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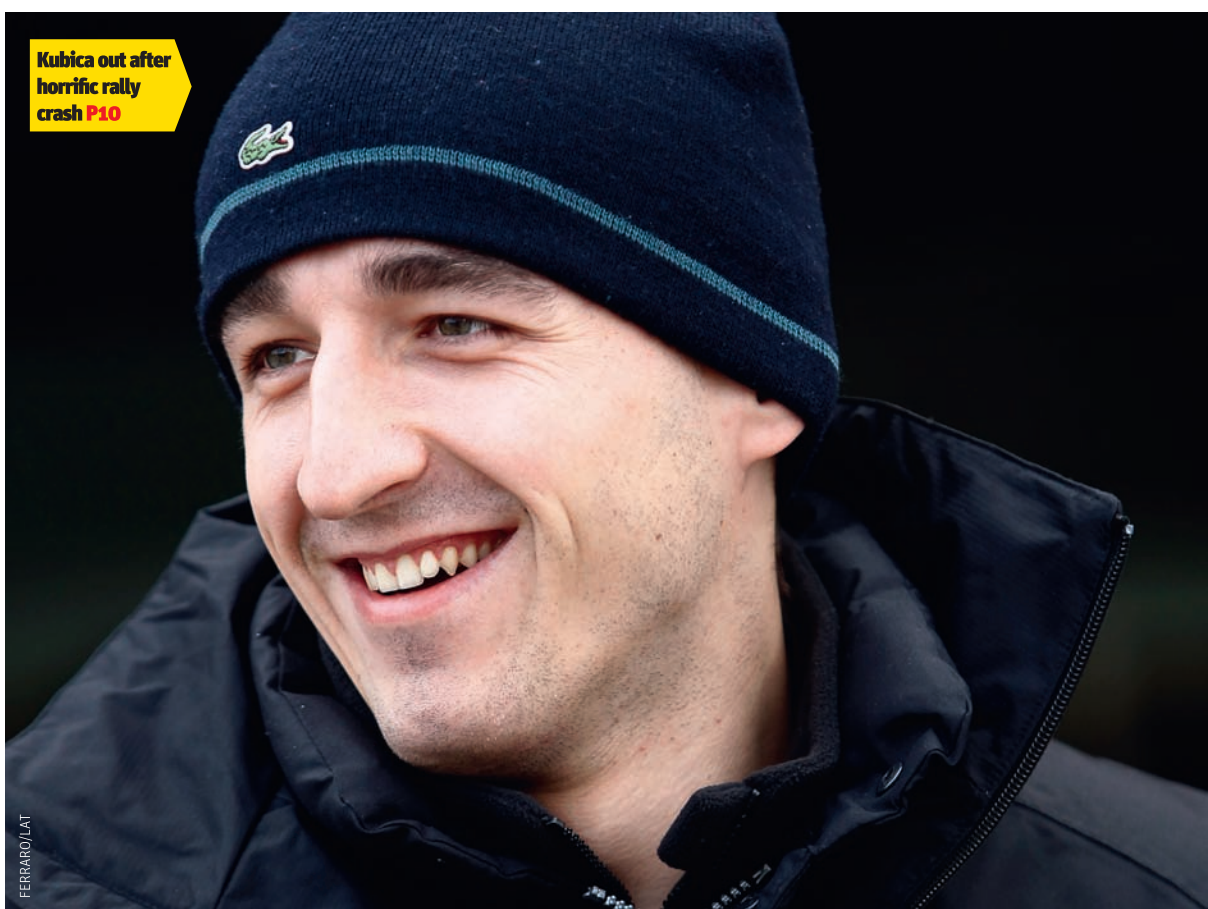
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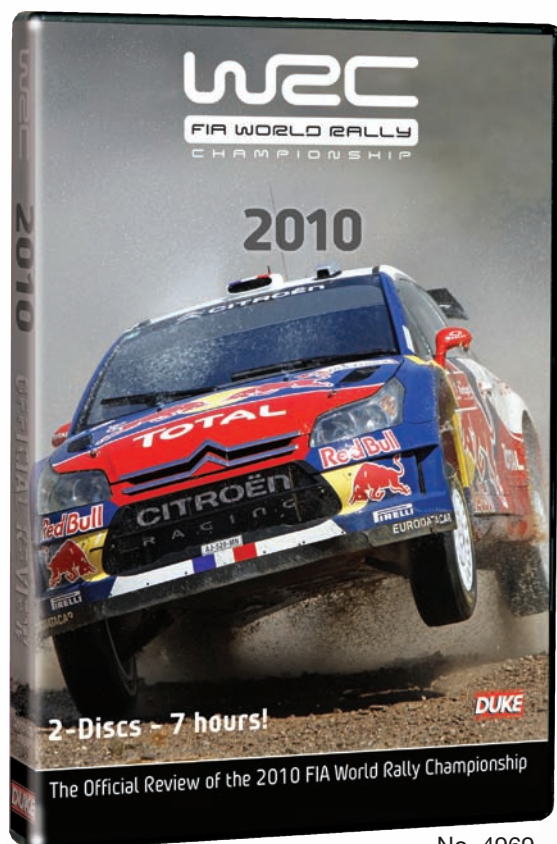
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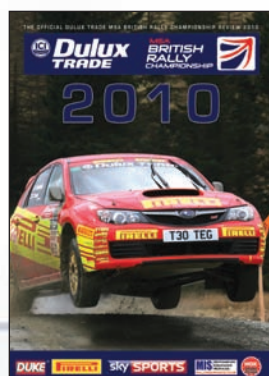
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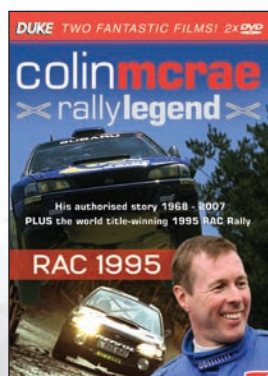
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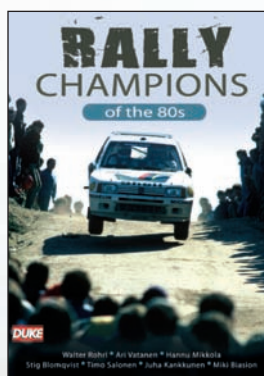
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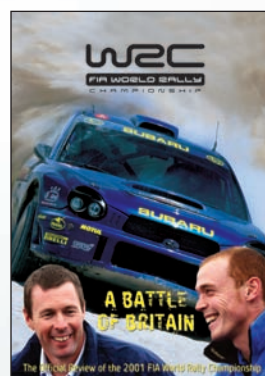
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POLE POSITION

Let racing drivers race – or rally – as they wish



MODERN FORMULA 1 DRIVERS

are often criticised for living in an inaccessible bubble, for being too removed from the fans, and for being blinkered in their view of the sport.

In the good old days, the argument goes, they'd be racing in Monte Carlo one weekend and Crystal Palace the next, hopping from F1 to touring cars, sportscars or rallying with abandon.

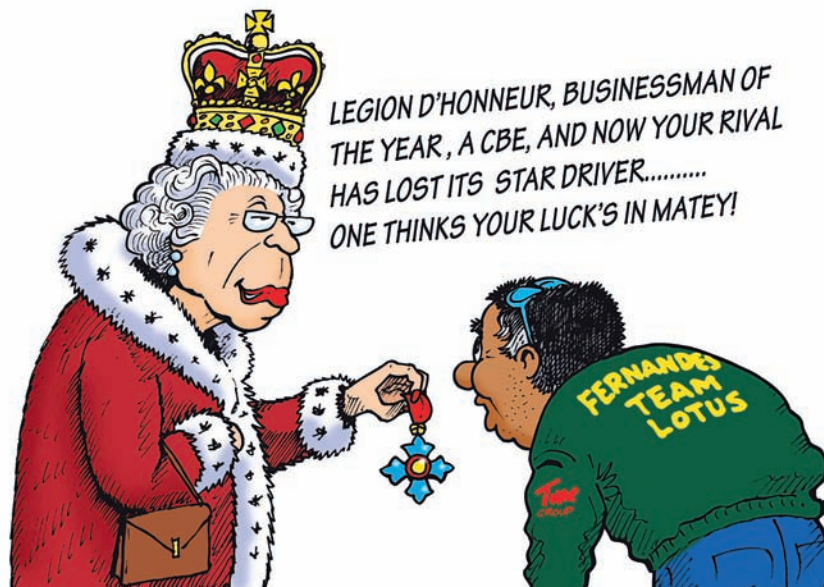
So, while the horrendous accident that befell Renault's Robert Kubica as he was competing for fun in a club rally is terrible news for him and his team, it's been disquieting to hear the chorus of criticism over his participation in the event.

He's a racing driver and was doing what he loves. He suffered a terrible misfortune, but he could have been equally badly hurt skiing or driving his road car (in fact, a road accident destroyed half of Kubica's debut F3 season in 2003). Unfortunately, it almost certainly sounds the death knell for F1 drivers taking part in extra-curricular racing activities, which is a travesty.

We all wish Robert a full and speedy recovery, and hope that we'll see him out in that gorgeous black-and-gold car before long.

Andrew van de Burgt, editor

BAMBER'S WEEK





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FORMULA 1

Massa feels the heat

We always thought an F150 was a pretty hot machine, especially with a Ford badge and running in the NASCAR Truck Series. Now Ferrari's model of the same name has proved equally fiery, as this shot of Felipe Massa from last week's Valencia test proves. F1 news, p12

Picture: Getty Images





AP PHOTO/SILVIO FASANO

Pole's rally car was destroyed

Heidfeld tops list of Kubica substitutes

German veteran looks sharp for another F1 reprieve, as Renault seeks experience in wake of Kubica's serious rally injuries. By EDD STRAW

Veteran Nick Heidfeld is favourite to race for Renault as the team has set its sights on recruiting an experienced driver to fill in for Robert Kubica.

The Pole suffered career-threatening injuries to his right hand, arm and leg when he crashed his Skoda on the Ronde di Andorra rally on Sunday (see graphic). Dr Igor Rossello, a renowned hand specialist who operated on Kubica this week, suggested the 26-year-old may not be ready to return to Formula 1 before next season.

As AUTOSPORT closed for press, Renault team principal Eric Boullier was working on securing a replacement. No deal with Heidfeld was in place, and alternatives such as Force India refugee Vitantonio Liuzzi, Pirelli test driver Pedro de la Rosa, Force India understudy Nico Hulkenberg and Renault reserve Bruno Senna remained in the frame. But the 33-year-old German was comfortably the strongest option.

"My priority has been to define

the profile of the driver that we need," Boullier told AUTOSPORT. "We've just had a three-day shakedown in Valencia and need an experienced driver to develop the car. We have new tyres and KERS, so there are lots of technical aspects that we need to work on. On top of this, we have to develop the

performance. That's a huge task for a young driver. Nick is a candidate because he has the experience and there are others with no drive like Liuzzi and de la Rosa."

Boullier added that it's "maybe possible" a replacement could be secured in time for the four-day test that kicks off at Jerez today

(Thursday). Heidfeld is a free agent and would be available immediately.

Were Heidfeld to get the seat, it would represent a remarkable resurgence in his F1 career. For the second successive season, the ex-Prost, Sauber (and BMW), Jordan and Williams driver has started the year without a seat. He was facing

KUBICA'S INJURIES

Sub-amputation of the right forearm;

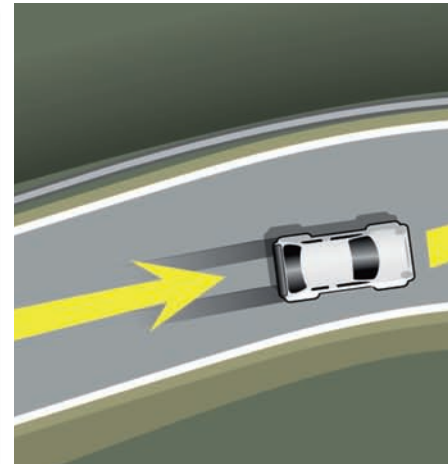
Double fracture of the radius and ulna (forearm);

Compound fracture of right elbow and shoulder;

A new fracture of right humerus, which he broke in a road crash in 2003;

Multiple-fragmented fractures to right shinbone and fibula;

Cut to a tendon in right knee



ON THE SIDELINES



NICK HEIDFELD

Pros Vastly experienced development driver and a dead cert to score well.

Cons Although he's a known quantity, he's perhaps not capable of searing pace.



NICO HULKENBERG

Pros Junior record hints at a possible champion of the future and he's fully race fit.

Cons Inexperienced, and hasn't yet played much of a development role.



BRUNO SENNA

Pros Already part of the team (as is Romain Grosjean) and has current F1 race experience.

Cons Little development experience and question marks over ultimate pace.



KIMI RAIKKONEN

Pros Former world champion and capable of being the fastest man in F1.

Cons Rally deal in place for 2011, and appears to lack desire for return.



PEDRO DE LA ROSA

Pros Ace development driver with experience of Pirelli tyres. Raced for most of last year.

Cons Lacks ultimate pace and didn't score well on return in 2010.



VITANTONIO LIUZZI

Pros Race sharp, experienced and has impressed in flashes.

Cons In 63 grands prix, has yet to convert his promise into consistent race performances.



Boullier is targeting experienced sub

"We have reserves because they have a future, but it is early days for them"

RENAULT TEAM BOSS ERIC BOULLIER

replacement, I would go for a reserve driver," added Boullier. "But for the long-term [at least half a season] I have to go for experience. We have reserve drivers because we believe that they have a future in F1, but it is still early days for them. The pressure on the development of the team is too much."

Kimi Raikkonen is another option. The 2007 world champion is the only driver with proven title-winning pedigree not already contracted to another F1 team, and had contact with Renault last year about a potential return. But he is tied to a 10-event World Rally Championship campaign with Citroen, and sources suggest that he is not interested in a return to F1. Boullier stopped short of ruling the Finn out, but does not expect him to be available.

"I read in AUTOSPORT recently that he's committed to rallying," said Boullier. "I wish him all the best."

the possibility of his 172-grand-prix career being over, but former team-mate Kubica's accident means that he could be on the grid for the season-opening Bahrain Grand Prix.

He is a logical choice for Renault as its second driver, Vitaly Petrov, has yet to prove himself capable of consistent points scoring, and the Valencia test suggests that the Renault R31 could fight for race wins. Although seen by some as a conservative option, Heidfeld is a prolific points scorer in F1.

Senna had been tipped to take the seat in the wake of Kubica's accident and ex-Renault racer Romain Grosjean is also on the team's books, but both look set to miss out.

"If it was a short-term

EXPERT VIEW

JAKUB GERBER KUBICA'S CO-DRIVER

"We went off the road on a quick right-hand bend, four kilometres into the stage. At first it didn't look too serious, just like any other rally accident. But, when the car stopped, I realised that a metal safety barrier had penetrated the cockpit. Robert was trapped in the car. During the impact he lost consciousness, but

he regained it quickly and was awake.

"The ambulance arrived quickly, but we had to wait around half an hour for the rescue team. They eventually cut the car and took him out. The whole rescue action took more than one hour. Then Robert was taken by ambulance to the helicopter and

airlifted to the hospital.

"We talked about the accident; I spoke to him just to keep him conscious. These things can happen in rallies.

"Unfortunately the barrier, which should absorb the energy of impact, punctured the bulkhead of the cockpit and went through the car, damaging his seat and the rollcage."

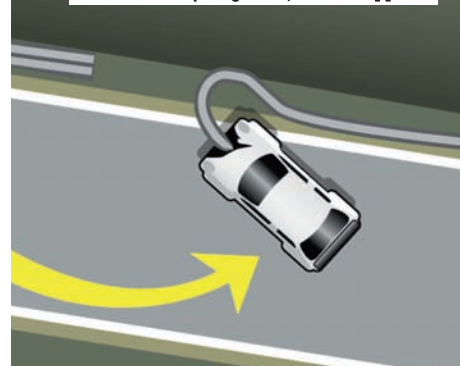
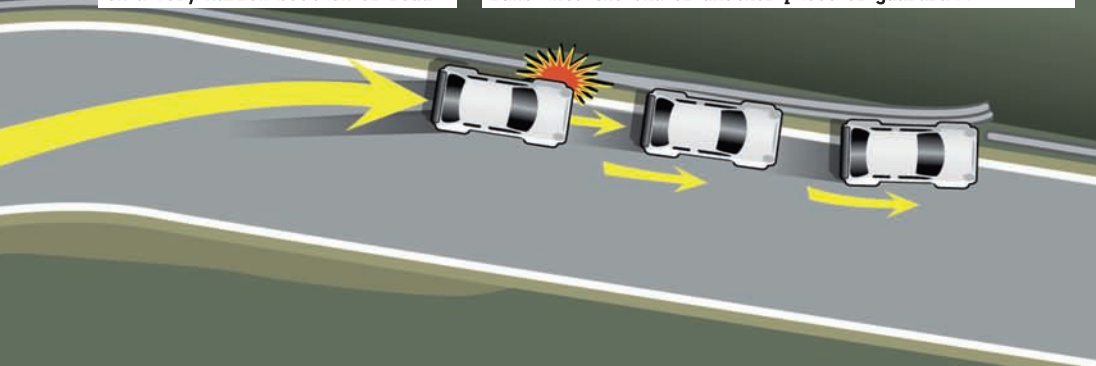


Kubica rescue took a long time

Kubica runs wide on a right-hand kink, with no margin for error on a very narrow section of road

His Skoda Fabia slams into the guardrail, which protects the car from falling down a steep drop. The car then runs into the end of another piece of guardrail

The guardrail pierces the front of the car, into the cockpit. Kubica is seriously injured, and trapped





Button: Pirellis “suit my style”

The need to properly manage tyres this year will play into the hands of the 2009 world champion

Jenson Button's hopes of winning a second world championship have been boosted by his first taste of the new Pirelli tyres, which will place a premium on a driver's ability to manage the rubber during races.

The 31-year-old drove last year's McLaren MP4-25, updated to interim specification and designed to simulate the downforce levels of the new car as closely as possible, on the third day of last week's Valencia test. Button, like most drivers, believes that making the tyre last will be crucial to making race strategies work.

“There will be degradation on the soft tyre and you have to look after it,” said Button. “But there always has to be a balance. I think with Pirelli we have a tyre that maybe suits me more than the previous tyre we had.”

STRATEGIC PATTERNS EMERGE

At the Valencia test there was a clear pattern of drivers getting one fast lap before losing over one second on the following tour. After this initial degradation, the tyres remained more consistent through a stint. Few drivers completed long runs, although there were

several stints of 100km or more. Many suffered a second drop-off in lap-time after around 18 laps of a stint.

“The tyre itself is obviously very different to the Bridgestone,” Button added. “Over one lap it felt very strong and on a longer run with the super-soft tyre you get degradation quite a bit. But that is what we sort of expected.”

How consistent the tyre is during a stint appears to depend on how well it is treated in the early laps, when the drivers must be cautious. This means that they will have to strike a difficult balance between

“The tyre itself is obviously very different to the Bridgestone”

JENSON BUTTON

attacking and preserving the rear tyres early in a stint. Mark Webber, for example, managed to register an impressive lap of 1m15.8s on his 21st lap of a run on the final day of testing after being very cautious at the beginning of his stint.

This is good news for Button, who proved in 2010 that he is better able to manage tyres than McLaren

Tyres will play part in McLaren rivalry



GETTY IMAGES

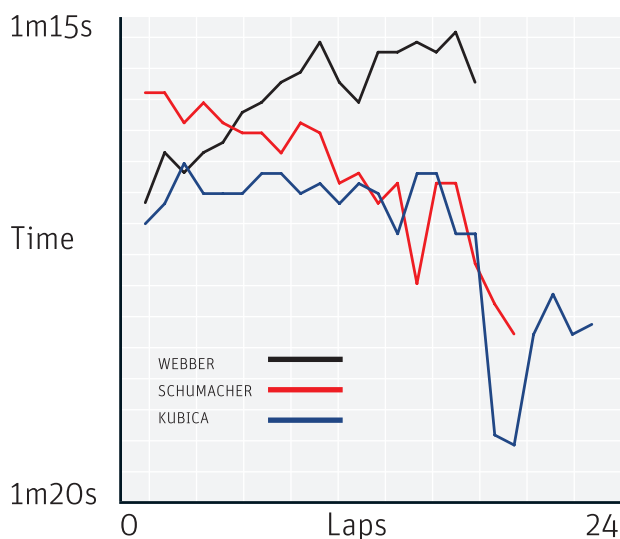


Tyres created thriller in Canada last year

DUNBAR/LAT



LONG RUNS ANALYSED



SIGNS OF DEGRADATION

The graph above plots three long runs completed by Mark Webber (below), Michael Schumacher and Robert Kubica during the final day of last week's Valencia test. Both Schumacher's and Kubica's traces show steady degradation, but Webber, who was cautious early in his stint after starting on a relatively heavily fuel load, was still able to turn sub 1m16sec laps at the end.



team-mate Lewis Hamilton. The Australian Grand Prix was the defining example, where Button managed to make his soft tyres last 52 laps on his way to victory while his team-mate had to make an additional pitstop.

Button's ability to eke out tyre life will be doubly beneficial when it comes to tyre choice in qualifying, as he will be more confident of making the faster options last long enough at the start of a race. This could give him an advantage in qualifying over those who have to use the harder tyre in Q3 amid fears that they will destroy the option tyres only a few laps into a race.

As well as over longer stints, the way that the rear tyres are preserved during the warm-up lap in qualifying will be critical – another challenge to which Button is well-suited. The 2009 world champion completed what appeared to be a qualifying simulation during his test outing, setting his fastest time – a 1m13.553s – during a three-lap run shortly before midday.

GOOD NEWS FOR PIRELLI

These characteristics are positive for Pirelli, which has been tasked

by teams to come up with a tyre that would encourage multi-stop races – as seen last year only in the Canadian Grand Prix.

Although most drivers pointed out the rapid degradation after one flying lap on fresh tyres, many were encouraged by the fact that tyre strategy will become a more important factor this year. Pirelli motorsport director Paul Hembery believes that it will suit some drivers more than others depending on their skill set.

“If you get a driver who is more conservative with their driving style, they might be able to conserve performance and limit consumption,” Hembery told AUTOSPORT. “You see it in other forms of motorsport and in F1 in the past, so some drivers are excited about it.”

Some minor tweaks to the compounds will be made between now and the season-opening Bahrain Grand Prix, but the die has been cast in terms of the strategic demands presented by the tyres. The Jerez test, which starts today (Thursday), will give a clearer picture, but it seems certain that good tyre management will be crucial this season.

Tyre terms

TYRE WEAR and tyre degradation are often treated as the same thing. But in fact, they refer to two very different aspects of tyre usage.

DEGRADATION: This refers to performance. Tyres start off with a peak level of grip, and therefore laptime. As the tyre degrades, the grip and therefore laptimes drop away.

WEAR: As the tyres are used, the tread physically wears away. This is not always directly linked to laptime.



AUTOSPORT SAYS...

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There were a lot of stories doing the rounds during the Valencia test predicating tyre disasters – most, I should add, emerging from sources not even in Spain. Drivers talked about the rapid degradation of the tyres, that the lap times “fell off a cliff” after one flying lap and the need to look after rubber. After several years of being spoiled by Bridgestone tyres that were way too good to generate strategic variables in a one-make environment, this represents a sea-change in F1.

Managing tyres should be a key part of an F1 driver's armoury. Even during the Bridgestone era, the best at it, such as Jenson Button, were able to gain a slight advantage. But this year, those skills will be at a premium. Inevitably, the drivers who don't adapt will moan and use tyres as an excuse, while others will benefit hugely. But the real winners will be the fans.

As for the negative comments about Pirelli, its motorsport director Paul Hembery put it best during the Valencia test. “We could make a tyre that lasts all weekend and then they can say what a boring race it is,” he quipped. And he's right. In a relatively short period of time, the Italian company has come up with a tyre that is in the ballpark pace-wise and will force teams and drivers to work very hard to manage them. Unless you enjoy predictable races, that is surely very good news.

Drivers will need to look after rubber



LAUNCH SPECIAL

McLaren MP4-26



Force India VJM04



Virgin MVR-02





HRT TO FLY F111

HRT unveiled its 2011 challenger, the F111, on Tuesday. The car, which has been penned by Geoff Willis and chief designer Paul White, features a new livery by 'Tron' movie designer Daniel Simon

Teams eyeing Renault exhaust switch

Following Renault's reveal of its front-exiting exhaust, rival teams are considering switching to the untried system

Rival teams are uncertain whether to follow Renault's lead and switch to exhausts that feed the floor of the car from the front of the sidepod.

The new Renault R31 blows exhaust gases into the front of the floor, which increases downforce and extends the blown-diffuser concept to act on the entire undertray. But there is uncertainty over the design's benefits.

Renault engine boss Rob White said: "This moves the authority of the exhaust effect into a different league. There are opportunities to be had in using the energy in the car exhaust stream and the air passing under, over and around the car."

Robert Kubica topped the timesheets at last week's Valencia test on the first outing for the car. However, despite showing good pace, the car was noted to be a little inconsistent and further refinement of the way that the exhausts interact with the floor is needed. But, fundamentally, the design produced promising results.

The majority of teams are now evaluating whether to adapt their

cars to take the system, and Red Bull is believed to have looked at such a design before the Renault appeared. However, integrating such a fundamental design change would make it far more difficult to change a car to this specification than it was to integrate the blown diffuser last year.

Williams technical director Sam Michael told AUTOSPORT: "If Renault thought about it a long time ago and took that direction, I don't think it's a big deal to make it work. It's a bit hard to do now [in an existing car]."

"We did not think of it before we saw it and we now have a CFD programme running to see what it does. It's got to do something or else why would Renault do it? But whether it's worth implementing during the year is too early to say."

However, Virgin technical director Nick Wirth is unconvinced that it is the best way to use exhaust gases to generate downforce, having already evaluated the concept.

"We heard rumours of the front-blowing exhaust and it's

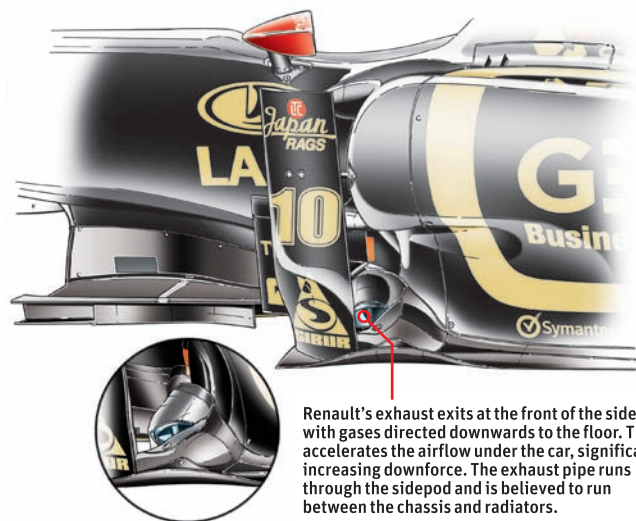
a solution that we tested," Wirth told AUTOSPORT. "It's very interesting, but it doesn't offer any more absolute performance than our solution. It also creates very different characteristics on and off the throttle."

"It's a massive packaging challenge. It would be interesting to understand how you can make

the crash structures strong enough when they are hot."

McLaren, which launched its car in Berlin last week with a dummy exhaust system, is also believed to have considered such a design.

Engineering director Tim Goss said: "The exhaust solution is a significant part of the performance of the car."



Renault's exhaust exits at the front of the sidepod, with gases directed downwards to the floor. This accelerates the airflow under the car, significantly increasing downforce. The exhaust pipe runs through the sidepod and is believed to run between the chassis and radiators.

Mercedes on the back foot

Slow start for new Merc

MERCEDES FACES a struggle to make its new MGP W02 competitive after a troubled first test at Valencia last week.

Team sources indicated that the outfit was disappointed with the performance of its 2011 car. Although it is too early to draw any firm conclusions about where the Mercedes is in the competitive order, the team needs to make significant progress to contemplate wins early in the season.

There were also reliability problems with the hydraulics, which restricted Nico Rosberg and Michael Schumacher to a combined total of just 24 laps on the opening day.

Mercedes motorsport supremo Norbert Haug told AUTOSPORT:

"We saw some quicker cars, but we have a programme in place and I'm sure other people have their own ways of using the five weeks to the start of the season. There is

more to come.

"On the third day, when the quick times were set, we concentrated on other things.

"We know it is possible, on a lower fuel run with newer tyres, to do a good lap time. We are heading in the right direction."

Michael Schumacher, who again struggled with the car on turn-in, set the 15th fastest time of the test, 1.4 seconds off the pacesetter, Renault's Robert Kubica.

F1 TESTING: VALENCIA, FEBRUARY 1-3

POS	DRIVER	CAR	*2010 CAR	TUESDAY	WEDNESDAY	THURSDAY
1	Robert Kubica	Renault R31	-	-	1m14.412s	1m13.144s
2	Adrian Sutil	Force India-Mercedes VJM03*	-	-	-	1m13.201s
3	Fernando Alonso	Ferrari F150	1m14.553s	1m13.307s	-	-
4	Jenson Button	McLaren-Mercedes MP4-25*	-	-	-	1m13.553
5	Sebastian Vettel	Red Bull-Renault RB7	1m13.769s	1m13.614s	-	-
6	Paul di Resta	Force India-Mercedes VJM03*	1m14.461s	1m13.844s	-	-
7	Mark Webber	Red Bull-Renault RB7	-	1m17.365s	1m13.936s	-
8	Nico Hulkenberg	Force India-Mercedes VJM03*	1m13.938s	-	-	-
9	Felipe Massa	Ferrari F150	-	-	-	1m14.017s
10	Timo Glock	Virgin-Cosworth VR-01*	-	1m15.408s	1m14.207s	-
11	Gary Paffett	McLaren-Mercedes MP4-25*	1m14.292s	-	-	-
12	Pastor Maldonado	Williams-Cosworth FW33	-	1m16.266s	1m14.299s	-
13	Lewis Hamilton	McLaren-Mercedes MP4-25*	-	1m14.353s	-	-
14	Sergio Perez	Sauber-Ferrari C30	-	1m16.198s	1m14.458s	-
15	Michael Schumacher	Mercedes MGP W02	1m16.450s	-	1m14.537s	-
16	Nico Rosberg	Mercedes MGP W02	1m19.930s	1m14.645s	-	-
17	Sebastien Buemi	Toro Rosso-Ferrari STR6	-	1m16.359s	1m14.801s	-
18	Kamui Kobayashi	Sauber-Ferrari C30	1m15.621s	-	-	-
19	Jerome d'Ambrosio	Virgin Racing VR-01*	1m16.003s	-	-	-
20	Rubens Barrichello	Williams-Cosworth FW33	1m17.335s	1m16.023s	-	-
21	Vitaly Petrov	Renault R31	1m16.351s	-	-	-
22	Jaime Alguersuari	Toro Rosso-Ferrari STR6	1m17.214s	1m16.474s	-	-
23	Narain Karthikeyan	HRT-Cosworth F110*	1m18.020s	1m17.769s	1m16.535s	-
24	Heikki Kovalainen	Lotus T128	-	1m20.649s	-	-
25	Jarno Trulli	Lotus T128	-	-	-	no time

Lotus: midfield pace

THE NEW Lotus T128 has the potential to run in the midfield this year, according to driver Heikki Kovalainen, who hailed the car as a big step forward.

The team was only able to complete slow laps during last week's Valencia group test because of a power-steering problem, but it also ran during a private session on

Friday, setting a best time of 1m15.679s.

"This feels like a modern F1 car should," Kovalainen told AUTOSPORT. "It's a totally different story to last year. We don't know yet how quick the car is, but we can put more performance on it compared to last year. Our expectations are higher. This year, we have had



High hopes for Lotus T128

enough time, the facilities are better and we have more people."

The T128 continues testing at Jerez today, where a clearer picture of its outright pace will emerge.

THIS WEEK IN F1



RED BULL Mark Webber is upbeat about the new RB7 after completing his first full day in it at Valencia last Thursday. "The work we have done straight out of the box is impressive," he said.



McLAREN Lewis Hamilton is not worried that drivers will have too many buttons to operate during races. "When we're on full throttle on a qualifying lap, using KERS and the wing might be hard, but in the races it should be easier."



MERCEDES Mark Slade has been confirmed as Michael Schumacher's race engineer this year, as first revealed by AUTOSPORT (October 28). Slade has engineered Vitaly Petrov and Kimi Raikkonen in the past.



RENAULT Junior drivers Bruno Senna, Romain Grosjean, Fairuz Fauzy, Jan Charouz and Ho-Pin Tung are set to complete mileage in an old-specification Renault F1 car this year. "We want to do the Ferrari academy concept," said team principal Eric Boullier.



WILLIAMS The team is going ahead with its planned stock-market flotation and will launch an Initial Public Offering on the Frankfurt Stock Exchange. The offering will consist of up to 27.39 per cent of the company.



TORO ROSSO Technical director Giorgio Ascanelli has called on Sebastien Buemi to come of age as an F1 driver this year. "We are at the point where we can expect to get something back," he said.



LOTUS Angolan former GP2 driver Ricardo Teixeira made his Formula 1 test debut for the team at Valencia last Friday. He completed 18 laps during the team's private test day.



HRT Narain Karthikeyan completed 188 laps during his first F1 test since 2007 at Valencia last week. The Indian is returning to racing for the first time since the 2005 season.



VIRGIN The team's new MVR-02 was launched at BBC Television Centre in London on Monday. "An acceptable level for us would be to get closer to teams like Sauber, Toro Rosso and Force India," said driver Timo Glock of the team's aspirations.



FIA The FIA will stipulate a 600-metre overtaking zone where the adjustable rear wing can be activated during races this season. The system will only be available if within one-second of the car in front, which will be assessed at two lines painted on the track the corner before the straight.

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Formula One

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MPH Mark Hughes

AUTOSPORT grand prix editor

Should Renault have allowed Robert Kubica to compete in rallying for fun? Yes, for to prevent it would be to completely misunderstand what makes this motorsport puritan tick

What this column was going to be about this week was a study undertaken by Dr Riccardo Ceccarelli about the brains of racing drivers, and how they differ from those of non-racers. But events on the Ronde di Andora rally last Sunday rather overshadowed that as Robert Kubica's Formula 1 career now hangs in the balance.

Kubica is already being criticised in some quarters for having risked his F1 season by taking part in something not antiseptically safe – but it's not an attitude I subscribe to. The very desire that has driven Kubica to achieve what he has cannot just be switched off for three months of off-season monotony. Most F1 drivers are addicted to the life of being a grand prix star, Kubica is addicted to the driving. You would struggle to find another driver with such complete disinterest in at least dipping into the party life available to an F1

driver. Most of them, having trained and worked extremely hard and stayed focused for long periods, are happy to let off steam when the racing's done. For them, having a winter break is exactly that and they will incorporate their training into relaxing and enjoying life.

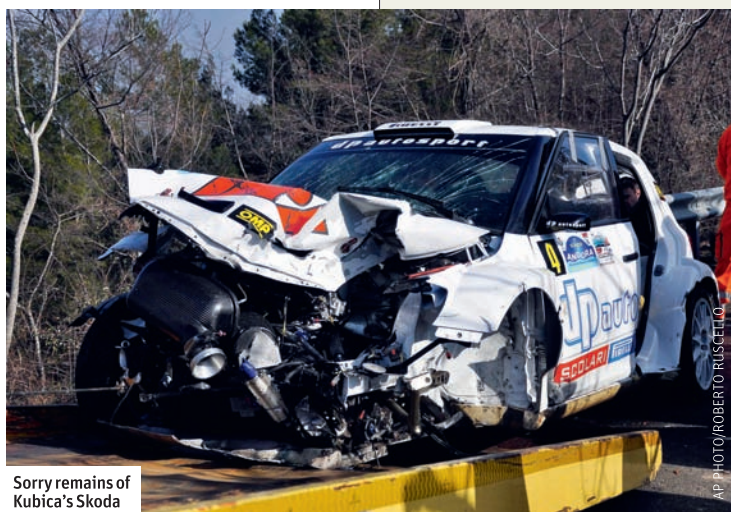
Robert is not wired up like that. If he's not driving a car, he's thinking about it, about how to make it better, how to further hone his own skills. He's talking with engineers about racing cars, rally cars or karts, sitting round with his mechanics, who are telling racing stories from their years. For him this is everything: total immersion. He's about the only F1 driver you'd actually believe when he says the words: "All I need is food to eat, a roof over my head and a fast car." Plenty join F1 with that attitude, but success usually rearranges those priorities. With Robert it never has. Some find him a peculiar fellow but not me. I just love the simplicity, the single-mindedness, the purity of the guy. And the fact that he can drive like a demon and is seemingly immune to pressure.

His teams will always remark upon how he's never happy with the car. It can always be better – even when it's great. For this reason he's never happier than when complaining – because that implies the promise of something even better, that the car can go yet faster.

It's particularly cruel that his injuries should have been inflicted just when it seems he may finally have got an F1 car worthy of his talent. Last year Renault technical director James Allison said: "If we give him a potential title-winning

car I have absolutely no doubts whatsoever that he will deliver us a title. You know that if it's not going well it's the car, not Robert. Like Fernando Alonso, he gives you a fantastic baseline. But he's more intense, more fully immersed and just brilliantly committed. He's as demanding as hell but he's putting in the effort to match." It will give him hope in his recovery that in his last time in an F1 cockpit he set the fastest lap of anyone to date. Renault went back to base flying high, and the rest of F1 went scurrying back to its simulation tools to see if that radical forward-blowing Renault exhaust was 2011's version of the double diffuser or f-duct.

Coming back to the study of racing drivers' brains, Dr Ceccarelli – who by coincidence is retained by Kubica as a performance coach – has scientifically confirmed that racing drivers do not actually possess extraordinary reactions, that many of their skills derive not from super-special physical abilities, but from how economically they use the brain. In simple tasks they will typically use the bare minimum of its computing power, in stark contrast to non-racing drivers. It figures that in this way they can take the emotion from the task and achieve extraordinary things. Kubica has spent most of his life doing extraordinary things – and Ceccarelli has monitored him particularly closely and is hugely impressed. If anyone has the mental strength and sheer desire to come back from an injury like this, it's Kubica. Good luck Robert. Hope to see you soon. ☒



Sorry remains of Kubica's Skoda

AP PHOTO/ROBERTO RUSSO

“You’d struggle to find a driver with such disinterest in partying”



Irishman to race Flash BMW

Turkington had success in WTCC last season

STCC

Turkington set for Scandinavia BMW

Former BTCC champion becomes the STCC's latest big-name convert for 2011, reports JAMIE O'LEARY

Former British Touring Car champion Colin Turkington will race in the Scandinavian Touring Car Championship this season with frontrunning BMW squad Flash Engineering.

Turkington, who claimed the 2009 BTCC in a WSR-run BMW, was due to be unveiled today

(Thursday) as the lead driver for the squad that carried Richard Goransson to the Swedish tin-top crown in 2008.

Team principal Jan 'Flash' Nilsson, who will be Turkington's team-mate, said that his capture of the 28-year-old Northern Irishman was a clear indication of the

growing strength of tin-top racing in Scandinavia. Turkington is the third former BTCC champion to be confirmed for the 2011 season.

"We have a very good series here, even if it's not been seen so much by people outside of Sweden and Denmark," Nilsson told AUTOSPORT. "I think with drivers like Colin, James Thompson [who will drive for Volvo] and also Rickard Rydell in the Chevrolet, more people will start looking at the STCC as somewhere they'd like to race."

"Colin is a top driver and he can be very successful with us. He knows a lot about the BMW and so do we, so I think we will complement each other very well."

Turkington said he was under no illusions about the size of the task.

"I know the BMW like the back of my hand, but the Scandinavian tracks are another matter — they are very tight and twisty, very different from most UK tracks," he said.

"If I can get my head around them quickly then we should be in for a good season, but there's an incredibly strong field of drivers I'll be up against, and it won't be easy to beat guys like Thompson, Rydell and Jan Magnussen. They've won a lot between them and won't be keen to give way to anyone."

Turkington did not rule out returning to the BTCC later this year, if budgets allow. "There are only two events that clash, so you never know," he said. "I could do a BTCC race with WSR, but STCC is my priority."

BTCC

Nash back for more with Triple 8 Vauxhall

BRITISH TOURING CAR Championship regular James Nash will remain with Triple 8 Engineering for this season.

The 25-year-old will drive one of the multiple championship-winning team's pair of Vauxhall Vectras, which have been

converted to use the Swindon-built TOCA turbocharged engine.

"I've never stayed with a team two years running since I started racing," said Nash, who finished 12th in the 2010 championship. "But Triple 8 are so strong

that it's definitely the best option."

"Last year we were lacking a bit in straight-line speed compared to the Eurotech and Pinkney Vectras [which were powered by the TOCA engine], but switching to the turbocharged unit will sort that out."

Team principal Ian Harrison said: "We have unfinished business with James after last year, and I think we're in a good position to address that. He's a definite star in the making and a driver we're taking a long-term view with."

Nash will run TOCA engine



INDYCAR

Conway back to 100 per cent fitness

NEW ANDRETTI
Autosport IndyCar signing Mike Conway feels he has fully recovered from his horrific crash in last year's Indianapolis 500. The 27-year-old was ruled out for the remainder of the 2010

season after a violent crash on the penultimate lap of last year's 500. It was announced last week that Michael Andretti has snapped up the former British Formula 3 champion for this year, and Conway is sure that he is in peak

physical condition. "I'm good, 100 per cent recovered and training hard," Conway told AUTOSPORT. "I'm ready as ever for the season ahead, so it's just a case of getting back in the car now." Andretti plans to

arrange some private test days for Conway this month, before the team's scheduled test programme gets underway.



Conway broke his back and leg

INDYCAR

Bourdais in talks for IndyCar road courses

MULTIPLE CHAMP CAR title winner Sebastien Bourdais is working on a road-course only deal for this year's IndyCar Series.

The Frenchman has not raced in US single-seaters since winning his fourth consecutive Champ Car title in 2007. But he appears closer than ever to a return after testing for Dale Coyne Racing at Sebring last week.

Bourdais's involvement in Peugeot's sportscar programme for 2011 rules him out of completing a full season in IndyCar.

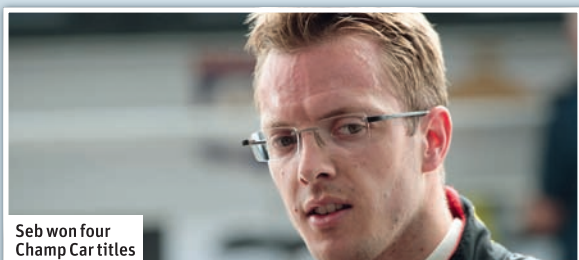
"It would be just for the road courses," said Coyne. "He has his commitment to Peugeot, so there are a bunch of conflicts on the ovals that would make a full season impossible. He's

free for the road courses, so that's what our discussions have been on."

Bourdais, 31, admitted that the ageing Dallara-Honda package, which he had never driven before, surpassed his expectations. And the former Toro Rosso Formula 1 driver expressed his desire to get back to racing in US single-seaters.

"I really believe in what Dale is doing with his team and it can be a great opportunity for both of us," he said. "I look forward to putting together the pieces to get back into IndyCar racing."

Coyne added that Britons Alex Lloyd and Martin Plowman are both in contention for drives with the team this year.



Seb won four Champ Car titles



Graham Rahal drove for dad at Indy 2010

INDYCAR

Rahal team focuses on 2012

TEAM OWNER Bobby Rahal has turned his focus to getting his IndyCar squad back on the grid full-time in 2012 rather than trying to do a handful of races this year.

Rahal Letterman Racing's only appearances in the past two seasons have been at the Indianapolis 500. While an attack on the May showpiece race is a possibility this year, Rahal says that his main target is being ready for the introduction of the new chassis/engine package next season.

"Everything is focused on 2012," said Rahal. "If some good things come up for Indy we're ready. But we don't have any interest in going to races just to be there."

● Ex-IndyCar racer Robert Doornbos has admitted he is in talks with Rahal about racing at Indy. The Dutchman also revealed that his recent talks with Mercedes about a DTM drive were in regard to the 2012 season rather than this year.

AUTOSPORT SAYS...

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There's no doubt about it, the Scandinavian Touring Car Championship is gaining momentum, and Colin Turkington's Flash Engineering deal is further proof.

He is the third former British Touring Car champion to sign up to the series, after James Thompson and Rickard Rydell. And with ex-F1 man Jan Magnussen plus tin-top aces such as Fredrik Ekblom, Thed Bjork, Tommy Rustad and four-time champion Richard Goransson in well-backed BMW, Volvo, Volkswagen and Chevrolet machinery, all the elements are in place for a classic season.

One paddock insider told me this week that 10 drivers will be taking salaries this year, and that's something that the BTCC and even the World Touring Car Championship would be jealous of at the moment.

Why are things so good in Scandinavia? The series still runs to the same Super 2000 rules that the WTCC and BTCC have tried to distance themselves from on cost grounds, yet it's the STCC that is having far more luck in recruiting big names. Budgets are seemingly easier to come by in Scandinavia thanks to the willingness of companies in the region (mostly Sweden) to finance the teams and reap the rewards of enlarged brand awareness via an increasingly strong TV package and media coverage in general.

If more UK businesses had the same attitude, all of the above could have been written about the BTCC instead. Let's hope it happens soon before Jason Plato, Matt Neal and Tom Onslow-Cole all defect too.



REMEMBER WHEN ...

SEPTEMBER 20 2008



...Cristiano da Matta last raced a car? The Brazilian, who returns to action in 2011 (see p21), contested the 2008 Miller Motorsports Park Grand-Am race in a Riley-Ford, although he has since raced a truck in Brazil.

LMP1

Gene safety call for LMP

PEUGEOT DRIVER Marc Gene has called for further rule changes to prevent Le Mans prototypes becoming airborne.

Gene suggested that the mandating of a Formula 1-style shark fin on all new prototypes for 2011 had not gone far enough. He made the comments following an aerial accident in the new Peugeot 908 at the Aragon circuit in November.

"The car took off more slowly than before and it came down quicker," said Gene, who also flipped at the Le Mans Test Day in 2008. "I was lucky, but I think we need to look at the shape of the underside of the floor because these kind of sportscars are still dangerous. Engineers tell me that something simple could solve the problem."

Peugeot Sport technical director Bruno Famin did not back Gene's calls for further rules changes. He said the accident had been caused by the failure of a weld on a rear wishbone, which he described as "a quality problem".

IN BRIEF



OAK TAKES UP THE COLOURS

OAK Racing will mount its three-car assault on the ILMC in the colours of Gulf Oil in 2011. Guillaume Moreau, Matthieu Lahaye and Pierre Ragues will drive one of two LMP1 Pescarolo-Judds, while the team will also field an LMP2 version of the car.

FAULKNER GOES ENDURO

Porsche Supercup race winner Damien Faulkner has landed his first regular endurance ride. The 33-year-old Irishman will drive a GTC class Porsche 911 GT3 Cup in four ALMS rounds.

MUTOH MOVES TO SUPER GT

Hideki Mutoh will race in Super GT this year, bringing his IndyCar career to a close. Mutoh, whose best IndyCar result was second at Iowa in 2008, will drive an Aguri Suzuki-run Honda.

HENNERICI SWAPS TEAMS

FIA GT1 World Championship frontrunner Marc Hennerici is swapping from the Phoenix Chevrolet to the Marc VDS team for 2011. The squad will retain Bas Leinders and Maxime Martin.



LE MANS

Peugeot drops hybrid plan for its must-win 2011 car

Le Mans defeat in 2010 prompts French manufacturer to stick with diesel power

Plans for Peugeot to race its 2011 Le Mans 24 Hours challenger as a diesel-electric hybrid were abandoned straight after its defeat in last year's race.

Peugeot Sport boss Olivier Quesnel revealed at the launch

of the second-generation 908 HDi last week that it had decided to run the car without energy-retrieval systems after a series of engine failures thwarted its bid for a second consecutive Le Mans victory

last June. This constituted a U-turn for a manufacturer that had stated at the beginning of last year that it would race with a hybrid in 2011.

"After what happened at Le Mans last year, the board said, 'You must make sure you win; you have to focus on one thing,'" explained Quesnel, who confirmed that the new car had not tested in hybrid configuration. "The hybrid is no longer a priority," he said.

"We were not sure that a hybrid would be more competitive and it would have been extra complication for nothing."

Quesnel stressed that the second-generation 908 would race as a hybrid in the future.



...and successful 908 nomenclature



Peugeot's '11 car will retain diesel power...

He said the hybrid project was on hold until after Le Mans, but suggested that the 3.7-litre turbodiesel 908 would run with an energy-retrieval system in 2012.

The new Peugeot, up to now known by its 90X codename, has retained the 908 nomenclature because of the successes of the original car. Company marketing and communications director Xavier Peugeot said at the launch that the 908 had become "the standard bearer for the entire range".

Peugeot has retained its nine-strong driver line-up for its three-car attack on the 24 Hours. Stephane Sarrazin, Franck Montagny and Anthony Davidson will contest every round of the Intercontinental Le Mans Cup events, while Sebastien Bourdais will do six of the seven.

Quesnel said: "If we want to win the ILMC, we cannot change the line-up every time."

SPORTSCARS

Jag to skip Le Mans

THE FACTORY-BACKED RSR

Jaguar sportscar team is skipping the Le Mans 24 Hours this year.

Team boss Paul Gentilozzi, whose Jaguar XKR GT2 car lasted four laps in last year's 24 Hours, has decided to focus RSR's efforts on its second full American Le Mans Series campaign.

"The six weeks required to do Le Mans would take a lot of resources out of the schedule that could be put to better use; that race takes a lot of time and effort," he said. "We have a development plan for that time on the track, in the windtunnel and on the test rig."

RSR will field a pair of heavily-revised XKR's in the 2011 ALMS.

The lead car will be raced by a trio of former Champ Car race winners. Cristiano da Matta and Bruno Junqueira will share the car in all nine races, with Oriol Servia joining them for the enduros at Sebring and Road Atlanta.

Gentilozzi said he had no concerns about this line-up's lack of sportscar experience.

"I think a driver's ability is more important than the category they came from," he said. "A good driver can be quick in any discipline and I have a lot of respect for the ability of the drivers we have chosen."

Former Daytona 24 Hours winner PJ Jones, who has raced sporadically in the NASCAR Sprint Cup in recent years, will share the second Jaguar with an undisclosed team-mate.

Gentilozzi is promising "a significant step forward" for 2011. RSR has a new race engineering team, including former Champion Audi engineer Ron Mathis, and has switched from Yokohama to Dunlop tyres.

The 2011-spec car will run for the first time at Sebring at the end of this month.



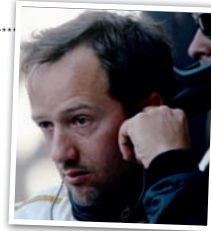
Junqueira joins Jag

60 SECONDS WITH

CRISTIANO DA MATTA RSR

What does this opportunity with RSR mean?

The timing is perfect. I'm 37, which I think is a good age to start my endurance racing career.



Do you have any concerns given that this is a delayed comeback in the wake of the injuries you sustained in 2006?

I know that I had no problems when I did two Grand-Am races in 2008. The question-marks are in other people's heads. I was racing trucks in Brazil last year and I'm karting every week to try to get in shape. I'm confident I can do the job, but I know it won't be a piece of cake.

What will it mean to share a car with your good friend Bruno Junqueira?

There's no better way to get started in a new type of racing than with someone you know well. We will be 100 per cent open with each other.

Cristiano da Matta was talking to AUTOSPORT international editor-at-large Gary Watkins



ORECA'S BABY PROTOTYPE BREAKS COVER

The new ORECA 03 LMP2 contender ran for the first time last week at Paul Ricard. The car completed more than 620 miles with Nicolas Lapierre and Soheil Ayari driving

LE MANS

Le Mans green car delayed by ACO

PLANSTO invite an experimental green car to join the field for the 2011 Le Mans 24 Hours have been delayed by the race organiser.

The Automobile Club de l'Ouest had planned to allocate an extra pit garage for this year to an "innovative

technological project" running outside the general classification.

It explained that despite "contacts with several manufacturers", no entries we filed because the "projects were not sufficiently sorted".

There are 17 LMP1s and 11 LMP2s on

the 56-car entry list for this year's 24 Hours on June 11-12. The renamed GT Endurance class is made up of 18 'pro' and 11 'am' cars.

Highcroft Racing has taken up its guaranteed entry with the coupe or e-spec version of the HPD ARX-01.



DTM

Green set for a promotion

DTM race winner at front of queue to replace Paul di Resta in top-spec Mercedes line-up in 2012

DTM race winner Jamie Green is on course to return to Mercedes' stable of top-spec cars in the V8 tin-top series in 2011.

The 28-year-old has raced an old-spec Mercedes C-class for the past two years after he was demoted from the manufacturer's crack HWA squad, despite finishing fourth in the 2008 standings.

Englishman Green has won two races – both at the Norisring –

during his time with Persson Motorsport, and AUTOSPORT understands that he is set to replace Formula 1-bound reigning DTM champion Paul di Resta at HWA.

Mercedes-Benz motorsport boss Norbert Haug told AUTOSPORT: "We have not taken the final decision, but of course we have drivers in our ranks already that deserve to be in a top car. Jamie showed what the 2008 car could do

by winning at Norisring, and he was in the top four in qualifying six times last year. That is remarkable."

Green finished seventh in the points in his first year after being moved back to an older car. But he improved on that to finish sixth in 2010, taking three podium finishes and running second in the series after five of the 11 races.

"I'm really happy with what we achieved in the older car, and

hopefully that will lead me back to a top car," Green told AUTOSPORT. "It can be really tough to even score points in the old car sometimes, so I think I'm stronger in general now than I was in 2008. I definitely feel that I'm more prepared to win a championship if the chance arises."

Haug added that Mercedes was in no rush to announce its DTM plans, as the season does not start until May 1.

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DARIO FRANCHITTI

**FOR MORE
INFORMATION:**

GP2 ASIA

AirAsia shapes up

TEAM AIRASIA'S Luiz Razia is confident that the junior arm of F1 outfit Team Lotus can carry its test form into this weekend's GP2 Asia season opener in Abu Dhabi.

Razia and team-mate Davide Valsecchi, the reigning GP2 Asia champion, topped the afternoon session on the final day of the second two-day test earlier this week. The Brazilian told AUTOSPORT that, while not all of his rivals were chasing a lap time, he was optimistic about the team's chances.

"Some people were doing long runs, but a few strong teams like iSport put new

tyres on," he said. "Looking at the times, we are not so far away. If you put the splits together we could be third or fourth."

"But you can be quick in testing and then arrive for the race and things change. Overall though, I think we've done a good job. Davide and I bring a lot of experience, so things look good at the moment, but we have to stay calm and see what will happen."

Lotus ART's Jules Bianchi was quickest overall at Yas Marina with a 1m35.940s effort on Monday morning.



Razia sharp in Abu Dhabi tests

P64 GP2 ASIA PREVIEW

IN BRIEF



TOYOTA POWER FOR WRATHALL

British Touring Car Championship rookie Frank Wrathall will have Toyota power in his Dynojet-run Avensis (above) this season. Toyota GB will fund the development of the NGTC-spec engine, which will be carried out by specialist X CTech R.

WTCC BACK TO CURITIBA

The opening round of the World Touring Car Championship has been switched back from Interlagos to Curitiba due to renovations at the Brazilian Grand Prix venue. The series will share the bill with the country's popular domestic V8 Stock Car Championship.

GP3 DROPS MONACO RACE

Monte Carlo has been dropped from the GP3 Series calendar due to a lack of space in the paddock. The series, which will be spread over eight rounds, has added an additional two-day test at an unspecified venue in June instead.



Welshman back for another year

BRITISH F3

Lloyd switches to Sino Vision

FORMULA 3 racer Hywel Lloyd will return to the British championship for a fourth season this year to partner Adderly Fong at Sino Vision Racing.

After finishing third in the National Class in 2008, Lloyd has been an occasional points scorer in the main championship during the past two seasons, running his own car under the CF Racing banner. Now

Chris Churchill's SVR team will run Lloyd's Dallara-Mercedes alongside its own ex-Manor Motorsport cars.

"I had a test with Sino Vision at Valencia in December and it's a good car to drive," said Lloyd.

"Mercedes has been working hard too, and the experience I've got should help bring us forward."



INDYCAR's Mazda Road to Indy driver development ladder is proud to have recently announced **\$2,500,000** in scholarships to advance entry-level open-wheel drivers and teams to the top of the IZOD IndyCar® Series and the Indianapolis 500®. The ladder includes the **IZOD IndyCar Series**, **Firestone Indy Lights**, **Star Mazda Championship** presented by Goodyear and **USF2000 National Championship** presented by Cooper Tires.

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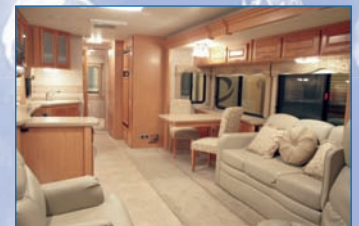
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WTCC

Tarquini to stay in WTCC

Touring car veteran targeting manufacturer drive for 2012 WTCC

Former World Touring Car champion Gabriele Tarquini is hoping that his deal to contest a second season with privateer SEAT WTCC team SUNRED will provide a springboard back into a ride with a manufacturer next year.

Tarquini won the world championship as a works SEAT driver in 2009, which was the Spanish manufacturer's final season as a factory entrant in the WTCC. The subsequent withdrawal of BMW has left Chevrolet as the sole works entry in the world championship. But the 48-year-old Italian told AUTOSPORT that his priority for the upcoming season was to simply hang on in the hope that new manufacturers would join.

"I trust in this championship," Tarquini said. "I want to stay in the WTCC to wait for some other manufacturers. My target is to sign for a new manufacturer. I have personally spoken to three or four, and they are interested in coming. Maybe in 2012 we will see three or four new manufacturers."

Although the loss of BMW has left Chevrolet with no genuine rivals in 2011, Tarquini believes that the German manufacturer's exit could prove beneficial in the long-term by removing the complications created by trying to balance the



Tarquini will race SUNRED SEAT again

performance of front- and rear-wheel-drive cars.

"The withdrawal of BMW gives the championship the chance to start from a new base for the rules," he said. "With the rear-wheel-drive cars, you always have to have some compensation and it's quite difficult to make everyone agree. In terms of potential for the future, maybe without BMW the WTCC can be better. If a new manufacturer comes, it will be with a front-wheel-

drive car. So it can be an opportunity. For sure, 2011 will be tough for everybody. Three manufacturer Chevrolets, and the rest of us are privateers..."

Tarquini will be joined at SUNRED by Russian rookie Alexey Dudukalo, with Russian oil company Lukoil replacing Castrol as team sponsor. The team will start the season with the older 2.0-litre engine with plans to switch to the new 1.6-litre unit during the year.

IN BRIEF



GARY HAWKINS

GRIFFIN TESTS AVENSIS

BTCC's prototype NGTC Toyota Avenis was tested at Brands Hatch on Tuesday with GT racer Matt Griffin behind the wheel. Eurotech racers Andrew Jordan and Jeff Smith were also out in their Vectras.

SATO AND VISO STAY WITH KV

Takuma Sato and Ernesto Viso will spend another year with KV Racing Technology in the IndyCar Series. The pair, who finished 21st and 17th in last year's championship, will both run in Lotus colours.

TRACY AIMS FOR CONQUEST

Former Champ Car champion Paul Tracy is hopeful of an IndyCar seat with Conquest this season. Rivals for the drive include Bertrand Baguette, Sebastian Saavedra and Jean-Karl Vernay, who tested for the team at Sebring last week.

BERTHON REPLACES STONEMAN

Nathanael Berthon will race for ISR in Formula Renault 3.5. Berthon's ISR seat comes after its original driver, Dean Stoneman, was diagnosed with cancer.

ROSSI'S RENAULT SWITCH

GP3 front-runner Alexander Rossi will switch to Formula Renault 3.5 this year with Fortec. Rossi made one appearance in FR3.5 with ISR last year at Monaco.

MELKER TO EURO SERIES

Nigel Melker will switch from GP3 to the F3 Euro Series this season. The Dutchman will drive one of three Mücke entries.

BRITISH F3 CALENDAR SHUFFLE

British F3's return to the Nurburgring has moved from September to July 1-3. The championship was originally scheduled to support the Nurburgring 12 Hours but was dropped due to an organisational problem. However, a cancellation by another series created a vacancy during the International GT Open weekend.

WTCC

WSR shelves WTCC plans

WSR WILL focus its efforts on the British Touring Car Championship this year after abandoning its plans to continue in the WTCC.

After winning the 2009 British crown with Colin Turkington, the squad ran him in five WTCC events last year, culminating in a victory at Okayama. But any hopes of taking in a full campaign this season have been thwarted by a lack of sponsors and Turkington's departure to Flash Engineering (see p18).

"We had hoped to use the [2010] WTCC programme to attract the backing for a full year," team principal Dick Bennetts told AUTOSPORT.

"But despite BMW offering us a good price to convert to a 1600cc turbo, the figures don't work. We'll focus on Britain instead."

WSR will field at least two 320Si BMWs in the BTCC. No drivers have been signed although Rob Collard and Nick Foster both tested for the squad at Brands Hatch last November.



WSR will focus on BTCC in '11

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FIA

GOOD GOLLY MISS MOLLY

Double British Ladies rally champion Molly Taylor was one of 18 drivers taking part in the shoot-out for one of 10 places in the inaugural FIA Institute Academy in Austria earlier this week. The driving assessment, in BMW M3s, was overseen by ex-Formula 1 racer and two-time Le Mans winner Alexander Wurz

WRC

Citroen unsure of Sweden form

World champion squad not confident of victory for new DS3 ahead of all-snow WRC season opener

Citroen has admitted to a lack of confidence ahead of this week's Rally Sweden.

Ford has won the Karlstad-based event for the past four years, with both drivers Mikko Hirvonen and Jari-Matti Latvala taking victory. Citroen star Sebastien Loeb has only triumphed in Sweden once, in 2004, and his team-mate Sebastien Ogier only tackled the rally for the first time last year.

Citroen team principal Olivier Quesnel said: "We are not so confident for the icy conditions. I don't think we are the favourites for this event. We could have done with some more testing on the ice."

Loeb agreed, adding: "It's not the one [rally] where I feel the best. It's more difficult with the car as well, because this [new] car feels more nervous. I don't think we will see all of the potential of the car in Sweden."

Loeb is rarely happy in inconsistent and rutted conditions, but with a solid ice base predicted for the Varmland roads this week, Ford's Mikko Hirvonen expects the world champion to be in the fight for victory.

"Citroen are always talking like this," said Hirvonen. "We've heard all of this before about them not being ready and not favourites, but it's bullshit. Okay Sebastien Ogier hasn't done the event so much, but Loeb has won before. They will both be quick."

Ford technical director Christian Loriaux said: "We are happy with the set-up we're going to Sweden with. We haven't had any problems with the engine during testing, but we're still working on areas like the mapping of the engine. We know there is still improvement and development to come with the car. We know there's one place where



Citroen would've liked more snow testing

we could do with more reinforcement, but it should be okay to start as we are and we will have further development before the homologation freeze in May.

"It's the classic thing where you come to 95 per cent of the full performance very quickly and the last five per cent will take a lot longer — that will probably come

over the next two years."

The first true test of the two new-spec cars will come on round three, the Rally of Portugal, as the second event of the year takes the cars to the uniquely high altitude roads of Rally Mexico.

P54 WRC PREVIEW



Loeb predicts a classic World Rally season

WRC

Loeb: 2011 could be one of the best

WORLD RALLY Champion Sebastien Loeb says 2011 could be one of the most exciting in the sport's history following the regulation shake-up over the closed season.

Loeb is chasing his eighth straight drivers' title this season, but he does so following the biggest technical overhaul since he started competing.

Loeb said: "When the regulations don't change between the years and you have one car stronger than the others, you imagine the start of the next season won't be so different from before. Now we have a lot of change: new drivers, cars and regulations — it makes it more exciting. I think it can be one of the most exciting years ever."

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RALLY GB

Rally GB banking on calendar delay



Coe hopes Rally GB has stay of execution

RALLY GB CHIEF executive Andrew Coe is hoping the decision not to debate the World Rally Championship calendar at last week's WRC Commission meeting will buy the event time to save Britain's round of the series.

Rally GB's Cardiff agreement is up after this season and finding either an extension to that contract or a replacement is vital for Britain retaining its WRC round. The decision not to discuss the calendar at the Commission meeting was taken to offer WRC promoter North One Sport time to conclude outstanding calendar issues.

"I can't make any predictions about when we can have an agreement in place," said Coe. "We're working as hard as possible right now. The fact that it doesn't appear that the

calendar will be discussed before next month could help us by giving us more time to get something finalised."

North One Sport's Simon Long said: "All of the parties agreed that we need more time to discuss the calendar to get it absolutely right. The WRC can't afford any wasted years; it's vital we get this right. There are one or two questions outstanding regarding events that are in the frame for a calendar place."

Long refused to be drawn on whether Rally GB is one of those events.

"We're in discussion with the MSA," he added. "And we're hoping for a positive outcome from their own negotiations for a host venue. This is an uncertainty for the event."

IN BRIEF



DMACK instead of Michelin, the main supplier in this year's series.

SUNSEEKER LANDS SKODA

Skoda UK will supply the official vehicles to the Bournemouth-based opening round of the British Rally Championship, Rallye Sunseeker on February 25-26.

BRITS COMMIT TO PORSCHE

British privateers John Lloyd and Andrew Barnes are the first two drivers to sign up for this year's Tuthill Porsche Challenge, the first ever one-make series for the 911 (below). Lloyd is no stranger to the German machine, having finished fifth on the Safari Rally in one in the past. The series starts on the Bulldog Rally in Wales in April.



SANDELL IN IRC SWITCH

Former Junior WRC champion Patrik Sandell has confirmed he will switch to the IRC after this week's Rally Sweden. The Swede, who finished second in S-WRC last season, will drive a Fabia S2000 in the IRC, run by factory satellite operation JM Racing.

TOP JOB FOR MOUTON

Four-time world rally winner Michele Mouton has been named as the FIA's World Rally Championship manager. Mouton (above), the only woman ever to win a WRC round, will be in charge of regulations, safety and the calendar from the governing body's side.

SOLBERG TESTS OWN CAR

Petter Solberg drove his own Citroen DS3 WRC for the first time at a private test on Monday. The Norwegian completed 35 miles of running ahead of tonight's start of Rally Sweden. Solberg said: "It's not a big test, but it's better than nothing – and certainly better than what we had before the start of last year."

PROKOP FLIES DMACK FLAG

DMACK will become the first Chinese tyre manufacturer to start a season-long WRC campaign in Sweden this week. Former Junior WRC champion Martin Prokop is the highest-profile driver running

PIKES PEAK

Solberg commits to Pikes Peak



Solberg will tackle Pikes Peak in June

PETTER SOLBERG has set his sights on becoming the first driver to break the 10-minute barrier when he makes his Pikes Peak Hillclimb debut this summer.

The current record, set by Nobuhiro 'Monster' Tajima's Suzuki in 2007, stands at 10m01.408s. And Solberg says the sub-10-minute goal is his main reason for tackling the Colorado event in June.

"It's always been a dream of mine," he said. "And now I want to go under 10 minutes. Of course it's possible, otherwise I wouldn't be trying it. I've seen all the other guys – Ari Vatanen, Walter Rohrl – and now I want to try. It's extreme and I like that."

Solberg is building his own space-frame car for the event and is currently deciding on the engines – all he would say is that it will have two turbos.

AUTOSPORT SAYS...

DAVID EVANS
RALLIES EDITOR

david.evans
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Audi's evil Quattro was missed in 1987

Stop what you're doing right now. I know, hard as it might be to put AUTOSPORT down, do it. Go to autosport.com, for the waiting is over. The new era has begun and the first times from Rally Sweden shakedown will be in. Get on the internet immediately!

I don't know how you've managed, but I've found it increasingly difficult to contain my excitement about the World Rally Championship year ahead. Mini is coming in, of course, but it's the new technical regulations that have really got me excited; it's the biggest change in the sport since 1987 when Group B became Group A.

In 1986, the sport had gone through its most turbulent year and there was no doubt the glorious Group B era had to come to an end. As beautiful and insanely fast as the Audi Quattro, Peugeot 205 T16 and Lancia Delta S4 were, their days were numbered when people started dying. I was distraught at the sight of the lame-looking Delta HF that replaced the S4, but it had to happen.

And it had to happen this time. The old formula of WRCs had limped on for too long. Now we've got new, cheaper cars, new teams, and a new generation to get started.

It's going to be a great season. Enjoy.

REMEMBER WHEN...

FEBRUARY 6 1988



...Markku Alen took Lancia's only victory in Sweden with a four-wheel-drive car? Alen was driving the Delta HF 4WD in what would be the car's final event before it was replaced by the Integrale in time for Portugal.

FORCE INDIA VJM04

Hoping for an Indian summer

Force India had a promising start to 2010 and, until mid-season, looked like it would beat Williams in the constructors' championship until it lost its edge. This year, says GARY ANDERSON, it's crucial for the team to carry momentum right through the season



REAR SUSPENSION

- Force India uses the Mercedes engine and the McLaren gearbox and hydraulic package, so the rear suspension has the same layout – possible geometry differences aside – as the McLaren MP4-26, with pullrod-operated support units.



COMPARISON

- I'm not quite sure that what I've seen so far on VJM04 is a step forward from the car that Force India had at the start of 2010. When testing starts at Jerez we will get a better understanding of the philosophy behind the design.

SIDPOD PACKAGE

- Underneath the triangular radiator intake is a very heavily undercut leading edge to the sidepod. On the outer corner, mounted on what has been christened the 'bat wing', is a vertical turning vane to help minimise the effect of the airflow wake behind the front tyre on the leading edge of the sidepod. This turning vane helps the flow stay attached to the undercut sidepod area. The sidepods are fairly short, going into the coke bottle area to allow maximum airflow inside the rear tyre, reduce drag and help rear wing and diffuser efficiency.

ROLLOVER BAR

● The rollover bar area is more or less the same as that used by Mercedes last year and Lotus this year, with the central fin and lower and more rearward airbox intake. Being the highest point on the car, it's an area that can influence the centre of gravity, and I believe this package is slightly lighter and gives time for the airflow off the driver's helmet to reattach before going into the intake.

WING, ENDPLATE AND NOSE

● The main wing is a two-element component, which I would question. It's one of those items that looks like it will produce more downforce with better aero sensitivity characteristics in the windtunnel, but on the circuit not perform consistently enough to allow driver confidence. The front-wing endplates have three vertical turning vanes to turn the airflow around the front tyre, and the forward upper wing is a two-element design that ends at the inside of the front tyre to allow cleaner and tidier airflow between the tyres and the chassis. The nose has a lower duck bill surface that helps create a small amount of downforce from the centre section of the front wing.



MAY THE FORCE BE WITH THEM

Force India starts its fourth season of F1 with a car – VJM04 – that it hopes will allow it to continue its steady progression, as tech boss Andy Green tells *EDD STRAW*

Giancarlo Fisichella's pole position and close second in the 2009 Belgian Grand Prix was Force

India's day of days. That perfect storm of circumstances, aerodynamic efficiency and Mercedes grunt looms large in the memory and inevitably makes everything that has followed seem almost anticlimactic. While the 2010 season seemed like a let-down, it was, in fact, a tremendous success for what remains one of Formula 1's minnows. This year, the challenge is to continue the upward curve.

In the first two years of competition since Force India sprang into existence as the latest incarnation of the ex-Jordan team, it scored points in two races. In 2010, that number climbed to 12. The team's decline from Q3 regulars in the first half of the year again distorted perceptions, with many leaping to the conclusion that the team had peaked. Maybe it has, but there are plenty of reasons to believe that the team can consolidate in 2011. Don't expect wins, but don't assume that the green, white and orange machines will slump to the back.

The man charged with continuing the team's progress is Andy Green, newly-appointed technical director. He re-joined the team last July and has taken leadership of a technical team that has been headed variously by Mike Gascoyne, James Key and Mark Smith over the past three years. Green is confident that a return to the ranks of habitual top-10 runners is possible.

"Q3 is obviously every team's goal, but this is a tough target for a small team, particularly given the strength of the midfield," says



Fisichella's P2 at Spa in 2009 was a highlight

Green. "The team also has high aims of scoring points in as many races as possible. Again, it's a tough target, but the potential is there."

First on the agenda was understanding the slump in form during the second half of the 2010 season. In the final six races neither Adrian Sutil nor Tonio Liuzzi made Q3 amid complaints of tyre warm-up struggles and the team lost sixth in the constructors' championship to Williams by a point. Green, formerly at Jordan, BAR and Red Bull, is determined for that not to happen again.

"We undertook an investigation at the end of 2010 to understand why the performance upgrades we were bringing to the track didn't bring laptime improvements. We were improving, but our relative performance appeared to slip. This meant we had to look very closely at our development tools and strategies. We decided to alter our development direction for 2011 quite late in the programme. The direction we have taken will ensure that the persistent issues that we had at the end of 2010 are much

"We'd love to be fighting with the big teams, but the additional resources required to do this mean we can't consider it"

Andy Green

less likely to occur again."

As for Green himself, he has had to stabilise a team that had endured significant changes in leadership in recent years. After Mike Gascoyne was ousted at the end of the 2008 season, James Key and Smith ran the show until Key left for Sauber last year. Smith's departure leaves Green in overall charge and hoping to stabilise the team after so many changes.

"In reality, the transition between Mark and myself started shortly after I joined the team in July," says Green. "It didn't take long to realise that there were some issues that needed to be resolved quickly. We are now on a different development path."

"The correct technical direction requires continuity. Look at Red Bull, for example. They didn't start winning the day after Adrian

[Newey] turned up; it took several years for his technical direction to start bearing fruit. We've got a lot of very able people within the team and they are gelling well."

With Force India announcing an extension of its partnership with McLaren and Mercedes last week, it has engine and gearboxes sorted for the next two years. Talk focuses on gradual improvement, with a finish one step higher in the makes' race this year a sensible target.

"Admittedly, we do lack R&D resources compared with the teams around us," says Green. "But to race against and beat teams who have won world championships is a great reflection on the team and its passion to succeed."

"Obviously we'd love to be fighting with the big teams every time, but the additional resources required to do this mean that this is not something we can seriously consider at the moment. Fifth or sixth in the championship is a reasonable target."

One area where the team will be able to take a stride towards that is using its improved CFD capabilities. A deal with Indian company CRL, completed in late 2009, started the ball rolling as the team boosted its computing power. And there are plans to extend that.

"The CRL deal increased our CFD processing power considerably, but admittedly this was from a low starting point. We're looking to increase capacity even further in 2011. We will definitely be seeing development on the car in 2011 as a direct result of this additional resource."

That's what it's all about for Force India: slow, steady growth. It's going to be a big ask to improve on last year's seventh in the constructors' championship, but to assume that the Silverstone equipe will slide down the order would be a mistake. ☒

Sutil holds off old mate Hamilton during 2010



DUNBAR/LAT

Force India aims for P5/6
in the title race with VJM04



FORCE INDIA



Andy Green leads tech team



Jordan's final win: Brazil '03

LAT

VIRGIN MVR-02

Virtuosity needed for Virgin

A team's second season can be even tougher than its first, as GARY ANDERSON found with Jordan. You've tried to develop and race your first model at the same time as designing and building the second. Virgin's chances of beating Lotus and HRT to take on the midfielders will depend on which team had the discipline to know where to prioritise

FRONT WING, ENDPLATE AND NOSE

● The Virgin probably has the lowest nose of any of the new breed of Formula 1 cars, with forward-facing cameras mounted on the inner sides of the wing pillars. Having the cameras mounted here helps the performance of the symmetrical FIA front-wing central section. The main wing itself is a tidy three-element component with a two-element forward wing, not unlike the Red Bull's. The front-wing endplates are fairly narrow, and do not have as large a trailing-edge vertical turning vane as those of other teams. Generally, they are relatively simple in design, with just a horizontal vane on the outer endplate surface.

ROLLOVER-BAR AREA

● The rollover bar follows the conventional concept, with forward stays and an undercut between the driver's headrest and airbox inlet. This helps reduce the effect of the air spilling off the driver's helmet, which would be detrimental to the engine performance.



FRONT SUSPENSION

● The suspension features a double wishbone with an independent trackrod between the two wishbones, and pushrod-operated support units. The chassis is relatively low on this area as well, meaning that the front-wishbone angles are not as dramatic as those that we have seen on some other cars.

COMPARISON

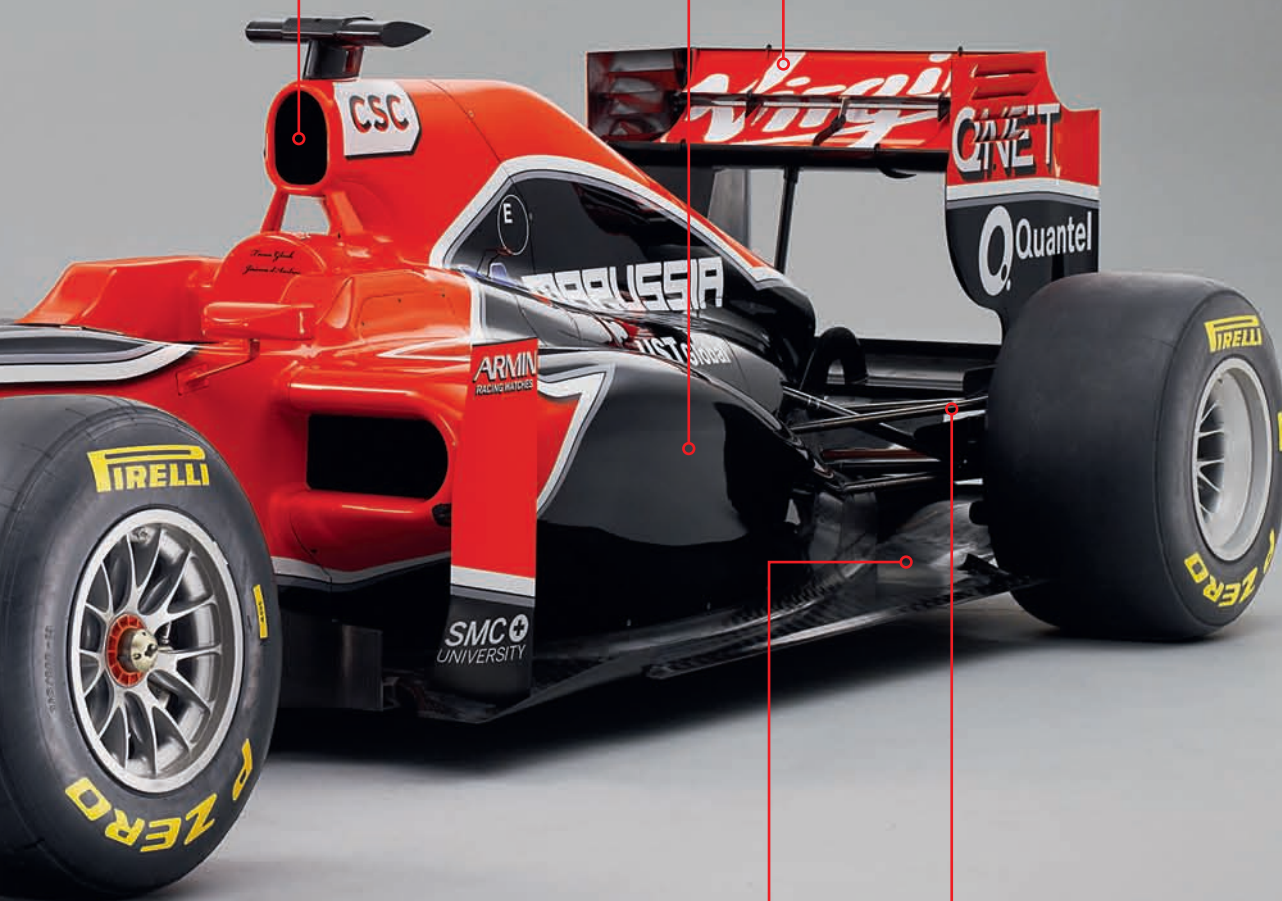
● This is a more-complex car than last year's VR-01, but I feel it is still a reasonable way off as far as optimising the finer details is concerned. But it has all of the right bits in the right places, which will give the team room for development as the season goes by.

SIDEPODS

- The floor tray underneath the front of the chassis is very simple, with a vertical outer wall and a horizontal footplate to stop the airflow from the top surface from spilling under the car. If this is not addressed, it can make the car very sensitive to the ground. The leading-edge outer corner of the sidepod is aggressively undercut, and this undercut goes through the side of the sidepod to the Coke-bottle area, allowing this low-pressure area to influence the scavenging of the airflow from the underneath of the front of the chassis. The top of the sidepod itself drops down as it goes into the Coke-bottle area to maximise the airflow between the sides of the gearbox and inside of the rear tyres, which helps the performance of the rear-beam wing and the diffuser.

REAR WING AND ENDPLATES

- The rear wing is a two-piece component as defined in the regulations. The actuation system for the adjustable rear flap is on the centre of the main plane, and the endplates have got the traditional louvres through from the inner to outer surface. The main plane and flap profiles look banana-shaped, with a lot of curvature in the profile. The flap itself is a fairly short cord, which is a bit of a surprise – I would have expected a longer cord flap to maximise drag reduction when the slot gap is opened to the maximum 50mm. The rear-wing package itself is more or less a stand-alone item and ideal for development and optimisation in CFD, so I'm sure we will see a few modifications to this package.



DIFFUSER

- The diffuser package is quite interesting in that it maximises the area allowed in the regulations. There are three vertical splitters either side of the centre line to help control the airflow separation, and they have the exhaust exits coming out close to the sides of the gearbox near the trailing edge of the diffuser. The high-velocity flow concentrated in this area will help to scavenge the inner section of the diffuser, improving underbody downforce. I'm sure that this area will undergo development as the season progresses.

REAR SUSPENSION

- The rear suspension remains the same as last year's version – a pushrod-operated system, with the damper units mounted on top of the gearbox. But the pushrod is inclined well forward to minimise any blockage on top of the gearbox, which would have a negative effect on the performance of the rear wing.



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MVR-02 is a conservative car

Virgin plans reliability to hit season points target

EARLY-SEASON reliability will give Virgin its best chance of scoring points this season, according to technical director Nick Wirth.

The team is hopeful of stepping forward to graduate to Q2 qualifying sessions this season, which would mean its drivers are among the fastest 17, and the team believes it can get one of its cars to the finish in the top 10, thereby scoring its first points.

Last year, Virgin managed to get only one car to the finish in the first four races, with gearbox and hydraulics problems proliferating.

This prevented the team making any significant performance upgrades until the British Grand Prix in July.

"I am expecting to hit the ground running with a fundamentally more-reliable car than last year," Wirth told AUTOSPORT. "We will almost certainly have teething troubles, but there'll be nothing fundamentally wrong."

"We know that the new hydraulics are reliable because we started running them in the Abu Dhabi test [last November] and that was a success," said Wirth. "We continued

to run them at Valencia [last week] on the 2010 car, which included the new hydraulic steering that we tried last year in the last few races. So there are some key parts of the car that we know are better."

Unlike fellow new-for-2010 teams Lotus and HRT, which have struck deals with Red Bull and Williams respectively for gearbox supply, Virgin will continue with its own design. This is developed in association with Xtrac.

"The other major reliability issue was the transmission, which we and our partners did a pretty bad job on last year," said Wirth. "Unlike our richer competition, we have found it necessary to continue our own transmission. We have designed a brand new transmission case to suit the 2011 regulations and have done an unprecedented amount of development in the that area."

"We spent more time on the CFD development of the lubrication of the gearbox than we did designing a whole championship-winning sportscar two years ago! We are in the middle of proving that in rig testing."

The new Virgin MVR-02 is due to hit the track for the first time at Jerez today (Thursday). The car is set for its first major upgrade in time for the Turkish Grand Prix on May 8.



Wirth has put much focus on transmission

60 SECONDS WITH

JOHN BOOTH VIRGIN TEAM BOSS



How big a step forward is the new car?

Last year we had six months to get ready, with Nick designing a car from scratch while we built the team, so we're hoping that the pain of last year is going to bear fruit with this year's car.

How important is reliability early in the season to your chances of scoring points, given that we expect some mixed-up races early in the year?

We need to be there at the finish. Not doing so cost us dearly early last year in races like Malaysia, for example. We've not been overly adventurous with the packaging and most of the new hydraulics, gearbox, differential, steering rack – the stuff that caused us most problems last year – we started to run in last November's Abu Dhabi test. We're in a very different place to last year.

Is the reason for taking a conservative approach to this car the fact that it's vital to establish yourself in the midfield?

We've been pretty conservative on the mechanical packages and spent that money on the aero side. We made a conscious step to go in that direction.

How big an advantage is having Timo Glock back for a second year?

It's great to keep him. We didn't give him that many opportunities last year, but when he did have them he showed us what he could do. He pushes himself tremendously hard, he pushes me tremendously hard and he pushes everyone around him. He has been a tremendous example to us because he's so determined. I'm delighted that he is staying with us.



John Booth was talking to AUTOSPORT F1 editor Edd Straw

LAST BELGIAN IN F1



JEROME D'AMBROSIO is set to become the first Belgian to complete a full season in F1 since Thierry Boutsen's campaign for Ligier in 1992. D'Ambrosio would be delighted to match his haul of two points from that year.



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TIMO GLOCK

The Glock's ticking

Timo Glock endured what he describes as a "character-building" season with Virgin last season, during which his days of finishing on the podium for Toyota were a distant memory. EDD STRAW caught up with him to find out why he believes the team can succeed

CV

NAME

Timo Glock

DATE OF BIRTH

March 18 1982

BIRTH PLACE

Lindenfels, Germany

2010

F1 (Virgin, 25th)

2009

F1 (Toyota, 10th)

2008

F1 (Toyota, 10th)

2007

GP2 (champion, 5 wins)

2006

GP2 (4th, 2 wins)

2005

Champ Car (8th)

2004

F1 (Jordan, 19th)

2003

F3 Euro Series

(5th, 3 wins)

2002

German F3

(3rd, 3 wins)

2001

Formula BMW ADAC

(1st, 8 wins)

Is it realistic to expect Virgin to break into the second qualifying session regularly this season?

This is one of the targets. We have to get closer to Q2 and the midfield teams. The main thing is finishing the first couple of races and grabbing some points.

Last year, you weren't always certain whether you'd still be with Virgin in 2011. What has convinced you to stay?

I had a long chat in the middle of the year with [team principal] John Booth and [president] Graeme Lowdon and I got information about the team's restructuring and the new sponsors and partners coming on board. Marussia came in and that gave me the feeling that we could still turn it round. That chat made me feel positive again.

So you are happy to stay here?

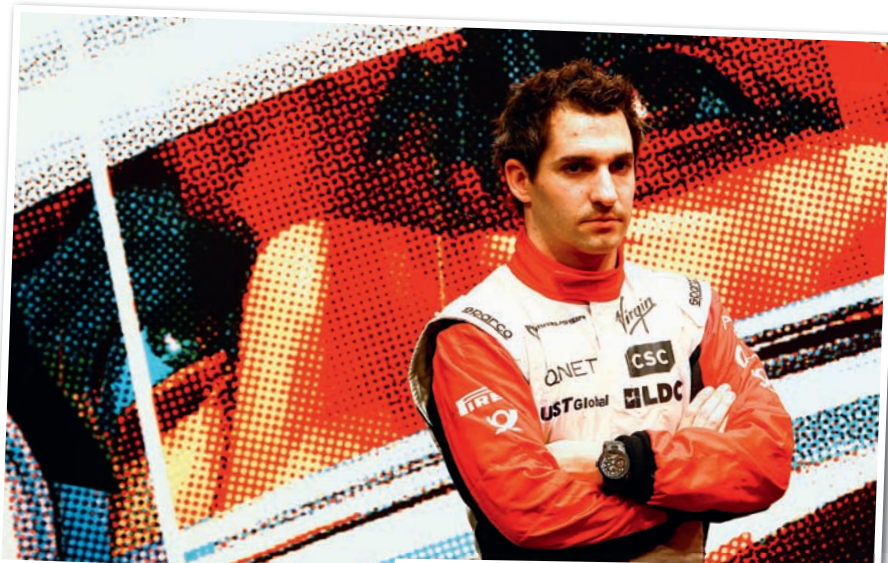
I am happy with the team. We don't know how quick the car is yet, but it's a long-term project so let's see where we are at the end of the year. I like the way that the people in the team work.

Is the start of the year the big chance for the team to get some strong results with mixed up races and unreliability?

Yes. The main chance that we have to grab a point will be in the first races. You have to see where the other teams are compared with us, but if you look back to first races of the season it's always the same: there are always a lot of crashes and technical problems.

Last year you demonstrated that you could hold back faster cars when you found yourself up the order. Doesn't that mean that the adjustable rear wing is bad news for you?

Definitely! Combined with KERS, it will be two corners and they will be past so that could be a problem if we get into a position where we can hold someone up.



Glock starts year two with Virgin...

How does the team compare with where it was 12 months ago?

Everyone has had much more sleep in January compared with last year! We are in a much better position, the car is designed earlier and it's an easier life for all the mechanics. The team has grown up.

Is it not hard to look back to finishing on the podium and leading races for Toyota considering where you will be finishing races this year?

Every driver wants to be in a position to fight for podiums. The team wants to be in that position as well, but it doesn't help me to think about what happened two years ago. You have to focus on the current situation and make the best out of what you have.

How has the team progressed in terms of development knowledge? In Canada last year, for example, the package for that track wasn't right and you had some choice words to say to the team on your first lap over the radio...

How did you know about the radio? I had a shock when I came to Canada, but this is all experience.



Nick Wirth and his design team learned from it and that mistake will never happen again. We have a much bigger database and I'm confident we won't come to a race and have the wrong aero package.

Are there any advantages to being in a small-team environment compared with a massive manufacturer team like Toyota?

It has a lot of advantages, but some disadvantages as well. At Toyota, you have every possibility, one of the biggest budgets in F1. But it's a big ship that's difficult to steer and in a small team you can make quicker decisions, even though you don't have the budget.

What, realistically, would you like to achieve this year?

Not being last in the championship; having a point to my name; being able to fight against the other teams rather than getting out of the way because of blue flags. ☒

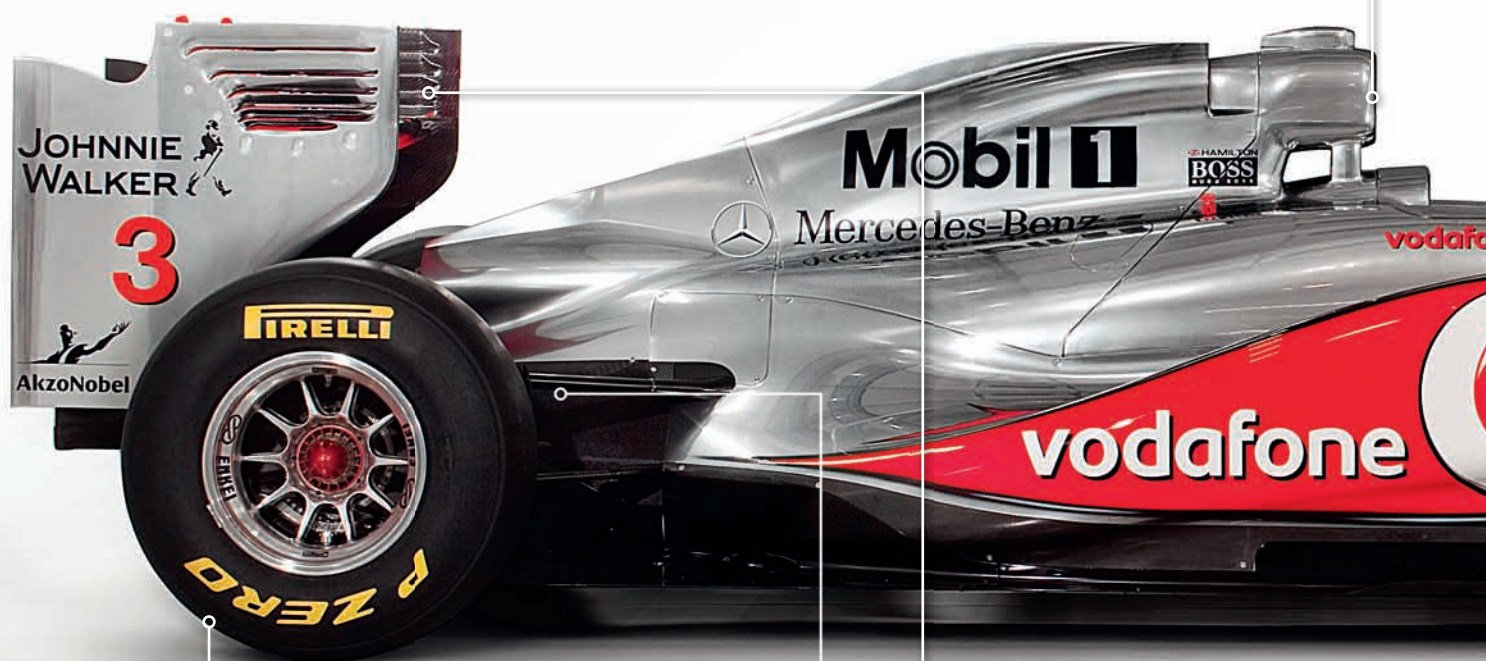
McLAREN MP4-26

The British boys ready for a fight

It's clear to see from its MP4-26 that McLaren is intent on taking the fight to Red Bull, and any other team that may have title aspirations. It's great to see a team doing something different, and now we'll have to see whether the aggressive approach will be rewarded. By GARY ANDERSON

ROLLOVER BAR

● The rollover bar area is very short, with the customary undercut to allow better airflow off the driver's helmet. The engine cover comes a long way forward, and there's a secondary duct just after the intersection with the roll over bar feeding what looks to be either a hydraulic cooler or a gearbox cooler – or both. This secondary duct will pick up any turbulent airflow that is spilled by the engine air box intake when the car is at high speed. Having the engine cover this far forward and the rollbar area as short as it is will reduce the centre of gravity, and as this is the highest point of the car it will have a fairly significant effect.



DIFFUSER

● The diffuser is a very simple device using the maximum exit area allowed, and it only has two outer vertical splitters. This component does not in any way match the complexity of the rest of the car, so I would expect to see developments coming thick and fast.

REAR SUSPENSION

● The rear suspension has normal top and bottom wishbones with the rear trackrod in line with the driveshaft. But McLaren has copied Red Bull and switched to a rear pullrod concept. This packaging reduces the aerodynamic blockage to the underside of the rear wing, and lowers the centre of gravity of the rear suspension components. The differential height leaves the driveshafts running horizontally at static ride height, thereby offering maximum drivetrain efficiency.

REAR WING AND ENDPLATES

● The rear wing endplates have the now-customary louvres running through from the upper surface of the wing to the outside world. This helps with the overall efficiency of the rear-wing package by reducing drag. The wing itself does not show any activation system for the new adjustable wing, but I'm sure this will be on the car by the time it starts testing. Perhaps McLaren has some new developments in this area that it didn't want to reveal too early.

COMPARISON

- The MP4-26 is definitely a step forward from McLaren's 2010 car. Much effort has gone into lowering the centre of gravity, and compared with the other cars that we have seen, no-one has gone to the same extremes in that regard. That does not mean they will all work together as one, but obviously that is what McLaren is hoping for. It will be a while before we see the car's true potential, but right now but it looks pretty good to me.



FRONT WING, ENDPLATE AND NOSE

- The front wing assembly is similar, if not identical, to the concept that McLaren ended 2010 with. The main wing itself is a three-element package, and the endplates have vertical inlets on the leading edge of each of the flaps to allow airflow through, which helps reduce airflow separation problems. The upper forward outer wing is a fairly simple two-element component, but the upper forward inner wing is a much more complex two-element concept with a gurney flap on the vertical trailing edge. This inner forward wing will help set up the turning moment in the airflow, and help bring cleaner airflow to the leading edge of the underbody. The nose is not the highest that we have seen, and from the side view, the top and bottom profile of the chassis section and the nose from the cockpit area forward is basically symmetrical. By not having the chassis as high as its rivals, the McLaren's centre of gravity will be lower.

OTHER

- Overall, McLaren appears to have really exploited the regulations to the maximum. There are a lot of neat, well-packaged details, and no doubt the team has high hopes that it will all turn into a reduced lap time. I believe that the McLaren has a longer wheelbase than most of the other cars, which could make it a bit lazy in low-speed corners. But with everything that we keep hearing about the Pirelli rear tyres degrading very quickly, this longer wheelbase could offer a little extra protection in high-speed corners.



SIDEPODS

- The sidepods are quite different from rivals' concepts. They are very heavily undercut on the outer lower front corner with an L-shaped radiator intake, allowing the horizontal sidepod top where it meets the chassis to be much lower. This will attract more airflow through to the rear lower beam wing and upper diffuser surface. The undercut on the outer surface of the sidepod continues through into the coke bottle area to help with the extraction of the airflow from underneath the front of the chassis. The sidepod's upper-surface coke bottle area is very low, again to allow maximum airflow between the inside of the rear tyre and the gearbox shroud.

FRONT SUSPENSION

- The front suspension is conventional in that it has an upper and lower wishbone with pushrod-operated support units. The steering rack and track rods are low-mounted and positioned more or less in line with the front wishbone's forward lower leg. This is a good solution aerodynamically, as it helps to control the airflow coming off the trailing edges of the front wing and works to realign it for the leading edge of the underfloor and sidepods. Not having a steering arm on the upper part of the upright allows the top wishbone to be mounted higher on the front upright itself, which reduces the need for the silly angles we've seen on some cars' front-suspension geometries. This will reap rewards on bumps and kerbs.



ALL SYSTEMS SLOW, OR ALL SYSTEMS GO?

For all its talent, McLaren's ponderous structure has cost it dear in the past. But now it's closer than ever to achieving the perfect balance between systems and savvy. *By MARK HUGHES*

It's an insane statistic that McLaren has not won a constructors' world championship since 1998. The proviso is that it would have comfortably won it in 2007, had its points not been wiped in the aftermath of the spy scandal. But regardless, this is a giant of a team with arguably the deepest resources of them all. It has produced a blockbusting series of winning cars for Mika Hakkinen, David Coulthard, Kimi Raikkonen, Juan Pablo Montoya, Fernando Alonso, Lewis Hamilton, Heikki Kovalainen and Jenson Button. For it not to have secured a constructors trophy in a dozen years is plain perverse. Is there something about the entity, some flaw within, that is responsible?

McLaren has some unique traits, some of which over the years have been both its strength and its weakness. In its modern guise it was a team fashioned very much in the image of Ron Dennis, a brilliant industrialist of great vision and all-consuming ambition. Ron was the one who sensed before any of the other team principals the sea change that was coming in the commercial scale of the sport. Some time back in the mid-1980s, underwritten by the financial horsepower of Mansour Ojjeh, he adopted an aggressively expansionist strategy, borrowing from the future on the strength of the expansion of the sport itself to hugely increase the team's size and financial power, leaving the others well behind. You might have called it gambling on success if that didn't suggest a recklessness that is definitely not Ron. Everything



“Dennis's ability to see things from a non-McLaren perspective was always limited and his sense of outrage readily triggered by perceived injustice”

was meticulously planned, each move calculated, and the sheen of McLaren acquired an ever-deeper lustre formed from the ever-growing depth of its resource.

As seems inevitable with such unusually-driven men, it comes with personality traits equally unusual. One of them is a certain mechanistic approach to things, the opposite of intuitive. Everything had to be micro-managed – and in a way that reflected his specific values. It made him a difficult man to work for or with. His ability to see things from a non-McLaren perspective was always limited and his sense of outrage was readily triggered by any perceived injustice towards McLaren. It defined his relationship with a governing body controlled by Max Mosley – a man with his own equally strong and often opposing traits in a position of power over Dennis – as incredibly difficult, verging on poisonous. That, in time, as the two old foes became ever-more entrenched in their opposing

positions, came to be a real liability for the team, something that was touched upon by his successor as team principal, Martin Whitmarsh, in the aftermath of the Hamilton's punishment for lying to officials at the 2009 Australian Grand Prix, when Ron stood down. “I think anyone who has looked at the relationship between McLaren and the FIA over the last few years,” Whitmarsh said, “would have to conclude that it would be healthier for all of us to have a more positive, constructive relationship than perhaps we have had in the past.”

As a man who finds it easier than did Dennis to understand other perspectives, Whitmarsh has presided over a more consensual Formula 1 in his role as head of team body FOTA and – aided immeasurably by Mosley standing down in 2009 – heads a team that enjoys a vastly better relationship with an entity that has ultimate power over its prospects. As the boss of the F1 team he's led a McLaren that's somewhat less neurotic, but still has the vast depth of resource and talent built up by Dennis's vision.

In conversation, Whitmarsh has a way of giving perspective to an issue by posing a number of his own questions and then answering them, narrowing it down until he's at the core point. To borrow that technique in describing his qualities, could he have taken the failing team that was McLaren in 1980 and harnessed ambition and vision to build it up into the colossus it became, the way Ron Dennis did? Possibly not. Is he a better choice to lead the team now? Absolutely, yes. The easier vibe has been reflected this past ▶

The full might of McLaren must deliver

GRAHAM S/LAT

Alonso season was fraught



Newey (left) upped sticks



Spotless, space-age: McLaren's in build



◀ couple of years in the savvy way it has operated, with few of the strategic blunders that always seemed to blight McLaren in previous seasons of the pitstop era.

The different structure of its relationship with the governing body – Dennis and Mosley skulking out of F1's front line, each mortally wounded by the other – has surely also played its part in the disappearance of that trend where McLaren would use its great resource and talent to develop a new technology, only to have it banned, often before it even raced. Hybrid energy storage (McLaren was working on a system in the late 1990s), torque-sensing differentials, fiddle brakes, beryllium-content engines: all these were McLaren innovations that were quickly stamped out. By contrast at the time, it seemed Ferrari could do no wrong politically. Events of 2009 revealed, in fact, that the Italian team had enjoyed an agreement with the FIA of secret rules veto since 1998. But as Ferrari's Luca di Montezemolo and the FIA grew acrimoniously apart in the dirty fight over F1's future, so the political field has become even less tilted against McLaren.

Another difficulty created by Ron's struggle to wrap his head around mindsets different to his own was the effect it had on free spirits within, some of whom were huge assets to the team but found themselves unable to stay, largely

because of how Dennis drove them to distraction: John Barnard, Kimi Raikkonen, Fernando Alonso – and, perhaps most critically of all, Adrian Newey.

Newey is the antithesis of the McLaren strength-in-depth, consensual, rigid, systems-driven approach to creating a racing car. Abstract, out-of-the-box, genius, egotistical in a quiet way, Newey was always an ill fit at McLaren, notwithstanding the many years of success they enjoyed together. He felt stifled by the system and by Ron. Painting his office walls a non-regulation duck-egg blue wasn't ultimately going to be enough. Eventually he flew...

...into the arms of an ecstatic Red Bull. New, unmodelled, small and free-thinking, it was able to give Newey a free hand, to build the technical department the way he thought it should be – with fewer constraints upon his imagination. The major technical rule changes of 2009 wiped away the years of accumulative advantage of Ferrari and McLaren – and led us into the Newey Red Bull era. At precisely this time, McLaren stalled badly with its 2009 design. It didn't react anything like as well to the abstract demands of all-new rules, the MP4-24 initially disastrously off the pace, albeit rescued in the year's second half by that awesome McLaren development capacity as all that technical musclepower was unleashed on a problem.

And that's sort of how it's poised right now. The McLaren system can work beautifully, especially once it has homed in on the problem, asked itself the questions and answered them until it's got to the core of the matter – in much the way Whitmarsh does in conversation. There is no other team that could have survived the departure of Newey with barely a blip. It's a system that gave us a series of beautifully honed and integrated designs that were on balance the

"Newey is the antithesis of the rigid McLaren approach. Abstract, out-of-the-box, genius, egotistical in a quiet way, he was always an ill fit"

best cars on the grid as recently as 2007/08. It's a place filled with layers of talent, with engineering directed by a great group of vastly able and apparently egoless top guys like Paddy Lowe and Tim Goss. It is a fantastic team and it would be totally wrong to try to deconstruct it and reassemble it in the image of the less-tightly-structured Red Bull. That would be to dismantle the decades of staggering work achieved by Dennis – and that's not something Whitmarsh would dream of trying to do. He may have given the entity an easier-going front, eased and annealed the tight knots of tension that came part and

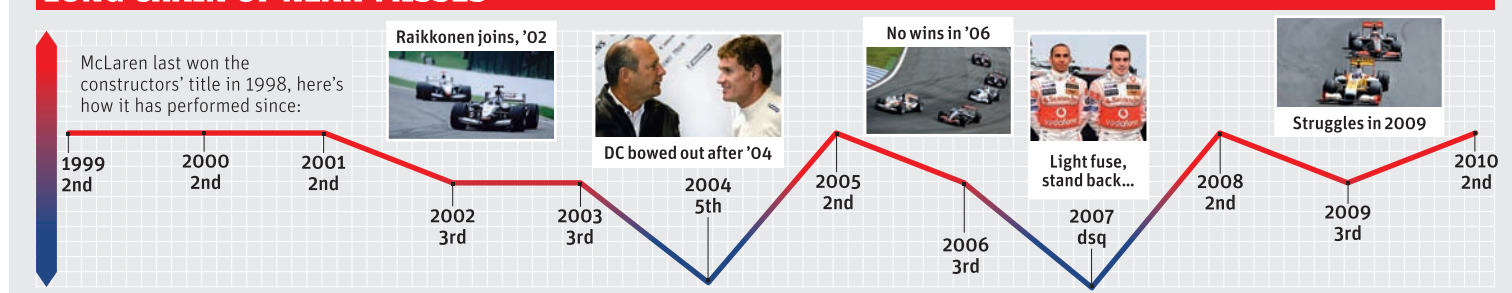
parcel with Dennis, and which frequently got in the way of the team achieving its potential. But to undo Dennis's work would be to destroy that potential.

The MP4-26 is a beautiful creation, conceived around maximising the performance of the rear-lower-wing main plane and floor, given the loss of double diffusers. Almost everything is subservient to that aim; there's the distinctive J and L (Jenson and Lewis!) sidepods, bringing the main area of the radiator inlet outboard to create that wide-open inboard channel of airflow to the rear, maximising the potential of the space back there created by the use of pullrod rear suspension. That has impacted upon the choice not to go for the fashionable high tub and nose, this being possibly the lowest of all the 2011 cars. The long wheelbase creates plenty of space between the front wheels and sidepods, to get flow that is disturbed by the wheels reattached by the time it reaches those all-important channels. There's a trick exhaust layout to come – though it won't be the same as Renault's. It is, then, a visibly integrated design.

Which possibly puts the 2011 season on the crossroads of which approach will work best this time around: the third evolution of Newey's original free-form concept, or the application of sheer technical musclepower to a realigned and refined set of equations...❧

McLaren since its last constructors' title

LONG CHAIN OF NEAR-MISSES



McLaren MP4-26 is launched in Berlin



GRUPPETHS/LAT

Last constructors' title came in 1998, as Hakkinen was crowned



LAT

THE TEAM THAT NEEDS TO LEAD BY EXAMPLE

Having set a scientific precedent for understanding tyre behaviour on its grand prix cars, will McLaren enjoy an advantage with the switch to Pirelli? *By MARK HUGHES*



ALL PICS: LAT

Back in the early part of the last decade, McLaren wondered how it could be that the teams knew virtually nothing about the most fundamental performance parameter of all, the tyres. Oh, they could understand how to operate them, knew what tweaks to set-up tended to produce what results. But the mechanisms driving tyre behaviour? That was a black art understood only by practitioners who worked for Bridgestone and Michelin.

This bothered McLaren, so it initiated a big tyre-modelling

programme, bought in a leading academic on the subject to head it up, put the team's vast technical resources at his disposal – and then kept very quiet about the programme or its results.

In 2002 the team switched from Bridgestone rubber to Michelin. These were two fundamentally different types of tyre in their construction, the former a radial/cross ply amalgam that generated side thrust or 'ply steer' and featuring super-stiff sidewalls. The French firm favoured a strict radial (and therefore no ply steer) with very flexible sidewalls that allowed the contact patch to stay less stressed and therefore run at lower temperatures, which in turn

facilitated softer compounds.

For McLaren, the switch was particularly seamless as the early benefits of that tyre-modelling programme began to bear fruit. It was a programme that typifies McLaren's quest to add new layers of expertise and knowledge, ideally from scientific first principles. It may not even be immediately, pressingly necessary – but it will in time become competitive gold dust. Other teams just did what they always did, understanding the outcome of the mechanisms reasonably well but leaving the black-art stuff to the wizards at the tyre companies. Unlike McLaren, they had about as much interest in underlying principles as a vet has in quantum theory.

McLaren was then forced to switch back to Bridgestone in '07 as F1 became a single-supply category and, in stark contrast to Renault, McLaren bridged that fundamental change effortlessly. By this time it had also gained a lot of knowledge about how the tyres changed shape under load and the aerodynamic impact of that. Each McLaren is the product of a bigger knowledge base and technical resource than probably any other team, a rarefied, super-refined strain.

Other big teams have now got involved in tyre modelling – and all of them go to a lot of trouble, with windtunnels and CFD, to accurately simulate tyre deformation (or 'swish') on the aerodynamics. But McLaren has several years' head start – and now F1 is changing tyre supplier. The new Pirellis have proved rather delicate in testing, as Lewis Hamilton observes: "We could see that the rears are very weak. They were only lasting four laps before dropping off in

performance, especially the really soft one. We're trying to understand how we make them last longer. On some cars they are dropping off over 4s over a 20-lap stint."

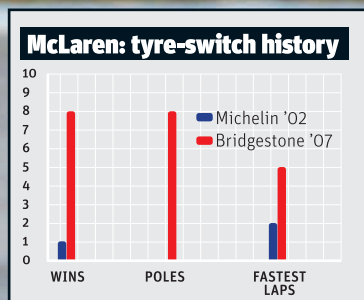
Everyone will be making rapid advances in their understanding of these particular tyres and building up knowledge of their peculiarities, but you'd reckon the understanding will ramp up particularly quickly at McLaren. Which just might be key to the whole season.

"We have been trying to understand the relationship in tyre performance with downforce levels," says Jenson Button, "and it's unbelievably important. If you get a good balance it makes such a difference. Working with Pirelli closely and really developing the car with the tyres is going to be massively important this year."

New engineering director Tim Goss (see sidebar) believes that the MP4-26 will not have the super-stiff characteristic of last year's car, something that might have made it particularly unsuited to the Pirellis.

"That trait of last year's car came from having to keep the rear from running too high, for aerodynamic reasons," he admits. "It wasn't that the aero was stalling, it was because of the massive dimensions of the double diffuser and the huge inlet channel we'd been able to give it. The efficiency of it fell off suddenly once past a certain ride height. So the car had to be run stiffly at both the front and rear – and there were certain tracks where that hurt us. With the single diffuser, that is no longer a point of compromise and this car should be more supple."

A reversion, then, to traditional McLarens: smooth-riding and consistent. With a fragile tyre, such a trait is going to be crucial. ☒



Button evaluates the Pirelli tyres on '10 car

TEAM RESHUFFLE

BRAIN-POWER BOOST

BEHIND THE NEW car is a revised technical line-up at McLaren, as former engineering director Paddy Lowe (right, top) steps up to the role of technical director, while former chief engineer Tim Goss (below) takes Lowe's old position. The long-serving Neil Oatley remains as director of the design and development programmes – making it happen. Previously Goss used to alternate with Pat Fry (now at Ferrari) from year to year in leading the design of the latest car. "In reality regardless of titles there is a core group of us who overlap and work together and discuss what we're doing," says Lowe. "Below that we have distributed the workload around



five or six senior engineers in different specialist areas – under Tim. There is a huge depth of talent at McLaren and this car has created opportunities for some new players to contribute directly at a high level. This is the next generation."

"And it's not just good for them," interjects Goss. "It's good for the company and good for the end product. I think we're going to make better cars because we have wider access to the horsepower available within the design system. They're all good guys and all have good ideas. It's a cliché, but car design really is a team effort these days."



Johnson (left) with AC/DC founder/guitarist Angus Young

MOTORSPORT AIN'T NOISE POLLUTION

AC/DC vocalist Brian Johnson is stepping up to a heavy-metal Lola T70 this year – and fancies a go in Aussie V8s!

After over two years on the road with AC/DC, I'm hitting the road again. Well, more like the track. We had over five million come to see the band, but I'd be pleased if 500 came to watch me do what I like best, racing.

It's going to be quite a year, starting in Florida, where I live. The first race is at Palm Beach. I'm going to race the Royale RP4, a wonderful British sports racer. It was built in 1971 but it's still very competitive today. It has a 1600 engine, and it's very quick.

The races here in the States are to get the juices going, get me sharp and all of that. Because the summer is when it's going to get fun: I've just bought a '65 Lola T70 Mk1 with a Ford V8 engine.

I can't wait to get in it. It was a gift to myself – I'd always wanted one. It was used by Paul Newman as a training tool in *Winning*. I bought it from this lovely old gentleman up in Connecticut, who's had it for 30 years. The guy said, 'I want a quarter of a million dollars for it,' and I thought, 'That's cheap!' Usually they go

for about \$600,000. When he delivered it my team boss said, 'Brian, it's the real article, it's genuine, it's unbelievable!' So I went up there and had a look and there was this black tub and nine cardboard boxes! So I said, 'A quarter of a million dollars for that? Are you nuts?' And he said, 'You don't understand, it's one of the last ones.' And I said, 'Well what are we going to do?' And he

So maybe I could ask my friend David Coulthard to join me on those! He'd be a good co-driver: Davey 'The Ringer' Coulthard!

About four years ago there was a TV show called *The Race* and they asked me to participate. DC and Eddie Irvine were the coaches, and they just taught me so much. They were fantastic. DC instils so much confidence in you when he talks. He's just a quiet,



Johnson tasted success in *The Race*

"V8 Supercars give you the goosebumps. Man – that's rock 'n' roll!"

calm man and when he said, 'You were in the purple on the computer,' I said, 'What does that mean?' He said, 'It's good when you're in the purple!'

I love the atmosphere with the audience at rock concerts, and if you could translate that audience to the race track it would be amazing. NASCAR, which I watched at Indianapolis, gets your arse twitching like a rabbit's nose. I just loved it.

The V8 Supercars in Australia have a lot of power and they're more exciting than NASCAR. When you hear the big V8s

said, 'We're going to rebuild it, from the ground up, to make it the best Lola in the world.'

The plan is to spend the summer in Europe – hopefully we'll get to the Goodwood Revival and Silverstone – and then race it in Australia.

When I'm in the UK, I'd love to meet John Surtees. I'm very proud that I have the same type of car as he had. I'm not going to be anywhere near as good as he was in it, but I'll give it a crack!

In some of the races you really need a co-driver because some of them are over three hours long.



Favourite mag: you read me all night long

Johnson has been racing a Royale RP4



coming by – that's what you want to hear! That's what gives you the goosebumps, a little shiver down the back. Man – that's rock'n'roll, right there!

I'd like to think I could race in V8 Supercars. I'm not timid when it comes to getting behind the wheel of a car – I like to do it properly. But like Coulthard says, people who just jump into cars and go fast are idiots. You learn the car, you take it easy, where



Surtees had success in early days of Lola T70

your brake points are, get comfortable with the car and then you learn to make that car do what you want. As far as your limits are concerned, when you're a younger man you've got no fear, you're quick. When you're an old fart like me, you just stay steady and try to go as fast as you can and wait for other people's mistakes. That's how I like to race. Those V8 Utes look fun as well. I wouldn't mind having a crack at one of them little buggers.

With the band's standing in Australia, it's always nice to know there may be a few people who'd come along to see it. But who knows, they might just come to see me make a twit of myself. I think it would be wonderful. ☒



Geordie rocker races mainly in the States



This isn't as good as Goodwood...



RALLY CHAMPION

6 X WRC MANUFACTURER'S CHAMPIONS



FROM RALLY TO ROAD

There's no better breeding ground than the World Rally Championship. Where else can one road take you from -30 degrees in the frozen north of Scandinavia to +40 degrees in the baking deserts of the Middle East? And travelling that road teaches you plenty about cars.

Citroën knows the road – no other manufacturer has been faster or more successful on it for the last eight years. And now, with the launch of the DS3 WRC and the DS3 Racing, the link between stage and street has never been stronger. Sébastien Loeb has conquered the world (seven times) for your benefit.



CITROËN DS3 WRC

The DS3 WRC is the next generation of World Rally Car. Designed to meet the all-new 2011 regulations, the car comes with the first ever engine to be entirely designed and built by Citroën Racing.

The challenge of introducing direct injection into competition has been met head-on and delivered with stunning results. The transmission charged with delivering the 300bhp and 350Nm of torque comes in association with Sadev and ensures total traction from all four wheels, whatever the surface.

And the towering speed that this perfect combination builds in the DS3 WRC is washed away in an instant by brake discs which measure a massive 355mm in asphalt trim. Inside the car, less is more; to save weight, only the bare minimum gets onboard.

The driver and co-driver have their own LCD screens, giving them the precise details of what the car's thinking at any second. Surrounding the crew inside the DS3 WRC is a rock solid roll cage, fighter plane style harnesses and specifically designed bucket seats. Performance is key, but safety is paramount in the DS3.



CITROËN DS3 RACING

As you would expect from the road going sibling of the rally-raised DS3 WRC, the DS3 Racing does driving very well. The 1.6 litre turbocharged engine develops 207hp and a top speed of 146mph, the first 60 of which can be dispatched in just 6.5 seconds.

Those figures are 15 per cent up on the other cars in the DS3 range, and that extra performance has come from the Citroën Racing engineers; the same brains that have given Sébastien Loeb the power to win seven straight drivers World Rally Championships. Like the rally version, the brakes on the road car

have been improved, incorporating a four-piston caliper set-up similar to DS3 WRC. And then there's the handling. You won't believe the handling, but you should, bearing in mind that Citroën hasn't been beaten on an asphalt WRC round since 2004.

The DS3 Racing offers exceptional precision and stability courtesy of a wider track, specifically designed dampers and a ride height lowered by 15mm. From the outside, the DS3 Racing looks perfect. On the inside it's even better. That's why Sébastien Loeb has ordered one to drive on his day off.

**TOPGEAR
MAGAZINE
AWARDS
2010**

Small Car
of the Year
**CITROËN
DS3**

Car of
the Year
**CITROËN
DS3**

www.citroen.co.uk



ROAD CHAMPION

CITROËN DS3. TOPGEAR MAGAZINE AWARDS 2010. CAR OF THE YEAR.



CITROËN

INTRODUCING Kevin Korjus

Formula Renault king from Estonia now has F1 connections to smooth his path

"In Estonia there are only 10 to 12 drivers in each karting category, but the top three are a similar level to the rest of Europe"



Korjus dominated with Koiranen team

In the aftermath of becoming the youngest-ever winner of the Formula Renault 2.0 Eurocup, 17-year-old Kevin Korjus was faced with a dilemma: proceed along the conventional career path into Formula 3; or accept the Eurocup's scholarship of €500,000 towards a season in the far-more-imposing Formula Renault 3.5. Korjus's eventual signing with 2010 FR3.5 teams' champion Tech 1 Racing garnered an incredible response in his native Estonia, becoming headline news across the state-run media. Also fuelling interest were details of a new management contract with Renault F1 boss Eric Boullier's Gravity Sport.

"The €500,000 prize was the main factor in entering FR3.5," says Korjus. "Gravity chose Tech 1, but of course they asked me if I agreed with it – and I think it's definitely a good team."

The move into FR3.5 is not entirely a step into the unknown. As part of his Eurocup prize, a test with Carlin was

arranged at Motorland Aragon last year. The experience left Korjus conscious, if not apprehensive, of the difficulty of his new undertaking.

"Usually you can think before the next corner is coming, but in that car everything happened so fast, there was no time to think. It was good fun, but 15 seconds per lap faster than I was used to. Gravity has given me a fitness programme, but I've had to miss three weeks because of sickness."

At Tech 1, Korjus will be paired with Arthur Pic, one of his key rivals from last season. The two rookies may form one of the less-experienced line-ups, but the Toulouse squad has strong form working with FR2.0 graduates, including Pic's older brother Charles. Even so, Korjus remains cautious:

"It's almost impossible to win races this year, but of course that's always my goal. Tech 1 definitely has very good data from working with Daniel Ricciardo [the 2010 runner-up]. I only talked to Arthur two or three times last year, but I think we can have a good relationship."

Korjus made his first step into cars at 15, finishing runner-up to Jesse Krohn in the Finnish Formula Renault Championship with Estonian team TT Racing, although a parallel karting career was maintained that season.

"I started karting after my dad

KEVIN KORJUS



Born January 9

1993

From Tallinn,

Estonia

2010 1st, Formula Renault Eurocup

(9 wins); 5 wins in

North European Cup

2009 5th, F1 Renault

North European Cup

2008 2nd, Finnish

Formula Renault

2006-08 Karting

finished with motocross," continues Korjus, "I enjoyed it immediately and things carried on from there. In Estonia there are only around 10 to 12 drivers in each karting category, but the top three are always at a similar level to the rest of Europe. Moving to cars wasn't easy, but I had a big supporter [Raivo Tamm] who was my manager. In a way, it is almost the same jump this year going from Eurocup to 3.5 as it was moving from karting to Renault 2.0."

The adventure with TT continued into the FR North European Cup (NEC) in 2009. Despite limited resources, Korjus ended the year fifth in the standings and top non-Motopark driver – an achievement that made top Finnish team Koiranen Bros take note.

A switch to Marko and Jari Koiranen's team in 2010, and a new car that suited his style, brought nine Eurocup wins in 16 starts – and a five-out-of-five strike rate on his NEC invasions. Although his national service has been deferred, Korjus has two more years of school in Estonia before focusing exclusively on his blossoming racing ambitions. Quite how much a freezing Estonian winter and a sick-bed temperature provide a misleading impression of mature pragmatism is difficult to tell. But Korjus's achievements to date suggest he can afford to indulge in a little more optimism. ☒



Carlin FR3.5 run was eye-opener

Mansell got behind wheel at Yas Marina



MANSELL BACK IN A LOTUS

If you've got £650k burning a hole in your pocket and like driving fast, then the Exos Experience by Lotus is for you. A certain 1992 world champion would agree...

Going to Abu Dhabi to drive the Lotus 125 involved a 17,000-mile round trip, but it was great. I'm delighted to be back with Lotus for this programme, and once I had a set of the green-and-gold overalls on I couldn't wait to try this monster of a car out for myself.

Even on my first acclimatisation run I had a great time. The car really got the juices going again, and although my first run was only four laps, I already knew that I didn't want to come in! It's typical of a Formula 1 car. It's exhilarating, and it just gets better and better the more you drive it.

It certainly ticks all of the boxes as far as a Formula 1 car goes. The performance of the 3.5-litre Cosworth V8 and pick-up of the throttle is instantaneous, and the car is really honking down the straights. The mechanical grip is very impressive, and the carbon brakes – once you get them up to temperature – my goodness! They work very well.

This is a very serious piece of kit, so you can't just jump in it and go flat-out from the get-go. You have to build yourself up, but once you've had a few laps in it and got yourself sorted, your confidence grows every lap.

The biggest thing to begin with

is that the car starts very well. You don't need any acceleration to take off; you just put it in gear and let the clutch out slowly. Then when you get going you can increase the throttle as you go along. So as a start procedure that's very simple.

The cockpit is a little bit bigger than a Formula 1 car so, once you've got your personal seat made for you, the ergonomics of the car give you a bit more room. But you still only have two pedals, just the brake and accelerator, to worry about. There's no power-steering, but the steering is well-balanced and not heavy in any way.

Once you're out on track, you just need to play yourself in. It's not a bad idea to short-shift to start with, as you might not want all the power going down coming out of the slower corners. But when you come to a corner with a bit of room on the exit

"You've got to give it the berries and see what you think. If you spin it... that's half the fun!"



Not your usual track-day steerer





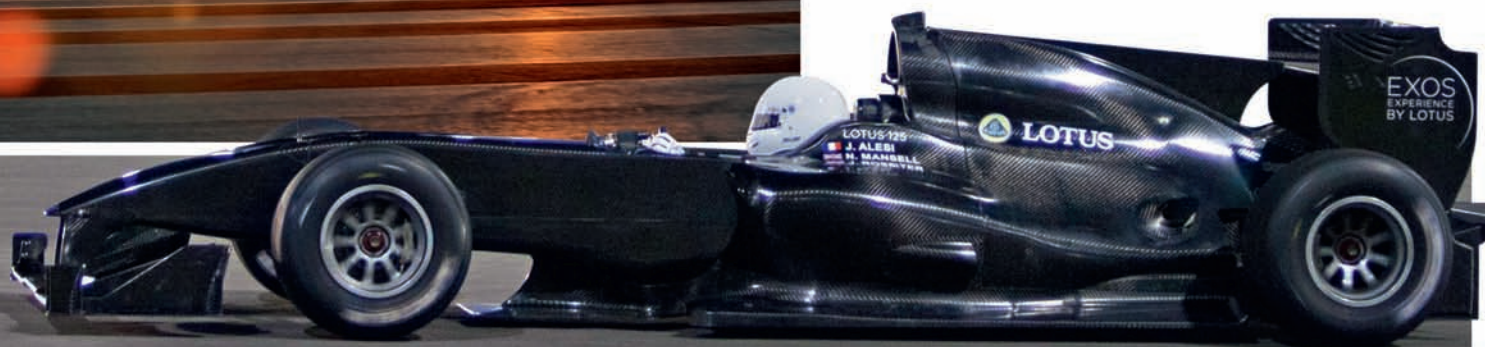
It's getting dark; Nige doesn't want to stop



LOTUS 125 MANSELL DRIVES

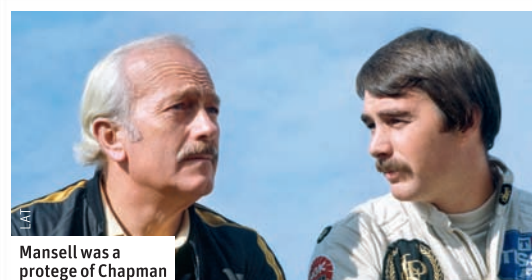
Some pretty decent pedallers in the 125

Far cry from Lotus debut at Osterreichring, 1980



'Incognito' white lid, but no mistaking those eyes

GETTING A BREAK WITH LOTUS



Mansell was a protegee of Chapman

you've got to give it the berries and see what you think. If you spin it... that's half the fun! As long as you don't do any damage of course!

Lotus has come up with a very good design. Because they're not conforming to Formula 1 regulations, it's probably got more downforce coming from the underneath of the car than current F1 racers do, with a lower proportion coming from the upper surfaces. Around 60 per cent of the car's downforce comes from the floor and the diffuser, and that gives you great stability in the quick corners.

Lotus has put a set-up on the car which is very safe – there's no oversteer in any way, which makes it a little bit more passive and safer to drive. But the steering is very responsive, so the car goes wherever you point it. And if you push it, it really goes. It's a real stallion, like a Formula 1 car should be.

The power delivery from the 640bhp engine is instantaneous.

The 125 is a bit lighter than a Formula 1 car, so its power-to-weight ratio is good, and the engine is very responsive. It has traction control, which works very well, but it can still give you a few exciting moments if you floor it every time you exit a slow corner.

The brakes are always an impressive feature of an F1 car, and it's the same with this machine. During the warm-up laps the pedal is a bit hard, but as soon as the temperature comes up you hit the pedal, and it feels like you've just thrown an anchor out the back.

It's been quite emotional for me stepping into a Lotus single-seater again. Just seeing the Lotus name on the car transports me back in time to my early F1 career in 1980-84. In general, this car gives a lot of feedback to the driver, and I think it's going to be received very well. *Nigel Mansell was talking to Glenn Freeman*

NIGEL MANSELL'S CAREER is going full circle as he joins up with Lotus again. It was Colin Chapman who gave him his big break in Formula 1 in 1980 and, even after all the success that followed for Mansell, gestures like that aren't forgotten.

"Without Lotus I never would have made it in Formula 1," says Mansell. "I was there six years, because I worked for Colin for two years before he gave me my first race in 1980. Being part of the Lotus heritage, part of the history, and then coming back in the present day, it's great."

Mansell is full of admiration for Chapman, and he believes

that if the legend's innovative thinking had been allowed to flourish, Lotus would have returned to the glory days in the early 1980s.

"Working with Colin was fantastic," he says. "He took me under his wing and explained how life was. It was an incredible apprenticeship."

"We got a few podiums, and qualifying at Monaco [in 1984] was special. But during those years, when Colin did come up with a good car, it was the twin-chassis design, and it got banned before it even raced. I'm sure that would have made a big difference."

DAWN OF A NEW ERA

The World Rally Championship has undergone its biggest shake-up in years.

DAVID EVANS gets excited about new cars and the return of a legendary name



➔ WORLD RALLY CHAMPIONSHIP CALENDAR 2011

RALLY SWEDEN

FEBRUARY 10-13



SURFACE: SNOW
BASED: KARLSTAD

Awesome if the conditions are right. We need the deep freeze...

RALLY MEXICO

MARCH 3-6



SURFACE: GRAVEL
BASED: LEON

High-altitude test of engines on warm, fast gravel stages

RALLY OF PORTUGAL

MARCH 24-27



SURFACE: GRAVEL
BASED: FARO

Close to the sea, so weather unpredictable, but great roads

JORDAN RALLY

APRIL 14-16



SURFACE: GRAVEL
BASED: DEAD SEA

Only event going below sea level on hot desert stages

RALLY D'ITALIA

MAY 5-8



SURFACE: GRAVEL
BASED: OLBIA

Soft road surface can unearth tyre-shredding rocks

Will DS3 continue
Loeb's domination?

The moment has almost arrived. Anticipation is everywhere. The World Rally Championship's new world is almost upon us. And it sounds good. But it looks even better. After too many years of beating up a potential Citroen/Ford, Loeb/Hirvonen fight, the WRC stands on the verge of a hugely exciting, landmark season. Granted, Loeb might win again, but this time nothing is certain. Not even near-certain.

The curveball comes in the shape of root-and-branch reform on the technical front. Gone are bigger cars and bigger engines in favour of hot-hatch World Rally Cars. The Fiesta replaces the Focus for Ford and Citroen's C4 is superseded by the DS3 WRC. And Mini's back at rallying's highest level with the Countryman WRC.

The best news for you and me this season is that these new motors are definitely driver's cars. The technology levels have been slashed; changing gear means taking your hand off the wheel and actually working the gears rather than finger-nudging a paddle in a flurry of electro-hydraulic cosiness. If a driver wants his World Rally Car to go quickly, it's going to have to be forced, provoked, harried and hassled down the stage.

Smaller engines and smaller turbo restrictors mean much, much less torque from the engines of the new breed of cars. Power-wise, the new cars are still in the same ballpark – around 300bhp – but the way the 1.6-litre turbocharged engine works, the drivers are going to have to constantly stay on top of the car to keep it in the powerband.

It's going to be non-stop gear changes and sweaty drivers at the ends of stages.

WILL LOEB'S REIGN END?

Arriving in Sweden for this week's opening round, seven-time champion Sebastien Loeb has to be favourite across the stretch of the season. Nobody can hold a candle



Wraps came off new Fiesta in Birmingham

to the Frenchman in terms of recent success at the highest level. But how will Loeb drive the new car? That remains to be seen. The last significant regulation change came in 2007, when active front and rear differentials were banned, leaving Loeb and co in largely passive World Rally Cars for the first time in their careers. Some feared Loeb would be lost without hydraulic help. He wasn't. He was fastest. The widely accepted principle of the best drivers being able to drive anything fits perfectly for Loeb. And there's no doubt he's the best driver.

Aside from the new technical regulations, the other fascinating element of Loeb's season will be how he settles in with team-mate Sebastien Ogier. We examine this relationship further on pages 62-63, but suffice to say, the unstinting support Loeb enjoyed from Dani Sordo is now long gone.

WHICH OF FORD'S FINNS WILL FLY?

After a season in the shadows, Ford has emerged with a stunning rally car in the Fiesta RS WRC. The regulations surrounding the construction of these new cars might have tightened considerably, but there's still room for the technical wizards to leave their mark – Ford's Christian Loriaux is arguably the world's most imaginative and adept of rally car designers. Be in little doubt that there will be something trick about the new Fiesta.

Ford sticks with its Finns for the coming season, with Mikko Hirvonen and Jari-Matti Latvala starting the year on an equal footing as opposed to last year's plan that left Latvala playing second-fiddle to his team-mate. By his own admission, 2010 was horrible for Hirvonen, but he ►

P-WRC, S2000 AND ACADEMY SUPPORTING CAST

THE BIG CHANGE in the structure of the support series of the World Rally Championship is the loss of the Junior WRC. Introduced as the Super 1600 Drivers' Cup and won by Sebastien Loeb in 2001, a further eight champions have been crowned, but the low turnout last season spelled the end of the formula. In competition terms, Juniors won't be missed – the Production and Super 2000 WRC will provide plenty of season-long entertainment.

This week's Rally Sweden kick-starts the P-WRC, albeit without defending champion Armindo Araujo. In the absence of the likeable Portuguese two-time WRC winner, last year's runner-up Patrick Flodin starts as favourite. The Uspensky Team driver has never been far from the front in his Subaru and a repeat of his lights-to-flag victory in Sweden 12 months ago is likely this week. Across the spread of the year, Poland's Michal Kosciuszko could prove a handful in his rookie P-WRC season, while series stalwarts Anders Grondal and Gianluca Linari will be there or thereabouts. Kiwi Hayden Paddon finished third in a Pirelli-backed Mitsubishi last year. This time around the South Islander has switched to a Subaru for his P-WRC campaign and will undoubtedly be a force to be reckoned with. Britain's Harry Hunt is also present, chasing two-wheel-drive glory in his Citroen DS3 R3.

The S-WRC field is slightly leaner with just seven entries for a series that starts in Mexico in March. But, what it lacks in depth, it certainly makes up for in ability, with some of the sport's brightest young talents in the mix for this year's title. Reigning IRC champion Juho Hanninen drives a Skoda Fabia on his first return to a full-time WRC-based campaign since just missing out on the Production title in 2008. Hanninen's team-mate in this year's S-WRC will be highly rated German Hermann Gassner. Dakar winner Nasser Al-Attiyah is also back for another campaign in his Fiesta, along with Bernardo Sousa and former J-WRC champion Martin Prokop. Two of the most exciting S-WRC entries for 2011 come from Estonia, with former Pirelli Star Driver Ott Tanak starting his first of a five-year M-Sport deal in a Fiesta. Tanak demonstrated explosive pace last season and, certainly in the second half of the year, was crashing less and less. He will be right in the mix, as will countryman Karl Kruuda.

The third support series is the WRC Academy, which takes 24 drivers (including the six PSDs), puts them in equal Fiesta STs and pits them against each other on six European rounds of the WRC, starting in Portugal.



Patrik Flodin is P-WRC favourite

RALLY ARGENTINA MAY 26-29



SURFACE: GRAVEL
BASED: VILLA CARLOS PAZ
A classic. Great steak, better red wine and even better roads

ACROPOLIS RALLY JUNE 16-19



SURFACE: GRAVEL
BASED: LIVADIA
Not quite the test it once was, but still the toughest of the year

RALLY FINLAND JULY 28-31



SURFACE: GRAVEL
BASED: JYVASKYLA
They all want to win it. One for the fastest and the brave

RALLY DEUTSCHLAND AUGUST 18-21



SURFACE: ASPHALT
BASED: TRIER
Vineyard hairpins, country lanes and broken concrete



GET READY FOR LIFT-OFF

The 2011 WRC is live on ESPN.
Coverage starts Fri 11 Feb from
RALLY SWEDEN



WRC
FIA WORLD RALLY
CHAMPIONSHIP

The 2011 WRC season is live on ESPN with all
13 rallies, plus preview shows and highlights
throughout every rally weekend.

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Latvala has already crash-tested Fiesta

◀ says the change of regulations has worked to his advantage. The 13-time world rally winner's talk of a clean sheet of paper is as much a reflection on his career as his car. His efforts to return himself to the top of the tree will make for compelling viewing. As for Latvala, these new cars could be made for him and his aggressive style of driving. Last year, he matured massively and learned to drive the car on the limit and keep it there without knocking corners off it.

If he can do the same again this season – and the Fiesta's a match for the Citroen – then both Latvala and Hirvonen can pose a serious threat to the fortitude of France's most famous rally driver. And if they do that, Ford will be a big player in the makes' race.

The other good thing for Latvala is that he's already shunted a new-generation WRC. He wrapped Ford's test car around the trees in Sweden a fortnight ago, so he's got that box ticked already, no need to go there again. He wasn't, however, the first to crash one of these cars.

"The younger Solberg is the man most likely to win from outside the factory gates"

That dubious honour fell to Markko Martin who binned a Mini in the Countryman's second major test in Portugal late last year.

IT'S A BIG COUNTRYMAN

With the might of motorsport engineering giant Prodrive behind the project, the Martin dents were soon polished out of the Mini and the car back on track. The Countryman WRC will make its debut five rounds in at Rally d'Italia in May – and it will be one of the most talked-about and eagerly awaited cars in the sport's history.

The men charged with shouldering that burden of responsibility are Kris Meeke and Dani Sordo, an enormously competent if not yet world-beating partnership.

Pre-season, the Mini has looked good. There's more to come from

the engine and its ability to deal with the bumpier stretches of a stage is still under the microscope, but the cache of Mini in the WRC with BMW behind it is just the sort of shot in the arm the top level of the sport needs.

And those are just the factory entries. Let's not forget here, there are private Citroens and Fords for Petter Solberg, Kimi Raikkonen, Henning Solberg, Matthew Wilson, Mads Ostberg and a whole host of other great drivers. The younger Solberg – the former world championship-winning one – is the man most likely to win from

New Mini WRC bigger than old, but better?



outside the factory gates.

Raikkonen fever will, undoubtedly, continue unabated this season. The only downside for the superstar Finn is that he's skipping Rally Argentina; with a million fans expected to turn out to watch, Kimi must be miffed at all those missed opportunities for autographs...

➔ P59 SWEDISH STARTER

Hirvonen struggled for form last season



➔ WRC CALENDAR

RALLY AUSTRALIA SEPTEMBER 8-11



SURFACE: GRAVEL

BASED: COFFS HARBOUR

Third new venue in as many events for Rally Australia

RALLY DE FRANCE SEPTEMBER 29-OCTOBER 2

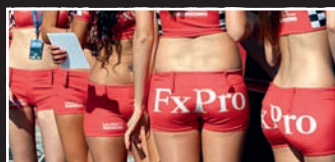


SURFACE: ASPHALT

BASED: STRASBOURG

After last year's Loeb hometown love-in, expect more of the same in '11

RALLY CATALUNYA OCTOBER 20-23



SURFACE: GRAVEL/ASPHALT

BASED: SALOU

Mixed-surface format worked a treat last year. A great, well-run event

RALLY GREAT BRITAIN NOVEMBER 10-13



SURFACE: GRAVEL/ASPHALT

BASED: CARDIFF

If the north-south tour of Wales works, it could be a classic

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What's new for 2011?



Räikkönen is back for more Citroën WRC thrills

It's all change this year, with 1600cc cars, a new manufacturer, the return of two classic events and a new 'junior' category...

Paid up yet? It's a tough one, I know, but if you don't hand over a wad of hard-earned cash to ESPN, you'll have to watch *EastEnders* on WRC weekends. For wealthier rally watchers, there's a stack of WRC footage on offer this year, with one of the most interesting aspects being the Sunday afternoon 'powerstage'.

Powerstage is the new name for the final test of every event, which will be shown live. The WRC's ability to brag about this has been somewhat thwarted by Eurosport's coverage of 12 of the 13 Monte Carlo Stages last month. But let's be grateful for what we're given. Sorry, paying for...

This will be the first year an engine of fewer than two litres has won a WRC round since Alain Oreille's '89 Ivory Coast victory in a Renault 5; 1600cc and the new technical regs are the biggest change this year – along with the arrival of a third manufacturer in the shape of Mini.

Other new stuff includes the WRC Academy: 24 under-25s all determined to be the fastest Fiesta driver on six rounds of this year's WRC. Tyre competition's back, too. Well, sort of. After three years of Pirelli single supply, DMack and Michelin have arrived. Predictably, the three manufacturers have gone for the French boots, but the

Chinese-made covers will be running on plenty of cars down the field. Pirelli's not gone, either – it will supply rubber to the WRC Academy exclusively. This year's six Pirelli Star Drivers – Craig Breen, Jan Cerny, Andrea Crugnola, Fredrik Ahlin, Brendan Reeves and Molly Taylor – will all run within the Academy.

Coffs Harbour in Australia is new, too, as it seeks a replacement venue for the perfect Perth. Not new, but returning after a year out are two of the WRC's finest rallies – the Acropolis and Argentina.

There's more newness in Sweden this week as the Karlstad-based event crosses the border into Norway for the first time. Crews tackle the 12-mile Lovhaugen 1 test twice tomorrow (Friday). ☒

"Powerstage is the new name for the final test of every event, which will be shown live"

P60 UNDER THE SKIN OF LOEB'S NEW DS3



Oreille: last winner with under two litres

RALLY SWEDEN TOP 20 ENTRIES

NO	DRIVER/CO-DRIVER	CAR
1	Sebastien Loeb/Daniel Elena	Citroen DS3 WRC
2	Sebastien Ogier/Julien Ingrassia	Citroen DS3 WRC
3	Mikko Hirvonen/Jarmo Lehtinen	Ford Fiesta RS WRC
4	Jari-Matti Latvala/Mikka Anttila	Ford Fiesta RS WRC
5	Henning Solberg/Ilka Minor	Ford Fiesta RS WRC
6	Mads Ostberg/Jonas Andersson	Ford Fiesta RS WRC
8	Kimi Räikkönen/Kaj Lindström	Citroen DS3 WRC
9	Dennis Kuipers/Frederic Miclotte	Ford Fiesta RS WRC
43	Ken Block/Alex Gelsomino	Ford Fiesta RS WRC
10	Khalid Al Qassimi/Michael Orr	Ford Fiesta RS WRC
11	Petter Solberg/Chris Patterson	Citroen DS3 WRC
15	Matthew Wilson/Scott Martin	Ford Fiesta RS WRC
16	P-G Andersson/Emil Axelsson	Ford Fiesta RS WRC
17	Rene Kuipers/Annemieke Hulzebos	Ford Fiesta RS WRC
18	Patrick Sandell/Staffan Parmander	Skoda Fabia S2000
19	Martin Prokop/Jan Tomanek	Ford Fiesta S2000
20	Eyvind Brynildsen/Cato Menkerud	Skoda Fabia S2000
21	Patrik Flodin/Goran Bergsten	Subaru Impreza
23	Gianluca Linari/Paolo Gregorini	Subaru Impreza
24	Anders Gröndal/Veronica Engan	Subaru Impreza

RALLY SWEDEN TIMETABLE

THURSDAY FEBRUARY 10		
SS1	Superspecial Karlstad 1 (1.18 miles)	2004
FRIDAY FEBRUARY 11		
SS2	Vargasen 1 (15.30 miles)	0758
SS3	Likenas 1 (12.91 miles)	0939
SS4	Lovhaugen 1, Norway (11.96 miles)	1055
	Service Torsby	1310
SS5	Vargasen 2 (15.30 miles)	1413
SS6	Likenas 2 (12.91 miles)	1554
SS7	Lovhaugen 2, Norway (11.96 miles)	1710
	Service Hagfors	1900
SATURDAY FEBRUARY 12		
SS8	Lesjöfors 1 (9.32 miles)	0800
SS9	Sagen 1 (8.89 miles)	0901
SS10	Fredriksberg 1 (11.27 miles)	1036
SS11	Varmuldsasen 1 (9.58 miles)	1108
	Service Hagfors	1143
SS12	LLesjöfors 2 (9.32 miles)	1326
SS13	Sagen 2 (8.89 miles)	1427
SS14	Fredriksberg 2 (11.27 miles)	1532
SS15	Varmuldsasen 2 (9.58 miles)	1634
	Service Hagfors	1712
SS16	Superspecial Karlstad 2 (1.18 miles)	2000
SUNDAY FEBRUARY 13		
SS17	Torntorp 1 (11.93 miles)	0751
SS18	Gustavsfor 1 (2.58 miles)	0843
SS19	Rammen 1 (14.14 miles)	0937
	Service Hagfors	1043
SS20	Torntorp 2 (11.93 miles)	1209
SS21	Rammen 2 (14.14 miles)	1331
SS22	Gustavsfor 2* (2.58 miles)	1508

1723 FINISH KARLSTAD *Live 'powerstage'

Time to reboot the machinery

World champion Sebastien Loeb is excited about the new-spec WRC cars, as he explains to DAVID EVANS

Sebastien Loeb knows a lot about World Rally Cars. He's won more world rallies than anybody else in them. But what about the new one? For the first time in his career, Loeb will start the year with a completely new format of car thanks to the major regulation change over the closed season.

So why don't we let him talk us through his new motor...

The seven-time world champion says: "The DS3 WRC is nice. I like it. It's fast and it's fun to drive. I have done a lot of testing since the end of last year and I feel ready for the start of the new generation. Compared with the C4, the DS3 WRC reacts quicker because it's short and feels lighter than a C4, because the weight distribution is better. This makes it good on twisty gravel stages, where the grip is consistent, but on the fast tricky stages, where the grip is changing – like in Sweden, where you have a bit of snow on top of the ice base – the car is more nervous and it can be difficult. You have to be more aggressive and quicker on the steering wheel, you have to change gear with the stick and you have to fight more with the car.

"Fighting with the car is good. It's good to drive, especially when you are in complete control. But when you have to be quick because you lose grip and a bit of control, then I would prefer a smoother car. It can be a little bit tricky if you have a small problem, when you need to change down – without the paddles we used to have in the old car – you have to be careful and go down through each gear.

"The interesting thing with these new cars is nobody has any reference. Nobody knows where their car is compared with the others. Okay, we have some idea where DS3 is against C4, but not against the Ford and the Mini when it comes. This makes it exciting. It was an attraction for me to stay in WRC this year with the changes. It will be interesting to see who can adapt quickest to the new cars."



WHEELS/TYRES

● The wheels are the same size this year, but the big change is in the supply of tyres: Pirelli has been replaced by Michelin on all three manufacturer cars this season. DMack is also supplying WRC rubber, but to privateers rather than factory cars.

SUSPENSION

● The suspension is very similar to last year's cars, with MacPherson struts and fully adjustable dampers: Reiger for Ford, Citroën runs its own design and Mini will fit Ohlins alongside the strut.

ENGINE

● The biggest change. The new cars are 400cc lighter at 1600. Direct injection has also been introduced to bring the cars more into line with the required environmental efficiencies. The cars will produce less power and less torque than before, partly due to the smaller engine size, but more due to the millimetre reduction to the turbo restrictor. The cars will, however, rev higher, with an expected redline of 8000rpm or more on some.

TRANSMISSION

● Gone are hydraulically-assisted, blink-of-an-eye paddle shifts for the gearbox – in come fully mechanical sequential shifters similar to the ones used in the late 1990s. The lack of electro-hydraulic assistance for gearshifting does leave the gearbox open to damage from the drivers. It also means the shift will be slower. Ford and Citroën run gearshifters at steering-wheel level, but mounted through the transmission tunnel, while the Mini's shift is mounted on the steering column. The active centre differential has also been removed with a clutch disconnect fitted to the handbrake to allow use of the handbrake to lock the rear wheels. Also gone are the £15,000-a-time carbon clutches, replaced by a £1000 twin-plate racing examples. Everybody has six forward ratios – Citroën using Sadev, Mini and Ford running Xtrac hardware.



INSIDE THE CAR

● Last year's WRC machine wasn't exactly an embarrassment of riches in terms of trim, but these new cars are even more sparse. The Ford has an LED indicator to tell the driver which gear he's in, while the rest of the car's electronic controls are guided through an iPad-sized display on the transmission tunnel. There's a little bit more information on offer to the Citroën drivers with a slightly larger display set into the dash. Driver and co-driver are closer together than ever inside the car, partly to keep the crew as far from the b-pillar and partly because the cars are smaller inside than before.

DIMENSIONS

● Coming from a smaller category of cars, the new generation of World Rally Cars are inevitably smaller and lighter than their predecessors – which is why it's generally accepted that they will be faster in slower-speed twisty sections. The one surprise with the new-spec cars is that they are actually wider, running at 1820mm rather than 1800 in previous years – meaning they look squarer and meaner than last season's WRCs.

AERODYNAMICS

● The rear wings are similar to the old World Rally Cars, as are the bonnet scoops to take air in and out of the engine bay.



BRAKES

● The brakes for gravel are identical, but limited to 355mm discs – as opposed to 370mm last year – on asphalt. The asphalt anchors will also be limited to four-pistons per caliper as opposed to eight on the 2010 specification cars.

Old v new



THE OLD: FOCUS RS WRC

ENGINE: 1998cc. Four cylinders, 16 valves. Garrett turbocharger, 34mm restrictor

BORE/STROKE: 85/88mm

MAX POWER: 300bhp at 6000rpm

TORQUE: 405lb ft at 4000rpm

TRANSMISSION: four-wheel drive.

Active centre differential, mechanical front and rear differentials. Five-speed sequential gearbox, electro-hydraulic shift. Carbon clutch

SUSPENSION: MacPherson struts (front) trailing arm (rear). Reiger dampers

BRAKES: 300mm discs, four-piston calipers (gravel); 370mm discs, eight-piston calipers (asphalt)

DIMENSIONS: length 4362mm; width 1800mm; wheelbase 2640mm; weight 1230kg



THE NEW: FIESTA RS WRC

ENGINE: 1600cc direct injection. Four cylinders, 16 valves. Garrett turbocharger, 33mm restrictor

BORE/STROKE: 83/73.9mm

MAX POWER: 300bhp at 6000rpm

TORQUE: 332lb ft at 4000rpm

TRANSMISSION: four-wheel drive.

Mechanical front and rear differentials, clutch disconnect fitted to handbrake. Six-speed sequential gearbox.

Twin-plate racing clutch

SUSPENSION: MacPherson struts. Reiger dampers

BRAKES: 300mm discs, four-piston calipers (gravel); 355mm discs, four-piston calipers (asphalt)

DIMENSIONS: length 3963mm; width 1820mm; wheelbase 2480mm; weight 1200kg

➔ P62 LOEB v OGIER

CITROËN

LOEB **v** OGIER

Citroen's Sebastiens go head to head in 2011 so, says *DAVID EVANS*, watch out!

The looks and the unsaid say it all. *Sebastien Loeb and Sebastien Ogier are friends.* So it says here... This year the two Frenchmen go head-to-head in what will undoubtedly be the most fascinating chapter in Citroen's ultra-successful WRC history.

It's happened. The match has been lit and the lid is off the box of fireworks. When Rally Sweden starts this evening, stand back. It could be a glorious display of ballistic artistry, it could be a bit of a bun fight, or it could be civil war.

Not for a long time has rallying been blessed with two drivers so determined to succeed and put one over on their team-mate as the two Sebastiens in the Citroen Total World Rally Team this season. I'm sure those on the inside of the Versailles-based outfit will be keen to play down the story with a pre-emptive strike about Seb and Seb playing the team game.

That's true. Partly.

At the Rallye de France last year, Olivier Quesnel was concerned about running two such determined and successful drivers in one team, but he added that it wouldn't be a major issue. It would, he said, be a story made for, and by, the media.

THE EVIDENCE FROM 2010

It's the end of day two on the Jordan Rally. Ogier is 24 seconds off Loeb's lead, but the #1 car will be first into the stage and forced to clean the road. The team decides to swap them around, forcing Ogier to take a penalty and run ahead of Loeb. The younger Seb is angry at losing his first real chance to take a pop at Loeb.

Two rallies later in New Zealand and, after a brief misdemeanour with a bridge, Loeb is the super-hero again with a breathtaking run back through the field to play himself into a thrilling final-day fight for the win. Both he and Ogier make mistakes, Jari-Matti

CV

SEBASTIEN LOEB

AGE 36

- 2010** World champion (8 wins)
- 2009** World champion (7 wins)
- 2008** World champion (11 wins)
- 2007** World champion (8 wins)
- 2006** World champion (8 wins)
- 2005** World champion (10 wins)
- 2004** World champion (6 wins)
- 2003** Second in WRC (3 wins)
- 2002** 10th in WRC (1 win)
- 2001** Junior WRC champion
- 2000** Four starts in WRC
- 1999** WRC debut, three starts

Latvala nicks the win and Ogier and Loeb are two and three respectively. Despite a couple of scrapes, everybody is still buzzing about Loeb's Saturday, though. Pondering this, Ogier points out that Loeb made the best of a good position on the road. He's not overly impressed.

THE TENSION'S BUILDING

Then, in a Citroen-sanctioned straight fight, Ogier beats Loeb in the same car in Portugal. Loeb doesn't like being defeated and Ogier isn't keen on how the full disclosure of set-up information had dried up a little during that weekend in Faro last May.

In a stunning interview in French newspaper *L'Equipe* a couple of weeks later, Loeb tells the world how he thinks it would be better for Ogier to go to Ford. As is Loeb's way, he makes his point absolutely sensibly and with full articulation. What good, he argues, is it to have the sport's two quickest drivers in one team? The result would be problems for one team and a lean run of results that could jeopardise another team.

Citroen has been Loeb-central since Colin McRae and Carlos Sainz left in 2003 and 2004 respectively. This has become a mutual love-in built on the most successful period of world rallying ever for a team and driver.

Loeb has become King, but he has never forgotten his people.

In Japan, Ogier beats Loeb again to stretch an impressive run on gravel, having edged the maestro in Finland, too. But, in Sapporo and arguably Jyväskylä, Loeb is thinking of his title. Once that's done, Loeb is up for the fight – and he wipes the floor with Ogier, winning the last three rallies while Ogier crashes into retirement every time.

AND THAT'S WHERE WE'RE AT

On the eve of 2011, Citroen insists that, despite Loeb outscoring Ogier by 62 wins to two and seven titles to zero, they start as equals. Ogier is desperate to keep it that way.

"I don't want to be number two,"

he says, before adding that he's not about to become fixated on beating Loeb. He – we – have seen all that before, in 2005.

The former Junior WRC champion adds: "If I can do it [beat

Loeb], it's fantastic, but I don't focus on that. Some drivers in the past tried to do it, like [Francois] Duval, and it's not a good strategy. I don't want to wait, like Dani [Sordo]. You have to try to find the right balance."

For Loeb, the right balance was Loeb-Sordo. It delivered seven titles in four years.

"It was easier [when Dani was in the team]," says Loeb. "I knew how it would be: I was in front of him from the start of the season and he accepted easily to be the second driver, to

"If I can beat Loeb it's fantastic, but I don't focus on that"

Sebastien Ogier

score the points and do what the boss told him. And he accepted that I'm faster, so he didn't try. He was doing his best, but I was always in front. Now it can change. We have to stay in front, but it can be more complicated. I'm not the boss. I don't choose the drivers."

Sordo learned plenty from Loeb, then toed the line. Ogier dismisses any talk of a repeat of the teacher-pupil scenario.

"We exchange some information, but I want to be able to work alone, without him. I don't copy him. Being with Sebastien can be an advantage and a disadvantage, but I don't care about the other driver, I only care about me, what I want and where I want to be."

Loeb recognises the challenge ahead. He knows what's coming, but he's approaching it with the same integrity he always has. Ogier has already been typecast as the villain whose dastardly work can only undo the good done by the Loeb-Citroen alliance. Ogier's not going to lose any sleep over it. He's there to win. And nobody's going to stand in his way.

Asked how he gets on with Ogier, Loeb stares the question down and says, "At the moment, it's very well." ❧



CV

SEBASTIEN OGIER

AGE 27

2010 Fourth in WRC (2 wins)

2009 Eighth in WRC (1 podium)

2008 WRC debut;

Junior WRC champion

If it ain't broke, don't fix it

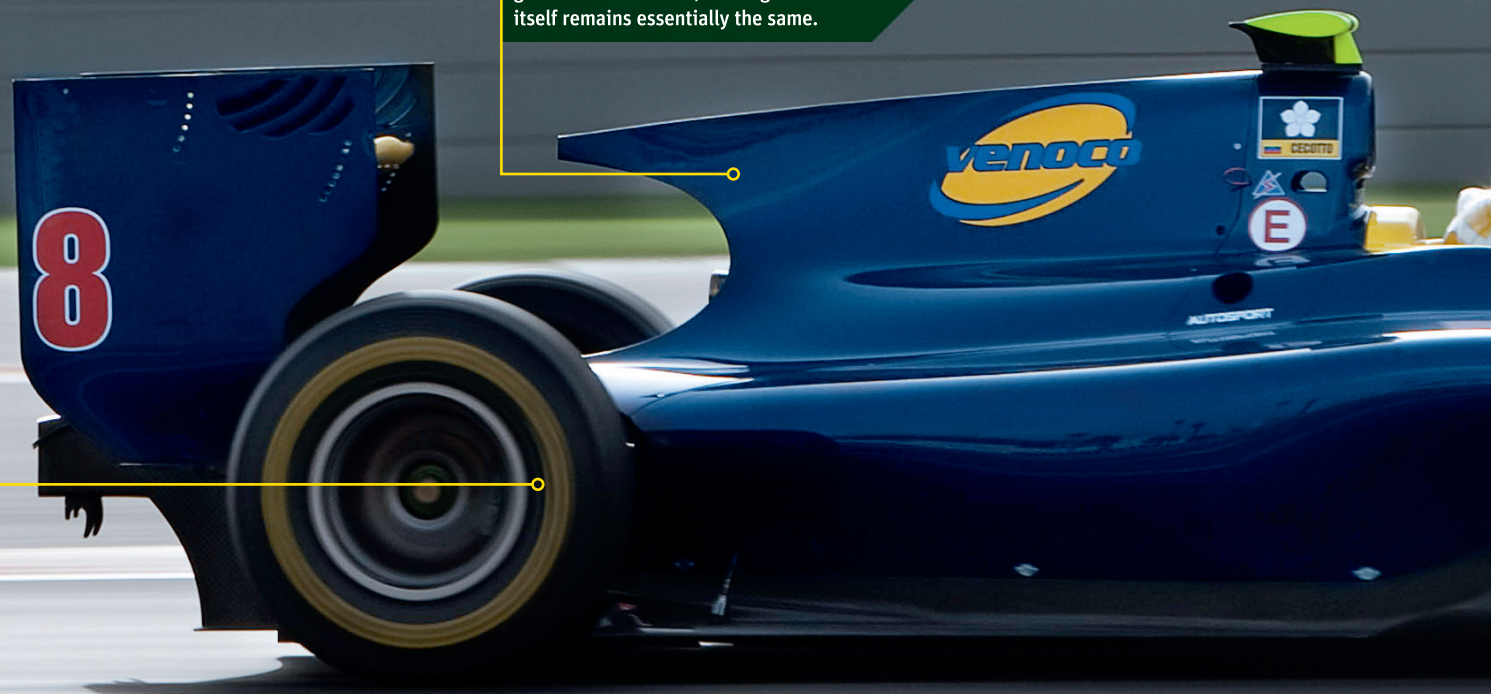
GP2's new Dallara races for the first time this weekend. It's the same, but different, says MARK GLENDENNING

NEW GEARBOX

● A brand-new Hewland gearbox has been introduced with the aim of lower costs and better reliability.

UPDATED AERO

● The car's aero profile has been completely overhauled to keep it in line with the current generation of F1 cars, although the chassis itself remains essentially the same.



DANI CLOS RACING ENGINEERING DRIVER

"The biggest change you notice to last year's car is the tyres – they feel completely different. You need a different driving style to make them work, and we're also going to have to be even more careful with degradation.

"Also there's the new gearbox, which will take some getting used to. The chassis is basically the same, but there

have been enough other changes that all the references we had are now worthless – we basically have to start from zero and build new set-ups.

"I think it's definitely going to be a great race car – I think you'll see a lot of cars going sideways. It will be interesting for the spectators, and also for the drivers."



Clos reckons he'll be sideways

DIDIER PERRIN GP2 TECHNICAL DIRECTOR

"I would say that any surprises with the new car so far have been good surprises, because we really haven't had any issues. We've reached a good level of performance, and it's exactly where we wanted it to be. Hopefully, it will be slightly faster than the old car at every circuit.

"As far as the new gearbox is concerned, none of the teams have mentioned it to me, which is a good sign because it means that they're not having problems! The drivers are apparently happy with the handling, and they have noticed a big difference with the Pirellis. We are getting substantial degradation on the rears, and that's what we want. F1 might think it's too much, but at our level we want to teach drivers how to look after their tyres.



Perrin: no news is good news

"Overall, I'm impatient to see what these cars are like in the races, and whether the changes we've made will give us the sort of races we're hoping for. Right now, I am feeling optimistic."



Jakes is one of five Brits. Main pic: Cecotto is with Super Nova

STALEY/GP2



SWITCH TO PIRELLIS

● Like Formula 1, the new GP2 car will run on Pirellis in 2011 after six years on Bridgestones. The new tyres are expected to degrade faster at the rear than their predecessors.

STALEY/GP2

TOM DAVIS OCEAN RACING TEAM MANAGER

"There's a good amount of new ideas in the new car where GP2 have tried to make things a bit different for us. The obvious change is the tyres – we've been getting various bits of feedback from the drivers, so the job has been to work out what comments relate to the drivers themselves and what are related to the tyres. The chassis is the same, but the gearbox is completely different, so that's another thing. Set-up wise, the aero and gearbox are different, but you can still use a lot of data from the old car. You just have to work out how to adapt it to this car."

"Is there potential for a shake-up of the order this year? Well, if a driver and team combination get a handle on the car before everyone else, then yes. There can definitely be a change, but it's too early to guess who it might be."

Davis says you can use old-car data



2011 GP2 ASIA DRIVERS AND TEAMS

No	Drivers	Team
1/2	Marcus Ericsson (S)/Sam Bird (GB)	iSport International
3/4	Josef Kral (CZ)/JoLyon Palmer (GB)	Arden International
5/6	Jules Bianchi (F)/Esteban Gutierrez (MEX)	Lotus ART
7/8	Fairuz Fauzy (MAL)/Johnny Cecotto Jr (YV)	Super Nova Racing
9/10	Romain Grosjean (F)/Pa'l Varhaug (N)	DAMS
11/12	Michael Herck (RO)/James Jakes (GB)	Scuderia Coloni
14/15	Oliver Turvey (GB)/Andrea Caldarelli (I)	Ocean Racing Technology
16/17	Charles Pic (F)/Giedo van der Garde (NL)	Barwa Addax
18/19	Stefano Coletti (MC)/Rodolfo Gonzalez (YV)	Trident Racing
20/21	Fabio Leimer (CH)/Julian Leal (CO)	Rapax
22/23	Nathanael Berthon (F)/Dani Clos (E)	Racing Engineering
24/25	Mikhail Aleshin (RUS)/Max Chilton (GB)	Carlin
26/27	Luiz Razia (BR)/Davide Valsecchi (I)	Team AirAsia

2011 GP2 ASIA CALENDAR

Date	Location
February 11/12	Yas Marina, UAE
February 18/19	Sakhir, Bahrain
March 12/13	Sakhir, Bahrain

Kick-off in Abu Dhabi



STALEY/GP2

Mike Conway

Recovery position

Eight months after his horrific Indy 500 crash, Britain's Mike Conway has a dream deal with Andretti Autosport. He talks to GLENN FREEMAN

Considering that your last IndyCar race ended in the Indianapolis catch fencing, what does it mean to be returning to the sport driving for Michael Andretti?

It's a dream come true really. I couldn't have asked for a better team to come back with. You look at the history of the family, and they've won everything. I don't think I could be in a better place. I've got to meet Michael and Mario a good few times, and they're really great guys. So there's a lot of knowledge there, and they can answer any questions from a driver's point of view.

In the days that followed your accident at Indy last year, what were you thinking about your future?

As soon as I was out of action we started thinking about 2011. But it was all a bit unknown. We tried to talk to everyone and see what was available, and then it all came together quite quickly with Andretti. It's a great opportunity and I can't wait to get back in the car and get going.

Did you have any concerns that your career was over?

Not really. I didn't think about it like that. I was just worried about getting back in the car. I knew that the injuries I had sustained were fixable, so it was just a matter of getting better.

What was it like going through the recovery process?

It was a new experience. I've never been through anything like that before. But we knew the injury, and we knew the kind of timeframe we were working to. I just had to work at it every day, focusing on getting better. I was so busy that I didn't have any time to think about other things. My mind was off racing a little bit. Obviously I knew the end goal was to get back in the car, but every day was just about chipping away and getting better. There was lots to do, so the time flew by.

How close did you come to making a return at the end of last year?

It was possible to do the last race, but to be honest I decided against it because there was nothing I was going

to gain from just doing one race. It was an oval [Homestead], so we didn't have a chance to win, because the [Dreyer & Reinbold] car hadn't been that strong on ovals. Plus it was a big race, with the fight for the championship between the top guys, so I think it was sensible to give myself more time to get ready for the next season.

How did the Andretti deal come together?

It was a case of seeing what was out there and what was available. It's always difficult in December and January – most of the teams don't really know what's going on 100 per cent, so it's a bit of a waiting game. It was a long wait through those two months, just keeping up to date with all the teams and seeing if they had any news. Then things start to fall in place, and it's a case of getting the ball rolling and seeing what you can do. Over a couple of weeks it all started to take shape with Andretti, and before we knew it we were putting pen to paper. It's a great feeling to finally have it done and dusted.

Does moving up to a big team change your goals for the season?

Yeah definitely. We had chances to win races last year [with Dreyer & Reinbold], but when you've got such a good foundation like they have at Andretti Autosport, with a great history and so many wins under their belts, you know you've got a real chance to win races. It's exciting to know that the car is able to win on road courses and the ovals, so you have to move your goals forward. With the ovals especially, I know that there's a good chance of getting podiums and wins at those tracks now. To be able to fight for wins and possibly the championship is what I've wanted in every championship I've raced in, so I can't wait to get in the car and start working with the team.

Are you looking forward to moving into a four-car team?

It's going to be very interesting. Marco Andretti, Ryan Hunter-Reay and Danica Patrick have all won races,

so hopefully we can work well together straight away. When you have four cars you can all try different things in practice and the whole team can move forward quicker.

When will you have your first outing with the team?

We're currently working on that. The team has its pre-season tests and the official test dates set, but we are trying to figure out if there's a chance to get in the car a little bit earlier. It's been a busy few days just speaking to everyone at the team and getting up to speed with what's going on, coming up with a plan of action. It's going to be a busy period.

You had a Formula 1 test with Brawn GP at the end of 2009. Do you still have ambitions to race in F1 or are you focused on success in America?

That test came up a bit out of the blue, but I obviously jumped at the chance to get back in a Formula 1 car because they are great to drive. But my focus is IndyCar now. This is where I want to be, and hopefully I can race here for many years. ☼





“The end goal was to get back in the car, but every day was about chipping away and getting better”



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Cameo Brawn run at Jerez in 2009

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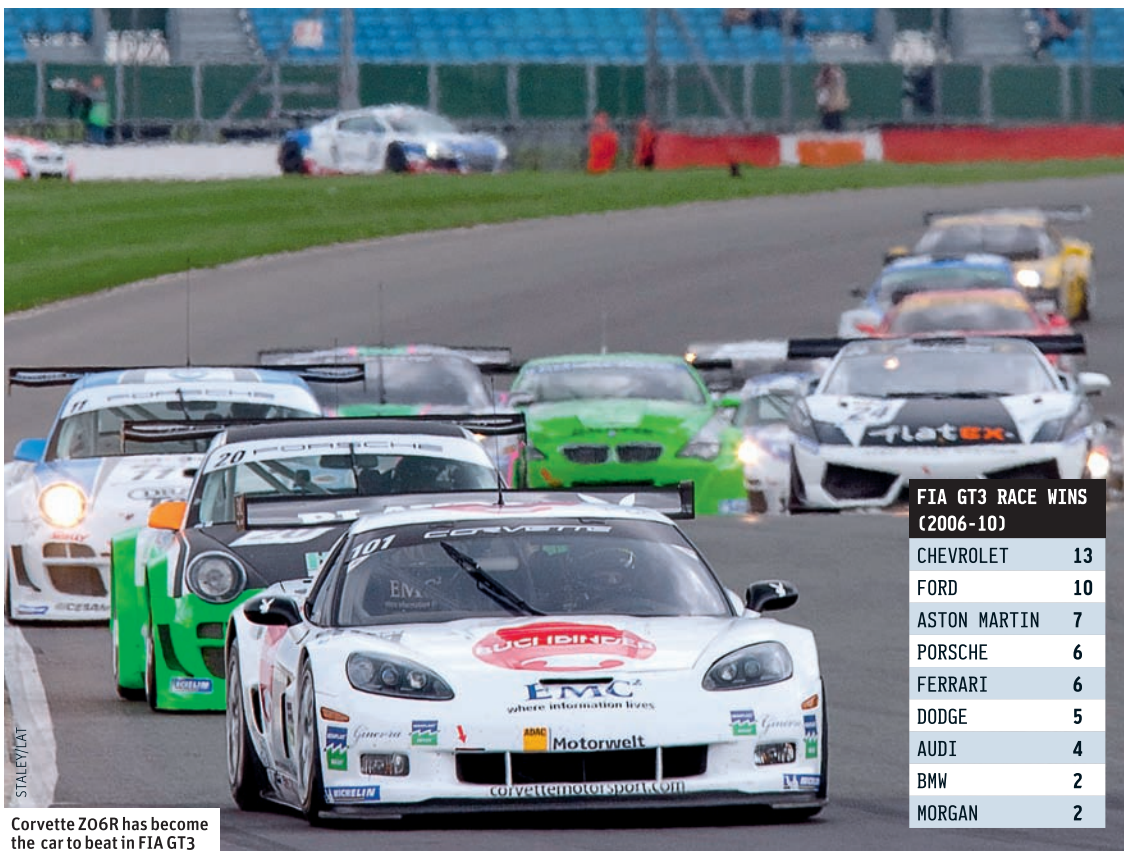
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Harvey joins Motorbase for Carrera Cup GB, p82



Corvette Z06R has become the car to beat in FIA GT3

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ASTON MARTIN	7
PORSCHE	6
FERRARI	6
DODGE	5
AUDI	4
BMW	2
MORGAN	2

Corvette to hit British GT

New BTCC team Speedworks adds Chevrolet V8 muscle car to its stable

A GT3 CHEVROLET Corvette will appear in the British GT Championship for the first time this season, as Speedworks Motorsport graduates to the top class of the series.

Speedworks, which ran the Ginetta G50 in which team boss Christian Dick and Jamie Stanley took the G4 class title last year, will run a Callaway-built Corvette Z06R in addition to its Toyota Avensis programme in the British Touring Car Championship.

Former British GT race winner Piers Johnson and the unrelated Ron Johnson, who shared an Invitation Class Speedworks G50 at the British GT Donington Park finale last year, will drive the 560bhp, seven-litre V8 machine in a full campaign.

Although the Corvette is not proven in Britain, it has been successful in FIA GT3. It has scored more wins in the championship than any other car (see box, above) and took Christian Hohenadel and Daniel Keilwitz to last year's European drivers' crown.

Piers Johnson, who has raced sporadically since a British GT campaign with an Eclipse Motorsport TVR in 2004,

said: "We did a couple of events with Speedworks last year and I asked Christian what he'd choose if he had the option to buy a GT3 car.

"He said the Corvette. We wanted to be different, we liked the option and it's within our budget."

Although the car has been hit with a smaller engine air restrictor and more weight than in 2011, thanks to its success in FIA GT3 last year, Johnson believes it will be on the pace. "It's worked well in Europe and hopefully it'll work well here," he said. "It'll also depend on how it works on the Avon tyres [used in British GT instead of the Michelins in Europe], but it should be competitive with the new cars out there."

Piers Johnson also confirmed that the move was part of a two-year plan, and that the team could race internationally next season. "It's a learning year in GT3 for Ron," said the 41-year-old. "We hope to get on the podium, then look at pushing forward. Ron wants to go to Le Mans, so we'll expand elsewhere in 2012 – it depends how the year goes.

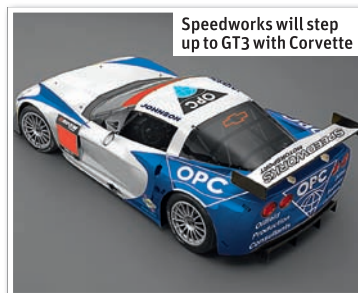
"Speedworks won the British G4 championship last year, they're a

relatively young team and they're good to work with. I think they can get bigger and better and I'd like to be part of that."

Dick added: "The Corvette is one of the most durable cars out there and it's cost-effective without compromise. When we first got involved in British GT we loved the environment and it was always the goal to step up.

"Piers and Ron can focus on bringing the car home and I think the longer races will be good for us. There's no reason we can't achieve a win by the end of the year."

Speedworks hopes to take delivery of the car in March, when it will begin testing ahead of the first British GT round at Oulton Park on Easter Monday.



Speedworks will step up to GT3 with Corvette

AUTOSPORT SAYS...

BEN ANDERSON
EDITORIAL ASSISTANT

ben.anderson
@haymarket.com



IS YOUNG blood a better bet than an old hand – or a pair of them? Redline Racing will hope so in 2011.

Team boss Simon Leonard's decision to run a pair of SAS-backed cars for James Sutton and Michael Meadows in the Carrera Cup GB, with Porsche scholarship winner Benji Hetherington, means there's no longer any room at the inn for the category's most successful driver.

So reigning champion Tim Harvey has jumped ship and gone to Motorbase (see page 82), to be team-mate to chief rival Michael Caine. These two have staged some fine battles in the Carrera Cup in recent seasons and are considered the benchmark for newcomers trying to establish themselves on this single-make GT scene.

Motorbase did a great job helping Caine pare back a large proportion of Harvey's points lead during the second half of last season – a fact that hasn't gone unnoticed by the wily 1992 BTCC champ – and Harvey will be hoping this engineering strength will pay off for him as the series prepares to introduce the latest spec of 911 GT3 Cup car.

But Redline is a strong team and Sutton is no slouch. He won the title with it in 2007 and only missed out on repeating the trick in '09 by four points, after sitting out the opening round.

If beating Harvey and Caine in two title fights wasn't enough, the ex-British Junior TKM karting champion also brings with him invaluable experience of the new car – having raced it sporadically in last year's Carrera Cup Italia.

Redline will be banking on this, and Sutton's superior head-to-head record, as its line-up of youngsters seeks to outdo the veterans.

Extra contact details

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kevin.turner@haymarket.com

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p86 PROFILE
ROBIN KNIGHT



Harvey won three races with Motorbase in 2006

Porsche Carrera Cup GB

Harvey joins Caine at Motorbase

Reigning Porsche Carrera Cup champion will team up with his regular arch rival for 2011

REIGNING PORSCHE Carrera Cup GB champion Tim Harvey will race alongside his arch rival Michael Caine at Motorbase Performance for the 2011 season.

Harvey is rejoining Dave Bartrum's squad after a four-year stint at Redline Racing, during which time he won 23 races and two titles. The most successful driver in the series' history last raced with Motorbase in 2006, alongside Caine.

"Due to the two-car SAS team [for James Sutton and Michael Meadows] there wasn't a position in the Redline team," said 1992 British Touring Car champion Harvey. "I'm grateful for the time at Redline and I would have stayed if the SAS deal hadn't happened, but I think Motorbase will do a very good job and I'm grateful to have a slot with them."

Former TVR Tuscan champion Caine feels having Harvey back alongside him at

Motorbase will strengthen his own push for a first Carrera Cup crown.

"Every year it gets closer and closer to my last year of racing, so I've got to win it this year," said Caine. "I think the new Carrera Cup car will be amazing and one of the benefits of having Tim as a team-mate is that we'll get on top of the car faster with both of us driving it. But I have to beat all the cars on the grid, whether they're team-mates or not."

Motorbase team boss Bartrum is delighted to have snapped up two of the most successful drivers in series history for his squad this year.

"To have two drivers of the calibre and experience of Michael and Tim in the team is great for Motorbase," said Bartrum. "There will be no team orders and it will certainly be challenging, [so] I'll need to employ my own unique style of management."

Formula Renault UK

Manor nearly full for Renault

FORMULA RENAULT UK teams' champion Manor Competition is close to finalising its four-driver line-up for 2011.

Manor, which carried Lewis Williamson to the 2010 runner-up spot, has already snapped up British Formula Ford race winner Josh Hill (son of 1996 F1 world champion Damon) and karting ace Jordan King. The team hopes to imminently add 2010 FRUK race winner Ollie Millroy and reigning FRenault BARC champion Alice Powell, who raced for Manor in FRUK in '09.

Team boss Tony Shaw said: "It's in the lap of the gods, but if everything comes

together we'll have the same four drivers rolling over from the Winter Cup to the UK championship."

While Millroy, who was sixth in the standings last season, would be a likely title contender, the team also has high hopes for its other three drivers.

King, who only made his car-racing debut last October, scored his first win out of karts last weekend in the Indian Formula MRF series at Irungattukottai.



Powell raced for Manor's FRUK team in 2009

SPEED/MSV F3

Kerr to race Ligier in SPEED series

FORMER A1GP star Robbie Kerr will race in the SPEED EuroSeries in a Ligier this season.

Kerr, 31, will share one of Lanan Racing's brace of Honda-engined JS51 chassis with Club F3 ace Alex Craven.

The ex-British Formula 3 champion last year coached Craven, who races the same Dallara F302 in which Kerr won the 2002 British F3 title.

Former F3 National Class contender Charlie Hollings and newcomer Mohsin Rashid will race the sister Lanan Ligier.

Lanan chief Graham Johnson said: "We've not run a Ligier before - only



Kerr's old ADR F3 car races on in Club F3

Pilbeam and Norma - and we've got to catch up quickly. Hopefully with Robbie and Charlie we can do that."

Craven will also continue in Club F3 (renamed MSV F3 Cup this season), alongside Kat Impey and Mark Terry. ● Ex-F1 racer Alex Caffi will also race in the SPEED EuroSeries, sharing a Wolf GB08 with Maurizio Fratti.

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Renault Clio Cup

Allison joins Scuderia Vittoria for Renault Clio Cup comeback

FORMER TOURING CAR racer and British GT class champion Matt Allison has joined Scuderia Vittoria for an assault on the Renault Clio Cup.

Allison took the GTC class in British GT with a Trackspeed Porsche in 2006. He then finished 12th in the BTCC in '07, driving a Motorbase SEAT, but has only raced sporadically since.

The 27-year-old will now return to the

Clio Cup, in which he finished third in 2005, for a full campaign with the new squad formed by Danny Buxton, Tom Ferrier and Piers Masarati.

"It's nice to be back," said Allison. "One-lap pace comes back fairly quickly, but it's the racecraft you get rusty on."

"I've had success in Clios before, so hopefully that can continue. I would be disappointed if we weren't in the hunt for the championship."

Masarati, who ran Allison to the British GTC title, said: "Matt is one of those drivers who you know will be quick in

front-wheel-drive cars and rear-wheel-drive cars.

"We're not expecting to come in and win the championship, but the package is strong and we're out there to take it to the established teams."



Allison will return to Clios with old GT boss Masarati

Radical UK Cup

Radical return to racing for Ellis

FORMER BRITISH GT champion Bradley Ellis will return to racing this year in Radicals.

Ellis took the 2007 GT title in an RPM-run Dodge Viper, alongside Alex Mortimer. He then competed in FIA GT3, but has not raced since the Silverstone round in '09.

Now Ellis, 23, will join new team Supreme Racing, which will work with experienced Radical squad KB Developments. He will share an SR3 RS in the UK Cup with team owner Andy Cummings.

"It's good to be racing

again and to be with Andy because he wants to improve," said Ellis. "He wants to step up to an SR8 next year."

Ellis and Cummings, who will also contest the Radical Clubman's Cup, will appear in the ORECA Winter Series (for GT,

sportscar and touring car machinery) at Paul Ricard this weekend.

Team manager Phil Bailey said: "If they get off to a good start, they'll stick with it [for the whole UK Cup season] - it depends how they go in the first two races."



Ellis (r) took '07 GT title with Mortimer

Toyota Racing Series

Evans wins again as Lynn falters

REIGNING TOYOTA Racing Series New Zealand champion Mitch Evans moved closer to a second title by winning two of the three races at Hampton Downs last weekend.

Evans twice resisted pressure from Russian Red Bull Junior Daniil Kvyat, either side of a second series win for New Zealand Formula Ford graduate Jamie McNee, to take his 2011 TRS wins tally to five from nine races and

continue his run of finishing on the podium in every race.

Fellow Kiwi Nick Cassidy moved up to second in the series after taking a trio of thirds, while Formula Renault UK Winter Cup champion Alex Lynn slipped to fourth. He was fourth in the first two races, but ran into Cassidy in the last and damaged his suspension.

Josh Hill finished all three races and scored a best result of eighth.

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Modsports E-types 'giant-slayed' by Elans

Last week's revelation that the CSCC is to provide a new home for dormant sports and saloon cars of the 1970s and '80s - with a pilot race at Mallory Park on August 29 to focus attention - has reawoken interest in a very popular era of British motor racing.

Talk of Special Saloons, Super Saloons and Modsports whisks me back to my teenage years, during which I followed club racing avidly, marshalled with the BARC, lap-charted for commentators Simon Taylor and Neville Hay, and eventually landed my dream job on AUTOSPORT. I always loved Special Saloons, and was always fascinated by the hybrids - machines like John Peachey-Austing's Hillman Imp-engined Mini 'Mimpi' and the Marshall brothers' Reliant Kitten, powered by their own engine - was always going to get hooked on the ultimate V8 monsters which spawned the 'Super' genre.

While it would've been easy to nail flags to the Gerry Marshall/Baby Bertha steamroller, my favourites were always Tony Hazlewood's DAF (which in rebuilt form I've driven a couple of times), John Turner's Skoda-Chevrolet S110R (later raced by Arthur Collier in Ireland) and Colin Hawker's DFW, now restored to Gordon Murray-designed De Cadenet 'Duckhams Special' Le Mans guise.

The Donington GT Championship was essentially the 'anything-goes' saloon and sportscar category of

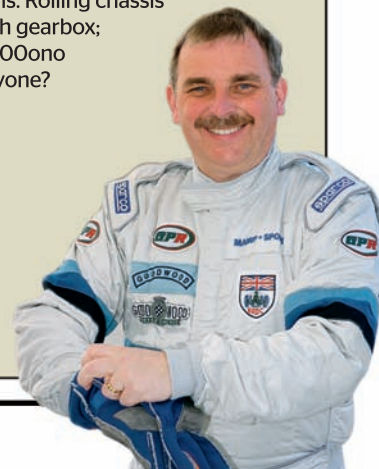
the next age. Rebodied single-seater and sports-racing cars were not uncommon and, while many of these have been returned to their original forms as values have risen, some doubtless survive and will be welcomed by the CSCC initiative.

Modsports cars, mandated to be truer to their roots, compelled too, and provided superb racing. Ask MSVR boss Jonathan Palmer, whose pace in a Ford V6-powered Marcos presaged a switch to single-seaters. Or those who slayed giants in Lotus Elans (Jon Fletcher, Richard Jenvey), Davrians (Bob Jarvis and the late Pat Longhurst in particular) and Mini-Jem/Marcos models (Ian Hall, Steve Roberts).

The dynamic of Modsports changed over the '70s as the Austin-Healey 3000s and Jaguar E-types of the '60s Marque Sports epoch were overpowered and outhandled. Eventually Porsche 911 Carreras ruled the roost, but the outright BARC and BRSCC national titles often fell to drivers who were more consistent in smaller classes.

When a friend announced last week that he would have to sell the unfinished Davrian Mk5 he'd owned for years, memories of joining Bob Jarvis in his three-wheeling Mk7 on a victory lap at Thruxton came back. Fortunately, I have neither a garage nor the requisite spanning skills. Rolling chassis with gearbox; £1700ono anyone?

"I always loved Special Saloons, and was always fascinated by the hybrid machines"



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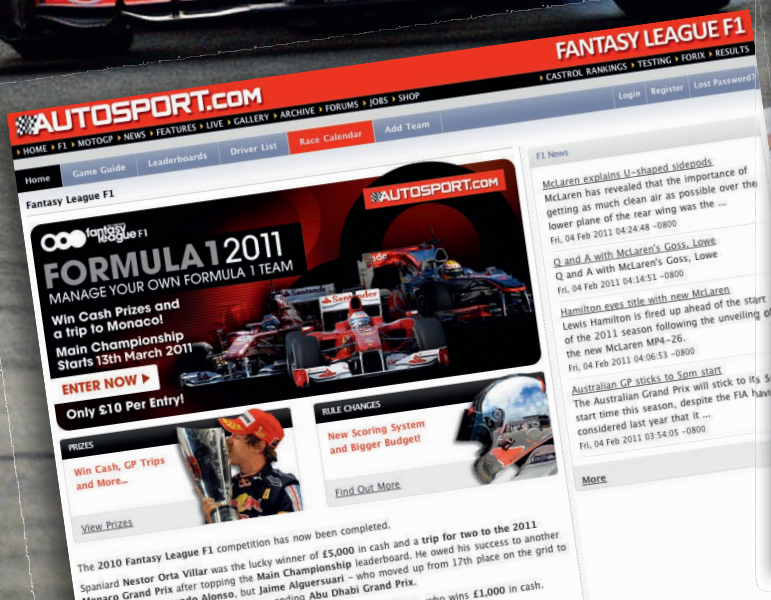
Philip Vernon - Warm-Up Championship Winner.

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IN BRIEF

REIGNING VW Cup champion Steve Chaplin will return to the series to defend

his title this season. Chaplin will again race his 'Herbie'-liveried Beetle RSI (left), while multiple race winner Aaron Mason will

also return, having fitted a DSG semi-automatic gearbox to his Golf GTI.

SWEDISH SQUAD Magic Racing will field a Ginetta G50 in the GT Cup class of British GT this season. Team principle Bjorn Gustavson will contest the Snetterton, Brands Hatch, Spa and Silverstone rounds with brother Anders and race alongside reigning G50 Cup champion Frank Wrathall at Donington.

RACING STEPS

Foundation driver Jake Dennis tested ex-Formula BMW machinery at Rockingham last week (above). Dennis, who will race the car for Fortec in Martin Phaff's revamped InterSteps category, was joined by KF2 karting ace Alex Walker at the test. Former Young Guns racer James Nutbrown drove for Falcon.

THE CLASSIC Sports Car Club will hold a one-off race for four- and six-cylinder Marcos cars at Castle Combe on Easter Bank Holiday Monday. The 30-minute race will form part of Combe's Spring Race Meeting. The CCRC's Open GT race at the same event will also include a class for Marcos V8-engined cars.

UNITED AUTOSPORTS team boss Richard Dean tested an ex-Michael Schumacher Benetton B191 on the Silverstone Stowe circuit last week (left). Dean's old F3000 team boss Colin Bennett recently restored the car for UA owner Zak Brown.

THE DONINGTON Historic Festival has been truncated from three days to two because of noise limits at the circuit. The Leicestershire venue has been restricted to no more than two consecutive 'noisy' days in 2011, meaning the festival will now run from April 30 to May 1.

BRITISH GT frontrunners Hector Lester and Allan Simonsen finished sixth in last weekend's Bathurst 12 Hours, sharing their Ferrari 430 GT3 with Luke Searle. The Joest Audi R8 LMS of Mark Eddy, Craig Lowndes and Warren Luff suffered a puncture, but finished only 3.5s shy of the winning sister car of Darryl O'Young, Marc Basseng and Christopher Mies.



Tasman Revival

Lyons' Lola topped F5000 at Ruapuna

Lyons roars to Ruapuna double

Formula Renault racer scores Tasman Revival wins in ex-A1 Unser Sr Lola

BRITISH RACER Michael Lyons broke his Formula 5000 Tasman Cup Revival duck by winning two of the three races in the annual Skope Classic historic festival at Ruapuna Park last weekend.

Driving the ex-A1 Unser Sr Lola T400, the 20-year-old Formula Renault racer qualified second to Steve Ross (McRae GM1) but slipped to third behind Canadian Jay Esterer (GM1) and local man Tony Richards (Lola T332) in Saturday's opening leg.

Ross was swamped at the start, so Richards fought off Lyons and led until the penultimate lap when Esterer - who had shattered the lap record - shot past to make it four wins on the trot. But he sustained engine damage in the process and was sidelined thereafter.

Lyons and Kiwi Richie Box's R&D team regrouped overnight and triumphed in Sunday morning's heat, and the feature finale. Ross and defending double champion Ken Smith

(Lola T430) completed the podium in race two, with Brit Peter Dunn (March 73A) fourth, sandwiched by Smith and his protege Andrew Higgins (T400).

Ross blasted ahead of Lyons in the big race, but lost out when he overcooked the final corner on lap four.

Ross kept second, clear of Mark Dwyer (T400) and former champion Ian Clements (T332), with Frank Lyons (Gurney Eagle FA74) fifth.

Points leader Smith retired.

CSCC

Thomas to race Elan in Modsports revival

FORMER MODSPORTS champion Pat Thomas will enter his Lotus Elan in the Classic Sports Car Club's Modsports, Super Saloons and Thundersaloons 'revival' event at Mallory Park.

The 1981 two-litre Modsports champion, who has been restoring Lotuses for more than three

decades, will race alongside Joe Ward's ex-Gerry Marshall Vauxhall Firenza 'Baby Bertha', Jon Lee in Tony Hazlewood's DAF V8, and Dave Taylor's ex-Mick Hill F5000 Trojan-based VW Beetle-Chevrolet.

The CSCC is hopeful the inaugural event on August Bank Holiday Monday could

attract as many as 18 cars and lead to further races.

"All the years I've waited to get back out on the circuits of the UK with my Modsports Elan, little did I think it would be very close

to my pension age before it happened," said Thomas.

"To anyone who recalls these wonderful cars and the great racing they produced, this really is a meeting to look forward to."



Lotus Elan will return to action at Mallory

HSCC

Historic F3 cars get stand-alone races at Cadwell



Svensson splashes to victory in Brabham BT28

CADWELL PARK'S Easter historic race meeting, run by the HSCC, will host stand-alone races for 1000cc and 500cc cars, plus a double-header for the Classic F3 series in its 25th anniversary season in 2011.

The 1000cc cars of 1964-'70, previously run as a class within the HSCC Classic Racing Cars series, will race first on the Sunday, April 24, then

again early on Monday's bill to enable overseas competitors to return home.

Among the cars expected to compete are the Brabham BT28 of defending CRC class champion Leif Bosson, which carried his Swedish compatriot Ulf Svensson to victory in the wet Lincolnshire International Trophy race at Cadwell Park in September 1970.

And it's good Knight from him

After 20 years at the helm, Robin Knight is to step down from the 750 Motor Club. MARCUS PYE looks back at his efforts



Stock Hatch has proved amazingly popular

August 1990 left some indelible marks on history: Iraq's invasion of Kuwait triggered the Gulf War; East and West Germany announced impending unification; the USSR collapsed; and a US spacecraft landed on Venus. Britain's little racing world changed too, when racer Robin Knight became the 750 Motor Club's first full-time competition secretary.

Having steered that ship prudently for 20 years – as well as chaired the RACMSA's Race Committee – Knight is retiring from what is now a powerhouse of race promotion. Successor Chris Norman brings considerably more hands-on experience than Knight brought to the party, but also has an extraordinary act to follow.

Knight was appointed following the untimely death (in February 1990) of Dave Bradley, who had run the club for two decades since its 30th anniversary. "I had my own estate agency at a time when banks, building societies and insurance companies were taking them

over and driving the small guys out," he recalls. "A great pal [and fellow Turner racer] Tony Broom was on the 750MC's board and suggested that I apply."

He landed the job, with Mike Peck taking over as general secretary – a position previously held by his father Colin – to oversee membership and Austin 7 matters. "Very fortuitously, Dave had sorted the fixture list.

Mike Hoggarth held my hand for the balance of the season, and I learned an enormous amount from Margaret Bradley [Dave's widow]," says Knight.

"Dave had grown the calendar to about 27 race meetings, although few – maybe 10 days – were run by the club. The BRSCC ran about half of the events at which rounds of our championships appeared, with BRDC, BARC and regional clubs in charge of the rest. After 1992, I couldn't see why we were giving so much away when we could be doing things ourselves.

"Club racing is driven by customer demand. In 2004-05, we too ran 27 race days [it's 18 this season], although

competitors were only getting 10-minute practices and 10-minute races at some. Time is precious to the modern clubman, who increasingly wants value for money – not pitch up at Lydden, have a short race, then go home as in the old days. Seven double-headers are much more attractive than 14 single races."

Nevertheless, it's not always been easy to stick to the club's low-cost, high-value ethos. "Unfortunately, we can't stop the cost of circuit hire going up, but I've always been conscious that the competitor inevitably bears the brunt of any increases," says Knight. "While the recession did not hit 2009 as hard as we had anticipated, grid sizes in some classes fell last year, which makes covering costs more challenging."

Numbers have not been an issue in the Stock Hatch, Locost and Road-Going Bike-engined (RGB) sportscar championships, which Knight is proud to have launched and nurtured.

"Stock Hatch evolved because support for the Hot Hatch series [for



RGB is another of Knight's success stories

INTO THE BREACH: NORMAN STEPS IN



Norman (third from left) succeeds Knight (second from left)

Chris Norman is very well connected. Indeed, his name featured regularly in the 750 MC's monthly Bulletin when Robin Knight took office in 1990. As competitions manager of the British Racing Drivers Club (and ultimately manager of the race department), he was the contact for four of the season's championship fixtures at Silverstone and Donington.

After 13 years at Silverstone, which had followed eight on the rally regulation side of the RACMSA, Norman joined the new Rockingham Motor Speedway at Corby in 2001 as circuit manager. There he masterminded the headline Days of Thunder and ChampCar events.

As a licenced international race director, the next phase of Chris's career took him to Dubai Autodrome in 2005 at

the birth of the Middle East's motorsport explosion. He stayed until mid-2007, developing its Speedcar, GT and 24 Hours events.

For the past two and a half seasons Norman, 52, has - through the BARC - headed up the events team at Goodwood, dovetailing this job with directing Formula BMW Pacific rounds in the humidity of Asia.

"That kept my hand in, but since my wife and I returned from Dubai and went to the 750MC summer festival at Silverstone it has been very much on the radar," he says. "I didn't think Robin would stop for years, but it's the perfect job for us and takes me back to my club racing roots at the BRDC. I've always said the two championships I wish I'd started are TVR Tuscans and Stock Hatch."



Locost provides close competition

more modified cars] was waning. We ran them together initially and, when people saw more cars produce closer, more exciting and cheaper racing, the Stocks took off. Registrations peaked at 159 in 2005, but fell to 97 last year.

"Locost is another phenomenon. We looked to the owners' club for guidance on engines and the Ford 1300GT was what the majority were using. Only bad building or buzzing will break one. Preparation is ever-improving and grids averaged 35 last season.

"RGB started as a flight of fancy, when Doug Newman surveyed his Caterham's empty engine bay and his 'dropped' bike and Paul Harvey engineered the marriage. Where else can you get a high-revving, all-steel 1100cc production engine, with five or six-speed gearbox, for £1000-£1500. We were paying that for Modsports engines in '86, but they weren't reliable."

Elsewhere in the club's armoury, Formula 4, FVee and the 750 Formula are in rude health due to insightful management and competitor input.

Britain's oldest racing class, 750F - rooted in 1950 with modified Austin 7s - has been saved from extinction by the inexpensive 1108cc Fiat engine. "[Club stalwart] Keith Messer warned racers that if they hadn't found a viable replacement for the [850cc] Reliant within a year it would die, so they did and it hasn't looked better," says Knight.

Robin has experienced plenty of highs and lows in the hot seat, but the sport has changed a lot since the 1990s. "Members' demands are changing, and while they are prepared to pay £350 for a Brands Hatch double-header, clubs have to react. Thinking on your feet, developing new ideas, has always been key to sustaining club racing. For 20 years I've been surrounded by excellent raceday teams who have made things happen. But I've run out of ideas, so it's somebody else's turn.

"But I'll still be around, certainly to help Chris [Norman] at Mallory Park's season opener, and am looking forward to being club steward at Snetterton. So you haven't got rid of me quite yet..."

YOUR SAY

What you think of the motorsport news of the past week



Kubica should have played safe

While wishing Robert Kubica a speedy recovery from his rallying accident, I have to question why the Renault team would allow their star driver to take part in such a dangerous sport just before the beginning of the Formula 1 season.

All the hopes for Renault's 2011 charger were firmly placed on Kubica's shoulders, and I'm sure there will be many team members who are livid with what has happened – particularly as the 2011 car has shown some real promise in the first test.

Duncan Sabiston, Didcot

EDITORIAL CONTACT mail@autosport.com

I had just finished reading the interview with him in AUTOSPORT (February 3) when I heard the news about Robert Kubica's crash.

What promised to be an encouraging year may be the turning point in his life.

I wish him all the best and a full recovery, but I am astonished why he drove that rally car in the first place and allowed himself the risk of such an accident.

Renault should have forbidden him from doing the rally in the first place.

Richard Schuurman
The Netherlands

One might say that posthumous recognition is a case of better late than never. So it is for Derek Gardner the creative and innovative design engineer.

Sir Jackie Stewart spoke from the heart in his personal tribute at Derek's funeral. He noted without equivocation that he owed his fame and good fortune to Derek's design skills.

Perhaps his greatest tribute was to remark that he lived to tell the tale due in no small measure to Derek's concern for the safety of his drivers.

A well-wisher and fan
Colchester

Looking at the new F1 cars (February 3), it is good to see that some of the teams have decided to make the number visible by putting it on the side of the car or on the sidepod wings.

Numbers on the nose are invisible when they go by at speed.

I realise that space on cars is valuable sponsorship space, but can we hope that every team will adopt the way Williams has placed its numbers?

Dennis Tyler
Brentwood, Essex

Looking at the new F1 cars in the magazine, one thing struck me. Concerns were raised over the legality of the Lotus roll hoop, but I think the other roll hoop structures are more worrying.

They are all undercut with two or four supports, which are only a few millimetres thick; they might pass the crash test conditions, but my fear is the structures could fail in real world conditions.

I just hope we don't see these structures tested on the track.

Niall O'Toole
Ireland

AUTOSPORT.COM

TOP FIVE ON OUR WEBSITE

1. KUBICA SUFFERS MULTIPLE FRACTURES
2. McLaren REVEALS MP4-26 IN BERLIN
3. KUBICA HOSPITALISED AFTER RALLY CRASH
4. RENAULT CONFIDENT IN RADICAL EXHAUST
5. McLaren EXPLAINS U-SHAPED SIDEPODS

AUTOSPORT.COM PLUS

TOP STORY ONLINE

GARY ANDERSON'S PRE-SEASON TECH BLOG

To read this exclusive feature and many others like it, log on to autosport.com/plus and choose which package you'd like. A month will cost £5.50, a year £46. Includes access to Forix – the ultimate stats website.

WIN!



ROAD ANGEL VANTAGE

This week's star letter will receive a Road Angel Vantage – a dedicated safety camera and blackspot locator that displays the legal speed limit of every road you drive, automatically and wirelessly updating its database every few minutes as you drive. For more details on Road Angel visit www.roadangelgroup.com Please ensure that your full address is included on all correspondence.

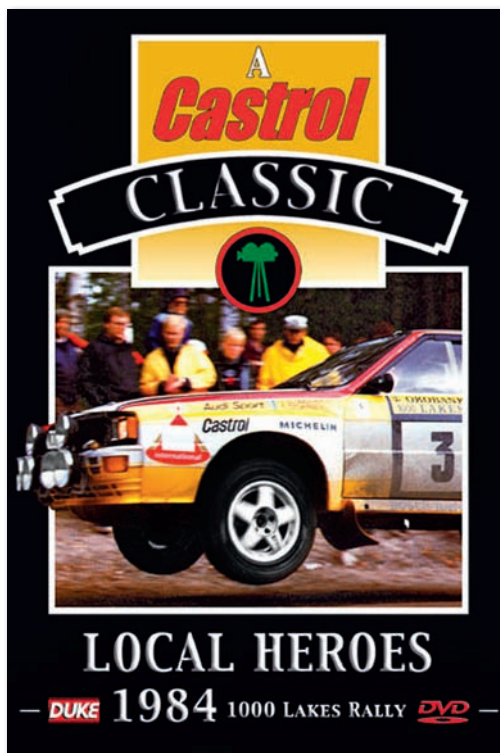
CORRECTIONS AND CLARIFICATIONS

● In last week's Snapshot (page 8), we said it was Jim Lowe spinning the Starworks Riley-Ford. In fact it was Mike Forest. Thanks for pointing that out Jim!

It is the policy of AUTOSPORT to correct significant errors as soon as possible. Please note the issue date and page number when contacting us on autosport.editorial@haynet.com

THE LATEST GEAR

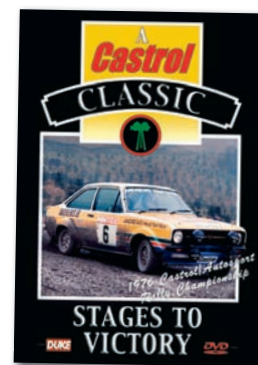
The most desirable new releases for motor racing fans: books, DVDs, models, art and gifts



CASTROL CLASSIC RALLY DVDs

From £10.99
dukevideo.com

A series of retro gems from the Castrol films archive that'll have rally fans left-foot braking and reaching for their handbrakes. Five of the mostly hour-long films are here – *Local heroes* (1984 1000 Lakes), *Tale of three rallies* (Rally Danube '78/Sanremo '79/RAC '80), *Flying Finns* (1000 Lakes '68/Burmah '74), *Stages to victory* (Castrol/AUTOSPORT series '76), *A dash of the Irish* (Circuit of Ireland '71) – while *Twilight zone* (Sweden '82) and *A place in the sun* (Tour de Corse '83) are also available from Duke – the masters of DVD blasts from the past.



SCALEXTRIC ASTON LMP1

£36.99
scalextric.com

Last year's Lola Aston Martin LMP1 prototype has been given the full Scalextric treatment and even at this size it looks mega. The slot racer features classic Gulf livery, working Xenon headlights and every racer's favourite cheat: Magnatraction (translation: more grip and fewer shunts!).



SEBRING 1970 T-SHIRT

£29.99
gearboxgifts.com

Another winning design in the Nicolas Hunziker range, this 100 per cent cotton T-shirt pays homage to Steve McQueen's 3-litre class win and overall second place in the 1970 Sebring 12 Hours with the Porsche 908 he shared with Peter Revson. The T-shirt is fully licenced by the Steve McQueen Trust.



LOTUS CORTINA 1:18

£102.12
autosport.com/shop

Fans of saloon-car racing of the 1960s will love AutoArt's 1:18-scale Alan Mann Racing Ford Lotus Cortina used by racing Baronet John Whitmore during the 1964 European Touring Car Championship.

The red-and-gold racer comes with staggering detail, including opening bonnet, boot and doors.

HOT ON THE WEB THIS WEEK

YOUTUBE: MCLAREN MP4-26 LAUNCHED IN BERLIN



SEARCH FOR: McLaren Launch 2011 F1 Challenger (3:48)
McLaren bucked Formula 1's Valencia-based launch trend last week by unveiling its MP4-26 racer in Berlin. For more details of the new car and the team's chances in 2011, see page 38 of this issue.

WHAT'S ON...

Your guide to the best events taking place in the UK and around the world this week – plus TV and online

V8 SUPERCARS

Rd 1/14

February 11-12

Yas Marina, Abu Dhabi, UAE

www.v8supercar.com.au

There's not been much of an off-season in which to relax, especially with a raft of driver/team switches, but the Aussie V8 pack is back in action on its annual flyaway to Abu Dhabi to kick off 2011. James Courtney is back to defend his title with the works Holden team after his off-season switch from DJR.



Strewth! It's time for Aussie V8s once again

GP2 Asia kicks off at Yas Marina on Friday



GP2 ASIA

Rd 1/3

February 11-12

Yas Marina, Abu Dhabi, UAE

gp2series.com

WORLD RALLY CHAMPIONSHIP

Rd 1/13

Rally Sweden

Karlstad, Sweden

February 10-13

wrc.com

NASCAR BUD SHOOTOUT

February 12

Daytona, Florida, USA

nascar.com

ACCESS ALL AREAS

Our guide on how to keep the motorsport flame burning through the cold winter months

ELECTRIC KARTING

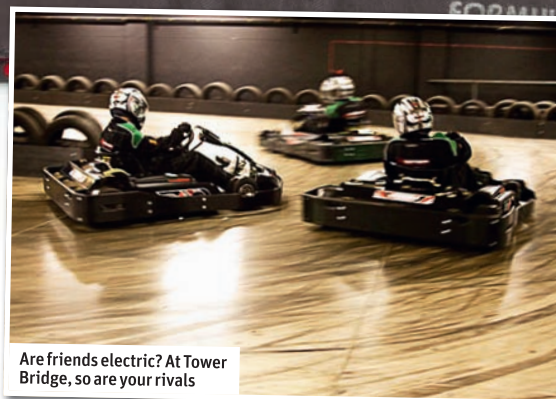
CREATING A good indoor karting facility is difficult. As space is usually limited, the goal is always to fit as much track into the smallest amount of space possible. The result of that is often an unbearably twisty layout, which traditional, underpowered four-stroke karts are not particularly well suited to.

But London has a new indoor kart track that tackles the issue of limited space and underpowered karts head on. And it's hard to tell which of the features is more remarkable. TeamSport

Tower Bridge features a track that is laid out on two floors (yes, really), and, wait for it... electric karts.

AUTOSPORT headed into London with some scepticism recently, but we were pleasantly surprised. Like the diesel prototypes that dominate at Le Mans these days, the karts are almost silent. But that is more noticeable from the outside rather than when you're charging around the track.

The main benefit of the electric karts is that, unlike their petrol-powered counterparts, all of the power



Are friends electric? At Tower Bridge, so are your rivals

is delivered as soon as you hit the pedal, so heavier racers will be pleased to hear there's no chugging to get going. On a smaller track this makes the racing far more enjoyable, even if the top speeds are not too great. But it's still quick enough for an indoor track with

only a couple of straights.

Racing on a track with pretty steep ramps is a different experience too, but the layout is challenging enough that it doesn't feel like a gimmick.

Visit www.team-sport.co.uk/london-tower-bridge for full details.

Television

THURSDAY FEBRUARY 10

0900-1210,1650-2000 **Motors TV**
Asian Festival of Speed
1005-1110,1830-1935 **ESPN Classic**
World Rally Classics
1545-1650,2205-2305 **Motors TV**
V8 Supercars Review
2330-0030 **ESPN**
WRC: Rallyworld
2330-0030 **Sky Sports 4**
Racemax

FRIDAY FEBRUARY 11

1010-1115,1830-1935 **ESPN Classic**
World Rally Classics
1330-1430 **Motors TV**
V8 Supercars Review
1430-1630 **Motors TV LIVE**
V8 Supercars: Abu Dhabi race one
James Courtney begins his title defence after switching from Ford to Holden.
1400-1515 **Eurosport 2 LIVE**
GP2 Asia: Abu Dhabi race one
Feature race action as F1's premier feeder category gets its Asian series underway.
1615-1715 **ESPN**
WRC: Rallyworld
1630-1730,2300-0000 **Eurosport 2**
GP2 Asia: Abu Dhabi race one
1925-2130 **Motors TV**
V8 Supercars: Abu Dhabi race one replay
2130-2200 **ESPN**
WRC: Rally Sweden day one
Action from the first day of the first world rally of the new 1.6-litre turbo era. Can Ford take the fight to Citroen this time?
2235-2340 **Motors TV**
WRC: Rally Sweden day one

SATURDAY FEBRUARY 12

0115-0215,0900-1005,1210-1310,1635-1735 **Motors TV**
WRC: Rally Sweden day one
0345-0415,0615-0645,1430-1500 **ESPN**
WRC: Rally Sweden day one
0900-1000 **Bloomberg**
Race of Champions 2010
1200-1245 **Eurosport 2**
GP2 Asia: Abu Dhabi race one
1430-1635 **Motors TV LIVE**
V8 Supercars: Abu Dhabi race two
1700-1730 **Eurosport 2**
GP2 Asia: Abu Dhabi race two
2035-2235 **Motors TV**
V8 Supercars: Abu Dhabi race two replay
2145-2215 **ESPN**
WRC: Rally Sweden day two
2235-2340 **Motors TV**
WRC: Rally Sweden day two

SUNDAY FEBRUARY 13

0110-0215,0900-1005,1210-1310,1515-1620 **Motors TV**
WRC: Rally Sweden day two
0600-0630 **ESPN**
WRC: Rally Sweden day two
1400-1515 **ESPN LIVE**
WRC: Rally Sweden powerstage
The first of ESPN's regular live broadcasts from the WRC, as Rally Sweden reaches its conclusion.
1825-2030 **Motors TV**
V8 Supercars highlights
2145-2215 **ESPN**
WRC: Rally Sweden day three
2235-2340 **Motors TV**
WRC: Rally Sweden day three

Online

AUTOSPORT.COM

Coming up on the web this week

JEREZ F1 TEST & WRC

Pre-season Formula 1 testing continues at Jerez from today (Thursday), and you can follow the whole thing with AUTOSPORT's live-text commentary free on the website. This week also sees the 2011 World Rally Championship kick into life and, of course, we will be bringing you all the build-up and blow-by-blow news as it happens from Sweden.



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REVVED UP OVER WHAT'S ON THE BOX

We cast a critical eye over the best and worst of this week's TV coverage



RALLYING HAS moved up a gear on telly this year. Following Eurosport's unswerving live commitment to Monte Carlo deserving some sort of award, the WRC has channel-hopped from Dave to ESPN for 2011.

This weekend's Rally Sweden will give us our litmus test of whether it can justify being on a subscription-only channel, with Sunday's live 'powerstage' (not to be confused with AC/DC's fifth studio album of almost the same name). There have been a couple of preview shows – all of which feature incessant background drum beats, giving an insight into

what it would be like to live next door to The Prodigy. The best of these was this week's *WRC – Road Car to Rally Car*.

Its promise of exclusive footage of the new Mini Countryman, from prototype to the first test runs, is lived up to. Let's get one thing straight: the Countryman is the worst name for a rally car ever. Why didn't they call it the Mini Green Welly, or Mini Barbour Jacket or Mini Stiff Upper Lip? I'll settle on the Mini Countryfile.

From the start, Prodrive chief David Richards declares himself "never so excited about any motorsport programme". Bold words! To underline

his enthusiasm, old footage of Minis, Escorts, Pug 205 T16s and the like – in other words, the good old days – are shown, which overshadows the spectacle of today's breed of 1.6-litre hatchbacks. After developing an alarmingly swirly yellow paintjob, we see the Countryfile driven in anger at Prodrive's test track and then during a top-secret gravel test in Portugal (no mention of Markko Martin rolling it!).

Never one to parp on his trumpet when a loud

blast will suffice, Richards concludes: "I've never been more confident about any car we've developed before."

We have to wait until later in the year to see if DR's sky-high ambitions are realised, but it was up to ESPN's *WRC Rally World* show to provide a reality check, courtesy of Matthew Wilson: "Instead of scoring sixths and sevenths this year, we need to be getting close to the podium." So, fourths and fifths then... *Revved Up*

"Rally Sweden will give us our litmus test of whether the WRC can justify being on a subscription-only channel"

THE WEEK IN PICTURES

The lensmen pounding the beat from Bathurst to Berlin



GIBSON/GP2

NOT A GREAT WAY TO PREPARE FOR THE SEASON OPENER

Briton James Jakes walked away from a big testing shunt last week at Yas Marina ahead of this weekend's opening GP2 Asia round



NOT A BAD COMBINATION...

Craig Lowndes in an Audi R8 around Bathurst's Mount Panorama. Classic

AUDI



DUNBAR/LAT

'CHECO' EXPLORES THE LIMITS OF HIS NEW RACER

F1 rookie Sergio Perez held nothing in reserve at Valencia



TEE/LAT

F1 INDUSTRIAL ESPIONAGE IS TAKEN TO THE NEXT LEVEL

McLaren's security was called into question after two random people walked off with MP4-26's new front wing at its launch

GET WELL SOON, ROBERT

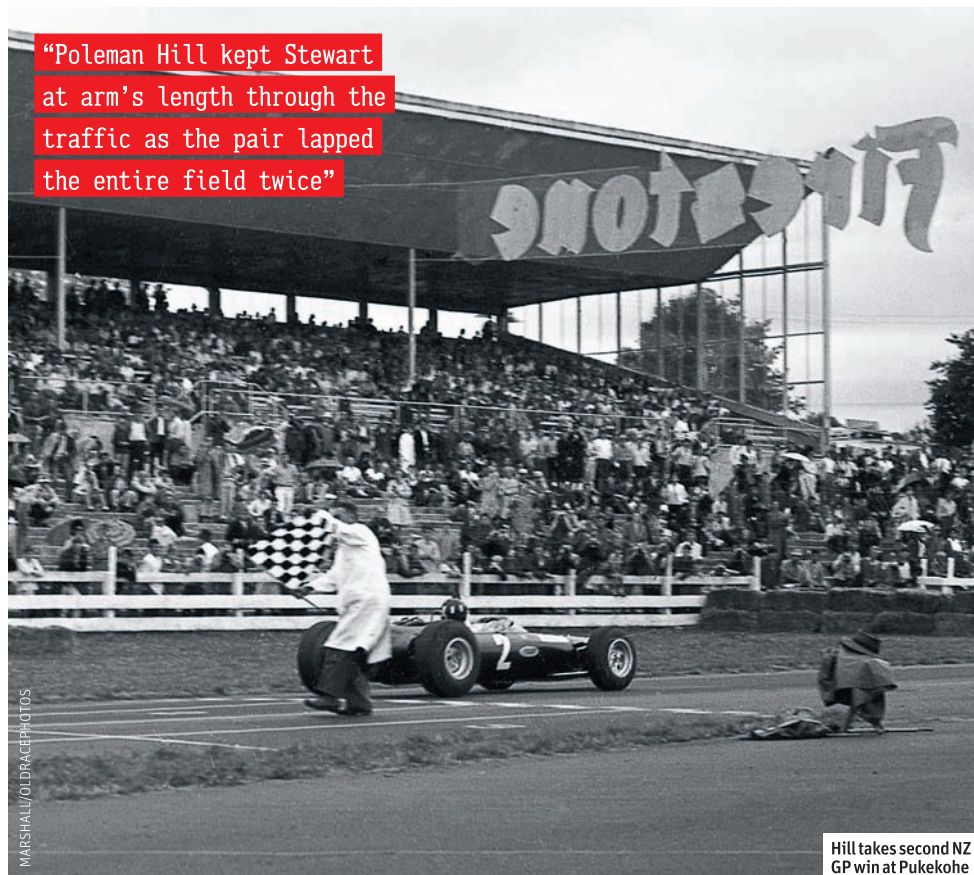
Hopefully last week's Valencia test won't be the last time we see Robert Kubica in F1 action for Renault in 2011



DUNBAR/LAT

FROM THE ARCHIVE

Graham Hill, New Zealand GP, Pukekohe, 1966



"Poleman Hill kept Stewart at arm's length through the traffic as the pair lapped the entire field twice"

Hill takes second NZ GP win at Pukekohe

WHEN JOSH HILL contests this weekend's New Zealand Grand Prix at Manfeild, he will have the chance to emulate his double F1 world champion grandfather Graham, who won the event in 1965 and 1966.


The younger Hill is currently contesting the five-round Toyota Racing Series – a New Zealand Formula Renault equivalent that has incorporated the NZ GP since 2006. Back in Graham's day, the race was for 2.5-litre single-seaters competing in the Tasman Cup series, and some of the best drivers in the world would make their way to the South Pacific island to take part.

When Scottish ace Jim Clark was eliminated in a second-lap shunt with Bruce McLaren in '65, Hill Sr had taken the Pukekohe counter at a canter driving a Brabham-Climax for David McKay's Scuderia Veloce. Front-row starter Clark's curse struck again in '66, only this time his Lotus-Climax stripped first gear at the drop of the flag – triggering a chain reaction that did for the Brabhams of Frank Gardner and Andrew Buchanan.

AUTOSPORT's report claimed this "catastrophic start immediately shredded much of the interest out of the

race for the 35,000 people who braved temperamental weather to see the stars at work". Clark fell to the back of the field as Owen Racing BRM team-mates Hill and Jackie Stewart asserted themselves at the front. Clark reportedly "threw caution to the wind" in his efforts to catch up to the pack, but further gearbox trouble put him out after just six of the 40 laps.

The BRMs remained unconcerned and unflustered at the front, as they continued to draw away from the rest. Poleman Hill, who had equalled Bruce McLaren's unofficial lap record in qualifying, kept Stewart at arm's length through the traffic as the pair lapped the entire field twice. Even a mid-race rain shower failed to knock Hill off his stride as he commanded the race, and the fact both BRM men were running the same all-weather Dunlop rubber no doubt contributed to the stalemate.

The track dried out in the closing stages and Stewart had one last go at catching his team-mate. The Scot pared fractions of a second from Hill's lead during the final five laps, but the Englishman held on to complete his Kiwi double by 1.5 seconds in a 'grandstand' finish. 

THIS WEEK IN...

FORMULA 5000 IN DETAIL - RALLY RECORD - TASMAN
AUTOSPORT
Brazil: Peterson claims pole but Emerson wins



FEBRUARY 15, 1973

RONNIE PETERSON claimed pole for only his second race with the new JPS Lotus-Ford 72D at Interlagos (above). The rapid Swede was dicing hard with Jackie Stewart's Tyrrell for second place in the early running, before a broken wheel put him out of a race won by his reigning world champion team-mate Emerson Fittipaldi.

Our review of the 1972 F5000 season declared Graham McRae as the undoubted star of the category (below). He won the Australasian Tasman Cup series, walked off with the SCCA's L&M Continental championship in the US, and would have won the European title but for a disqualification from victory in the first round at Brands Hatch.

He overtook Brian Redman under a waved yellow flag and, although it was waved for oil rather than an incident, the penalty remained the same. The extra nine points would have given McRae the F5000 Triple Crown.



**NEXT
ISSUE**



Can the Australian put 2010 loss behind him?

MARK WEBBER

Mark Hughes on Red Bull racer's hopes

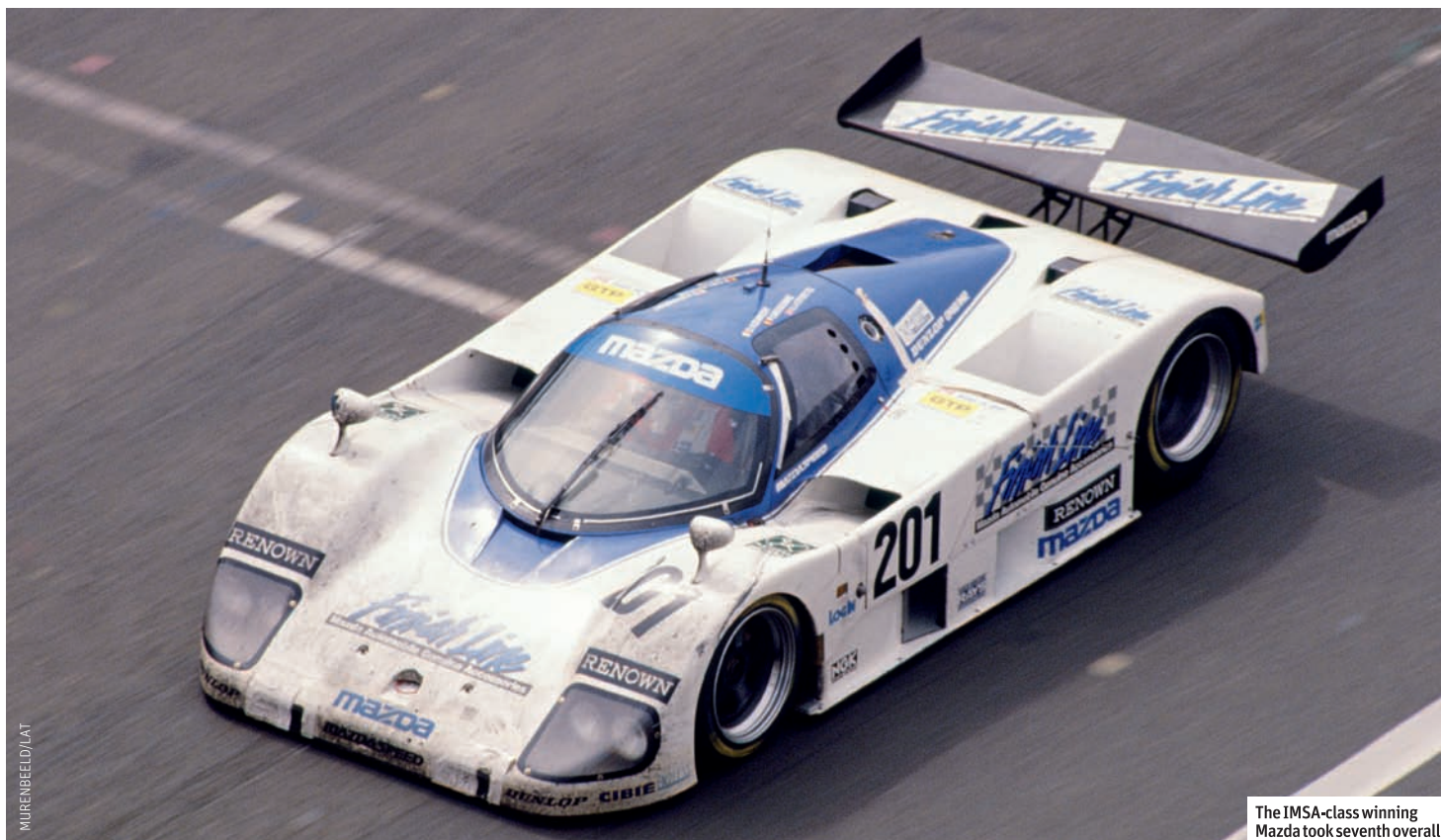
On sale Feb 17

PLUS

NASCAR season preview;
Rally Sweden report; GP2
Asia opener from Abu Dhabi

CHRIS HODGETTS

■ Le Mans 24 Hours ■ June 10-11, 1989 ■ Mazda 767B ■ Last-minute drive leads to IMSA-class victory



The IMSA-class winning Mazda took seventh overall

THERE'S NO doubt about what I'd choose as my best race – but it almost didn't happen. I'd done Le Mans with Tim Harvey and John Sheldon in 1988 in the Tiga but didn't have a drive for '89.

I loaded up my motorhome – with overalls and helmet just in case! – and went down there on a wing and a prayer. I decided to go over to scrutineering for a look around on the Tuesday. There was a tap on my shoulder and it was David Kennedy telling me one of the Mazda guys, Yoshimi Katayama, had been taken ill and I was in.

This was a full-blown, three-car factory team so I couldn't believe my luck. There was quite a lot of resentment that I'd got the drive, so I was going to have to make the most of it. The rotary-engined Mazdas were mega – ironically I'd heard them 'whoop-whooping' in a test at Silverstone the week before and gone and had a look.

On the Wednesday at Le Mans I walked into the paddock and there were the three 767s, and a caravan with my name and a union flag on it. Unreal!

I rang the missus to tell her

"On the Wednesday I walked into the Le Mans paddock and there were the three 767s and a caravan with my name and a union flag on it. It was unreal!"

and all she was worried about was where some huge payment had come from. Mazda had paid me before I'd even sat in the car!

Come qualifying, I was third out in our car after Kennedy and Pierre Dieudonne – on slicks in the wet. I was sensible and to my surprise,

because I was shitting myself going down Mulsanne flat-out in that thing, quite quick. They gave me a lap time to do and I easily did it.

Come race day, I felt a tonne of pressure. The team heaped loads of responsibility on me and I like to think I got respect for it. David

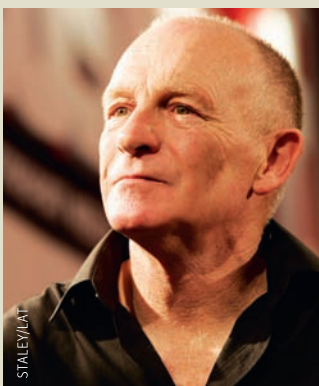
and I were triple-stinting in the night because they rested Pierre. I remember having a great dice with one of the Ferte brothers in the Silk Cut Jaguar at qualifying pace towards the end. We had to pit with a broken nosebox in the final few hours but we finished seventh and won the IMSA class.

Being up on the podium with the Brits cheering below was staggering and brought tears to my eyes.

Afterwards, Mazda flew us all to Japan for a party and factory tour and the sight of 25,000 workers watching us being paraded up and down, with fellow driver Takashi Yorino donutting and spitting flames on the factory floor, will stay with me forever. ❏

Chris Hodgetts was talking to Henry Hope-Frost

IN PROFILE



CHRIS HODGETTS made a name for himself in the cut and thrust of the multi-class BTCC during the 1980s, taking back-to-back outright title success in 1986 and '87 in a Toyota Corolla. He graduated to the big class with a Ford Sierra RS500 in the late '80s, but couldn't quite match frontrunners Andy Rouse and Robb Gravett. His sportscar racing exploits brought bigger success – he was BRDC C2 champ in 1988 and won the TVR Tuscan title in '90, before landing a British GT class title for Marcos in 1995. He now oversees ex-BTCC racing son Stefan's successful one-make career.

NEXT WEEK

Luis PEREZ SALA





Sno*Drift Rally

SS3: East Fish Lake

Jan 28, 2011

Nikon D3s • 24-70 F2.8

1/500 sec • f/5.6 • ISO 400

Photos: Lars Gange - SRT USA



DAVID HIGGINS

Trefeglwys, Powys, Wales

CRAIG DREW

Forest of Dean, Gloucestershire, England
CO-DRIVER

INTRODUCING THE 2011 SUBARU



DAVE MIRRA

Greenville, North Carolina, USA

MARSHALL CLARKE

Enniskillen, Fermanagh, Northern Ireland
CO-DRIVER

SUBARU RALLY TEAM USA DRIVERS



2011 Rally America Championship

1 SNO*DRIFT
Atlanta, Michigan
January 28 - 29

2 100 ACRE WOOD
Salem, Missouri
February 25 - 26

3 OLYMPUS
Ocean Shores, Washington
April 30 - May 1

4 OREGON TRAIL
Portland, Oregon
May 13 - 15

5 SUSQUEHANNOCK TRAIL
Wellsboro, Pennsylvania
June 3 - 4

6 NEW ENGLAND FOREST
Newry, Maine
July 15 - 16

For photos, videos and team info visit subaru.com/rally



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