The McLaren Group Magazine

# RACINGLINE

June 2008 Issue 124 www.mclaren.com

by McLaren

## PLUS

- SCHÜCO FUTURE TECH
- McLAREN'S MOST ADMIRED
- GRAND PRIX SNAPSHOTS
- MOBIL 1'S MAN & MACHINE
- THE ULTIMATE ROAD V8




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BROOKLANDS
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THE DOUBLE TWELVE
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BRIDGESTONE
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12
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## LEWIS HAMILTON AND GUESTS

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"THE ART IS TO GENERATE AS MUCH DOWNFORCE WITH AS LITTLE DRAG AS POSSIBLE"





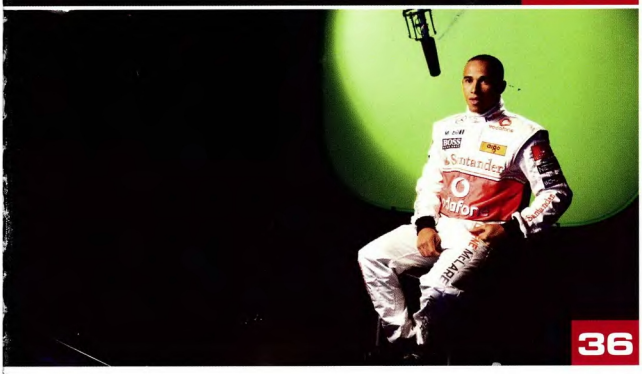

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The past month has been a busy one for all of us involved with Vodafone McLaren Mercedes, but the team's unstinting determination has, at the time of writing, allowed us to not only close the gap to our main rivals in the constructors' championship, but also for Lewis to re-take the lead in the race for the drivers' title.

Leaving Spain, we knew our competitiveness had taken another step forward, and we consolidated that in Turkey. Lewis's strong second place was earned using an unusual, but well-executed three-stop strategy, and he again demonstrated tremendous tenacity to secure another podium finish.

Heikki was ultimately less fortunate in the race. However, his outright pace in qualifying to claim a front-row slot was extremely encouraging – especially considering the heavy fuel load his car was carrying. His performance was all the more remarkable coming less than a fortnight after his crash in Spain. To immediately bounce back and lap within two tenths of taking pole is a true mark of his character. He deserves to win races this year and I am confident he will.

The team is traditionally very strong at Monaco, so we arrived in the Principality optimistic that we would be able to follow up last year's one-two with a similarly good result. Heikki showed great pace on Saturday, topping the times during final practice, and then putting in another strong qualifying performance – as did Lewis. We were obviously hopeful of securing pole, but it's a clear illustration of just how close the teams are this year that the top three times spanned just half a tenth of a second.

Lewis made a fantastic start, but Heikki's race had already been compromised by a technical glitch. He spent much of the race battling traffic, but kept pushing, lapped well once he found some clear road and scored a valuable point. Despite everything he did a fantastic job.

Lewis's brush with the barriers forced a change in strategy, but he maintained exceptional pace in difficult conditions, and avoided further errors to take a fantastic win. I'm sure it will be one of his most memorable victories, but even after 15 wins in Monte Carlo, the thrill is undiminished for me.

The team's performance as a whole was superb. Fate dealt us a card and we played it well. Every team member should be rightly proud of the result – although I have no doubt that we had the pace to challenge for a one-two finish.

Now, of course, we must focus on Canada and France, and maintain our momentum as we race towards the season's halfway point. The battle for both championships is wide open, so there is everything still to fight for.



Ron Dennis CBE
**McLaren Group chairman and CEO**

# SPANISH GRAND PRIX NEWS

>CORPORATE PARTNER

## HILTON INTERNATIONAL EXTENDS TEAM PARTNERSHIP




Lewis poses in Barcelona with Hilton's senior vice president of marketing Mike Ashton

Hilton International has announced a long-term extension to its partnership agreement with Vodafone McLaren Mercedes. Since the start of the relationship in 2005, Hilton has made major gains against its three main goals – continuing to build commercial alliances, offering customers new products, and keeping the Hilton brand fresh and appealing. The Hilton Racing programme has also proved successful in reaching a new generation of affluent young travellers.

"For the team, staying in a Hilton hotel is very much a home from home," said Ron. "As a brand their values of quality, passion and innovation are very much aligned to our own. We welcome the chance to strengthen our partnership."

>CORPORATE PARTNERS

## PEDRO SUPPORTS VODAFONE & SANTANDER




**Move 08, where Vodafone showcases new technologies (main); Pedro on stage at Santander's grand prix event (right)**

On the Wednesday prior to his home grand prix, Pedro had a full day of partner engagements in Madrid. First, he visited the enormous headquarters of Santander on the outskirts of the city. More than 7000 employees are based at the site and Pedro met 50 of the most promising ones when he gave a motivational and heartfelt interview in which he spoke about the importance of balancing work life with home life.

Pedro then headed for central Madrid and the Vodafone 'Move 08' business mobility fair, held at the striking Palacio Municipal de Congresos. Move is the company's most important annual business-to-business event, where it showcases the latest communications technology innovations. Pedro took part in a pre-race briefing with members of the media, before signing autographs for a few of his many Spanish fans.

The magnificent surroundings of the Museu Nacional d'Art de Catalunya Palau Nacional in Barcelona provided the setting for Santander's grand prix event. President and chairman Emilio Botín and CEO Alfredo Saenz joined 600 VIP guests for occasion – during which Pedro spoke about the race and his role as third driver.



# PARTNERS AND GUESTS ENJOY GREAT TEAM EVENT

Besides enjoying a thrilling weekend's racing, one of the key benefits of the team's partners bringing their guests to grands prix is the opportunity for them to network together – and Vodafone McLaren Mercedes does its best to promote this by staging regular get-togethers, both at the track and during the evening. For many attendees, the social highlight of the Spanish race weekend was the team's Saturday night party, held around the pool on the roof terrace of the Hilton Diagonal Mar Barcelona.

More than 300 guests soaked up the early evening sun while sipping Johnnie Walker cocktails, and Ron and Norbert gave insightful interviews into the team's qualifying performance and its prospects for the race. Lewis, Heikki and Pedro also attended, and the event even featured an MP4-23, which was lifted into place by crane.




Heikki is interviewed on stage (main); the party in full swing (inset)



## RACE 04 »» SPANISH GRAND PRIX DATA

- **DATE:** 27/04/08
- **CIRCUIT:** Circuit de Catalunya
- **LAP LENGTH:** 4.655km
- **NO OF LAPS:** 66
- **DISTANCE:** 307.104

**Qualifying**

| | | | |
|---|---|---|---|
| Q1 | Lewis | 1.21.366 | (4th) |
| | Heikki | 1.21.430 | (8th) |
| Q2 | Lewis | 1'20.825 | (7th) |
| | Heikki | 1'20.817 | (6th) |
| Q3 | Lewis | 1'22.096 | (5th) |
| | Heikki | 1'22.231 | (6th) |

**Race result**

| | | |
|---|---|---|
| 1 | Räikkönen | 1:38:19.051 |
| 2 | Massa | +3.228 |
| 3 | **Lewis** | **+4.187** |
| 4 | Kubica | +5.694 |
| 5 | Webber | +35.938 |
| 6 | Button | +53.010 |
| 7 | Nakajima | +58.244 |
| 8 | Trulli | +59.435 |

**Drivers' championship**

| | | |
|---|---|---|
| **Lewis** | 2nd | 20pts |
| **Heikki** | 6th | 14pts |

**Constructors' championship**

| | | |
|---|---|---|
| **VMM** | 3rd | 34pts |






## KING JUAN CARLOS VISITS THE VODAFONE McLAREN MERCEDES PIT FACILTY

The Spanish King, His Majesty Juan Carlos I, has long been a race-day regular at the Spanish Grand Prix. This year, Ron and Pedro gave him a guided tour of the Vodafone McLaren Mercedes pit facility. Other interested visitors over the weekend included Spanish golf legend Seve Ballesteros, who joined the team as a VIP guest of Hugo Boss.

# TURKISH GRAND PRIX NEWS

>TITLE PARTNER



Lewis meets Vodafone winner Ferhat Ferhangil

## LEWIS THRILLS ANOTHER HOT LAPS WINNER AT ISTANBUL PARK

"Hi, this is Lewis Hamilton." Not the words Ferhat Ferhangil expected to hear on his mobile as he headed toward Istanbul Park to watch qualifying. But having bought his race ticket through Vodafone Turkey's website, Ferhangil's name had been drawn as winner of the Vodafone Hot Laps competition.

As a result, Lewis was ringing to tell Ferhangil that later in the day, he'd be giving him two full-throttle laps of the circuit in the FIA Safety Car – a Mercedes-Benz SL 63 AMG.

Before then, however, there was plenty to take in. First, Ferhangil and three runners-up were given a guided tour of the team's pit facility, then they watched qualifying in the Brand Centre. Finally, it was time for Ferhangil to don his race overalls in preparation for the laps of a lifetime.

"I am so excited and happy to win," said Ferhangil. "To meet Lewis was unforgettable. Many thanks to Vodafone!"

### RACE 05 »» TURKISH GRAND PRIX DATA

- **DATE:** 11/05/08
- **CIRCUIT:** Istanbul Park
- **LAP LENGTH:** 5.338km
- **NO OF LAPS:** 58
- **DISTANCE:** 309.396

**Qualifying**

| | | | |
|---|---|---|---|
| Q1 | Lewis | 1:26.192 | (2nd) |
| | Heikki | 1:26.736 | (6th) |
| Q2 | Lewis | 1:26.477 | (6th) |
| | Heikki | 1:26.290 | (4th) |
| Q3 | Lewis | 1:27.808 | (3rd) |
| | Heikki | 1:27.923 | (2nd) |

**Race result**

| | | |
|---|---|---|
| 1 | Massa | 1:26:49.451 |
| 2 | Lewis | +3.779 |
| 3 | Räikkönen | +4.271 |
| 4 | Kubica | +21.945 |
| 5 | Heidfeld | +38.741 |
| 6 | Alonso | +53.724 |
| 7 | Webber | +64.229 |
| 8 | Rosberg | +71.406 |

**Drivers' championship**

| | | |
|---|---|---|
| Lewis | 3rd | 28pts |
| Heikki | 6th | 14pts |

**Constructors' championship**

| | | |
|---|---|---|
| VMM | 3rd | 42pts |




>CORPORATE PARTNER

## HEIKKI MEETS THE MEDIA FOR TAG HEUER

In the run-up to the race, Heikki spent time being interviewed by Turkey's national television network, daily newspapers and leading lifestyle magazines on behalf of TAG Heuer. Held in the Conrad Istanbul, it was the perfect chance to gain an insight into the personality of the brand's newest ambassadors.




## DRIVERS HELP LAUNCH NEW MERCEDES-BENZ MODELS

**In the lead-up to the Turkish Grand Prix, Lewis and Heikki joined 500 guests and media to mark the launch of the new generation Mercedes-Benz SL-Class and SLK-Class in Turkey. Following the cars' appearance at the 2008 Geneva Motor Show, there's been huge interest in the new models, and having two Formula 1 drivers on hand made the VIP event a real night to remember. Two pairs of guests even won a prize draw that gave them access to the paddock to meet Lewis on race day.**



>ASSOCIATE PARTNER



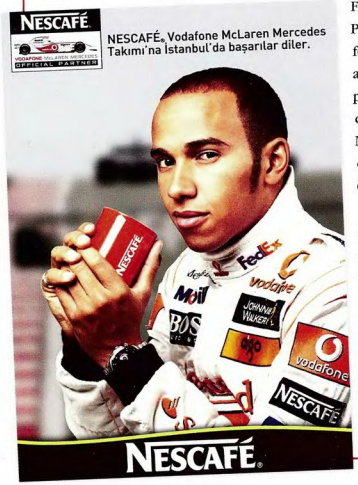

# DRIVERS SPARKLE AT MONACO WITH STEINMETZ

**It's now traditional for Associate Partner Steinmetz to put together something special for the Monaco Grand Prix, Formula 1's most glamorous race. For this year's event, Steinmetz again decorated the Vodafone McLaren Mercedes drivers' helmets with hundreds of handcrafted Forevermark diamonds. They were pavéd in the the shape of the driver's signatures and also the Steinmetz logo. Forevermark diamonds are the world's most preciously selected diamonds and are available in only a few jewellers worldwide.**

HOCH ZWEI

>OFFICIAL SUPPLIER

# NESCAFÉ LAUNCHES NEW AD CAMPAIGN

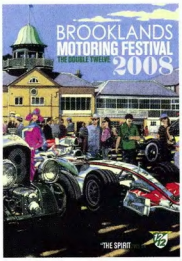



Following the Bahrain Grand Prix, Lewis attended a studio for a photographic shoot alongside a range of Nescafé products. The images captured Lewis drinking Nescafé coffee and ready-to-drink, chilled Nescafé Xpress (Nesfrappé in the UK).

The pictures have already been integrated into a Nescafé campaign in Turkey, and will feature in the brand's marketing programmes around the world. One such campaign will feature Lewis's image on limited-edition Nescafé drinks in Singapore leading up to Formula 1's first night race.

# DRIVERS TO STAR AT NEW FESTIVAL

Organised jointly by Mercedes-Benz World UK and Brooklands Museum, the Brooklands Double 12 is a thrilling new festival combining a world-class concours d'elegance with track action. Held over June 28-29 near London, it promises to be a thrilling event, with both Lewis and Heikki taking in the atmosphere and driving a Vodafone McLaren Mercedes car. For information and tickets, please call +44 (0) 844 847 2421 or go to brooklandsfestival.com.




# LEWIS & HEIKKI HELP FILM NEW PROMOS

Lewis and Heikki are both regular visitors to the McLaren Technology Centre, so they know the various departments well. That knowledge proved useful when the pair recently gave tours around the facility for a Mercedes-Benz camera crew, which was filming footage to be used for marketing purposes. Look out for the pictures next month.




Heikki talks with a teammate during his tour

DUNBAR/LAT

# MICROSOFT SHOWS TEAM CAR AT HANOVER MESSE

To illustrate its involvement in Formula 1 in partnership with McLaren Electronic Systems, Microsoft recently showcased a Vodafone McLaren Mercedes Formula 1 car at Hanover Messe. Microsoft was highlighting its automotive solutions at the famous technology fair.




The team's car was a big draw at Hanover Messe 2008

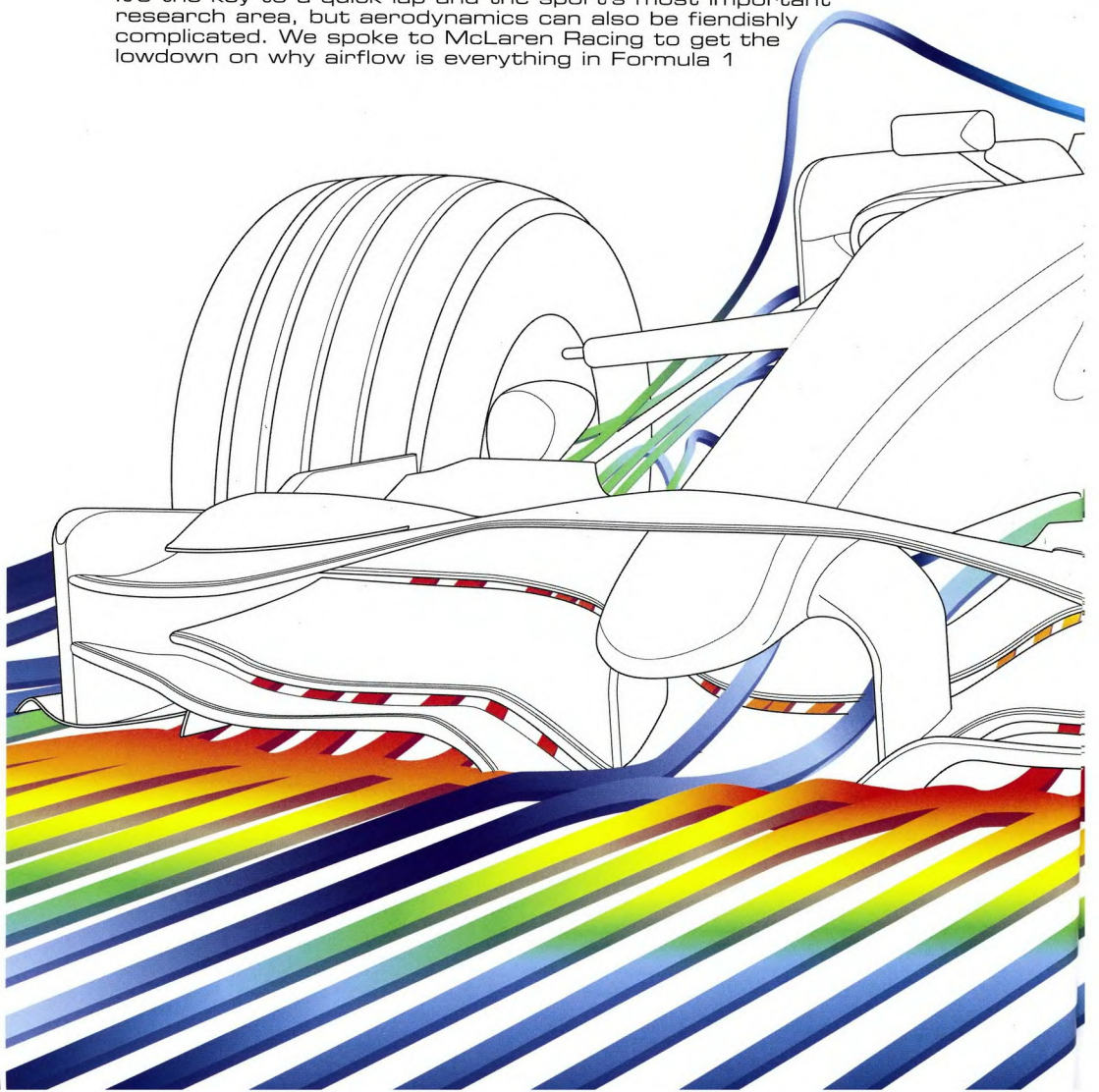
**WORDS**
TONY DODGINS

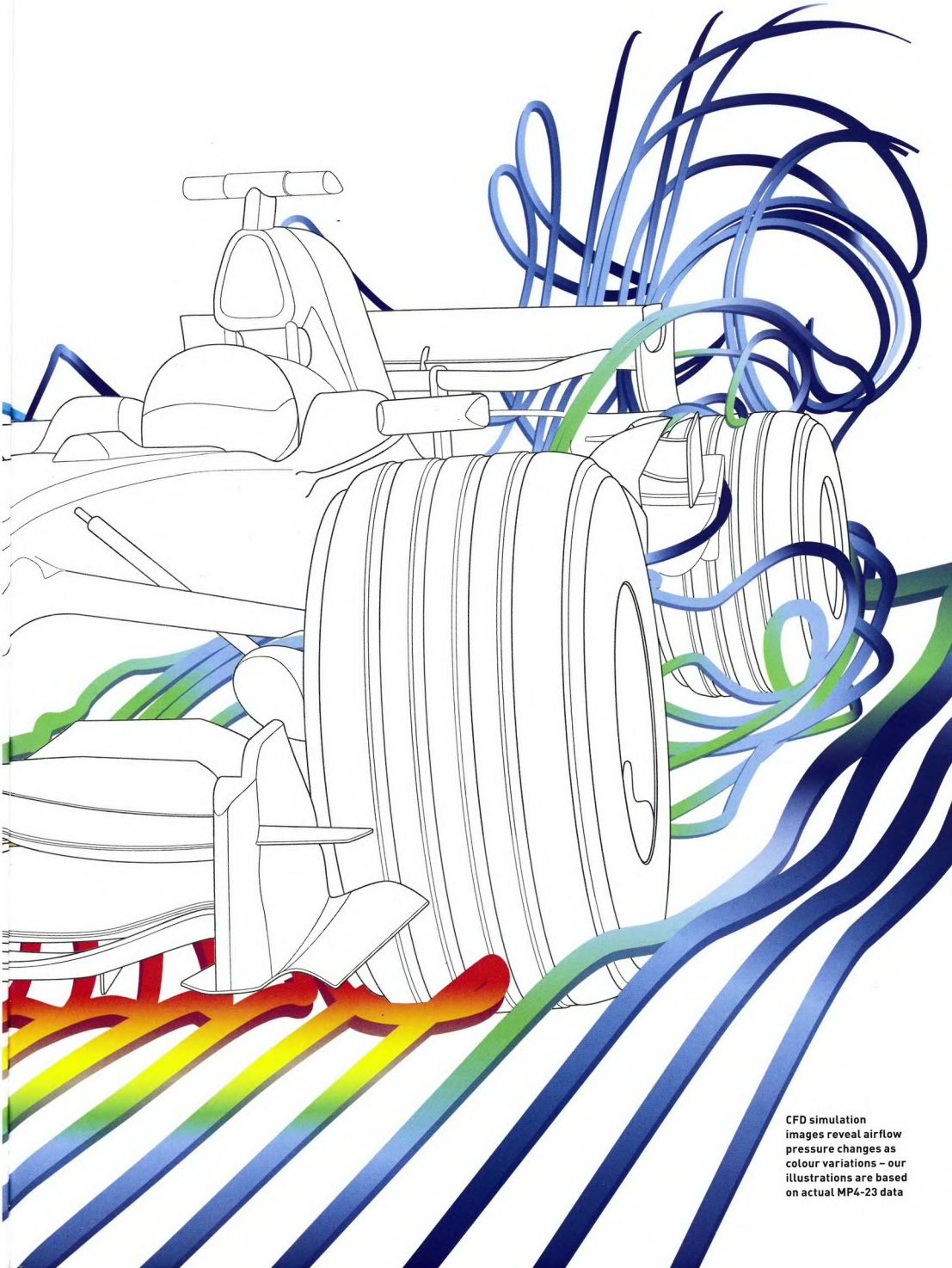
**PHOTOS**
LAT, HOCH ZWEI

**ILLUSTRATIONS**
PATRICIA SOLER,
USING CFD IMAGES BY
MATTHEW WILLIAMS

# AERODYNAMICS EXPLAINED

It's the key to a quick lap and the sport's most important research area, but aerodynamics can also be fiendishly complicated. We spoke to McLaren Racing to get the lowdown on why airflow is everything in Formula 1





**CFD simulation images reveal airflow pressure changes as colour variations – our illustrations are based on actual MP4-23 data**

Even before Formula 1's regulators introduced control tyres and a freeze on engine development, aerodynamic refinement was the number one tool for performance enhancement. Teams use computational fluid dynamics (CFD), multiple wind tunnels, and on-circuit testing to fine-tune the airflow and pare hundredths of a second from lap time.

"We target a 0.1-second performance gain at each race," explains Martin Whitmarsh, CEO Formula 1, Vodafone McLaren Mercedes. "The majority of that comes from aerodynamic advances."

Those advances focus on two primary factors: downforce and drag. Broadly, the more downforce a car generates while moving through the air, the more grip it has and the quicker it can corner. The art is to use the car's wings and bodywork to generate as much downforce with as little drag as possible – that's the resistance an object encounters as it's pushed through the air, the pressure you feel if you put your hand out the window of a speeding car.

At tight, twisty, relatively slow tracks such as Monte Carlo, teams use large front and rear wings and numerous winglets, flick-ups and appendages to generate maximum downforce. They also create drag, but the downforce advantage far outweighs any resulting straightline speed penalty. Conversely, at a high-speed venue such as Monza, where 70 per cent of the lap is run at full throttle, the opposite is true. Wings are small and a car's lines are kept as clean and uncluttered as possible because low drag is the key to maximising speed on the straights and a fast lap time.

At those and all points in between, the team's aerodynamicists seek to channel airflow as efficiently as possible. They want to maximise downforce and minimise drag, but without making the car 'peaky' or hard to balance. If the car is too critical and the airflow 'stalls' – instead of closely hugging the car's bodywork, the flow detaches, becomes turbulent and the wings cease to work correctly – its handling becomes unpredictable. Lack of balance is the enemy of posting a good lap time, not least because it undermines driver confidence.

**"THE MORE DOWNFORCE A CAR GENERATES THE QUICKER IT CAN CORNER"**

To optimise their cars' aerodynamics, teams use a combination of CFD, wind tunnel assessment and track testing. They are dedicating more and more resources to the former which, says Mark Taylor, McLaren Racing's head of CFD, can be described as "aerodynamic simulation of what air is doing via mathematical equations. If you imagine a car in a giant box with air flowing through it, we break that box down into millions of smaller cells. By performing calculations based around the Navier Stokes equations, we can predict where particles are going and what air is doing away from the car's surfaces."

Navier Stokes equations? These were established in the 19th century as the system of non-linear partial differentiation equations that describe the motion of most commonly occurring fluids, such as air and water – basically an expression of Newton's three laws of fluid motion. Now you know!

The colourful lines resulting from CFD modelling trace the path of the simulated airflow over the car. The different colours represent changes in the air pressure. By analysing the flow and pressure changes, the aerodynamicists can identify how well new components are likely to perform.

"CFD is just as competitive as Formula 1 itself," says Taylor. "We're fortunate to have SGI as our Official Supplier of CFD technology because they're world leaders, and we've made huge progress, but it's extremely complex. Modelling a spinning vortex or the airflow around a rotating tyre, for example, is very difficult to do well."

Using CFD as an experimental medium allows McLaren Racing to try multiple versions of a new component and see which works best before committing to making parts for wind tunnel validation. "We don't make any fewer wind tunnel parts, but the ones we do make tend to work," adds Taylor. "In that respect CFD is an effective filter."

As well as searching for advancements in aerodynamic efficiency, CFD is also used to assess the effects of airflow on the car's thermal performance, especially brake and engine cooling. It's still a relatively new tool, however, so the team is always learning.




**Top speed is often limited by drag; cornering speed by downforce-generated grip**

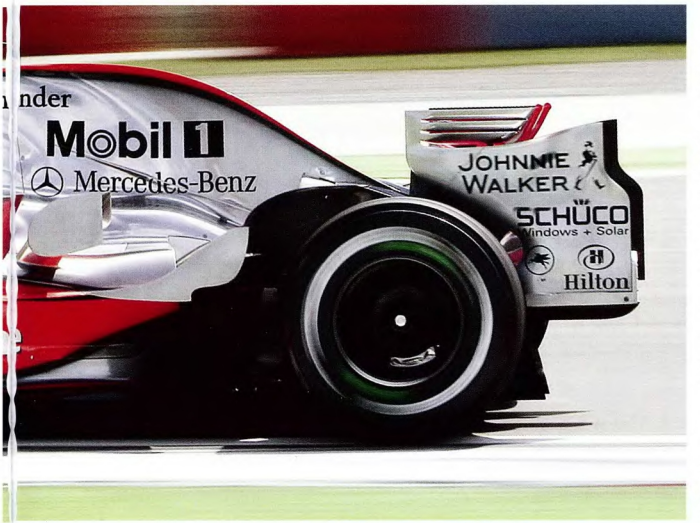


Spot the difference: on the left, a high-downforce Monaco spec 2007 MP4-22; on the right, a low-downforce Monza spec MP4-22

"CFD has come a long way in the past 10 years, but it does have its limitations." says Simon Lacey, McLaren Racing's head of aerodynamics. "It mainly gives you a strong starting point from which to then take your designs into the wind tunnel."

The wind tunnel remains king as far as aerodynamic development is concerned. Many teams run them virtually 24/7, and some use two tunnels. In general, the more tests that can be run through, the quicker that advances will be made – but only if the aerodynamicists' initial calculations are correct. At McLaren Racing, which uses a single tunnel – albeit one of the most advanced in the world – the emphasis is squarely on quality, rather than quantity.

**"LACK OF BALANCE IS THE ENEMY OF POSTING A GOOD LAP TIME"**




Scale wind tunnel models are fitted with sensors that measure air pressure at hundreds of different points on the car. "That gives a much fuller picture – and because you are actually blowing air at the model, confidence in the results is higher than with CFD," says Lacey. "As the aerodynamic art has developed, we have become much more involved in focusing on the understeer/oversteer equation – whether the grip is limited by the front or rear of the car. Often it's rear limited. Adding front downforce won't necessarily allow the driver to go any quicker. Drivers have their individual set-up preferences, but the differences are smaller than you might imagine. Some find it easier to drive around problems, but in general there is one fastest way through a corner – cars still obey the laws of physics."

The most effective developments from the tunnel are made full-size and then track tested on the car. "With circuit testing, the modelling is perfect and 100 per cent relevant, but the results are >>>

# MP4-23
# AERODYNAMICS

## FRONT WHEELS

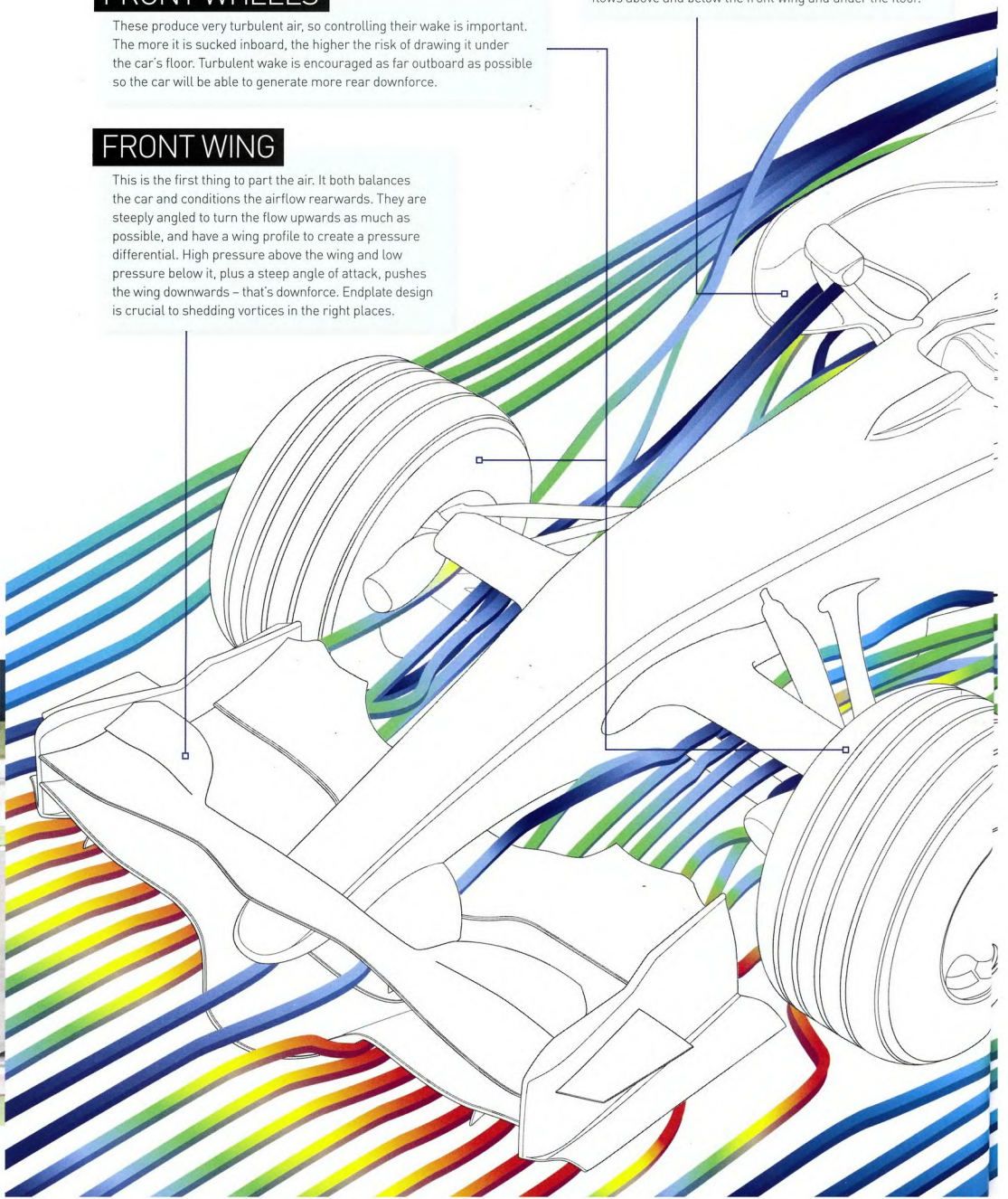
These produce very turbulent air, so controlling their wake is important. The more it is sucked inboard, the higher the risk of drawing it under the car's floor. Turbulent wake is encouraged as far outboard as possible so the car will be able to generate more rear downforce.

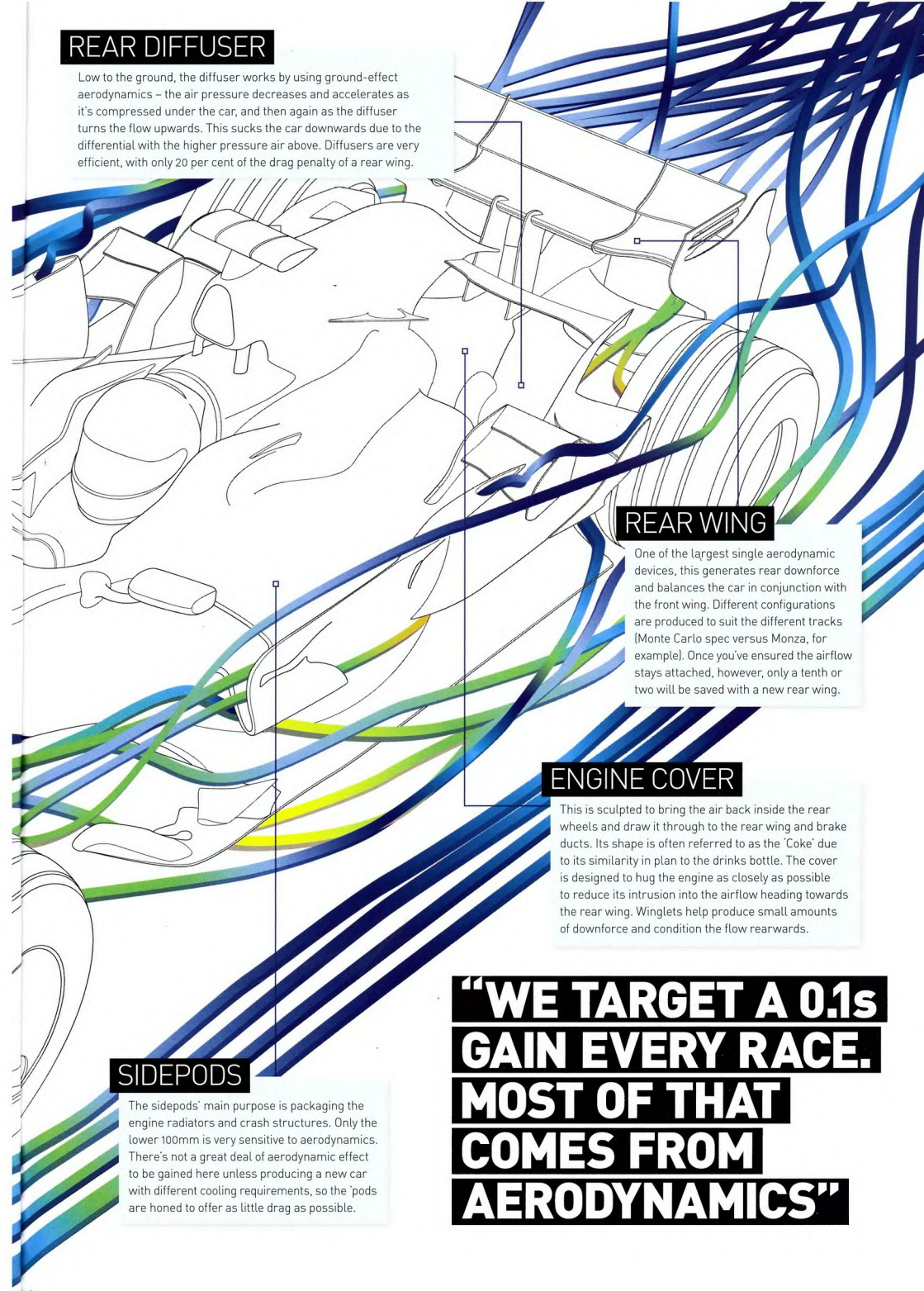
## FRONT WING

This is the first thing to part the air. It both balances the car and conditions the airflow rearwards. They are steeply angled to turn the flow upwards as much as possible, and have a wing profile to create a pressure differential. High pressure above the wing and low pressure below it, plus a steep angle of attack, pushes the wing downwards – that's downforce. Endplate design is crucial to shedding vortices in the right places.

## FRONT WING TO SIDEPOD

Having turned the air upwards to generate front downforce, the aim is to turn it back down and get it under the floor to the diffuser. The suspension wishbones are designed to turn the air a few degrees further downwards. The barge boards help keep the front wheel wake separate from the air that flows above and below the front wing and under the floor.





## REAR DIFFUSER

Low to the ground, the diffuser works by using ground-effect aerodynamics – the air pressure decreases and accelerates as it's compressed under the car, and then again as the diffuser turns the flow upwards. This sucks the car downwards due to the differential with the higher pressure air above. Diffusers are very efficient, with only 20 per cent of the drag penalty of a rear wing.

## REAR WING

One of the largest single aerodynamic devices, this generates rear downforce and balances the car in conjunction with the front wing. Different configurations are produced to suit the different tracks (Monte Carlo spec versus Monza, for example). Once you've ensured the airflow stays attached, however, only a tenth or two will be saved with a new rear wing.

## ENGINE COVER

This is sculpted to bring the air back inside the rear wheels and draw it through to the rear wing and brake ducts. Its shape is often referred to as the 'Coke' due to its similarity in plan to the drinks bottle. The cover is designed to hug the engine as closely as possible to reduce its intrusion into the airflow heading towards the rear wing. Winglets help produce small amounts of downforce and condition the flow rearwards.

## SIDEPODS

The sidepods' main purpose is packaging the engine radiators and crash structures. Only the lower 100mm is very sensitive to aerodynamics. There's not a great deal of aerodynamic effect to be gained here unless producing a new car with different cooling requirements, so the 'pods are honed to offer as little drag as possible.

**"WE TARGET A 0.1s GAIN EVERY RACE. MOST OF THAT COMES FROM AERODYNAMICS"**

'noisier'," says Lacey. "There are more variables – bumps, the weather, different lines and so on – and it can be a challenge to balance the data you are getting against what a driver is telling you.

"In an ideal world, we'd target certain tracks to develop different components, but the reality is that because of testing restrictions, we have less choice of venue. In general, Barcelona is a rigorous environment for testing high-speed developments and Valencia is better if you are chasing low-speed performance. With the current rules, once you have turned a wheel it counts as a test day, so weather conditions are important – that's why most of the testing is conducted in Spain."

When a Formula 1 team performs below par you will sometimes hear people say that wind tunnel findings did not translate on the track. That can be for a number of reasons. Wind tunnel calibration is vitally important and, sometimes, such small things as crosswinds can upset a car's on-track performance.

The team can perform scans of different wing settings and ride heights but often, as well as the scheduled between-race tests attended by all teams, Vodafone McLaren Mercedes will aid its correlation via straightline testing at, for example, Elvington Airfield in the UK. This may be done if there is a big aero update to go on the car or, for example, a lower downforce Montreal or Monza rear wing.

The whole process also has to be a fine balancing act between using resources to develop the existing car and focusing on next year's machine. McLaren Racing carefully manages its resources to do this efficiently but, inevitably, if a car is involved in a championship fight – as the MP4-22 was in 2007 – its development will continue right to the season's end.



Inside the McLaren Racing wind tunnel in Woking

**"STRAIGHTLINE TESTING MAY BE DONE IF THERE'S A BIG UPDATE TO GO ON THE CAR"**

Of course, aerodynamic development is also complicated by changes to the regulations that govern the sport. Next year will bring the largest aerodynamic shake-up for several years (see below).

"In a normal season, when you have evolved a design, the challenges remain the same as you try to wring the best out of existing regulations," says Lacey. "But when you take big changes such as those coming in 2009, you basically don't even understand the problems until you start work. You have to look at it more loosely, identify the quick fixes, and then solve the more persistent problems."

So, as Lewis, Heikki and their teammates fight for the 2008 championships, the battle for aerodynamic performance is being fought by McLaren Racing on two fronts: the MP4-23, and its successor, the MP4-24. But that's business as usual for everyone. In Formula 1, the quest for pace is relentless and not a second – nor a hundredth of a second – is wasted. ■

## UNDERSTANDING THE 2009 REGULATION CHANGES

Next season will bring rule changes that will have a major impact on Formula 1 car aerodynamics. Most are designed to encourage closer racing and were developed by the Formula 1 Overtaking Working Group, of which McLaren Racing's engineering director Paddy Lowe was a member. Team third driver Pedro also helped validate the Group's findings using the McLaren Racing simulator.

"Downforce and drag data from Barcelona 2006 was used as a reference," says Lowe. "The easiest place to overtake was Turn 1, but you needed a two second per lap advantage. The new rules have halved that and Pedro was able to follow a car much more closely.

"The target was a 50 per cent reduction in downforce for the same drag. We delivered that reduction with 10 per cent less drag. "Most of the 'furniture' between the two axles – winglets, kick-ups and the barge boards – has gone, and the front wing is wider, up to 1800mm from 1400mm, with the central part prescribed. The rear wing is narrower – 750mm instead of 1000mm – and higher. Vortices bring in fresh air from the sides, re-energise the air and help the guy behind. The 750mm dimension works well in that respect.

"Also, the floor's 'fold' line – the point the diffuser kinks upwards – which is currently 330mm forward of the rear axle, moves back to the rear axle line. Overall, the package reduces downforce losses for the car running behind and helps it to maintain a decent balance."



Pedro tests an MP4-23 running with 2009 levels of downforce

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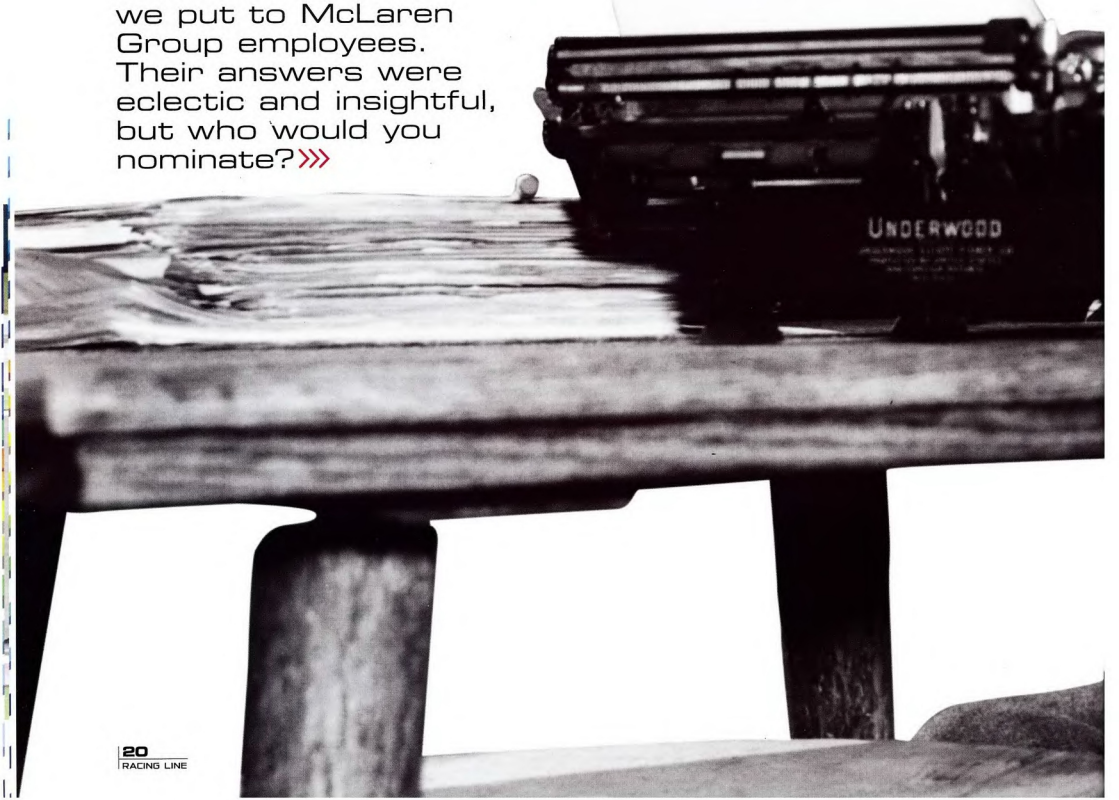
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# WHO DO YOU MOST ADMIRE?

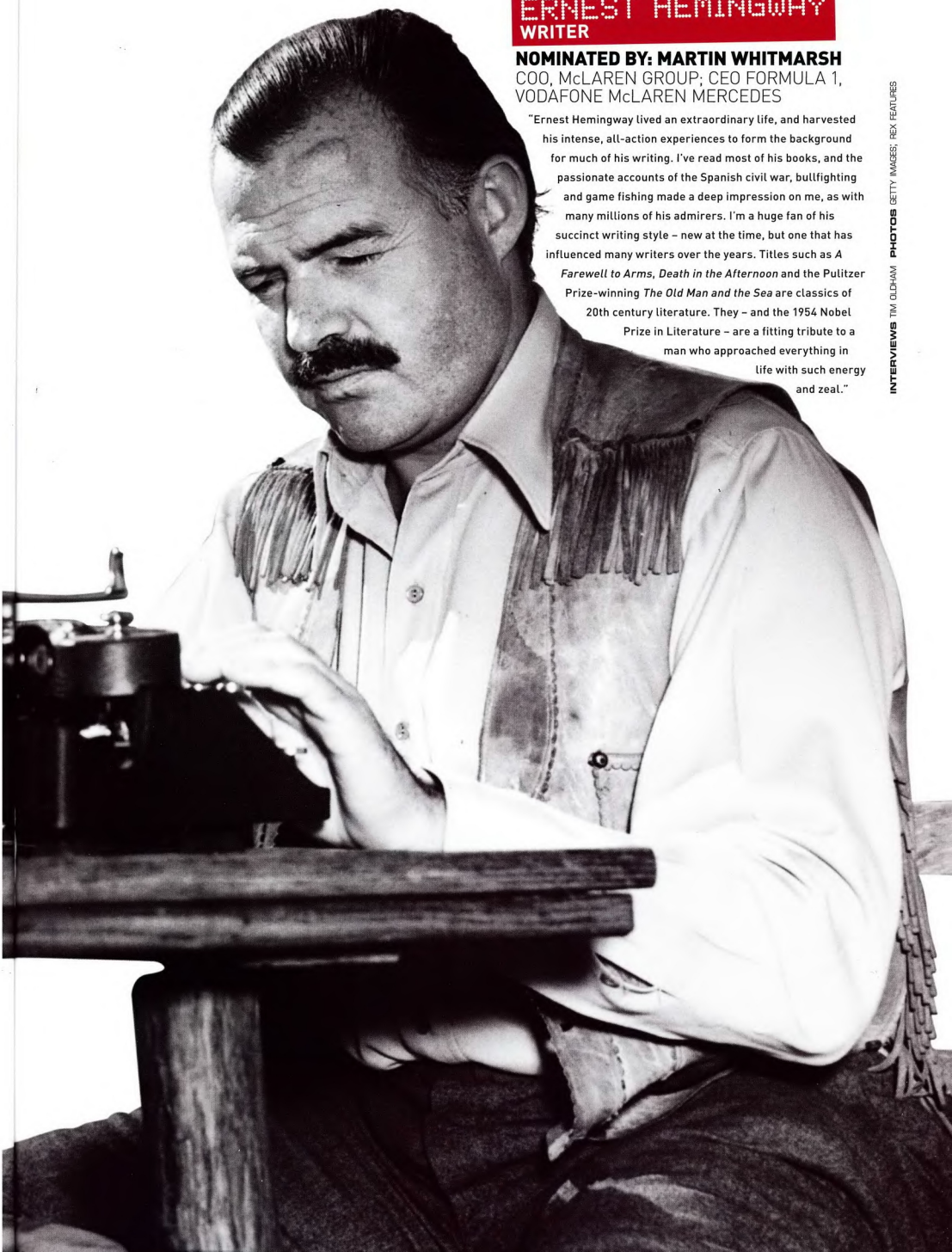
That's the question we put to McLaren Group employees. Their answers were eclectic and insightful, but who would you nominate? »»



# ERNEST HEMINGWAY
## WRITER

**NOMINATED BY: MARTIN WHITMARSH**
COO, McLAREN GROUP; CEO FORMULA 1, VODAFONE McLAREN MERCEDES

"Ernest Hemingway lived an extraordinary life, and harvested his intense, all-action experiences to form the background for much of his writing. I've read most of his books, and the passionate accounts of the Spanish civil war, bullfighting and game fishing made a deep impression on me, as with many millions of his admirers. I'm a huge fan of his succinct writing style – new at the time, but one that has influenced many writers over the years. Titles such as *A Farewell to Arms*, *Death in the Afternoon* and the Pulitzer Prize-winning *The Old Man and the Sea* are classics of 20th century literature. They – and the 1954 Nobel Prize in Literature – are a fitting tribute to a man who approached everything in life with such energy and zeal."



**INTERVIEWS** TIM OLDHAM **PHOTOS** GETTY IMAGES; REX FEATURES

## MOTHER TERESA
### HUMANITARIAN

**NOMINATED BY:**
**NICOLAS HENNEL**

PRINCIPAL AERODYNAMICIST,
McLAREN RACING

"Mother Teresa's tireless work fighting for the dignity of the poor and destitute made a deep impression on me. Even as a child, I greatly admired the way she devoted her life to caring for people. In her hands, the poorest, loneliest, and the dying were all treated as individuals and with respect. Her work in Calcutta inspired many people to follow her example, and she demonstrated extraordinary energy to extend her work and bring it to the attention of the world. I later learned that she suffered doubts in her experience with God – which, for me, makes her commitment and compassion all the more admirable."

## MAX PLANCK
### PHYSICIST

**NOMINATED BY:**
**PETER VAN MANEN**

MANAGING DIRECTOR,
McLAREN ELECTRONIC SYSTEMS

"Max Planck was a physicist who was unwilling to allow received wisdom prevail over his own logic. He postulated a theory that energy was emitted in discrete packets, or quanta, which proved to be a turning point in the history of science. Many of the anomalies between observations and the teachings of classical physics were suddenly explained, but it also opened up a whole new can of worms.

"I first came across Planck while studying physics at university. I thought I had a pretty good idea of how the world worked, and then along came quantum mechanics and the uncertain world of the very small. Quantum theory underpins the study of semi-conductors and led to the discovery of the transistor and the diode, which form the basis of modern computing and electronics. Planck's legacy affects me every day. Truly an unsung hero."






## JASON LEONARD
**RUGBY PLAYER**

**NOMINATED BY: TIM DAVIS**
McLAREN GROUP CHAUFFEUR

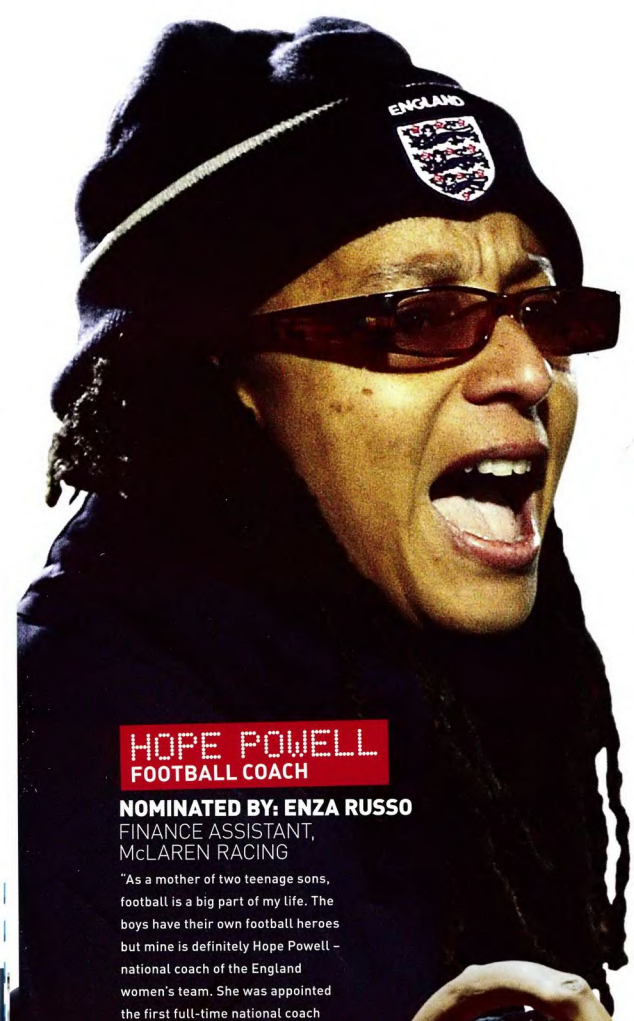
"I first met Jason Leonard when I joined Harlequins ruby union club as a junior prop forward in 1993. I was in the development squad while Leonard was already established as England's prop, but he was one of the most approachable guys around. In training, he had a lot of time for the junior players and was full of advice and encouragement. As a fellow prop, I know just how tough a position it is, so to win 114 caps for England is an extraordinary achievement. It's the world record for a forward, and with the sheer physical intensity of the modern game, I doubt it will ever be matched."

## HM THE QUEEN
**ROYALTY**

**NOMINATED BY: KAREN BOWLING**
ELECTRONICS TECHNICIAN,
McLAREN ELECTRONIC SYSTEMS

"I was working at McLaren Electronics in 2004 when Her Majesty The Queen officially opened the McLaren Technology Centre. It was a very memorable day, and a real thrill to see the person I have the greatest admiration for.

"It's incredible to think that The Queen was just 25 years old and the mother of two young children when she had to cope with the death of her father and the responsibility of becoming Sovereign. She's lived her life in the spotlight, but has still managed to play a big role in the upbringing of her children, as well fulfilling her many official duties. She also has a real quality of putting people at ease. Whether it's meeting racing drivers and employees at the McLaren Technology Centre, or knowing the customs and interests of people she meets on state visits, she always knows the right thing to say."




## HOPE POWELL
**FOOTBALL COACH**

**NOMINATED BY: ENZA RUSSO**
FINANCE ASSISTANT,
McLAREN RACING

"As a mother of two teenage sons, football is a big part of my life. The boys have their own football heroes but mine is definitely Hope Powell – national coach of the England women's team. She was appointed the first full-time national coach in 1998 and has been a big part in putting women's football on the map. She was the first woman to achieve UEFA's highest coaching award and as well as managing the senior team, she also oversees the whole set-up from under-15s to under-21s.

"When my boys' primary school was looking for someone to run one of the football teams, Powell's achievements inspired me to believe I could do something to help. I ended up running four school teams for five years."

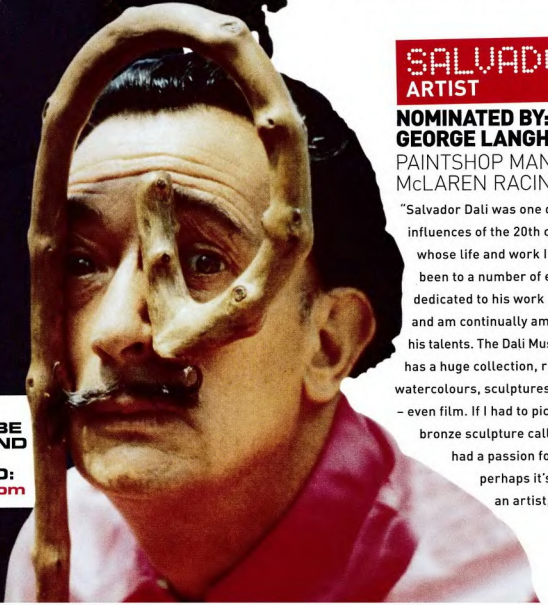
**WHO WOULD YOU NOMINATE? WE'D BE INTERESTED TO FIND OUT, SO PLEASE SEND AN EMAIL TO:**
racingline@mclaren.com



## TREVOR BAYLIS
**INVENTOR**

**NOMINATED BY: SIMON POINTS**
HEAD OF PARTNER MANAGEMENT,
McLAREN MARKETING

"For me, the wind-up radio represents engineering and product development at its finest – a simple, effective solution that has helped millions of people. Trevor Baylis was inspired to develop the clockwork technology after watching a programme about Aids in Africa, and his radio has since brought education and entertainment to homes without electricity and where batteries are too expensive. It wasn't an easy journey to get his product out there. Baylis had to show great determination and belief in his design before he received the necessary financial support. That he succeeded is a tribute to his energetic spirit as well as his creativity."



## SALVADOR DALI
**ARTIST**

**NOMINATED BY: GEORGE LANGHORN**
PAINTSHOP MANAGER,
McLAREN RACING

"Salvador Dali was one of the greatest creative influences of the 20th century – and an artist whose life and work I find totally fascinating. I've been to a number of exhibitions and museums dedicated to his work over the past 20 years or so, and am continually amazed by the sheer range of his talents. The Dali Museum in Florida, for example, has a huge collection, ranging from oil paintings, watercolours, sculptures, drawings, photographs – even film. If I had to pick a favourite it would be his bronze sculpture called *Nobility of Time*. I've had a passion for art since I was a boy, so perhaps it's no surprise that I picked an artist, but Dali was one of a kind."



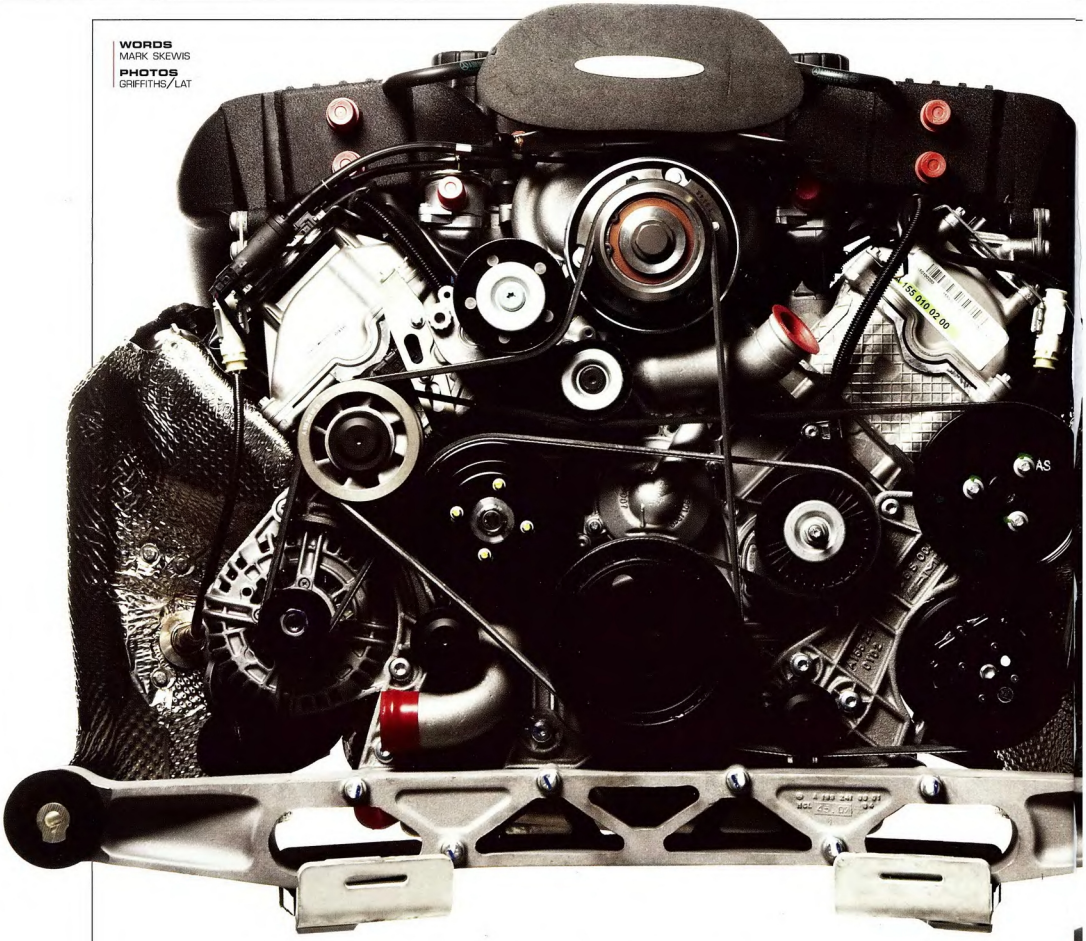

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**WORDS**
MARK SKEWIS
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## MERCEDES-BENZ SLR McLAREN

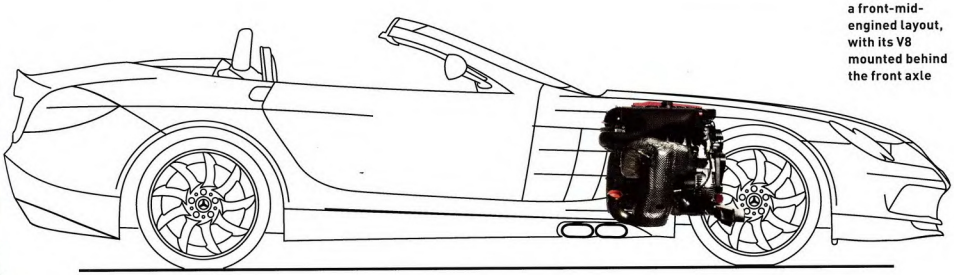
# V8 ENGINE

LIKE THE McLAREN F1 before it, the Mercedes-Benz SLR McLaren brings Formula 1 levels of innovation to the road. Lying at the heart of this race-bred pedigree is the car's handbuilt 5.5-litre supercharged V8 engine. With prodigious performance, a muscular torque curve and agile response, it's one of the most potent production engines in the world.

In keeping with the car's overall philosophy, the alloy powerplant is the result of a close collaboration: Mercedes-AMG developed the engine itself, while McLaren Automotive developed all the necessary cooling, fuel delivery and oil management systems to make it work.

"The Daimler family portfolio already included a supercharged 5.5-litre V8, which was developed for the E 55," says McLaren Automotive operations director Alan Foster. "However, the SLR McLaren engine has a completely different block casting, bottom end and lubrication system, plus a significantly enhanced intake charge air system.

"The engine generates 780Nm of torque and revs up to 6500rpm, and the supercharger hits 21,000rpm, so there's a lot of internal stress to manage," explains Foster. "In addition, external structural stresses and



The SLR uses a front-mid-engined layout, with its V8 mounted behind the front axle

issues of thermal management created a complex problem to resolve. A sand-cast crankcase gave us a rigid metallurgical structure so there were no weak spots in the system."

The compact supercharger nestles between the V8's two cylinder banks. Its rotors force 30kg of air into the engine every minute, while the density of the charged air is maintained by two intercoolers, one for each bank. More air in the cylinders results in more power from each ignition.

Headline performance figures don't always translate into a great driving experience. Yet one of the SLR's greatest strengths is that it's as usable and comfortable at slow speeds as it is on the motorway.

That feat is accomplished through a 'smart' management system controlling the supercharger according to speed and load. At part throttle, when pressurised air isn't required for performance, but the supercharger is still spinning, an air recirculation flap is opened and the pressurised air is directed back to the non-pressurised side of the intake circuit, bypassing the fuel injection system. It's an ingenious trick that guarantees both good low- and high-speed performance and also improved fuel economy.

The supercharger may be clever – it even has friction-reducing Teflon-coated helical screw rotors – but it wasn't the highlight of the engine's development.

"If there was one 'eureka' moment, it was when we decided to use a dry sump," says Foster. "To extract maximum performance from the engine, and withstand quite high *g*-forces under cornering, acceleration and braking, a dry sump was critical."

Devised initially to overcome oil starvation in the extreme environment of Formula 1, the concept is applied to the Mercedes-Benz SLR McLaren using two oil pumps – one to supply the engine gallery and lines, the other to supply the bearings. Without an oil sump slung beneath the engine, it can sit lower in the car, lowering the centre of gravity and aiding the car's dynamic capabilities.

The engine is also mounted well behind the front axle line to aid handling, a factor that contributes to the car's distinctive long bonnet. Its side-exiting exhausts serve a practical, as well as aesthetic, purpose, too – they help keep the underbody uncluttered for improved aerodynamics.

The SLR's V8 contains 200 sub-assembled components and is handbuilt at Mercedes-AMG's Affalterbach facility. Each engine takes one and a half days to assemble, with a further half-day devoted to comprehensive sign-off checks, which include a full power curve workout on the test bench using an engine dynamometer.

Mercedes-AMG's 'one man, one engine' principle means one technician handles everything from the crankshaft assembly to the installation of the wiring loom. In keeping with this commitment to quality – and McLaren Automotive's own attention to detail – each SLR engine comes with a plate initialled by the technician who built it. It's a fittingly individual touch for this highly distinctive car. ■




## TECHNICAL SPEC.

**W x L x H:** 660mm x 635mm x 560mm
**MATERIAL:** aluminium
**WEIGHT:** 249kg
**CAPACITY:** 5500cc
**BORE / STROKE:** 97mm / 92mm

**WORDS**
NIC SHAW/
MARK SKEWIS

**PHOTOS**
McLAREN;
SCHÜCO

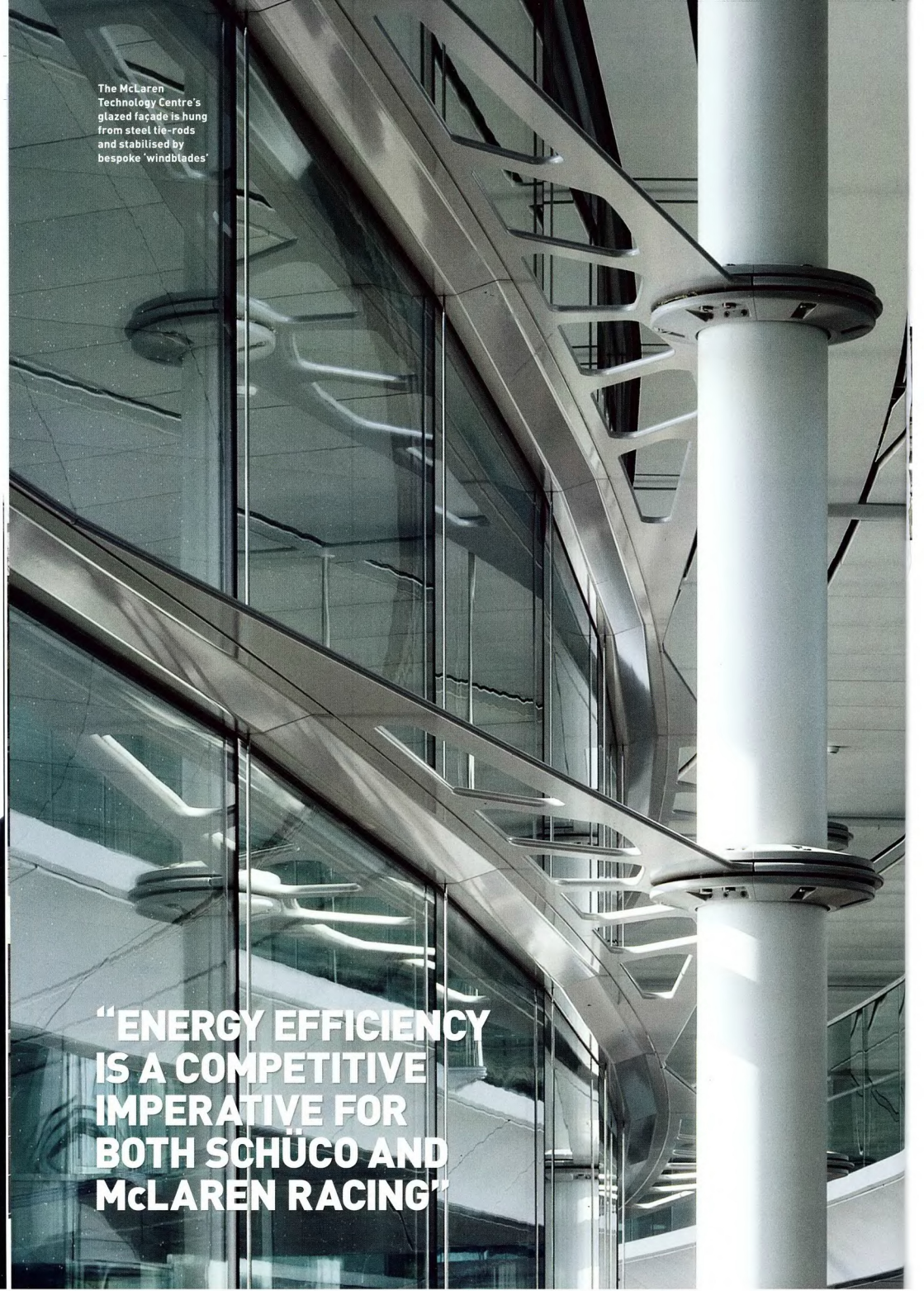




Schüco's Technology Centre in Bielefeld, Germany, features the latest innovations in energy efficiency

# FUTURE BUILDING

With diminishing resources and a growing population, maximising energy efficiency is as crucial to modern architecture as it is in Formula 1 – which is why long-term partner Schüco is developing innovative systems to make buildings radically more efficient



The McLaren Technology Centre's glazed façade is hung from steel tie-rods and stabilised by bespoke 'windblades'

**"ENERGY EFFICIENCY IS A COMPETITIVE IMPERATIVE FOR BOTH SCHÜCO AND McLAREN RACING"**





**FAR LEFT:** Schüco's 7.5m-high façade allows light to pour into the McLaren Technology Centre's airy boulevard

**LEFT:** Schüco's Energy² concept is showcased in the new headquarters of Bionorica – the whole roof is covered in photovoltaic panels

The costs of energy consumption – environmental, social and fiscal – are now rarely out of the headlines, and energy efficiency and conservation is a primary goal of businesses and communities throughout the developed world. Cultural change is central to solving the long-term challenges posed by reduced resources and a growing population, but technology can help us do so.

The McLaren Group is dedicated to developing groundbreaking engineering and electronics solutions, and is partnered with companies that share its ethos of innovation and the pursuit of excellence. Schüco International joined forces with the McLaren Mercedes Formula 1 team in 1999, and soon became integral to the realisation of the most significant investment in McLaren's history: the McLaren Technology Centre.

Completed in 2004, that award-winning architectural project is now long-finished. Yet Schüco and McLaren remain united by a relentless quest for maximum efficiency, minimum waste, and careful energy management.

"As organisations, we share common core values," says McLaren Racing managing director Jonathan Neale. "Over the 10 years we have been partners, we have focused on innovation, using research and advanced technologies to be competitive in our respective environments."

The result is a formidable partnership between two companies that relish achieving the seemingly impossible – a feat encapsulated in the McLaren Technology Centre. The 200m-long, 7.5m-high glazed façade overlooking the facility's lake is a signature feature, but its construction posed tremendous challenges. Could such a huge curtain of glass be technically viable? If so, could it be achieved within budget?

Together with architects Foster and Partners, McLaren and Schüco developed a typically innovative solution. Computer-cut 'windblade' structures – inspired by the rear wing supports of the McLaren F1 GTR sports car – absorb horizontal wind loading, while the façade's mass is supported by stainless steel tie-rods similar to those used on Formula 1 cars. The laminated glass is therefore suspended with minimal visual means of support, maximising outward vision and letting more light in. Schüco was also tasked with reducing the proposed cost of the façade by 30 per cent. It cut it by more than 40 per cent.

"It was one of the most challenging projects we have been involved with, but also one of the most technically rewarding," says Dirk Hindrichs, president and CEO of Schüco International. "The building is a strong statement about a new type of architectural approach that gives priority to caring about the employees, how they work, and maximising overall efficiency."

Already an industry-leader in the supply of aluminium, steel and glass façades, Schüco is also a pioneer in the architectural integration of photovoltaic (PV) technology, which converts sunlight directly into electricity. The company's emphasis on such sustainable technologies has been rewarded with spectacular growth: its total number of employees worldwide rose above 5000 for the first time in 2007, and in the first quarter of 2008 turnover increased by more »»

## LEWIS CHECKS OUT SCHÜCO'S HEADQUARTERS

**In December 2007, Lewis became one of the first visitors to the Schüco Technology Centre in Bielefeld, Germany, when he made a surprise appearance at the new facility during a top-level management conference. Lewis presented the company's president and CEO Dirk Hindrichs with a helmet and did a short Q&A, before thanking the company's employees for their valued support and taking a tour of the impressive building. Like the McLaren Technology Centre, Schüco's new headquarters is a leading engineering research and development facility.**







**FAR LEFT:** Schüco's ultra-efficient modular façade gives this district police headquarters a futuristic look

**LEFT:** Thanks to Schüco energy-efficient systems, this family home has a heating bill of just €30 per month

than 20 per cent. Those headline figures are underpinned by years of groundbreaking research to combine modern window and façade systems with PV technology.

"Architects are increasingly focusing not only on modern aesthetics but on the carbon-neutral value of solar energy," explains Hindrichs. "Solar installations will become a natural part of the way buildings look in the very near future. The reality of the energy cost-neutral building is already within our grasp. We call this concept 'Energy² – Saving Energy and Generating Energy'."

That concept is equally pertinent to McLaren's primary business of Formula 1, despite the apparent diversity of the two companies' industries. "The Energy² theme that runs throughout the Schüco brand is well-mirrored by the day-to-day pressures and activities of racing in Formula 1," says Neale. "Energy efficiency is a competitive imperative in both the product and the process for Schüco and McLaren Racing.

"A Formula 1 car's engine, for example, has incredible volumetric, combustion and friction efficiency. The performance advantage from being able to run one lap longer on our fuel in a race is vital, so we have strategies that enable us to go into a fuel-saving mode – be it behind a Safety Car or trying to eke out a long middle stint. Everything on the car is there for a reason; there can be no waste or we will not be competitive. We are tested on that in front of millions of people every two weeks."

With such a focus on efficiency and energy management, research at Schüco and McLaren is advancing in a similar direction. The team's 2009 Formula 1 car will use a kinetic energy recovery system, this year's runs on 5.75 per cent biofuel, and all benefit from advanced aerodynamics, ultra-lightweight materials and next-generation lubricants from ExxonMobil.

Like McLaren Applied Technologies, Schüco is also taking its innovations to a wider market. A new technology company, Malibu, has been established with E.ON to produce PV modules using a promising new thin-film technology. The potential cost savings of using less silicon could be pivotal in popularising solar power.

Energy generation is one element of Schüco's business, but energy conservation is equally important. Intelligent architectural systems showcased in the Schüco Technology Centre, opened late last year in Bielefeld, Germany, can help reduce buildings' carbon footprints. To help maintain a constant interior temperature with minimal air conditioning or heating, the facilty's façade uses movable vertical louvre blades that track the position of the sun, and the windows open and close automatically. Coupled with solar collectors, PV modules, ground-source heat pumps, and a high-insulation façade, these help reduce the facility's CO2 footprint by more than 50 per cent over comparably sized buildings.

The McLaren Technology Centre is similarly pioneering. "Schüco's vision, and the façade's efficient design have been contributary factors in reducing our energy consumption," reveals Simon Lake, general manager of McLaren's Managed Services department. "We have reduced the Group's carbon footprint by eight per cent in the past year, primarily through prudent housekeeping, but greatly assisted by the design principles of the McLaren Technology Centre."

The facility also uses existing heat sources – machinery and computers, for example – to keep its occupants comfortable. The lakes, meanwhile, operate as a heat sink for the wind tunnel, cutting the need for additional cooling. The Group's ongoing strategy to make even more efficient use of energy and further reduce its carbon footprint underlines a growing environmental movement in Formula 1.

Schüco, however, has ambitions beyond sport. It has already been instrumental in developing houses that are so efficient that they can be heated for as little as €30 per month in the depths of winter. Now, it has revealed a revolutionary design for a home that generates more energy than it consumes. Up until recently, the concept of an 'energy plus' home would have been unthinkable, but through the use of ground-source heat pumps, high-efficiency thermal insulation and PV systems, Schüco has shown that the technology already exists for people to cut their reliance on external energy sources. Potentially, surplus energy could even be fed back into the grid, raising the possibility of sending the energy companies a bill for a change. Now that's fuel for thought. ■

Soaring to a height of 132m, the award-winning Het Strijkijzer skyscraper uses Schüco windows and façade systems

## RAISING AWARENESS & DELIVERING SOLUTIONS

As well as developing new energy-efficient technologies, Schüco has made a statement about the future with its Energy² concept – and president and CEO Dirk Hindrichs has been delivering Schüco's message to a high-profile audience.

Hindrichs has spent considerable time with California governor and solar energy advocate Arnold Schwarzenegger discussing how Schüco products complement the state's Green Building Initiative.

Hindrichs also met with former US vice-president, Nobel Peace Prize-winner and enviromental activist Al Gore. Schüco later supported the launch of Gore's Oscar-winning film *An Inconvenient Truth*, which has done much to heighten public awareness about global warming.



# SNAPSHOTS FROM...

## Spain, April 24-27



SAM INSKIP
**PARTNER COORDINATOR**

"The Spanish Grand Prix is one of my busiest races because I speak Spanish, so as well as my normal responsibilities, I also help out my teammates with a bit of translation work! This year, Pedro and I travelled to Madrid before heading to Barcelona for the race."



Pedro arrives at the Palacio Municipal de Congresos in Madrid to take part in a pre-race press briefing at the Vodafone 'Move 08' business fair



Senior partner manager Steve Wright interviews Lewis and Spanish golfing legend Seve Ballesteros in the Paddock Club. Ballesteros attended the race as a special guest of Hugo Boss



First stop for Pedro and I was at Santander's HQ near Madrid, where he gave a motivational interview to 50 of the company's key employees



Move 08 is where Vodafone showcases all the latest innovations in communications technology



Part of my job is explaining how the team works with its partners – here I'm delivering a pre-race presentation to some of SAP's key Spanish clients




Fortunately, despite sitting in the back, Pedro's no back-seat driver! Here, we're on our way between partner appearances in Madrid



Pedro's one of the most popular racing drivers in Spain, so he's always ready to sign a few autographs – he met these fans in Madrid




This is the fantastic view from the top of Circuit de Catalunya's Paddock Club. Beyond the hills in the distance are some of Barcelona's best beaches



All our Partners get together with their guests at the Vodafone McLaren Mercedes team event



The view from behind the Johnnie Walker bar at the team's partner event – I'm not sure what cocktail this barman is mixing up, but he looks like he's enjoying making it!

To give you an insight from the Formula 1 front line, team members will be taking behind-the-scenes photos for *Racing Line* at each race with an Olympus Mju 850 SW




## Turkey, May 8-11



RICHARD HOPKIRK
**VEHICLE DYNAMICS ENGINEER**

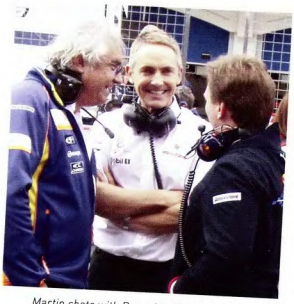
"Turkey's quite an interesting race from a professional perspective because the circuit has got some major elevation changes and one of the fastest corners in Formula 1 – turn eight. It's quite challenging to get the right car set-up, but we got a good result, which is always rewarding."



Three of my teammates chat during a brief lull in the track action



Lewis's car cools down in Parc Fermé minutes after the end of the race



Martin chats with Renault's Flavio Briatore and Red Bull's Christian Horner on the grid



Engineering briefings with the drivers are a crucial part of any race weekend, but because we all know each other so well, there's quite a bit of banter



A cameraman zooms in on a team mechanic enjoying the spoils of Lewis's second place

**WIN!**

**FOR YOUR CHANCE TO WIN AN OLYMPUS MJU 850 SW CAMERA, TURN TO PAGE 40 NOW!**



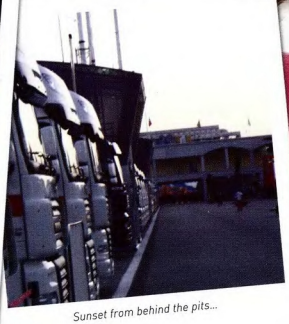
Rain! Not what we've come to expect at Istanbul Park, but it soon cleared up



Walking the track, so we know exactly what we're dealing with – we look out for any bumps or asphalt changes from repairs, and take a good look at all the kerbs



Me, with the trophy for second place and some champagne. Not a bad weekend's haul!



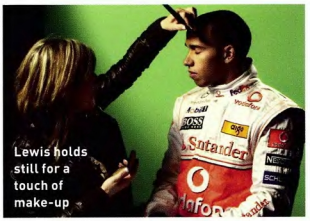
Sunset from behind the pits...

**WORDS**
NIC SHAW

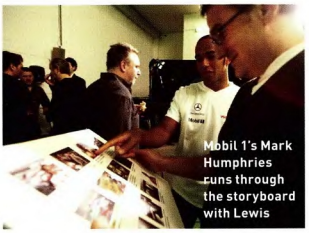
**PHOTOS**
GIBSON/LAT

# MOBIL 1: MAN & MACHINE

Lewis, Gary and their teammates at Vodafone McLaren Mercedes have been hard at work contributing to another promotional film for Mobil 1

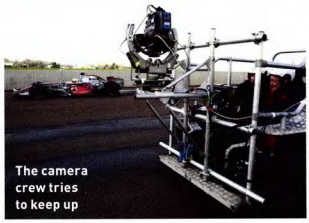


Lewis holds still for a touch of make-up


Mobil 1's Mark Humphries runs through the storyboard with Lewis



Gary helped out with driving duties for the film


The camera crew tries to keep up

If the MP4-23's beating heart is its 2.4-litre Mercedes-Benz V8, its blood is the Mobil 1 coursing through the state-of-the-art powerplant. That blood comes in two parts, fuel and lubricants, and both are as vital to the Formula 1 car's operation as the organic variety is to the driver sitting in the cockpit barely a metre away.

To highlight the crucial role that Mobil 1's products play in Vodafone McLaren Mercedes' on-track performance, the brand recently created a short film entitled *Man & Machine* that blends high-end computer graphics with live-action footage.

"We're looking to illustrate the preparation that goes into the car, and then compare that preparation with Lewis's training," says Mark Humphries, motorsport marketing manager for Mobil 1. "The drivers are super-fit athletes, and the car is a magnificent piece of engineering, so we're drawing parallels between the two and showcasing the critical role played by Mobil 1."

The film begins with the team preparing a Formula 1 car to race and Lewis training on a treadmill in a futuristic sports laboratory. The camera then switches back to the car, zooms in on its engine cover, and reveals the V8's well-lubricated reciprocating internals. A voiceover, meanwhile, extols the virtues of using Mobil 1.

Next, we see a computer-generated X-ray of Lewis's chest as he trains, showing his beating heart and the blood coursing through his veins, illustrating the similarities between it and the engine's lifeblood. The film then concludes with Lewis explaining how technology developed for Formula 1 benefits road cars.

"It's quite a short film – three and a half minutes – so longer than a commercial, but not a full-on movie," reveals Humphries. "We'll make it available to our subsidiaries worldwide to use at exhibitions and to go onto their websites as digital media. We'll also offer it to regional media partners for them to show if they choose."

Having Lewis involved helps Mobil 1 to engage an audience that otherwise might not be so interested in a film focusing on lubricants. It adds a human element to a mechanical situation and also lends weight to the messages being communicated.

"I'm always very impressed when we work with Lewis," says Humphries. "He's so professional and always wants to do a good job for the partners, even though filming like this isn't a particularly normal or exciting thing for him to be doing. Today, he's run on the treadmill for quite a long time while we got our shots for the film, and he's filmed multiple race previews and a question and answer session for us. He's done it all with such good grace and came up with some great answers."

Lewis wasn't the only Vodafone McLaren Mercedes driver to be involved in *Man & Machine*. Test driver and DTM star Gary helped out with driving duties at Santa Pod Raceway in Northamptonshire, UK, where the action footage was captured. He blasted up and down the famous drag-racing strip for the camera crew, driving both the Formula 1 car and a Mercedes-Benz C-Class – supported, of course, by his Vodafone McLaren Mercedes teammates.

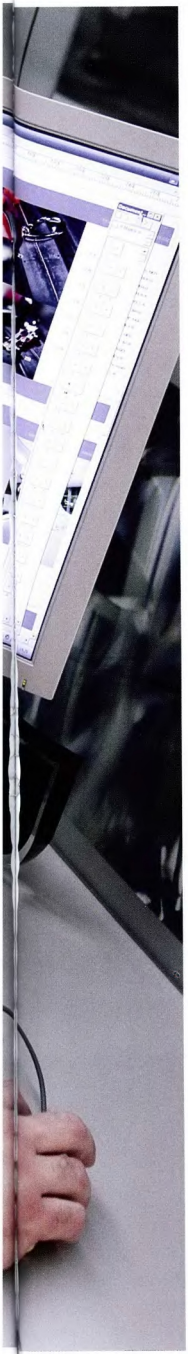
With the live-action shots completed, the next stage was to seamlessly combine it with the computer-generated sports lab in post production. Mobil 1's production company was putting the final touches to *Man & Machine* as Racing Line went to press, so we can't offer a verdict on the finished product, but you'll soon be able to judge for yourself by checking it out on McLaren.com. ■



Lewis focuses for the camera – he's got to look as though he's training hard




The design of the 2008 collection brochure takes shape on screen



# SENIOR GRAPHIC DESIGNER

**WORDS** TIM OLDHAM
**PHOTOS** HUGO DIXON

## The distinctive McLaren look is defined by the creativity and consistency of its in-house graphics department

Senior graphic designer Alan Firman helps shape the visual identity of the McLaren Group as part of McLaren Marketing's graphics department. Here, he gives us an insight into his role.

### The job

"There are seven designers in the graphics department at the McLaren Technology Centre. Our roles cover design solutions across the whole McLaren Group, so the variety of work is huge. Each designer has their own projects – mine include the brochure for the Vodafone McLaren Mercedes eShop, a book about the McLaren Technology Centre, and work for Absolute Taste – but the whole team will work together on big projects, such as when we developed the new identity with Vodafone as Title Partner."

### First steps

"I'd always been interested in drawing and design, and remember saying to a careers advisor when I was 14 years old that I wanted to work in graphics. I went to art college to study graphic design, film and TV, but decided that design for print was the direction I wanted to go because it was more hands-on."

### How did you get started at McLaren?

"I joined the team as a junior in 1988 – it was my first proper job after college. At the time, there was just one other person in the studio and my very first task was to design the team's Christmas card. I've still got one at home."

### How has your role developed?

"Early on in my career at McLaren, I was designing information packs and support material for each race and working on Partner identities in relation to logo placement on the car. As the Group has grown, so has the graphics department. I've worked with Absolute Taste since it started in 1997, designing the corporate identity for the business along with brochures and invitations and so on. I've also been involved in the graphics side of the Absolute Taste cafés in London and at TAG Farnborough Airport, and the new partnership with Gordon Ramsay.

"I've just finished the brochure for the Vodafone McLaren Mercedes 2008 Collection. The planning started last autumn and the job involved choosing models, art directing a five-day shoot in Jerez, picture selection, artwork, and print management. I've been involved at every stage, but that's the way I like it – I prefer being part of a project from start to finish."

### What qualifications do you need?

"Most designers have an art school background – usually in graphics or illustration. There are a lot of different types of design courses you can do, including university degrees, but it's your creativity that's most important. That said, it's also important to be good at creative problem-solving, because graphic design is involved in so many different fields – especially at somewhere like McLaren."

### What's the best bit about your job?

"The variety of work – every day really can bring something different. During my time at McLaren, I've worked on some dream projects. There have been three major Title Partner designs – all involving months of work to create the right look for the car, drivers, team, and transporters. Even though they were all very different, I think their quality and attention to detail make them unmistakably McLaren." ■



Design is about detail as well as creativity



Months of creative problem-solving come to fruition

## THIS MONTH'S COMPETITION FOR CLUB MEMBERS

# WIN!

## TWO PAIRS OF TICKETS TO ATTEND THE TEAM'S TEST AT SILVERSTONE

## PLUS: 1:4 SCALE MP4-22 STEERING WHEELS FOR FIVE LUCKY RUNNERS-UP

Attending an official test is a fantastic way of experiencing the thrills of Formula 1 without the restrictions of a grand prix weekend – and this month we've got **two pairs of passes** to give away to Team Vodafone McLaren Mercedes members for the Silverstone test on June 24.

As well as spectacular views of the test from the BRDC Clubhouse, each amazing prize consists of:

- Two access passes to the team's hospitality suite, presented in a specially designed ticket wallet
- A team gift bag for each guest, containing a cap, earplugs and T-shirt
- The chance to meet one of the Vodafone McLaren Mercedes drivers (testing schedules permitting)
- A guided tour of the Vodafone McLaren Mercedes pit facility
- A high-speed passenger ride around Stowe Circuit
- Free all-day catering
- On-site parking

To be in with a chance of winning, tell us in no more than 30 words why you think you deserve to attend the test. Please send your answers to racingline@McLaren.com by no later than midnight on **June 17**.

There can only be two winners of the test tickets, but we've got **five** 1:4 scale steering wheels (as seen in the eShop) for runners up, so get thinking now!



### RUNNER-UP PRIZES

## SNAPSHOTS COMPETITION!

On page 34, you can view photos taken by the team using an Olympus Mju 850 SW digital camera. If you think you can do better, the generous team at Olympus have donated an identical camera for us to give away. To be in with a chance of winning it, just send your best grand prix photos to **racingline@McLaren.com**, and we'll ask Olympus's official team photographer Jon Nicholson to pick a winner. You've got until **July 21** to get your entries in – so get snapping!




• Join Team Vodafone McLaren Mercedes now at www.mclaren.com or by calling +44 (0)1274 771833 •

## HAPPY BIRTHDAY!

Best birthday wishes to the following club members:

- **Joaquin Mejia Aguilar**, Mexico City,Mexico
- **Deborah Batt**, Deanshanger, UK
- **Christian Castelli**, Genova, Italy
- **Julian Farrugia**, Mqabba, Malta
- **Pernille Sletten Haanes**, Faaberg, Norway
- **Birgit Hoeniger**, Attendorn, Germany
- **Petra Jancovicova**, Bratislava, Slovakia
- **Gary Prewitt**, S'hampton, UK
- **Alice McIver**, Mold, UK
- **Kathleen Nolan**, Adelaide, Australia
- **Katy Panesar**, Nottingham, UK
- **Lesley Reid**, Sussex, UK
- **Dave Stening**, T'bridge, UK
- **Blake and Brad Strickland**, Gerrards Cross, UK
- **Marie Waller,** Ipswich, UK
- **Jane Woodcraft**, Warrington, UK
- **Gary Wright**, Birmingham, UK

Send birthday requests to racingline.mclaren.com

## MARK EVERILL




# A GREAT RESPONSE... BUT THERE CAN ONLY BE ONE WINNER!

Way back in 2006, a group of dedicated Team Vodafone McLaren Mercedes members clubbed together to create a flag to support their favourite team. The flag travelled the world with members, who collected autographs from the drivers and their teammates. Unfortunately, the flag was then lost in the post and disappeared for 18 months...

...until, that is, eagle-eyed club member **Mark Everill** spotted it on an online auction and bought it back!

So now, once again, the flag is back where it belongs with the team's supporters and will be travelling to races throughout 2008 and beyond. Here at *Racing Line*, we think that Mark is a bit of a hero, so we've chosen him as the deserving winner of this month's members' competition, meaning he wins a jacket, T-shirt and cap from the Lifestyle Collection.

We had loads of other great entries this month, but there could only be one winner (sorry!). Honourable mentions go to: the **Bosque family** from Zaragoza in Spain; the talented **Yunis Mattar** from Forfar, UK; **Paul Albrow** from Martham, UK; and last but by no means least, **Zsolt Nagy** from Budapest, Hungary.



THE BOSQUES




YUNIS MATTAR



PAUL ALBROW



ZSOLT NAGY

• To purchase items from the **2008 Collections** go to www.mclarenshop.com or call +44 (0)1274 771833 •

# A VERY SPECIAL DAY

**WHO:** HER MAJESTY THE QUEEN **WHEN:** FOUR YEARS AGO **WHERE:** WOKING

June 2004, and the whole of *Racing Line* is devoted to the McLaren Technology Centre. Interviews and exclusive photographs chart the development of the facility from Ron's vision, through design, Partner involvement, construction and, gracing the cover, the official opening by Her Majesty The Queen.

The guestlist for that event, held on May 12, 2004, included local dignitaries, former race drivers, senior Partner representatives, as well as hundreds of McLaren Group employees. But the arrival of Her Majesty The Queen and His Royal Highness the Duke of Edinburgh made it a truly special occasion, as Martin explains. "I still remember the feeling of excitement that ran through the whole workforce as the Royal Party arrived. For our new home and business to be honoured in that way was special, something the whole McLaren Group embraced."

While Ron accompanied Her Majesty The Queen – introducing her to guests and showing her around the facility – Martin escorted Prince Philip on a tour.

"Although I met Her Majesty several times during the day, I was with Prince Philip from the moment the Royal Party arrived until they left," says Martin. "What I found most remarkable was not just the dignity and charisma, which you'd expect, but his genuine interest and excitement at being here.

"I particularly remember a long conversation over lunch about steering geometry – not one you'd expect to have. But it's clear Prince Philip has learned a lot through his passion for carriage racing. It was a real demonstration of his interest in our work.

"The day The Queen and Prince Philip visited us was a very special one. For them to open our facility was the highest honour for McLaren." ■



**Her Majesty The Queen unveils the sculpture that commemorates the opening of the McLaren Technology Centre**