

# RacingLine

April 2003 £4.50  
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by McLaren

Lights, camera,

# action!



Behind the scenes for the Team McLaren Mercedes filming day at Barcelona

The new CLK-Class

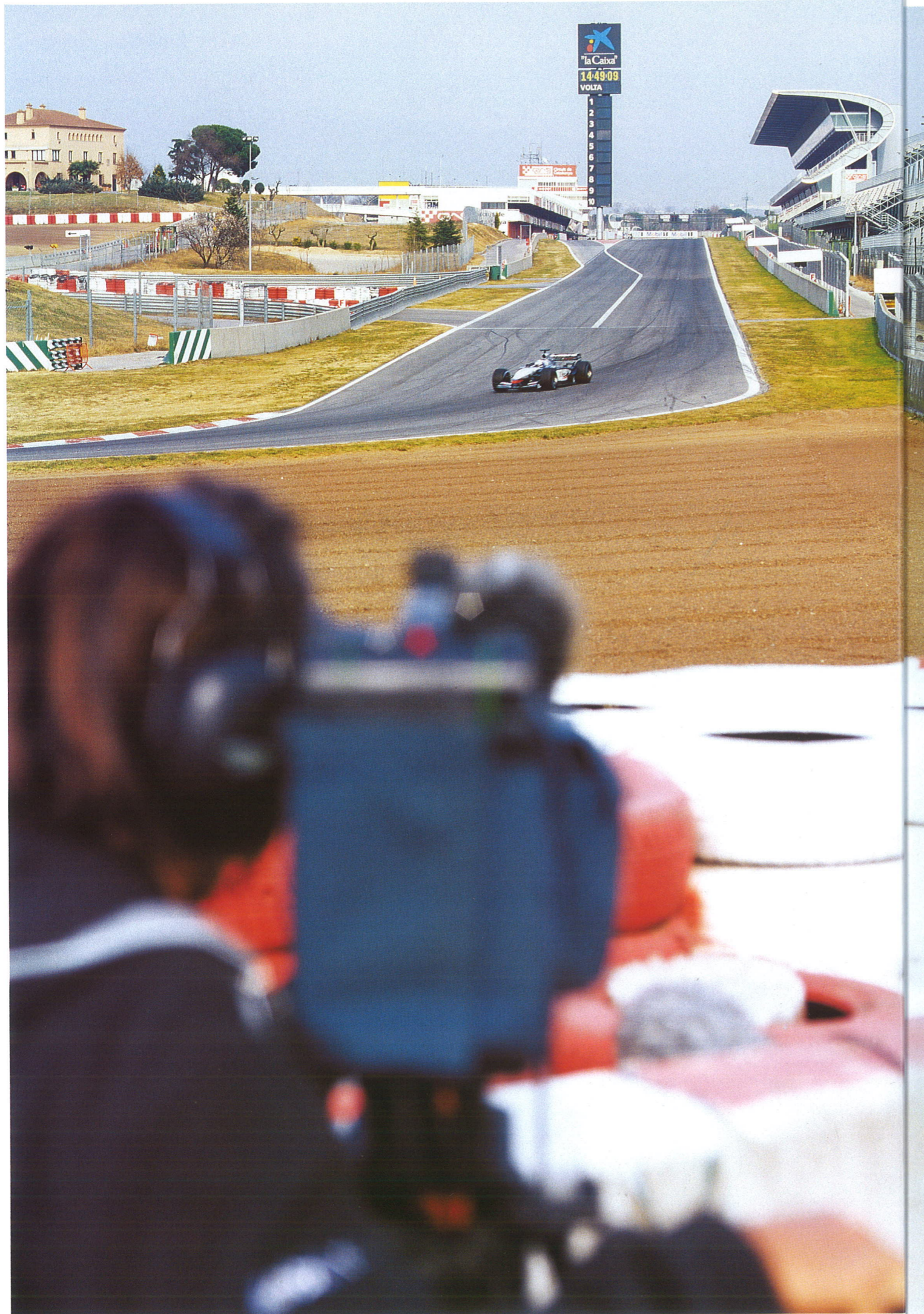


Item 1 on the pre-nup.

The New CLK-Class Coupé from £27,240 on the road. Call 0800 77 66 55 for more details or visit [www.mercedes-benz.co.uk](http://www.mercedes-benz.co.uk) Car featured is a CLK 320 Elegance with optional alloy wheels at £35,070 on the road (includes delivery, number plates, first registration tax and a full tank of fuel).



Mercedes-Benz



# RacingLine

APRIL 2003



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“OUR PARTNERSHIP IS A VITAL COMMUNICATION COMPONENT IN PRESENTING OUR NEW PRODUCT LINE TO OUR CUSTOMERS. THE FILM SHOWS THE TECHNOLOGY IN ACTION”

BOB LIERLE, GLOBAL MOTORSPORTS MANAGER, EXXONMOBIL



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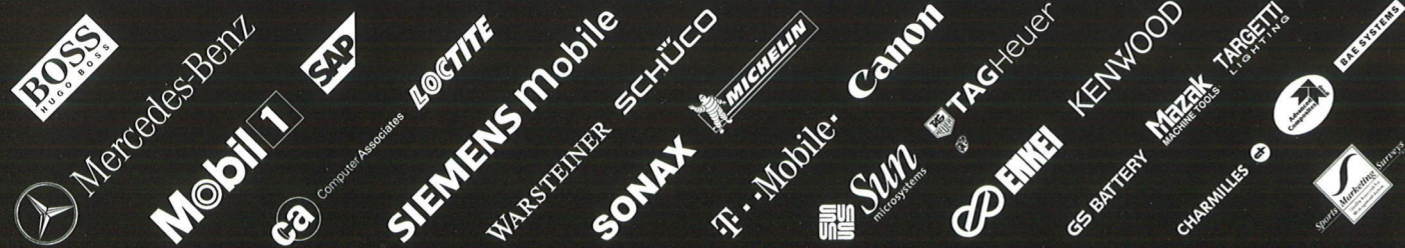
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## McLaren's Roll of Honour

### Eight Constructors' Championships

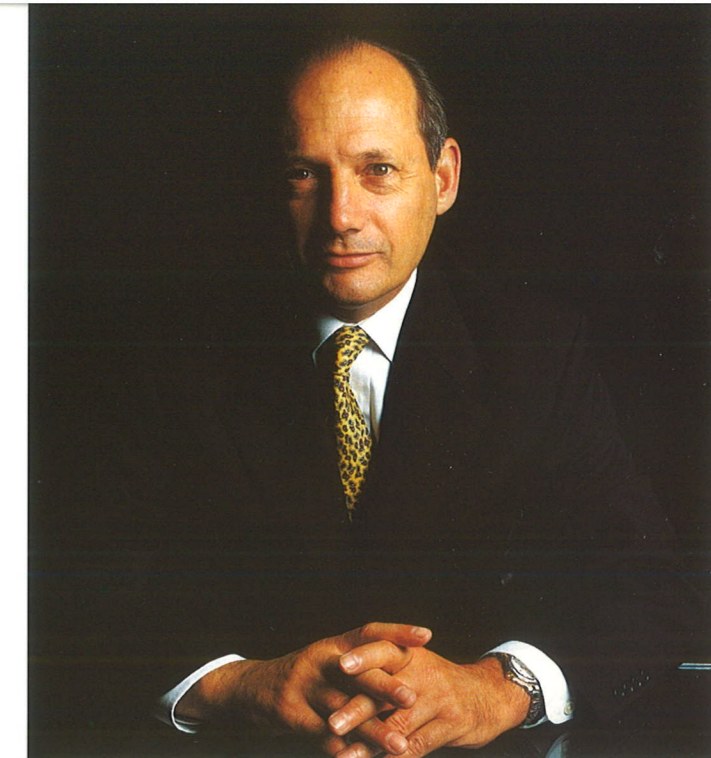
1974 - M23-Ford, 73 points  
1984 - MP4/2-TAG Porsche, 143.5 points  
1985 - MP4/2B-TAG Porsche, 90 points  
1988 - MP4/4-Honda, 199 points  
1989 - MP4/5-Honda, 141 points  
1990 - MP4/5B-Honda, 121 points  
1991 - MP4/6-Honda, 139 points  
1998 - MP4-13-Mercedes, 156 points

### Eleven Drivers' Championships

1974 - Emerson Fittipaldi - M23-Ford, 55 points  
1976 - James Hunt - M23-Ford, 69 points  
1984 - Niki Lauda - MP4/2-TAG Porsche, 72 points  
1985 - Alain Prost - MP4/2B-TAG Porsche, 73 points  
1986 - Alain Prost - MP4/2C-TAG Porsche, 72 points  
1988 - Ayrton Senna - MP4/4-Honda, 90 points  
1989 - Alain Prost - MP4/5-Honda, 76 points  
1990 - Ayrton Senna - MP4/5B-Honda, 78 points  
1991 - Ayrton Senna - MP4/6-Honda, 96 points  
1998 - Mika Häkkinen - MP4-13-Mercedes, 100 points  
1999 - Mika Häkkinen - MP4-14-Mercedes, 76 points

## 2003 GP Results

Australian GP: David Coulthard 1st; Kimi Räikkönen 3rd



# InsideLine

Everybody at Team McLaren Mercedes was delighted with our showing in the Australian Grand Prix, with David emerging the winner and Kimi third despite having to take a drive-through penalty after a glitch in the engine and gearbox software caused him to exceed the permitted maximum speed by just 1.1kph on the entrance to the pitlane. Both cars led the race, and the MP4-17D performed well up to the expectations created by its positive testing form during the off-season.

Yet it is important to set our achievements at Melbourne in a wider context. Our long-term strategy to re-establish the team as a consistent winner depends on the development and evolution of the all-new MP4-18A, which will make its debut later in the season. In the meantime, our strategy is to keep well in play and maintain the best possible position in the world championship points table over the first few races.

As I have emphasised before, the physical readiness of the MP4-18A will not be the sole yardstick by which the timing for its race debut is judged. We want to be in a position where we can execute as seamless a transition as possible between the existing car and its successor in a bid to sustain the intensity of our challenge across the entire season.

On the basis of what we saw at Melbourne, it is difficult to gain a precise barometer of the competitive level achieved by our key rivals. Like ourselves, Ferrari is clearly competitive with a development of its 2002 car. On the other hand, our friends at Williams have clearly had a good start to the season with their new car, despite development problems.

I would also like to emphasise that McLaren is certainly not against changes to the regulations, but we are concerned that their introduction should conform correctly with the regulatory process. That said, we enjoyed a superb race in Australia primarily due to the changing climatic conditions and the deployment of the safety car which has historically been a regular feature of this event.

Finally, we hope that the window of opportunity established by the FIA to re-evaluate various aspects of the new rules following the Brazilian Grand Prix will be taken up by all concerned in a positive and constructive spirit to the benefit of the sport as a whole.

## RacingLine

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**Ron Dennis CBE**  
TAG McLaren Group Chairman and CEO

ExxonMobil maximises Team McLaren Mercedes Partnership for promotion; Mercedes-Benz holds Australian Grand Prix Gala Dinner

**Win with Mobil 1**

20 GRAND PRIX WEEKENDS FOR 2

1 smart

50 CANON A200

100 SIEMENS C55

See inside for details

**Win with Mobil 1**

## EXXONMOBIL RUNS PROMOTION

Team McLaren Mercedes Technology Partner ExxonMobil successfully ran a pan-European campaign to promote its new Mobil 1 range of synthetic lubricants in February and March.

The latest lubricants feature 'SuperSyn' technology – an innovation pioneered by ExxonMobil which helps to protect against

engine wear, even under extreme use. The promotion itself was held in Esso service stations across Europe, and reached six million people per day in over 6000 outlets.

The promotion maximised a co-operation between ExxonMobil, Mercedes-Benz and Team McLaren Mercedes Partners Canon

and Siemens Mobile, highlighting the advantages that Partners can gain by sharing operational strategies.

Top prize was a Smart city car, but a host of other prizes were available, including Canon cameras, Siemens Mobile phones and tickets to the 2003 British Grand Prix.

## LOCTITE EDUCATES WITH AUSTRALIAN SEMINAR

Team McLaren Mercedes Technology Partner Loctite held a business seminar in Melbourne on the Thursday prior to the Australian Grand Prix weekend.

The seminar offered an insight into the Partnership between the Formula 1 team and Henkel Loctite.

Attendees, who were from the automotive after-market sector, learnt about how Loctite offers support and an integrated approach to providing solutions to the challenges faced by Team McLaren Mercedes, as it seeks to succeed in Formula 1.

## MERCEDES-BENZ HOSTS GRAND PRIX GALA DINNER



The annual Mercedes-Benz Grand Prix Gala Dinner, held in association with Team McLaren Mercedes Partners ExxonMobil and Henkel Loctite, took place at the Crown Towers hotel in Melbourne on the eve of the Australian Grand Prix.

Over 1000 guests – including customers of ExxonMobil, Henkel Loctite and Mercedes-Benz

– attended the event, among them Ron Dennis, Norbert Haug and Team McLaren Mercedes drivers David Coulthard and Kimi Räikkönen, who were interviewed about the imminent race.

The guests were also treated to entertainment put on by Tap Dogs, an international tap dancing troupe with incredibly innovative routines.

PICTURE CREDITS  
LAT; WOLFGANG WILHELM; EXXONMOBIL

## SUN SHINES IN CHICAGO

Team McLaren Mercedes Technology Partner Sun Microsystems recently exhibited at the National Manufacturing Week in Chicago.

The show is a celebration of modern technology in all its forms, and its attendees represented over 4000 companies from industry areas as diverse as aerospace engineering, lumber transportation and warehouse management.

Sun Microsystems – a leading provider of industrial-strength internet hardware, software and services – was a corporate sponsor of the show, and incorporated a Team McLaren Mercedes simulator onto its innovative exhibition stand to highlight the cutting-edge technological links that the company shares with the Formula 1 team.



## NEW MERCEDES-BENZ SAFETY CAR MAKES DEBUT IN MELBOURNE

The Mercedes-Benz CLK 55 AMG made its debut as the official Formula 1 safety car at the 2003 Australian Grand Prix in Melbourne.

The road-going version of the sports coupé has been fine-tuned to ensure maximum performance for its role leading the Formula 1 field while on-track incidents are dealt with.

Among the modifications made to the CLK 55 AMG – which replaces the SL55 as Formula 1's

safety car – are changes to the executive coupé's aerodynamics, fuel tank, fuel supply, suspension and brakes.

Mercedes-Benz has supplied the safety car to Formula 1 since 1997, and the CLK 55 AMG is the fourth generation of vehicle that the company has developed for the task. Regular safety car driver and Mercedes-Benz DTM touring car racer Bernd Maylander continues in his role.

Former Mercedes-Benz grand prix driver Manfred von Brauchitsch has died, aged 97. The German made his racing debut for the Silver Arrows in 1932 at the Avus Grand Prix in Germany, before becoming a full-time works driver in 1934. The Second World War cut short his racing career, but he managed to score three major grand prix wins, including victory in the 1937 Monaco Grand Prix, where he set a lap record that would last for a further 18 years.

Racing Line regrets to report the death of Mercedes-Ilmor employee and strongman competitor Marc Iliffe, who was profiled in the Q&A feature in the March issue of the magazine. Both Team McLaren Mercedes and Mercedes-Ilmor would like to offer their sincere condolences to Marc's family.

The Interlagos circuit in Sao Paulo, Brazil, has been modified for the 2003 Brazilian Grand Prix. The track, infamous for its bumpy, uneven nature, has had extensive resurfacing to eliminate the problem. There have also been upgrades to the kerbs, tyre walls and run-off areas at the track, while the teams will have an improved pit and paddock complex.



Kimi Räikkönen's new helmet design made its debut at the Australian Grand Prix. Designed by Kimi's long-time helmet designer, Uffe Tagstrom, the helmet now features a splash of 'rocket red'.

Ex-Formula 1 driver Pedro de la Rosa joined Team McLaren Mercedes' testing effort at Jerez in Spain in the week after the Australian Grand Prix. The Spaniard filled in for Kimi Räikkönen and David Coulthard, who remained in the Far East.

David Coulthard joins DaimlerChrysler for Australian staff day; Team McLaren Mercedes holds pre-season media event



## DAIMLERCHRYSLER HOLDS AUSTRALIAN STAFF DAY

DaimlerChrysler held a special day for Australian staff during the run-up to the opening race of the 2003 Formula 1 season in Melbourne.

The event, which was also attended by local media, was held at DaimlerChrysler's head office for the Australia and Asia Pacific regions in Mulgrove, near Melbourne.

David Coulthard was on hand to answer questions and sign autographs, before attending a lunch with the DaimlerChrysler Australia/Pacific board, including Ernst Lieb, the new president and CEO.

## TEAM McLAREN MERCEDES ENTERTAINS THE MEDIA

Team McLaren Mercedes hosted its annual pre-season lunch for members of the Formula 1 print and television media at the Stokehouse restaurant near Melbourne in the run-up to the Australian Grand Prix weekend.

Present were drivers David Coulthard, Kimi Räikkönen and Alex Wurz, along with Ron Dennis and Norbert Haug.

The event was an opportunity for the team to entertain members of the Formula 1 media, as well as providing interviews with the drivers and team management ahead of the upcoming Australian Grand Prix.

The lunch also included a fun quiz for the media attendees, in which the winning team members each won a Siemens Mobile phone. See [www.mclaren.com](http://www.mclaren.com) if you would like to have a go at the quiz yourself.



## ALEX WURZ SUPPORTS CLK LAUNCH

To mark the launch of the Mercedes-Benz CLK Cabriolet in Australia, Team McLaren Mercedes third driver, Alex Wurz, attended a customer event at DaimlerChrysler's Australian

headquarters in Mulgrove, near Melbourne, on the Thursday prior to the Australian Grand Prix. With over 250 guests present, Alex spoke of

the Partnership between DaimlerChrysler and the TAG McLaren Group, as well as Team McLaren Mercedes' prospects for the imminent 2003 Formula 1 season.

The fact that 2002 marked the first time in 14 years that Mercedes-Benz outsold BMW in the Australian market was also mentioned.

## THE McLAREN TECHNOLOGY CENTRE [www.mclaren-paragon.com](http://www.mclaren-paragon.com)



## McLAREN CARS MOVES INTO TECHNOLOGY CENTRE

McLaren Cars, part of the automotive division of the TAG McLaren Group, has begun its relocation into the McLaren Technology Centre.

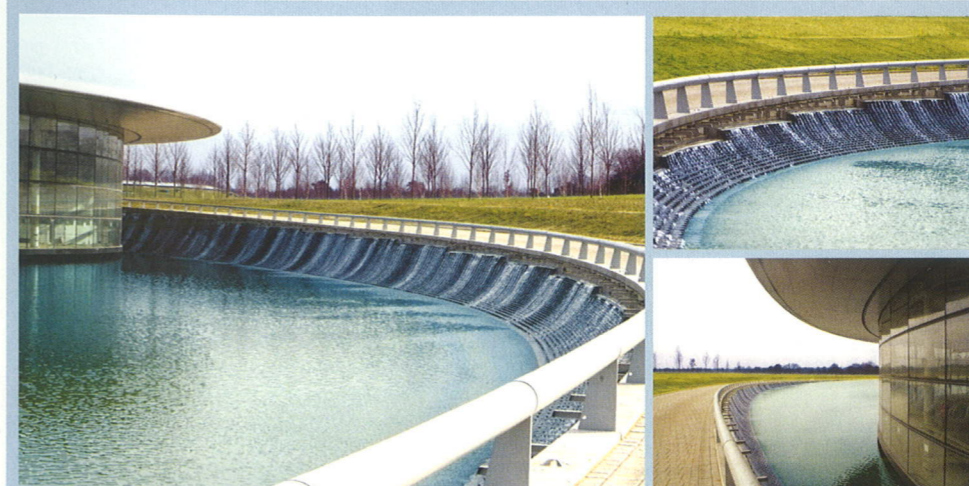
As *Racing Line* went to press, over 20 percent of McLaren Cars' personnel had made the move, with more to follow in the coming months. The new Mercedes-Benz SLR McLaren car will be built in the McLaren Technology Centre, and a cutting-edge production facility is nearing completion.

Having previously been based in two separate buildings in Woking, England, the move to the McLaren Technology Centre will mean that the whole of McLaren Cars resides under one roof.

"Perhaps the most valuable aspect of the move is that we will be brought together as a company, sharing a central location with other organisations within the TAG McLaren Group," explained Mark Lewis, Central Services Manager at McLaren Cars. "This means that we will benefit from various synergies achievable through improved internal communication and be better placed to work more closely with other TAG McLaren Group companies where appropriate.

"Moreover, it's a fantastic facility, and a great base from which McLaren Cars can move forward throughout the 21st century."

## CASCADE WATERFALL WORK CLOSE TO COMPLETION



One of the most alluring features of the McLaren Technology Centre, currently being built near the TAG McLaren Group's current home in Woking, England, will be the 160-metre-long cascade waterfall at the front of the facility. The stunning water feature has now been commissioned, and work is under way on its construction.

Sweeping around the lake in an elegant curve, the waterfall allies function with form as it serves as a practical and effective way of recirculating water from the building itself. Leading international engineering services company AMEC, an official Partner of the McLaren Technology Centre, is responsible for installing the pipework that transfers the water between the building and the lake.

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**REPORT ROUND 1**  
**MELBOURNE, MARCH 7-9**

**AUSTRALIAN GRAND PRIX**

Team McLaren Mercedes got its 2003 Formula 1 campaign off to the best possible start in the Australian Grand Prix, with David Coulthard scoring his second victory in the event and Kimi Räikkönen consolidating the team's efforts with third place.

Certainly, such a strong result seemed unlikely after Saturday qualifying, as David and Kimi finished the new-look, one-lap session in a disappointed 11th and 15th places. In the race, both the team and drivers maximised changing conditions with an adaptive strategy, however, to start the year in winning style.

Rain shortly before the race start threw the strategy options wide open, but a quick-thinking change in tyre choice from wets to slicks, a top-up of fuel to lengthen their pitstop window and a pair of safety car periods in the early stages, enabled Kimi and David to move up through the order as the rest of the field pitted to change tyres.

Indeed, despite having pitted to swap to dry tyres at the end of the warm-up lap, Kimi took the overall lead, just ahead of Michael Schumacher's Ferrari, as early as lap 17, with David – who had pitted to change tyres two laps into

**“OUR PERFORMANCE TODAY SHOWS WE’VE TAKEN A STEP FORWARD WITH MP4-17D”**

**DAVID COULTHARD**

the race – close behind in third place.

Ten laps later, Schumacher – who had stopped to change tyres on lap seven – became the first of the leading trio to pit for a second time, followed by David on lap 32 and Kimi on lap 33. Kimi rejoined directly ahead of Schumacher, but continued to defend his position superbly, despite a particularly tough challenge by the German into Turn One on lap 37.

“He got on the outside of me, but as I was on the inside it was quite easy to keep him behind me,” Kimi explained. “The corner was too tight for two cars and he just ran wide.”

Kimi had to concede his lead, though, when he received a drive-through penalty for speeding in the pitlane during his pitstop by just 1kph. This dropped the Finn down the order, but Schumacher was also in trouble as a problem with the bargeboards on his car and a subsequent pitstop for more fuel dropped him to fourth behind Kimi again.

David had now also moved past the Williams of Juan Pablo Montoya to take the race lead after the Colombian briefly spun off the track in Turn One, and all four ran in close formation to the chequered flag. David was able to resist pressure from Montoya to take a well-judged victory and, while Kimi was unable to pass the Colombian, he was able to hold off Schumacher's Ferrari for the final podium slot.

“This is a great end to a difficult weekend and a superb start to the year,” David admitted after the race. “The team did a great job, and we had the right strategy, which allowed us to optimise the unusual circumstances and the safety car. Our performance today shows we’ve taken a step forward with MP4-17D and hopefully we are all in for an exciting year.”

**TRACK FACTS MELBOURNE**

Lap length	5.303km
Race distance	307.574km
Number of laps	58
<b>RACE RESULTS MELBOURNE</b>	
1 David Coulthard	1h34m42.124s
2 Juan Pablo Montoya	+ 8.675s
3 Kimi Räikkönen	+ 9.192s
4 Michael Schumacher	+ 9.482s
5 Jarno Trulli	+38.801s
6 Heinz-Harald Frentzen	+43.928s
7 Fernando Alonso	+45.074s
8 Ralf Schumacher	+45.745s

**DRIVERS' STANDINGS**

1 David Coulthard	10pts
2 Juan Pablo Montoya	8pts
3 Kimi Räikkönen	6pts
4 Michael Schumacher	5pts
5 Jarno Trulli	4pts
6 Heinz-Harald Frentzen	3pts

**MANUFACTURERS' STANDINGS**

1 Team McLaren Mercedes	16
2 Williams-BMW	9
3 Renault	6
4 Ferrari	5

**NEW REGULATIONS**

Much of the interest during the course of the Australian Grand Prix weekend was on how the new rules for the 2003 season would work in practice.

After much discussion over the course of the winter as to what form the new regulations would take, the Australian Grand Prix was the first chance for the fans and the media – as well as people involved in Formula 1 – to see one-lap qualifying, new scrutineering regulations and pre-race parc ferme restrictions working in action.

TAG McLaren Group Chairman and CEO Ron Dennis was one of several Formula 1 figures to suggest that some fine-tuning was still needed, however.

“Friday qualifying was great,” he said. “But we need to consider whether it's wise to carry race fuel in Saturday qualifying. It takes away from the spectacle of the session.

“The teams have all had a chaotic weekend, but I hope that we all share the view on what needs to be changed. Hopefully, there will be plenty of open-minded thinking.”

**LAP-BY-LAP**

**0** Kimi pits to switch from wet tyres to slick tyres

**2** David pits to switch from wet tyres to slick tyres

**8** Safety car comes out. Kimi moves into fourth ahead of Schumacher. David is behind in sixth

**17** Safety car comes out again. Most frontrunners have pitted. Kimi takes the lead, ahead of Schumacher. David takes third place

**28** Schumacher pits again after failing to pass Kimi, David moves into second

**32** David makes his one scheduled stop, with Kimi in a lap later. Kimi rejoins just ahead of Schumacher and successfully defends his place

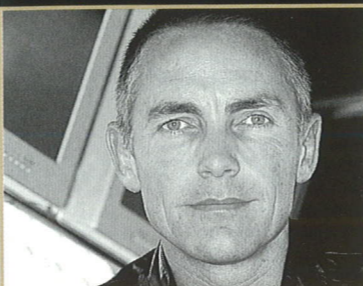
**39** Kimi receives a drive-through penalty, dropping him to seventh

**46** Schumacher has to pit for a third time, promoting David into second. Kimi moves up to fourth

**48** Montoya spins off at Turn One, promoting David into the lead

**58** David holds off Montoya to win the Australian Grand Prix. Kimi pressures the Colombian for second, but has to settle for third

**TEAM ANALYSIS**  
**MARTIN WHITMARSH**



The outcome of the Australian Grand Prix was obviously very pleasing for everyone at Team McLaren Mercedes – especially considering our position after a difficult practice and qualifying.

For Kimi to be second and David to be sixth in Friday qualifying after several problems was pleasing. Again, we had a hectic morning on Saturday – Kimi effectively wrote off his chassis in an accident, while David suffered a puncture and various other problems – but, in qualifying itself, we didn't show our full potential. Both drivers made small, but costly, mistakes (which is one of the aspects of the new system), but we always knew the outcome was slightly contrived because several cars ahead were plainly on lighter fuel loads.

It was clear we needed an innovative strategy to leapfrog our rivals in the race. On the installation lap, both drivers noted it was fairly wet around the back of the circuit, but it was questionable whether wet tyres were the best option.

We always had a recovery strategy, though, to bring the cars in early, change tyres and fill them up with fuel. We also knew that safety car periods were likely due to the circuit's nature, and that this would help us to move up the order.

In the end, both Kimi and David did a superb job. Kimi was unlucky to get his drive-through penalty (which was due to a software problem and no fault of his), but he fought extremely hard with Michael Schumacher and the fact that he defended his place and posted the fastest lap showed the car's potential.

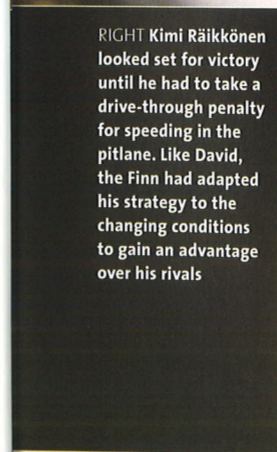
David also drove well and, while many other leading drivers made mistakes in the conditions, he didn't put a foot wrong. When you consider that he was not totally happy with his car's handling, to get first and third places was just reward for the whole team, who worked very hard over the winter.



LEFT The scenery may have been exotic, but there was still plenty of work for the Team McLaren Mercedes drivers, because all the media wanted to know their views on the upcoming season



LEFT AND RIGHT David Coulthard took advantage of the changing track conditions during the Australian Grand Prix to get past his rivals and take the victory for Team McLaren Mercedes



RIGHT Kimi Räikkönen looked set for victory until he had to take a drive-through penalty for speeding in the pitlane. Like David, the Finn had adapted his strategy to the changing conditions to gain an advantage over his rivals



BELOW Champagne Supernova: David and Kimi celebrated a great result for Team McLaren Mercedes in traditional style on the post-race podium of the Australian Grand Prix



LEFT As ever, the enthusiastic Australian fans turned up in their thousands, and were treated to another great example of why Formula 1 is such an entertaining sport



# SHOOTING STARS

Team McLaren Mercedes held two special filming and photography days prior to the start of the 2003 Formula 1 season. *Racing Line* went behind the scenes with the team at Barcelona to see what went on

WORDS LUKE HAYTER PHOTOGRAPHY TED HUMBLE-SMITH





circuit, we can do things which we couldn't do at grands prix."

For the two days of the test BHP has brought along a crew of 30 people, along with a mass of filming, lighting and editing equipment. The majority of the team are responsible solely for procuring imagery – with camera crews dotted around the perimeter of the 4.7-kilometre circuit, capturing the three Team McLaren Mercedes drivers on film every time they take to the track – but six members are here solely to erect signage at various points round the circuit for McLaren's Partners.

The footage will serve a number of purposes once obtained, and so varies in its scope and feel. "We're shooting on two formats over the two days that we are here," continues Simon. "We use 35mm film – which allows us to capture footage for use in commercials – and widescreen, which is more suitable for general television use."

Once shot, this footage is made available for use by the team's Partners, where it will be incorporated into

global television and cinema campaigns and used at special events, exhibitions and on Partner websites. Furthermore, all images are exclusive to the Partners.

The opportunity that the filming days provide for capturing an intimate bank of images – away from the pressure of a race weekend – is not lost on Simon Points, who has a clear idea of how he can best use the extra access to both his and Team McLaren Mercedes' advantage. "We come away from these two days with lots of composed shots that are planned and envisaged long before we even arrived," he explains. "We're creating a quality bank of unique, rights-free footage and images from a working test."

Official Supplier Canon is here producing a promotional video for its European customer technology seminars, highlighting its links with Team McLaren Mercedes to potential and existing customers, while software expert Computer Associates will also use footage to emphasise its Technology Partnership with the team to a variety of different audiences, from employee motivation to events such as

CA World – Computer Associates' annual conference and exhibition.

Technology Partner Loctite is also present, exploiting today's opportunity. "The filming day allows us to get some great close-ups of our logo on the car," explains Kelvin Machell, Loctite's sponsorship and public relations manager. "Some of our products can benefit from the speed and drama that today's footage brings to our key sales account presentations – emphasising the dynamic nature of our relationship with Team McLaren Mercedes."

In the case of Technology Partner ExxonMobil, specific film material will support the launch of the company's new generation of synthetic lubricants, which use the Mobil 1 SuperSyn anti-wear protection system. "Our Partnership is a vital communication component in presenting our new product line to our customers," explains Bob Lierle, global motorsports manager at ExxonMobil. "The film shows the technology in action."

Sonax, a new Partner for Team McLaren Mercedes in 2003, used the filming day as a chance to create a

BELOW The only spectators at the Circuit de Catalunya for the filming days are the cameramen and their crew, who use their exclusive access to build up a databank of creative images for use by the team and its Partners

photographers and cameramen to get complete access to both the team and its drivers for the entire duration of the test, and shoot them to their hearts' content. They are here to build a bank of moving and still images for Team McLaren Mercedes that can be used for a variety of purposes through 2003.

"The importance of these two days is that they represent the best opportunity to gather the footage and the images that we require for our Partners over the course of the 2003 season," explains Simon Points, head of Partner Management at TAG McLaren Marketing Services. "We run the cars in both branded and unbranded specifications, meaning that we can obtain a broad range of material for the different communication channels and markets in which the Partners need to operate."

The company that Team McLaren Mercedes works with on these projects is BHP, and its co-managing director, Simon Fitzgerald, is here to organise and guide the efforts of the camera crews. "Today offers us a fantastic opportunity to capture exclusive footage and share a real intimacy with the team," he points out. "From having access to the garage and the drivers to being able to place cameras in specific positions in the pitlane and around the

It's a typically cold mid-winter morning at the Circuit de Catalunya in eastern Spain.

The grandstands along the main straight lie empty, devoid of colour and noise, and there is little sign of the frenzied activity that will accompany the grand prix here in three months.

There are Formula 1 cars, though – their ear-splitting roar cutting through the calm and continuing to lend the empty circuit a sense of purpose.

Team McLaren Mercedes is here for the second day of a private three-day test. There are no other Formula 1 teams present, so the paddock and pitlane are almost totally dominated by black and silver-clad mechanics, each wrapped up warmly against the biting February air. But there are others here, too, not in team clothing – a corps of photographers and cameramen moving constantly amid the garages and track.

The reason they can do this is that these two days in Spain offer a unique opportunity for specially selected



ABOVE AND INSET The presence of a large media contingent at Barcelona adds an extra element to the team's planning for this vital three days of pre-season testing





ABOVE Sonax, like other Partners, decided to exploit the bank of exclusive images for use in international communication campaigns

global advertising campaign. "In just 48 hours, we have created an international advertising and promotional programme for the Sonax range," says Paul Krieger, export manager at Sonax.

In addition to the team responsible for capturing moving images, there are stills photographers from Mercedes-Benz and ExxonMobil, as well as Team McLaren Mercedes itself. Their mission is simple – to use the time allocated to cover every conceivable angle that may be required for the team and its Partners' use over the rest of the year. This could include intimate close-ups of the race team at work during a refuelling stop, or a driver portrait – all such images have a place.

"IN JUST 48 HOURS, WE HAVE CREATED AN INTEGRATED ADVERTISING AND PROMOTIONAL PROGRAMME FOR THE SONAX PRODUCT RANGE"

PAUL KRIEGER, EXPORT MANAGER, SONAX

Team McLaren Mercedes' Partners can also use the filming day to grant extra access to their guests, and the team's Title Partner has used the first day of the event to invite 60 print and television journalists from seven Eastern European countries for interviews with the three Team McLaren Mercedes drivers.

For the drivers themselves the filming day requires them to add an extra string to their bow, because they are expected, in some instances, to be models as well as racers – all while remaining focused on the intensive pre-season test programme.

"Days such as today are interesting," confides David Coulthard. "They allow us drivers to get a glimpse into the working lives of professional models, and go through a little of what they do, with lots of standing around and posing. I have to admit, though,

that I think I make a better racing driver than I do a model!"

In spite of this, all three come to the temporary studio and pose their way through a variety of stances for promotional literature for the team and its Partners. For the vast majority of the driver portraits every aspect of their outward appearance must be perfect. Partner logos on the drivers' racing overalls, for example, must be completely straight and visible from all angles. Though intensive, the photoshoot does not take long – such is the experience and professionalism of all those involved in the process.

Whenever and wherever the Team McLaren Mercedes race cars are

running, though, there are certain protocols that must be adhered to, and the thick aroma of fuel that hangs in the air reminds all present that this is still a serious day of testing, despite its dual-objective nature.

The long-distance work, coupled with pitstop and refuelling practice, has a purpose – to hone the team into a state of preparedness for the first grand prix of the new season, now mere weeks away. The photographers are free to get the shots that they want, but they must not impinge too much upon the proceedings. Despite this, every move of both the team and drivers is being snapped, with the sounds of whirring, clicking cameras filling the brief silences when the Formula 1 cars are not running.

"We have to work very closely with the technical team, making sure that we fit in around their schedule," explains Simon Points. "Therefore, we

liaise with the Team Manager, Dave Ryan, prior to our arrival here, so that we know when we can get access to the garage, the cars, and, of course, the drivers. We make sure he's comfortable with everything we want to achieve. With the proper planning, everything can run according to schedule."

Because the Barcelona track is Formula 1's preferred testing venue, the team and drivers are wholly familiar with its every contour, and so are able to optimise their time and effort here. The drivers will be completing the equivalent of a full race distance on this second day of running, and there are three of the team's latest MP4-17D

cars here to allow them to do it. In addition, there are personnel from Mercedes-Benz and engine specialist Mercedes-Ilmor in attendance.

As the sun begins to set at the far side of the circuit, when the cars have stopped running and the packing-up operation has begun, silence falls upon the Circuit de Catalunya once more. For their final photographic task of the day the drivers are led, in turn, onto the roof of the pit and paddock complex for some dusky shots of them standing over the prostrate photographer, looking squarely ahead, above and beyond the camera.

With the jarring contours of the

BELOW The drivers are put through their paces in front of the cameras almost as much as they are in the cars, with a variety of shots and poses to be worked through before the end of the day

Barcelona landscape framing the scene, the final flashbulb pops its last, and, in a steady procession, Team McLaren Mercedes and the assorted cameramen, photographers and crew leave the circuit, confident in the knowledge they have maximised every opportunity the day has offered, and that every roll of film has been fruitfully and imaginatively exhausted.

Days such as these ensure that Team McLaren Mercedes and its Partners present the best possible image both on and off the track, and, as we all know, projecting the right image, in both Formula 1 and the wider business world, is absolutely critical. ■





MAIN PHOTO  
A selection of the equipment is packed into lightweight box cases in preparation for being loaded into the six igloos (right) at the rear of the main workshop

BELOW LEFT AND RIGHT Hard-sided packing boxes are still used both for packing fragile equipment and for additional freight that is loaded on top of the igloos



Nowadays, it seems strange to think that several of the teams which contested the opening round of the inaugural Formula 1 world championship in 1950 arrived at the Silverstone circuit in England with their cars towed on trailers and their tools for the weekend carried in a couple of tool boxes.

How times have changed, with Formula 1 teams today transporting around 30 tons of equipment and tens of thousands of car parts to each grand prix. This task is difficult enough for European races, where Team McLaren Mercedes has access to a fleet of 16 trucks, but for flyaway races to far-off destinations such as Australia, Malaysia and Brazil for the first three rounds of the season this task is even harder still.

Arriving at Team McLaren Mercedes' headquarters in Woking, England, on Thursday, February 27 – the final day of packing for the Australian Grand Prix – you might expect to see people rushing about, with tempers becoming frayed as the hands on the invisible clock spun to an inevitable conclusion.

That's not Team McLaren Mercedes' way, though. Despite the apparent sense of hustle and bustle, all seemed calm with people focused on their respective jobs and little sign of what must have been a very real pressure.

One individual deeply involved was Chief Mechanic Stephen Giles, as he was responsible not only for the three race cars but also for every piece of equipment needed in Melbourne.

"There are two things to consider with packing – weight and volume," he explains. "Weight is crucial as freighting is expensive, but volume also has to be considered as some parts are light, but take up space. The trick is to pack things well. We use a pallet system and, if we get the chance, we try to design our equipment to fit the pallet."

The way that a Formula 1 team's equipment is transported from race to race has been transformed over the past few years. Nowadays, it's packed into six 'igloos' – metal containers measuring three metres by three metres by two metres high, and capable of carrying up to 5.5 tons if well packed.

Not all of Team McLaren Mercedes' equipment went to Australia by air, though, as non-essential car-running equipment, such as tables, chairs, trolleys and jacks, went by sea for the first time this year, and was sent in the first week of January. "We have since built up and sent separate sets of equipment to Malaysia and Brazil," continues Giles. >>



# CRATE EXPECTATIONS

The first battle of the 2003 Formula 1 season didn't take place in Australia, but in Woking, England, 10 days earlier. This was the race to pack up the equipment and transport it to the airport in time for the last flight Down Under.

WORDS BRUCE JONES PHOTOGRAPHY STEVE ORINO



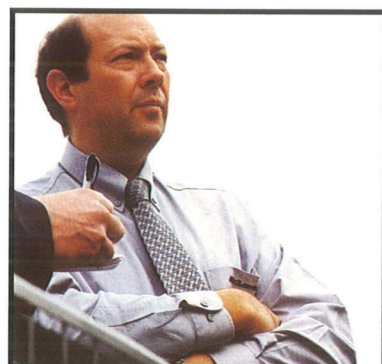
**ABOVE** A Formula 1 team is a hungry beast – consuming numerous raw parts at each grand prix. Enkei, for example, supplies 200 wheels to Team McLaren Mercedes at each race

**BELOW** Race Car Preparation Manager Chris Robson (left) and Race Team Garage Co-ordinator Steve Cook (right) oversaw the entire packing operation to ensure that it was completed on time

“The stuff we sent by sea to Australia won’t be returned until after the fourth race, at Imola, but the savings of sea freight mean it’s more cost-effective to have four sets of equipment.”

With all Formula 1 teams having substantial airfreight costs, it’s easy to see why savings are welcome. This isn’t the only equipment sent ahead of time, however, as no fuel or hazardous liquids such as glues, aerosols and resins are allowed to be packed in the igloos, so they’re transported by a specialist firm.

One of the biggest problems with packing was the fact that Team McLaren Mercedes tested right through to the Friday of the week before the Australian Grand Prix. This meant that even some of the pit equipment couldn’t go ahead, as it had to be returned from tests and refurbished before packing. Thus the



final process didn’t start until Wednesday, nine days (effectively eight, as Australia is 11 hours ahead of Greenwich Mean Time) before the cars were due on track in Melbourne for the first time.

Through the Thursday, there was the looming presence of the final deadline. All equipment had to be presented to freight agent Formula One Management at London Stansted Airport by 7.00am on the Friday. To add to this pressure Stephen Giles had to spend Thursday overseeing the build of the three race chassis, which meant that Race Car Preparation Manager Chris Robson and Race Team Garage Co-ordinator Steve Cook took over the packing lists.

On these are listed the three cars, a spare chassis, up to 200 wheels, wing packages, bodywork and enough spares to build the cars twice over again – easily enough equipment to fill six igloos and three loose pallet boxes, making nine pallets for the plane in all.

On reaching their destination, three of these igloos are used for storage, but two are fitted with drawers for the thousands of spares, with specific use as a gearbox shop and a base for the fuel equipment, while the sixth is kitted out with telephone points so that it can double up as Giles’s office.

Operations Director Jonathan Neale



is someone to whom many people turned throughout the packing process all requesting a time extension. “The end of February is when everybody seems to ask ‘could you just...’ as they look to delay as long as possible before providing equipment for their area of responsibility,” he says. “We got more data back from the final test at Jerez,



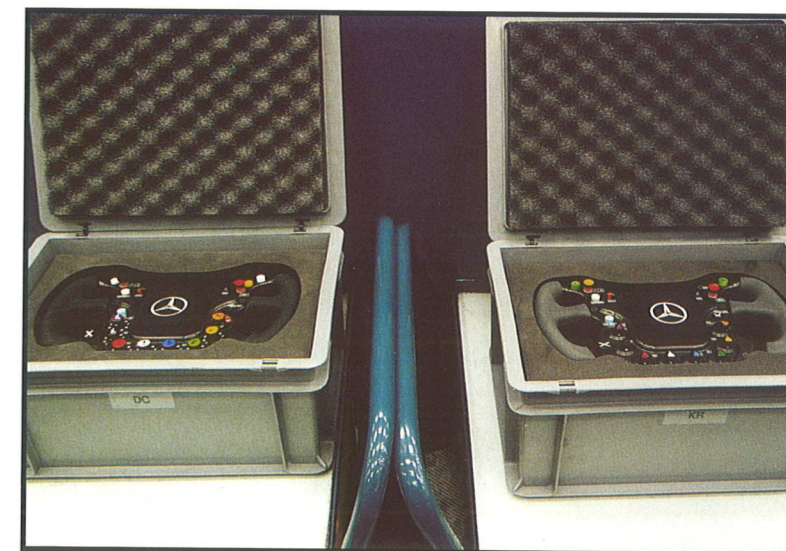
and we have to balance a need for speed against that of reliability.”

Some of the engineers’ findings may have added to speed, but they’re so late in the day that the requisite parts can’t be manufactured and factory-tested in time and have to be carried as hand baggage by team members after the air freight has left the country.

“As we’ve done a great deal of testing, we’re still getting mileage on components and we’re waiting for some of these to return to the factory,” Robson explains. “Also, there are some parts that we’ve decided in the last month to use on the cars and we’re still finishing these off. It can be counter-productive if you load the equipment too early, say before the final tests, as the parts loaded could quite quickly be superseded.”

All freight has to be delivered to the airport on pallets, and this year is the first time that the team’s freight has been fully palletised. “It’s certainly easier for FOM,” says Robson. “The igloos can be loaded directly onto the plane, fitting straight into the hold, whereas the old loose boxes had to be ‘jigsawed’ together, and this often led to them being mixed with those from other teams and perhaps being damaged or lost. Pallets and igloos are much more efficient as the boxes have to be made to a size that fits on a pallet. So, rather than making boxes to fit individual parts, you now have standardised boxes.

“Our total weight will be around 28 tons, plus the three cars, with three to



**ABOVE** David and Kimi wouldn’t get very far without these essential pieces of equipment, and they are treated with the according care

**RIGHT** Team McLaren Mercedes’ constant attention to detail is still evident, even in packing, with every part labelled and properly identified

**BELOW LEFT** The only way to avoid leaving any of the thousands of essential car parts behind is for the mechanics to adhere to the comprehensive packing lists



four tons having gone by sea, including half a ton of electrical cabling that we run through the roof of the garage.

“In all, both by air and sea, we take thousands of parts. You have to cater for every washer, clip, bolt and bracket. It’s easy to take more and more items, so we always look to rationalise the list. We also have to tell FOM months in advance what we’ll take, so we can’t just turn up with 10 extra boxes.”

While Robson is responsible for what equipment is taken, Cook makes sure that this equipment is packed, as well as both setting up and running the garage at a grand prix. It’s never an easy process. “We don’t go to the first race without testing all the equipment that has been laid up over the winter,” he says. “We went to Barcelona in the second week of February with the full

race team and did pitstop practice and everything we’d do at a grand prix, but we couldn’t pack up after that, as there was a shakedown at Silverstone on the Tuesday the week before Melbourne, and only after that could we pack.”

It’s not just making sure that all the equipment is present and correct, but also optimising the way it’s packed.

“At the end of the season, we sit down and think how we could make the process easier,” Cook explains. “A lot of the equipment that we carry is expensive and needs taking care of, so we want to make sure that it’s not damaged. By using the igloos you all but eliminate the danger of luggage handlers damaging equipment. Some say the igloos aren’t as attractive as the tailor-made packing boxes, but they’re considerably more robust and can be

## PACKING FOR MELBOURNE

TOP TO BOTTOM  
Precision packing is paramount in making sure that the igloos are efficiently filled to their 5.5-ton capacity. The work continues until the job is finally completed – on this occasion, well into the small hours



loaded and unloaded more efficiently.

“In the days before igloos, we used to wrap the equipment, then pack it in a box and then pack that in another box. Unpacking the equipment is now quicker as well, something that’s a great help in getting the garage set up earlier. Better still, we don’t have to find a way of hiding all those boxes – we used to take 160 – for the duration of the grand prix, something that had been becoming increasingly difficult as teams were

remain the fear that something has been left back at base, especially on a flyaway. There’s always someone who can fly out with the missing part, though. “Whether it’s a flyaway or not,” Cook continues, “it doesn’t really make much difference as, with the exception of Australia and Japan, you’re never more than a 10-hour flight away.”

The entire packing process is finished by midnight and the nine pallet-loads of equipment – all weighed, sealed and

**“THERE ARE TWO THINGS TO CONSIDER WITH PACKING: WEIGHT AND VOLUME”**

**STEPHEN GILES, TEAM McLAREN MERCEDES CHIEF MECHANIC**

taking more equipment every year, but the garages were still the same size.

“Another advantage of the igloos is that you can simply roll out whatever large piece of equipment is inside and immediately start using the igloo as a workshop as the drawers are already filled with spares, rather than having to empty them from plastic bins. They’re so much more efficient.”

With so many thousands of parts being taken to a race, there will always

with contents listed for customs – are loaded onto the trucks by 1.00am on Friday, in good time to meet their deadline. This left Cook time to freshen up before boarding a flight to Australia to arrive on the Sunday morning to unpack the equipment sent by sea.

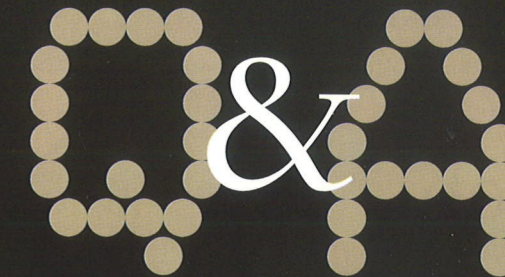
It was a gargantuan exercise performed against the clock, but with minimum fuss and maximum accuracy – just what you’d expect from everyone at Team McLaren Mercedes. ■

# Racing On-Line



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Cirque du Soleil founder **Guy Laliberte** is a close friend of Team McLaren Mercedes, visiting various grands prix and getting involved in parties and receptions that the team hosts with his innovative acrobatic troupe. *Racing Line* spoke to the Canadian about his love of performing, and his passion for Formula 1

WORDS ADAM COOPER PHOTOGRAPHY FRANCESCO BELLOMO

**What first drove you to want to become a performer?**

When I was in my early teens, I became fascinated by the culture of the world and I developed a desire to travel. So I decided to pick up my father's accordion, which I thought might be a good tool to make money while travelling. After that, I was going to festivals and playing in the streets, just to be able to travel in my own Canadian province. Eventually it developed and permitted me to spend a year in Europe. After meeting other performers, I learned new disciplines, like fire breathing and magic. Eventually, at the age of 19, I helped found a theatre troupe on stilts. In Quebec the winter was long and tough, but now I was able to go to places where it was a lot nicer than minus 20!

**How did the Cirque du Soleil initially get started?**

The 450th anniversary of the discovery of Canada fell in 1984, and there was a big celebration. Money was made available to put together some projects, and I was invited to develop something based on the success of the street performing festival that I was doing. The vision was to have one show constantly touring to entertain people and permit me to achieve my dream of working and travelling at the same time.

**How would you describe Cirque du Soleil to someone who is new to it?**

My first line is always, 'If you have the time to come and see the event, then it will speak for itself.' But if you can't, I'd say we're inspired by the traditional circus. That means the tent, the ring and people sitting in the round, but with a very modern, creative application, using a director, lighting designer, original costumes and music, and presenting it in a modern package.

**What kind of themes are behind the different shows?**

We have eight different shows, three permanent [in Las Vegas and Orlando] and five touring. They have different names because they are inspired by different things. For example, the director of *La Nouba* was at a stage in his life where he had a teenage son, so we said to ourselves we'll do a show for teenagers to make them understand we could speak their language.

**You now employ 2500 people. Is there a danger that you get too involved in the management side?**

My goal is to decrease my involvement in that aspect, and increase the one that is related to creativity. That's really where my strength and function has been over the years. Through the creative process I play a guide role: things are presented to me and I react and give advice. The best ideas will always take place, but each creation also has to take place in a business and geographical environment, and I do have a big responsibility in that.

**How did your interest in motor racing and Formula 1 start?**

It's in my blood! If there was something that involved speed, then my friends

and I were always there to try it. My interest in Formula 1 came when Gilles Villeneuve entered the sport, and we had the first grand prix in Montreal in 1978. I had met Gilles when I did some snowmobiling as a teenager.

**When did you become a regular visitor to grands prix?**

There was a little dry moment for me after Gilles died in 1982, and it was about the same time that I was starting Cirque du Soleil, so I was very involved in my own things for a few years. Around 1989, I started going to the Canadian race again, and by coming to the races I developed friendships with different people in Formula 1. For me it was an opportunity to get out of my world and fulfil a kid's dream of being close to racing cars.

**You have a special relationship with Team McLaren Mercedes**

I first got to know the team at the Australian Grand Prix in 1997, when David Coulthard won the race, and I became friends with Ron Dennis. We have a lot of respect for each other's achievements. He has a background that is similar to mine, in terms of building up a very successful business, and we relate very much to each other on that basis.

**You've been in the McLaren two-seater car, but have you ever driven a Formula 1 car yourself?**

I went in the two-seater two years ago at Silverstone, but I have some friends who've bought about 10 old Formula 1 cars. I've been invited on a few occasions to go and do a few laps in them over the past four or five years – just enough to get the taste of it! ■

# Behind the wheel

Without a steering wheel, even the world's best Formula 1 drivers would find it hard to display their talents. The modern wheel does much more than just steer the car, however

WORDS LUKE HAYTER PHOTOGRAPHY TED HUMBLE-SMITH

Ostensibly, the purpose of a steering wheel is simple enough – to transmit the driver's input to the steered wheels of the vehicle in question – when that vehicle is a Formula 1 car, however, simple is hardly an appropriate term.

The steering wheels currently used by Team McLaren Mercedes' drivers reflect the revolutionary changes that have occurred in Formula 1 steering wheel design – as well as technology in the sport as a whole – over the course of the past decade.

"The steering wheel of a modern Formula 1 car is one of the most intriguing parts because it is so visible," admits Steve Hallam, Head of Race Engineering at Team McLaren Mercedes. "Most visitors to the factory or to the pit garage at a race get an opportunity to hold the wheel and pull the gearshift levers – the obvious bits. The majority of them then ask a perfectly logical question: 'what do all the buttons actually do?'"

"Well, if I answered that fully, I'd be giving away too many team secrets! I can say, though, that the steering wheel is a very complex piece of kit, which allows our drivers to perform a

number of tasks aside from the wheel's intended purpose – steering the car."

Indeed, even as recently as 1992, the steering wheel on a Formula 1 car was a relatively plain, straightforward piece of equipment, round in shape, with a metal plate at the centre to attach it to the steering column, and generally no more than three buttons – one for selecting neutral, one for releasing liquid through a tube in the helmet for the driver to replenish his fluid levels and one for the radio.

The advent of complex electronic systems in Formula 1 throughout the 1990s changed all that, though, and a plethora of different functions began to be controlled by buttons and dials, placed on the steering wheel for ease of access by the drivers while racing.

The onset of semi-automatic gear systems in the early 1990s heralded the arrival of 'paddle-shift' gear levers, mounted behind the steering wheel, which negate the need for the driver to remove his hands from the wheel to select a gear. This eliminates the possibility of a driver missing a gear, therefore increasing the smoothness and improving the timing of gearshifts.

Engine mapping, traction control

and the advent of launch control programs that optimised the race start procedure all required various buttons and toggle switches to enable the driver to fine-tune his car's settings while on-track.

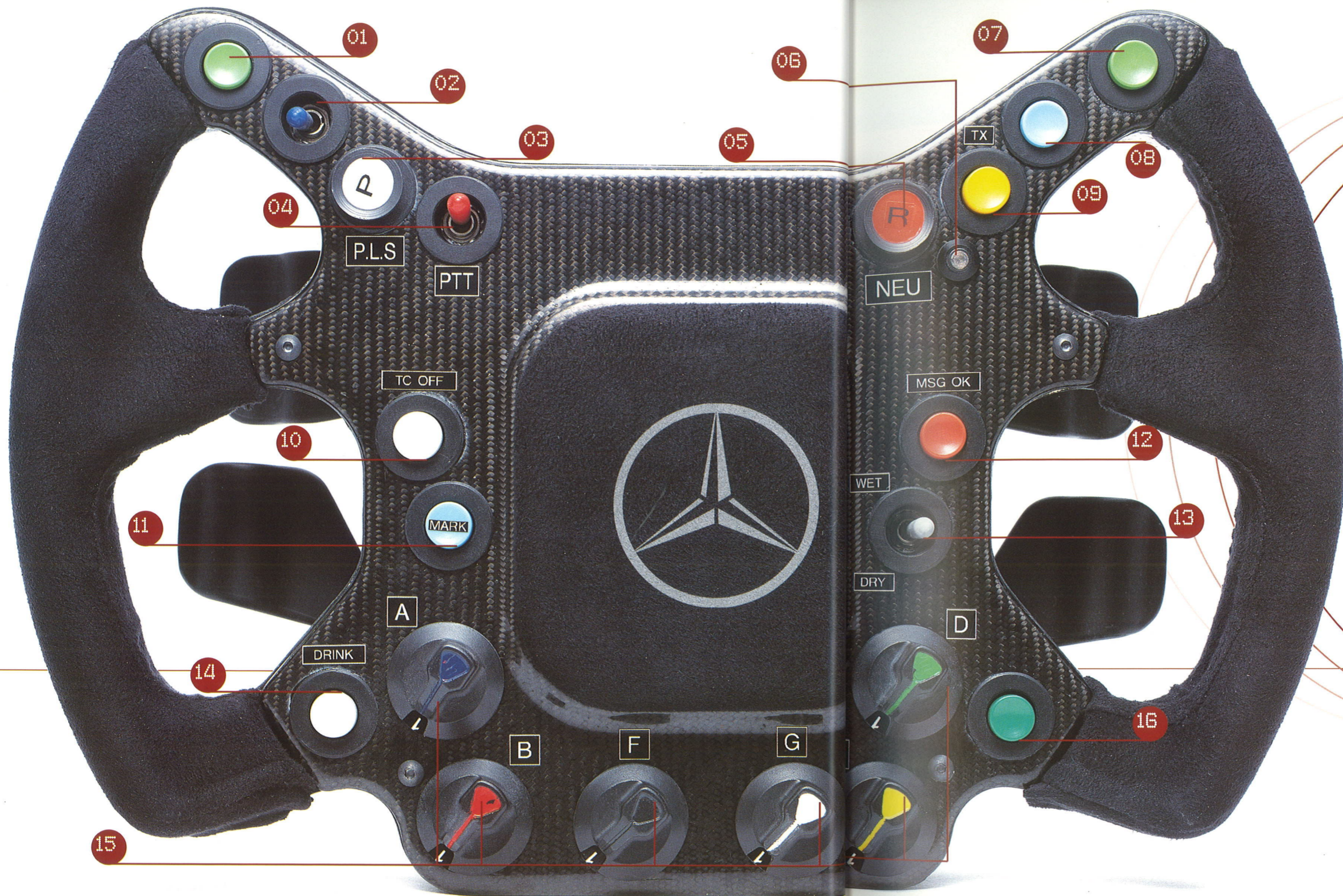
Modern Formula 1 steering wheels typically now include a clutch paddle, as this is only used when the car is leaving the garage, and eliminating the clutch pedal allows the car designers to further optimise the packaging of components in the footwell.

In 2003, then, the steering wheel is one of the most complex and high-tech parts of a Formula 1 car, with a typical wheel controlling at least 12 further functions in addition to actually steering the wheels. In spite of the confidentiality surrounding the functions controlled by the many buttons on the Team McLaren Mercedes steering wheel, *Racing Line* has put together a full guide to their secrets.

To find out what all those buttons really do, just turn the page.

THE STEERING WHEEL IS ONE OF THE MOST COMPLEX AND HIGH-TECH PARTS OF A MODERN FORMULA 1 CAR, WITH A TYPICAL WHEEL CONTROLLING AT LEAST 12 EXTRA FUNCTIONS





## HOW ARE THEY MADE?

The manufacture of any part on a Formula 1 car is a complex process, and the steering wheel is no exception. Many different lightweight materials are used in its manufacture, including carbon fibre, aluminium, titanium, steel, rubber and plastic, and a complete steering wheel can take approximately 100 hours to produce from start to finish.

With the average steering wheel controlling as many as 12 separate parameters on the car, there are a large number of components, buttons and switches that have to be fitted during the manufacturing process – some 120 separate items in all. Yet, despite the myriad of materials and parts that make up each completed wheel, the weight of the finished unit, as fitted to the car, is just 1.3 kilograms.

During the season, a minimum of five steering wheels are constructed for each of the team's two race drivers. Of these, three remain with the race team while two are held with the test team. In addition, third driver Alex Wurz has two wheels per season. However, during any specific Formula 1 season, more steering wheels will have to be manufactured because it is a Team McLaren Mercedes policy that, when one of its drivers finishes a grand prix on the podium, the wheel from his car is removed and its history documented. It will then go into storage as a valuable souvenir of the team's success, never to be used again.



## BUTTON GUIDE

**>01 Launch control** The driver presses then releases this button to make a race start using launch control – an electronic system in which the engine revs are trimmed to the optimum level for maximum traction when starting from a standstill, preventing the wheelspin that would result from applying excess throttle. This will be outlawed from the British Grand Prix onwards

**>02 Engine mapping** This switch is toggled to change engine maps – in other words, to go from one

specification that has a certain ignition or fuelling characteristic to another that is deemed more suitable

**>03 Pitlane speed limiter** The driver presses this button to ensure his car's speed is restricted electronically so that it stays below the FIA-enforced pitlane speed limit, thus avoiding a fine or race penalty

**>04 Radio** The driver toggles this to communicate with his engineers on the pitwall via the installed radio system

**>05 Neutral** The driver presses this button to select neutral to allow him to bring the car to a standstill without stalling the engine

**>06 Radio indicator** This blue light illuminates when the radio is being used

**>07 Launch control** This button performs the same function as button one, but is merely duplicated on the other side of the wheel for ease of use

**>08 Differential** This allows the driver to select a pre-programmed

differential adjustment that he can use at any time

**>09 Spare button** Configurable by the engineers to suit unforeseen requirements of either the driver or car

**>10 Traction control** This button enables the driver to turn off the traction control program that controls excess wheelspin, but traction control will also be banned from this summer's British Grand Prix

**>11 Data log** This button allows the

driver to make an electronic mark on his telemetry at the sign of any unusual behaviour of the car. The engineers can then pinpoint and diagnose the problem

**>12 Message accept button** The driver presses this button to acknowledge a message from his pitcrew

**>13 Tyre switch** This switch changes a range of car parameters from dry settings to wet settings, should a driver be forced to change to wet tyres during a race

**>14 Drinks** The driver presses this to deliver a drink to his helmet via a tube to keep his fluid levels up during the race

**>15 General functions** These rotary switches are used to fine-tune various electronically-adjustable settings on the car, such as differential, engine mapping or traction control, although these will be banned from the British Grand Prix onward

**>16 Default accept** Used to default certain systems on the car to their pre-programmed settings

ABOVE The design of each wheel is tailored specifically for each of the Team McLaren Mercedes' drivers. David Coulthard, for example, likes a firmer wheel rim than Kimi Räikkönen or Alex Wurz

# POLISHED PERFORMERS

Team McLaren Mercedes has much in common with its new Official Supplier – car care product specialist Sonax – and both companies are determined to use their Partnership in Formula 1 to look better than ever

WORDS MARK SKEWIS PHOTOGRAPHY LAT

There are certain times and places when you can get away with not looking your best, but Formula 1, where a team's every move is scrutinised by 366 million viewers, every two weeks, over nine months of the year, is not one of them. "Appearance and image in Formula 1 are paramount," McLaren paintshop manager George Langhorn admits. "Our race cars, trucks and our vehicles all have to look their very best." And that's why Team McLaren Mercedes has just entered a long-term Partnership with car care product specialist Sonax.

Of course, the term 'car care' takes on another dimension in an arena where a Formula 1 car is subjected to oil, water, rubber debris and stones, all thrown at it at 200mph. Looking good in these conditions represents the ultimate test.

With a motorsport involvement spanning 15 years, Sonax is well versed in meeting that challenge. What's more, it does so not with special concoctions mixed just for Formula 1, but with a range of products that any of us can use to clean our own cars on a Sunday.

Formula 1 offers Sonax an unrivalled marketing platform, according to board member Hans Sandner. It reaches audiences that compare only with the Olympic Games and soccer's World Cup. That publicity is not without its dangers, though, for the media spotlight cuts both ways. Succeed or

fail, the whole world knows about it.

"That awareness is great, but you also need to achieve, and to be seen in a positive fashion," says Sonax President Manfred Hoffmann Jr. At Team McLaren Mercedes, renowned both for its continued success and its immaculate attention to detail, Hoffmann Jr says Sonax has found its perfect partner.

As an Official Supplier, Sonax decals are carried on the rear wing endplates of the Formula 1 cars, but the Partnership operates at a far deeper level because there are unmistakable parallels between the way the two organisations work. "Like McLaren, Sonax believes strongly in attention to detail and delivering the best product solutions," says TAG McLaren Group Chairman and CEO Ron Dennis.

"We always push to give the very best products to our customers," agrees Hoffmann Jr, "and that is a touch of Team McLaren Mercedes – to always be first class and to make the best technical solutions together with first class partners. We don't just say that we need some kind of formula for our products; we need a first class formula."

Sonax's involvement in every major world market testifies to the constant achievement of that objective. Its brand is well known in over 70 countries, ranging from England to Ecuador. It is the German market leader with more than a 50 percent >>



LOOKING GOOD WITH SONAX

share, and is Europe's leading brand.

In fact, you could be forgiven for wondering why it needs to be seen in Formula 1 at all. "Take away the power from an aeroplane and it immediately loses height," counters Hoffmann Jr. "I don't want the same thing to happen to our brand awareness."

At Sonax, as at Team McLaren Mercedes, there is no room for complacency. The quest for perfection is constant. "In terms of research and development, it is our intention always to be at the leading edge," Hoffmann Jr says. "We're constantly developing better products." Even as he talks, proof of that ambition lands on his desk. A German car magazine has just voted Sonax's wheel cleaner the winner in the car care category. It was also applauded for its environmental and non-corrosive aspects.

Ultimately, though, the Partnership between Sonax and Team McLaren Mercedes is as much based on practical terms as on image enhancement, and both the race and test teams will carry an extensive range of car care products.

The Formula 1 car's bodywork and its leading aerodynamic edges are cleaned every time it returns to the pitlane. That regime is motivated not only by a care for appearances but also

by the drive for performance. You don't spend months developing something in a wind tunnel only to have a squadron of squashed insects and rubber negate that hard work. The car is completely degreased and wax polished at the end of each day, when any oil collected on the undertray is also removed.

The cars are merely the visible tip of an iceberg. Pit equipment, including the panelling displaying Partners' logos, is cleaned and waxed upon assembly at every race. Team trucks are similarly immaculate. "On the trucks we'll be using a wide range of Sonax products," notes George Langhorn. "That will run from shampoo and interior cleaner for the cabs to wax polishes, wheel cleaners and tar remover." Similar attention is lavished on the fleet of Mercedes-Benz cars back at Team McLaren Mercedes' headquarters in Woking, England. The paintshop itself also utilises Sonax compounds and finishing polishes, and the products will ultimately filter their way into many other departments.

Presentation matters at Team McLaren Mercedes, and Sonax will be an important new ally. "We want the best products and Sonax provides them," says Langhorn, who has over two decades of



Formula 1 experience to his credit. "Our levels of presentation are so high that Sonax had a hard act to follow, but the initial reaction to their products has been fantastic. For instance, the guys using shampoo on the trucks have found it better than anything they've ever used in the past."

Formula 1 hastens advances in car care just as it does in car technology. Any new formulas developed to meet Team McLaren Mercedes' needs will be passed back to motorists. For the most part the team will use existing products, albeit not in quite the same fashion as conventional car owners. The polish used on the Formula 1 car, for instance, will feature higher levels of abrasion than normal.

And it's that sort of technology and information share that makes Sonax and Team McLaren Mercedes such polished performers – and perfect Partners. ■

INSET AND MAIN Team McLaren Mercedes' use of products from Sonax is most visible on the Formula 1 cars themselves, but the Partnership extends to Sonax providing car care solutions for cleaning the team's race trucks, car fleet and pit equipment

# Podium Performance



SONAX – product development with the experience of a market leader in matters automotive care.

For more than fifty years SONAX has offered a wide range of best performance products for the vehicle care. It's no surprise therefore, that SONAX also holds pole position on the racing tracks of the international Formula 1 scene. The list of SONAX racing partners includes many glamorous teams –

Team McLaren Mercedes is the latest one. SONAX' place amongst the famous has been won for good reasons: The range of car care products offers the right solution for every task. Each SONAX product fulfils the highest requirements – for any job in automotive cleaning, care and maintenance.

Available in more than 60 countries all over the world.



www.sonax.com

BITS &amp; PIECES

&gt;NO.0011

## THE WHEEL RIM

WORDS BRUCE JONES PHOTOGRAPHY TED HUMBLE-SMITH



A Formula 1 wheel is a piece of art, its flanks a blend of curves matched with a look of solidity. Unlike many parts used on a racing car, it's relatively easy to understand the job done by a wheel, but the sort of wheel rims fitted to a Team McLaren Mercedes Formula 1 car are nothing like those on a typical road car.

Both are round, but there the similarities end. While weight on a road car wheel doesn't make much of a difference, every single gram that can be saved on a Formula 1 car's wheel is vital as strength and durability are balanced against lightness.

Each wheel is retained by a central wheel nut and receives its drive from the hub assembly via six drive pegs. There are 12 spokes, in six pairs, allowing hot air from the brakes to be ventilated through the wheel. Great gains have been made in this area over the days when cars ran with five solid spokes on the wheel rim.

The brake caliper sits within three or four millimetres of the inside of the rim, with the brake disc sited inside this. At the outside edge of the wheel rim, the surface has been shot-blasted to make it more abrasive at the point at which it meets the tyre bead so that they grip better.

"The first thing that needs to be understood about a Formula 1 wheel is that there are dimensional requirements," explains Head of Race Engineering Steve Hallam. "All wheels have to be 13 inches in diameter. A front wheel and tyre assembly has to lie between 305 and 355mm. A rear wheel and tyre is 365 to 380mm. The diameter of a dry tyre can't exceed 660mm, with a wet tyre allowed to be 10mm larger."

There's a further factor for the team to consider – the shape of Michelin's new tyres

for the season. Once this is known, the rim width can be finalised to bring the wheel and tyre within the rules. This is why a team's wheels seldom arrive more than a few days before they need to be packed for transit to the opening grand prix.

Team McLaren Mercedes' wheels are accurately machined from magnesium, a metal that's chosen for its low density, by the Formula 1 team's Official Supplier, Enkei.

Thoughts of using aluminium are dispelled because, although it would be stronger, it would be too heavy. Carbon was once considered as a possible material, but this was banned, and all Formula 1 wheels must be metal under FIA regulations.

Monitoring the life of a wheel is vital, and this is why each of them is crack tested after 200km. It's rare, though, that any wheel is used for more than 150km. Indeed, if a race is a two-stopper, they won't do any more than 100km before being removed from the car.

Providing a wheel passes the crack test, its life could be as much as 3000km, but this depends, according to its weight and the material out of which it's built.

Once again, radically different from the sort of life you would expect from a road car wheel rim, but this is just yet another reason why Formula 1 is such a fascinating and highly-specialised sport. ■

### **i** TECHNICAL SPEC

**DIMENSIONS** Front: 305-355mm; rear: 365-380mm

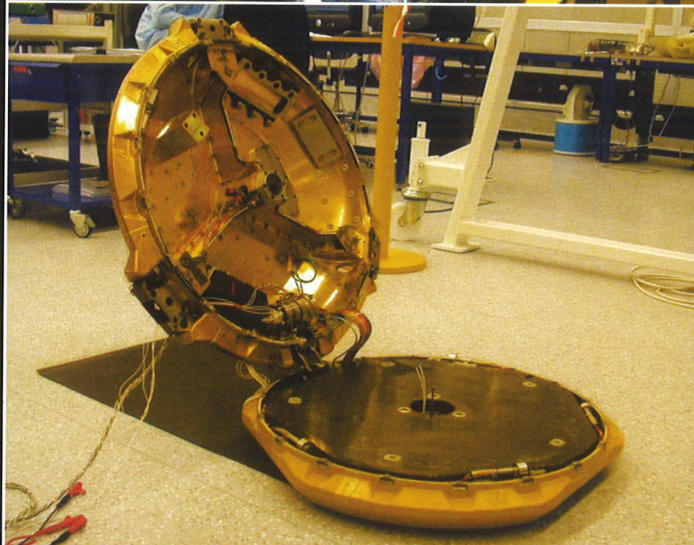
**MATERIAL** Magnesium

**NUMBER USED PER SEASON** Up to 200 wheel rims are taken to each of the 16 grands prix in the Formula 1 season

# Sun Seeker

While concentrating on the relatively down-to-earth business of designing and building a racing car that will challenge for the Formula 1 world championship, McLaren is also reaching for the stars with a critical engineering role in two pioneering voyages of space age scientific exploration

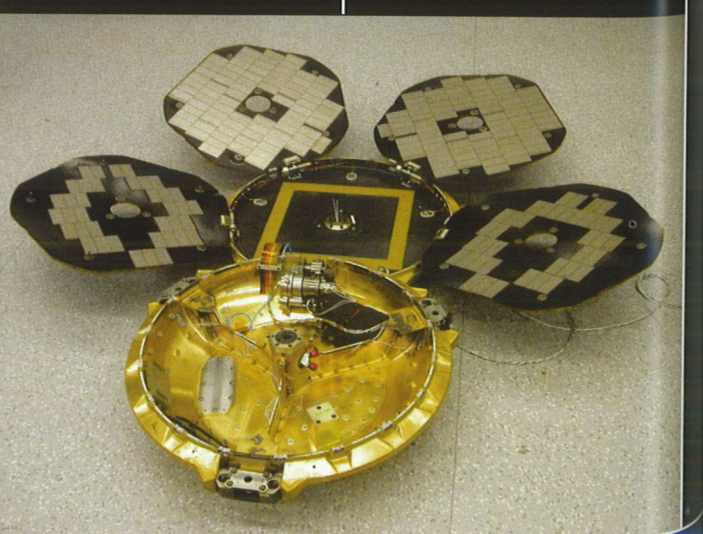
WORDS MIKE CABLE PHOTOGRAPHY McLAREN COMPOSITES; GETTY IMAGES



LEFT Part of the Beagle 2 probe that will land on Mars in December. Although just 65cm in diameter, it will need to survive a journey involving a violent rocket launch, a freezing cold trip through space and a high-speed impact on Mars' surface

ABOVE AND RIGHT The Solar-B satellite, developed by Japan's Institute of Space and Astronautical Science, uses know-how from McLaren Composites to provide a bench for precision instruments

RIGHT Beagle 2's lander folds out to reveal the solar panels that will power the probe while it collects rock and soil samples from the surface of Mars, before analysing them in an internal laboratory for signs of life on the Red Planet



It has often been said that technology in Formula 1 bears more similarities to that in the aerospace industry than in the automotive industry due to the sport's high-performance demands and innovative solutions they necessitate.

Using experience and knowledge gleaned from Formula 1, McLaren Composites' advanced know-how is currently being used at the cutting edge of space exploration in the construction of a solar probe that could provide vital information about the long-term future of Earth's climate. This follows McLaren Composites' involvement in an imminent mission to Mars to take samples from the Red Planet's surface to find potential signs of any life.

In both cases, the specialist materials technology required by the projects is right at the cutting edge of aerospace development. "A lot of what we're doing has never been

of Space and Astronautical Science, in conjunction with scientists from the United States and Great Britain.

The key elements of this mission are the highly-sensitive instruments on board the satellite that measure and record data relating to the luminosity of the Sun, the magnetic field around it and the release of energy into the atmosphere beyond – information that scientists hope will enable them to understand climate changes on Earth.

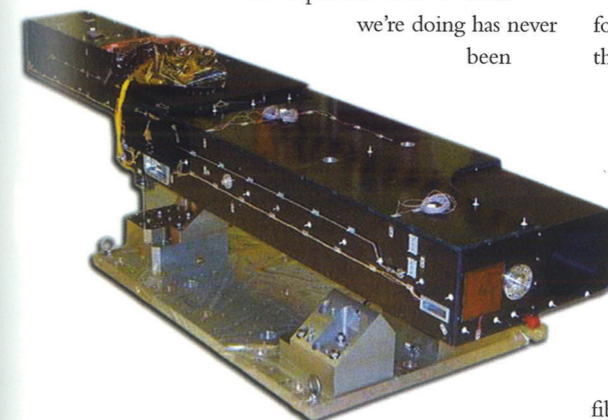
Included among these instruments are three cameras – an extreme ultraviolet telescope, an X-ray telescope and an optical telescope – and it was to help provide an ultra-stable, dynamically precise bench inside the satellite as a base for the optical telescope that McLaren Composites was specifically called in by scientists at Birmingham University.

"They had the mechanical designs for the project, but they didn't have the experience for building carbon

structure 2.8 metres long and half a metre wide, with a complication that the 6kg camera had to be mounted on one unsupported end. It is very unusual to make a one-piece composite structure to these demanding flatness requirements – so much so that we had to design and build a special ultra-flat table on which to lay it up."

The extra stiffness requirement was eventually achieved with a variation of the same sort of unidirectional fibres – supplied to Team McLaren Mercedes by the Advanced Composites Group – that are used in the front crash structure of the Formula 1 cars, providing extra strength along one axis.

Another essential requirement was the need for any materials used to have low 'out-gassing' properties, out-gassing being the chemical contamination typically produced by certain materials when subjected to the sort of extreme atmospheric conditions encountered in space. This,



**"THEY HAD THE MECHANICAL DESIGNS FOR THE PROJECT, BUT NOT THE EXPERIENCE FOR BUILDING CARBON FIBRE PARTS OF THIS TYPE"**

**STEVE COX, McLAREN COMPOSITES' PROJECT MANAGER**

done before," McLaren Composites Project Manager Steve Cox admits.

The first of the two projects, the Beagle 2 Mars Lander, is scheduled to be launched in June this year. The challenge here for Cox and his team, headed by project leader Steve Langworthy, has been to develop composite materials for the construction of the surface lander that would be light enough to meet the strict overall weight restrictions imposed by the customer, Astrium, and yet strong enough to cope with the stress of a rocket launch, the impact of landing at a speed of 45mph and extremes of temperature as low as minus 70C.

McLaren Composites' latest project is the Solar-B mission – a satellite that is being developed by Japan's Institute

of Space and Astronautical Science, in conjunction with scientists from the United States and Great Britain. The key elements of this mission are the highly-sensitive instruments on board the satellite that measure and record data relating to the luminosity of the Sun, the magnetic field around it and the release of energy into the atmosphere beyond – information that scientists hope will enable them to understand climate changes on Earth. Included among these instruments are three cameras – an extreme ultraviolet telescope, an X-ray telescope and an optical telescope – and it was to help provide an ultra-stable, dynamically precise bench inside the satellite as a base for the optical telescope that McLaren Composites was specifically called in by scientists at Birmingham University. "They had the mechanical designs for the project, but they didn't have the experience for building carbon

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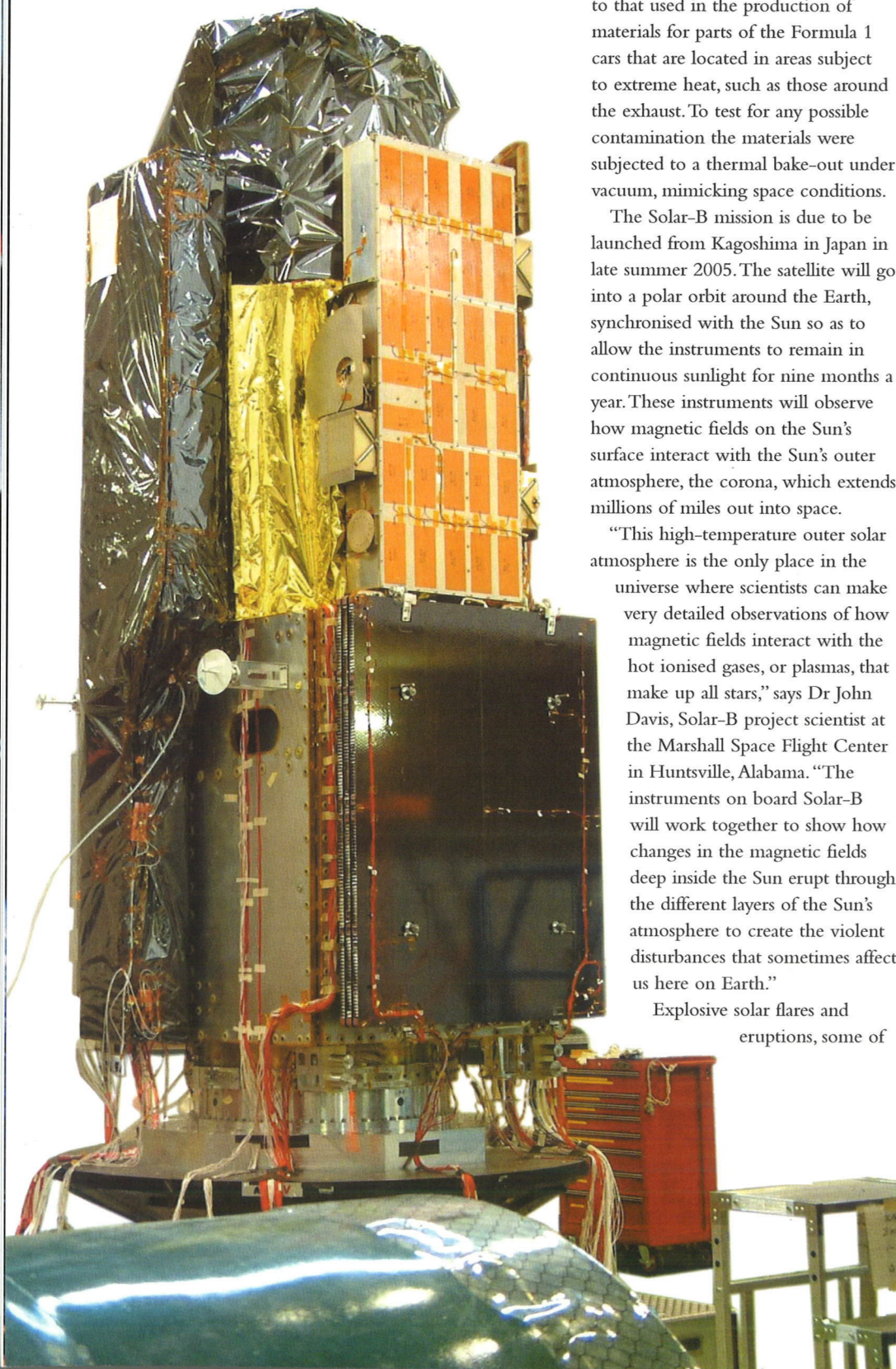
again, could affect the sensitive mirrors of the telescope. In this respect, McLaren Composites had the advantage of having already addressed and solved this particular problem while working on the Beagle 2 Mars Lander project. "Basically, what happens when you put a material up into the vacuum of space is that contaminants are pulled out of the materials that would be detrimental to the performance of the equipment," explains Langworthy. It is thought possible that such pollution may have accounted for controversial on-board laboratory results recorded 25 years ago during NASA's Viking Mars landings that seemed to indicate the existence of life on the planet. Chemistry experts later suggested that the results could have been the result of complex oxidation

again, could affect the sensitive mirrors of the telescope.

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BELOW The instrument bench will be mounted on the left-hand side of the Solar-B satellite. Its precision manufacture required the building of an ultra-flat table by McLaren Composites on which to lay-up the carbon fibre layers



reactions within the spacecraft.

To prevent any such out-gassing on Beagle 2 and Solar-B the composite materials employed have been produced using a special cynate-ester resin, modified with rubber to give added toughness and resistance to micro-cracking – a similar process to that used in the production of materials for parts of the Formula 1 cars that are located in areas subject to extreme heat, such as those around the exhaust. To test for any possible contamination the materials were subjected to a thermal bake-out under vacuum, mimicking space conditions.

The Solar-B mission is due to be launched from Kagoshima in Japan in late summer 2005. The satellite will go into a polar orbit around the Earth, synchronised with the Sun so as to allow the instruments to remain in continuous sunlight for nine months a year. These instruments will observe how magnetic fields on the Sun's surface interact with the Sun's outer atmosphere, the corona, which extends millions of miles out into space.

"This high-temperature outer solar atmosphere is the only place in the universe where scientists can make very detailed observations of how magnetic fields interact with the hot ionised gases, or plasmas, that make up all stars," says Dr John Davis, Solar-B project scientist at the Marshall Space Flight Center in Huntsville, Alabama. "The instruments on board Solar-B will work together to show how changes in the magnetic fields deep inside the Sun erupt through the different layers of the Sun's atmosphere to create the violent disturbances that sometimes affect us here on Earth."

Explosive solar flares and eruptions, some of

them hurling clouds of matter into the atmosphere, have regularly interfered with satellite communications and electric power transmission grids on Earth in the past.

More interestingly for the layman, perhaps, records of sunspot observations from 400 years ago reveal that a sharp decline in the number of sunspots during this period coincided with a series of very harsh winters in Europe known as 'The Little Ice Age'.

It is crucial for our survival on Earth to understand the Sun's effect on our environment, and Solar-B will make possible the first comprehensive set of observations aimed at providing better answers to the question of just how far small magnetic features in the solar photosphere, sunspot cycles and related variations in the luminosity of the Sun impact on our climate.

Involvement in the prestigious Solar-B and Beagle 2 projects has succeeded in establishing McLaren Composites with a global reputation for state-of-the-art technological innovation that now goes far beyond the confines of Formula 1. "It's our aim to develop and manufacture complex structures utilising advanced materials for demanding applications," says McLaren Composites Managing Director Mike Phillips. "Our main focus is undoubtedly the automotive business, but we will always search out opportunities that allow us to further develop our core capabilities. Solar-B and Beagle 2 have done just that and, as a result, there are more projects of this type in the pipeline."

In the meantime, the McLaren Composites team will be turning its attention primarily to the building of the Mercedes-Benz SLR McLaren sports car. The suggestion that this might seem rather mundane compared to the soaring excitement of space exploration is greeted with dismissive amusement all round, though.

"Nobody could possibly say that the SLR is in any way less demanding," insists Steve Cox. "Quite the opposite, I can assure you. The SLR is a massive challenge for us because, like the spacecraft, it is using technology that has never been used before." ■

Many thanks to Astrium, Rutherford Appleton Laboratory UK and ISAS (Japan) for the pictures of Solar-B and Beagle 2.



## MISSION TO MARS: THE LAUNCH DATE NEARS

Is there – or was there ever – life on Mars? The final answer to this intriguing question should soon be established beyond any reasonable doubt – thanks at least in part to McLaren technology.

Named after the ship in which Charles Darwin made his epic trip to the Galapagos Islands to carry out the research that resulted in his theory of evolution, the Beagle 2 Mars landing craft represents by far the most sophisticated attempt yet made to settle the age-old dispute.

Samples of rock and soil will be collected using a special robotic arm, incorporated into the lander, that can dig two metres below Mars' surface. These will then be analysed in a miniature on-board laboratory.

The lander is just 65cm in diameter and one of the problems facing the scientific team was how to protect the densely packed instruments inside from the violent vibration and 200g stress of take-off, the intense cold of the five-month, 56 million-mile journey and the impact of landing at 45mph, its initial approach at 13,000mph having been slowed by the most sophisticated parachute system ever designed.

This was where McLaren Composites came in. The first requirement was for an impact-resistant body shell. Team McLaren Mercedes Official Supplier the Advanced Composites Group has been working with McLaren Composites to

develop materials that are tough enough to withstand the fearsomely low temperatures on the surface of Mars. "You have to assume that you will land on the sharpest rock on Mars," says McLaren Composites Project Manager Steve Cox. "We also had to take into account the fact that the craft will bounce at least a dozen times, rebounding by as much as 300 metres after the first contact."

With this in mind, Rohacell high-density foam, of the type used in parts of the Formula 1 car, was sandwiched between a Kevlar and polypropylene mix, blended at high temperature to form a flexible, but impact-resistant, material.

"Given the combination of materials we were working with and the shape of the application, this was a very difficult project," says McLaren Composites' Steve Langworthy. "These materials had never been put together for this type of application. It was a groundbreaking exercise and we were having to test each stage as we went along."

Internally, carbon fibre face skins, either side of an aluminium and glass fibre honeycomb core, provided both structural and extra thermal protection for the sensitive electrical equipment.

"The landing site was changed," adds Langworthy, "for one where the temperatures were going to be even lower, requiring extra battery power to keep everything warm and running, but as there was not room to put in a

bigger battery we instead had to find a way of conserving energy by providing better insulation, which is what the glass fibre does." Finally, the cynate-ester resin system was used to prevent the out-gassing that can occur in space when composite materials come under vacuum pressure and moisture is extracted.

To be launched from Russia in June on the back of the Mars Explorer rocket, Beagle 2 – with an identification signal that includes a song composed by pop group Blur – is expected to land on Mars on Boxing Day and should start sending back the first data shortly afterwards.

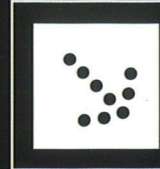
The results of the mission are being awaited with keen anticipation by scientists. "The Beagle 2 Mars landing is a very, very important project," astronomer Sir Patrick Moore has commented. "It's extremely exciting. I'm 50/50 on whether life will be there, but I really hope it is."

Beagle 2 project leader Professor Colin Pillinger of the Open University admits that he would love to be able to announce that there are indeed signs of life. "I'd be like Copernicus when he discovered that Earth rotated around the Sun rather than vice versa," he admits.

And, whatever the result of its quest, Beagle 2 will not be coming back to Earth, so, whether there is life on Mars or not, there will be a corner of the Red Planet that will forever remain McLaren!

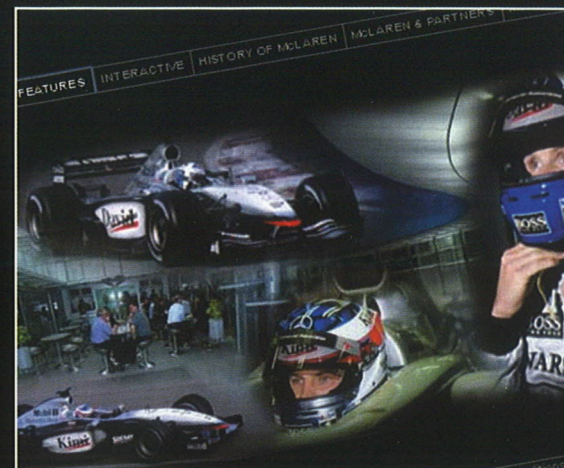
# The new-look mclaren.com

Team McLaren Mercedes has revamped its official website, [www.mclaren.com](http://www.mclaren.com), adding exciting new features aimed at improving the online McLaren experience. *Racing Line* logged on to check them out and guide you through the changes



## FEATURES

The features section offers regularly updated, behind the scenes access to Team McLaren Mercedes, allowing you to really get inside the team. You could read about the latest guests to visit the Team Communications Centre or check out on the Partner events that David, Kimi and Alex get involved with during the course of the season, making sure that nothing goes on at the team without you knowing!



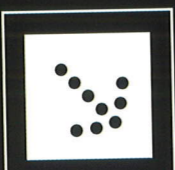
## 2003 SEASON AREA

The 2003 season area includes more information on the current Formula 1 campaign than ever before. The race reports include up-to-the-minute facts and figures from each grand prix, with bulletins from free practice, qualifying and the race, including quotes from team management and drivers. You can also find out test times from the last week, check key track statistics, read the drivers' circuit guides, and learn about the drivers, management and technical personnel with our profiles.



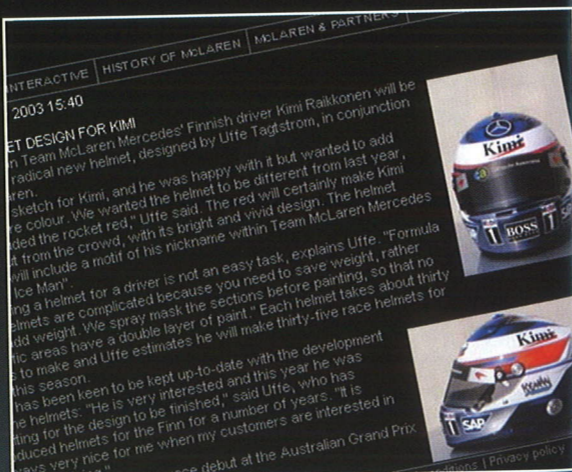
## MCLAREN HISTORY

McLaren is a team steeped in history, with a heritage that now includes 11 Formula 1 drivers' championships, eight constructors' championships and 135 race wins prior to the start of the 2003 season. The history section gives you a complete Formula 1 guided tour, detailing each season from 1967 to the present day. It also includes information about McLaren's many victories in IndyCar oval racing, CanAm sportscars and the Le Mans 24 Hours.



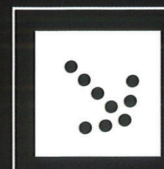
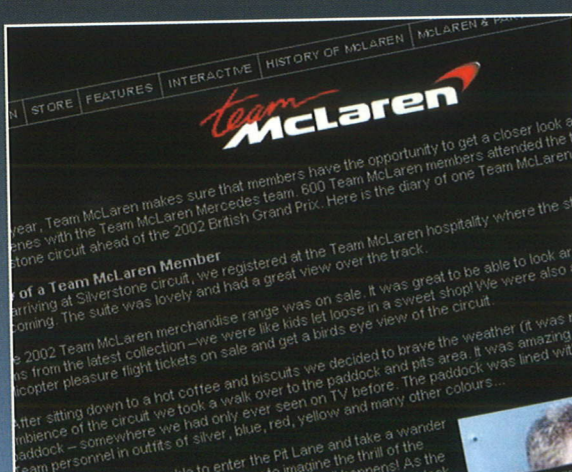
## NEWS

The new-look [mclaren.com](http://mclaren.com) website now incorporates a 'latest news' section, which features exclusive information from inside Team McLaren Mercedes, including details from the team's testing sessions, along with more general Formula 1-related news, which is updated on a daily basis. The news section is the ultimate one-stop shop for all breaking stories from the world of Formula 1.



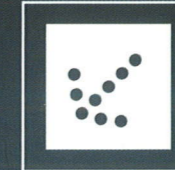
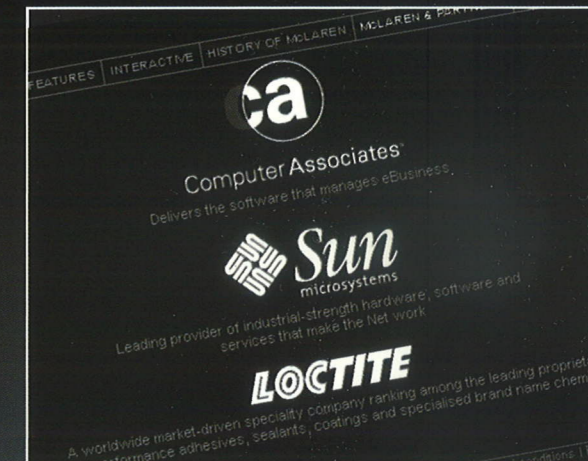
## TEAM MCLAREN MEMBERS' AREA

New for 2003 in the Team McLaren members' area is the race reports section, where you can email us with your views on the weekend. You could write a report, tell us your favourite overtaking manoeuvre, or even comment on how the weather affected the race! The Team McLaren members' forum gives you the chance to speak to other fans from around the globe. You can also buy products at a special members' price from the official 2003 Team McLaren Mercedes merchandise range.



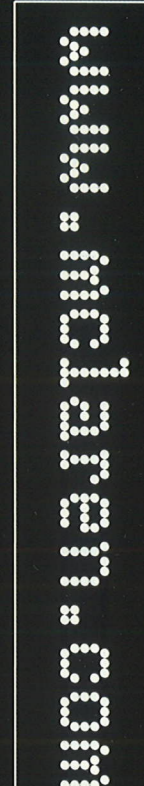
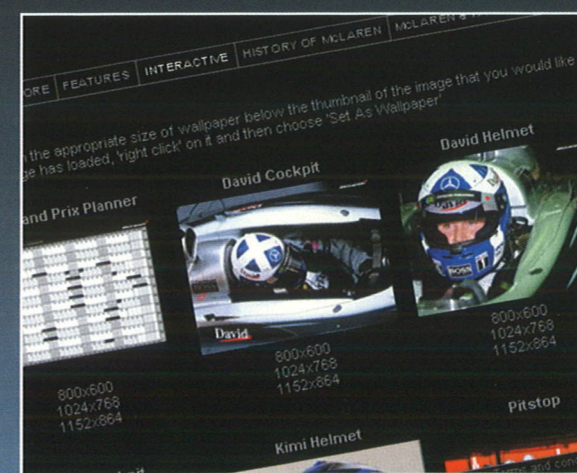
## MCLAREN & PARTNERS AREA

Team McLaren Mercedes has an extensive portfolio of Partners, and the McLaren & Partners section of the website catalogues each individual company, explains their business and comes with a link to their own official websites. Also incorporated in this section is information about each of the seven companies which make up the TAG McLaren Group and their associated website addresses so you can learn more.



## INTERACTIVE

Here you can download desktop wallpapers featuring your favourite Team McLaren Mercedes driver. This section also allows you to take part in interactive quizzes, which are posted ahead of each grand prix to test your knowledge of Formula 1. In addition, why not register your vote in one of our regular opinion polls? All in all, what better way to celebrate your love of Team McLaren Mercedes and Formula 1 in general than with [mclaren.com](http://mclaren.com)?



the facts speak for themselves

# AV192R

av processor



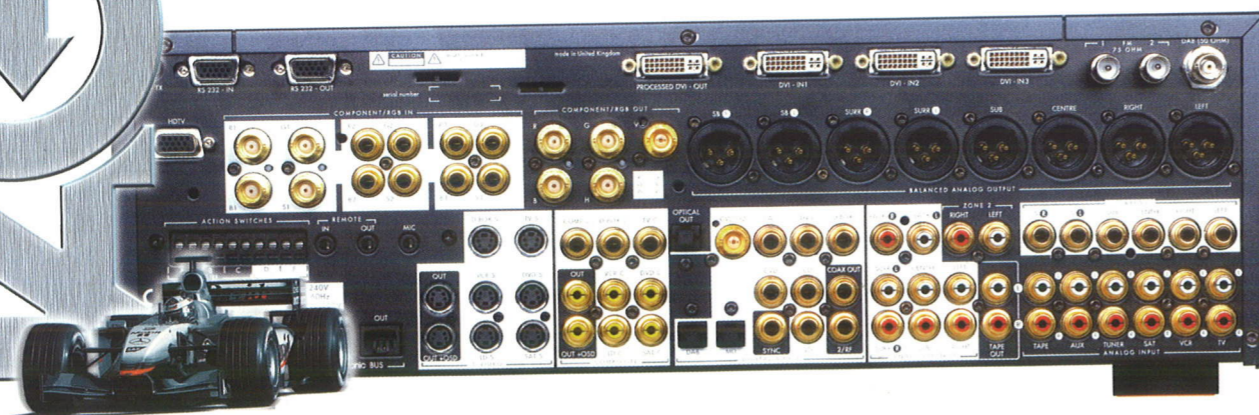
### key features

- ✓ THX Ultra2 '7.1'
- ✓ THX Music mode & Boundary Gain Compensation
- ✓ more than 20 modes, incl. Direct, HDCD, Pro Logic II, Dolby Digital, THX Surround EX, Dolby Digital, +Matrix, DTS, DTS-ES 6.1 Matrix & Discrete, DTS Neo:6, DTS 96/24, Party Mode, TMS7 & Dolby Headphone
- ✓ 192kHz/24bit digital to analog converters
- ✓ 2 x Analog Devices SHARC 21161N DSPs offering 1200MFLOPs = 6 x AV32R!
- ✓ 16-bit Siemens C161R1 microcontroller for comprehensive on-screen user interface
- ✓ enhanced bass management
- ✓ user configurable bass redirection rules
- ✓ TAGtronic Synchronisation Link
- ✓ alternative listening position
- ✓ sound/picture delay configurable
- ✓ real time clock and event manager
- ✓ multiple amplifier control via TAGtronic Bus
- ✓ and much more...

### options - for addition at any time

- ✓ AC3-RF Laserdisc interface
- ✓ 7.1 XLR balanced audio outputs
- ✓ DAB digital radio
- ✓ 4 to 1 RGBS/Component/HDTV switcher
- ✓ RDS FM radio with 2 antenna inputs
- ✓ Progressive Scan for PAL & NTSC
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UNsung HEROES >

## PETER STAYNER PARTNER AMBASSADOR

WORDS LUKE HAYTER PHOTOGRAPHY STEVE ORINO



### How did you join McLaren?

My first role in motor racing was with MCD Circuits, then owners of Brands Hatch, Mallory Park, Oulton Park and Snetterton in Britain. I started at the company in 1977 as Assistant Manager of Snetterton and left as Executive Director of Brands Hatch in 1984, when I joined the Royal Automobile Club Motor Sport Association with responsibility for marketing its events.

I joined McLaren in 1989 just as we were winning the second of our four consecutive world championships. As Marketing Co-ordinator I looked after the Partners and their guests at grands prix and at the factory. The marketing function of the team has grown enormously since then, and I feel that McLaren has set new standards of marketing within Formula 1.

### What does your role entail?

My job is to be a diplomat – to look after our senior Partners and to build a bond between them and the team. My role is to represent the McLaren brand and its values to the Partners and their guests. This means that at a grand prix I could be hosting a lunch in the Communications Centre with a board member from one of our Partners and their select group of guests, or perhaps attending a similar-level evening function at which I may also be asked to say a few words on the team's behalf relating to our performance

during that day. The role also extends to our headquarters where, again, I'm heavily involved with the presentation of our business to a senior level business audience.

### How do you see your role at McLaren developing?

The TAG McLaren Group is a very dynamic group of companies which, based on past experience, may spawn other companies in the future. TAG McLaren Marketing Services is growing strongly and could well expand into offering services to other members of the Group. I think McLaren Cars, in particular, has a very exciting future beyond the current project of building the impressive Mercedes-Benz SLR McLaren road car. The sporting and commercial success of the Formula 1 team is key to the development of the TAG McLaren Group and that will remain my current focus.

### Which elements of your job do you particularly enjoy?

Promoting business-to-business in a race environment is something I find stimulating. Having privileged access to some leading industrial and business figures provides a fascinating insight. There are lots of highs and lows in Formula 1 racing and we've had our share of both at McLaren. It's the more trying seasons that really test the marketing operation, so being involved

with the business of keeping our Partners on board is particularly rewarding. Board members are continually made aware that McLaren is all about being the best, and this energy really drives the whole operation forward. I will particularly enjoy moving into our new headquarters – the McLaren Technology Centre – a stunning building and great business tool that will move the company into the 21st century in great style.

### Talk us through some of the highlights of your time at McLaren.

The Mercedes-Benz SLR McLaren and our equity partnership with DaimlerChrysler were certainly commercial highlights. Also memorable was the 1992 launch of the McLaren F1 road car and its debut victory at Le Mans in 1995. Working with Ayrton Senna in the early 1990s was very special. I saw Mika Häkkinen's McLaren debut in 1993, so it was poignant to see him win his first world championship in 1998. David Coulthard's first win for our Title Partner in Melbourne in 1997 was also memorable, and his victory at Monaco in 2002 was a great boost for the team and our Partners. Kimi's podium performances last year also bode well for the future. ■

# McLAREN F1

Although the record-breaking McLaren F1 road car was influenced heavily by race car design, it was never intended to take to the track in competition. A wave of demand from enthusiasts and sportscar racers changed McLaren's mind, however, and the car went on to dominate sportscar racing in the mid-1990s

WORDS ADAM COOPER PHOTOGRAPHY LAT PHOTOGRAPHIC; GETTY IMAGES



For three glorious years from 1995 to 1997 the McLaren name was at the forefront of international sportscar racing. Not bad for a machine that was based on a genuine road-going car and was thus faithful to both the letter and the true spirit of GT racing's rules.

Of course, the McLaren F1 wasn't just any road car. It was a superbly engineered vehicle, designed and built without compromise to be the ultimate road car. Because the project was headed by Gordon Murray, a Formula 1 title winner with Brabham and McLaren, there was bound to be some racing influence, but it was still a

practical road car, and racing it was not a simple question of painting numbers on the doors.

The idea of racing the McLaren F1 only came up after customers insisted they wanted to race, and McLaren wanted the job done properly.

"Our racing success was a bonus," says Murray today. "To say it was a business plan would be unfair - it just happened because we had pressure from customers. It was never planned at all."

McLaren Cars set about developing a bespoke racing version of the McLaren F1, and the first GTR duly emerged in a low-key launch at Woking in early 1995. For the most part the cars would

be campaigned by the wealthy individuals who bought them - the 'gentlemen drivers' - paired with a professional racing driver.

The man who did most to persuade McLaren to create a racing specification was Ray Bellm. He duly set up a team, GTC, in company with fellow owner Lindsay Owen-Jones and team manager Michael Cane. Sponsorship for the two cars came from oil manufacturer Gulf - a major backer of McLaren in the 1960s and 1970s, which provided a nice link with the old CanAm days. Coincidentally, the Gulf name also carried great kudos from its days sponsoring the Ford GT40s at Le Mans.

MAIN The McLaren F1 dominated the top level of international sportscar racing between 1995 and 1997, despite the arrival of increased competition from rival marques



# >RETRO McLAREN F1



The other major team was run by sportscar veteran David Price. He fielded a car for German Thomas Bscher and hired Dane John Nielsen as his co-driver. The second Price-run car was owned by Moody Fayed, a member of the family that owns Harrods, and was painted in the colours of the London shop. Since Fayed had no

intention of racing, Andy Wallace was picked to drive, a variety of co-drivers joining him during the year. Two other cars went to French teams.

The McLarens competed in the then thriving BPR GT series, and, from the start, set the pace. Bellm and Maurizio Sandro Sala won five times in the Gulf car, while Wallace and

LEFT As well as being quick on-track, the McLaren F1 was easy to maintain, which helped guarantee its success in endurance racing – particularly with privateer teams

BELOW Numerous endurance racing and Formula 1 stars raced the McLaren F1, including (from right) Derek Bell, Andy Wallace and JJ Lehto

RIGHT The kudos and heritage of the record-breaking McLaren F1 road car helped attract major sponsors, such as Gulf and Harrods, to teams

BELOW RIGHT The road-going heritage of the McLaren F1 (top) was always clear, but increased competition required the design of a long-tail version of the McLaren F1 race car (bottom) for 1997

## >THE DRIVERS ENDURANCE EXPERTS

Over its three years of frontline use, several drivers became synonymous with the McLaren F1 – none more so than JJ Lehto. The Finn made a big contribution to the 1995 Le Mans victory, but really came to prominence in 1997 when he did a full season with the works BMW Schnitzer team.

He was ably backed up by British touring car veteran Steve Soper, and together the pair put in a string of spirited performances in the face of stiff opposition from the works Mercedes-Benz CLKs.

The man who won more races than anyone else in the McLaren F1 GTR, however, was Ray Bellm – a ‘gentleman racer’ in the purest sense. Bellm, a friend of Ron Dennis, was a businessman who came to racing late, initially in historic cars.

Bellm switched to more modern machinery in the mid-1980s, winning the C2 class of the World Sportscar Championship with Gordon Spice. When the category died, he moved to touring cars, but his heart always lay in sportscars, and he returned at the first chance. With team-mates Maurizio Sandro Sala and James Weaver he scored 10 wins in the GT championship between 1995 and 1996.

Germany's Thomas Bscher was another successful owner/driver, and won the 1995 BPR title with the help of former Le Mans winner John Nielsen, but he was rarely as quick as arch-rival Bellm. Apart from



Lehto and Soper, the most successful ‘all-pro’ pairing seen in a McLaren F1 GTR was that of Andy Wallace and Olivier Grouillard, who scored four wins together in 1995 and 1996.

Many famous names made occasional appearances in McLarens, and perhaps the biggest was triple Formula 1 world champion Nelson Piquet. At Le Mans in 1996, he shared a car with former Indy 500 winner Danny Sullivan and ex-Toleman Formula 1 man Johnny Cecotto in what was probably the most glamorous line-up seen in a McLaren F1 GTR.

The following year, Piquet returned to Le Mans, this time with Soper and Lehto. Other ex-Formula 1 drivers to race McLarens include Jacques Laffite, Emanuele Pirro, Pierre-Henri Raphanel, Derek Bell and David Brabham.

Olivier Grouillard won the last three races of the year in the Harrods entry. The title, though, went to Bscher and Nielsen, who won only twice but were very consistent over the season.

They all missed out on the big race of the year, though – Le Mans. An extra car was run for a Japanese sponsor, and JJ Lehto, Yannick Dalmas and Masanori Sekiya scored an incredible debut win for the car in the world-famous event – one of the most demanding for any racing car (see panel).

Bellm had a new team-mate in 1996, James Weaver, and the pair scored five victories to take the GT title. Bscher won a couple of times, while Wallace and Grouillard took a single win. This time, though, McLaren's Le Mans efforts were bolstered by the works Bigazzi BMW team, whose drivers included ex-Formula 1 stars Nelson Piquet and Jacques Laffite. That year's race was much tougher than in 1995, and it proved impossible to beat the open prototypes and new GT1s fielded by Porsche. Nevertheless, five McLarens finished, with four in the top 10 – in an astonishing show of their reliability.

In 1997, the GT series gained full FIA status and, with the works AMG Mercedes-Benz team joining Porsche and McLaren, it was set to be a thrilling year. The opposition were armed with purpose-built GT1 racing cars, and it was extremely hard for the McLaren F1 – with its genuine road-going origins – to compete. A revised long-tail version with more downforce gave the model a new lease of life, however.

The challenge was spearheaded by the works Schnitzer team, whose main pairing of JJ Lehto and Steve Soper won at Hockenheim, Helsinki, Spa and Mugello. They kept the title battle alive all the way to the end, just losing out to Klaus Ludwig of Mercedes-Benz. Their team-mates, Roberto Ravaglia and Peter Kox, also won at Silverstone, but it was a tough year for the other McLaren teams, Bscher having joined GTC to make it a three-car effort.

As far as McLaren was concerned, the F1 GTR programme concluded at the end of the 1997 season. Some owners carried on into 1998, but, by then, the opposition's GT cars had



developed even further from what could genuinely constitute a road car.

There was an unexpected bonus at Le Mans in 1998 when owner Steve O'Rourke, Tim Sugden and Bill Auberlen took a superb fourth overall with their 1997 car. In the process, they set a record for the shortest time spent in the pits in the history of the race, another testament to the design and build quality of the GTR.

Many of the GTR race cars are now in museums or private collections, and, over time, they are sure to increase in value, like the classic Le Mans cars of past decades. Some owners, however, have found a new use for them, as Gordon Murray explains.

“Some GTR race cars have been converted by McLaren to be road legal. It's not the same as the F1 road car, you won't get all the air conditioning and so on, but you create the most astonishing driving experience. In fact, if I had the money, I would invest in a short-tail GTR racer. There were 28 race cars in total, and only 20 or so short-tails, of which maybe five have been converted.”

And there are not many racing cars that you could say that about. ■

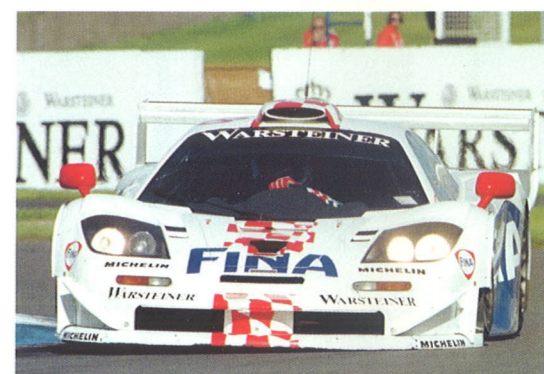
## >THE CAR McLAREN F1 GTR

Turning the McLaren F1 road car into the GTR racer was not the work of a moment. At the official launch in Woking in January 1995, Gordon Murray explained a few of the problems that the team had encountered.

“When we set out to design the road car, we never considered doing a racing car,” he noted, “so there are things we wouldn't have done the way we did. When we started, there was nowhere you could race it anyway, short of hillclimbs! On the other hand, once we got around to the idea of doing a race car we got quite excited about it again. We always thought it would make a good racing car, being carbon, with a seat in the middle and this engine.”

Had the team known from the start that a racing version would eventually be needed, McLaren Cars would have made some changes to the original design. “We'd have made the fuel system the right capacity for a start,” says Gordon. “We were 10 litres short of the GT championship maximum. We would probably have made panels attach differently, so we didn't have to redo them. There was a substantial amount of work to turn the McLaren F1 into a racing car.”

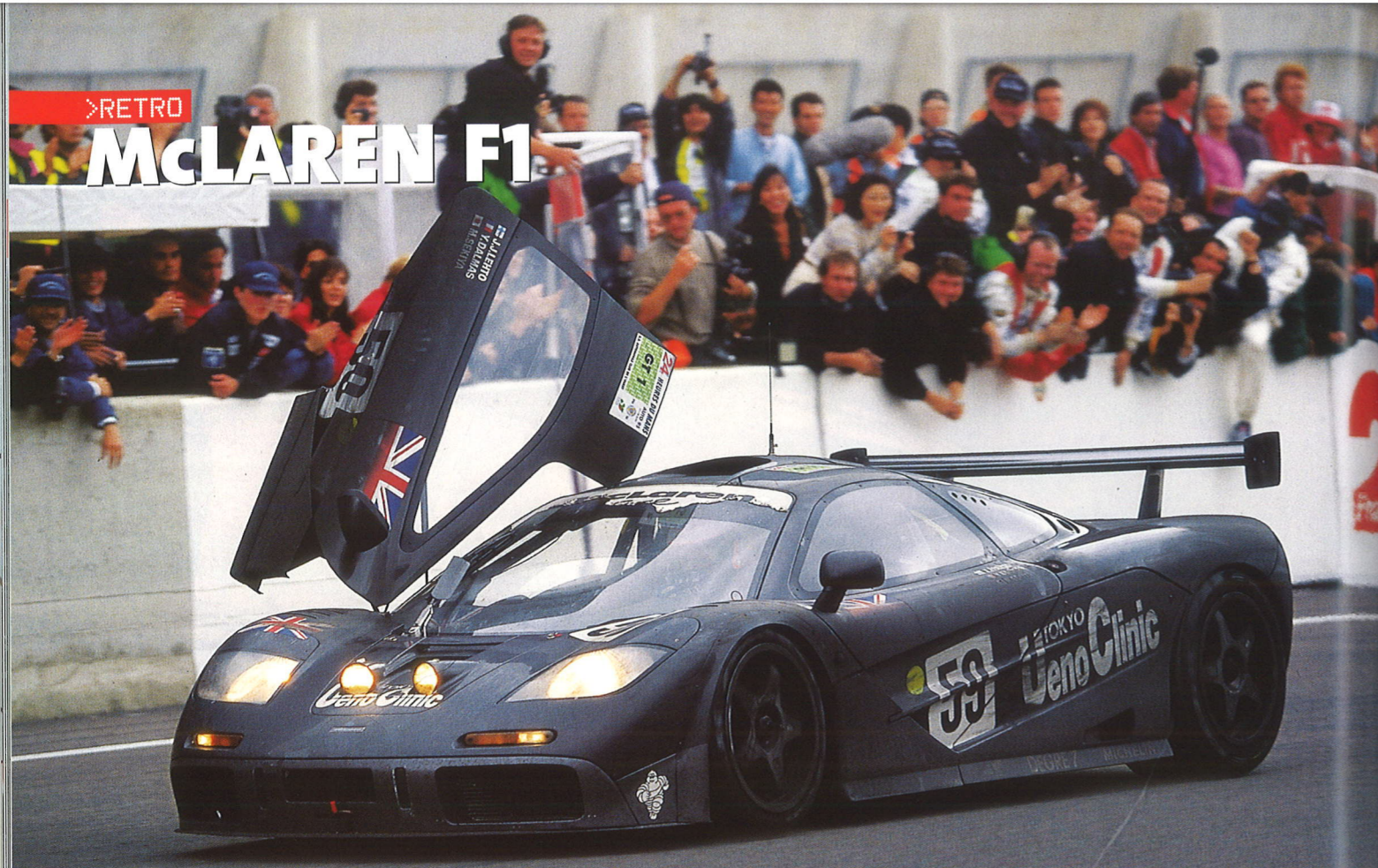
Gordon was happy to admit that, while the details needed some attention, the overall concept of the McLaren F1 was a good starting point. “The positive thing was the dynamic requirements,” he says. “We set ourselves racing car standards, like long wheelbase, low



centre of gravity, good torsional stiffness, good roll axis, good geometry, small frontal area, built-in brake cooling, a racing engine with a six-speed transverse gearbox, and so on. All these things are built into the road car because they made racing cars go fast. And we wanted it to be the ultimate road car.”

>RETRO

# McLAREN F1



ABOVE  
The McLaren F1 surprised many by winning the Le Mans 24 Hours endurance race on its debut appearance in the event in 1995

## >THE CRUCIAL RACE LE MANS 1995

There's no question that the single most memorable race in the McLaren F1 GTR's career was its debut in the Le Mans 24 Hours endurance race in 1995. It had always been said that a new manufacturer couldn't win the world-famous and highly-challenging race at its first attempt, but McLaren proved the theory wrong.

There were seven McLaren F1 GTRs in the entry list, as the regular cars from the BPR series were joined by an extra machine. A Japanese sponsor had approached McLaren with a view to an involvement in the race, and thus the works test car was earmarked for a one-off outing. Preparation expert Paul Lanzante ran it at the race, with support from McLaren's Jeff Hazell, a Le Mans veteran in his own right.

Japanese sportscar veteran Masanori Sekiya was joined by two top class drivers, namely ex-Formula 1 stars JJ Lehto and Yannick Dalmas. The latter had already twice won the 24 Hours.

In truth, it was one of the most open Le Mans events in years, falling between the

end of the old Group C formula and a new era of GT and open prototype racing.

Nobody knew how the McLaren F1 GTR would fare over such a long event – the approximate equivalent of six normal, four-hour BPR GT races joined together. Heavy rain, however, slowed speeds and reduced stress on the car's components – assuming that you stayed on the road!

The Lehto, Dalmas and Sekiya car had a superb run, making it to the flag first with hardly any serious delays. Most of the other cars lost time in the pits, and unluckiest of them all was the Harrods entry, crewed by Andy Wallace and father-and-son team Derek and Justin Bell. They seemed set for victory until late transmission problems dropped them to third. Incredibly, there were four McLarens in the top five at the finish.

"Le Mans in 1995 was probably the highlight of my career," says Gordon Murray today. "I'd been there in 1972, and I knew how difficult it was to finish. To have so many cars finish the race was an amazing result for the team."

## >McLAREN F1 1995-1998 INTERNATIONAL RACE WINS

### 1995 (BPR CHAMPIONS: THOMAS BSCHER / JOHN NIELSEN)

- Jerez (Spain) – Ray Bellm / Maurizio Sandro Sala
- Paul Ricard (France) – Ray Bellm / Maurizio Sandro Sala
- Monza (Italy) – Thomas Bscher / John Nielsen
- Jarama (Spain) – Ray Bellm / Maurizio Sandro Sala
- Nürburgring (Germany) – Ray Bellm / Maurizio Sandro Sala
- Donington Park (England) – Thomas Bscher / John Nielsen
- Le Mans 24 Hours (France) – JJ Lehto / Yannick Dalmas / Masanori Sekiya
- Suzuka 1000kms (Japan) – Ray Bellm / Maurizio Sandro Sala
- Silverstone (England) – Andy Wallace / Olivier Grouillard
- Nogaro (France) – Andy Wallace / Olivier Grouillard
- Zhuhai (China) – Andy Wallace / Olivier Grouillard

### 1996 (GLOBAL GT CHAMPIONS: RAY BELLM / JAMES WEAVER)

- Paul Ricard (France) – Ray Bellm / James Weaver
- Monza (Italy) – Thomas Bscher / John Nielsen
- Jarama (Spain) – Ray Bellm / James Weaver
- Silverstone (England) – Andy Wallace / Olivier Grouillard
- Nürburgring (Germany) – Thomas Bscher / Peter Kox
- Suzuka 1000kms (Japan) – Ray Bellm / JJ Lehto / James Weaver
- Nogaro (France) – Ray Bellm / James Weaver
- Curitiba (Brazil) – Nelson Piquet / Johnny Cecotto
- Brasilia (Brazil) – Nelson Piquet / Johnny Cecotto

### 1997 (FIA GT CHAMPIONSHIP [2ND]: JJ LEHTO / STEVE SOPER)

- Hockenheim (Germany) – JJ Lehto / Steve Soper
- Silverstone (England) – Peter Kox / Roberto Ravaglia
- Helsinki (Finland) – JJ Lehto / Steve Soper
- Spa-Francorchamps (Belgium) – JJ Lehto / Steve Soper
- Mugello (Italy) – JJ Lehto / Steve Soper

### 1998

- Jarama (Spain) – Thomas Bscher / Geoff Lees
- Monza 1000kms (Italy) – Thomas Bscher / Geoff Lees

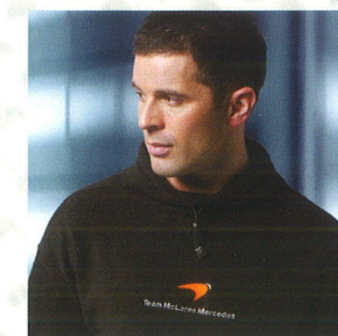
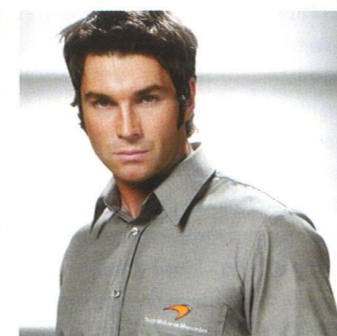
# Team McLaren

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## BRITISH GRAND PRIX TEST

Team McLaren Mercedes is currently putting together its plans for the pre-British Grand Prix test, which we expect to take place on June 17-19 at the Silverstone circuit in England.

Although details are still being finalised, we plan to have a hospitality area exclusive to Team McLaren members within the Copse Paddock Village, near to the pitlane exit, with tea and coffee and a two-course lunch included in the package. From here members will have access to the

paddock throughout the day and on-track activities can be viewed from the suite or from around the circuit.

As in previous years, we expect to have our very own helicopter on hand and, for an additional fee, this will be available for flights around the circuit during the course of the test, giving you the chance to view the on-track action from above. Team McLaren will also have items from the newly-launched 2003 merchandise collection on sale.

Once again we look forward to

seeing you at what is widely regarded by members as the highlight of the Team McLaren year, so contact us now to avoid missing out on this fantastic opportunity to get up close to Team McLaren Mercedes in action.

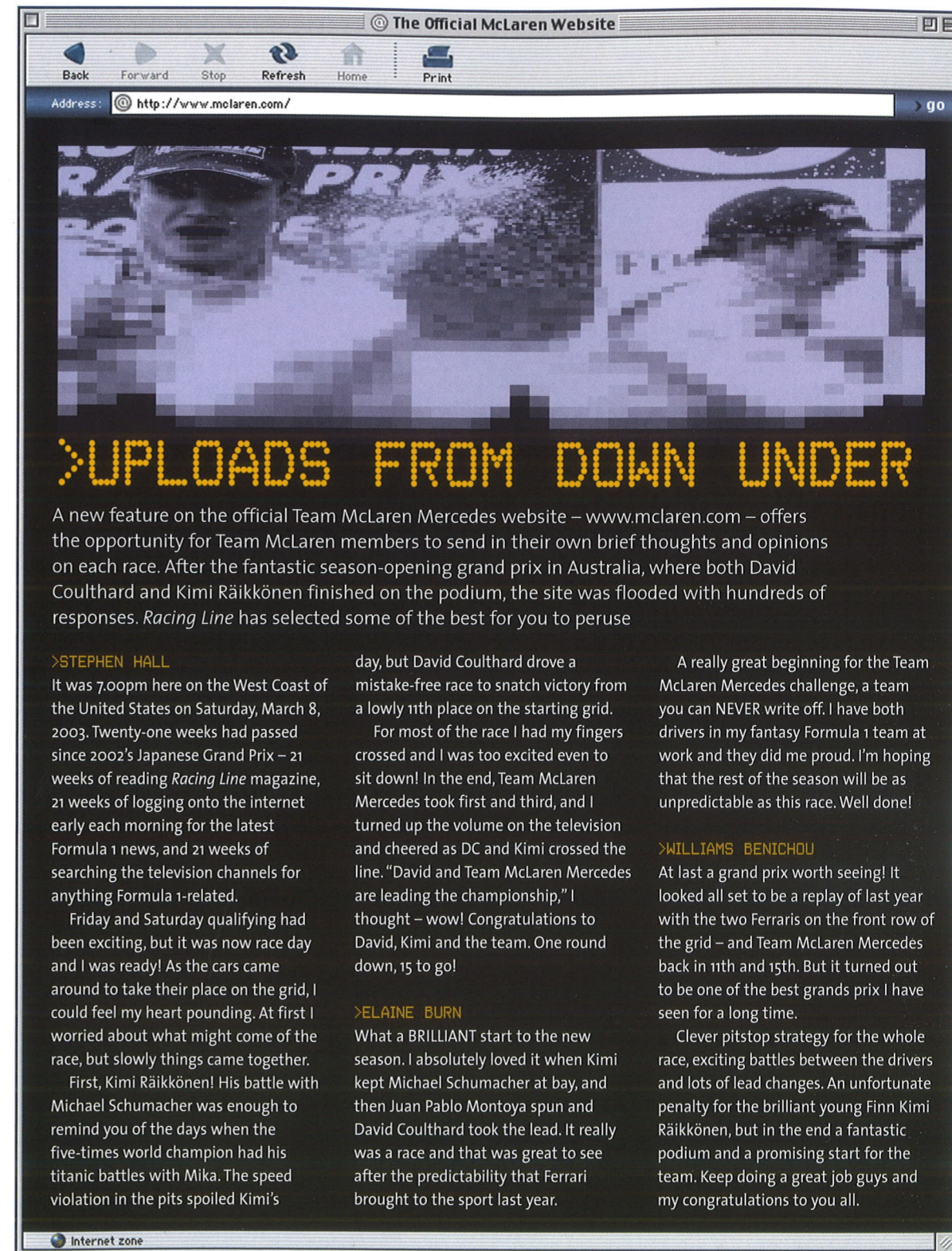
Tickets will be available on a first-come first-served basis, and will be on sale as soon as details can be finalised. Please contact Team McLaren on the usual hotline number (+44 (0) 1274 771833) to find out the latest news and pricing details.



### COMPETITION ■ COMPETITION ■ COMPETITION ■ C

This month, Team McLaren is offering you the chance to win a fantastic pair of official Team McLaren Mercedes sports binoculars. To be in with a chance of winning, send the answer to the question below to Team McLaren, Admail 622, Woking, Surrey, GU21 1WH by April 30.

**Question**  
**How many times has McLaren won the Australian Grand Prix?**



## UPLOADS FROM DOWN UNDER

A new feature on the official Team McLaren Mercedes website – [www.mclaren.com](http://www.mclaren.com) – offers the opportunity for Team McLaren members to send in their own brief thoughts and opinions on each race. After the fantastic season-opening grand prix in Australia, where both David Coulthard and Kimi Räikkönen finished on the podium, the site was flooded with hundreds of responses. *Racing Line* has selected some of the best for you to peruse

### >STEPHEN HALL

It was 7.00pm here on the West Coast of the United States on Saturday, March 8, 2003. Twenty-one weeks had passed since 2002's Japanese Grand Prix – 21 weeks of reading *Racing Line* magazine, 21 weeks of logging onto the internet early each morning for the latest Formula 1 news, and 21 weeks of searching the television channels for anything Formula 1-related.

Friday and Saturday qualifying had been exciting, but it was now race day and I was ready! As the cars came around to take their place on the grid, I could feel my heart pounding. At first I worried about what might come of the race, but slowly things came together.

First, Kimi Räikkönen! His battle with Michael Schumacher was enough to remind you of the days when the five-times world champion had his titanic battles with Mika. The speed violation in the pits spoiled Kimi's

day, but David Coulthard drove a mistake-free race to snatch victory from a lowly 11th place on the starting grid.

For most of the race I had my fingers crossed and I was too excited even to sit down! In the end, Team McLaren Mercedes took first and third, and I turned up the volume on the television and cheered as DC and Kimi crossed the line. "David and Team McLaren Mercedes are leading the championship," I thought – wow! Congratulations to David, Kimi and the team. One round down, 15 to go!

### >ELAINE BURN

What a BRILLIANT start to the new season. I absolutely loved it when Kimi kept Michael Schumacher at bay, and then Juan Pablo Montoya spun and David Coulthard took the lead. It really was a race and that was great to see after the predictability that Ferrari brought to the sport last year.

A really great beginning for the Team McLaren Mercedes challenge, a team you can NEVER write off. I have both drivers in my fantasy Formula 1 team at work and they did me proud. I'm hoping that the rest of the season will be as unpredictable as this race. Well done!

### >WILLIAMS BENICHO

At last a grand prix worth seeing! It looked all set to be a replay of last year with the two Ferraris on the front row of the grid – and Team McLaren Mercedes back in 11th and 15th. But it turned out to be one of the best grands prix I have seen for a long time.

Clever pitstop strategy for the whole race, exciting battles between the drivers and lots of lead changes. An unfortunate penalty for the brilliant young Finn Kimi Räikkönen, but in the end a fantastic podium and a promising start for the team. Keep doing a great job guys and my congratulations to you all.

## MIKA HÄKKINEN MODEL COMPETITION WINNER

In the January issue of *Racing Line*, we offered you the chance to win a 1/18 scale model of Mika Häkkinen's 1999 title-winning Team McLaren Mercedes MP4-14 – signed by the double world champion on his November visit to the team's headquarters in

Woking, England. We wanted you to tell us at which grand prix Mika took his first pole position – the answer to which was the 1997 Luxembourg Grand Prix. The lucky winner was Francisco Ruiz from Jaen in Spain. Congratulations, your prize is on its way.

# POSTCARDS FROM LE CASTELLET

Matt Isaac, a member of the Team McLaren Mercedes Test Team Support Crew, recently returned from a test at the Paul Ricard circuit in Le Castellet, France. He took along a camera to give *Racing Line* readers a flavour of the day



*The Paul Ricard circuit is one of the most advanced in Formula 1, with many special features not seen at other tracks that we use*



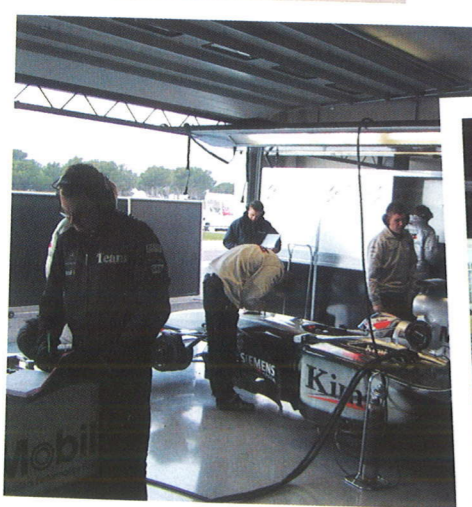
*Even though we are not racing, there is still a large support structure in place for the test team. As ever, the trucks must be just so...*



*Attention to detail is as vital as ever, because it is these tests that allow us to move forward so that we're as ready as we can be for 2003*



*Once the day's running has started, there is a steady routine of the drivers entering and exiting the garage - with a little help!*



*Whenever the cars run, it is important that they are checked thoroughly between stints to ensure all systems are as they should be*



*Tyre development is a very important facet of our job, and there are plenty of Michelin tyres for us to get through*



*The work continues well into the night, and the pit complex at Paul Ricard provides an illuminating backdrop to the team's efforts*

# IN THE NEXT ISSUE

# FLY-AWAY FEVER!

All the action from the Malaysian and Brazilian Grands Prix

## PLUS

- Under the skin of the Team McLaren Mercedes race trucks
- The secrets behind the drivers' race day diets

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