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# **AUTOSPORT**

## HOW TO SPEND **£220 MILLION** ON A FORMULA 1 CAR



**ENGINE £1M**

**STEERING WHEEL £35K**

**CHASSIS £1.2M**

**REAR WING £250K**

**FRONT WING £350K**

\* COSTS TYPICAL OF FRONTRUNNING TEAM

## **GOODWOOD GREATS**

**BUTTON STARS AT  
FESTIVAL OF SPEED**





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# How do they really spend that much?

McLAREN'S TECHNOLOGY CENTRE IS A DEEPLY impressive facility. And so is Ferrari's Maranello HQ. Indeed, visit any Formula 1 base and it's easy to be struck by the scale and professionalism of it all.

But it's also hard not to be taken aback by the fact that much of what you see is there just to run two cars for one season of motorsport. The resources required are, by any sporting measure, immense. So where does all that money go?

In our cover feature, Lawrence Barretto investigates the costs of running an F1 team, and picks out the areas in which the bigger squads can gain an advantage, despite restrictions on areas such as testing. His revealing work on the driver salaries is also interesting. Daniel Ricciardo looks like good value to us...

- As well as the far wider ramifications, the result of last week's EU referendum poses a big challenge to UK motorsport. Words like 'risk', 'worry' and 'concern' came up a lot when Autosport contacted key figures for a response. We may have to wait some time for the true impact to become clear. It certainly won't make it any easier for us to bring you coverage of the best of European motorsport, but – like everyone else – we will endeavour to minimise the impact and continue to do what we always have done.



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**COVER IMAGE**  
Mercedes; Hawkins

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HOW TO SPEND

# £220 MILLION

ON A FORMULA 1 CAR

By Lawrence Barretto, F1 Reporter

[@lawrobarretto](#)

**RADIATORS £215,000**

**FRONT WING £350,000**

**ENGINE COVER £7500**

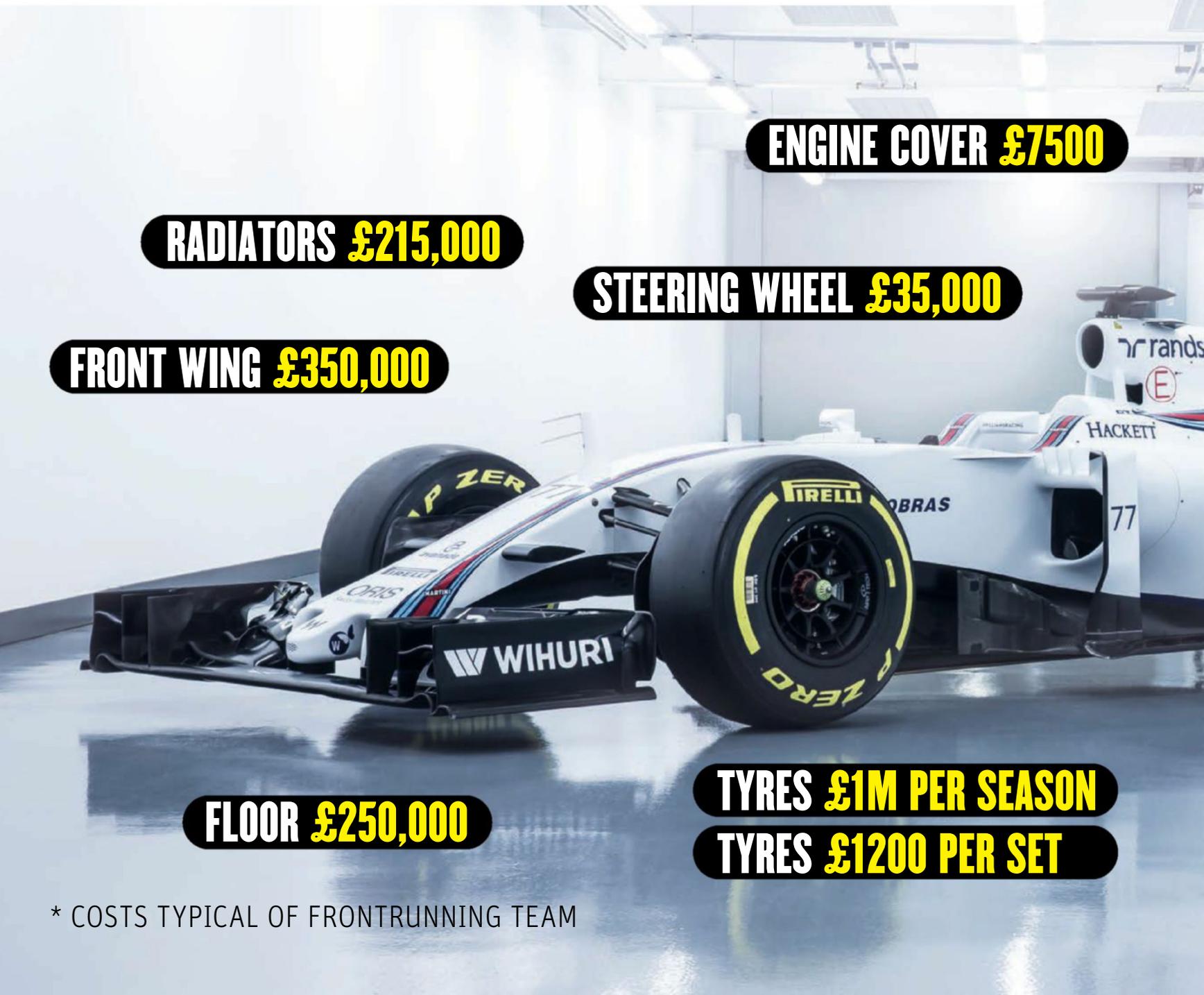
**STEERING WHEEL £35,000**

**FLOOR £250,000**

**TYRES £1M PER SEASON**

**TYRES £1200 PER SET**

\* COSTS TYPICAL OF FRONTRUNNING TEAM





**EXHAUST £50,000**

**REAR WING £250,000**

**MONOCOQUE £1.2M**

**BRAKES £325,000 PER CAR**

## HOW DO YOU SPEND £220 MILLION\* ON A FORMULA 1 TEAM?

Such a vast budget is a luxury only the top Formula 1 teams enjoy, but it is a figure that recent history has shown to be required to win races and the world championship.

It sounds a little more reasonable when you consider that £220m is only just marginally higher than Premier League squad Chelsea FC's player-only wage bill for a single season, but it remains a remarkable amount of money.

Assembling this article was an ambitious undertaking, a challenge more complex than the simple process of placing a figure on each component and then adding them up. Costs and processes vary from team to team and the amount of development is also variable.

A 'simple' steering wheel may cost £35,000 to produce, but it requires costly hours of research and development before being put into production. So, you may ask, how much? Well, this comes down to how many people you can afford to have working on it, and what the timescale is. Equally, while one team may design and produce its own component, others simply buy them in.

What Autosport has tried to do is to create a ballpark, hypothetical F1 team to give a picture of where the money goes. This is based on data sources from key personnel up and down the pitlane, some of whom also agreed to look over our conclusions before publication.

Breaking down a team's spending into four key areas – staffing, car build, research and development, and running the car/operations – these are our findings. >>

*\* All figures based on value of GB pound prior to EU referendum on June 23.*

## STAFFING

You've been given your budget by the chief operating officer. If you're a top team, that will be around the £220 million mark. If you're at the other end of the spectrum, it could be half or even a third of that figure. So how do you go about dividing it up?

"The first thing you do is decide your headcount," says Haas team principal Gunther Steiner. "If you don't have people, you don't spend money. You put the people in place and then you know how much each department will spend. That is how my principle works with any company, any race team."

It makes sense. If you have 50 people working in your aero department, that in itself will require a significant amount of resources. You'll then need to ensure you have enough people in your production department to turn those design ideas into reality, otherwise the role of the aerodynamicists is pointless.

"It's all a juggling act with a lot of elements involved," says Steiner. "But that comes with experience. When you do it often enough, you know where you slipped off last time. The main element is to have your headcount in place. Once I've seen that, I can tell you how much money you're going to spend in each area."

Around 35-40% of a Formula 1 team's budget is spent on staffing alone. That figure may be reduced depending on the level of external contracting a team does. It also does not include driver salaries, as many drivers are not classed as employees, and are therefore separate (see right).

It seems a lot, but that figure is necessary given that you need people to design, produce and race the cars, working two shifts five days a week minimum.

Equally, the difference in performance can come down to the number of bodies you have. Teams are restricted to 60 "operational staff" at a track with access to the reserved areas from the start of initial scrutineering until two hours after the race. But apart from that, teams are free to decide their headcount. Haas has 110, for example, while Mercedes has 815. These numbers include everyone from the receptionist at the factory to the team principal. It's perhaps in the production and research-and-development departments where this is most crucial, as it directly determines performance.

The more people you have, the more you can task with analysing a problem. You could even set up a bespoke working group to tackle an issue, as Williams did when trying to understand its car's weakness in low-speed corners and wet conditions. That, in theory, should speed up the process to find a solution. Similarly, with a development, if you have more people to work on a rear wing, you can rush it to the track faster than if you're stretched.

The staffing figures do not include contractors. Smaller teams don't have the budget for the infrastructure to do all its work in-house, so will farm out tasks to specialist contractors. They will pay a set fee for a project that will include design, performance and staffing costs within it, so it's another example of where figures per department are a bit murky. Haas has a technical partnership with Ferrari and receives the latest- specification power unit as well as all non-listed parts and use of the windtunnel. That allows the team to significantly reduce its headcount, and therefore costs, but it is also able to budget for the cost of the contract with Ferrari at the beginning of the season.

And don't forget the bonus scheme, which varies from team to team. In 2014, Mercedes rewarded every member of its workforce, from the cleaners up to the top-paid engineers, with a minimum payment of £10,000. >>

**"MERCEDES  
REWARDED  
EVERY  
MEMBER OF  
ITS STAFF  
A BONUS"**

# £93

**£63M STAFFING**



ETHERINGTON/LAT

# MILLION

**+ £30M DRIVERS**



Mercedes has rewarded all staff for its F1 success

## DRIVERS

The staffing and driver fees have been split because the latter are not on the payroll and are considered to be contractors.

Speaking to a number of sources in the paddock, we have collated ballpark figures for each driver's fees, which do not include bonuses or sponsors' additions. All drivers are paid a fee for their services, even if bringing sponsorship with them is a requirement for getting the seat.

One source looked at the average time difference in qualifying between a team's two drivers in recent years and compared them with the spread of time across the grid of the more competitive cars. The results demonstrated that a driver was worth around 15% of a car's performance. That tallies with the thinking that the lower down the grid you are, a greater portion of your budget should be spent on the car rather than drivers if you want to make progress through the field.

When you reach the front and the teams are much closer, spending more on a driver could be what makes the difference between points, podiums, wins and titles.



## RESEARCH AND DEVELOPMENT

Once the people are in place, a budget for research and development can be finalised. This is ultimately where the performance comes from and therefore commands roughly a quarter of the budget at £34 million.

It can be split into three areas: windtunnel testing, Computational Fluid Dynamics (CFD) and track testing. Restrictions on running the car outside grands prix, in a bid to cut costs, mean teams are limited to just eight days of pre-season testing and four days during the season.

This puts a greater emphasis on windtunnel testing and CFD, although this has also been slashed in recent years as teams agreed to the Resource Restriction Agreement, and then the FIA applied even further restrictions. When aero research was unfettered, some teams even had more than one tunnel. Not only were the operational costs huge but the high number of parts that were being produced for testing were a major expense.

Now, teams are allowed up to 25 hours per week of windtunnel time or 25 teraflops of CFD data – or a combination of both. Teams may complete only 65 ‘runs’ per week and have a maximum of 60 hours of tunnel occupancy per week.

Teams spend, on average, around £11-14 million per year running windtunnels, which is just under a tenth of the budget. In contrast, CFD is much cheaper, with a full CFD set-up costing around £700,000. These are just ballpark figures, since teams such as Williams and Sauber own their windtunnels, as does Ferrari, whose deal with Haas allows that team to use the Maranello facility. Force India uses Toyota’s tunnel in Cologne.

For teams that own their windtunnel, they will have costs associated with construction and ongoing maintenance, but they can also bring in money from renting it out. Those teams who rent tunnel time escape the initial outlay and running costs but pay a fee to use it and must slot into someone else’s schedule, so there is not as much flexibility.

With windtunnel and CFD time limited and presenting an ever-increasing strain on a team’s budget, there is a greater pressure for squads to justify and maximise the value of any given development.

“We sit down with the aero group and design group and we see if a development is worthwhile,” says Haas team principal Gunther Steiner. “What does it give us? What is the theoretical time gain and what will be the real one? Often, it will come down to whether a rival team is getting close to us and we therefore need to defend the position. Or maybe we want to attack and we need to know if this is good enough to jump the next team in front. If it is not, don’t do it. Wait until you have more gains and then you do it.

“It’s like a normal business – where do you put your investment? Do we want to tell everyone we’re a tenth quicker but we’re in the same position? People care about position, not tenths of a second. It’s no good if we’re a tenth faster and we spent half a million but we still finished 11th. That’s bad management in my opinion.”

The challenge, then, is to focus development on ‘go-faster’ parts, components that will have a tangible benefit on the racetrack. “Having not spent the go-faster parts of the budget is like a failure because you’ve not come up with good enough ideas to make improvements to the car,” says Steiner.

Not every part that goes through the design phase and hits the windtunnel will make it through to the track. In fact, Renault technical director Nick Chester says only “a fairly small percentage of what you test gets refined and goes to the car”. He adds: “You might pursue parallel programmes with different

concepts for quite a while before you choose your favourite. Some aero components can be quite tricky and you need to track-test them to prove they are doing what you expect. You can put a lot of work in, bring them to the track and decide you’re not going to race it.”

The amount of time spent on a component varies depending on what it is. For example, a small addition to a front wing or bargeboard can be easily made and bolted onto the car for the next race once its benefit has been established. But a new front suspension that requires testing and a lot of design-and-geometry work could take months. Teams will also target a test, such as Renault did when it ran a new front suspension at the in-season test at Barcelona, to ensure it gets the most out of a development. >>

Below: the McLaren Technology Centre is an impressive base for McLaren’s campaigns

Right: Christian Horner knows windtunnel work is crucial for Red Bull

**“IT’S NO GOOD IF WE ARE A TENTH FASTER AND ARE STILL ONLY 11TH”**



**£48**



REDBULL



## FRONT WING

The front wing is arguably the most important aerodynamic component on the car since it's the first part to meet the airflow. As a result, it shapes the car's aerodynamic map and ultimately its performance. Unsurprisingly, a lot of R&D effort focuses on this part.

It's a complex assembly, with around 200 components in all. A team such as McLaren makes around two or three wholesale changes to the wing during a year, but there will be minor tweaks more frequently as the team learns more about the wing's behaviour on the track and feeds that data into the research process.

"If a front wing has just come out of the windtunnel, and it's quite different to what you have, it needs to be designed and stressed and it's probably 12 weeks to get out," says Renault's Nick Chester. "Providing you are finding the gains, and you have wings you want to make, you would probably put people on working parallel projects.

"So you might have one coming while someone else is designing the next one. It's led by how many resources you've got. If you have enough people and gains coming, you would do a few in parallel, though you need a big manufacturing set-up to do that.

"If it's a brand-new wing, you could have six or seven people working on it. Some people would work on the main structure, some would do the ancillaries. A lot of it is to do with what your whole drawing office is doing and whether they need to be working on other things. It's sometimes about whether you've got six or seven people to do that or do you need to do it a bit slower with fewer people? Or more if you want to rush it out? You have to balance the cost

**"You could have six or seven people on a brand-new front wing"**

of developing the item against how much it will bring in laptime, and other projects you've got on."

At a cost of around £350,000 per wing, it's an expensive component. A team will go through 10 to 15 of them over the course of the season. If a team hits the upper figure, that would cost £5.25 million. That could increase as drivers damage them in use, or if they just break. Haas has had four failures already this season.



DUNBAR/LAT

# MILLION

## CAR BUILD AND PRODUCTION

The Christmas break is over and it's time to start ramping up production, in a race to get the cars built in time for pre-season testing. A top team will spend around £28 million on parts and production per year, with an additional £24 million for the powertrain and gearbox.

It's a particularly tricky and busy time of year for the smaller teams. Ahead of this season, squads such as Toro Rosso worked three shifts across seven days to get the car ready, which included extra cost for sourcing more people. The busiest time also coincides with the three months, January to March, when the teams do not receive Formula One Management revenues, since they are distributed evenly through nine payments from April.

Cashflow is crucial and can lead to hold-ups where manufacturers can't afford to pay suppliers. For the bigger teams, they have the infrastructure in place to do a lot of the production in-house or have the cashflow with which to react. Smaller operations rely on contractors or other teams, as is the case with Haas and its non-listed Ferrari parts.

At McLaren, there are periods when it is manufacturing over 1200 orders per week. It takes about a month to make the cars' top bodies and sidepods, with work split between in-house and contractors. Most teams focus on getting two chassis, which cost roughly £1.2 million a pop, ready for pre-season testing and then add a third, as a spare.

"We build three chassis," says Haas's Gunther Steiner. "That is our plan to do it across the season, unless we have a big wreck. We're trying not to use it. We don't have a spare chassis for the spare. There's no point. You have to take your risks sometimes in life. It's expensive to have a chassis sitting there. If you don't have it, people will stay it's stupid not to have it. If we did have it but didn't use it, everyone would say it was a waste!"

While a front wing costs in the region of £350,000, including tooling costs, a rear wing will typically set you back around £250,000. A floor, which takes around six to eight weeks to conceive, costs approximately £250,000, while the labour-intensive exhaust is around £50,000. Bodywork will set a team back around £130,000, with an engine cover alone costing £7500. The radiators, per car, will be £215,000.

Teams spend around £325,000 per car, per year, on braking systems. On average, manufacturer Brembo says it supplies around 10 sets of calipers, 140-240 discs and 280-480 brake pads to each of its teams running two race cars. The exact price of a set is difficult to pinpoint because each team will have customisation requests, which in turn can impact on the hours of mechanical processing. There are R&D costs, which will increase if fluidodynamic tests are requested. Calipers are different for all teams, so while prices can start at around £7500 per caliper, this can rise considerably.

In Azerbaijan, Sauber team boss Monisha Kaltenborn said when she reviewed the race how pleased she was that her two drivers had got round without any damage. Admittedly, the team's financial situation is precarious, but it's a noteworthy point. Crashes cost money. It's an area that teams can't budget for; they just have to react accordingly. Not only does a crash require a spend on creating another part, it also means money potentially diverted from development. >>

**"WE DON'T  
HAVE A SPARE  
CHASSIS, IT'S  
EXPENSIVE TO  
HAVE ONE. IF WE  
DIDN'T USE  
IT, EVERYONE  
WOULD SAY IT  
WAS A WASTE!"**

# £52



# MILLION

## ENGINE

If you attempted to come up with a 'list price' for a Formula 1 engine, one you could just bolt into the car, you would land on a figure around the £1 million mark. It's a tricky figure to pin down as some teams manufacture and develop their own engine, while others buy a customer supply, and it's difficult to quantify the design cost of it.

Within customer deals, which vary between £20-28 million per team per season, some include the full powertrain and gearbox. These costs will be brought down over the next couple of seasons following an agreement between the engine manufacturers earlier this year, but it still remains a large portion of the budget.

Drivers are limited to five power units per season before penalties. If you include a spare and three units for testing, most teams will use 14 units. That does not include failures, so more units may be required, particularly towards the

**“Fewer failures mean lower cost and you can focus on gains”**

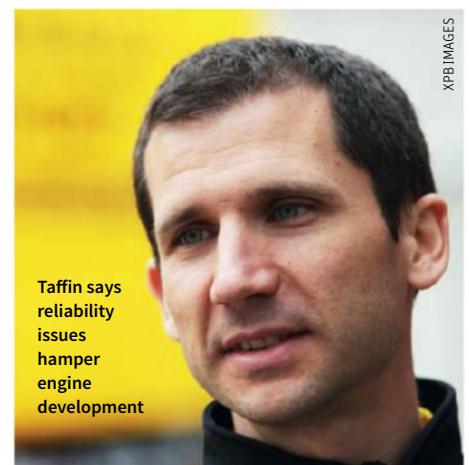
end of the season when drivers exceed their allocation.

For an engine manufacturer, reliability is hugely important because fewer failures mean a lower outright cost on parts. It also means resources

can be focused on gains, as Renault engine technical director Remi Taffin explains.

“Let's take last year,” he says. “If you have big problems on track and reliability is not so good, and you have to produce so many parts for racing, you lose money and time for development. You also have resources focused on solving the problem, so you lose your time again. If everything is normal, you have production for racing that is more or less frozen because you know what you will be doing. And you can spend all your time and resources on developing.”

Renault has around 350 employees working at its Viry base on a five-day working schedule in which two shifts work a 7am-midnight rota. When it gets busy that is extended to six days, and if required it's pushed up to seven. This demonstrates the manpower, effort and resources required to get a power unit through development and inside the car.



Taffin says reliability issues hamper engine development

XPB IMAGES



S BLOXHAM/LAT

## RUNNING THE CAR AND OPERATIONS

The cars have been built, it's time to go testing – and then racing. Over the course of the season, a team will spend around £27 million running the car and on operational costs. With testing, it'll cost around £300,000 to complete a day that runs for eight hours, presuming the cost of the track – normally in the region of £50,000 alone – is covered. That's £2.4 million per team for the whole of pre-season testing. It's an extra £1.2 million for the four days during the season. This figure is a ballpark one, since it depends on the mileage covered, the specific programme you're running and the number of parts you're testing.

Back at base, each team will have a factory that will require kitting out and running year round. That'll set you back around £6.5 million and does not vary too much between teams. It's then a case of packing up the trucks, which cost around £1.3 million, to send them off to European races, or sorting out the air and sea freight for the flyaways. It costs an extraordinary £150 per kilo to transport items by air. A team will send around 30 tonnes by air, on one of seven jumbo jets run by DHL, which will cost £4 million. Additionally, some team members may have to carry hot-off-the-press parts to races, incurring baggage costs.

Squads will use sea freight, which costs around £6000 per 40ft container, for heavy and inexpensive items such as batteries, printers and back-of-house boarding. The smaller teams have one or two containers while the bigger teams have between five and six. It's obviously more cost-effective to run the sea freight, but it requires an initial outlay to transport numerous sets of items, since flyaway rounds often follow one another too closely for those

items to be freighted onwards by sea in time. They will be sent out around two months before the race, and no expensive items will be transported by this method for risk of losing it. Smaller teams can't afford that initial outlay, so are forced to favour air freight. For the bigger teams, sea freight will eventually become cost-neutral.

Beyond the cars and the parts, teams transport everything from garage and hospitality set-ups, computers, coffee machines, industrial ovens and generators to cables, shelves, desks, tables, chairs, plates and coasters. And you need food; Force India serves around 1040 meals per race.

When F1 is in Europe, teams send between five and 15 trucks for the pop-up paddock. A group is sent out well ahead of the race to start building the motorhomes – which vary in size and cost – and garage internals, ready for the race team's arrival.

The cars are then built and fuelled up ready for action. Fuel for a year can set a team back around £700,000. Breaking that figure down, a quarter is for the fuel itself, another quarter is to cover the cost of shipping to races (which includes around 2500 litres of fuel, 200 litres of oil and 90 litres of coolant), the third quarter is to cover the staff required to have it analysed to avoid contamination, while the final part is for R&D.

Last year, Shell claimed it delivered a 25% gain to Ferrari's engine, equating to almost half a second in lap time, through its fuel and lubricants. It delivered five new blends of fuel to coincide with power-unit upgrades from Ferrari in what was a very aggressive rate of development. Different teams will have different deals with fuel suppliers in which they will pay anything from £700,000 to nothing, the latter occurring if it is part of a sponsorship arrangement.

With regards to tyres, teams have 13 sets per driver, per race weekend, plus extras for testing during the season. In 2015, Pirelli supplied 35,964 tyres, and 17,580 were actually used. Teams pay around £2 million per year for the rubber, while £1 million comes back from Pirelli as part of commercial

**“LAST YEAR,  
SHELL SAID IT  
DELIVERED A  
25% GAIN  
TO FERRARI'S  
ENGINE”**

# £27



ETHERINGTON/LAT

agreements. This equates to around £1200 per set of tyres and around £31,200 per team per race weekend.

Then there is the team itself. It costs around £500,000 on average to get a team to a race weekend, including flights and hotel, plus extra on subsistence.

Come the end of the weekend, it's time to pack up and transport some items to the next race or others back to the factory as the team readies itself for the next business on the agenda. A delay in departure, such as a test being extended or a filming day being rescheduled, can be costly since it requires flights, accommodation and hire cars to be rebooked, plus penalties for shipping items such as motorhomes out late, and possibly (depending on circumstances) having to pay extra for another day of circuit hire. It may sound nominal but it all adds up. 🚀

# MILLION



**TOTAL**

**£220 MILLION**

## THE BREAKDOWN

	SUB-TOTALS	TOTAL
<b>Staffing</b>		<b>£93m</b>
Employees	£63m	
Drivers	£30m	
<b>Research &amp; development</b>		<b>£48m</b>
Windtunnel	£14m	
Track testing	£3m	
Other R&D	£31m	
<b>Car build</b>		<b>£52m</b>
Parts	£28m	
Engine & gearbox	£24m	
<b>Running the car</b>		<b>£27m</b>
Freight	£4.5m	
Fuel	£0.7m	
Tyres	£1m	
Logistics	£10m	
Factory	£6.5m	
Other	£4.3m	
<b>TOTAL</b>		<b>£220m</b>



## EU REFERENDUM

# What does a Leave vote

KEY MOTORSPORT FIGURES ARE SPLIT on what the impact of the United Kingdom's decision to leave the European Union will be.

The pound fell immediately after the EU referendum result, a victory for the Leave camp with 51.9% of the vote. Longer-term consequences are unclear, but are likely to include impacts on trade and the movement of skilled workers. New deals will also need to be negotiated in a variety of areas if the UK does withdraw from the EU.

A statement from the Motor Sports Association, the sport's governing body in the UK, said: "It is far too early to predict the long-term impact of Brexit on UK motorsport, but the UK has always been a world leader in the sport and we are confident this will continue.

"We will need to work with the sport to identify and mitigate for key risks, such as the future availability of skilled labour from the EU."

The response from Europe has been unequivocal, however. Dieter Zetsche, chairman and CEO of Daimler, said: "This is not a good day for Europe – and in my view, certainly not for the UK. Geographically, the UK may be an island; politically and economically, it is not."

### The MIA view

Chris Aylett, CEO of the Motorsport Industry Association, conceded a majority of its members were hoping the UK would remain in the EU.

He said British motorsport businesses may need to look to other markets, but hopes a strong relationship with Europe will continue.

"Negatives can be spotted very easily – we now need to identify and promote the benefits of the decision in business terms," he said.

"Europe is an invaluable, significant trading and investment partner, which we will work hard to grow in spite of these changes. As long as UK companies continue to make and deliver winning products and services then motorsport customers will buy from them.

"Some countries may face paying a premium, for example, if the EU chooses to put taxes on British motorsport products.

"The largest single market for UK motorsport geographically is the USA. We will have to work harder on increasing our share in this vast marketplace, currently a relatively small share of their \$15 billion market."

Aylett also hopes that restrictions on the movement of workers will not be too harsh.



#### EU REFERENDUM

## WILL THE BRITISH GP BE SAFE?

The British Racing Drivers' Club, which owns Silverstone, believes the British Grand Prix is safe, but the UK leaving the EU could have ramifications longer-term.

BRDC chairman John Grant said: "I don't think the vote will have any impact on the British GP. It's as safe as a GP can be."

"One of the things we're trying to do is attract more visitors from the continent, so if sterling remains weaker we could see a benefit. But the bigger concern is that, if we go into an economic downturn, people will be less well-off and spend less, and Silverstone – along with other high-value events – will suffer."

Grant also confirmed that the BRDC is still in negotiation to sell Silverstone to the Jaguar Land Rover group.

"There is a risk that impetus to make new investment will be slowed down," he added. "In the meantime we're pressing ahead with negotiations."

In February, 54% of members voted for the JLR deal. That was not as high as initially expected and Grant did not rule out a second vote, depending on the outcome of negotiations and further consultation with members.

"Technically we do have a mandate," he added. "We're very anxious to keep the club cohesive, so we need to do everything we can to keep the members happy. We'll come back to them and at that point we'll make a decision as to whether we have another EGM."

# mean for motorsport?

"Skilled people from the whole of Europe, not just the EU, offer vital engineering capabilities the UK needs in motorsport," he added. "Although the UK has a good supply of engineers, there are simply not enough of them."

### Teams and manufacturers

M-Sport boss Malcolm Wilson said: "Given that 80-90% of our business is export, you can understand that this decision is far from ideal. OK, we've seen movement in the exchange rate that would be favourable to the market, but what happens when I come to buy my next batch of transmissions or whenever we try to buy anything from abroad?"

"Who knows what trade restrictions other countries might place on dealing with the UK? This is a real worry for us. Nobody can say they're not going to place a 20% tax on anything brought from Britain."

But Brexit-backing Ginetta boss Lawrence Tomlinson believes it will be positive. "It is important that we stay friends with people in Europe, but we must not end up with a poor deal – we must remain firm because they need us just as much, if not more, than we need them,"

he said. "We want to compete on a global scale. Growth is coming from the US, from China, from India, and EU legislation constrains us."

### Working together

With funding that currently comes from the EU likely to come under the control of the UK government, Aylett believes it is more important than ever for those in the sport to work together.

"Many businesses in the UK get grants of various types," said Aylett, who was due to meet with ministers on Tuesday to argue motorsport's case. "Some come from the EU. This funding will in due course be replaced by the UK government as a result of ceasing their annual payments to the EU."

"The UK government will have to choose where to spend our own money. The MIA has 10% of British motorsport companies as members. We need this to grow fast, as other industries will be represented more strongly in their sectors and will therefore make a stronger impression on government decisions. We must represent our industry to government in the best way we can. This is the time for collaboration."

**KEVIN TURNER**

**"We must represent our industry to the UK government the best way we can"**



SPA 24 HOURS

## PAFFETT IN LINE FOR SPA 24H MERC SEAT

GARY PAFFETT LOOKS increasingly likely to contest the Spa 24 Hours for Mercedes next month in what could be a precursor to regular appearances by members of its DTM squad at the wheel of its latest GT3 contender.

The 2005 DTM champion is being lined up to race a Mercedes-AMG GT3 for the factory-supported HTP Motorsport squad in the blue-riband round of the Blancpain GT Series at Spa on July 30-31. Neither Mercedes nor HTP have confirmed the plans, but Paffett is talking openly about his interest in taking in some GT events alongside his DTM assault with ART.

He explained there had been a shift in philosophy at Mercedes, coinciding with the arrival of Ulrich Fritz as manager of the DTM programme.

"Before there wasn't any interest in us racing the GT3 car, because there was a feeling that we should focus 100% on the DTM," he said.

"A couple of us did an endurance test with the new GT3 at the Algarve Circuit last year and I enjoyed my first taste of the car and endurance running. After that, I said, 'Let's do some races.'"

The change of attitude at Mercedes also explains Christian Vietoris taking part in the Nurburgring 24 Hours for the past two years. Another Mercedes DTM driver, Maximilian Gotz, is expected to team up with Paffett in the HTP Merc at Spa.

GARY WATKINS



MOTOGP

## MotoGP bans winglets

THE DAYS OF WINGLETS IN MOTOGP ARE NUMBERED, with the Grand Prix Commission voting to outlaw the aerodynamic devices from the end of the 2016 season.

Ducati reintroduced the fairing additions last year, primarily to help limit the front wheels lifting under acceleration, and has led the development since. Other manufacturers have followed suit to help offset the impact of this year's new control ECU.

Safety concerns have been expressed by riders up and down the grid, other than by the Ducati riders, namely that the carbon-fibre structures pose an additional risk in the event of contact with another bike, and that they create additional turbulence for following bikes. A new-for-2016 rule mandated the leading edge on winglets must be curved.

Valentino Rossi is among the critics of their aesthetics, while the expense involved in aerodynamic development has also been raised, as new solutions have emerged.

But Ducati was steadfast in its right to bear winglets, insisting they were safe, and that the costs involved are on a par with the annual expense of developing different fairing shapes to try during pre-season testing.

A meeting last weekend at Assen during the Dutch TT round settled the matter. Winglets within the current technical regulations can continue to be used across the remaining 10 grands prix in 2016, but will not be permitted next year. Bans with immediate effect on winglets in Moto2 and Moto3 were announced in March and May respectively.

MITCHELL ADAM



LE MANS 24 HOURS

## Toyota identifies failure

A TECHNICAL DEFECT ON A connector on an airline between the turbocharger and the intercooler cost Toyota victory in the Le Mans 24 Hours earlier this month.

The problem led to a loss of turbocharger control on the #5 Toyota TS050 HYBRID driven by Anthony Davidson, Sebastien Buemi and Kazuki Nakajima. The resulting power loss caused Nakajima to slow and handed victory to Porsche drivers Neel Jani,

Marc Lieb and Romain Dumas.

The problem was identified by Toyota, which remains without a Le Mans victory, on its return to its Cologne base last week. A statement from Toyota Motorsport GmbH said: "Currently it is not clear exactly why this failure occurred as we have verified the process used to produce the part here in Cologne. Further analysis is required to determine the root cause."

TMG stressed that the issue was not

related to the engine failures that put both of its TS050s out of the Spa WEC round in May.

Nakajima stopped on the start-finish line after encountering the problem while the team attempted to modify the control settings to restore power. The Toyota was able to complete the final lap, but was outside the six-minute minimum that was necessary in order to be classified.

GARY WATKINS

## IN THE HEADLINES



### LECLERC GETS FIVE HAAS PRACTICE RUNS

Ferrari junior and GP3 Series leader Charles Leclerc (above) will make his F1 race weekend debut for Haas in free practice for the British Grand Prix on July 8. He will have further runs in Hungary, Germany, Malaysia and Abu Dhabi, replacing Esteban Gutierrez on all five occasions.

### FIA COULD GO IT ALONE ON F2 PLAN

The FIA could have to move towards establishing its own Formula 2 championship from scratch after Bernie Ecclestone gave a lukewarm response to plans to align with GP2. Little progress has been made since an apparent breakthrough in negotiations last December.

### AERODYNAMIC RESTRICTIONS FOR F3

Increased aerodynamic restrictions have been voted into force for Formula 3 by the FIA World Motor Sport Council. Safety regulations have also been improved, while homologation of the current engines has been extended to the end of the 2019 season, bringing them into line with the end of the current chassis rules.

### NEUGARDEN MAKES RACE RETURN

Josef Newgarden returned to IndyCar at Road America last weekend after sustaining a broken clavicle and right wrist in a crash at Texas Motor Speedway. JR Hildebrand had been set to stand in for Newgarden, who finished eighth in the race, at Ed Carpenter Racing.

### NO PRIVATEERS IN NEXT-GEN WRC CARS

The FIA's World Motor Sport Council meeting has confirmed no privateer drivers will be allowed to enter next-generation World Rally Cars in 2017. The news from the Turin meeting means private drivers must be entered on world championship rallies by a manufacturer team.

### APRILIA CONFIRMS ESPARGARO DEAL

Aprilia has signed outgoing Suzuki rider Aleix Espargaro for the next two MotoGP seasons. He will partner Moto3 ace Sam Lowes. Moto2 title contender Alex Rins will take Espargaro's place at Suzuki. Meanwhile, Briton Cal Crutchlow will remain with LCR Honda.

### McLAUGHLIN SWAPS VOLVO FOR PENSKE

Scott McLaughlin will move from Volvo to DJR Team Penske for the 2017 Supercars season in Australia. The 23-year-old (below) is currently third in the standings. Volvo's decision to withdraw means the Garry Rogers Motorsport-run programme is up in the air.



## F1 PREVIEW

# Austrian Grand Prix

## July 1-3



### RED BULL RING

**LENGTH** 2.688 miles **NUMBER OF LAPS** 71

**2015 POLE POSITION** Lewis Hamilton 1m08.455s

**QUALIFYING LAP RECORD** Rubens Barrichello 1m08.082s (2002)

**RACE LAP RECORD** Michael Schumacher 1m08.337s (2003)

● DRS DETECTION ZONE  
— DRS ACTIVATION ZONE



### Tyre allocation



### UK start times

#### LIVE ON SKY SPORTS F1

##### FRIDAY

**FP1** 0900 **FP2** 1300

##### SATURDAY

**FP3** 1000 **QUALIFYING** 1300

##### SUNDAY

**RACE** 1300

#### HIGHLIGHTS ON CHANNEL 4

**QUALIFYING** SATURDAY 1730 **RACE** SUNDAY 1800

### Previous winners

<b>2015</b>	Nico Rosberg	<b>Mercedes</b>
<b>2014</b>	Nico Rosberg	<b>Mercedes</b>
<b>2003</b>	Michael Schumacher	<b>Ferrari</b>
<b>2002</b>	Michael Schumacher	<b>Ferrari</b>
<b>2001</b>	David Coulthard	<b>McLaren</b>
<b>2000</b>	Mika Hakkinen	<b>McLaren</b>
<b>1999</b>	Eddie Irvine	<b>Ferrari</b>
<b>1998</b>	Mika Hakkinen	<b>McLaren</b>
<b>1997</b>	Jacques Villeneuve	<b>Williams</b>
<b>1987</b>	Nigel Mansell	<b>Williams</b>

### Themes to watch

#### WHICH FERRARI?

Sometimes Ferrari struggles, sometimes Ferrari is fast, sometimes it even leads and makes strategic errors. So which one will turn up in Austria?

#### WILLIAMS ON FORM

The Red Bull Ring has been a happy hunting ground for Williams in the past two seasons. It has had podium finishes in both races...

#### HOME HEROES

Renault-engined cars haven't had a great time at Red Bull's home circuit since it returned to the calendar. But recent improvements give it hope.

# FEEDBACK

## Making mistakes is part of Formula 1



I watched with interest the race in Baku. I'm happy with the current rules that prohibit the team from giving drivers instruction about their cars. Mistakes made by the team are part and parcel of the sport. Wrong calls on strategy, etc, are bad luck and so be it.

Just because Lewis Hamilton in this case could not figure it out is his problem – he can learn later so that the mistake is not made again. And just because he could not figure things out should not mean that the rules need to be changed.

If the teams are that concerned, give the drivers the solution and take the penalties – like it's done for engines or gearboxes. It needs to be a judgement call.

The drivers are paid enough without needing to be mollycoddled. Let them earn their money. Please don't change the rules just to pamper a driver – the sport should be bigger than just one ego!

**Pinkoo Bose**  
By email

### Rights and wrongs

Seems to me like we have got too accustomed – too spoiled for our own good – to remember and appreciate our basic human rights. Something that generation after generation have fought for. A cornerstone of democracy and progress. To ignore them is to ignore the whole system we (the privileged ones) are functioning in.

I am a racer myself and I have been throughout my life. I love to watch F1, IndyCar, any kind of wheel-to-wheel action.

Seeing Ted Kravitz's tail-between-legs grid interview with Azerbaijan president Ilham Aliyev made me grimace. A feeling that something is not quite right with the entertainment product that I am consuming.

Money talks. Bernie talks. I don't really know how long I want to keep listening. But please, at least have some dignity and intelligence.

**Sami Seppla**  
By email

Keep restrictions on team-to-driver communication in place, says reader Bose

### 24 Hours trumps Baku

Baku – great circuit, no spectators, poor spectacle, tedious race. Le Mans – best circuit in the world, rammed with spectators, fabulous spectacle, unbelievable race. I think F1 should hand over their regulations to the ACO – they seem to be doing a much better job!

Was I alone in being underwhelmed by Eurosport's commentary of the last 15 minutes of Le Mans? Murray Walker would have needed to be hospitalised at the end of the race had he been commenting!

**Roger Price**  
**Romsey**

### Le Mans treat on Freeview

A big thank you to Quest TV for several hours of quality live coverage of the Le Mans 24 Hours on Freeview, when no other Freeview channels show any interest in such a major motorsport event. More next year please.

**Brian White**  
By email

### Picture imperfect

Every week I look forward to the photograph from the archive at the back of the magazine. Why was there none last week? Have you run out?

**Niall Allen**  
By email

*Rest assured it was a temporary blip, and we certainly haven't run out! See page 72 for a dose of '70s Le Mans nostalgia – Ed*

## HAVE YOUR SAY, GET IN TOUCH

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# F1 musical chairs

Speculation is rife over which drivers will fill which seats next season; in particular, what next for Britain's *other* world champion?

By Ben Anderson, Grand Prix Editor

[@BenAndersonAuto](#)

**FORMULA 1'S SILLY SEASON IS IN FULL SWING,** dropping hints, spinning rumours, sowing seeds of speculation, doubt and confusion.

Contractual uncertainty at Mercedes and Ferrari allows all to pontificate as to who may be better at playing the Nico Rosberg or Kimi Raikkonen roles next year than, well, Rosberg or Raikkonen. But Toto Wolff says Rosberg and Mercedes aren't "flirting with anyone else", and barring an implosion it's hard to see the status quo altering in Brackley/Brixworth/Stuttgart.

The situation at Ferrari is less clear but, as Alain Prost pointed out last week, retaining Raikkonen makes a lot of sense in terms of team harmony for what remains F1's most conservative squad when it comes to picking drivers. Sergio Perez has been linked with Maranello, but at the moment it's more likely he'll remain at Force India for a fourth season.

Prost also reportedly told the Spanish press that Carlos Sainz Jr would be worth a look for Ferrari. Certainly he is flourishing at Toro Rosso since the Max Verstappen freight train displaced Daniil Kvyat at Red Bull, but Sainz's current paymasters supposedly have an option on his services for next season, and STR team boss Franz Tost says they intend to exercise it.

So with little prospect of movement at the front of the grid, attention shifts further down, where Williams and McLaren also find themselves at the centre of transfer speculation.

McLaren-Honda's conundrum is well known. It has three drivers on its books. Well, for 2017 technically it has two: Fernando Alonso and Stoffel Vandoorne. Jenson Button is out of contract. Does McLaren stick with Button for an eighth season? Heading into the first year under new rules it would make sense. Experience is important when developing new cars, and so long as Button can keep pushing Alonso hard on track there's no obvious reason to drop him.

Retaining Button would also give McLaren some insurance should Alonso decide he's had enough of F1 when his current deal expires at the end of 2017. But McLaren also wants to ensure it keeps hold of Vandoorne, who is hot property in F1 after last year's dominant GP2 campaign.

The ideal would surely be to loan him to another team, allowing him to learn the intricacies of F1 under less pressure. But it seems that option has been ruled out, so McLaren looks likely to have to choose between Button and Vandoorne.

From Button's point of view you'd think that staying at McLaren, if possible, would make the most sense. Why go

through all the growing pains of the Honda project without a chance to see real results? That's the rational argument, but it doesn't take account of feelings and emotions. Button may decide he's had enough of McLaren anyway, given that indecision about his future there has abounded since 2014.

But what next? In a scenario where Button and McLaren part ways and Button decides he wants to remain in F1 next year, Williams surely represents the best option.

Discounting Red Bull, which is a special case, Williams is the top customer team in F1 – and has been consistently since 2014 – and there is clear desire at Grove to take it to the next level. Pat Symonds and Rob Smedley are trying hard to reinstall a winner's mentality to a team that spent too long in the doldrums, urging it to aim higher, to be in it to win it again.

Williams's pitstop improvement shows this can be done. It was regularly criticised for poor stops in 2014, when it blew chances to win the odd race on days Mercedes was off form.

Now Williams has the fastest crew on the grid, consistently. This proves it can be the best at something in F1, so Smedley's

logic will be 'this should apply to all areas'. Including perhaps the driver line-up. Williams seems likely to shake things up in this department too after three seasons of stability.

Signing Felipe Massa from Ferrari was a marriage of convenience for both parties.

After 2013 Massa needed a decent team in which to restore his battered reputation; Williams needed a driver with top-team experience to help initiate its rebuilding process. He is out of contract for '17, and supposedly touting his services around the paddock. Perhaps that relationship has finally run its course...

Team-mate Valtteri Bottas is not immune, but his contractual situation is more complicated after his almost-but-not-quite move to Ferrari last summer. Were either to leave, Button would be the perfect fit for a team of Williams's ambition – a quality operator with that champion's mentality Symonds and Smedley are so keen to cultivate, plus significant UK commercial appeal.

Apart from the sentimental aspect of returning to the team that gave Button his F1 break in 2000, going to Grove could be mutually beneficial. Button may find new ways to flourish in a fresh environment (it worked for Massa after all) and has stated he wants to "challenge for podiums", which arguably Williams can guarantee right now where McLaren cannot.

Signing a world champion would also issue a serious statement of intent that Williams means business, as it seeks to take the next step in its renaissance. 🏁

**“Button would be a perfect fit for a team of Williams's ambition”**

# The glory of power at Goodwood

A touch of mud couldn't dampen the enthusiasm of a full house of racing enthusiasts in a thrilling 24th Festival of Speed

By Marcus Pye, Special Contributor

[@Autosport](#)



Rosberg and Button  
(main) starred



J BLOXHAM/LAT

**P**ower and glory have been intertwined since motorsport's birth. Since before the 1906 French Grand Prix, engineers have striven to build ever-faster

machines to defeat their rivals. Rejoicing in the title Full Throttle: The Endless Pursuit of Power, the 24th Goodwood Festival of Speed elegantly told that story to a 250,000 sell-out audience over four days in the park.

The hunger of founder Lord March and his team to collate the ultimate three-dimensional *Top Trumps* pack resulted in another tour de force. From gargantuan 28.3-litre FIAT S76 of 1911 – which saviour Duncan Pittaway drove from Bristol – to the unfeasibly svelte Gordon Murray-designed Brabham BT52, it was indeed the mightiest set.

F1 champions John Surtees (1964), Sir Jackie Stewart ('69, '71, '73), Emerson Fittipaldi ('72 and '74) and Jenson Button (2009) played lead roles in the narrative, driving up the 1.15-mile hillclimb course. As did Goodwood's favourite son Sir

Stirling Moss – recapturing, at 86, his bearded look of the '60s, a trend widely favoured by today's F1 brigade – and 15-time world motorcycle champion Giacomo Agostini.

Current F1 points leader Nico Rosberg and Pascal Wehrlein provided Sunday's eventgoers with their first contemporary 1600cc V6 turbo F1 hybrid engine notes. Rosberg stormed a 2014 Mercedes-Benz W05 to the top on Sunday, throwing donuts in en route. Like Button, an ardent disciple of the FOS since the 1990s, Nico smilingly signed autographs and posed for selfies. With team-mate Lewis Hamilton a late dropout, Rosberg won himself many fans with the British GP a fortnight away.

Three 2.4-litre V8 F1 cars ran, Renault's Jolyon Palmer and Red Bull's Pierre Gasly in reliveried 2012 cars and Marc Gene returning with an ex-Alonso Ferrari F10. Stoffel Vandoorne and 'Nobby' Matsushita exercised ex-Ayrton Senna and Niki Lauda McLarens, while Karun Chandhok enjoyed ex-Keke Rosberg and Damon Hill Williams chassis. Force India's Jehan Daruvala meanwhile saddled the supercharged 1925 V12 Sunbeam Tiger.

## TEA TIME – AND RALLY MONSTERS



Latvala enjoyed his first visit to the Festival

J BLOXHAM/LAT

AS YOU STAND IN THE QUEUE FOR A CUP OF TEA, there's a Peugeot 205 T16 – the Evolution version, naturally – drifting down the start-finish straight behind you. Saturday afternoons don't come much better than this.

By the time you're pouring the milk in, David Llewellyn is dancing Audi's Quattro S1 E2 down the same stretch of sodden tar. On full boost, the bellowing five-cylinder motor is sharing close to 600bhp between four wheels clothed in cold, too-hard tyres. None of which is conducive to forward progress. But it is spectacular.

Rarely has progress in rallying been demonstrated so graphically. The Group B monsters were loud and lively as they left the line, quicker than their 1970s Group 4 equivalent, Lancia's Stratos. But for lean, mean efficiency, Goodwood was treated to a masterclass from the World Rally Championship's most dominant team: after two years away from the Festival, Volkswagen returned with fan favourite Jarri-Matti Latvala.

The Finn showed his class on wet asphalt with victory on at a soaking Tour of Corsica last

October, so a dash up Lord March's drive would be no problem. The Polo R WRC rocketed off the line with minimum wheelspin and maximum acceleration. No drama, just second after second saved over the good old days.

Latvala revelled in his first Festival, loving the machinery on show, his only regret being the lack of time and space to get around all the cars he wanted to see.

As ever, the real rallying was taking place at the top of the hill. The Festival once again provided a superb cross-section of rally cars for us to savour on the Forest Rally Stage. First there was a veritable BTRDA round coming past, then enough current machinery to credit a British or European round, before the world championship showed itself from every decade in its history.

The only downside was the rain, which turned the chalky surface into an ice rink, when it was but the brave or foolhardy who turned it up in pursuit of a time to match Kris Meeke's 2015 benchmark.

**DAVID EVANS**





Ferrari was part of F1 pack

HAWKINS



Chandhok, Brundle and Palmer chat



Prototype GT was part of Ford demo

J.BLOXHAM/LAT



## BMW CENTENARY

LIGHTNING FORKED THROUGH ANGRY skies over Goodwood House on the eve of the event as monsoon rains lashed West Sussex, leaving parts of the estate hideously muddy. Yet the Bayerische Motoren Werke's ultra-modern installation on the carriage circle outside Lord March's bedroom window stood majestically proud as the marque's finest competition cars thundered up the hill to celebrate the company's centenary.

Welded in situ, the jaw-droppingly slender steel monocoque tentacles of Gerry Judah's masterpiece – which carried the 1940 Mille Miglia-winning BMW 328 Coupe, one of Bernie Ecclestone's '83 Brabham BT52s and an example of the Williams-developed '99 Le Mans 24 Hours-winning V12 Le Mans car – provided an imposing focal point

for the garden party. While BMW's technically advanced sportscars of the 1930s thumped the opposition, it was not until the '60s and '70s that big successes came thick and fast.

The European Touring Car Championship fights between BMW's straight-six 3.0 CSL 'Batmobiles' and Ford's V6 Capri RSs in the early 1970s harnessed a huge fan following. The subsequent adoption of those iconic red, blue and purple corporate stripes now defined its M-Sport division's DNA.

Goodwood's driving posse included royalty Prince Leopold of Bavaria (635 CSi) and legends Harald Grohs (CSL), Johnny Cecotto (E30 M3), 1979 European F2 champion Marc Surer (in one of the fearsome 450bhp M1 Procars he helped develop) and Steve Soper (McLaren F1 GTR 'langheck'). Regular Festival of Speedsters, their enthusiasm was shared by debutants Alex Zanardi (in last year's Spa 24 Hours Z4), Yannick Dalmas (V12 LM), Roberto Ravaglia and Eric van de Poele (DTM M3s).

But pride of place went to Riccardo Patrese, reunited with his 1983 season-closing South African GP-winning Brabham BT52. "It's 33 years since I drove this car. It's very special," said the Italian who won six of his 256 GPs.



Special sculpture amply celebrated BMW's centenary

J.BLOXHAM/LAT



A fine selection of BMW racers was on hand

J.BLOXHAM/LAT

Freddie Hunt celebrated his father James with Wolf outing



HAWKINS

## GRANDEES AND ANNIVERSARIES

ANNIVERSARIES ARE THE LIFEblood OF historic events and, since the inaugural (and distinctly experimental) Festival of Speed in 1993 grew into today's monster – in which Goodwood is transformed into the world's premier motorsport theme park – Lord March's fanatical eye for detail has always ensured that milestones are celebrated in grand style.

Ford's maiden Le Mans victory of June 18-19 1966 – Bruce McLaren/Chris Amon inches ahead of team mates in a 1-2-3 staged finish – was pulled into sharper focus by this month's class win at La Sarthe by the latest GT LM GTE. One ran at Goodwood, as did a '66 seven-litre Mk2 in convoy with Mk1, Mk3 road version and 2011 GT LM GTE. AJ Foyt and Dan Gurney's '67 winning Mk4 was on static display.

The Canadian-American Challenge debuted in 1966, thus champion John Surtees relived the achievement half a century on, blasting past in Grant Reid's Lola T70 Spyder, also raced by *Il Grande John's* fellow F1 champions Jackie Stewart (who drove it on Sunday) and Mario Andretti. Andy Middlehurst also demoed Jim Clark's '66 US GP-winning Lotus 43.

Rolling forward 10 years, 1976 was British icons James Hunt and Barry Sheene's year, F1 and 500cc GP motorcycle world champions respectively. James's sons Tom and Freddie took part as Surtees TS9B to Wolf WR7 – via Heskeths and McLaren's – traced his top-line career and beyond. Also there from '76 was European Rallycross champion Franz Wurz in the Lancia Stratos, popular on period British TV coverage.



Jordan topped the BTCC runners in Motorbase Focus

J.BLOXHAM/LAT

## CLARK'S 'GOBSTOPPER' GOBSMACKER

CONDITIONS PREVENTED OLLY CLARK FROM matching last year's Shootout-winning 44.91s in a more powerful (900bhp) fine-tuned evolution of his Subaru Impreza 'Gobstopper II' (pictured below), nonetheless rally legend Roger's son put together a 46.29s run – pulling 140.2mph through the finish – under enormous pressure to erase 1999 Indy 500 winner Kenny Brack's 47.07s in McLaren's new limited-edition 1000bhp P1 LM.

"There's not been a day over the past year I haven't thought about this, but I'm just the driver. It's down to my brother Matthew, the mad professor, who has found another 120bhp and worked on the diffs to improve the starts," said Olly, visibly stunned. He was still buzzing when Lord March presented him with his bottle of Veuve Clicquot.

"We hung it out there, did our best in a road car. Maybe there was a tenth or two to find," said Swede Brack, who had tested the Lanzante-run McLaren at Shelsley Walsh.

NASCAR Craftsman Truck legend Mike Skinner's heroic 50.44s in a Toyota Tundra snared third, beyond Andy Newall's committed 51.01s in the JCB McLaren-Chevrolet M8F Can-Am car.

Charlie Eastwood (Porsche 911 GT3) and

South African Jordan Grogor (ex-James Hunt '75 Dutch GP-winning Hesketh 308-2) were next on 51.34s and 52.49s respectively.

David Franklin – the 1978 British hillclimb champion – was a brilliant seventh with 53.33s in Arnold Meier's Ferrari 312P. American Ed Berrier (NASCAR Chevrolet SS), Pat Doran (Ford RS200 Pikes Peak) and Swede Peter Pentell (Lancia 'Lasupra') completed the top 10. Alas, Liam Doran's Citroen DS 3 RX cut out mid-run and multiple BTDC man Justin Law non-started his IMSA Jaguar XJR-12D, which lost a wheel in qualifying.

Goodwood track tester Andy Jordan won the BTCC feature, extra hill knowledge from runs in Mattias Ekstrom's Audi S1 World Rallycross car contributing to 55.50s, 11th overall, in the iridescent blue Ford Focus. Matt Neal (Honda Civic, 56.30s) and Josh Cook (MG6, 56.84s) were next, ahead of points leader Sam Tordoff (BMW 125i M Sport), Adam Morgan (Mercedes-Benz A-Class) and Jason Plato (Subaru Levorg).

Emmerdale actor/racer Kelvin Fletcher halted proceedings when he ploughed his Chevrolet Cruze through the Molecomb corner bales. His 102.7mph approach compared to Olly Clark's 102.6mph!



J.BLOXHAM/LAT



Gladiator Funny Car was spectacular

MAMP+SPORT

## NO SUBSTITUTE FOR GRUNT

FROM LUKAS HUNI OPENING THE HILLCLIMB course in his ex-Juan Manuel Fangio Lancia D24 to drag racer Jason Phelps closing the show with a series of explosive burnouts in the 500ci (8.2-litre) 8000bhp FGR Gladiator Ford Mustang-caricatured Funny Car (the last of which caused it and the Festival of Speed bridge to disappear in a cloud of tyre smoke), power reigned over three days of motorsport heaven.

Engines from single to 16 cylinders in V and H formats, and rotaries to electric motors, formed the orchestra. From thudding 28.3-litre FIAT 'four' to shrieking 17,000rpm 297cc Honda 'six', F1's current 1500cc hybrid V6 to the 1470bhp quad-turbocharged eight-litre W12 in Bugatti's Chiron hypercar (running for the first time in public), the insatiable hunt for performance showcased ingenuity, success and occasionally glorious failure.

Taming wild horses has always been for the abnormally brave, but sitting alongside them – as riding mechanic, World Rally Championship co-driver, Isle of Man TT sidecar passenger or merely 'success ballast' – looks scarier to mere mortals. Hats off to daredevil FOS host Lord March for riding up his garden path with drifting king 'Mad Mike' Whiddett in his 1000bhp Mazda RX-8.

Since the Blitzen Benz topped 140mph in 1911 – way faster than period aircraft – with a 200hp four-potter, and supercharged V16 Auto Union GP cars reached 200mph in 1936-37, speed was always addictive. Whether Andy Green can push his Land Speed Record from 763.035 to 1000mph with Project Bloodhound in its ultimate triple rocket-propelled spec remains to be seen (it's still funding-dependent), but engineers' quests will fuel events and dreams in perpetuity.



Welcome to the machine: Nick Mason in Auto Union

J.BLOXHAM/LAT



### 2009 BRAWN-MERCEDES BGP 001

One of three, Ross Brawn's magnificent brainchild had lain dormant since Jenson Button won the 2009 F1 World Championship. McLaren-contracted Jenson watched with a lump in his throat as Sky Sports F1 commentator Martin Brundle, fresh from racing in the support event at Le Mans, demonstrated the beautifully rebuilt game-changer, which exploited new rules cleverly.

J.BLOXHAM/LAT



MAMP+SPORT

### 1979 HEPWORTH GB1

Tested at Silverstone and Snetterton in 1979, the unique BRM P230-tubbed Hepworth-Chevrolet GB1 Can-Am car was wrecked in the USA by Garvin Brown's driver Danny Sullivan before it could debut. The late David Hepworth's sons Stephen and Andrew rebuilt it using surviving parts as patterns. Andrew gave it a first public airing at Goodwood.



J.BLOXHAM/LAT

### 1976 LANCIA STRATOS HF

F1 veteran and Le Mans winner Alexander Wurz spent a decade trying to buy father Franz's 1976 European Rallycross Championship-winning Lancia Stratos back. Having done so, Alex had it restored to original spec and presented it to him. Both drove the Ferrari V6-powered Bertone bullet at Goodwood, as did compatriot Andy Bentza, the '78 'GT' champion.



HAWKINS

### 1972 BMW 3.0 CSL 'BATMOBILE'

Is there a more iconic BMW racer than the factory-striped (ultimately 3.5-litre) CSL 'Batmobile' model, which finally overpowered Ford Cologne's potent Capri RS models to land the European Touring Car Championship in 1973 with Dutchman Toine Hezemans up? Period BMW racer Harald Grohs drove this one, which boasts successful US history, at Goodwood.



J.BLOXHAM/LAT

### 2013 LANCIA 'LASUPRA'

Swedish speed hunter Peter Pentell's fabulous Lancia clone has no Italian heritage whatsoever but the latest evolution of his intriguing hybrid – a bespoke tubeframe chassis powered by a 900bhp turbocharged Toyota engine, topped with a carbonfibre Delta Integrale shell – turned heads on its Goodwood debut. The combo finished 10th in the televised shootout.

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# Anything but run of the mill

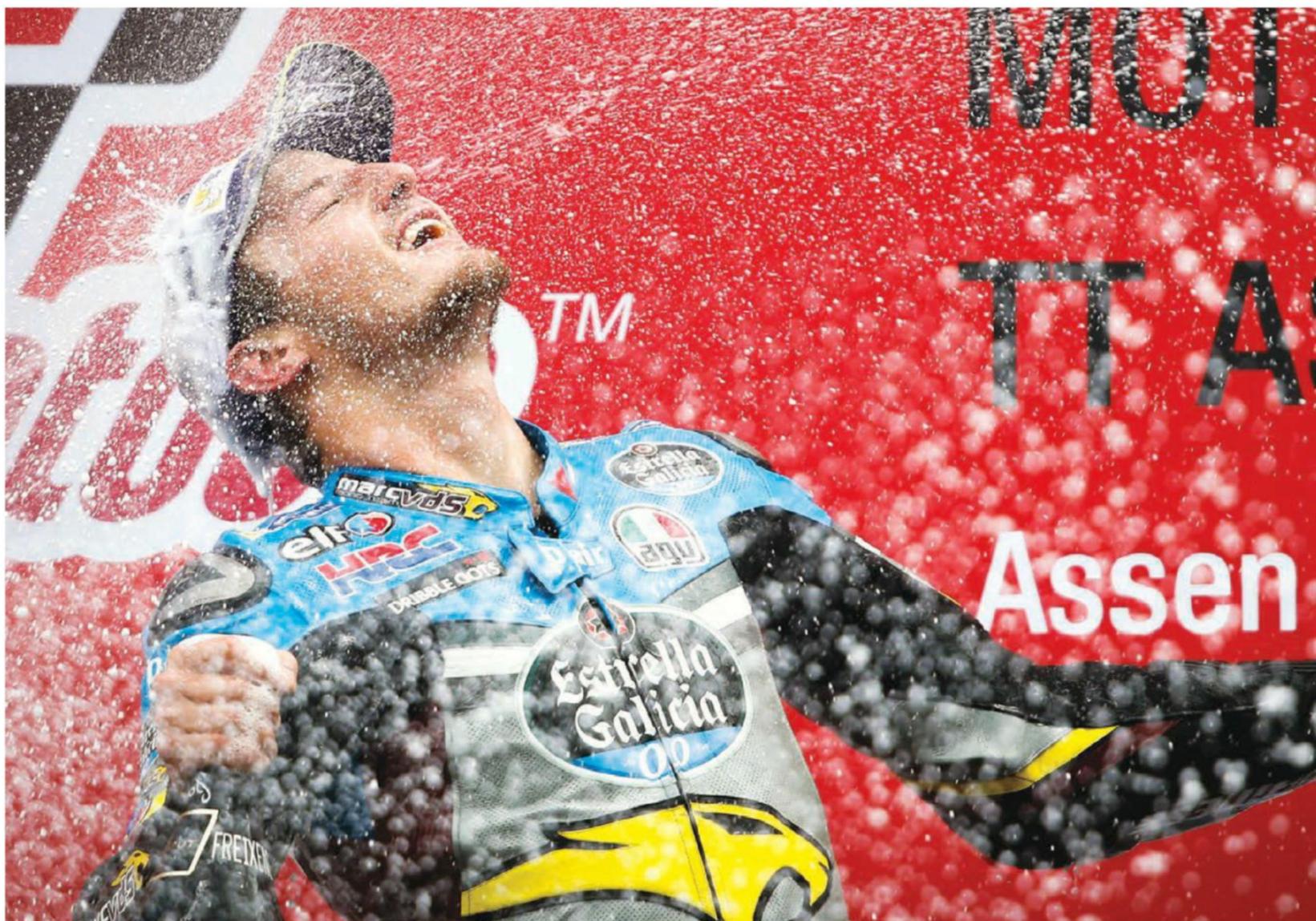
Many riders came unstuck in a rain-hit and crash-riddled Dutch TT, which ended with a new and unlikely MotoGP winner in Jack Miller

By Mitchell Adam, International Editor

🐦 @DrMitchellAdam







**“T**he three guys that have crashed – Pedrosa, Dovizioso and Valentino – they never crash

and they don’t crash on the same day,” Cal Crutchlow mused after his own crash-shortened Dutch TT. “Ironically, we sat at dinner last night, me and Jack [Miller], and he said, ‘I’m going down tomorrow’. He’s the only one who stays up and he wins the race!”

Andrea Dovizioso and Valentino Rossi had both led chunks of the eighth race of the MotoGP season. Dani Pedrosa had his moment as the fastest man on track, as did Crutchlow. But all four featured on the long list of riders who crashed during the rain-hit, two-part afternoon.

When it was all said and done, Jack Miller was on the top step of the podium, having started the day in 18th and with a previous career-best race result of 10th, recorded in the preceding grand prix. For the first time since April 2013, when Marc Marquez won in his second start,

MotoGP celebrated a new winner. And the first rider other than Marquez, Rossi, Pedrosa, Jorge Lorenzo and Casey Stoner to win a race since Ben Spies at – incidentally – Assen in 2011 was an unlikely one at that.

After finishing second in Moto3 in 2014, Miller skipped the traditional season or several in Moto2 and graduated straight to MotoGP, as Crutchlow’s team-mate at the LCR Honda team, but riding an Open-specification bike in the now-defunct second class of machinery. This year’s move to Marc VDS for his second campaign coincided with a renewed fitness push, but also with a motocross training crash that fractured the tibia and fibula in his right leg on the eve of pre-season testing.

He didn’t miss a race, but was visibly hampered – on and off the bike – in the opener at Qatar, then showed flashes of speed between crashes in mixed conditions at Argentina, only to crash and land on the leg again in practice at Austin, adding a broken metatarsal to his worries. Since then, Miller’s progress and recovery has been largely quiet, as he and rookie team-mate Tito Rabat do what they can with a Honda that only Marquez

**A new face on the top step of the podium is a rare sight in MotoGP**

seems to be able to get the most out of, baffling even Pedrosa and Crutchlow.

Miller headed to Assen with 25 points from his first 24 MotoGP races, perhaps both his brightest and darkest hour having come together in mixed conditions at Silverstone last year, where he worked his way from 16th to fourth, only to take out third-placed Crutchlow. But when opportunity knocked in the Netherlands, Miller took it with both hands, doubling his career points tally with the 25 for victory in his 25th start.

With it, he became the first Australian to win a MotoGP race since Stoner’s last victory at Phillip Island in 2012. It was also the first in MotoGP for Marc VDS, perhaps better known in the pages of Autosport for its sportscar programmes, in just its second season.

And it was a rare moment in the sun, or perhaps more accurately shelter, for MotoGP’s independent teams. It’s nearing 10 years since one had last won a premier class race, Toni Elias’s victory at Estoril in October 2006 for Gresini.

It was a strange old Sunday. That it was Sunday at all was a quirk; the 86th running of the race was the very first not on a Saturday in the history of the event,



which dates back to 1925. Even away from its traditional day, and on a circuit that was slashed more than a decade ago in favour of a shorter and safer variant, the Dutch TT still delivered. And had rain.

Inclement weather threatened on Thursday and Friday, then arrived on Saturday afternoon, in time for what would have been the race in previous years. In 2016 it shaped a practice session and qualifying, and riders crashing on Michelin's front rain tyre was a taste of what was to come.

Since Michelin returned to MotoGP at the start of the year, its tyres have run in almost exclusively dry weather, with development on that side of things progressing well. Its wets have barely been needed, and therefore barely developed, reflected in rider feedback that the fronts lacked grip and feeling.

On Saturday afternoon Miller qualified 18th, having been among the riders to have crashed in the greasy conditions. A day later he kept the front end of his motorcycle planted as others lost theirs.

But to suggest Miller won by default or purely because other riders fell does him absolutely no justice. The original race was red-flagged after 14 laps, the »



Pushing too hard in pursuit of Rossi cost Dovizioso dearly

## DUCATI GOES HOME EMPTY HANDED

THE 10-YEAR DROUGHT BETWEEN WINS FOR MotoGP's satellite teams ended at Assen, but Ducati's long search for its first in nearly six years goes on. And the Dutch TT will surely be up there when the growing 'opportunities-missed' list is eventually put to one side.

The factory Ducatis of Andrea Iannone and Andrea Dovizioso were just about the fastest bikes of the weekend in the wet and dry, and the satellite entries of Pramac's Scott Redding and Danilo Petrucci and Aspar's Yonny Hernandez also had realistic cases for winning the race. Eleven laps into the first half, they occupied five of the top six places. And, while Ducati finished the day with four of the top seven riders, Redding's third place is not the outcome the marque craved. Much more was possible.

Iannone's weekend was always going to be compromised, starting from the rear of the grid as his penalty for colliding with Jorge Lorenzo at Barcelona. Still, he topped both of Friday's sessions, and used Saturday's to focus on race pace, knowing whatever he did in qualifying would not count.

On one hand, the rain helped his progress on Sunday, but the speed of the Desmosedici was such that he probably would have cut through anyway. Iannone sliced from 21st to 11th on the first lap, then had settled into fifth before crashing as the rain started to fall again, two laps before the red flag. Crucially, he got back on his Ducati and therefore could participate in the restarted race, in which he kept it together to move from 17th to fifth.

Team-mate Dovizioso took pole and was in

the lead pack throughout the first half and at the top of the pile when it stopped. While running second behind Valentino Rossi, he crashed two laps into the restarted race, one before Rossi.

"We did everything perfect in the first race," Dovizioso said. "In the second race, I believe with Valentino, we pushed so hard to beat each other because we were the fastest. We pushed too much. The reason why we crashed and the reason why too many riders crashed was the front tyre. The front tyre didn't work."

The Ducati rider who led the most laps was Hernandez, who charged to the front using a softer rear tyre. There were doubts over its durability, but the Colombian made hay while the track dried to lead by nearly four seconds. Dovizioso then started cutting that margin before Hernandez fell at Turn 1, and a second crash ended his day before the red flag.

"I felt sure I could win the race," he said. "I didn't feel like I was on the limit and thought I had everything under control. However, I felt the front tuck a little and even though I tried to save it on my knee it wasn't to be."

Redding's podium is his second in MotoGP, his other coming in similar conditions at Misano last year. He's had a tough season due to factors largely out of his control, including unreliability, so third is a welcome boost.

A good result for Petrucci would have also been popular. The Italian is known for his wet-weather prowess, and his 2016 has been compromised by a broken hand sustained during pre-season testing, but mechanical problems put paid to his chances.

circuit drying until a massive downpour raised very valid concerns about standing water, especially given that riders had been chewing through their wet tyres on a dry line for several laps.

In that time, Miller had moved up to eighth. When the race restarted half an hour later he was quickly up to fourth. That became second when Dovizioso and then Rossi crashed out of second and first places respectively, caught out by a lack of grip in the first three laps of the rescheduled 12-lap sprint. The overriding problem had been riders changing their worn, hard-compound wet rear tyres for new softs for the shortened race, and they simply had too much grip for the front tyre.

Miller still had one of MotoGP's big guns ahead of him, championship leader Marquez, but he reeled him in, made a clean move stick and eased away and brought it home for a memorable victory.

"I got in behind Marc and when Valentino threw it in the gravel I saw that Marc had calmed down a little bit," Miller said. "You could see that he was happy where he was, he was leading the race, but when I went past I just tried to set a similar laptime to what I was doing, and just try to do my own race. I could see that Marc didn't want to take risks."

Even with Marquez adopting a conservative approach, Miller demonstrated mastery of the conditions. Life in MotoGP has not been easy for the 21-year-old, but he is making progress, still tipped for big things, and now has a win to show for his toils.

"We're still in the learning phase," he said. "Coming up from Moto3 to MotoGP was a big step but I think this sort of makes it clear I do know how to ride a motorbike and I'm not an idiot."

"It gives Honda and everybody like that something back for taking such a big gamble on me; the risk those guys have



Lorenzo was a muted presence, finishing a distant 10th

taken to bring me straight from Moto3 to MotoGP. The amount of criticism they've got and the amount of criticism I've got, saying, 'He's a moron.'"

Marquez had had an action-packed Saturday. He somehow saved a massive highside braking at Turn 1 during the weekend's third practice session, then crashed early in wet qualifying. Reminiscent of his sprint back to the Honda garage during qualifying in Austin last year, he dashed through the gravel trap immediately after falling, then commandeered a photographer's scooter to get back to the paddock, his reward being enough time to qualify fourth on his spare bike.

He stayed out of trouble on Sunday and said second place felt "like a victory", considering the misadventures of his championship rivals. Rossi was in the lead pack all day, then grabbed top spot after the restart, only to fall at the

Mandevien right-hander at the top of the circuit. A win was on offer, along with all the momentum in the title fight.

"I pushed too hard," Rossi said. "It was a stupid mistake."

Yamaha team-mate Jorge Lorenzo finished the race but was a distant 10th. Only 12 riders were running at the end, Lorenzo the last of them who did not crash. Lorenzo's personal history with Assen is not all pleasant; his confidence was knocked by a massive accident in 2013, and greasy or changeable conditions rob him of the front-end feel he craves to push the limit. Put the two together and the three-time champion was slow in qualifying, then 19th and 53rd behind the leader when the red flag was shown. Falling rivals gifted Lorenzo six points, but after eight races Marquez is 24 points ahead, and 42 clear of Rossi.

Ducati was quick in the wet and dry but left with scant reward (see page 29), while Suzuki was absolutely nowhere in the wet, a frustrated Maverick Vinales faring little better than Lorenzo in ninth, saying he felt like he was "riding on ice".

That helped pave the way for a second satellite rider on the podium, Pramac Ducati's Scott Redding. The British rider passed Tech3 Yamaha man Pol Espargaro with two laps to go to secure his second MotoGP podium, building on his maiden front-row start. His team-mate Danilo Petrucci also starred, catching and passing Rossi and then Dovizioso after runaway leader Yonny Hernandez crashed. Petrucci's move came just before the red flag was shown, so didn't count when the grid was reset at, essentially, halftime. He would have been a threat in the second half, but his engine stalled on the second lap.

It was one of those genuinely unpredictable, enchanting Sundays. Just about every rider had a 'what if?' story, but only one finished the day drinking champagne out of his boot on the top step of the podium. ❄



Rossi looked good, but crashed out of the lead after the restart

Scott Redding took his second MotoGP podium for Ducati



#### RESULTS ROUND 8/18, ASSEN, JUNE 26 (12 LAPS – 33.867 MILES)

POS	DRIVER	TEAM	TIME
1	Jack Miller (AUS)	Marc VDS Honda	22m17.447s
2	Marc Marquez (E)	Honda	+1.991s
3	Scott Redding (GB)	Pramac Ducati	+5.906s
4	Pol Espargaro (E)	Tech3 Yamaha	+9.812s
5	Andrea Iannone (I)	Ducati	+17.835s
6	Hector Barbera (E)	Avintia Ducati	+18.692s
7	Eugene Laverty (IRL)	Aspar Ducati	+22.605s
8	Stefan Bradl (D)	Aprilia	+23.603s
9	Maverick Vinales (E)	Suzuki	+26.148s
10	Jorge Lorenzo (E)	Yamaha	+27.604s
11	Tito Rabat (E)	Marc VDS Honda	+1m21.830s
12	Dani Pedrosa (E)	Honda	+1m54.369s
13	Bradley Smith (GB)	Tech3 Yamaha	-3 laps
R	Alvaro Bautista (E)	Aprilia	11 laps-crash
R	Michele Pirro (I)	Avintia Ducati	5 laps-engine
R	Valentino Rossi (I)	Yamaha	2 laps-crash
R	Aleix Espargaro (E)	Suzuki	2 laps-crash
R	Andrea Dovizioso (I)	Ducati	1 lap-crash
R	Daniilo Petrucci (I)	Pramac Ducati	1 lap-crash
R	Cal Crutchlow (GB)	LCR Honda	0 laps-crash
R	Yonny Hernandez (CO)	Aspar Ducati	0 laps-crash



**Winner's average speed** 91.160mph. **Fastest lap** Rossi 1m49.485s, 92.799mph.

**Qualifying 2** 1 Dovizioso 1m45.246s; 2 Rossi 1m45.961s; 3 Redding 1m46.312s; 4 Marquez 1m46.430s; 5 Crutchlow 1m46.568s; 6 Hernandez 1m46.828s; 7 P Espargaro 1m46.997s; 8 A Espargaro 1m47.118s; 9 Iannone 1m47.567s; 10 Petrucci 1m47.601s; 11 Lorenzo 1m47.897s; 12 Vinales 1m48.415s.

**Qualifying 1** 1 P Espargaro 1m48.482s; 2 Hernandez 1m48.535s; 3 Barbera 1m48.830s; 4 Smith 1m48.909s; 5 Bautista 1m49.163s; 6 Pedrosa 1m49.364s; 7 Laverty 1m49.678s; 8 Bradl 1m49.685s; 9 Miller 1m49.775s; 10 Rabat 1m49.779s; 11 Pirro 1m50.204s.

**Riders' Championship** 1 Marquez 145; 2 Lorenzo 121; 3 Rossi 103; 4 Pedrosa 86; 5 Vinales 79; 6 P Espargaro 72; 7 Barbera 58; 8 Iannone 52; 9 A Espargaro 49; 10 Laverty 48; 11 Dovizioso 43; 12 Bradl 37; 13 Miller 33; 14 Redding 32; 15 Smith 32; 16 Bautista 29; 17 Petrucci 24; 18 Crutchlow 20; 19 Pirro 19; 20 Rabat 18; 21 Baz 8; 22 Hernandez 3.

**Manufacturers' Championship** 1 Yamaha 178; 2 Honda 160; 3 Ducati 108; 4 Suzuki 85; 5 Aprilia 45.

## IN THE HEADLINES



### UPS AND DOWNS

Alvaro Bautista (above) was on course for Aprilia's best result since returning to MotoGP when he was running sixth on the final lap. But he then crashed, as team-mate Stefan Bradl took eighth.

### DOWNS AND UPS

Eugene Laverty crashed on his way to the grid, but avoided a repeat in the race to finish seventh, one spot behind Hector Barbera. Eight races in, Barbera is the top Ducati rider in the points, in seventh.

### DANI'S DRAMAS

Dani Pedrosa had a torrid weekend. His 16th in qualifying – before Andrea Iannone's penalty was applied – equalled Pedrosa's worst in MotoGP, in Turkey during his 2006 rookie campaign.

### UNFAMILIAR TERRITORY

Qualifying on Saturday was the first time no Spanish rider has qualified on the front row of the grid since the 2011 Italian Grand Prix, when Casey Stoner, Ben Spies and Marco Simoncelli were the top three.

### NEW DUTCH DEAL

The future of the race at Assen is safe until at least 2026, with organisers signing a new, 10-year deal, during which time further upgrades will be made.

### MAHINDRA BREAKS THROUGH

Francesco Bagnaia claimed his and Mahindra's first grand prix victory in Moto3. Bagnaia outdragged Andrea Migno out of the final corner to win by 0.018s, but Migno was later dropped to third behind Fabio Di Giannantonio for exceeding track limits. Brad Binder survived a wild moment while second and finished 12th, but extended his points lead over Jorge Navarro – absent due to injury – to 48.

### NAKAGAMI BEATS ZARCO, RAIN

Takaaki Nakagami (below) became Japan's first GP winner since 2010, in a rain-shortened Moto2 race. From sixth, Nakagami fought through to lead the bulk of the race and was ahead of Johann Zarco by 1.5s when red flags were shown two laps early.





Kanaan homes in on Power during the closing stages

## Win for Power; glory

**INDYCAR SERIES**  
**ROAD AMERICA (USA)**  
**JUNE 26**  
**ROUND 9/15**

WHEN THE LONG CIVIL WAR THAT SPLIT big-time American open-wheel racing into two series finally ended after 13 long years in February 2008, there was one iconic venue that didn't make the cut of a unified IndyCar Series: Road America in Elkhart Lake, Wisconsin.

Last weekend's return of the IndyCar elite to Road America was a stunning success, drawing the largest crowd in the history of a facility that dates back to 1955 and had been hosting CART races since '83. It was like a giant welcome home party, and the driver who enjoyed it the most was Team Penske's Will Power, who drove to his second straight win after his victory in Detroit.

Power started on the pole and led 46 of the 50 laps. The only time he relinquished the lead was when he pitted but, once the green-flag pitstop sequences were completed, the Australian's Dallara-Chevrolet was far out front of the field.

Power survived a late-race restart to defeat Chip Ganassi Racing veteran Tony Kanaan by 0.7429 seconds. "That was one of my most satisfying wins, it really was," Power said. "I really wanted to get pole, to lead the most laps,

and having that hard battle with TK at the end was a lot of fun. And the crowd – it was so cool to race in front of such a large crowd."

Power never turned a wheel wrong all weekend, but his domination came under threat after Conor Daly crashed at Turn 1, the victim of a left-rear suspension failure as he battled for a top-six place with Ryan Hunter-Reay. The long caution period that followed left just six laps of green-flag racing at the end. Power and Penske team-mate Simon Pagenaud, who had been showing incredible pace as he made a late burst into second place, were on the black tyres they had taken at their final pitstops, while those behind them – including Kanaan – were on the softer red Firestones, and would be able to use their extra grip.

Pagenaud faded dramatically as his engine lost a cylinder with two laps remaining, by which time Kanaan was already past the Frenchman and was hauling in Power. "Good start, good last restart, good tyre management, good fuel savings," said Power after taking the flag. "We had the right strategy. TK had new reds there at the end and was coming hard, but we saved the push-to-pass for that situation."

Kanaan's valiant effort came at the end of a race in which the Brazilian never ran lower than third, and which had started badly for his Ganassi team, when Scott Dixon dropped out of



## Veach amid the shunts

**INDY LIGHTS**  
**ROAD AMERICA (USA)**  
**JUNE 25-26**  
**ROUND 6/11**

WHEN FELIX ROSENQVIST had to stand down from his Belardi Auto Racing seat for Road America due to DTM reserve duties at Norisring, you might have expected that to vastly diminish the chances of a win for the team on a track much like the European road courses on which the Swede cut his teeth.

Not so, for Zach Veach led all the way to triumph for Belardi in Saturday's encounter, before Schmidt Peterson Motorsports' Santi Urrutia took his turn on the top step of the podium the following day.

While Veach was supreme on Saturday, a massive fight for second embroiled Dean Stoneman, Ed Jones and Andre Negrao. It led to Stoneman being penalised five seconds for pushing Negrao out onto a kerb, and Jones fuming about front-wing damage.

Jones lost third to the sister Carlin car of Felix Serralles, and Stoneman was able to pull out enough of a margin in second to negate his penalty.

There was more drama involving Jones and Stoneman in the wet second race. Contact as they fought for the lead pushed Jones sideways, before he was collected by Serralles, while Stoneman picked up a puncture, pitted for slicks and charged up to ninth.

Negrao led the restart after the shunt, but Urrutia dived to the inside at Turn 1 for victory.

### RESULTS

**Race 1 1 Zach Veach** 20 laps in 41m40.3748s; 2 Dean Stoneman +7.9841s; 3 Felix Serralles; 4 Ed Jones; 5 Zach Claman DeMelo; 6 Kyle Kaiser.

**Race 2 1 Santiago Urrutia** 20 laps in 49m07.6614s; 2 Andre Negrao +8.1504s; 3 Veach; 4 DeMelo; 5 Shelby Blackstock; 6 Kaiser. **Points 1 Jones 213**; 2 Stoneman 194; 3 Urrutia 189; 4 Kaiser 174; 5 Serralles 169; 6 Veach 168.

## AT A GLANCE

- 1 Power Penske
- 2 Kanaan Ganassi
- 3 Rahal Rahal Letterman Lanigan

**P41** FULL RESULTS

to go before passing Charlie Kimball for sixth. Helio Castroneves was penalised for blocking Hunter-Reay on the final restart and was ordered to give up the position by IndyCar Race Control. When Castroneves refused, he was moved to fifth and Hunter-Reay up to fourth in the final running order. Even so, Castroneves moves up to second in the standings behind Pagnaud thanks to Dixon's dramas.

Kimball was extremely competitive, as he started 11th and moved up to sixth, the Ganassi driver benefiting from a spirited battle toward the end of the race. Juan Pablo Montoya finished seventh after starting 14th in a race where he showed why he is a road-course master with supreme car control. "If anyone complains about the racing today, then they should go watch horse racing or something," said Montoya after a race that featured 134 passes from second to 12th places.

Josef Newgarden was also impressive and courageous as he drove with a fractured clavicle and wrist suffered in a crash at Texas Motor Speedway, just losing out in a great battle with Montoya.

**BRUCE MARTIN**

the fray after just a few laps, steering his car through the runoff at Turn 5 after his engine blew up.

Third place went to Graham Rahal, who started sixth and finished as the top Honda-powered driver in his Rahal Letterman Lanigan Racing car. When Power was stretching his lead at the start of the race, Rahal had the fastest car in traffic. He passed Hunter-Reay on the first lap to move up to fifth before he sized up Pagnaud down the long straightaway heading into Turn 5 for third place on lap nine.

Rahal was the leader for two laps when Power made his first pitstop on lap 12 and never ran lower than fourth for the remainder of the race. One move that was particularly impressive for Rahal came on the only restart of the race, after Daly's crash — he tried to dive to the inside of Kanaan, but just couldn't make the move stick in Turn 1.

Hunter-Reay was another Honda man who had good race pace, allowing him to take fourth. The Andretti Autosport driver had a great car in traffic and was the biggest mover in the final 10 laps of the race. He was seventh with three laps

# for the IndyCar Series

Lathouras leads Smith, Reip and winner Bell at start



# McLaren gets good service from

**BLANCPAIN ENDURANCE CUP**

**PAUL RICARD (F)**

**JUNE 25**

**ROUND 3/5**

A SECOND VICTORY OF THE SEASON for Garage 59 at the Paul Ricard 1000Km returned Rob Bell, Shane van Gisbergen and Come Ledogar to the head of the Blancpain Endurance Cup standings, but it was the knowledge that they did so without the fastest car that was most satisfying of all.

Though a constant podium threat throughout the six-hour race, the McLaren 650S GT3 didn't look an especially likely winner after the polesitting AF Corse Ferrari of Alessandro Pier Guidi prevailed in an entertaining battle with van Gisbergen and began to pull away. But, with the help of a debris-induced full-course yellow, they were vaulted back into play with just over an hour to go.

While Pier Guidi continued at 80km/h for an additional lap, Garage 59 responded by bringing van Gisbergen into the pits at the first opportunity. It proved a wise decision, as the race returned to green before the Ferrari could come in for its own stop. Thirty seconds were lost by the time Pier Guidi rejoined and, with it, any realistic chance of getting back on

terms with van Gisbergen.

"Ultimately we didn't have the pace of the Ferrari or Bentley, but we made the right calls at the right times," said Bell, who also leads the overall Blancpain GT standings for drivers competing in both the Endurance and Sprint Cups. "When the opportunity is presented in front of you, you've got to take it and the guys did that."

The final ingredient of Garage 59's success was a disastrous pitstop for the #8 Bentley, which had controlled the race from the front after ABS problems knocked the sister #7 car out of contention. Despite serving a drivethrough penalty for an earlier FCY infringement, Wolfgang Reip, Maxime Soulet and Andy Soucek still held the lead when they came in for their final stop on the same lap as the McLaren.

But the works M-Sport team's hopes of a first Endurance Cup win since Paul Ricard in 2014 were dashed when fuel spilled onto the exhaust and ignited, costing the best part of a full lap. An unrepresentative fourth was the outcome. "It's not as bad as Toyota at Le Mans, but we still should have won that race," said a disappointed Reip.

Their loss was WRT's gain, as a trouble-free run helped Filipe

Albuquerque, Rodrigo Baptista and Blancpain debutant Jan Magnussen to finish a surprise third in the best of the Audis. Wearing a racesuit borrowed from Peter Kox, Magnussen thoroughly enjoyed his one-off appearance in the series, the culmination of six years of talks with team owner Vincent Vosse, his former team-mate in Formula Ford.

"It was absolutely fantastic, with so many cars – it's quite different than what I'm used to," he said. "I was a little bit surprised by how aggressive everybody was, but I'd love to come back."

As day turned to night in a race that started at 6pm and ran until midnight, mechanical gremlins struck several of the established frontrunners.

A BoP adjustment left the Mercedes contingent struggling on the Mistral Straight all weekend, but clever use of the full-course yellows meant Silverstone winner HTP Motorsport was up to fourth when Maxi Buhk was sidelined by gearbox woes on his AMG GT3.

A similar issue caused Yelmer Buurman's Black Falcon Mercedes to lose fifth in the closing stages, while a strong run for the lead Grasser Lamborghini – which featured Mirko Bortolotti and Jeroen Bleekemolen in its line-up – was cut short with engine issues.

## AT A GLANCE

- 1 Bell/van Gisbergen/  
Ledogar McLaren
- 2 Pier Guidi/Rugolo/  
Lathouras Ferrari
- 3 Albuquerque/  
Magnussen/Baptista  
Audi

P41 RESULTS



# Garage 59

On another day, the #1 WRT Audi might have been the chief beneficiary from the spate of retirements, but had already lost three laps after wheel-to-wheel contact between Dries Vanthoor and Ledogar's McLaren resulted in suspension damage. "It was very unlucky because normally those touches happen quite often without any consequence, but this was a big one," said Frederic Vervisch, who co-drove the car with Vanthoor and the latter's older brother Laurens. "It could have been a very good day for us in the championship, especially because we had a good pace, so it's a big shame."

Victory in Pro-Am looked destined to go the way of the Motorbase-run Aston Martin of Jonny Adam, Devon Modell and Ahmad Al Harthy, but broken suspension allowed Kessel Racing Ferrari trio Andrea Rizzoli, Alessandro Bonacini and Michal Broniszewski to win their class in eighth overall. One week after competing at Le Mans, Matt Griffin and Duncan Cameron took second in another AF Corse Ferrari (sharing with Davide Rizzo), while Barwell Motorsport Lamborghini trio of Phil Keen, Marco Mapelli and Leo Machitski completed the podium after starting from the pitlane.

**JAMES NEWBOLD**



Orudzhev held off attack from Nissany

DUTCH PHOTO AGENCY

## Eager Orudzhev triumphs

**FORMULA V8 3.5**  
**PAUL RICARD (F)**  
**JUNE 25-26**  
**ROUND 4/9**

A BAKING WEEKEND AT PAUL RICARD WAS the setting for the in-form Egor Orudzhev to succeed in becoming the first driver to win two Formula V8 3.5 races this season, while standout rookie Louis Deletraz sparked in race two, doubling up on his own 2016 victory tally.

But both men faced stiff opposition from the maturing Roy Nissany, and it was the Charouz-run Lotus man's spirited, wheel-clashing battle with Orudzhev over the final laps on Saturday that provided the most diverting track action.

Perhaps harshly, Orudzhev believed he had underdelivered during Saturday qualifying. But from third on the grid, the Arden racer immediately launched into the lead of race one. Polesitter Matthieu Vaxiviere slotted into second on the run to the fast sweep of Verrerie, while front-row starter Nissany lost ground with a tardy getaway in which his anti-stall had kicked in.

The two SMP-backed cars staged a close contest for the lead in the early laps, and Vaxiviere grabbed the lead from Orudzhev courtesy of a fine move at Signes on the second tour. The home favourite would head the field for nine laps before being passed by Orudzhev at the Mistral Straight chicane. Vaxiviere's weekend would thereafter unravel. Tyre issues were identified as the culprit for his subsequent

freefall to fifth, ahead of Deletraz, as track temperatures soared.

Promoted to second following Vaxiviere's difficulties, Nissany swiftly began pressing Orudzhev. Passing attempts were saved for brave attacks at the tight final right-hander – Virage du Pont – over the last three laps.

A lock-up from Orudzhev tempted Nissany's first lunge down the inside, and the pair survived a wheelbanging moment to continue. On the following, penultimate tour, Nissany opted for the outside line. An overlap was obtained, but Nissany had to settle for second, half a second down at the chequered flag, with team-mate Rene Binder following him home in third.

Nissany grabbed a maiden series pole on Sunday, and convincingly led the early laps from Orudzhev. But the race would be settled in the pits. Third qualifier Deletraz believed he had superior pace to the leaders, and the Fortec Motorsport man ducked out of the battle on lap eight for his mandatory change of Michelins. Orudzhev and Nissany, in contrast, would wait until laps 13 and 14 respectively.

Neither was expecting to be leapfrogged by Deletraz, who received excellent service from his Fortec crew and later described conjuring five 'qualifying-style' laps. The Renault Sport Academy man was rewarded by a 6.9s cushion, which he managed to the finish.

Championship leader Tom Dillmann scored solid fourth and sixth places, but the AVF racer sees his edge over Deletraz reduced to 22 points.

**PETER MILLS**

### RESULTS

**Race 1** 1 Egor Orudzhev 22 laps in 41m42.225s; 2 Roy Nissany +0.541s; 3 Rene Binder; 4 Tom Dillmann; 5 Matthieu Vaxiviere; 6 Louis Deletraz; 7 Yu Kanamaru; 8 Aurelien Panis; 9 Beitske Visser; 10 Matevos Isaakyan. **Race 2** 1 Deletraz 23 laps in 43m44.351s; 2 Nissany +2.878s; 3 Orudzhev; 4 Panis; 5 Binder; 6 Dillmann; 7 Pietro Fittipaldi; 8 Alfonso Celis Jr; 9 Artur Janosz; 10 Visser. **Points** 1 Dillmann 132; 2 Deletraz 110; 3 Panis 92; 4 Binder 76; 5 Nissany 74; 6 Vaxiviere 73.



Deletraz used strategy and speed for win



Müller (51) would jump Blomqvist (31) at stops for first win

# Audi double ends its Norisring jinx

**DTM**  
**NORISRING (D)**  
**JUNE 25-26**  
**ROUND 4/9**

"SUCCESS IS ADDICTIVE – NOW I want more," exclaimed Nico Müller after securing his first DTM win in the second race at the Norisring. It proved not only to be a crucial win for Müller, but for Audi too. In fact, it was a big weekend in general for the manufacturer.

Mercedes has long been the dominant force at the Nuremberg track, but its run of success came to an abrupt end, firstly with Edoardo Mortara's win for Audi in a chaotic opening race.

The Abt Sportsline-run Italian lined up sixth on the grid for Saturday's race, with the Mercedes of Christian Vietoris on pole from the Audis of Mattias Ekström and Jamie Green. Green lost ground with a poor start, opening the door for Robert Wickens to move into contention for the race win. The top three scampered

off into the distance, but the order soon changed.

The race drastically altered course just prior to the halfway mark, with the battling Ekström and Wickens braking too late while rubbing wheels into the first hairpin. Ekström's Audi slammed into the back of the leading Mercedes of Vietoris, taking out the Merc of Wickens in the process. Of the three, Vietoris was the only driver able to continue.

Drama at the front opened the door for Mortara to inherit the lead, a perfect example of being in the right place at the right time. After the restart he had to fend off the advances of Green, before Mortara eventually crossed the line just half a second clear of his fellow Audi driver to become the first multiple victor of the 2016 DTM season.

Paul di Resta was the leading Mercedes driver in third place, ahead of BMW pair Marco Wittmann and Bruno Spengler.

A grid penalty for the first-race incident meant Sunday qualifying topper

Ekström fell to fourth on the grid, and promoted BMW youngster Tom Blomqvist to pole. A strong start and opening few laps meant the Anglo-Swede commanded the early stages, before dropping back into the clutches of Müller.

The RBM BMW racer had the benefit of clean air before stopping for a new set of tyres midway through the pit window. But Audi had opted to do something different with its race strategy, and a series of quick laps from Müller before his stop proved decisive to the outcome.

Müller emerged from his stop just ahead of Blomqvist. It took a few laps to properly get back up to speed with his new set of tyres and there was little between them, but Müller put his foot down and extended his lead from just a few tenths to over two seconds before the safety car emerged for debris.

Müller got a good jump on Blomqvist at the restart and there was no looking back as the Abt driver went on to win by 0.7 seconds. BMW's Maxime Martin enjoyed an energetic drive to third, with di Resta a distant but hard-fought fourth after leading a train of cars for much of the race.

Lucas Auer looked the faster driver in the queue but he struggled to pass fellow Merc driver di Resta and a slow pitstop meant he had to settle for fifth, ahead of Wittmann, Spengler and Mortara. Wickens was a low-key 11th after a puncture, while a drivethrough for contact with Antonio Felix da Costa dropped Vietoris to 15th.

## AT A GLANCE

**RACE 1**  
1 Mortara Audi  
2 Green Audi  
3 di Resta Mercedes

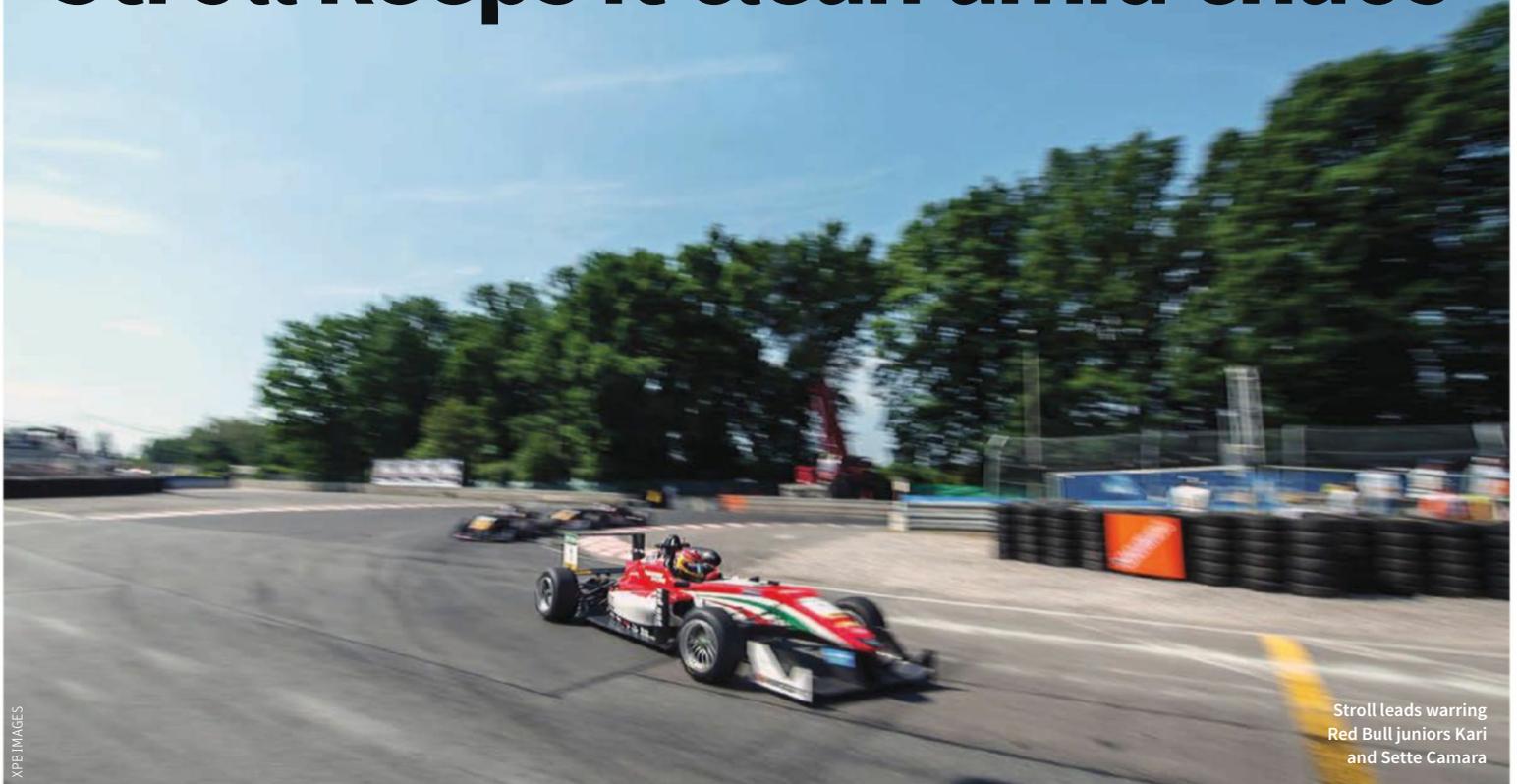
**RACE 2**  
1 Müller Audi  
2 Blomqvist BMW  
3 Martin BMW

➔ P40 FULL RESULTS



Mortara claimed Saturday honours for Audi

# Stroll keeps it clean amid chaos



Stroll leads warring Red Bull juniors Kari and Sette Camara

## FORMULA 3 EUROPEAN CHAMPIONSHIP NORISRING (D) JUNE 25-26 ROUND 5/10

AS THE FORMULA 3 TEAMS EXITED the Norisring after last weekend's triple-header, it was Prema Powerteam's Lance Stroll with most to celebrate as he came away with two victories and a commanding 86-point lead in the standings at the series' halfway point.

Consistently quick at the frantic 1.4-mile street track, Stroll enjoyed a near-perfect weekend at the wheel of his Mercedes-powered Dallara. His mature, measured performances were a stark contrast to the antics of those behind, and proved decisive.

But Stroll's success did require a little bit of luck. Having taken pole position for Saturday morning's race one, the Williams F1 junior dropped behind Motopark F3 rookie Joel Eriksson – the Swede completing a fantastic pass on the outside of the chicane – in the early stages, and the battling duo soon had the Van Amersfoort Racing car of Callum Iltott for company.

The Briton had qualified second for this race, and on pole for the other two, only for an engine failure in free practice to prompt a change of powerplant and a trio of 10-place grid penalties. Iltott charged from 12th to third, only to sail past Stroll midway through the race into the first hairpin and crash into leader Eriksson, bringing out the safety car.

Stroll was fortunate to avoid the chaos and reclaimed first place, surviving a further safety car period – after Sergio Sette Camara tipped Guan Yu Zhou into the wall – to pick up win number four of 2016. Red Bull junior Niko Kari finished second, with George Russell promoted to third after Nick Cassidy picked up a penalty for a safety car infringement.

Eighth was Anthoine Hubert, but the VAR driver had much bigger fish to fry later on. Finally the French F3 rookie got it right in qualifying, promoted to pole for race two with Iltott's penalty. He put that pole to good use to claim his first win, but he had to work hard for it.

Stroll pressured Hubert all the way, but the leader put in good restarts after each of the three safety car periods to hold off the Canadian by half a second, storming to victory and becoming the eighth different winner of the Euro F3 season. Maximilian Gunther completed the podium, with Cassidy charging from the back of the grid – due to gearbox problems in qualifying – to fourth with some gutsy overtaking moves.

The biggest accident came when Ben Barnicoat was tipped into the wall by contact with Ryan Tveter at the chicane; the most significant was a clash between Red Bull stablemates Sette Camara and Kari as they fought for a podium; and the most spectacular was when Will Buller – on a one-off F3 return with Carlin – careered Iltott-style into Harrison Newey and Pedro Piquet at the hairpin.

Even more drama and disruption



Hubert broke his F3 duck in race two

## AT A GLANCE

### RACE 1

- 1 Stroll Prema
- 2 Kari Motopark
- 3 Russell Hitech

### RACE 2

- 1 Hubert Van Amersfoort
- 2 Stroll Prema
- 3 Gunther Prema

### RACE 3

- 1 Stroll Prema
- 2 Hubert Van Amersfoort
- 3 Sette Camara Motopark

➔ P40 FULL RESULTS

featured in Sunday's race, but Stroll kept his cool to claim another victory in a race that was red-flagged to clear the broken machines of Piquet and Tveter.

Stroll emerged from it all eight tenths clear of Hubert at the chequered flag, while Sette Camara bounced back from his double DNF in the opening two races to pick up his second podium of the year.

Cassidy once again went on a storm from the back to take sixth, despite few laps of green-flag racing. But, like Iltott, it could have been much better for him.

Although Iltott wrested a pair of sevenths after his race-one disaster, he has lost his second place in the points to Gunther, who picked up more points with fifth in the finale. Russell has retained fourth despite an early clash with Eriksson taking him out of race three, with Cassidy improving to fifth.



Crowd cheers on Monteiro to win from Muller

DAVID NOELS

# Dancing in the streets for Monteiro

**WORLD TOURING CAR CHAMPIONSHIP**  
**VILA REAL (P)**  
**JUNE 26**  
**ROUND 7/12**

TIAGO MONTEIRO'S VOICE WAS noticeably shrill after crossing the finish line at the end of the second World Touring Car Championship race on the streets of Vila Real to clinch a sensational home victory.

The Portuguese could be forgiven for losing his cool as he landed a third WTCC win in front of his home crowd, having produced arguably his best all-round performance in the WTCC.

"The key to victory was the start; I was focused on making the best getaway I could because that first few seconds was worth 90% of the race," said a delirious Monteiro. Few truer words were spoken all weekend. For all the jubilation over Monteiro's victory, only so much of it was for the spectacle. Any result for the home hero would have been celebrated, but two significant factors shifted the odds in Monteiro's favour, both of which occurred before the end of the first lap of the main race.

Vila Real is correctly revered as one of

the world's toughest street circuits, with top speeds pushing 150mph in a touring car and tight confines leaving little margin for error. But it's those characteristics that limit overtaking opportunities, so qualifying around the 2.86-mile circuit was always likely to be crucial.

First to run in a straight shootout between the Citroens and Hondas in Q3, Monteiro strung together his fastest lap of the weekend before returning to his garage, where he watched team-mate Norbert Michelisz and then Jose Maria Lopez both make errors and Yvan Muller fail to improve on the benchmark.

By the time Rob Huff in the third Civic prepared for his flying lap, Honda was guaranteed pole. Huff was the form driver heading into the session, but he too made a mistake that wrecked his lap, handing Monteiro a surprise pole – his first in WTCC qualifying for six years.

But that was only half the work. A stall at the start of the race-one formation lap proved how damaging any later repeat would be, and his race was far from simple as vibrations plagued his run to 10th.

Still, the main event got off to just the start that Monteiro needed, as his launch off the line prevented Citroen star Muller,

starting second, from having a sniff for the lead through the opening corners.

Not content with allowing the crowd an easy ride, Monteiro buzzed over the radio towards the end of lap five to report that his engine had cut. Could he make it to the finish? Radio silence thereafter did little to allay fears but, as the laps ticked by, it increased belief that the Portuguese fans would get their desired result.

Muller hunted gamely and kept his former team-mate honest, but was not to deny Monteiro, who won by 0.821 seconds to a rapturous reception.

"To win my home race is just unbelievable," added Monteiro. "We have engines and earplugs but I could hear people shouting in the last few laps."

Michelisz came home third despite a late bump from Honda team-mate Huff, with Lopez limping to fifth, the reigning champ now without a win in four races.

Monteiro's victory made him just the third multiple winner of 2016, a feat also achieved by Tom Coronel in the opening race. Having had his first two Q2 laps deleted, Coronel was perhaps lucky to end up 10th and with the reversed-grid pole in his ROAL Chevrolet, but he made the most of that opportunity after holding his lead at the start from Tom Chilton, who worked his way around Nicky Catsburg for second.

Chilton looked marginally quicker and was regularly able to get a run into the Turn 19/20 chicane, but with the narrowest of apexes any overtakes were off limits, and Coronel looked increasingly comfortable as the race wore on.

With the Yokohama tyres holding up better than feared, Coronel dictated the pace and won by 0.597s from Chilton's Citroen. Catsburg held on for third despite his brake pedal going long early on.

**JACK COZENS**

## AT A GLANCE

### RACE 1

- 1 Coronel Chevrolet
- 2 Chilton Citroen
- 3 Catsburg Lada

### RACE 2

- 1 Monteiro Honda
- 2 Muller Citroen
- 3 Michelisz Honda

**P41** FULL RESULTS



Coronel on a circuit rather more scenic than most

GUILLAUME TOFFI/DPPI

# IN BRIEF

## V8 STOCK CARS

Max Wilson took his second triumph in a row with a cautious climb from fifth on the grid to win the main race. The RC Chevrolet driver saved his tyres from the famously rubber-hungry Taruma Tarmac in the early stages to hold the upper hand in a late duel with Felipe Fraga, who increased his points lead over team-mate Marcos Gomes to 10. Julio Campos gave C2 Team its first win by beating Thiago Camilo on the line in the sprint race.

## ERC

Local legend Freddy Loix took his 11th win on the Ypres Rally round of the European Rally Championship. At the wheel of a Skoda, Loix had taken the lead from Bryan Bouffier when the Ford hit gearbox problems. Stephane Lefebvre (Ford) moved up to challenge Loix but he also had gearbox dramas, allowing Kris Princen and Bernd Casier to complete a Belgian 1-2-3.

## WORLD CHALLENGE

The RealTime Racing Acura team had a red-letter weekend at Road America, with Ryan Eversley winning both races. The sister TLX-GT of Peter Cunningham chased him home in race one, while Bentley man Adderly Fong passed Patrick Long's Porsche for third. Eversley fended off an early attack from Bryan Heitkotter in race two before problems struck the Nissan. Fong moved up to second from the Cadillac of Michael Cooper, who had climbed the order.

## ETCC

Vila Real resident Manuel Fernandes burst into the European Touring Car Cup on his home streets and took the win from fellow SEAT driver Norbert Nagy in the closing stages. As Nagy pitted with a puncture, Petr Fulin and Peter Rikli completed the podium. Fernandes charged onto the tail of Kris Richard's Honda into the second race but could not deny the Swiss, with Nagy third.

## GERMAN CARRERA CUP

Sven Muller notched up two more wins at the Norisring, each time beating Dennis Olsen and Christian Engelhart.

Stewart has only half-qualified for the Chase



# Veteran Stewart's surprise

**NASCAR SPRINT CUP**  
**SONOMA (USA)**  
**JUNE 26**  
**ROUND 16/36**

WHAT LOOKED TO BE AN unexciting day at Sonoma Raceway turned thrilling when veteran Tony Stewart took control with 20 laps to go and stole the win from a herd of competitive frontrunners.

Stewart lurked inconspicuously in the midfield for the majority of the race, but became a late contender when he anticipated a third caution due to debris and pitted ahead of the pack, giving his Stewart Haas Chevrolet the lead from Denny Hamlin's Joe Gibbs Racing Toyota.

The two battled it out in a

thrilling duel until the final lap, when Hamlin deftly regained the lead in Turn 7 before running wide, allowing Stewart to take advantage and earn his third win at the track.

Stewart's success denied road-course aficionado AJ Allmendinger, polesitter Carl Edwards and Martin Truex Jr, all of whom fought vehemently up front for the majority of the 110 laps.

But despite providing the twist that this surprisingly lacklustre road race was crying out for, Stewart doesn't quite qualify for the Chase – he'll need to squeeze into the top 30 in the points to be eligible. Having missed eight races at the start of the year due to back injuries from a pre-season dune buggy crash,

he still has a little work to do to get him there from 32nd if he's to have one final chance before retirement.

## RESULTS

**1 Tony Stewart (Chevrolet SS)** 110 laps in 2h42m13s; 2 Denny Hamlin (Toyota Camry) +0.625s; 3 Joey Logano (Ford Fusion); 4 Carl Edwards (Toyota); 5 Martin Truex Jr (Toyota); 6 Kevin Harvick (Chevy); 7 Kyle Busch (Toyota); 8 Ryan Newman (Chevy); 9 Kasey Kahne (Chevy); 10 Kurt Busch (Chevy). **Chase grid**  
**1 Kyle Busch 3 wins/452 points**; 2 Edwards 2/510; 3 Brad Keselowski 2/506; 4 Jimmie Johnson 2/469; 5 Harvick 1/562; 6 Kurt Busch 1/527; 7 Logano 1/493; 8 Truex 1/469; 9 Matt Kenseth 1/430; 10 Hamlin 1/421; 11 Chase Elliott 0/473; 12 Dale Earnhardt Jr 0/413; 13 Newman 0/402; 14 Austin Dillon 0/400; 15 Jamie McMurray 0/398; 16 Kahne 0/385.

# Evans retakes BRC series lead

**BRITISH RALLY CHAMPIONSHIP**  
**SCOTTISH RALLY (GB)**  
**JUNE 25**  
**ROUND 4/7**

ELFYN EVANS GOT HIS BRC campaign back on track with a win on the RSAC Scottish Rally, as his title challengers fell at the wayside.

Evans romped to victory by 52.4s despite suffering from oversteer on Saturday morning, which resulted in changing the diff on his Ford Fiesta R5 at service. He also overcame a faulty pop-off valve on the final stage to take home important points after a puncture on the previous round cost him ground to closest title rival Fredrik Ahlin.

The Swede – fresh off his win in



Evans enjoyed big margin of victory

Carlisle – wasn't quite on Evans's pace before a broken propshaft dropped him out of the event, giving Evans a 20-point margin.

Drama on the last stage meant Tom Cave took second away from a desperately unlucky David Bogie. The 2011 BRC champ's radiator broke on his home event and he retired.

**JACK BENYON**

## RESULTS

**1 Elfyn Evans/Craig Parry (Ford Fiesta R5)** 51m02.4s; 2 Tom Cave/James Morgan (Ford) +52.4s; 3 Desi Henry/Liam Moynihan (Skoda Fabia R5); 4 Euan Thorburn/Paul Beaton (Peugeot 208 T16); 5 Jonathan Greer/Kirsty Riddick (Citroen DS 3 R5); 6 Josh Moffett/John Rowan (Ford). **Points 1 Evans 85**; 2 Fredrik Ahlin 65; 3 Cave 56; 4 Moffett 36; 5 Greer 31; 6 Henry 19.

# RESULTS ROUND-UP

## DTM

### ROUND 4/9, NORISRING (D), JUNE 25-26

#### RACE 1 (49 LAPS – 70.029 MILES)

1	<b>Edoardo Mortara</b> (I) <i>Abt Sportsline</i> · Audi RS5	<b>41m09.983s</b>
2	<b>Jamie Green</b> (GB) <i>Team Rosberg</i> · Audi RS5	+0.531s
3	<b>Paul di Resta</b> (GB) <i>HWA</i> · Mercedes C63	+0.903s
4	<b>Marco Wittmann</b> (D) <i>RMG</i> · BMW M4	+4.135s
5	<b>Bruno Spengler</b> (CDN) <i>MTEK</i> · BMW M4	+6.731s
6	<b>Maxime Martin</b> (B) <i>RBM</i> · BMW M4	+9.951s
7	<b>Adrien Tambay</b> (F) <i>Team Rosberg</i> · Audi RS5	+10.875s
8	<b>Maximilian Gotz</b> (D) <i>HWA</i> · Mercedes C63	+13.501s
9	<b>Antonio Felix da Costa</b> (P) <i>Team Schnitzer</i> · BMW M4	+15.337s
10	<b>Christian Vietoris</b> (D) <i>Mücke Motorsport</i> · Mercedes C63	+15.477s
11	<b>Augusto Farfus</b> (BR) <i>MTEK</i> · BMW M4	+16.939s
12	<b>Martin Tomczyk</b> (D) <i>Team Schnitzer</i> · BMW M4	+17.699s
13	<b>Lucas Auer</b> (A) <i>Mücke Motorsport</i> · Mercedes C63	+17.985s
14	<b>Gary Paffett</b> (GB) <i>ART Grand Prix</i> · Mercedes C63	+19.208s
15	<b>Tom Blomqvist</b> (GB) <i>RBM</i> · BMW M4	+19.571s
16	<b>Timo Scheider</b> (D) <i>Team Phoenix</i> · Audi RS5	+20.202s
17	<b>Miguel Molina</b> (E) <i>Abt Sportsline</i> · Audi RS5	+20.799s
18	<b>Mike Rockenfeller</b> (D) <i>Team Phoenix</i> · Audi RS5	+21.350s
19	<b>Daniel Juncadella</b> (E) <i>HWA</i> · Mercedes C63	+21.562s
20	<b>Nico Muller</b> (CH) <i>Abt Sportsline</i> · Audi RS5	+22.171s
21	<b>Timo Glock</b> (D) <i>RMG</i> · BMW M4	+23.674s
R	<b>Esteban Ocon</b> (F) <i>ART Grand Prix</i> · Mercedes C63	32 laps-mechanical
R	<b>Mattias Ekström</b> (S) <i>Abt Sportsline</i> · Audi RS5	22 laps-accident damage
R	<b>Robert Wickens</b> (CDN) <i>HWA</i> · Mercedes C63	19 laps-accident damage

Winner's average speed 102.066mph. Fastest lap Mortara 48.746s, 105.546mph.

#### QUALIFYING 1

1 Vietoris 48.144s; 2 Ekström 48.182s; 3 Green 48.194s; 4 Wickens 48.250s; 5 Spengler 48.257s; 6 Mortara 48.305s; 7 di Resta 48.312s; 8 Auer 48.342s; 9 Rockenfeller 48.352s; 10 Muller 48.357s; 11 Glock 48.360s; 12 Farfus 48.362s; 13 Wittmann 48.376s; 14 Martin 48.389s; 15 Tambay 48.393s; 16 Paffett 48.430s; 17 Gotz 48.445s; 18 Molina 48.464s; 19 Scheider 48.491s; 20 Blomqvist 48.500s; 21 da Costa 48.526s; 22 Juncadella 48.538s; 23 Tomczyk 48.544s; 24 Ocon 48.574s.

#### RACE 2 (72 LAPS – 102.899 MILES)

1 Muller 1h01m03.139s; 2 Blomqvist +0.670s; 3 Martin +1.543s; 4 di Resta +4.701s; 5 Auer +4.950s; 6 Wittmann +5.197s; 7 Spengler +5.907s; 8 Mortara +6.228s; 9 Glock +6.981s; 10 Tomczyk +7.224s; 11 Wickens +10.510s; 12 Gotz +10.906s; 13 Ocon +11.543s; 14 Molina +13.013s; 15 Vietoris +14.094s; 16 Scheider +20.885s; 17 Green 58 laps-puncture/accident damage; R Rockenfeller 70 laps-accident damage; R Tambay 68 laps-accident; R Juncadella 63 laps-accident damage; R da Costa 63 laps-accident damage; R Paffett 59 laps-loss of power; R Ekström 1 lap-radiator; R Farfus 1 lap-accident damage.

Winner's average speed 101.125mph. Fastest lap Blomqvist 48.328s, 106.459mph.

#### QUALIFYING 2

1 Blomqvist 47.820s; 2 di Resta 47.877s; 3 Muller 47.889s; 4 Ekström 47.804s\*; 5 Auer 47.891s; 6 Martin 47.895s; 7 Wickens 47.902s; 8 Tambay 47.947s; 9 Mortara 47.953s; 10 Wittmann 47.967s; 11 da Costa 47.996s; 12 Gotz 48.029s; 13 Scheider 48.032s; 14 Spengler 48.044s; 15 Vietoris 48.046s; 16 Green 48.050s; 17 Rockenfeller 48.083s; 18 Ocon 48.101s; 19 Juncadella 48.110s; 20 Glock 48.119s; 21 Farfus 48.129s; 22 Molina 48.139s; 23 Tomczyk 48.249s; 24 Paffett 48.089s\*\*.

\* grid penalty. \*\* excluded from qualifying.

#### CHAMPIONSHIP

1 Wittmann 75; 2 Mortara 73; 3 di Resta 70; 4 Green 63; 5 Martin 62; 6 Wickens 58; 7 Muller 52; 8 Blomqvist 52; 9 Ekström 46; 10 Auer 41.



Muller hugged by Audi chief Ullrich

XPB IMAGES

## EUROPEAN F3

### ROUND 5/10, NORISRING (D), JUNE 25-26

#### RACE 1 (38 LAPS – 54.308 MILES)

1	<b>Lance Stroll</b> (CDN) <i>Prema Powerteam</i> · Dallara-Mercedes F316	<b>33m59.186s</b>
2	<b>Niko Kari</b> (FIN) <i>Motopark</i> · Dallara-Volkswagen F315	+1.064s
3	<b>George Russell</b> (GB) <i>Hitech GP</i> · Dallara-Mercedes F315	+2.926s
4	<b>Ralf Aron</b> (EST) <i>Prema Powerteam</i> · Dallara-Mercedes F315	+4.821s
5	<b>Ben Barnicoat</b> (GB) <i>Hitech GP</i> · Dallara-Mercedes F316	+6.233s
6	<b>Nick Cassidy</b> (NZ) <i>Prema Powerteam</i> · Dallara-Mercedes F314	+7.258s
7	<b>Mikkel Jensen</b> (DK) <i>Mücke Motorsport</i> · Dallara-Mercedes F312	+7.401s
8	<b>Anthoine Hubert</b> (F) <i>Van Amersfoort Racing</i> · Dallara-Mercedes F314	+7.883s
9	<b>Pedro Piquet</b> (BR) <i>Van Amersfoort Racing</i> · Dallara-Mercedes F316	+8.737s
10	<b>David Beckmann</b> (D) <i>Mücke Motorsport</i> · Dallara-Mercedes F316	+13.285s
11	<b>Nikita Mazepin</b> (RUS) <i>Hitech GP</i> · Dallara-Mercedes F315	+13.720s
12	<b>Alessio Lorandi</b> (I) <i>Carlin</i> · Dallara-Volkswagen F315	+13.881s
13	<b>Ryan Tveter</b> (USA) <i>Carlin</i> · Dallara-Volkswagen F316	+13.992s
R	<b>Harrison Newey</b> (GB) <i>Van Amersfoort Racing</i> · Dallara-Mercedes F316	29 laps-accident damage
R	<b>Sergio Sette Camara</b> (BR) <i>Motopark</i> · Dallara-Volkswagen F314	25 laps-accident damage
R	<b>Guan Yu Zhou</b> (PRC) <i>Motopark</i> · Dallara-Volkswagen F314	24 laps-accident
R	<b>Joel Eriksson</b> (S) <i>Motopark</i> · Dallara-Volkswagen F315	20 laps-accident damage
R	<b>Callum Ilott</b> (GB) <i>Van Amersfoort Racing</i> · Dallara-Mercedes F312	19 laps-accident
R	<b>Maximilian Gunther</b> (D) <i>Prema Powerteam</i> · Dallara-Mercedes F315	15 laps-front wing
R	<b>Will Buller</b> (GB) <i>Carlin</i> · Dallara-Volkswagen F314	8 laps-gear sensor

Winner's average speed 95.875mph. Fastest lap Ilott 48.209s, 106.721mph.

#### QUALIFYING 1

1 Stroll 48.148s; 2 Eriksson 48.361s; 3 Zhou 48.368s; 4 Cassidy 48.375s; 5 Russell 48.380s; 6 Kari 48.383s; 7 Sette Camara 48.453s; 8 Gunther 48.476s; 9 Beckmann 48.512s; 10 Buller 48.568s; 11 Jensen 48.571s; 12 Ilott 48.340s\*; 13 Hubert 48.642s; 14 Tveter 48.661s; 15 Aron 48.724s; 16 Barnicoat 48.756s; 17 Piquet 48.790s; 18 Newey 48.802s; 19 Lorandi 48.894s; 20 Mazepin 48.921s.

#### RACE 2 (36 LAPS – 51.450 MILES)

1 Hubert 34m10.668s; 2 Stroll +0.532s; 3 Gunther +1.461s; 4 Cassidy +2.708s; 5 Eriksson +3.040s; 6 Zhou +4.514s; 7 Ilott +4.882s; 8 Jensen +6.324s; 9 Russell +7.251s; 10 Aron +7.996s; 11 Mazepin +8.779s; 12 Kari +9.746s; 13 Beckmann +19.875s; R Newey 27 laps-accident; R Piquet 27 laps-accident; R Buller 27 laps-accident; R Sette Camara 17 laps-accident damage; R Tveter 3 laps-accident damage; R Barnicoat 2 laps-accident; R Lorandi 2 laps-accident damage.

Winner's average speed 90.320mph. Fastest lap Beckmann 48.375s, 106.355mph.

#### QUALIFYING 2

1 Hubert 48.163s; 2 Stroll 48.163s; 3 Gunther 48.177s; 4 Zhou 48.198s; 5 Eriksson 48.261s; 6 Russell 48.265s; 7 Jensen 48.192s\*; 8 Sette Camara 48.177s\*; 9 Beckmann 48.290s; 10 Kari 48.312s; 11 Tveter 48.359s; 12 Barnicoat 48.387s; 13 Aron 48.408s; 14 Mazepin 48.465s; 15 Ilott 48.076s\*; 16 Newey 48.404s\*; 17 Lorandi 48.535s; 18 Buller 48.567s; 19 Cassidy 48.733s\*; 20 Piquet 48.927s\*.

#### RACE 3 (24 LAPS – 34.300 MILES)

1 Stroll 34m36.561s; 2 Hubert +0.787s; 3 Sette Camara +1.985s; 4 Zhou +2.617s; 5 Gunther +3.467s; 6 Cassidy +4.310s; 7 Ilott +4.804s; 8 Lorandi +5.322s; 9 Aron +7.698s; 10 Newey +9.074s; 11 Mazepin +9.844s; 12 Buller +11.075s; 13 Tveter -3 laps; EX Barnicoat +7.179s; R Beckmann 19 laps-accident; R Jensen 19 laps-accident; R Kari 10 laps-accident; R Piquet 10 laps-accident; R Eriksson 3 laps-accident damage; R Russell 2 laps-accident.

Winner's average speed 59.463mph. Fastest lap Lorandi 48.179s, 106.788mph.

#### GRID FOR RACE 3

1 Stroll; 2 Hubert; 3 Zhou; 4 Gunther; 5 Sette Camara; 6 Beckmann; 7 Russell; 8 Jensen\*; 9 Eriksson; 10 Ilott\*; 11 Barnicoat; 12 Mazepin; 13 Kari\*; 14 Aron; 15 Tveter; 16 Newey; 17 Lorandi; 18 Piquet; 19 Cassidy\*; 20 Buller\*. \* grid penalty.

#### CHAMPIONSHIP

1 Stroll 234; 2 Gunther 148; 3 Ilott 140; 4 Russell 126; 5 Cassidy 111; 6 Barnicoat 96; 7 Sette Camara 89; 8 Eriksson 86; 9 Jensen 83; 10 Aron 82.



Eriksson cruelly denied in race one

## INDYCAR

### ROUND 9/15, ROAD AMERICA (USA), JUNE 26 (50 LAPS – 200.700 MILES)

1	<b>Will Power</b> (AUS) <i>Team Penske</i> · Dallara-Chevrolet	<b>1h39m10.3045s</b>
2	<b>Tony Kanaan</b> (BR) <i>Chip Ganassi Racing</i> · Dallara-Chevrolet	+0.7429s
3	<b>Graham Rahal</b> (USA) <i>Rahal Letterman Lanigan Racing</i> · Dallara-Honda	+5.9608s
4	<b>Ryan Hunter-Reay</b> (USA) <i>Andretti Autosport</i> · Dallara-Honda	+9.3597s
5	<b>Helio Castroneves</b> (BR) <i>Team Penske</i> · Dallara-Chevrolet	+10.5340s
6	<b>Charlie Kimball</b> (USA) <i>Chip Ganassi Racing</i> · Dallara-Chevrolet	+10.9966s
7	<b>Juan Pablo Montoya</b> (CO) <i>Team Penske</i> · Dallara-Chevrolet	+12.6191s
8	<b>Josef Newgarden</b> (USA) <i>Ed Carpenter Racing</i> · Dallara-Chevrolet	+13.8835s
9	<b>Spencer Pigot</b> (USA) <i>Ed Carpenter Racing</i> · Dallara-Chevrolet	+15.7290s
10	<b>Carlos Munoz</b> (CO) <i>Andretti Autosport</i> · Dallara-Honda	+17.1132s
11	<b>Jack Hawksworth</b> (GB) <i>AJ Foyt Enterprises</i> · Dallara-Honda	+18.7152s
12	<b>Marco Andretti</b> (USA) <i>Andretti Autosport</i> · Dallara-Honda	+19.9030s
13	<b>Simon Pagenaud</b> (F) <i>Team Penske</i> · Dallara-Chevrolet	+21.1530s
14	<b>James Hinchcliffe</b> (CAN) <i>Schmidt Peterson Motorsports</i> · Dallara-Honda	+22.1333s
15	<b>Alexander Rossi</b> (USA) <i>Andretti Herta Autosport</i> · Dallara-Honda	+22.5908s
16	<b>Mikhail Aleshin</b> (RUS) <i>Schmidt Peterson Motorsports</i> · Dallara-Honda	+23.5531s
17	<b>Takuma Sato</b> (J) <i>AJ Foyt Enterprises</i> · Dallara-Honda	+35.3665s
18	<b>Sebastien Bourdais</b> (F) <i>KVSH Racing</i> · Dallara-Chevrolet	-1 lap
19	<b>Gabby Chaves</b> (CO) <i>Dale Coyne Racing</i> · Dallara-Honda	-1 lap
20	<b>Max Chilton</b> (GB) <i>Chip Ganassi Racing</i> · Dallara-Chevrolet	-2 laps
21	<b>Conor Daly</b> (USA) <i>Dale Coyne Racing</i> · Dallara-Honda	39 laps-accident
22	<b>Scott Dixon</b> (NZ) <i>Chip Ganassi Racing</i> · Dallara-Chevrolet	6 laps-engine

Winner's average speed 121.426mph. **Fastest lap** Chilton 1m44.1196s, 138.787mph.

### QUALIFYING

**Q3 1 Power 1m42.2105s**; 2 Dixon 1m42.3759s; 3 Kanaan 1m42.7279s; 4 Pagenaud 1m42.8573s; 5 Castroneves 1m42.9449s; 6 Rahal 1m43.7782s.

**Q2 Dixon 1m42.1451s**; Kanaan 1m42.4093s; Pagenaud 1m42.4142s; Power 1m42.4430s; Rahal 1m42.5540s; Castroneves 1m42.5556s; 7 Chilton 1m42.7519s; 8 Hunter-Reay 1m42.8318s; 9 Daly 1m43.1073s; 10 Munoz 1m43.2001s; 11 Kimball 1m43.2649s; 12 Bourdais 1m43.3291s.

**Q1 – GROUP 1 Daly 1m43.4693s**; Kanaan 1m43.5253s; Kimball 1m43.7253s; Bourdais 1m43.8669s; Power 1m44.0025s; Pagenaud 1m44.2585s; 14 Montoya 1m44.3570s; 16 Rossi 1m45.0840s; 18 Hawksworth 1m45.5110s; 20 Newgarden 4m19.1862s; 22 Hinchcliffe 4m29.0408s.

**Q1 – GROUP 2 Dixon 1m42.4888s**; Castroneves 1m42.8944s; Hunter-Reay 1m42.9735s; Munoz 1m43.1519s; Rahal 1m43.1585s; Chilton 1m43.1957s; 13 Aleshin 1m43.4024s; 15 Sato 1m43.5357s; 17 Pigot 1m43.6432s; 19 Chaves 1m43.6672s; 21 Andretti 1m43.7289s.

### CHAMPIONSHIP

**1 Pagenaud 375**; 2 Castroneves 301; 3 Power 294; 4 Dixon 285; 5 Newgarden 283; 6 Kanaan 280; 7 Munoz 262; 8 Rahal 261; 9 Montoya 259; 10 Rossi 257.

## WTCC

### ROUND 7/12, VILA REAL (P), JUNE 26

#### RACE 1 (13 LAPS – 38.634 MILES)

1	<b>Tom Coronel</b> (NL) <i>ROAL Motorsport</i> · Chevrolet RML Cruze TC1	<b>26m11.089s</b>
2	<b>Tom Chilton</b> (GB) <i>Sebastien Loeb Racing</i> · Citroen C-Elysee WTCC	+0.597s
3	<b>Nicky Catsburg</b> (NL) <i>Lada Sport</i> · Lada Vesta WTCC	+2.626s
4	<b>Mehdi Bennani</b> (MA) <i>Sebastien Loeb Racing</i> · Citroen C-Elysee WTCC	+3.145s
5	<b>Jose Maria Lopez</b> (RA) <i>Citroen Total</i> · Citroen C-Elysee WTCC	+3.626s
6	<b>Rob Huff</b> (GB) <i>Honda Racing Team JAS</i> · Honda Civic WTCC	+4.332s
7	<b>Theo Bjork</b> (S) <i>Polestar Cyan Racing</i> · Volvo S60 WTCC	+5.155s
8	<b>Norbert Michelisz</b> (H) <i>Honda Racing Team JAS</i> · Honda Civic WTCC	+5.452s
9	<b>Yvan Muller</b> (F) <i>Citroen Total</i> · Citroen C-Elysee WTCC	+7.411s
10	<b>Tiago Monteiro</b> (P) <i>Honda Racing Team JAS</i> · Honda Civic WTCC	+8.054s
11	<b>James Thompson</b> (GB) <i>Munnich Motorsport</i> · Chevrolet RML Cruze TC1	+9.711s
12	<b>Gabriele Tarquini</b> (I) <i>Lada Sport</i> · Lada Vesta WTCC	+15.602s
13	<b>Robert Dahlgren</b> (S) <i>Polestar Cyan Racing</i> · Volvo S60 WTCC	+20.282s
14	<b>Ferenc Ficz</b> (H) <i>Zengo Motorsport</i> · Honda Civic WTCC	+30.555s
15	<b>John Filippi</b> (F) <i>Camos Racing</i> · Chevrolet RML Cruze TC1	+32.774s
16	<b>Gregoire Demoustier</b> (F) <i>Sebastien Loeb Racing</i> · Citroen C-Elysee WTCC	+33.218s
17	<b>Daniel Nagy</b> (H) <i>Zengo Motorsport</i> · Honda Civic WTCC	+1m07.844s
R	<b>Hugo Valente</b> (F) <i>Lada Sport</i> · Lada Vesta WTCC	8 laps-contact

Winner's average speed 88.525mph. **Fastest lap** Lopez 2m00.432s, 88.877mph.

### GRID FOR RACE 1

**1 Coronel**; 2 Catsburg; 3 Chilton; 4 Bennani; 5 Bjork; 6 Lopez; 7 Huff; 8 Michelisz; 9 Muller; 10 Monteiro; 11 Dahlgren; 12 Thompson; 13 Valente; 14 Filippi; 15 Ficz; 16 Demoustier; 17 Tarquini; 18 Nagy.

#### RACE 2 (14 LAPS – 41.607 MILES)

**1 Monteiro 27m53.321s**; 2 Muller +0.821s; 3 Michelisz +2.181s; 4 Huff +3.402s; 5 Lopez +16.164s; 6 Bjork +17.374s; 7 Catsburg +17.904s; 8 Bennani +21.614s; 9 Valente +23.054s; 10 Chilton +23.364s; 11 Thompson +28.125s; 12 Demoustier +33.547s; 13 Tarquini +34.675s; 14 Filippi +47.223s; 15 Ficz +47.654s; 16 Coronel -1 lap; R Nagy 3 laps-mechanical; R Dahlgren 1 lap-engine.

Winner's average speed 89.513mph. **Fastest lap** Huff 1m58.385s, 90.414mph.

### QUALIFYING

**Q3 1 Monteiro 1m56.633s**; 2 Muller 1m56.742s; 3 Michelisz 1m58.373s; 4 Huff 1m59.031s; 5 Lopez no time.

**Q2 Huff 1m56.403s**; Muller 1m56.428s; Lopez 1m56.582s; Michelisz 1m56.696s; Monteiro 1m57.136s; 6 Bjork 1m57.641s; 7 Bennani 1m57.734s; 8 Chilton 1m58.148s; 9 Catsburg 1m58.384s; 10 Coronel 1m58.389s; 11 Dahlgren 1m58.577s; 12 Thompson 1m58.635s.

**Q1 Muller 1m56.900s**; Lopez 1m57.164s; Huff 1m57.238s; Michelisz 1m57.317s; Monteiro 1m57.488s; Chilton 1m57.983s; Bjork 1m58.073s; Thompson 1m58.076s; Bennani 1m58.317s; Coronel 1m58.367s; Dahlgren 1m58.386s; Catsburg 1m58.478s; 13 Valente 1m58.540s; 14 Filippi 1m59.487s; 15 Ficz 1m59.936s; 16 Demoustier 2m00.157s; 17 Tarquini 2m00.569s; 18 Nagy 2m08.851s.

### CHAMPIONSHIP

**1 Lopez 244**; 2 Monteiro 143; 3 Catsburg 139; 4 Bennani 134; 5 Muller 133; 6 Michelisz 127; 7 Huff 125; 8 Tarquini 104; 9 Chilton 103; 10 Coronel 75.

## BLANCPAIN ENDURANCE CUP

### ROUND 3/5, PAUL RICARD (F), JUNE 25 (165 LAPS – 593.729 MILES)

1	<b>Rob Bell</b> (GB) <b>Shane van Gisbergen</b> (NZ) <b>Come Ledogar</b> (F)	<i>Garage 59</i> · McLaren 650S GT3	<b>6h00m46.072s</b>
2	<b>Pasin Lathouras</b> (T) <b>Alessandro Pier Guidi</b> (I) <b>Michele Rugolo</b> (I)	<i>AF Corse</i> · Ferrari 488 GT3	+3.376s
3	<b>Jan Magnussen</b> (DK) <b>Rodrigo Baptista</b> (BR) <b>Filipe Albuquerque</b> (P)	<i>WRT</i> · Audi R8 LMS	+1m38.158s
4	<b>Wolfgang Reip</b> (B) <b>Andy Soucek</b> (E) <b>Maxime Soulet</b> (B)	<i>Bentley Team M-Sport</i> · Bentley Continental GT3	+1m49.355s
5	<b>Mitsunori Takaboshi</b> (J) <b>Lucas Ordóñez</b> (E) <b>Alex Buncombe</b> (GB)	<i>Nissan GT Academy Team RJN</i> · Nissan GT-R Nismo GT3	-1 lap
6	<b>Christopher Haase</b> (D) <b>Gregory Guilvert</b> (F) <b>Mike Parisy</b> (F)	<i>Sainteloc Racing</i> · Audi R8 LMS	-1 lap
7	<b>Will Stevens</b> (GB) <b>Antonio Garcia</b> (E) <b>Rene Rast</b> (D)	<i>WRT</i> · Audi R8 LMS	-1 lap
8	<b>Michal Broniszewski</b> (PL) <b>Alessandro Bonacini</b> (I) <b>Andrea Rizzoli</b> (I)	<i>Kessel Racing</i> · Ferrari 488 GT3	-1 lap
9	<b>Duncan Cameron</b> (GB) <b>Davide Rizzo</b> (I) <b>Matt Griffin</b> (IRL)	<i>AF Corse</i> · Ferrari 488 GT3	-1 lap
10	<b>Fabio Babini</b> (I) <b>Patric Niederhauser</b> (CH) <b>Daniel Zampieri</b> (I)	<i>Attempto Racing</i> · Lamborghini Huracan GT3	-2 laps
11	<b>Filip Salaquarda</b> (CZ) <b>Marlon Stockinger</b> (RP) <b>Frank Stippler</b> (D)	<i>ISR</i> · Audi R8 LMS	-2 laps
12	<b>Leo Machitski</b> (GB) <b>Phil Keen</b> (GB) <b>Marco Mapelli</b> (I)	<i>Barwell Motorsport</i> · Lamborghini Huracan GT3	-2 laps
13	<b>Guy Smith</b> (GB) <b>Vincent Abril</b> (F) <b>Steven Kane</b> (GB)	<i>Bentley Team M-Sport</i> · Bentley Continental GT3	-2 laps
14	<b>Andrew Watson</b> (GB) <b>Struan Moore</b> (GB) <b>Alex Fontana</b> (CH)	<i>Garage 59</i> · McLaren 650S GT3	-2 laps
15	<b>Henry Hassid</b> (F) <b>Philippe Giauque</b> (F) <b>Franck Perera</b> (F)	<i>ISR</i> · Audi R8 LMS	-2 laps
16	<b>Jeroen Mul</b> (NL) <b>Max van Splunteren</b> (NL) <b>Paul van Splunteren</b> (NL)	<i>Attempto Racing</i> · Lamborghini Huracan GT3	-3 laps
17	<b>Maro Engel</b> (D) <b>Oliver Morley</b> (GB) <b>Miguel Toril</b> (E)	<i>Black Falcon</i> · Mercedes-AMG GT3	-3 laps
18	<b>Laurent Cazenave</b> (F) <b>Daniele Perfetti</b> (CH) <b>Michael Lyons</b> (GB)	<i>ASP</i> · Mercedes-AMG GT3	-3 laps
19	<b>Frederic Vervisch</b> (B) <b>Dries Vanthoor</b> (B) <b>Laurens Vanthoor</b> (B)	<i>WRT</i> · Audi R8 LMS	-3 laps
20	<b>Olivier Grotz</b> (L) <b>Karim Ojeh</b> (SA) <b>Julien Darras</b> (F)	<i>Boutsen Ginion Racing</i> · BMW M6 GT3	-4 laps

Winners' average speed 98.744mph. **Fastest lap** Perera 1m57.983s, 109.796mph.

**PRO-AM 1 Broniszewski/Bonacini/Rizzoli**; 2 Cameron/Rizzo/Griffin; 3 Machitski/Keen/Mapelli. **AM 1 Marco Zanuttini/Vadim Gitlin/Liam Talbot** (Kessel Racing Ferrari 458 Italia GT3); 2 Maurice Ricci/Jean-Luc Beaubelique/Gilles Vannelet (ASP Mercedes-AMG GT3); 3 Christophe Hamon/Thomas Nicolle/Romain Brandela (Classic & Modern Racing Ferrari 458 Italia GT3).

### CHAMPIONSHIP

**1 Bell/van Gisbergen/Ledogar 66**; 2 Jazeman Jaafar/Dominik Baumann/Maximilian Buhk 44; 3 Soulet/Soucek/Reip 30; 4 Rugolo/Pier Guidi/Lathouras 25; 5 Buncombe/Ordóñez/Takaboshi 24; 6 Mirko Bortolotti/Rolf Ineichen/Jeroen Bleekemolen 20; 7 Vervisch/L Vanthoor/D Vanthoor 20; 8 Baptista/Albuquerque 19; 9 Magnussen 19; 10 Stevens/Garcia 16. **OVERALL BLANCPAIN GT SERIES 1 Bell 90**; 2 Buhk/Baumann 70; 3 Ledogar 66; 4 van Gisbergen 66; 5 Soulet/Soucek 53; 6 L Vanthoor/Vervisch 52.

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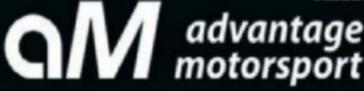
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Closing date for Applications: **31<sup>st</sup> July 2016**.

**PLEASE NOTE: No Agencies please.**



## ENGINE DESIGN ENGINEER

Reporting to the Engine Manager, the Engine Design Engineer is responsible to oversee and participate to develop our WRC engine parts and monitor their supply and validation.

This includes engine hardware design (block, head, reciprocating parts, valve train, ancillaries ...), intake and exhaust systems, turbo-charging, lubrication, cooling & in-car installation all in close relationship with engine engineers, overall car design team and suppliers. He / she will have to follow-up the complete process, from the design, through calculation & simulation, assembly up to the sign-off issues on dyno or car.

The successful candidate will need

- Engineering degree or equivalent
- A strong background in Mechanical Engineering
- Very good knowledge of CATIA
- Fluent English (verbal and writing)
- Good team and communication skills

Following experiences are also expected / would be a plus

- 1D engine performance calculation
- 3D fluid calculation
- FEM calculation
- Vibration simulation / Torsional analysis

## ENGINE SUPPORT ENGINEER

Reporting to the Engine Manager, the Engine Support Engineer will be responsible to oversee and monitor engine activities during in-car tests and events, this including:

- Following the building process and sign-off process of car purpose engines
- Be responsible for the engine management system strategies and calibration preparation
- Be responsible of the engine specific test plan preparation and achievement during tests
- Monitor engine data during tests and events
- Be responsible of engine reporting after tests and events, including testing results, calibration, problems etc....
- Liaise with the rest of the event team, including engineers and drivers for all that is engine related
- Be responsible of engine activity, engine mechanics job during events
- Be a source of proposals for technical problems solving and performance improvements within the engine group

The successful candidate will need

- Engineering degree or equivalent
- Previous successful experience in Motorsport environment like WRC / Endurance / GT / Touring Car / F1
- Fluent English (verbal and writing)
- Good team and communication skills
- Rigorous engineering approach with clear attention to detail and ability to manage multiple priorities
- Experience in engine management system, calibration and data analyzing are a plus

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Further information about Hyundai Motorsport is available at <http://motorsport.hyundai.com>

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# MOTORSPORT JOBS



## HR27062016 – NUMBER 2 CAR BUILD MECHANIC

We have an opportunity for a Number 2 Car Build Mechanic to join our Car Assembly Group.

The role will involve the assembly, disassembly, pre-fitting and turnaround of Red Bull Racing cars, chassis and pit equipment. You will also ensure that the spare chassis is kept in the most up to date specification, carry out car related pre-fits and ensure that pit equipment is built, serviced and functioning correctly as required after each event.

Previous motorsport experience is vital, with the ideal candidate having worked as a Number 2 Mechanic within Formula 1, GP2, F3 or similar formula. A broad motorsport mechanical background and a basic understanding of hydraulics and gearbox functions are preferable but not essential.

You must be able to work closely with other team members, and enjoy the challenge of working in a high pressured, time sensitive environment. You will have a flexible attitude to working hours and have the ability to work to tight deadlines, without compromising the highest industry standards. Computer literacy would be advantageous to assist with the use of our communication, workflow and logistics tools.

**CLOSING DATE FOR APPLICATIONS: FRIDAY 8<sup>TH</sup> JULY 2016**

## HR24052016 – SENIOR SUSPENSION DESIGN ENGINEER

We have an opportunity for a Senior Design Engineer to join the Composite Suspension Component Design Group at Red Bull Technology.

As a Senior Designer Engineer you will be expected to take ownership of significant design projects and follow them through to successful conclusions with a high level of autonomy.

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**CLOSING DATE FOR APPLICATIONS: 15<sup>TH</sup> JULY 2016**

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# CLUB AUTOSPORT

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## Carrera Cup stars set for Supercup contest



Carrera Cup GB drivers will appear on British GP bill

SIX OF THE TOP EIGHT DRIVERS IN the Porsche Carrera Cup GB will take part in the British round of the Porsche Supercup at Silverstone next weekend.

Title protagonists Dan Cammish and Dino Zamparelli head the list of drivers that will race in the British Grand Prix support contest, taking advantage of the break in the Carrera Cup schedule.

Porsche GB scholar Charlie Eastwood, Tom Oliphant, Tom Sharp, Lewis Plato and Mark Radcliffe will also take part.

Points leader and 2015 Carrera Cup champion Cammish will be looking to improve on the ninth place he achieved in the race last year as he takes part with Redline Racing.

"It's the main event of the year for many of us," he said. "I think last year we showed at times we had some good speed but I let myself down in qualifying.

"I know how important it is in that championship. It will be nice to go for a race with no points to play for and it's

just down to performance. Croft [the last Carrera Cup race weekend] was a blip but we can't go forever without some issues – it was the first mechanical issue I've had in a year and a half, which is a shame, but we will bounce back."

Cammish was targeting a move into the Supercup for this season, alongside his Carrera Cup campaign, and will be keen to impress.

"I will wait and see if the phone rings [afterwards] – I thought there would be more opportunities than there has been," he said. "It's a great shop window to be in and it's good to see where we are."

Eastwood will make his debut in the series next weekend and, as a rookie in the Carrera Cup, says there will be no burden of expectations on him.

"We are really doing it just to see where I have to be in a couple of years' time," he said. "I will be going up against the top guys in the car and will get an idea of how competitive it is.



Cammish is one of the leading drivers who will race at Silverstone

"I'm not really expecting too much from it because I'm lacking experience compared with most of the other guys in the championship.

"I can't wait – I'm going from Goodwood [Festival of Speed] to the Formula 1 Grand Prix so I have two big weekends on the bounce, and hopefully I will try and learn as much as I can. But it will be an overwhelming weekend on and off the track."

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AMOC

# Vulcan set for racing debut

THE ASTON MARTIN VULCAN IS SET TO MAKE its race debut at the Aston Martin Owners Club's Snetterton meeting next month.

There will be a special 90-minute AMR Aston Martin Challenge race at the July 23 meeting which will be open to any of the marque's cars, with at least one Vulcan expected to be on the grid.

The track-focused Vulcan was first launched in 2015 but has yet to race competitively. It features a seven-litre engine that delivers 800bhp. No drivers have been announced yet, but it is expected that one of AMR's active roster of factory drivers will handle the car. Nurburgring specialist Peter Dumbreck has also conducted demo laps in the Vulcan regularly.

Aston Club Racing director Roger Bennington said: "The plan is to run one or two Vulcans for their first race. It's quite exciting and will hopefully get a bit of a crowd in."

Bennington added that entries were going to be diverse, and that there was a plan to also run the Lola-Aston

Martin B09/60 LMP1 car, which raced at Le Mans in 2009 and '10, and also appeared during the Aston Martin Festival celebration event at Le Mans last year.

"We are also working to have an LMP1 car, GT2s and quite a few GT3s – entries are starting to come in now," said Bennington. "As long as it has got an Aston badge on it, it can enter and there will be lots of different classes. There will also be unrestricted noise limits for the race and three hours of exclusive testing on the Friday."

Besides the 90-minute enduro, there will also be a full programme of the club's categories.

"There will also be a Pre-War Team Challenge race and races for Intermarque, Multimarque, Equipe GTS, Innes Ireland Cup and '50s Sports Cars so it will be quite a full-on day," added Bennington. "We are really trying to push the Multimarque series and we would like to get some other cars like Ferraris and Porsches in it."

"There are a lot of older GT cars out there that don't really fit into other series."

FORMULAFORD1600

## SMITH SAMPLES FF1600 AT OULTON

RACING STEPS

Foundation refugee Josh Smith raced in the BRSCC Pre '90 Formula Ford Northern Championship at Oulton Park last weekend as he looks to gain more time behind the wheel of a single-seater car.

Smith, who started the season racing in the Formula Kart Stars and last year competed in MSA Formula, was a late addition to the Formula Ford grid, having only agreed on Friday to handle a Reynard 89FF in the only Pre '90 race of the weekend.

"It's just to get more seat time, really. They gave me the opportunity and I took it," Smith said.

"It's a start but ideally I'm looking to get behind the wheel of a Van Diemen in the Post '89 class or something in the National series."

The 17-year-old qualified on pole and finished second on the road, but a jumped start meant the stewards handed him a 10-second penalty during the race.

"I slipped the clutch at the beginning and jumped forward, which was disappointing," added Smith.

His recovery drive was marred by a lack of third gear, meaning he lost acceleration behind winner Jaap Blijleven, eventually settling for fifth overall.

FORMULAVEE

## Smith planning Vee exit despite closing in on title

THREE-TIME FORMULA VEE champion Paul Smith plans to sell his AHS Dominator and compete in a different series next season.

He currently has an 81-point lead in the standings and could secure the title in

the next round at Anglesey in July. If he does, Smith says he will sell the car.

"This would be the fourth championship win and it feels like time to move on," he said.

Smith is currently unsure of where he will compete in 2017

but plans to race his Crossle 9S sports-racer more frequently. He took the car to second and ninth in the Spa Ardennes Challenge races that were part of last weekend's Summer Classic event.

"I will try and do some

more European races in the Crossle 9S but things are a little bit up in the air," said Smith. "The Crossle is something a bit different. It's good to pit your wits against someone else."

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## HISTORICS

# Freke debuts in historics at Spa

BRITISH GT FRONTRUNNER NATHAN Freke made his historic racing debut at Spa-Francorchamps last weekend after accepting an invitation to share Nick Matthews's Austin-Healey 100/4.

Freke, who runs the successful Century Motorsport team in both British GT and the Ginetta GT4 Supercup, helped the car run as high as sixth overall in the 71-car field before retiring when the differential broke late on.

"What a fantastic car, and what a great

experience – I absolutely loved it," said Freke.

"Nick got in touch out of the blue as he wanted to test a Ginetta with Century, then we got talking and he offered me this chance."

"Historic racing is a different mindset. You think twice about moves in traffic as you're in a near-irreplaceable car, passing another near-irreplaceable one!

"I'd love to do more and I think Nick and I showed we can be quick considering we had the oldest car."

## IN BRIEF



### LEEDS TO RETURN TO RACE DOWN UNDER

British Formula 4 title contender Luis Leeds (above) will return to his native Australia to take part in the country's F4 series round at Sydney Motorsport Park this weekend. Leeds, sixth in the series last year, is taking advantage of the long gap until the next British round at Snetterton.

### FINN PASMA PLANS F4 STEP FOR 2017

Finnish racer Patrick Pasma is aiming for a seat in Formula 4 next season after an upswing in results in the BRSCC's National Formula Ford 1600 Championship. Pasma has recently taken two runner-up places at Zandvoort and Rockingham. His seat was brokered by 2011 British Formula Ford champion Antti Buri.

### HYMAN JOINS DEVELOPMENT SCHEME

BRDC British F3 and European F3 racer Raoul Hyman has been selected to join the Motorsport South Africa Development Academy scheme. The programme is similar to the MSA Academy, and offers workshops on fitness, mental preparation and physical tests.

### HULME ANNIVERSARY CELEBRATIONS

The 50th anniversary of Denny Hulme, New Zealand's only F1 world champion, winning the crown in 1967 will be marked at the Taupo circuit next January. The celebrations will be topped by the first ever visit to New Zealand of a field of Formula 1 cars from the 1960s and '70s. A gaggle of cars will travel from the UK, including the ex-James Hunt McLaren M26 of Frank Lyons and an ex-Hulme McLaren M23.

### FIFTH ANNIVERSARY HSF KARTING

The fifth-anniversary Henry Surtees Foundation karting challenge will take place at Brooklands on July 5 with free spectator entry. Thirty-five teams comprising 130 drivers will enter the kart race. John Surtees will drive the Lola T70 in which he won the Can-Am title in 1966 and Derek Bell will steer the TS14 Formula 1 car that finished second in the 1972 Italian Grand Prix (below). The event raised over £58,000 last year in memory of Henry Surtees, who lost his life in 2009 at the age of 18.



## MINI FESTIVAL

# Busy Brands for Minis stalwart Sollis

MINI LEGEND BILL SOLLIS will contest three races in two cars at next month's Brands Hatch Mini Festival, and will run entries in a further six.

Sollis has entered his Miglia in the double-header championship round on the

Brands Indy track on July 16/17, and will also share a historic Cooper S with Nick Paddy in the Sanwa Trophy Endurance event.

Sollis is also the chief engineer for the Oakfield Motorsport Mini Challenge

team, and will run Neil Newstead's JCW in three races as well as cars in the Cooper and Cooper S divisions.

"Brands will be pretty mad with the timetable, as I'll be running around all weekend," said Sollis. "I have to prioritise the Challenge team, but I've also committed to racing in the Miglias this year and I have the long-standing agreement with Nick Paddy and Sanwa to do that race too.

"I've got Ian Gunn [father of British GT driver Ross and former Miglia champion] to look after the Miglia, and Nick to tend the historic, so that gives me some time to work with Oakfield. I'll bring a push-bike to cut travel time."



## KIRKISTOWN

# Marshal injured in freak accident

A KIRKISTOWN MARSHAL IS RECOVERING from a broken nose, concussion and facial lacerations following an incident during one of the Formula Ford 1600 races.

Ian McCulla's Reynard's front-right-wheel assembly broke clear of the car – including the wheel, brake disc and suspension

components – and flew into the marshal hut, hitting the marshal.

"We're still going through all the data," said Kirkistown's Richard Young. "We'll be taking a look at the debris fencing too. The marshal hut is quite out of the way and off the line of fire, so it was unusual for an incident to occur."



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## F3 CUP

## FIRST CUP VICTORIES FOR F3 DUO AT SPA

TWO DRIVERS SCORED their first wins in the Formula 3 Cup at Spa last weekend.

Omicron Motorsport's Jacopo Sebastiani took the lead from polesitter Robbie Watts on the first lap of race one, and held it to a premature finish despite pressure from Watts and the perils of a damp but drying track.

Watts spun out of the lead at La Source in race two, leaving Stuart Wiltshire to take a maiden win. He brought his Chris Dittmann Racing Dallara F308-Mercedes home ahead of James Heffernan and Daryl Jones.

Cousins Jason and Jeremy Timms shared Monoposto race wins. Jason inherited the race one victory ahead of Chris Hodgen and James Rimmer after Jeremy retired, but Jeremy prevailed in race two, with Jason second.

Nicholas Olson won the opening CSCC Interseries Cup, bringing his Lotus Esprit home two minutes ahead of Matthew Wurr's Morgan Plus 8. In race two, Wurr took the win over Andrew Szymanski.

Raymond Barrow's Chevrolet Camaro won both CSCC Swinging Sixties races comfortably.

## SUPER TOURERS

## NZ fleet to boost Tourers grid

FOUR CARS FROM NEW ZEALAND WILL BOOST THE Super Touring Trophy grid to 25 cars this weekend as part of a total 475-car entry for the HSCC's 'Legends of Brands Hatch Superprix' meeting.

The New Zealand cars have been shipped to the UK to race on the Brands GP circuit and at the Silverstone Classic (July 29-31) and include the ex-Paul Radisich 1994 World Cup-winning Ford Mondeo and the BMW 318 first raced by Tim Harvey in 1992.

Scott O'Donnell will race the Mondeo while Warren Good is bringing his ex-Harvey/Matt Neal BMW. Lindsay O'Donnell will race the ex-Tony Longhurst BMW 318 at Brands before handing it over to Longhurst, the 1998 Bathurst 1000 winner, for the Silverstone races. Roger Townshend will race his BMW M3 at Brands, before

Gianfranco Brancatelli takes over for Silverstone.

Other newcomers to the Super Touring field this weekend will be GT racer Michael Lyons (Volvo S40) and Barwell Motorsport boss and former touring car racer Mark Lemmer in a Honda Accord.

Other features of the three-day Brands festival will be more than 100 Formula Juniors across three races as part of the formula's Diamond Jubilee World Tour.

The 'Race of Champions' title has been revived for the Derek Bell Trophy to honour the Formula 5000 story in the non-championship F1 race which was run 14 times across 17 seasons at Brands Hatch.

In total, a dozen Formula 5000s will be in action in a promising 25-car field that also includes Formula 2 and Formula Atlantic cars.

## LE MANS CLASSIC

## Pescarolo to make Le Mans Inaltera return in homage to Beltoise

SPORTSCAR LEGEND HENRI Pescarolo will team up with the son of the late Jean-Pierre Beltoise in next month's Le Mans Classic aboard an Inaltera GTP car they raced together in the 1976 24 Hours.

The 73-year-old will share the Cosworth-powered Inaltera LM with ex-Formula 3 driver Julien Beltoise in the Le Mans Classic on July 9/10 in homage to one-time grand

prix winner Jean-Pierre, who died last year.

They will contest the 'Plateau 6' event for mid-1970s sportscars.

Four-time Le Mans 24 Hours winner Pescarolo explained that the event would act as a reunion for many of the figures involved in the Inaltera team, which subsequently took the name of founder Jean Rondeau and won Le Mans in 1980.

"We will have many of the old mechanics there and Charles James [the boss of the Inaltera wallpaper company that backed the team] is coming too," he said.

The Inaltera, chassis #003, was last raced by Pescarolo alongside Jean-Claude Andruet in the Classic meeting in 2006, but the 40-year-old machine has since undergone a major restoration.



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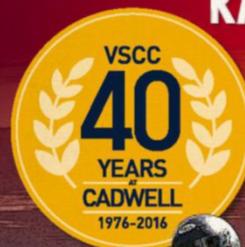
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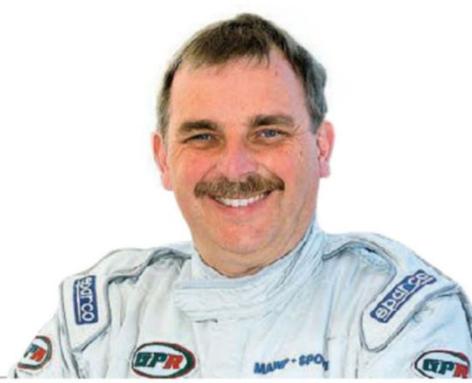
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# FoS: Glastonbury with McLarens!

By Marcus Pye, the voice of club racing

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**ARRIVING AT GOODWOOD LAST THURSDAY, I FOUND** the aftermath of the previous night's evil storm – with dazzling lightning show – had done its damndest to spoil the Living Motor Show, precursor to the annual Festival of Speed. The formerly lush grassy car park thoroughfares above the paddock had become quagmires, barely passable without all-wheel drive, thus we watched as specialist equipment struggled to tow empty race transporters to more solid footings.

Overnight rain did not improve things for the massive influx of hungry petrolheads on Friday. By then the talk was of Britain's ignominious European Union 'Brexit' (ugh!), the referendum news having broken, rather than anything as trifling as potential exit from a West Sussex estate 12 hours later. Fortuitously, as a few hapless souls floundered, up to their cars' axles in mud in vain attempts to get a few metres closer to destinations – rather than parking on terra firma – tractor drivers were on standby to hook them out and the festival spirit soon descended.

This was Glastonbury week after all and so often we've watched news coverage with incredulity at music lovers wearing little but resigned smiles and filthy minimalist clothing trudging into a Somerset farm bog, rigging tents and taking measures to forget the vagaries of our island climate. It was much like that at Goodwood, but for car parks filled with McLarens, Porsches, Ferraris, Range Rovers and their like, all apparently finished in a curious spattered matt brown, as if it was this term's wrap of choice.

With the exception of Saturday afternoon rain, which made the hillclimb course extraordinarily treacherous – not that you'd have noticed from former FoS 'winner' Justin Law's phenomenal Michelin Supercar Run progress as demon chauffeur of a Rolls-Royce Wraith Black Badge – and saw

the grooved metal walkways laid around the campus fill with trampled mud, every participant enjoyed some dry running.

By Sunday even the ballsy drag racers had strutted their stuff. Returnee Ian King astonished astride the nitro-guzzling 1500bhp Gulf Puma motorcycle, laying a fat rubber stripe almost to the first corner. That was topped, though, by Jason Phelps's curtain-closer in the 8000bhp FGR Gladiator Fuel Funny Car, 'FoS' stickered onto its blower's bug-catcher butterflies. Disappearing in a cloud of white smoke as he blasted the projectile past Goodwood House brought spontaneous applause, whetting onlookers' appetites for next summer's 25th Festival.

For Goodwood disciples, the rare opportunity to get close to the widest spectrum of motorsport disciplines on earth, and meet household-name drivers and riders, is unmissable. Those who had bought tickets on the strength of triple F1 world champion Lewis Hamilton's scheduled appearance were ultimately frustrated, as doubtless Mercedes-Benz's management was. Happily, Nico Rosberg, Jenson Button and multi-talented extrovert American Ken Block are total enthusiasts, and were delighted to reward fans' interest in the same way as Valentino Rossi last year.

The event has evolved to court social-media traffic relentlessly, which irritates traditionalists, but if watching Kiwi drift king 'Mad' Mike Whiddett flinging Lord March up the garden path in his 1000bhp Mazda RX-8 is not aspirational to the next generation of brand fans engaged by live global streaming, then there's no helping people. By now, most who witnessed it from trackside will have hosed down their cars and be counting the days until 2017. First, though, we have the 19th Revival Meeting at Goodwood Motor Circuit to look forward to. That's only 10 weeks away! 🍀

## GRANT JOINS BUMPER JUNIOR ENTRY

One-hundred Historic Formula Junior cars merit three races as part of the FJHRA's Diamond Jubilee celebration at the Historic Sports Car Club's Legends of Brands Hatch (formerly Superprix) meeting on Saturday. The rear-engined disc-braked race for the ultimate 1962-63 cars promises to be an epic, with at least a dozen of the 33 drivers previous category winners and former Historic Ford champion Callum Grant likely to get John Sykes's Merlyn Mk5/7 among them on the Grand Prix circuit. Thirteen of the 17 categories qualify on Friday, with Historic F2, 1000cc and two-litre F3 and the F5000-strong Derek Bell Trophy among the six racing on both Saturday and Sunday.

## PEDRO'S BRM WOWS GOODWOOD

Pedro Rodriguez's BRM-Chevrolet P154 ran in public for the first time since the 1970 Can-Am finale at Riverside, California – where, despite branding it "the worst car I've ever driven" he finished third – at the Goodwood Festival of Speed. Having restored their later P167-1 – raced by Brian Redman, Howden Ganley and late team founder David Hepworth in Interserie (Europe's Can-Am equivalent) – for last year's FoS, sons Stephen and Andrew pulled out the stops with Hepworth International's period mechanic John Brooke, family and loyal supporters to rebuild P154-02 and the unique BRM P230-based '79 Hepworth GB1 centre-seat Can-Am car for the event.



Restored BRM blasted up the Goodwood hill

MAXWELL SPORT

**SNETTERTON**  
750MC JUNE 25-26

## Guest driver Deegan hatches a winning plan

IN A PACKED PROGRAMME FOR THE 750MC's visit to Norfolk there was action and incident galore – not least in the first of two races for the combined Stock and Hot Hatch field, which featured a new contender as reigning Stock Hatch champion Shayne Deegan made a guest appearance in the Hot Hatch ranks.

Having claimed a front-row slot alongside polesitter Tom Bell's similar Ford Fiesta, Deegan held the lead before dropping to third, while Bell and the similar ST of Alistair Camp asserted themselves. But the shape of the race quickly changed when Bell's anti-roll bar failed, initially dropping him down the order before forcing him to retire.

Deegan didn't hesitate to make his move, gaining a place when Bell dropped out and quickly setting about chasing new leader Camp. Deegan closed in and drew level as the pair flashed past the flag. The timing screens initially suggested a dead heat, before showing Deegan as the winner by a hundredth of a second, despite his gearstick breaking off part-way through the race!

By comparison, race two was a fragmented affair, with rain making the track treacherous, which contributed to a car spearing off into the barriers at Williams. That caused the race to be red-flagged after two competitive laps.

Deegan had led the field before the stoppage, and resumed that position when the grid re-formed. He duly claimed a fine second win of the weekend, with Bell's repaired Fiesta beating Camp to claim runner-up spot.

Despite a hesitant start from pole in the opening Bikesports race, Joe Stables wasted little time reeling in the similar Radical PR6 of leader Will Brown. Once ahead, Stables was able to grow his lead to more than 30 seconds before the finish. Reigning champion Adrian Reynard



struggled to keep up with the PR6s and had to be content with third. Front-row starter Jason Rishover was a subdued sixth as clutch problems restricted him.

It was a different story in the sequel, with Rishover's choice of a full wet set-up in the rain helping him sweep his refettled machine past polesitter Stables at the lights en route to the win.

The first of two races planned for the combined M3 Cup and Production Allcomers field started as it was to continue, with the BMWs of poleman Luke Sedzikowski, Carl Shield and Adam Shepherd making the running. Despite losing ground after an off at Agostini, Shepherd quickly rejoined the group but couldn't get close enough to find a gap to attack, as Shield took the win. Sadly, battle never resumed as the second race was abandoned due to heavy rain.

Although he had his lead trimmed when he slowed for a yellow flag, Robin

Rishover hit trouble in race one but bounced back later on

Gearing pulled clear again to secure top spot in the first 750 Formula race. He was helped by a scrap behind him holding up the second and third-place cars of Peter Bove and Mark Glover. While Gearing took his chance to escape, Bove claimed second by less than a tenth of a second.

Gearing successfully guided his Darvi through the damp conditions of Sunday's sequel to complete the double. He was comfortably clear of Glover and Ian Barley at the finish.

Saturday's two-hour Club Enduro race attracted a varied grid, with the Caterham Roadsport of Russ Olivant and Elliott Norris claiming victory. They snatched the initiative away from the BMW M3 of early leaders Rory Hinde and Owen Fitzgerald after the mid-race pitstops, and survived a late safety car period and rain to secure the win. Behind them, Henry Wright's BMW M3 overhauled Brett Evans to take second.

Sunday's shorter 45-minute enduro included some of the same drivers from the day before, including the BMW of Hinde and Fitzgerald. They looked like facing a late battle for victory with the Toyota MR2 of Eugene O'Brien and Simon Phillips, spiced up by the fact that both received late stop-go penalties. But fuel surge issues forced Phillips to retire, allowing the M3 to finish in top spot.

James Bark and championship leader Patrick Fletcher shared the spoils in the pair of Clio 182 races, taking a win apiece. First blood went to Bark, who surged away from the lights to overhaul





Deegan (99) and Camp battled to a photo finish

Fletcher's pole advantage and claim the lead. Bark survived the race-long battle to edge Philip Wright for top spot on the podium. Fletcher turned the tables in race two, holding off Bark to win.

Rob Johnston got off to a perfect start as far as his Sport Specials title ambitions were concerned, building up a healthy race lead while key points rival Matthew Booth went down the escape road at Brundle and into retirement.

Booth responded in kind in the sequel, guiding his repaired machine into a lead he never lost. Meanwhile, Johnston and Clive Hudson, another points rival, clashed on the opening lap and retired.

While close battles flared in the packed grids of MR2s, Shaun Traynor was initially in a class of his own.

He led on every lap of the opening race, leaving the field behind him and pulling out a 10-second lead by the finish. Meanwhile, points leader Jim Davies had to come from the back with a 10-second penalty, having been found underweight in practice. "I just forgot to put enough fuel in," he confessed. Davies battled back to sixth in race one and then victory ahead of Traynor in race two.

Remarkably for the usually frenetic Mazdas, the top five finishers in both races finished in exactly the same order in each sprint. Will Blackwell-Chambers twice edged out Ben Short.

Finally, Darren Berris secured a convincing win in the well-supported Armed Forces encounter.

OLIVER TIMSON



Berris raced away to a commanding Armed Forces win

## RESULTS

**STOCK HATCH & HOT HATCH (7 LAPS)** 1 Shayne Deegan (Ford Fiesta ST); 2 Alistair Camp (Ford Fiesta ST) +0.01s; 3 Andy Waters (BMW Compact); 4 Andrew Tsang (BMW Compact); 5 David Allen (Ford Fiesta ST); 6 Matty Taylor (BMW Compact). **CW** Camp; Ryan Polley (Citroen Saxo VTR); Jon Watt (BMW Compact).

**FL** Tom Bell (Ford Fiesta ST) 2m12.58s (81.46mph). **P** Bell. **S** 23.

**RACE 2 (2 LAPS)** 1 Deegan; 2 Bell +2.46s; 3 Camp; 4 Polley; 5 Waters; 6 Robert Fagg (Citroen Saxo VTR). **CW** Bell; Polley; Watt. **FL** 2m26.11s (73.92mph). **P** Bell. **S** 22.

**BIKESPORTS (11 LAPS)** 1 Joe Stables (Radical PR6); 2 Will Brown (Radical PR6) +30.34s; 3 Adrian Reynard (Radical SR3); 4 Mike Davis (Radical PR6); 5 Philip Knibb (Radical SR3); 6 Jason Rishover (Radical SR3 RSX). **CW** Reynard; Daniel Lerner (Mittell MC-52b). **FL** Stables 1m51.12s (97.19mph). **P** Stables. **S** 21.

**RACE 2 (9 LAPS)** 1 Rishover; 2 Brown +19.37s; 3 Stables; 4 Knibb; 5 Davis; 6 Richard Wise. **CW** Brown; Lerner.

**FL** Knibb 2m16.91s (78.88mph). **P** Stables. **S** 20.

**M3 CUP/PRODUCTION ALLCOMERS (10 LAPS)** 1 Carl Shield (BMW E46 M3); 2 Luke Sedzikowski (BMW E46 M3) +1.99s; 3 Adam Shepherd (BMW E46 M3); 4 Matthew Wallis (BMW E46 M3); 5 Gary Hufford (BMW E46 M3); 6 John Brown (BMW E46 M3). **CW** Patrick Mortell (Toyota GT86). **FL** Shepherd 2m11.48s (82.14mph). **P** Sedzikowski. **S** 22.

**750 FORMULA CHAMPIONSHIP (7 LAPS)** 1 Robin Gearing (Darvi P88); 2 Peter Bove (Darvi Mk4/5) +5.02s; 3 Mark Glover (Racekits Falcon); 4 Max Sheppard (Sheppard MS750); 5 Ian Barley (Racekits Falcon); 6 Richard Rothery (PRS 1b). **CW** Andrew Lake (Darvi 91D). **FL** Bove 2m09.50s (83.40mph). **P** Gearing. **S** 16.

**RACE 2 (6 LAPS)** 1 Gearing; 2 Glover +16.79s; 3 Barley; 4 Oliver Collett (Racekits Falcon); 5 Bob Simpson (SS/F 750F); 6 Dave Robson (SDAR 750F). **CW** Collett. **FL** Gearing 2m37.27s (68.67mph). **P** Gearing. **S** 13.

**CLUB ENDURO (46 LAPS)** 1 Russ Olivant/Elliott Norris (Caterham Roadsport); 2 Henry Wright/Jamie Packham (BMW

M3) +2.83s; 3 Andy Marston/Brett Evans (BMW E46 M3);

4 Paul Aram/Rui Ferreira (Caterham 7/Caterham 7);

5 Andy Larholt/Rob Watts (Caterham Roadsport);

6 Liam Crilly/Petteri Jokinen (Mazda RX8/Mini Cooper S).

**CW** Wright/Packham; Crilly/ Jokinen; Blair Roebuck/Daniel Adams (Honda Civic/Protron Satria). **FL** Fitzgerald 2m07.19s (84.91mph). **P** Owen Fitzgerald (BMW M3). **S** 25.

**ROADSPORTS SERIES (20 LAPS)** 1 Rory Hinde/Owen

Fitzgerald (BMW M3); 2 Anthony Jones/Jason Jones (Toyota MR2) +22.38s; 3 Lloyd Chafer (BMW E36 M3); 4 Steve Hewson (Peugeot 106 GTI); 5 Leon Shepherd/Tom Bell (Ford Fiesta ST); 6 Aaron Harding (Renault Clio 172). **CW** Hewson; Harding; Martin Farrelly (Toyota MR2 Mk2). **FL** Fitzgerald 2m08.55s (84.01mph). **P** Fitzgerald. **S** 21.

**CLIO 182 CHAMPIONSHIP (6 LAPS)** 1 James Bark;

2 Philip Wright +0.32s; 3 Patrick Fletcher; 4 Andrew Tibbs; 5 George Williams; 6 Nick Garner. **FL** Wright 2m35.88s (69.28mph). **P** Fletcher 2m17.91s (78.31mph). **S** 20.

**RACE 2 (7 LAPS)** 1 Fletcher; 2 Bark +0.45s; 3 Scott Sharp; 4 Trevor Gregory; 5 Garner; 6 Martin Ward. **FL** Fletcher 2m18.33s (78.07mph). **P** Fletcher 2m17.990s. **S** 21.

**SPORT SPECIALS (BOTH 7 LAPS)** 1 Rob Johnston (Cyana Mk2);

2 Paul Dudley (Tiger R6) +17.63s; 3 John Moore (FRS Arrow 2); 4 Paul Collingwood (Eclipse SM1); 5 Stuart Adam (ARD SR2); 6 Clive Hudson. **CW** Martin Buckland (STM Phoenix); David Roberts (Cyana MX500R). **FL** Hudson 2m22.79s (75.64mph).

**P** Johnston. **S** 23. **RACE 2** 1 Matthew Booth (MK Indy RR); 2 Adam +12.27s; 3 Nigel Brown (Sylva Phaser); 4 Dudley; 5 Anton Landon (Cyana Mk2); 6 Moore. **CW** Marcus Roskill (Sylva Phoenix); Roberts. **FL** Booth 2m10.65s (82.66mph). **P** Johnston. **S** 21.

**MR2 (BOTH 7 LAPS)** 1 Shaun Traynor (Mk2); 2 Timothy Heron (Mk2) +9.52s; 3 Stuart Nicholls (Roadster); 4 Kristian White (Mk2); 5 Chris Thomas (Mk2); 6 Jim Davies (Mk2). **CW** Nicholls.

**FL** Davies 2m20.99s (76.60mph). **P** Heron. **S** 36. **RACE 2** 1 Davies; 2 Traynor +4.14s; 3 Nicholls; 4 White; 5 Heron; 6 Thomas. **CW** Nicholls. **FL** Davies 2m19.81s (77.25mph). **P** Davies. **S** 36.

**5CLUB MX-5 CUP (BOTH 8 LAPS)** 1 Will Blackwell-Chambers;

2 Ben Short +0.66s; 3 Sam '31' Smith; 4 Jack Sycamore; 5 Sam '42' Smith; 6 Sam Tatler. **FL** '31' Smith 2m21.51s (76.32mph). **P** Brian Trott. **S** 40. **RACE 2** 1 Blackwell-Chambers; 2 Short +1.01s; 3 '31' Smith; 4 Sycamore; 5 '42' Smith; 6 Trott.

**FL** Trott 2m22.14s (75.98mph). **P** Blackwell-Chambers. **S** 36.

**ARMED FORCES CHALLENGE (18 LAPS)** 1 Darren Berris

(Westfield V8); 2 Richard Evans (BMW M3) +43.93s; 3 Mark White (Lotus Elise S1); 4 Ed McKean (BMW 325i); 5 Andrew Stacey (Mini Cooper S); Ray Honeybone (Ford Fiesta). **CW** Evans; Ed McKean (BMW 325i); Paul Waterhouse (Peugeot 306 GTi). **FL** Berris 2m10.74s (82.61mph). **P** Berris. **S** 25.

Deja vu: Blackwell-Chambers led MX-5 Cup races, with same top five in both races





**BRANDS HATCH**  
BARC JUNE 25-26

# Victory sends Lidsey top of Clios after splitting Brands honours with Randon

BRETT LIDSEY EMERGED FROM THE BARC meeting at Brands Hatch with the points lead of the Michelin Clio Cup Series after two tense races.

Lidsey was the winner in a delayed race one, which was twice stopped due to the arrival of torrential wet weather. When the opening race eventually took place in the dim light of Saturday evening, Lidsey seized the lead from Samuel Randon at Clearways on lap

one and he held it for the remainder of the shortened 10-lap race. Randon dropped to fifth before managing to recover a spot to finish behind Luke Pinder and James Dorlin.

Randon got revenge in race two as he stole the lead from polesitter Dorlin. The pair edged away from the pack before Dorlin dramatically slowed with a car problem and was forced into the pits to retire. Lidsey had raced his way up to

second from fourth on the grid and he caught Randon on the final lap, when he tried a late lunge at Graham Hill Bend and only just avoided contact. “[Traffic] allowed Brett to catch me more and more, but luckily I managed to hold him off,” said a relieved Randon after the race.

Phil Weaver made it three different race winners from three Clubmans Cup races with a breathtaking drive in his Nemesis from the back of the grid to take victory in the finale. In the opening race, which was disrupted by red flags due to rain after just three laps, Weaver could not stay with Alex Champkin’s pace after the restart, although he held on to finish second ahead of James Clarke’s Mallock.

Champkin failed to line his Vision up on the grid in race two, which allowed Clarke a clear run from pole position. He was caught and passed by Weaver at Paddock Hill Bend on lap four, but Weaver outraked himself at Graham Hill Bend and slid into the gravel, which he could not escape. Clarke then looked to be clear, but he was caught by Anthony Denham, who stalked Clarke before passing by in his Phantom on lap 17.

Denham, who was “very pleased”

**Weaver moved from back to front to make it three different Clubmans winners**



ALL PICS: HAWKINS/MASON



Clios winner  
Randon shared  
spoils with Lidsey

with his race two win, led away from pole in the final race but could only finish fourth after Weaver and Champkin stormed through the field to take the first two spots from the back row of the grid. Clarke filled the final podium place.

Katie Milner "couldn't have asked for more" after one win and a second place in the two Junior Saloons races. Milner beat polesitter Matteo Zanetti off the line in race one and dominated the event, but she had to come through the pack in race two after getting caught out in the wet qualifying session. Luke Browning instead claimed a popular win ahead of a charging Milner, with Zanetti rounding off the podium in third.

Chris Whiteman enjoyed a dramatic day in the Tin Top races as his Civic finished second to Chris Bassett's Peugeot 205 in race one, despite two spins, and then won the second race. A serious crash for David Packham disrupted the finale, which Whiteman stormed through to win despite starting from the pitlane following a restart.

Tom Perry and Peter Sparrow shared the spoils in two 2CV races that were the polar opposites of each other. First, Perry triumphed in a crazy race one that at one point had 10 cars running nose to tail for the lead, eventually winning with Nicholas Clarke, Martin Riman and Nick Crispin behind in a blanket finish for second. Sparrow won a much more sedate race two from Kris Tovey and Lien



First 2CV victory  
was Perry's after  
frantic fight at front



Elbows out in Hyundai  
Cup, as race-one winner  
Cursley gets on the grass



Milner took a win and a  
second in strong showing

Davis, who came home a distant third.

David Webber was easily the class of the Caterham Sigma field, winning race one by more than 20s and following that with another dominant performance to seal a fine double in the second race.

Dylan Stanley scored two fastest laps as he shared the SigMax spoils with Lee Bristow. Stanley did cause a red flag in race one as he spun out of second behind Bristow, but made up for that by winning a dramatic second race from Tristan Judge. Oliver Gibson finished second to Glenn Burtenshaw in the first Mega race before he claimed the win in the disrupted second.

Dale Gent dominated the first Saloons race in his Subaru Impreza, which failed while he was leading the second. Rod Birley's Escort inherited the lead and he went on to beat Danny Cowan (RS500) comfortably. Malcolm Wise completed the podium after a surging drive from last on the grid in his Escort Cosworth.

Alex Cursley and Joe McLaughlin came away with a win apiece after two gripping Hyundai Coupe Cup races.

Cursley resisted pressure from William Taylforth to win the opener from pole, while in race two McLaughlin grabbed the lead from third on the grid and survived to win after negotiating a mid-race safety car interruption.

**ALEX KALINAUCKAS**

[→ P65 FULL RESULTS](#)

**KIRKISTOWN**  
500MRCI JUNE 25

## Forsythe's Fiesta takes double win

THE MEETING MAY HAVE FEATURED A smaller entry than usual due to the close proximity of the 'Twelfth' holidays, but the day still had more than its fair share of incidents.

The Fiesta Zetec field boasted the biggest entry of the day, even if it was seven down on the record 24 cars that turned up the previous meeting. Track limits became a hot topic from qualifying onwards, with a number of drivers facing a stern talking to from the clerk of the course – officials had clamped down after driving standards at the previous meeting had been less than desirable.

Jonny Forsythe – a previous race winner – claimed pole and held a slight edge over Daniel Conlon, with Adrian Finnegan in third joining in the fight for the lead. The trio slowly broke away from the pack and, with Conlon and Finnegan disputing second, the pressure was eased for Forsythe as he crossed the line first.

Forsythe made it two in a row later on in a race that was red-flagged for an incident at the chicane, with Finnegan getting the better of Conlon for second.

With championship leader Noel Robinson on holiday there was an ideal opportunity for Alan Davidson to gain points in the Northern Ireland Formula Ford 1600 Championship.

Davidson set the best time in his Mondiale in qualifying, while Jake Byrne was sent to the back of the grid after having no competition numbers displayed on his Ray.

Davidson fought off the challenges of James Roe and Stephen O'Connor early on, but all eyes were firmly on Byrne as he sliced his way through the field to challenge for the top spot. He fell short, but came mighty close with second his reward for a fine charge. The race was marred by an incident on the approach to the Chicane, which resulted in an airborne wheel from Ian McCulla's Reynard hitting a marshal, who sustained facial injuries. He was taken to the circuit medical centre and then to hospital.

Race two was another Davidson benefit, who was only denied maximum points by Byrne's fastest lap in race one.

The Ginetta Juniors made their first appearance of the season at the County Down circuit, but boasted small grids for both races. Polesitter Samuel Harron and Daragh Denning immediately set about disputing the lead, but Denning's spin at Fisherman's cost him second, enabling William Harron to grab the runner-up spot behind his brother. Race two also went the way of the on-form Samuel Harron.

The Pre '90 Formula Ford 1600 drivers had requested a race of their own and Ryan Campbell started from pole in his Reynard. He was made to work for victory throughout, but held on to defeat the Mondiale of Mike Todd.

**IAN LYNAS**

[→ P65 FULL RESULTS](#)

Blijleven narrowly took the Pre-1990 FF1600 win



**OULTON PARK**  
BRSCC JUNE 25

# Blijleven's Reynard defeats Smith

JAAP BLIJLEVEN TOOK THE HONOURS in the Pre-1990 Formula Ford 1600 race as the Northern Championship visited Oulton Park for the third time in 2016.

Despite Blijleven only narrowly beating guest driver and Formula MSA race winner Josh Smith over the line, it was Nick Barnes and John Murphy who completed the podium following Smith's 10-second penalty for jumping the start. It meant that the entire race was essentially a recovery drive for Smith, made worse when he lost third gear, struggling to maintain high speeds on the straights. He eventually had to settle for fifth, behind Brian Soule.

Doug Crosbie had a more comfortable time than Blijleven in the Post-1989 race. Starting from pole, he remained unchallenged, finishing 17s ahead of Matthew Cowley as he bounced back from engine failure in the last round. Jack Wolfenden rounded out the top three with his first ever podium in the series, holding off a late attack from

David McArthur, who had found himself as low as sixth following a spin at Lodge.

Returning from a European excursion to Zolder, the Mazdas were back in the UK for the MX-5 Championship. Once again, it was Tom Roche who dominated the Championship Group A races, making it four wins from four following his disappointment of missing out on a place in the European MX-5 Cup last month. His lime-green Blendini Motorsport MX-5 was too much for Michael Fisk on both occasions.

In Group B, the races for the slower qualifiers and finishers, Matt Pickford won race one from pole, while in the second, Joshua Jackson jumped from third on the grid and eased to victory ahead of Kevin Brent and Paul Austin.

Roche was also victorious in race one of the Mazda MX-5 SuperCup, proving he is just as competitive in the more contemporary Mk3, while championship leader James Blake-Baldwin had to settle for second after his

Tom Roche was the Mazda star, almost taking four wins across the two MX-5 series



Seager returned to Alfa racing with a victory

brace on the continent. Blake-Baldwin made amends in a breathtaking race two in which the top nine were separated by only two seconds. Though Roche had led for the majority of the race, four victories on the weekend was just too tough for the Welshman as Blake-Baldwin made a bold move through Old Hall and held the line through Cascades.

The Boxter of Richard Styrin was once again a dominant force in the Toyo Tyres Porsche Championship. However, race one was cut short after the 924 of Nizar El-Chamaa lost its rear right wheel through Knickerbrook, bringing out the red flag. Styrin could still build a five-second lead ahead of Richard Avery and James Coleman. He then earned his seventh win of the season in race two, as Coleman and Garry Lawrence completed the top three, while El-Chamaa, now with four wheels back on his car, carved his way through to win in the 924 class.

Graham Seager returned to the Alfa Romeo Championship with a victory in race one. The 2015 champion, who had missed the season so far as his GTV underwent refurbishments, beat the modified Alfas of Andy Robinson and another returnee Andy Page. Seager couldn't make it a clean sweep though as he retired with smoking brakes in race two, gifting Robinson his first win of the season instead.

**DOM D'ANGELILLO**



# RESULTS ROUND-UP

## BRANDS HATCH

BARC, JUNE 25-26

**CLIO CUP SERIES (10 LAPS) 1 Brett Lidsey;** 2 Luke Pinder +3.787s; 3 James Dorlin; 4 Samuel Randon; 5 Tom Barley; 6 Tyler Lidsey. **Class winners** Nic Harrison; Jack Fabby.

**Fastest lap** Lidsey 59.019s (73.68mph). **Pole** Randon.

**Starters 14. RACE 2 (16 LAPS) 1 Randon;** 2 Lidsey +0.181s; 3 Ben Palmer; 4 Pinder; 5 Barley; 6 Ben Colburn. **CW** Harrison; Fabby. **FL** Dorlin 53.296s (81.59mph). **P** Dorlin. **S** 14.

**CLUBMANS CUP (12 LAPS) 1 Alex Champkin (Vision V84);** 2 Phil Weaver (Nemesis) +2.603s; 3 James Clarke (Mallock Mk20B); 4 Peter Richings (Mallock Mk30PR); 5 Rodney Player (Mallock Mk23); 6 Anthony Denham (Phantom P80 CKM). **CW** Clarke; Denham; Barry Webb (Delapena Mallock Mk16BW). **FL** Clarke 54.989s (79.08mph). **P** Denham. **S** 16. **RACE 2 (19 LAPS) 1 Denham;** 2 Clarke +2.366s; 3 Jarred Lester (Mallock Mk35); 4 Mike Evans (Mallock Mk27); 5 Player; 6 Morris Hart (Mallock Mk27 Synergy SG). **CW** Clarke; Lester; Webb. **FL** Denham 48.701s (89.29mph). **P** Clarke. **S** 16. **RACE 3 (20 LAPS) 1 Weaver;** 2 Champkin +1.476s; 3 Clarke; 4 Denham; 5 Evans; 6 Richings. **CW** Clarke; Denham; Webb. **FL** Weaver 47.959s (90.67mph). **P** Denham. **S** 15.

**JUNIOR SALOONS (16 LAPS) 1 Katie Milner;** 2 Matteo Zanetti +2.911s; 3 Luke Browning; 4 George Sutton; 5 Edward Moore; 6 Ethan Hammerton. **FL** Browning 59.736s (72.79mph). **P** Zanetti. **S** 22. **RACE 2 (15 LAPS) 1 Browning;** 2 Milner +0.141s; 3 Zanetti; 4 Hammerton; 5 Matthew Round-Garrido; 6 Sutton. **FL** Round-Garrido 59.628s (72.92mph). **P** Zanetti. **S** 22.

**TIN TOPS (16 LAPS) 1 Chris Bassett (Peugeot 205 GTi);** 2 Chris Whiteman (Honda Civic) +3.386s; 3 Robert Hosier (SEAT Leon); 4 Graham Richardson (Honda Civic Type R); 5 Daniel Fisher (Honda Civic); 6 Rod Birley (Honda Integra). **CW** Hosier; Mikey Day (Citroen Saxo). **FL** Whiteman 55.059s (78.98mph). **P** Bassett. **S** 18. **RACE 2 (9 LAPS) 1 Whiteman;** 2 Fisher +1.035s; 3 Richardson; 4 Terrence Searles (MG ZR 160); 5 Steve Everson (Citroen Saxo); 6 Ken Angell (BMW 328i). **CW** Everson; Angell. **FL** Whiteman 54.657s (79.56mph). **P** Bassett. **S** 17.

**2CV (BOTH 18 LAPS) 1 Tom Perry;** 2 Nicholas Clarke +0.551s; 3 Martin Riman; 4 Nick Crispin; 5 Peter Rundle; 6 Caryl Wills. **FL** Clarke 1m08.351s (63.62mph). **P** Perry. **S** 21. **RACE 2 1 Peter Sparrow;** 2 Kris Tovey +0.231s; 3 Lien Davis; 4 Crispin; 5 Mick Storey; 6 Paul Taylor. **FL** Tovey 1m07.581s (64.34mph). **P** Sparrow. **S** 21.

**CATERHAM SIGMA (23 LAPS) 1 David Webber;** 2 Andrew Outterside +21.914s; 3 Jamie Winrow; 4 Pete Yates; 5 Jason Gale; 6 Julian Viggars. **FL** Webber 54.447s (79.86mph). **P** Webber. **S** 13. **RACE 2 (18 LAPS) 1 Webber;** 2 Gale +12.022s; 3 Yates; 4 Outterside; 5 Viggars; 6 Paul Hagen. **FL** Mark Gibson 54.320s (80.05mph). **P** Webber. **S** 13.

**CATERHAM SIGMA/SUPER (19 LAPS) 1 Lee Bristow;** 2 Scott Lawrence +2.402s; 3 Alex Potter; 4 Tristan Judge; 5 Martin Jeffs; 6 Nicholas Haryett. **CW** Toby Briant. **FL** Dylan Stanley 52.466s (82.88mph). **P** Lawrence. **S** 27. **RACE 2 (24 LAPS) 1 Stanley;** 2 Judge +3.051s; 3 Lawrence; 4 Zoltan Csabai; 5 Bristow; 6 Potter. **CW** Briant. **FL** Stanley 52.845s (82.28mph). **P** Lawrence. **S** 27.

**CATERHAM MEGA/CLASSIC (20 LAPS) 1 Glenn Burtenshaw;**



Stanley leads at Brands

HAWKINS/MASON



Roche leads Henderson in Mk3 Mazda MX-5 field

2 Oliver Gibson +0.744s; 3 Andrew Skinner; 4 Roger Ford; 5 Christopher Benfield; 6 Luke Cooper. **CW** Steven McMaster. **FL** Burtenshaw 1m04.825s (67.08mph). **P** Gibson. **S** 27.

**RACE 2 (12 LAPS) 1 Gibson;** 2 John Benfield +1.439s; 3 Cooper; 4 Ford; 5 Christopher Rayment; 6 Ian Noble. **CW** McMaster. **FL** Benfield 53.954s (80.59mph). **P** Gibson. **S** 27.

**QUAIFE SALOONS (BOTH 18 LAPS) 1 Dale Gent (Subaru Impreza);** 2 Rod Birley (Ford Escort) +2.780s; 3 Danny Cowan (Ford RS500); 4 Tony Skelton (Renault Clio); 5 Daniel Palmer (Mitsubishi Evo); 6 Graham Crowhurst (BMW E46 M3). **CW** Skelton; Jamie Liptrott (E46 M3); Andy Pipe (Escort Mk1). **FL** Gent 50.494s (86.12mph). **P** Gent. **S** 21. **RACE 2 1 Birley;** 2 Cowan +6.245s; 3 Malcolm Wise (Escort Cosworth); 4 Andy Banham (Impreza); 5 Palmer; 6 Crowhurst. **CW** Crowhurst; Mark Cripps (E36 M3); Jaime Vannis (Clio). **FL** Gent 50.495s (86.11mph). **P** Gent. **S** 21.

**HYUNDAI COUPE CUP (15 LAPS) 1 Alex Cursley;** 2 Ian Goodchild +1.076s; 3 Jeff Alden; 4 William Taylforth; 5 Jon Winters; 6 Simon Miles. **FL** Goodchild 59.315s (73.31mph). **P** Cursley. **S** 17.

**RACE 2 (13 LAPS) 1 Joe McLaughlin;** 2 Taylforth +0.188s; 3 Alden; 4 Cursley; 5 Miles; 6 Steve Kite. **FL** Cursley 1m02.018s (70.11mph). **P** Cursley. **S** 17.

## KIRKISTOWN

500MRCI, JUNE 25

**FIESTA ZETEC (13 LAPS) 1 Jonny Forsythe;** 2 Adrian Finnegan +5.557s; 3 Daniel Conlon; 4 Thomas Agnew; 5 Mark Stewart; 6 Paul Sheridan. **FL** Conlon 1m16.872s (70.81mph). **P** Forsythe. **S** 17. **RACE 2 (10 LAPS) 1 Forsythe;** 2 Conlon +0.434s; 3 Agnew; 4 Finnegan; 5 Stuart Agnew; 6 Sheridan. **FL** Conlon 1m16.982s (70.71mph). **P** Conlon. **S** 15.

**FORMULA FORD 1600 (BOTH 16 LAPS) 1 Alan Davidson (Mondiale M89S);** 2 Jake Byrne (Ray GR14) +0.038s; 3 James Roe (Firman); 4 Stephen O'Connor (Van Diemen RF90); 5 Ryan Campbell (Reynard 89FF); 6 Mike Todd (Mondiale M84S). **FL** Byrne 1m01.135s (89.03mph). **P** Davidson. **S** 12. **RACE 2 1 Davidson;** 2 O'Connor +19.675s; 3 R Campbell; 4 Todd; 5 Andrew Blair (Reynard 84FF); 6 Henry Campbell (Reynard 89FF). **FL** Davidson 1m01.873s (87.97mph). **P** Davidson. **S** 11.

**GINETTA JUNIOR (BOTH 13 LAPS) 1 Samuel Harron;** 2 William Harron +6.717s; 3 Morgan Quinn; 4 Daragh Denning; 5 Patrick Dempsey; 6 Michael Woods. **FL** Quinn 1m11.390s (76.24mph). **P** S Harron. **S** 9. **RACE 2 1 S Harron;** 2 W Harron +9.401s; 3 Dempsey; 4 Denning; 5 Quinn; 6 Hollie Byrne. **FL** W Harron 1m11.671s (75.95mph). **P** S Harron. **S** 10.

**PRE-'90 FORMULA FORD 1600 (16 LAPS) 1 Ryan Campbell (Reynard 89FF);** 2 Mike Todd (Mondiale M84S) +0.129s; 3 Henry Campbell (Reynard 89FF); 4 Andrew Blair (Reynard 84FF); 5 Nicky Gibson (Crossle 55F); 6 Ashley McCulla (Mondiale M89S). **FL** Todd 1m02.960s (86.45mph). **P** R Campbell. **S** 7.

## OULTON PARK

BRSCC, JUNE 25

**FORMULA FORD 1600 NORTHERN CHAMPIONSHIP - PRE-'90 (11 LAPS) 1 Jaap Blijleven (Reynard 88FF);** 2 Nick Barnes (Van Diemen RF87) +4.736s; 3 John Murphy (Merlyn Mk20A); 4 Brian Soule (Van Diemen RF88); 5 Josh Smith (Reynard 89FF); 6 Christopher Stones (Van Diemen RF88). **CW** Murphy; Mario Sarchet (Reynard 86FF). **FL** Smith 1m50.780s (87.47mph). **P** Smith. **S** 19.

**FORMULA FORD 1600 NORTHERN CHAMPIONSHIP - POST-'89 (11 LAPS) 1 Douglas Crosbie (Van Diemen JL013K);** 2 Matthew Cowley (Van Diemen JL13) +17.109s; 3 Jack Wolfenden (Van Diemen JL013K); 4 David McArthur (Van Diemen LA10); 5 Martin Short (Van Diemen JL012K); 6 Matthew Chisholm (Van Diemen RF92). **CW** Chisholm. **FL** Crosbie 1m49.069s (88.84mph). **P** Crosbie. **S** 13.

**MAZDA MX-5 CHAMPIONSHIPS - GROUP A (BOTH 10 LAPS) 1 Tom Roche;** 2 Michael Fisk +8.959s; 3 Simon Baldwin; 4 Clive Powles; 5 Brian Trott; 6 Martin Tolley. **FL** Roche 2m05.378s (77.28mph). **P** Roche. **S** 21. **RACE 2 1 Roche;** 2 Fisk +5.750s; 3 Trott; 4 Tolley; 5 Oliver Allwood; 6 Paul Bishop. **FL** Roche 2m04.754s (77.67mph). **P** Roche. **S** 21.

**MAZDA MX-5 CHAMPIONSHIPS - GROUP B (BOTH 10 LAPS) 1 Matt Pickford;** 2 Simon Woods +0.457s; 3 Simon Orange; 4 Ivan Leary; 5 Sam Bailey; 6 Michael Lawson. **FL** Martyn Canning 2m08.607s (75.34mph). **P** Pickford. **S** 21. **RACE 2 1 Joshua Jackson;** 2 Kevin Brent +17.043s; 3 Paul Austin; 4 Canning; 5 Michael Lawson; 6 Bryn Griffiths. **FL** Jackson 2m06.983s (76.31mph). **P** Richard Collins. **S** 21.

**MAZDA MX-5 SUPERCUP (BOTH 10 LAPS) 1 Tom Roche;** 2 James Blake-Baldwin +0.219s; 3 Richard Wicklen; 4 Liam Murphy; 5 Alan Henderson; 6 Jonathan Greensmith. **FL** Wicklen 2m00.893s (80.15mph). **P** Henderson. **S** 26. **RACE 2 1 Blake-Baldwin;** 2 Roche +0.236s; 3 Jack Harding; 4 Greensmith; 5 Murphy; 6 Wicklen. **FL** Henderson 2m00.148s (80.65mph). **P** Roche. **S** 25. **TOYO TYRES PORSCHE CHAMPIONSHIP (6 LAPS) 1 Richard Styrin;** 2 Richard Avery +5.386s; 3 James Coleman; 4 Garry Lawrence; 5 Kevin Molyneux; 6 Nick Hull. **CW** Linda Warren (924). **FL** Styrin 1m57.199s (82.68mph). **S** 13. **RACE 2 (11 LAPS) 1 Styrin;** 2 Coleman +1.361s; 3 Lawrence; 4 Molyneux; 5 Hull; 6 Nizar El-Chamaa (924). **CW** El-Chamaa. **FL** Styrin 1m57.493s (82.47mph). **P** Styrin. **S** 13.

**ALFA ROMEO CHAMPIONSHIP (BOTH 10 LAPS) 1 Graham Seager (GTV);** 2 Andy Robinson (156) +25.576s; 3 Andy Page (Giulietta Turbo); 4 Tom Hill (156); 5 James Ford (156 2.0 TwinSpark); 6 David Messenger (156). **CW** Hill; Ron Davidson (164). **FL** Seager 1m57.168s (82.70mph). **P** Seager. **S** 15. **RACE 2 1 Robinson;** 2 Page +42.483s; 3 Hill; 4 Ford; 5 Messenger; 6 Andy Hancock (156). **CW** Hill; Davidson. **FL** Seager 1m55.300s (84.04mph). **P** Seager. **S** 13.

# Neil Cunningham was my He is



Beckett has so many great memories of Cunningham (right)

**James Beckett** pays tribute to the national-racing favourite who was just 53 when he lost his battle against motor-neurone disease a few weeks ago. Here is a personal account of a popular racer

**O**riginating from New Zealand, but raised on Australia's Gold Coast, Neil Cunningham's love of motoring and motorsport developed at an early age. Showing a talent for driving cars, he managed to scrape a number of drives in local championships down under before travelling to Britain in 1983 as a winner of the Australian Driver to Europe competition. As a Kiwi it was no mean feat in its own right to win an Australian prize! "Tell them you're an Aussie when you get there, they won't know the difference," was the advice as he boarded the plane.

Arriving to race a Formula Ford 2000 car, Neil's prize drive

didn't last long, as a lack of funds severely limited his time in the car and, as a well-known Autosport journalist has since observed, Cunningham's participation in the squad was similar to that of a third driver in a one-car team. It was time to look for a drive, and Neil looked hard.

Drives were acquired, by hook or by crook, in a variety of categories, FF2000 and Formula Ford 1600 in particular. During the next few years, if there was a major Formula Ford race somewhere, Neil was in it. And he was quick. Carving out a reputation as a single-seater racer, Cunningham began to star, often referred to as the 'likeable Australian'. His performances were noticed but, as other racers graduated to Formula 1 and other international categories, Neil's lack of funds prevented such movement.

# friend. my hero...



scoring victories along the way at Knockhill and spectacularly on his 'home' grand prix circuit at Silverstone.

A dream to race at Le Mans was achieved in 2004, when he led the Morgan works team in the 24 Hours, driving the manufacturer's Aero 8 GT in the famous event. Cunningham started the race and also drove the car across the line at the finish. He returned two years later to drive a Courage in the LMP2 class, finishing 21st overall.

Later in his career, Cunningham forged a strong reputation as a racer of historic cars, winning twice at the Silverstone Classic in a Jaguar D-type with its owner, Ben Eastick, and driving like a man possessed in Bob Pepper's Ford Mustang to win the British Grand Prix Historic support race of 2008. Sliding the Mustang around half of Northamptonshire and Buckinghamshire to victory, all Neil wanted to know afterwards was, "Did I look good? Was I really sideways through Bridge?"

Many historic races followed, including qualifying a Jaguar E-type on pole position at Le Mans for a Legends race, and

Cunningham came close to winning the 1992 Formula Ford Festival for Swift

## “Neil’s supreme car control led to his talent being snapped up by film and TV producers”

During the period 1986 to '92, Cunningham was a Formula Ford stalwart – Andy Dawson's Swift, Amity Racing's Van Diemen, a Quest, a Mondiale, the Central Racing Services Van Diemen RF90 and more before the factory Swift team came knocking for '92. The works Swift SC92F presented him with his best shot at glory to date, and Neil led the Formula Ford Festival Final until a gear-linkage failure ended that dream.

A return to Formula Renault (in which he'd shone in 1990) and a surprise appearance in the DTM at Donington Park during '94 followed, before Cunningham's talents were showcased in the popular Eurocar series. In '96, in the final race of the season, at a rain-soaked Brands Hatch, Neil took the lead on the opening lap and simply drove away to championship victory.

A Marcos Mantis Challenge title followed and soon Cunningham's performances allowed him to enter the world of GT racing. His obvious talents and superb car control soon attracted attention; if a team had a seat going, invariably Neil could be found in it – driving the wheels off it.

The British GT Championship became home for Neil, and in 2005 he enjoyed his best season in the category – third in the championship with Ben Collins and Embassy Racing's Porsche,

winning his class in Nigel Webb's XKD 505 D-type during the 2011 Le Mans support event. He was presented with his trophy by Sir Stirling Moss, a driver who called time on his own career during the same meeting.

Cunningham's supreme car control led to his talent being observed, and then snapped up by film and television producers. A stunt driver for the opening sequences of the James Bond film *Quantum of Solace*, Neil also deputised on occasions as The Stig for the BBC show, *Top Gear*. V8 cars, tyres smoking and in broadside – that was Neil's forte.

His entertaining sideways style was also often seen in the Walter Hayes Trophy at Silverstone, driving my own FF1600 Van Diemen RF78, a car he christened 'Black Beauty'. Neil and 'Beauty' became common features at the end-of-season showcase. Winning the opening heat of the 2005 event is something I will never forget.

In 2006, Neil became the only driver in the event's history – and maybe at any meeting – to have a race-control bulletin directed at him during pre-race testing for driving too sideways! Quite simply, Bulletin 1 was issued by Dave Scott, race director, and titled, 'Who do you think you are? A Kiwi Superstar?' >>



No fine was levied, and if there had been there's no doubt Neil would have asked the car owner to pay it, but he bought a box of Mars bars to give to the marshals the following day. All those who thought he 'looked good' and 'sideways' got one!

Maybe it was fitting that Cunningham's racing career ended behind the wheel of a Formula Ford. Driving Dave Morgan's Van Diemen RF90 on a September day in 2011 – the very same car he had raced 20 years earlier – Neil drove his last race. He was really suffering by this time and, as we travelled up to Donington that day, we chatted about the good old days. I think deep down we knew this could be his last race.

Practice was wet, conditions awful, but Neil showed he still had it. Only afterwards did he tell me he hadn't got the strength to hold the steering wheel with his left hand.

It was a superhuman effort to climb into the car, let alone race it. But that was Cunningham, superhuman and keen to just get

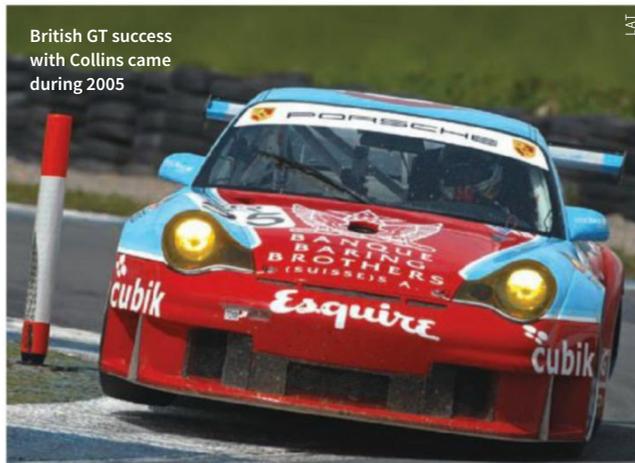
on with his job, what he knew best – and that was driving racing cars. When Neil was driven away from the track that night everyone felt numb. He was my champion and I felt that I had just witnessed him floored by a single punch in the centre of the ring – although his final big fight was underway, and it would be bigger than any challenge experienced on the track.

After his diagnosis with motor-neurone disease, Neil set up a charity to heighten awareness of – and raise funds for – the fight against MND. His many friends stepped up to the plate to support Cunningham and his quest to defeat his condition, with a total of £100,000 raised at the time of his passing. Neil was forever smiling, and always happy. He displayed strength, courage and a dogged determination – the same qualities that earned him such a fine reputation on-track. He was certain that a cure would be found, that he would live to fight again. Works of the charity will continue, creating a lasting legacy.

Away from the tracks, Cunningham also had a love of the ocean and, following an emotional memorial service held in the Mumbles, close to his Welsh home, it was fitting that his surfing friends should take to their boards under a clear blue sky and head out from the shore for one final tribute.

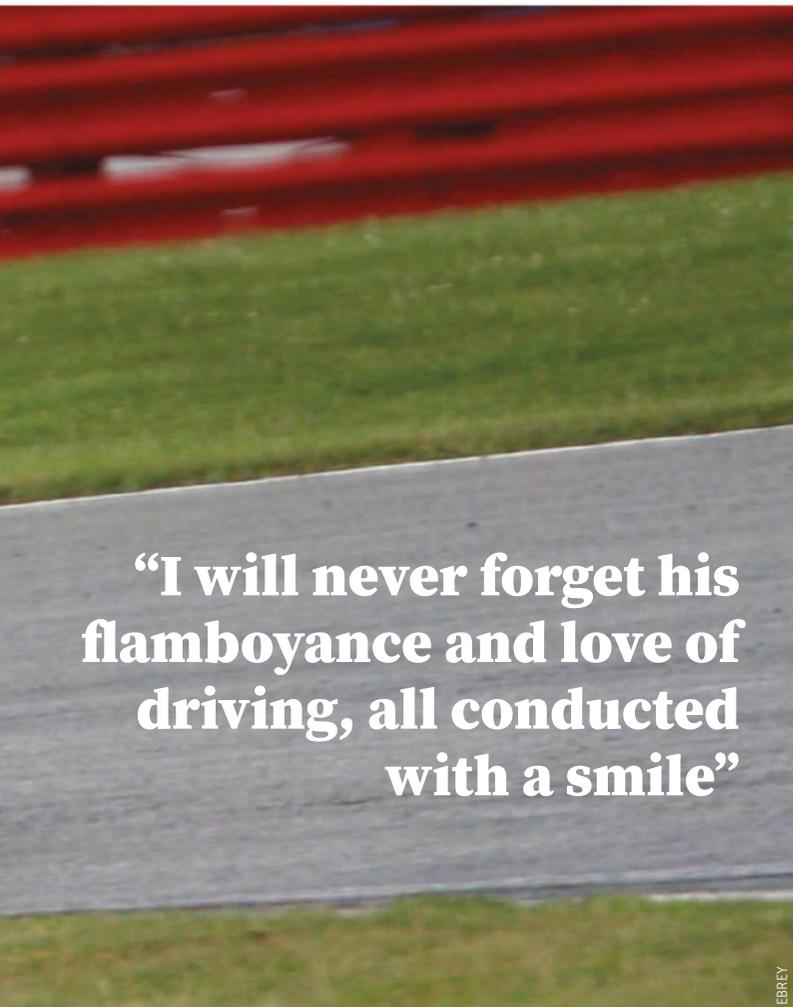
I have been asked to provide three magic memories of Neil's career to accompany this piece and that has been really difficult as I have been able to recall so many – and we enjoyed such times. In the Autosport issue dated January 8 2009, I was described as a 'one-man Neil Cunningham Fan Club', but in the weeks since his passing it is obvious to me that his fan club was huge.

I will never forget the flamboyance and the love of driving, all conducted with a smile on the face. I met Neil shortly after his arrival in Britain back in 1983, and I enjoyed a very special friendship with him from that time. I am going to miss him. I believe we are all going to miss him. Motor racing has lost a fine man. ❁



British GT success with Collins came during 2005

LAT



**“I will never forget his flamboyance and love of driving, all conducted with a smile”**

EBREY



EBREY

## THREE OF THE BEST

### 1996 EUROCAR V6 CHAMPIONSHIP FINALE

As the Eurocar Championship headed to Brands Hatch for its season finale, Neil Cunningham found himself still in with a shout of winning the title. A season-long three-way battle between Phil White, Peter Falding and Neil brought the race for the crown down to the wire and, with Eurocars supporting the Formula Ford Festival, the scene was set. After the opening races, heavy rain began to fall ahead of the final race of the campaign. As the lights flashed green, Neil took the lead around the outside of Paddock Hill Bend and drove away from the pack to win and claim the title.



EBREY

### 2005 WALTER HAYES TROPHY – HEAT ONE

Cunningham first climbed aboard my Van Diemen RF78 (#16, above), which he christened ‘Black Beauty’, in May 2003 for the Jim Walsh Trophy at Silverstone. He loved it. Just over two years later, Neil was lining up in her again for heat one of the 2005 Walter Hayes Trophy – one of over 160 entries for the competition in a record-breaking year for the event. With rain falling as the cars headed off to the assembly area, a prediction of victory for Neil by my brother Colin might have seemed wide of the mark to many, but who would bet against him in conditions like this? Grabbing the lead on the opening lap, he cleared off to win in flamboyant style.



EBREY

### 2008 BRITISH GRAND PRIX HISTORIC SUPPORT RACE

Cunningham was always right at home when sliding around in Bob Pepper’s 1965 Ford Mustang (leading, above). Bob’s message to his driver was always clear, ‘Drive it like you stole it’, and Neil did. Sideways at every opportunity, Neil, with tyres smoking and bubble goggles in place, looked every part the NASCAR driver of the 1960s. On this occasion, he found himself outgunned against similar high-powered V8 machinery, but this race was taking place at ‘his’ grand prix circuit at Silverstone. An early-race lead was lost, but Neil’s mastery allowed him to reclaim the top spot from John Young’s Alan Mann-entered Mustang at Bridge Bend on the final lap.



Cunningham (6) became a Jaguar D-type ace

BECKETT



BECKETT

Heading out for his emotional final race

# WHAT'S ON



Jones presents C4's F1 show

## My F1 presenting debut was 'terrifying' – Steve Jones

WHEN CHANNEL 4 TOOK OVER the rights from the BBC, the on- and off-screen team remained largely the same but there was a new face at anchor – Steve Jones. He had significant experience with live broadcasting, hosting X Factor USA and T4, but this was his first foray into sport. The autocue was no longer there to help.

“As an entertainment presenter, you write an extensive script, it’s there on the autocue and your challenge is to deliver it like you’ve seen it for the first time yourself,” says Jones. “The challenge here is the same but you have to put it inside your brain and remember everything. That was very, very hard.”

The season-opening Australian Grand Prix was a dry run as it was highlights. Then came the first live race in Bahrain. “It was terrifying,” he says. “I had an out-of-body experience, looking down on myself and thinking ‘what the hell are you talking about?’ But I manned up, got stuck in. This is definitely the toughest gig I’ve ever had, but I’m just happy I’m doing a job that is still challenging me this deep into my career.”

Jones did his research before starting in the role and he has a genuine interest in F1. “I loved it,” he says. “I was dreaming F1. That’s important because without that, I couldn’t do this job.”

After eight races, Jones admits to feeling more confident. “There was a lot to work on after the first few races,” he says. “I got some good feedback and I’ve had a good response from the people at Whisper [Films, who produce the programmes] and the fans.”

“In the first couple of shows, I was doing it as an entertainment presenter,”

Jones has grown in confidence in his role as anchor for C4's F1 coverage



he says. “I was thinking ‘you’ve got to be funny, it’s got to be witty’. There is scope for humour in F1 but it doesn’t have to be every other sentence like ‘oh, this is funny’. So I’ve moved away from that, as I know it can be jarring for some people.”

“I’ve worked very hard to ask the right question at the right time, sprinkle a little bit of humour into it at the right time as well and know when to shut your mouth. The more you get to know it the better your judgement is of when it’s appropriate – and I feel like I’ve got there now.”

Jones accepts it will take time for people to get used to his style and Channel 4’s coverage: “I understand and I respect the fact that a lot of people are going to be jarred when they see me on their screen, they might have seen me do T4 and I’m presuming a lot of F1 fans will be like ‘Who the hell is this guy?’”

“But, just give me a chance and let me adapt myself to what you want me to be initially and then when you’re relaxed and a bit more comfortable, and a bit more open to ‘oh, the new guy’, then I’ll put a bit more of my personality on it.”

LAWRENCE BARRETTO

## GET AUTOSPORT ON THE MOVE

DOWNLOAD IT NOW FROM AUTOSPORT.COM



## HOT ON THE WEB THIS WEEK

YouTube LOPEZ MONSTERS VILA REAL

Search for: ONBOARD - The ride of your life...

The WTCC's busy YouTube channel is a bit of a curate's egg: a duckfacing grid girl has no place in a round-up of race highlights, let alone a leering full-frame view of her backside, but the on-track footage is often excellent – witness Jose Maria Lopez's scorching lap of the oh-so-tight Vila Real circuit.

## INTERNATIONAL MOTORSPORT

### AUSTRIAN GRAND PRIX

Formula 1 World Championship

Rd 9/21

Red Bull Ring, Austria

July 3

WATCH ON TV

Live: Sky Sports F1,

Sunday 1230

Highlights: Channel 4,

Sunday 1800

### GP2 SERIES

Rd 4/11

Red Bull Ring, Austria

July 2-3

WATCH ON TV

Live: Sky Sports F1,

Saturday 1435

Live: Sky Sports F1,

Sunday 0900

### GP3 SERIES

Rd 2/9

Red Bull Ring, Austria

July 2-3

WATCH ON TV

Live: Sky Sports F1

Saturday 1620

Live: Sky Sports F1

Sunday 0800

### PORSCHE SUPERCUP

Rd 3/9

Red Bull Ring, Austria

July 3

WATCH ON TV

Live: Eurosport 1, Sunday 1030

### RALLY POLAND

World Rally Championship

Rd 7/14

Mikolajki, Poland

June 30-July 3

WATCH ON TV

Live: BT Sport 1, Thursday 1800

Live: BT Sport 1, Sunday 0800

Live: BT Sport1, Sunday 1100

Highlights: BT Sport 1,

Sunday 2200

### BLANCPAIN SPRINT CUP

Rd 3/5

Nurburgring, Germany

July 3

WATCH ON TV

Live: BT Sport 2, Saturday 1300

### IMSA SPORTSCAR

Rd 6/12

Watkins Glen, New York, USA

July 3



### BATTERSEA FORMULA E

ITV1

Saturday 1500,

Sunday 1500

Is this the way to the children's zoo? Battersea Park reverberates to the whirr of electric engines this weekend. Catch the action on ITV as Lucas di Grassi, Sebastien Buemi and Sam Bird vie for the title at the double-header finale.



GP3 RED BULL RING

SBL0XHAM/LAT

### FORMULA RENAULT EURO CUP

Rd 3/7

Monza, Italy

July 2-3

### TCR INTERNATIONAL

Rd 7/11

Sochi, Russia

July 3

WATCH ON TV

Live: Motors TV, Sunday 1025

### NASCAR SPRINT CUP

Rd 17/36

Daytona, Florida, USA

July 2

WATCH ON TV

Live: Premier Sports TV,

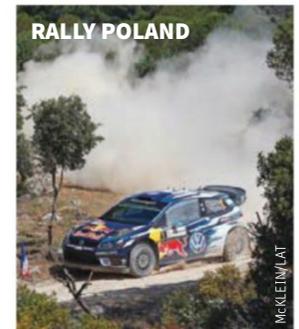
Sunday 0000

### SUPER TC2000

Rd 6/12

Obera, Argentina

July 3



RALLY POLAND

McKELIN/LAT

## UK MOTORSPORT

### BATTERSEA FORMULA E

July 2-3

WATCH ON TV

Live: ITV1, Saturday 1500

ITV1, Sunday 1500



BRANDS HATCH HSCC

### BRANDS HATCH HSCC

July 1-3

Historic F2, HGPCA, Pre-1980

Endurance, Super Touring

Trophy, Derek Bell Trophy,

Classic Formula 3, Guards

Trophy, GT and Sports Car Cup,

Historic Formula 3, Historic

FF2000, Historic FF1600,

Classic Racing Cars, Formula

Junior, Historic Touring Cars,

Historic Road Sports, '70s

Road Sports, Classic FF2000

WATCH ON TV

Highlights: Motors TV,

August 6 TBA

### DONINGTON PARK MASTERS

July 2-3

FIA Historic F1, FIA Historic

Sports, Gentleman Drivers,

Pre '66 Touring Cars, Three-

Hours, Can-Am/Allcomers,

Ferrari Formula Classic,

Sports 2000 Pinto, Sports

2000 Historic, Sports 2000

Endurance, Scottish Classic

Sports and Saloons, Scottish

BMW Compact Cup

### THRUXTON BARC

July 2-3

Britcar, Britcar Production,

BCV8, Thoroughbred

Sportscars, Historic Touring/

Classic Saloons, Pre-1983

Touring Cars, Pre-1993 Touring

Cars, Pre-2003 Saloon Cars,

Pre 2005-Production Touring

Cars, Blue Oval Saloons,

Thunder Saloons, Classic VW,

Historic Thunder Saloons,

206 GTi, Coupe Trophy,

Deutsche Marques, Toyota

MR2, Nippon Challenge,

Tricolore Trophy, V Racing

### MALLORY PARK MGCC

July 3

MG Trophy, MG Challenge,

MG Metro Cup, Midgets and

Sprites, Iconic '50s Series,

Cockshoot Cup, Equipe GTS

### ROCKINGHAM BARC

July 3

Pickups





## THE ARCHIVE

Before the Japanese began to take Le Mans seriously, this Datsun 240Z was raced in 1975 by '71 Safari Rally-winning co-driver Hans Schuller, Strasbourg restaurateur Andre Haller and sawmill technician Benoit Maechler. They initially failed to qualify but were admitted to the grid at the last minute, and finished the race in 26th place despite the rear axle seizing.

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[@latphotographic](https://twitter.com/latphotographic)

# THE BUCKET LIST

GOODWOOD  
REVIVAL



ALL PICTS: BLOXHAM/LAT

# W

hether you made it to the Festival of Speed last weekend or not, Goodwood provides another highlight every September. And if you like actual racing – no disrespect to the Festival hillclimb – then it's the Revival you really must have on your motorsport calendar.

Period dress, buildings and aircraft provide the backdrop, but the real stars are the cars and drivers. Current and past legends of Formula 1, sportscars, touring cars and more mix with leading historic drivers to put on some of the best competition you'll see. Because most of the pre-1966 machinery lacks downforce and slick tyres, you can see the drivers working too. Oversteer and grappling with the wheel is very much the order of the day around the challenging West Sussex circuit.

That applies whether it's grand prix cars of the 1950s, tin-tops of the 1960s or the Ferrari, Aston Martin, Jaguar and AC GTs of the blue-riband RAC Tourist Trophy Celebration enduro. This year there is also a new event – the Kinrara Trophy – for pre-1963 GTs racing into dusk.

Speeds at Goodwood have been creeping ever higher in recent years as teams and drivers chase prestigious success, and there have been some serious accidents. Two narrow escapes at the Members' Meeting in March mean changes are almost inevitable. But that's preferable to the event – one of the best meetings of its type anywhere in the world – stopping altogether.

Whatever Goodwood's future may hold, be sure to make the most of it while you can. As well as the cars and drivers, it offers some of the best spectating spots in the UK and there's usually plenty of overtaking.

Quality demonstrations also feature, with the 50th anniversary of Jack Brabham's F1 title in a car bearing his name being marked this year.

The Revival is a family event, with plenty of off-track stalls and attractions in which it's easy to spend many hours. Try to resist the fairground rides and shops, though, because on-track is where the Revival is at its best. 🍷

Goodwood is one of the few genuinely old-school venues left, and one where classic cars are driven properly

## AT A GLANCE

**Where** Goodwood Motor Circuit, Chichester

**When** September 9-11

**Cost** Some tickets are already sold out, but Sunday tickets (£73

for adults) are available. Grandstand packages are also on offer.

**Key tip** The kink before St Mary's is an absolute must. It's a bit of a trek,

but a great vantage point is the reward. Cars drift beautifully through this quick right-hander and you can see who's really on top of their machinery.



# AUTOSPORT

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# FE'S VIRTUAL FUTURE

FORMULA E WILL RAMP UP ITS USE OF virtual reality in the coming months as the electric single-seater series seeks to lead motorsport's embrace of the technology.

While Formula 1 has recently targeted VR as an avenue for expansion, FE has been experimenting with it alongside American company Virtually Live since the end of last year.

It opened up on-site demos of the technology in Long Beach in April, after ex-Formula One

Teams Association secretary Oliver Weingarten introduced FE and Virtually Live to one another.

The tech works by taking GPS data from events to recreate the races in CGI form. Users can then follow the action from on board each car, in team garages or from hospitality, as well as accessing the world feed's camera angle.

Broadcasting deals mean it is not certain that virtual reality will become part of the championship's live coverage of its 2016-17 campaign, but those involved with the project insist it will expand its use.

"Our roadmap aims to offer fans a much-improved experience," said Tom Impallomeni, Virtually Live CEO. "With a reasonable amount of time between races, it makes sense for us to be developing a content strategy that extends beyond live."

Tom Halls, FE's head of digital, also suggested that when the technology moves beyond the demo phase, it will not be incorporated into

live broadcasts immediately. "Technically it could be released to fans in its current state, but we are keen to really enhance and flesh out the experience to build a product that we're both proud of and reflects the innovative nature of the series," he said.

"Our data allows us to recreate the race in virtual reality as it's happening — no one else is doing this, so we're being conscientious about how fans would respond to that experience and how it can be used to complement the traditional TV broadcast model."

The CGI renders are primitive at the moment, but Impallomeni says in time it will become "almost photo real".

Weingarten believes it makes perfect sense for FE to lead the way in with VR. "They don't have as many rules as F1 or others that have been around much longer or have longer [broadcasting] deals," he said. "Its demographic is the envy of many other championships."

"There's a lot of money in VR. Facebook bought Oculus, HTC is putting a lot of money into Vive. It's not a fad; it will be around for a long time."

**"Users can follow the action from each car, or the team garage"**



## ATTESA

# Apex designs major Arizona circuit

A NEW MOTORSPORT HUB DESIGNED BY BRITISH race-track engineering firm Apex Circuit Design is to be built in Arizona in the United States.

Attesa will feature two 2.6-mile road courses, a karting track, a driver-experience area and capacity for other multi-surface events. It is also aiming to become a centre for transport-design innovation and educational partnerships with companies in the automotive industry.

It is hoped the circuit could attract major events in the long-term, as it is built to a standard capable of holding IndyCar, MotoGP and top-line sportscar racing.

"Attesa will be the optimum racing entertainment destination that will draw guests from all over the world," said Dan Erickson of Danrick Builders, which is developing the project.

"Our model is incomparable to any other development in the US. We'll combine speed, luxury experiences and motorsport opportunities for individuals from all walks of life."



## WOMEN IN MOTORSPORT

## INSPIRING GIRLS FOR A CAREER IN ENGINEERING

FORMER WILLIAMS FORMULA 1 test driver Susie Wolff's Dare to be Different initiative is hosting events aimed at encouraging girls aged eight to 11 into motorsport careers, including engineering.

The third Dare to be Different event was held earlier this month at Daytona Milton Keynes, featuring a variety of activities focused on different aspects of the motorsport industry.

Williams deputy team principal and Dare to be Different ambassador Clare Williams said: "For these girls to be doing things like pitstop challenges and testing their engineering skills, as well as karting and media, they gain experience in so many diverse disciplines.

"It's a great snapshot of the sport, something that will hopefully leave a lasting impression so when they come to choose their subjects, they'll think, 'You know what, I'd love a career in motorsport!'"

The next event will be held at Knockhill in Scotland on August 25. Visit [daretobedifferent.org](http://daretobedifferent.org)

## NATIONAL MOTORSPORT ACADEMY

## NMA offers first online motorsport degree



THE NATIONAL Motorsport Academy has launched an online motorsport engineering degree in association with Staffordshire University.

The NMA will offer both foundation and bachelor's degrees, which are open to UK and international students.

The online format is intended to offer maximum flexibility, with customisable start dates and workloads.

Students are supported by tutors who are available electronically or by phone, with lectures, seminars and

videos to complement the coursework-based assessment.

The NMA claims that its fees are 40% lower than other universities, and that loans are available to students. Work experience is also guaranteed.

The course covers the theoretical aspects of the discipline, such as mathematics and engineering science, as well as the practice side of motorsport engineering.

For further information go to [motorsport.nda.ac.uk](http://motorsport.nda.ac.uk)

## AUTOSPORT WILLIAMS ENGINEER OF THE FUTURE

## Williams award 2016

THE AUTOSPORT Williams Engineer of the Future award will run for the second time in 2016.

Nominations closed in early May, with Oxford, Cambridge, Imperial, Loughborough, Bath, Southampton, Oxford Brookes and Belfast Queens University selecting candidates.

These will be whittled down to just five candidates, with the winner announced at the Autosport Awards on December 4.

The judging panel comprises former Ford R&D director Richard Parry-Jones, Williams chief technical officer Pat Symonds, team HR director Nicola

Slater, ex-Jaguar Formula 1 team boss Tony Purnell and Autosport Editor-in-Chief Edd Straw.

Last year's inaugural award was won by Oxford University engineering science student Elizabeth Thompson, who won a two-year contract to work for Williams, which starts in September this year.





Amateur racer Thomas is also the brains behind RaceLogic's system

ALL PICS: JAKOBBREY

Lightweight E-type shared by Thomas and Lockie used to demo VBOX tech



# RACELOGIC VBOX DRIVING DRIVER IMPROVEMENT

The person behind the wheel is the biggest single performance differentiator in motorsport. **Robert Ladbroke** explains how technology can help improve the flesh-and-blood part of the car

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Set-up will only get you so far in motorsport. Precision tuning of metal and rubber accounts for the final few tenths drivers need to be successful, at the most. But by far the biggest gains in this sport come from the organic matter behind the steering wheel.

Technology is constantly evolving within the sport, and that's a good thing because not only does it allow drivers to continually push the boundaries of what's possible on track, it also allows them to review their own performance off it.

Data logging and analysis used to be a tool reserved only for the super-technical, or the super-funded. But now drivers of all levels across the world can have access to precision data and coaching tools thanks to RaceLogic and its VBOX system.

Developed by club racer Julian Thomas's company, the system allows for easy capture, replay and analysis of everything a car does out on track, at any circuit.

Technology expert Thomas first came up with the concept for the system when karting. "I used to compete against one of my colleagues and he was always quicker than me, but couldn't explain why," says Thomas. "I rigged up a system to put on his kart to measure his throttle, brake application and speed and could then see what he was doing differently to me. That's when these types of systems really came to my attention."

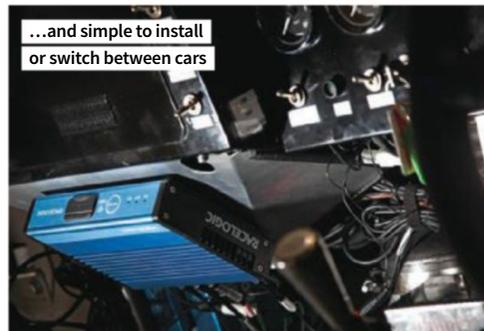
RaceLogic has come a long way in the following 24 years, with its other products used by major automotive manufacturers to measure emergency-braking systems, collision-avoidance technology and more.

In racing terms, VBOX Video HD2 is its marquee product. More than 8500 VBOX systems have been sold to date. Using global-positioning systems accurate to within a few centimetres, it can give real-time information about speed, laptime and, often more crucially, technique. The system uses side-by-side video comparisons to make it easy to spot where improvements can be made. It also automatically recognises and plots 500 circuits around the world.

"Many data systems can be way too complex, often made by electronics engineers who have



System is designed to be straightforward to operate...



...and simple to install or switch between cars

never gone racing," says Thomas. "VBOX is made by racing drivers for racing drivers, so we kept things simple and accessible to give drivers the most relevant data to help them improve.

"The system breaks down a lap into sectors by using the top speed at any given time, and then gives you accurate data for each sector every lap. The computer will then select your fastest outright lap and use that as the benchmark and give you the data to spot every mistake or improvement.

"You can see exactly how much time you could save by hugging an apex a little longer, or how much you'd lose by running too wide.

If you continue to experiment with different lines, it helps you develop a theoretical perfect line around the track. Sometimes even a mistake can find you time you never realised."

The circuit-tracking GPS is also a new way of logging driving data, and is accurate regardless of the length or nature of the track you're on, meaning it can predict lap times in the same way for the 1.2-mile Brands Hatch Indy track or the full 12.3-mile Nurburgring Nordschleife.

"Traditionally the way to track lap times was on distance covered and the system would record each lap depending on how far you'd travelled on what line," explains Thomas. "On Brands Indy a lap could possibly only vary by about 10 to 15 metres maximum if you ran wide a few times. But on the Nordschleife you have to vary your lines so often with traffic or conditions, so a lap could vary by 800 metres or more for a pro driver, meaning after five turns the data gets out of sync and your predicted laps can become seconds out.

"By using accurate GPS tracking we can keep predicted lap times to within a tenth of a second on tracks like the Nordschleife above or below your best."

The basic VBOX Video HD2 consists of a single main data box, an aerial and two 1080p cameras, making it easy to install or move between cars. While the system is simple to use for amateur racers, it's also proving a useful tool for professionals.

Driver coach and successful racer Calum Lockie says: "I've seen people trying to use hugely complicated data systems and they get lost in them, which leads to disheartenment and then you get a downward spiral in performance. The VBOX does all you need it to do and you can tailor it to be as simple or as complex as you like.

"You can dig down from the base data, which is often the best way to do it. By just using the side-by-side video and the data traces you have masses of information. Modern motorsport is very homogenised, with single-make series and limited adjustability, so by far the biggest gains are found in the drivers. This system rips up the racing drivers' excuses book and instead gives everybody a way of picking out their mistakes and finding ways to better their performance." >>



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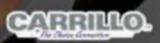


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## USING VBOX

VBOX works as a solo or coaching tool for Thomas (right) and Lockie



**“It’s incredibly useful to see how far you’ve come as a driver over time”**  
**JULIAN THOMAS**

**“Data doesn’t lie. If you accept something is wrong you can act to fix it”**  
**CALUM LOCKIE**

## JULIAN THOMAS

### AMATEUR RACING DRIVER

“It’s very easy to lose hours poring over the data and trying to find ways to improve, and the key to it all if you are using the system solo is to keep experimenting.

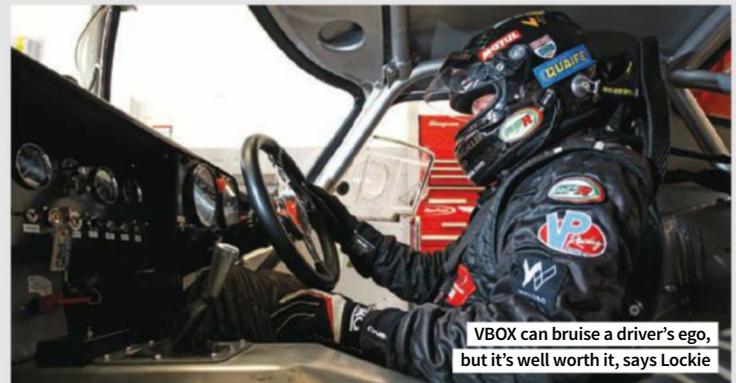
“If I was having particular trouble with a certain sector of a track, or even a specific corner, I’d do five laps and take a different line each time. Then when I download the data file the system will automatically take my fastest lap as the reference and then allow me to analyse that specific section of track against the other four. I can pick out my fastest sector times and then overlay the video and check the speed and track-data traces to see if that sector links in with the next, and sometimes the biggest gain in a slow corner can be the tighter line as you cover less difference.

“Some drivers swing out wide for

slow turns, but that can cost you an extra 40 metres of lap length, so the system can weigh up whether it’s worth travelling that extra distance for the speed you’ll carry through the corner.

By using the combination of video and data you can work out what works and what doesn’t.

“The system is very easy to transport and install – it’s one box under the dash, an antenna on the roof or back shelf and that gives you all of your geographical mapping data and time and speed. Everything downloads to an SD memory card and the software will allow you to overlay a lap from today, yesterday or a few years ago at the same time. That’s incredibly useful to see how far you’ve come as a driver over time as all of the data is stored and instantly accessible.”



VBOX can bruise a driver’s ego, but it’s well worth it, says Lockie

## CALUM LOCKIE

### PROFESSIONAL DRIVER COACH

“Data doesn’t lie, and sometimes as a driver you have to accept that something is being done wrong and act to fix it in order to make strides forward. This is the perfect tool to highlight areas of improvement.

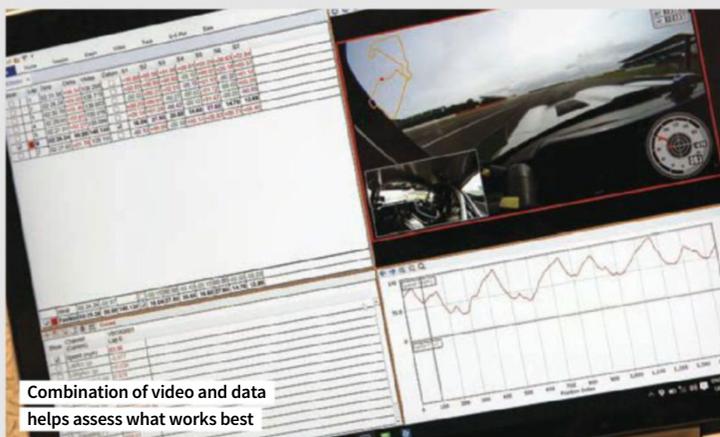
“If you adopt the position of fooling yourself into thinking everything is right, then you’ll never improve. This system makes you face reality as it is so accurate. Sure, sometimes it can be a bit bruising to the ego having a machine point out your flaws, but ultimately it gives you the facts to learn from.

“Some drivers get by on just a camera, but the real value is in the data and the numbers that go with it. Sure you can see when you’re hitting an apex with a basic camera, but what you can’t see is what impact that is having further around the lap. You need the data for that, and being

able to refer to both the video and the graph and sector times gives you such great reference.

“The data also allows a coach to back up what they tell a driver. We can physically replay and point out the effect a different line or a metre difference braking has around not just one corner but around a sequence or turns or even a lap. The art of placing a car is key, and with the visuals and data you can get a trace of where the car is going point-to-point.

“Having the dual cameras is great for me as a coach as I can see what the driver is doing, and also how they are acting. I can see if they’re stressed or relaxed, or I can see what they are doing with the steering wheel or the pedals at any given moment, which makes it so much easier to understand how a driver approaches things and the processes they go through.”



Combination of video and data helps assess what works best

Tyre and suspension changes key to improved cornering speeds



# ROAD VERSUS MODIFIED

The difference between a road car and a modified track car may not be immediately obvious – until you drive them both. And that, says Edd Straw, is RSRNurburg's USP

**E**ver wondered how different the kind of off-the-shelf production car you drive every day to work or on the school run differs from a real track car? You may be surprised at just how far apart two similar-looking cars can be. That's exactly the premise behind RSRNurburg's 'Standard vs. Modified' track-day packages – albeit using cars that are at the 'hot' end of the day-to-day-use scale to start with.

Nurburgring-based RSRNurburg, which can trace its roots back to 1995, specialises in track days. Run by experienced racer and test driver Ron Simons, the racing school has operated since 2002.

It's at another legendary circuit, Spa-Francorchamps, that individual customers

or corporate groups have the chance to compare a production car with an upgraded version. For those wanting something a little less racy, there's also the chance to do the back-to-back test on public roads.

The premise is simple: six laps behind the wheel of the standard car, then six in the modified machine. Those taking the road option get up to three hours behind the wheel, but at a rather more sedate pace.

The improvement simply from a better set of tyres and high-specification suspension will come as a surprise to those without track or high-performance driving experience. With so much road-car focus on straightline speed and acceleration, it's actually in the corners where laptime can really be found

in a way that the driver can enjoy.

"When you look at an exhaust, you don't hear it," says Simons. "When you look at a spring or a shock, you can't get excited about it no matter how nice and shiny it looks – you have to test them to understand them.

"All these things that you can buy mean nothing until you can test them. And what's even better is if you test them back to back with the standard car. That's the whole idea behind this."

Taking the BMW M3 as an example, the switch to the modified version improves laptimes by several seconds, with suspension, wheels and cut-slick tyres among the upgrades – as well as an Akrapovic exhaust that helps the engine breathe a little easier, increases

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RSRNurburg is based at  
Spa and the Nurburgring

STALEY/LAT



Back-to-back comparison  
highlights benefit of mods

**“All the things you can buy mean nothing until you test them against the standard car”**

power and improves the noise.

“The suspension is KW Clubsport, so it’s usable on the roads but also very effective on track regardless of the conditions,” says Simons. “It’s not totally focused on what you would have for full slicks, but is something of an intermediate setting. But it’s worlds apart from the comfortable stock shock on the road car. It brings a lot of stability and a lot more traction.”

As well as a Recaro race seat, customers also benefit from the Race Navigator system, which allows them to compare their performance in the road car with the modified one.

“It’s not an ultimate data-logging system, but it’s very approachable and easy to use,” says Simons. “The most important things are the

entry, apex and exit speeds to show you what you gain from the tyre and from the suspension.”

The M3 is just one of the cars RSRNurburg offers. The range starts with the Renault Megane RS265, which is a far more impressive piece of kit than those used to seeing a regular Megane on the road may first think.

“We wanted to do an entry-level car because people without the experience should not drive our Porsche,” says Simons. “The aim is to test the difference between an original car and an after-market product and, actually, the Megane is the best for that. It’s an award-winning car.”

“The chassis is so good that it deserves to run on the upgraded suspension and tyres and run more track-focused components. It flies compared to the standard car – you have so much more control, so much more feel. And with 260-270bhp to start with, it’s very quick.”

The next step is the BMW M235i, which Simons describes as “a real driver’s car”. It’s the first rear-wheel-drive machine in the range and, if anything, there’s a bigger gain to be had in the step from standard to modified because the regular car is built more for comfort than for speed.

The next step is the V8-powered M3,

although RSRNurburg is shortly to take delivery of the new M4, which is powered by a 3-litre, twin-turbo, straight-six engine.

“Then we go to the Porsche GT3 991,” says Simons. “These are more track-focused already, but there’s still a difference with the tyres and the suspension. The 991 is a very quick car and you must have absolute track knowledge because the speeds are serious. Exiting Pouhon and at Blanchimont you are travelling at 125mph. It’s a car that you need experience for.”

The track-comparison programme (six laps in the standard car and six in the modified car) includes all fuel and entry fees, as well as an instructor. Prices start at €995 for the Megane, rising to €1495 for the M235i, €1695 for the BMW M3 E92 and €1995 for the Porsche. All cars are also available for standard track rental, both at Spa and the Nurburgring.

There’s also the chance to take a hot-lap ‘taxi’ ride once you’ve tried the standard and modified cars to get a feel for just how quick it’s possible to go. 🏁

• For more information visit [www.rsrnurburg.com](http://www.rsrnurburg.com), search for RSRNurburg on Facebook or follow @ron\_simons on Twitter

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# OHLINS SHOCK AND AWE

Damper technology finds widely differing demands across the racing disciplines. **Edd Straw** explains



Intensity of rallycross makes it very tough on dampers



Since being formed by Kenth Ohlin in 1976, Ohlins Advanced Suspension Technology has established itself as the leading motorsport damper supplier worldwide. A bold claim, you may think, but a glance at its achievements shows just how successful it has been: championship titles too numerous to list, stretching to the pinnacle of motorsport.

Naturally, the demands in different disciplines vary dramatically and require Ohlins to have a wide range of characteristics across its family of products. Just imagine how different the requirements are for a set of dampers during the Le Mans 24 Hours (which Ohlins customers have won 15 times in the past 17 years) compared with a four-minute World Rallycross final.

The head of the Ohlins motorsport department, Jonas Jarlmark Nafver, has oversight of all of the company's motorsport activities and is perfectly placed to give an overview of the differing requirements.

### World Rallycross

World Rallycross Championship races may only last around four minutes, but the extreme intensity of the discipline makes it a uniquely difficult challenge for Ohlins. In any given WRX round just over two thirds of the cars will be using Ohlins products, including Sebastien Loeb's Peugeot 208 WRX, run by Team Peugeot-Hansen.

"For rallycross, you need a very good combination of car control and grip," says Jarlmark Nafver. "You need the gravel grip and car control and precision to overtake using the very small gaps you are given as a driver. It's one of the most complicated things that we do."

The ALR TPX/TTX range of dampers is used for rallycross. The TPX is a three-way adjusted MacPherson strut design, the TTX a three-way adjusted twin-tube damper. And in terms of robustness, nothing is as challenging as in rallycross, where dampers must withstand peak loads more than six times the maximum you might face on a circuit.

"In rallycross, the car has to cope with so many different surfaces in such a short time, which is when it's beneficial to have additional features to adjust," adds Jarlmark Nafver. "The peak loads we see tend to be somewhere in the region of 50-60kN, although you also have to make them strong enough to survive car-to-car impacts."

Remarkably, a set of Ohlins rallycross dampers can last the full season, albeit with the need for them to be serviced between events to monitor components such as seals and valve parts. >>

**"Peak loads tend to be somewhere in the region of 50-60kN, although you have to make them strong enough to survive car-to-car impacts"**

MRC2 entrant Jose Suarez flew on Ohlins dampers in this year's Monte



**“It’s when drivers make mistakes that you get the real peak loads. We try to design the damper so that it’s still on the car and it’s the rim that breaks”**

What’s more, the top-end dampers are similar technology to the entry-level aftermarket dampers available from Ohlins.

“The basic damper structure is similar all the way from the aftermarket dampers to the factory gear,” says Jarlmark Nafver. “But at the top end it’s more about added features and improved performance in every single detail.”

### Rallying

For rallying, the ALR TPX/TTX range is also used. It’s testament to the effectiveness and the adjustability of this range that it’s suitable for the very different demands of both rallycross and rallying.

“In rallying, it’s mainly long-term endurance you are after,” says Jarlmark Nafver. “In rallycross, it’s about being able to hit other cars and not lose the wheels as well as surviving the peak loads of the high jumps and the hard landings.”

“In rallying, the peak loads are fairly similar from a ground-contact perspective, but obviously not from contact with other cars. In rallying you also know more about what the surface will be like on a stage compared with the constant surface changes in a short time in rallycross.”

While Ohlins is not currently in the top level of WRC, a quirk of the manufacturers currently

represented, its dampers are on the Peugeot 208 R5 car currently competing in WRC2. In that car, Jose Suarez managed to set a top-six time overall on the Monte Carlo Rally, albeit in drying conditions that favoured his later road position.

“The peak loads, say on a jump in Finland, would be up around 40-50kN,” says Jarlmark Nafver. “But it’s when drivers make mistakes that you get the real peak loads. If they put the tyre on the inside of a corner and there’s a 20cm rock in there – that’s when we see similar loads to rallycross. That’s a test of the bending resistance and the tensile strengths. We try to design the damper so that it’s still on the car and it’s the rim that breaks.”

With endurance also comes a temperature challenge. On a hot rally such as the Acropolis, the dampers can reach 120-150C.

Inevitably, at this level the dampers require service after every event, but there are Ohlins products lower down the range without so many special features that don’t require such frequent attention.

The top-end TPX damper also has some design features aimed at making its performance more consistent than a regular damper.

“The TPX is a twin-piston system, compared with our TTX, which is twin-tube damper with two valves in the cylinder head,” says Jarlmark Nafver. “So what we’ve essentially done is instead of having both valves in the cylinder head, we put them on the piston rods, so it’s actually two pistons instead of a single.”

“The working principle for TPX is exactly the same as the TTX. You are only building pressure upwards rather than downwards so the lowest pressure in the damper will always be the gas pressure. This changes the handling of the damper because if you have a regular damper where you have a single piston, you can change the behaviour by changing the gas pressure.”

“In such a damper, you have a positive build-up on the side that’s resisting, then a





Ohlins nearly racked up another  
Le Mans win this year with Toyota

negative on the back side of the valves, so you need a very high gas pressure. On our damper, you don't have that."

Interestingly, these dampers are so sensitive that if you run them in a static dyno, you don't see much response on the graph based on adjustments. But the dynamic change in the real world is far bigger and can be felt by the drivers. This is why Ohlins puts a lot of effort into the response time of the damper by minimising the hysteresis – the lag between the input and the required reactive output.

### Le Mans

Ohlins has won 15 of the past 17 editions of the Le Mans 24 Hours, largely through its supply of Audi. That figure would have been 16, but for the #5 Toyota TS050 HYBRID slowing with minutes to go in this year's race and losing the lead on the last lap – a failure that had nothing to do with its suspension.

Inevitably, the demands for endurance sportscar racing are very different to those of rallying and rallycross. Even within the discipline, the wide range of cars – stretching from high-powered, aerodynamically elaborate hybrid LMP1s through customer LMP2s and GTE machinery – makes for a varied challenge.

"It's tricky to define [the loadings] because with the teams we are working with, they have so many different motion ratios [the amount of shock travel for a given amount of wheel travel], so the peak loads change a lot depending on the design of the car and what they are trying to get it to achieve," says Jarlmark Nafver. "I would say that if you have the damper with no motion ratio, you would maybe see peak loads of up to 10kN on the rear tyre and six or seven on the front tyre – but motion ratios change that a lot."

It's the work with the LMP1 factory teams that has the biggest impact on development.

"It's a very good test bed," says Jarlmark Nafver. "It's an experimental field that pushes us as far as we can. We do a lot of work on the LMP1 dampers."

"Teams always have interesting ideas on what the damper is supposed to do, and we help them to get it to do what they want. We constantly redesign valves and the complete damper system for the top-end customers, and we do CFD simulations of the systems so you can understand the force progression from, for example, a kerb strike."

The typical bespoke system will have an adjustment range of 50 'clicks' (referring to the progressive clicks you feel as you rotate the

adjusters). But once on the Le Mans weekend, the set-up work will probably be done within a range of about five clicks. Any more clicks and the changes between them become imperceptible. The dampers are designed to run for 30 hours – more than enough to cover the race and also practice activities.

### Touring cars/GT3

Ohlins has a near-monopoly in the World Touring Car Championship, supplying every make of car save the Honda Civics. It's a similar story in GT3. In a typical Blancpain GT field, at least 60% of the cars will be running Ohlins kit, including marques such as Audi, Bentley, McLaren and Lamborghini.

"The loads are similar in GT3 and touring cars," says Jarlmark Nafver. "For a GT car, the damper has to be slightly more durable as the peak loading can be slightly higher, especially when they go to tracks such as the Nurburgring and tend to go off the track more often!"

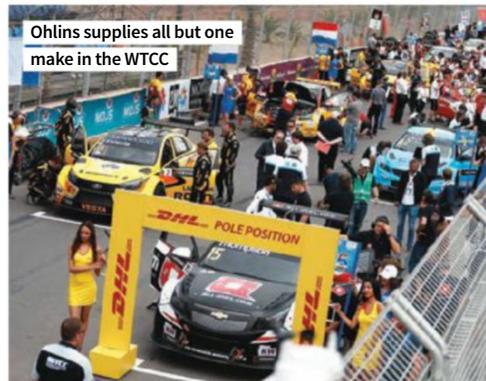
"A GT3 damper will generally be bigger than LMP dampers, whereas for touring cars it will be MacPherson struts, at least on the front. The TTX working principle will be the same for all and the key to performance."

Durability is critical here, but astonishingly, even with the aftermarket products, Ohlins dampers can achieve remarkable longevity. Given Ohlins has little direct involvement with GT customer teams, only doing development work with the manufacturers, this is vital.

"With the aftermarket products, we try to make them as reliable as possible," says Jarlmark Nafver. "Often, they get to a GT team that doesn't take care of the dampers as well as they should. But the last durability test we did with the damper system withstood six consecutive Nurburgring 24 Hours without service. I wouldn't recommend going that far, but if they get serviced every 60 race hours then they will be happy." ❄



60% of the Blancpain grid  
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Locked diff means different-sized rear wheels are used

# UNDER THE SKIN OF A BRISCA F1 MONSTER

Think the level of technology and engineering in short-oval racing is nothing special? Think again. Subaru BTCC chief designer Carl Faux explains why

*In Carl Faux's regular life he is chief designer of British Touring Car Championship squad Team BMR, which has already turned its new Subaru Levorg into a race winner. He is also Jason Plato's race engineer and has helped the BTCC benchmark to key victories over the past four seasons.*

*Faux has deep-seated roots in the sport and started his career behind the wheel battling the likes of Le Mans winner Nick Tandy in the junior Ministox category. Although he has now retired from competition, Faux keeps a close eye on the short-oval scene. So he went to Northampton earlier this year to get the lowdown on the quarter-mile monsters: BriSCA F1 rocketships.*

I was welcomed by the BriSCA F1 community to a meeting at the Northampton International Raceway, and had access to British champion Lee Fairhurst's mighty machine. He let me have a good nose around, and I was able to find out the secrets that make the V8 cars rumble.

Make no bones about it, a BriSCA F1 car is intimidating – and it's not just because the car shakes the ground. With full contact allowed, and even encouraged by the fans, they are built to withstand the heaviest of hits.

The traditional format for the starting grid is that the drivers with the most points in a season are graded and separated into groups.

These groups are staggered from the startline and stretch back to three quarters of the way around the lap. The final group is for superstars, champions of the past and present. That's one of the reasons why the races are so exciting. With the fastest drivers at the back and having to make their way through to the front, contact is a necessity to speed up progress.

It's not just the look of the cars that makes them intimidating – the soundtrack is provided by a rumbling and roaring V8 motor that powers these racers around the quarter-mile oval.

At first glance these machines are clearly

**“It's not just the look of the BriSCA F1 cars that makes them intimidating, the soundtrack is a rumbling, roaring V8”**



built for purpose, and the four-square-inch box-section chassis belies the technical trickery hidden under the skin.

As Fairhurst takes me around his car (with a customary pre-race coffee), he explains that the chassis has been in use for 13 years. But there's a real level of detail that goes into making it do what all race cars need to do: win.

The minimum weight of the car is 1600kg and, as is usual with oval racing, there is a maximum inside-wheel weight and maximum rear-axle weight.

This is something that gets checked post-race for all winners on a technical flat patch, in a similar procedure to the one used in the BTCC.

The chassis has three main objectives. The first is to protect the driver from harm. Bearing in mind that competitors often choose to drive into each other, and it's a fairly regular occurrence for cars to end up on their roofs, this is an essential attribute.

Secondly, the chassis has to hold the

drivetrain and all the suspension, while also giving scope for suspension-geometry adjustments. The chassis is heavily offset to the inside of the turns for optimum weight distribution.

Finally, there's the bumpers, which are at the front and rear, with side rails to prevent the wheels interlocking between cars. The size of the bumpers is staggering, but nothing surprises me when you see how big some of the hits can be.

The engine is a small-block Chevrolet 350 cubic-incher with a carburettor that has been the mainstay of stock-car racing around the world for many years. A lot of the engines in the cars currently racing in BriSCA have previously been used in ASCAR and are fairly heavily tuned.

The engines push out around 650bhp but, as with National Hot Rods, peak power output is not what's required. The cars are so traction-limited with that amount of >>



Suspension is fully adjustable



Spec dampers help keep a lid on costs

grunt, so driveability is key.

Fairhurst explains: “We really only get to full throttle for 0.2s per straight around Northampton. I need a throttle that allows me to control that power and a real linear output from the engine through the revs.”

The transmission is a race-spec unit supplied by Doug Nash Engineering. Only three ratios are installed: first, second and reverse. Once off the start line the car never leaves second gear while at racing speeds. There are three final-drive ratios available to choose from, so tuning to the different circuits is achieved by selecting alternative cogs. Even so, it’s clear why a large operating window from the engine is required, especially when you consider that on a wet circuit the cars are running up to five seconds per lap slower.

Actually stopping these beasts is a work of art. Starting with the hydraulics, there’s a standard mechanical brake-balance adjuster. This works like a seesaw across different-sized master cylinders for the front and rear-braking circuits. You may think that there’s nothing flash with that, but then add in not one but two hydraulic adjusters so both front brakes are independent from the rear, and also each other.

In Fairhurst’s (fully legal) car, there is one other device fitted. In his words, it’s his secret. “I’d rather you not talk about how that works,” he says intriguingly.

From an engineering point of view, the braking system has to be the most impressive part of the car. It also gives a real insight into what’s required from these guys to make the cars work so well. The regulations offer a choice of two brake-pad-material options, both supplied by Mintex. Fairhurst uses the opening part of the meeting at Northampton to bed in the front and rear pads.

As with most formulas now, spec parts are part and parcel of the category to try to keep costs from spiralling. Along with the brake pads, dampers are part of the regulations. These are single adjustable units, a step back from what some cars were previously fitted with – but it’s the same for everyone and therefore a justified limitation. The range is a total damping adjustment for both bump and rebound forces and, like all oval cars, is dependant on which corner the unit is fitted. They can change on each wheel, meaning myriad set-up options.

On the rear, the dampers mount to a heavily

modified live axle. The basis of this is Ford proprietary – from a trusty Transit van. But the biggest difference is the stagger put into it. The inside length is reduced to match the chassis offset and the whole thing is then strengthened to take the rough and tumble that the racing provides. The installation is free to the designer; in Fairhurst’s case, there is a single link for simplicity. Despite that, multi-link is also evident in the pits.

Lateral control is ubiquitously Panhard rod because of its simplicity and strength. “I’ve tried Watts linkage and A-frame over the years, but the reliability and ease of adjustment Panhard rod gives means it clearly outweighs all other options,” says Fairhurst.

The front axle is also based on a Ford proprietary part, again from the Transit. It’s a beam axle that’s modified to maximum width and with camber added: approximately three degrees negative camber on the front-right and zero on the front-left; this is, of course, dictated by the anti-clockwise direction of the racing. This has multi-link installation

**“The oversized rear wing does generate some downforce, but its biggest effect is on stability, which is down to the huge endplates on the inside edge”**

and is heavily biased kinematically for the nature of the track.

Tyres are a key element and have a huge influence on handling, as I learned. “We use tyres with 4-6in stagger on the rear,” says Fairhurst.

Because the car has a locked differential, the inside and outside rear wheels want to travel the same distance. But that’s not the case if one has a larger circumference than the other, and this is one of the big tools that gets used between races for set-up adjustments.

“If there is too much push [understeer] then we increase the stagger by putting a smaller-



diameter tyre on the inside,” says Fairhurst. “We will do the opposite if it’s got too much rotation [oversteer].”

Fairhurst gives this insight as he measures tyres after practice. “We use a specification tyre, but there are differences in both width and diameter,” he adds. “On the inside, we use a rally-spec tyre and quite often people buff the tyre to a set diameter and have a range sitting in the truck depending what they need at any particular event.”

One of the most distinctive things that people associate with BriSCA F1 machines is the seemingly oversized rear wing. That was



# GET IN THE FAST LANE

What's it like to study for a BEng in Motorsport Engineering at the University of Wolverhampton? Nathan Tupper explains it's the practical experience that's the highlight



**When do you remember being introduced to the world of motorsport?**

Watching the grand prix on a Sunday afternoon

when I was around five years old, and visits to Brands Hatch to watch the British Touring Car Championship. I still have signed posters on my wall at home from those days!

**Who or what inspired you to pursue a career in the field?**

My dad loves vehicles and really opened my eyes. I started to fully appreciate F1 in the V10 era of the early 2000s.

**Why did you choose to apply for the motorsport course at the University of Wolverhampton?**

The relevance it has to industry, and the opportunity to be part of Formula 3 and Formula Student – no other university could offer the chance to be part of both teams. The fact that the University of Wolverhampton Racing [UWRacing] team is entirely student-run convinced me.

**What's a typical day like as a student on the course?**

If I'm not in a lecture, I'm usually in the workshop working on the race cars or on the Formula Student project. Motorsport is my passion and I wouldn't want to do anything else.

**What facilities do you have access to?**

The motorsport workshop with race bays, and 3D printing and five-axis machines to design and produce parts for vehicles.

**What does your involvement with UWRacing add to your experience?**

It's an incredible experience, running and competing against professional teams on an international level while still studying.

**What other projects have you worked on?**

I'm also a mechanic on the Morgan Plus 4 'Baby Doll', supplied to the University by the Morgan Motor Company as part of a new partnership deal.

**What are the highlights of your time on the course so far?**

UWRacing finishing fourth in the



Snetterton 2015:  
UWRacing celebrates  
Monoposto podium

## STUDENT PROFILE

**Nathan Tupper**

**Age 22**

**Course BEng**

**Motorsport**

**Engineering**

**Year 3**

Monoposto 2000 championship in our debut year in 2015 – we got two wins and six podiums, and to see the team progress has been amazing.

Other special moments include driving the Formula Student car at Silverstone, and a hat-trick of wins in our MSV F3 Cup debut weekend.

**What do you hope to achieve following the course?**

To have a job in the sport that I live and breathe! I was on the UWRacing team when it first started, so I'd love to still have a presence there. My big ambition is a career in NASCAR. I've worked hard throughout my degree and will continue to work hard to make this a reality.

• **The course's next open day is on Saturday August 20 2016. For more information visit: [@uwracing](http://wlv.ac.uk/UWR)**



Shane Kelly wins at  
Snetterton last year  
for the UWRacing team



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