in our premium website this week

As the Jerez Formula 1 testing enters its crucial latter stages, catch up on all the latest news and interviews, as well as trackside reports and technical updates from our team in the paddock. We'll have a full wrap-up for you on Saturday, so you won't miss a thing as F1 2014 gets into gear.

### GET AUTOSPORT ON THE MOVE

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# Revved up over what's on the box

A bit like 24-hour motor racing, you wouldn't immediately assume that house renovation would make for an immersive mainstream television experience. Yet the Le Mans of this genre is the BBC's *Homes Under The Hammer*, a staple of the 10am daytime TV slot for a decade.

Like Le Mans, it has developed a dedicated hardcore audience, giving it something of a cult following. Presenters Martin and Lucy poke around houses that are coming up for auction, then interview the people who buy them, come back a few months later to see what a success/disaster their renovation became – all set to the most literal background music in tellyland (example: AC/DC's *Back in Black* as Martin returns to a house in Blackburn).

But there's an American rival: MTV's *Flip Men* (shown on Dave in the UK) is the Daytona 24 Hours to *Homes Under The Hammer*'s Le Mans. This is a far more brash affair, as this time the property developers are the presenters themselves. Mike and Doug buy the houses at auction and then toil (well, moan a lot to camera about it) to make a profit out of them.

Daytona 24 Hours: not a rival to Le Mans just yet



You can't help but think that it's all a bit fixed, however. You're guaranteed a good show, because you know that the properties they've purchased are little more than grotty crack dens that need totally gutting. Cue their shocked faces, and much angst as they realise the true magnitude of the task in front of them. Oh the horror of reduced profit margins!

Whatever. Because they have a professional team of designers, carpenters, decorators etc, you know they'll come up trumps every time – taking away all of the mystique of the renovation in the first place.

And that's why the Daytona 24 Hours will never rival Le Mans. Sure, you get a good show, but it's artificially created with performance balancing and numerous full-course cautions that keep cars on the lead lap to ensure an exciting finish. And that's before the dodgy officiating to cause post-race Twitter outrage – oh the horror!

Although they are essentially the same, give me *Homes Under The Hammer* over *Flip Men* every time. And I mean Le Mans over Daytona.

Revved Up



# Michael Turner

“I was delighted for Graham, who’d been a good friend since the mid-’50s”

■ Indianapolis 500 ■ May 30, 1966 ■ Graham Hill, Mecom Lola-Ford ■ Witnessing a friend's victory



Turner captured Hill, here leading Joe Leonard and Jim Clark, on his way to victory

MICHAEL TURNER

## HAVING ALWAYS BEEN A

European racing fan, it might seem surprising that I’ve chosen the Indianapolis 500, specifically the 1966 event, as my most memorable race.

I was very sceptical about Indy; I thought it was boring that they raced round an oval for hours, only turning left. However, when the European-racing stars started going there I realised it could be worth a visit.

I made my first trip to the USA in March ’66, mainly to drum up interest in my advertising and illustration work in New York. While I was there I caught a train down to Sebring to take in the 12-hour sportscar race, where I met George Bryant, who had entered two cars for the Indy 500 in May. He kindly commissioned me to go there to paint his cars, all expenses paid. It was an opportunity not to be missed.

Once I got there, I was really taken by the place. The atmosphere was incredible, with the huge crowds, bands and marching girls with their

tight outfits and twirling batons!

I positioned myself on the press stand at the exit of the pitlane, armed with my camera ready to record the action.

As the pace car pulled off, the field was unleashed and all hell broke loose. There was an almighty crash right in front of me with cars and debris scattered everywhere. I thought, ‘Oh no, I’ve come all this

way and I’m not going to see a race’.

To my relief, the race restarted about an hour later, by which time I’d moved to Turn 2 to watch.

As a Brit, my particular interest was in Graham Hill and Jackie Stewart in the Mecom Lolas and Jim Clark, who’d won the previous year, in the Lotus.

Things got really exciting towards the end when I realised that my

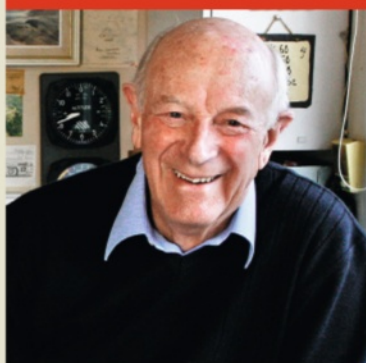
three heroes, Jimmy, Jackie and Graham, were running 1-2-3. Jimmy had a spin that lost him a minute in the pits, and Jackie retired from the lead with nine laps to go, so Graham took the win, with Jimmy second.

I was delighted for Graham – he was a good friend who I’d known since he started racing in the mid-1950s. It was a very proud and poignant moment, among the crowds of Americans milling around the winners’ circle, when they played the national anthem for a British win.

Later, I went to the Indianapolis Motor Inn and found Graham in the corner on the phone. He put it down as I approached and exclaimed, ‘Hey, Michael, I’ve just won the Derby. I had a bet on the winning horse!’ He’d just won the Indy 500 and was getting excited about the Derby!

It was a superb outcome to a memorable trip and I came away with five commissions, including one from Graham himself. ✂ *Michael Turner was talking to Henry Hope-Frost*

## PROFILE



### MICHAEL TURNER GOT HIS

inspiration to draw and paint racing cars after seeing the first British Empire Trophy on the Isle of Man in 1947, aged 13. His first published work, from the Whitsun Goodwood meeting, appeared in the BARC Gazette in 1951. His early trips to motorsport events were financed by advertising and commercial work. Five decades or more of his work can be seen at [www.studio88.co.uk](http://www.studio88.co.uk).

**NEXT WEEK** **FERRARI: KIMI’S RETURN**  
Plus: Drivers who should be in F1; Craziest races



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