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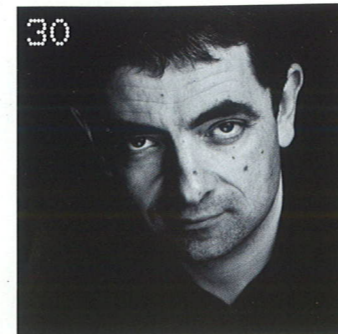
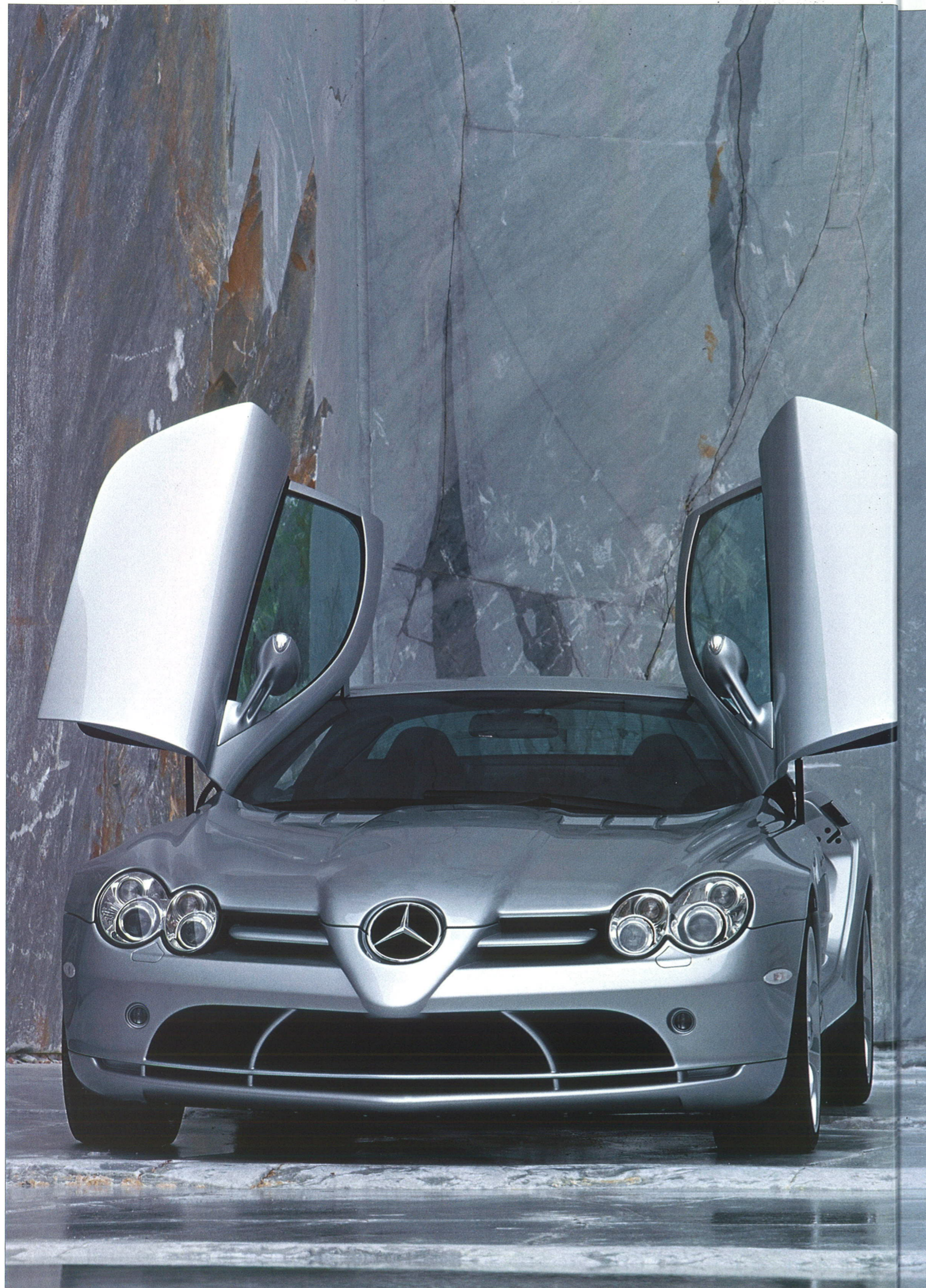


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McLaren's Roll of Honour

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
Malaysian GP: David Coulthard DNF; Kimi Räikkönen 1st
Brazilian GP: David Coulthard 4th; Kimi Räikkönen 2nd
San Marino GP: David Coulthard 5th; Kimi Räikkönen 2nd
Spanish GP: David Coulthard DNF; Kimi Räikkönen DNF
Austrian GP: David Coulthard 5th; Kimi Räikkönen 2nd
Monaco GP: David Coulthard 7th; Kimi Räikkönen 2nd
Canadian GP: David Coulthard DNF; Kimi Räikkönen 6th
European GP: David Coulthard DNF; Kimi Räikkönen DNF
French GP: David Coulthard 5th; Kimi Räikkönen 4th
British GP: David Coulthard 2nd; Kimi Räikkönen 3rd
German GP: David Coulthard 2nd; Kimi Räikkönen DNF
Hungarian GP: David Coulthard 5th; Kimi Räikkönen 2nd

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Portrait by Hugo Burnand



InsideLine

The official unveiling of the much anticipated Mercedes-Benz SLR McLaren was preceded by a suitably appropriate celebratory tour which ended with the car's arrival at the Frankfurt Motor Show after an evocative trip from Brescia, the starting point for the original SLR's epic victory in the 1955 Mille Miglia road race.

Kimi Räikkönen, who incidentally went into the Italian Grand Prix holding a close third place in the Drivers' World Championship, two points behind Michael Schumacher, drove the new high-performance sports car on this epic route, accompanied by Alexander Wurz.

For the first leg, the pair were shadowed by the original 1955 SLR, driven by Sir Stirling Moss who - together with his navigator, the late Denis Jenkinson - achieved that legendary success 48 years ago. Later, in the closing stages of the journey, Kimi and Alex visited the plant at Affalterbach, near Stuttgart, where Mercedes-AMG manufactures the SLR's engines, before they arrived in Frankfurt in time for the official world premiere of the car on September 9.

The Mercedes-Benz SLR McLaren blends cutting-edge technology with the deeply engrained motor racing heritage which one would expect from a collaboration between two companies such as DaimlerChrysler and McLaren. From our own personal perspective, it is difficult to overplay the significance of this machine in the overall McLaren picture.

This new car truly represents a milestone in the growth of our company and heralds a subtle process of evolution which in the future will see us concentrating on further developing the McLaren brand.

From a purely practical standpoint the programme has also seen the level of co-operation between McLaren and Mercedes-Benz honed to new levels, and, in the process, has embraced the development of control and manufacturing processes which represent the latest in cutting-edge sophistication.

I think it is also important to emphasise just how much support we have enjoyed from all the Board Directors at DaimlerChrysler which, together with the access we have been afforded to their technical facilities, has seen integration with DaimlerChrysler personnel at all levels.

It is obviously enormously gratifying to note that the Mercedes-Benz SLR McLaren has been greeted so positively and enthusiastically by commentators and observers within the motor industry. Now, having moved this exciting new car into its production phase, we look forward with confidence to a continued process of refining and enhancing our manufacturing facility to embrace and develop whatever fresh challenges lie ahead.

Ron Dennis CBE

TAG McLaren Group Chairman and CEO



David, Kimi, Alex and Pedro stay with Team McLaren Mercedes for 2004; Ice-hockey stars head the list of Hungarian Grand Prix guests

TEAM McLAREN MERCEDES CONFIRMS UNCHANGED DRIVER LINE-UP FOR 2004



Team McLaren Mercedes has confirmed that current drivers David Coulthard, Kimi Räikkönen, Alex Wurz and Pedro de la Rosa will all continue to work with the team in Formula 1 during the 2004 season.

The current race pairing of David and Kimi will continue to contest the Formula 1 Drivers' and Constructors' World Championships, with the able support of Third Driver Alex and test driver Pedro in development roles.

"Team McLaren Mercedes strives to win the World Championship and, in

order to do so, we have to have the best drivers available, and I believe we have achieved that objective," said Ron Dennis, Chairman and CEO of the TAG McLaren Group. "David and Kimi form a strong combination, and together with Alex, Pedro and everyone in the team, we have a strong package."

The 2004 season will be David's ninth with the team and Kimi's third. In addition the 2003 Japanese Grand Prix will mark David's 132nd race for McLaren – the most by any driver in the team's 40-year history.

DRIVERS' REACTION FROM HUNGARY

DAVID COULTHARD

"I'm pleased to be driving for the team for the ninth year in succession, and, after such an amount of time, it's inevitable that strong relationships have been established and I really feel part of the Team McLaren Mercedes family. I'm convinced that my experience will continue to provide the team with great benefits."

KIMI RÄIKKÖNEN

"Having worked with everybody in the team for the past two years I've developed a lot both on- and off-track, and I'm looking forward to continuing this progress next year. I think David and myself have formed a strong partnership and work well together, and I'm sure that we will continue to do so next season as well."

ALEXANDER WURZ

"I'm enjoying my time with Team McLaren Mercedes and the immense technical challenges which are part of my job. As every racing driver will confirm, racing is what you want to do. However, I know that my contribution to the car's development makes a real difference and is a key factor in the success of the team. As a result until the right opportunity comes along, I strongly feel that I couldn't be in a better place."

PEDRO DE LA ROSA

"It has been an encouraging first year, and I look forward to staying for another season as I have been continuously impressed by the professionalism of Team McLaren Mercedes."

PICTURE CREDITS

DAIMLERCHRYSLER, LAT, HOCH ZWEI

TOP SPORTS STARS VISIT TEAM



FROM LEFT Ice-hockey stars Marian Hossa, Marian Gaborik, Marcel Hossa and Rastislav Pavlikovsky visited the Hungarian Grand Prix

Team McLaren Mercedes played host to a number of stars from the world of sport over the course of the Hungarian Grand Prix weekend, including a group of ice-hockey players from the North American-based National Hockey League.

The five were Marian Gaborik who plays for Minnesota Wild, Marian Hossa from the Ottawa

Senators, Marcel Hossa of the Montreal Canadiens, Rastislav Pavlikovsky from the Houston Aeros and Miroslav Satan of the Buffalo Sabres.

The players were introduced to Team McLaren Mercedes drivers David Coulthard and Kimi Räikkönen, who took the time to explain the functions of their MP4-17D race car to them,

as well as showing them around the Formula 1 team's pit garage.

In addition, Akos Vereckei – the Olympic Kayaking Champion from Hungary – and Koko Kovacs, the WBO Featherweight boxing champion from Finland, also attended the Hungarian Grand Prix as guests of Team McLaren Mercedes.



Mercedes-Benz hosted its annual Hungarian Grand Prix boat trip on the Friday evening prior to the race. The event – which is traditionally one of the most popular to take place over the Hungarian Grand Prix weekend – featured a relaxing cruise along the river Danube, which runs through the city of Budapest. Attendees included customers of Mercedes-Benz as well as Formula 1 journalists and television crews from around the world.

McLaren engineer Julia Warren has won a silver medal at the World Rowing Championships in Milan. Julia and her rowing partner Michelle Dollimore picked up the medal in the lightweight coxless pairs event, narrowly missing out on victory to the Romanian crew. This success follows on from Julia's gold medal in the same discipline at the 2003 Lucerne Regatta, Switzerland, in July.

Team Communications Centre Partner Bloomberg hosted another of its 'Pitstop' seminars in Hungary, prior to the Hungarian Grand Prix. The seminar offers Bloomberg's clients the opportunity to find out about the company's LaunchPad financial terminal, and to learn more about how the technology is employed by Team McLaren Mercedes in Formula 1.

MERCEDES-BENZ PRESENTS CLK CABRIOLET TO HUNGARY

Mercedes-Benz used the weekend of the Hungarian Grand Prix to show its CLK-Class Cabriolet to the Hungarian market.

Team McLaren Mercedes drivers David Coulthard and Kimi Räikkönen were both present for the event, which took place at a hotel in the centre of the historic city of Budapest.

Both drivers posed for photographs with the new model, which was originally launched in April this year, before going on to answer questions from the assembled Hungarian media, who had been eager to catch a glimpse of the sleek new car.

SUN DINES WITH TEAM IN HUNGARY

Team McLaren Mercedes Technology Partner Sun Microsystems hosted a dinner in the Team Communications Centre on the eve of the Hungarian Grand Prix at Budapest.

Sun Microsystems' Hungarian division invited a group of 12 leading information technology and business

journalists to the Hungaroring on the Saturday evening to experience a behind the scenes look at how Team McLaren Mercedes operates at a race.

This was followed by a drinks reception and three-course dinner within the private dining area of the Team Communications Centre.

Lewis Hamilton wins Formula Renault title; TAG McLaren Group hosts family fun day at the McLaren Technology Centre

LEWIS HAMILTON CLINCHES SINGLE-SEATER CHAMPIONSHIP



Lewis Hamilton sealed the Formula Renault title with his ninth and 10th wins of the year

McLaren- and Mercedes-Benz-backed protégé Lewis Hamilton clinched the 2003 Formula Renault UK Championship at Donington Park in early September.

The 18-year-old scored his ninth and 10th wins of the year, capping a season that has resulted in his becoming the youngest champion in the series' history.

"It feels fantastic to be champion," he said. "It has been a difficult year at times, but to finally have won the title is absolutely amazing."

TAG McLaren Group Chairman and CEO Ron Dennis was one of the first to offer his praise. "Lewis has consistently demonstrated exceptional talent," he said. "This latest accolade illustrates how he's developing and maturing as a driver."

SAP HOLDS DANISH CONFERENCE

Team McLaren Mercedes Corporate Partner SAP recently held a technology conference in Copenhagen, Denmark. The event was attended by key decision makers from the Danish enterprise community and public sector.

One of the highlights of the event was a keynote speech delivered by McLaren International Operations Director, Jonathan Neale.

The address focused on the decision-making processes that take place during the course of a grand prix weekend, and how the basic principles for doing this are the same in business as they are on the track.

McLAREN TECHNOLOGY CENTRE HOSTS SPECIAL FAMILY FUN DAY



The McLaren Technology Centre recently played host to a special day of fun activities for the TAG McLaren Group's employees and their families.

Over 2000 people attended the event, and were treated to a host of entertainments within the grounds of the facility, near the team's current headquarters in Woking, England.

A carnival atmosphere prevailed, with fairground rides, food stalls and face-painting on offer. A highlight of the day was a series of parachute jumps carried out by a specialist parachute troupe from the UK.

The event was held as a thank-you to the TAG McLaren Group's employees, and was attended by Ron Dennis, along with his wife and children. Team McLaren Mercedes drivers David Coulthard, Alex Wurz and Pedro de la Rosa also took the time to visit the event, and signed autographs and posed for pictures.

THE McLAREN TECHNOLOGY CENTRE www.mclaren.com/technologycentre



TARGETTI LAUNCH INTO SCOTLAND



Targetti, an official Partner to the McLaren Technology Centre and Team McLaren Mercedes, recently launched into the Scottish market with a special event in the town of Livingstone.

Targetti took advantage of its seven-year Partnership with Team McLaren Mercedes by displaying one of David Coulthard's race cars at the four-day event. In addition, Targetti held a prize draw for all those who visited the showroom, with two VIP tickets to the 2004 British Grand Prix as prizes.

AMEC SCOOPS QUEEN'S AWARD

McLaren Technology Centre Partner AMEC has received The Queen's Award for International Trade in recognition of its outstanding performance in the oil, gas, petrochemical and processing industries over the last three years.

This expansion, in support of

long-term clients overseas, has resulted in a four-fold increase in export earnings for AMEC's UK engineering and construction business and strong prospects for further international growth.

"We should recognise that The Queen's Award success is a result of a company-wide team effort,"

said David Robson, Chief Executive of AMEC's UK-based engineering and construction business.

"I am delighted that we have made real and rapid progress in areas of the world that perhaps we would not have thought possible 10 years ago."

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REPORT – ROUND 13

HUNGARORING, AUGUST 22-24

HUNGARIAN GRAND PRIX

An excellent performance by Team McLaren Mercedes in the Hungarian Grand Prix meant that drivers Kimi Räikkönen and David Coulthard finished in second and fifth positions. The result allowed Kimi to close within just two points of the lead of a tightly-poised Drivers' World Championship with only three races to go.

At the start of the 70-lap race both drivers made good getaways, with Kimi leaping from seventh to fourth, and David from ninth to sixth. Kimi then moved up another place on lap three, taking advantage of a mistake by Rubens Barrichello, who drove straight over the Turn Seven chicane.

Kimi then started to pile the pressure on the Jaguar of Mark Webber for second place. David, meanwhile, was comfortably keeping both Michael Schumacher and Juan Pablo Montoya behind him as the first wave of pitstops began.

Kimi, who had briefly assumed the lead when race leader Fernando Alonso and second-placed Webber came in for fuel and tyres, made his own first stop on lap 15, and some great work from the Team McLaren Mercedes pitcrew helped him to move ahead of Webber's Jaguar into second.

“THE CAR WAS THE BEST THAT IT HAD BEEN ALL WEEKEND”

KIMI RÄIKKÖNEN

David was the last runner to stop on lap 18, and he rejoined in eighth place.

Kimi maintained second place right up until his second pitstop on lap 33, and the gap to Webber was such that the Finn was comfortably able to maintain his position when he rejoined the track. Meanwhile, David – the only front-runner operating a two-stop strategy – had worked his way up to third position before taking his second and final stop of the race on lap 43. He rejoined in seventh, with all the cars ahead of him scheduled to stop again for tyres and fuel.

Through the final round of pitstops, Kimi, along with the rest of the top four, maintained what would be the eventual finishing order, with David managing to leapfrog both Webber and Jarno Trulli to claim fifth. Spaniard Fernando Alonso claimed the victory, becoming Formula 1's youngest ever winner by a mere 83 days – a record previously held by team founder Bruce McLaren since 1959, when he won the United States Grand Prix aged just 22.

“I'm very happy with today's result,” said Kimi. “Everyone in the team has worked hard, and the car was the best it has been all weekend. I'm pleased to have closed the gap in the Drivers' World Championship and I can't wait for the next three races, where I know that both myself and everyone else in the team will be giving 100 percent.”

David was also happy with another strong points finish. “It's an excellent result for the team,” he said. “My two-stop strategy was the right one, and it allowed us to gain places in the race. It was a struggle to stay ahead of the other drivers with a large amount of fuel on board, but I'm pleased with fifth place.”

TRACK FACTS HUNGARORING

Lap length	4.381km
Race distance	306.670km
Number of laps	70

RACE RESULTS HUNGARORING

1	Fernando Alonso	1h39m01.460s
2	Kimi Räikkönen	+16.768
3	Juan Pablo Montoya	+34.537s
4	Ralf Schumacher	+35.620s
5	David Coulthard	+56.535s
6	Mark Webber	+1m12.643s
7	Jarno Trulli	+1 lap
8	Michael Schumacher	+1 lap

DRIVERS' STANDINGS

1	Michael Schumacher	72pts
2	Juan Pablo Montoya	71pts
3	Kimi Räikkönen	70pts
4	Ralf Schumacher	58pts
5	Fernando Alonso	54pts
6	Rubens Barrichello	49pts

CONSTRUCTORS' STANDINGS

1	Williams	129pts
2	Ferrari	121pts
3	Team McLaren Mercedes	115pts
4	Renault	78pts

FUEL FOR THOUGHT

The demanding nature of the 4.4km Hungaroring circuit places an extra degree of emphasis on the strategy adopted by Formula 1 teams.

With overtaking extremely hard, the right strategy can allow a driver to gain places which would otherwise have to be made with risky passing manoeuvres. Risky, because the track is set in a natural dust bowl, and any moves off line can result in, at best, dirty tyres and, at worst, a spin.

Team McLaren Mercedes placed its two drivers on differing strategies, with David Coulthard the only leading driver on a two-stopper. This decision was to prove crucial in moving the Scot from ninth on the grid to fifth place and four World Championship points.

“It was a great team performance,” said Ron Dennis after the race. “A pair of well-executed strategies were complemented by excellent tyres from our Technology Partner, Michelin. We will be trying, however, to ensure that we will be going all out for victory in the remaining three races.”

LAP-BY-LAP

1 Kimi moves up from seventh place to fourth at the start, while David moves up from ninth to take seventh

3 Kimi ducks past Rubens Barrichello for third place when the Ferrari driver briefly runs wide in the chicane

15 Kimi makes his first stop, moving ahead of Mark Webber to take second place in the process

18 David makes the first stop of his two-stop strategy, rejoining in eighth

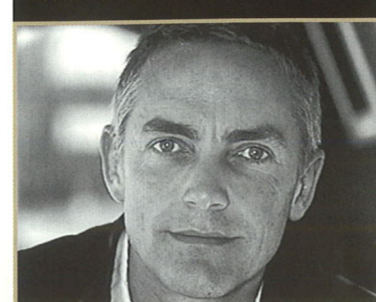
33 Kimi makes the second stop of his three-stop strategy, and rejoins still in second place

43 David makes his second and final stop, rejoining in seventh place

51 Kimi, along with several other leading drivers, makes his final stop. He rejoins still in second. These pitstops also help David to move up the order to take fifth

70 Kimi and David finish the Hungarian Grand Prix in second and fifth places respectively

TEAM ANALYSIS



The result of the Hungarian Grand Prix was obviously very pleasing for everyone at Team McLaren Mercedes, as a pair of solid drives by both Kimi and David allowed us to leave the Hungaroring circuit very much in contention for both the Drivers' and Constructors' World Championships.

During both of the qualifying sessions on the Friday and Saturday, the drivers had to take to the track early in the running, and their eventual positions on the grid were therefore affected by the dirty track conditions that improved as the session continued.

In addition, many other teams adopted what could best be described as 'racy' strategies to try and get their cars closer to the front of the grid on a track where overtaking can be difficult.

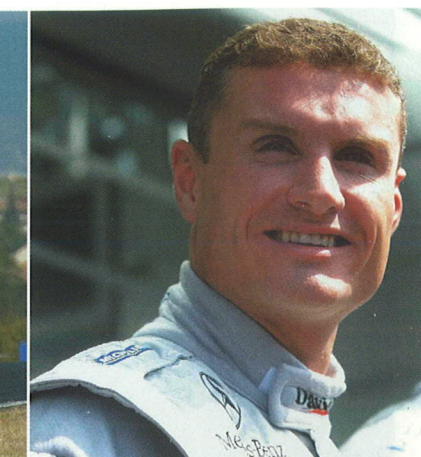
Our strategy, however, was focused on optimising performance during Sunday's race, most notably with David, who was operating a two-stop strategy and therefore carried a heavy fuel load during qualifying.

With Kimi running a three-stop strategy this gave us the widest array of options for a good result in what would ultimately be a difficult race in which to predict the outcome.

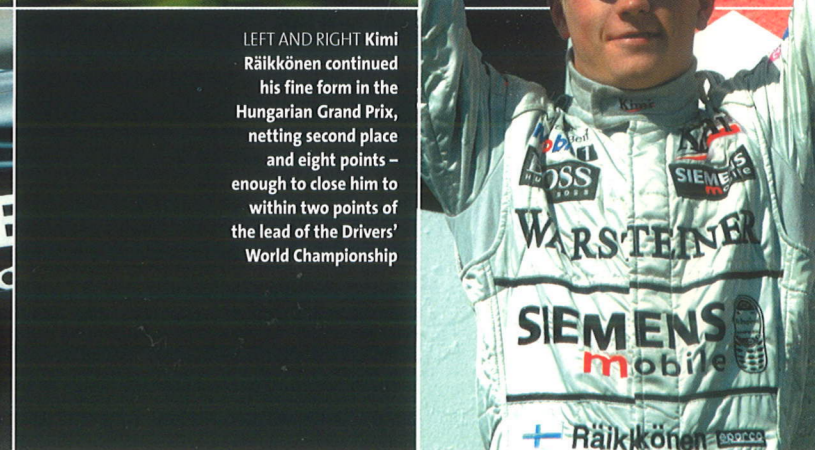
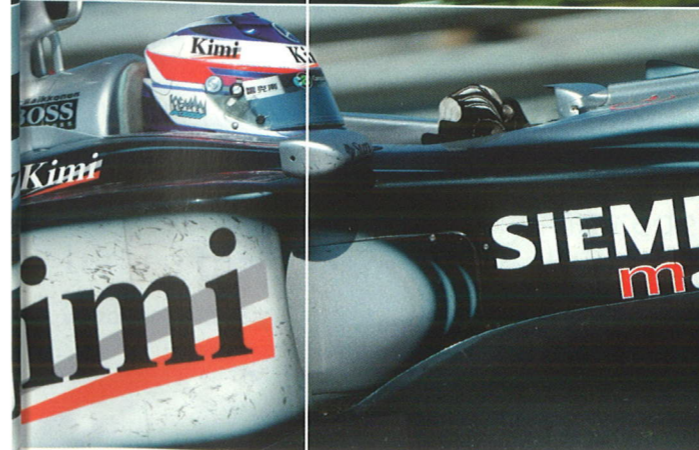
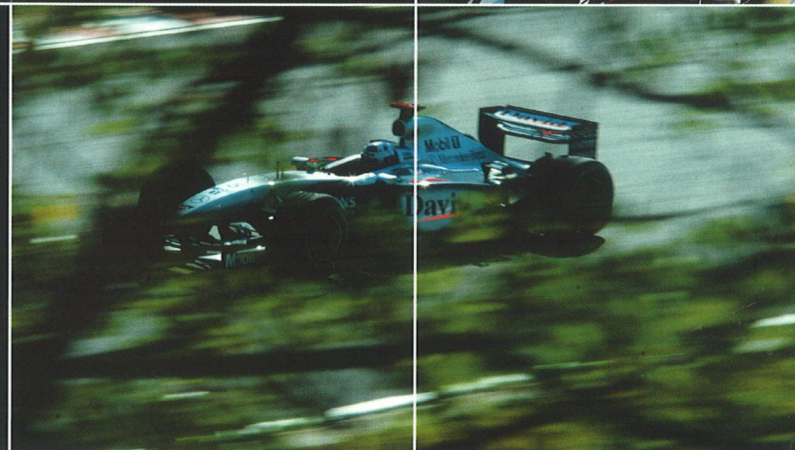
In the race the team put together an excellent performance that began with the drivers getting off the line well and gaining several places in the first few corners. Both drivers also maximised their respective strategies to the fullest to enable them to keep ahead of, and pass, their on-track competitors.

As a result, both Kimi and David secured strong points finishes to further strengthen our Drivers' and Constructors' World Championship positions, with just three races of the season remaining.

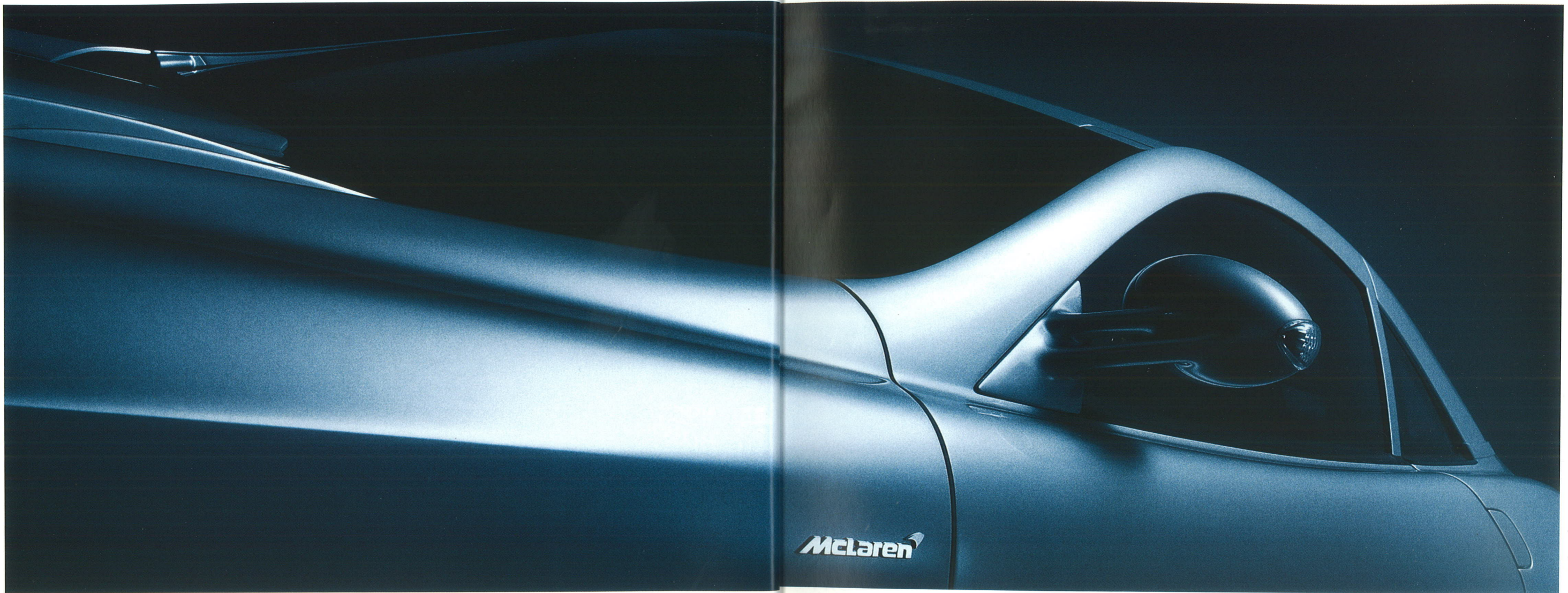
RIGHT AND BELOW David Coulthard drove a great race in Hungary. His two-stop strategy helped him to move from ninth place on the grid to fifth place by the end of the race



RIGHT AND BELOW The tight and twisty Hungaroring provides a unique challenge for the race engineers to find a balance for their cars. Add in the dust which sweeps round the bowl-like circuit and you have an even tougher scenario



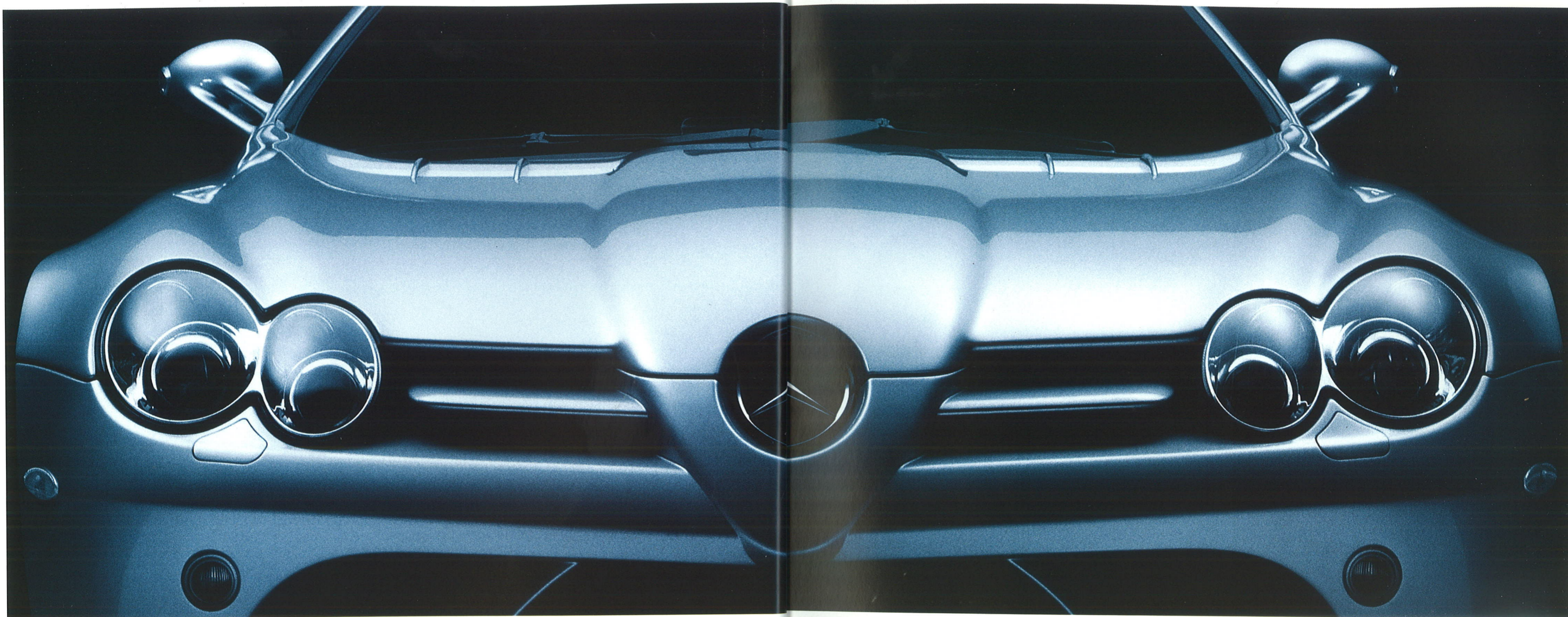
LEFT AND RIGHT Kimi Räikkönen continued his fine form in the Hungarian Grand Prix, netting second place and eight points – enough to close him to within two points of the lead of the Drivers' World Championship



THE ROAD TO PERFECTION

The Mercedes-Benz SLR McLaren has evolved from a concept that envisaged the production of the ultimate road car in terms of performance, safety, comfort and design. Only Mercedes-Benz and McLaren could ever have turned that dream into reality. This is the full story of the car's development

WORDS DOUG NYE PHOTOGRAPHS DAIMLERCHRYSLER



A new class of top-level, high-performance motoring has been perfected. Forget the 'supercar' concept of the late 20th century, for it's now old hat. The Mercedes-Benz SLR McLaren offers far broader scope for the future, for here we have a true 'hypercar' – and, most uniquely, the first to be made generally available in genuine series production.

Created in unique partnership by DaimlerChrysler and McLaren Cars, this is the ultimate high-performance, two-seater Grand Touring car – a machine which oozes quality in every department. It has been designed and developed to satisfy every possible criteria, offering a blend of exceptional performance and handling with supreme comfort, all clothed beneath strikingly good looks and magisterial presence. All the while, woven through, are major advances in inherent standards of both active and passive safety.

"This is the ultimate 200 percent car," says the McLaren Automotive Division's Managing Director, Antony Sheriff. "It offers 100 percent of Mercedes-Benz's comfort and quality, with 100 percent of our Formula 1-bred performance. Neither aspect has been allowed to compromise the other.

"Above all, the critical requirement throughout was to produce a car of unimpeachable comfort and quality, which – on demand – could fulfil every need that the most enthusiastic driver could place upon it. It's a tough challenge, but the finished product improves on every significant target set by the original programme."

In many ways, the coming together of McLaren and Mercedes-Benz to build the ultimate car seems almost pre-ordained. Their long, successful collaboration in Formula 1 over the past nine years has netted two Drivers' World Championships and one

Constructors' World Championship to add to McLaren's already impressive Formula 1 record and Mercedes-Benz's historical success from the early 1950s.

During that time, both companies have also set new standards on the road – Mercedes-Benz, from its days as an automotive pioneer at the start of the 20th century to its pace-setting range of vehicles today, and McLaren with what many in the motoring industry still believe is the finest ever road-going sportscar, the McLaren F1.

When Mercedes-Benz first envisaged producing an advanced car that could fulfil the heritage of the SLR coupés which dominated the 1955 Sportscar World Championship, who better could they have chosen as a partner than McLaren? Since that collaboration was born in July 1999, it has produced, in just four years, an extraordinary end product in the Mercedes-Benz SLR McLaren and

"FROM THE PROJECT'S VERY INCEPTION, THE DESIRE TO SET NEW STANDARDS HAS BEEN INHERENT."

ANTONY SHERIFF, McLAREN AUTOMOTIVE DIVISION MANAGING DIRECTOR

initiated or accelerated development of numerous, pioneering, high-tech manufacturing processes and complex on-board car systems.

"From the project's very inception, the desire to set new standards for design, construction and production has been inherent," says Antony Sheriff.

McLaren Cars has been responsible for the overall packaging, body design, suspension, aerodynamics and handling, while Mercedes-Benz's AMG tuning department has built an engine and transmission package to fulfil the exacting performance demands. Mercedes-Benz's Stuttgart styling department has assumed prime responsibility for the car's appearance,

accommodating packaging and cooling requirements as they have emerged.

"There is no other generic European car company which could conceive, design, develop and put into production within four years a product as advanced and innovative as this," Mercedes-Benz SLR McLaren Operations Director Ola Källenius enthuses. "Especially not one that could create so many aspects of the project entirely in-house."

The Mercedes-Benz SLR McLaren is the world's first series-production sportscar model to feature entirely carbon/composite bodywork and a monocoque chassis. The benefit of this hybrid monocoque/cast-alloy structure

is that it has enabled the design team to achieve peerless standards of torsional rigidity and weight reduction – ideal parameters for both handling performance and economy.

And what performance. The Mercedes-Benz SLR McLaren takes just 3.8 seconds to reach 100kph from a standing start, a further 6.8 seconds to reach 200kph and a total of 28.8 seconds to reach 300kph on the way to its top speed of 334kph. The 5.5-litre, 24-valve, quad-cam V8 supercharged powerplant behind this performance needs to be stunning, and certainly is so, with a peak output of 626bhp and a maximum torque of 780Nm.

The powerplant, lubricated by

ABOVE The stunning Mercedes-Benz SLR McLaren has been envisaged as the ultimate, series produced, road-going sportscar – with no compromises. The design teams at Mercedes-Benz and McLaren have certainly fulfilled that brief

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Honing the Vision

After four years of work, Operations Director Ola Källenius, McLaren Cars Technical Director Gordon Murray and McLaren Automotive Division Managing Director Antony Sheriff can finally look upon the finished car with a sense of satisfaction



Back in early 1999, when Mercedes-Benz was looking at the feasibility of a standard setting, two-seat, two-door Grand Touring car, it happily coincided with McLaren Cars' desire to find a project to carry the Woking-based company past its McLaren F1 and F1 GTR sportscar programmes.

From the start, Mercedes-Benz envisaged a front-engined configuration to fulfil the tremendous tradition of its gullwing-doored works 300SL coupes, which won the Le Mans 24 Hours and Carrera PanAmericana in 1952. The Stuttgart marque had displayed a showcar in Detroit entitled the 'Vision SLR' – a strikingly-styled and aggressive front-engined coupé with upward-opening gullwing doors – and the decision was taken to make this vision a reality.

"The constraints were that it should, in basic, look like the Vision SLR and that – in detail form – was practically impossible," says McLaren Cars Technical Director Gordon Murray. "But I think that if you put the Vision SLR and the new Mercedes-Benz SLR McLaren in the same room everybody would agree they're as close to being the same as you could practically achieve. If you produced a ghost drawing of each car, though, and overlaid them you would see just how different the packaging is..."

Putting the engine ahead of the driving compartment was a departure from McLaren's work in Formula 1 and on the McLaren F1, however, and incorporating the gullwing doors was to be no easy matter.

"Our experience has all been with engines mounted behind the cockpit," Gordon Murray explains. "Here we were

commissioned to match those dynamics in a habitable, truly luxurious, pinnacle-quality car with an engine ahead of the cabin. This could only be done by adopting radical solutions to overcome the very different packaging problems posed.

"From our experience, the pre-requisites were obvious. The chassis structure had to be the most rigid we could achieve, and the lightest possible. More than merely looking good, the external body shape had to be aerodynamically efficient. The suspension had to employ every handling, road-holding and traction trick that we've learned. The brake system needed to be the most effective, efficient and safest that could be adopted, and the engine and driveline had to set new standards. All of which is easy to say."

One radical solution was the far-back, mid-mounting of the big V8 engine, while another was the adoption of the SLR-motif side exhausts to avoid the aerodynamic underfloor disturbance of long, conventional underslung tail pipes, while concentrating a considerable mass amidships.

"We put forward the side exhausts because of the 1955 car," explains Gordon Murray. "But also because it saved us a lot of pain with hot catalysts and silencers under the car. It solved all sorts of temperature problems, particularly with an engine bay that's totally sealed underneath apart from a couple of louvre panels."

This also brought other challenges, notably that the side exhaust bays encroached upon the area normally occupied by the lengthy doors needed to provide comfortable 'leg-swing' for the occupants' entry and exit in such low-slung

sports cars. The radical solution adopted, though, has superbly fulfilled the styling preferences of Mercedes-Benz for a recognisable homage to the gullwing doors from the 1950s coupés.

Where roof centreline-hinged gullwings bring other problems – such as dumping standing rainwater into the interior upon opening and needing broad clearance on both sides to clear their opening arcs – a variation of the McLaren F1's upward and forward opening 'dihedral doors', hinged upon the angled A-pillar, has fulfilled all practical requirements.

"With dihedral doors you literally remove the door from the vicinity of the opening," Gordon Murray says. "There's maximum freedom for foot swing and head swing whether the occupant is entering the cabin or leaving it, so that you can have a smaller door opening which remains entirely practicable. Very few people notice anything different from a conventional door opening, yet it does wonders for the car's packaging."

Clearance required both alongside the SLR and above it – an important factor in multi-storey car parks – is minimal. Access is easy with the entire door rising completely clear of the occupant's entry and exit space and – as a fine styling point – the deeper sill section these doors make possible not only enhances monocoque rigidity, but also recalls the massive sills of the original tubular-spaceframe chassised 300SL and SLR.

Another respectful nod towards achievements from the past, from the standard-setter of the future. ■



"WHEN I DID THE ORIGINAL SUMS, I THOUGHT 557bhp SHOULD BE THE TARGET. AMG HAS FAR EXCEEDED THAT"

GORDON MURRAY, McLAREN CARS TECHNICAL DIRECTOR

Mobil 1 products from Team McLaren Mercedes Technology Partner ExxonMobil, is a little technological marvel in itself, and is based on a newly-designed aluminium crankcase.

The V8's dry-sump system, oil pumps, three-valve-per-cylinder twin-cam heads, crankshaft, con-rods and pistons are also completely new and tailor-made for this programme.

Crucially, the engine also features an induction charger module and charge-air cooler system which produces 30 percent more boost than that achieved by rival devices. The AMG-designed intelligent system which controls this – one of many such automated performance or safety features on the car – carefully restrains the devices to ensure that they are only active when needed, yet can respond in an instant when called into action.

The level of power the engine produces is stunning enough in most people's minds, but is also a big step above what was originally imagined by McLaren Cars Technical Director Gordon Murray when he first looked at the brief for the project.

"When I did the original sums, I thought that 557bhp should be the overall target," he explains. "AMG has far exceeded that. What's more, the screw-compressor engine provides what you could consider to be 10-litres-worth of torque across an unprecedented rev band. You put all that into a comfortably-furnished, comprehensively well-equipped car weighing 200-300kg less than many of its market rivals and you've got the new Mercedes-Benz SLR McLaren."

Anyone examining the car for the first time, though, will immediately

notice how remarkably far back the engine is mounted for a front-engined design. The reason for this unique position, in which the engine's front face is virtually in line with the rear of the front tyres, is aimed at achieving perfect chassis balance – a challenge with front-engined, rear-wheel drive cars.

"It was critical to place the engine there to achieve the dynamic balance we required," explains Gordon Murray. "Dry-sumping the engine was also critical because it permits a low overall height – good for centre of gravity, which is good for vehicle behaviour, and of course the shallow engine height is great for styling and packaging."

The car's transmission is equally uncompromising. Every discerning driver appreciates a quality gearchange, and the Mercedes-Benz SLR McLaren promises its owner a revelation with the

ABOVE Every area of the car has been optimised to see if there can be an enhancement that will benefit the driving experience – the lights even react automatically to the external conditions, for example

>>

>> ultra-advanced, five-speed automatic 'Speedshift' system. This provides three dashboard-selected programmes, with individually-selectable change speeds.

The Comfort and Sport transmission modes are automatic shift programs, while in Manual mode the five gears can be selected either using steering wheel buttons or the centreline gear lever's Touchshift function. In this mode the driver can then choose between three gear change stages – Sport, SuperSport or Race.

Ultimately, the driver can select and define their driving persona for the day – the coolest of cruisers, or a budding Kimi Räikkönen or David Coulthard.

In terms of the car's handling and performance, from the outset it was part of the brief of the design team to achieve top figures in three key areas – agility, active safety and comfort. No merit was seen in achieving Formula 1 levels of grip and traction at the

expense of comfort and ride.

The long wheelbase and wide front and rear track of the Mercedes-Benz SLR McLaren, however, combined with a double-wishbone and coil-sprung fully independent suspension that features anti-squat and dive technology, keeps the bespoke tyres produced by Team McLaren Mercedes Technology Partner Michelin in best contact with the road, whilst still meeting every comfort criteria that a discerning owner would expect from the highest-performance Mercedes-Benz.

But any great car of such uncompromising quality has to stop as well as it goes. Since the early 1980s ultra-lightweight, ultra-effective carbon brakes have featured in racing designs, but where racing offers a consistently high-temperature braking environment, everyday road car use does not.

On the Mercedes-Benz SLR McLaren, the design team has instead

adopted carbon fibre-reinforced ceramic discs, developed by Mercedes-Benz's advanced research and development department to achieve outstanding performance, temperature-resistance and longevity bordering on immortality without the temperature deficiencies of conventional carbon brakes.

Clasped by powerful eight-pot calipers, which, thanks to the new carbon-ceramic disc material may also employ a wide range of friction-pad materials other than carbon, the Mercedes-Benz SLR McLaren's brakes provide maximum deceleration of up to 1.3G – a value unsurpassed in any other series-production car.

In fact, careful attention has been paid to every area in which safety is a factor. Among the car's multiple cutting-edge systems are Sensotronic Brake Control – a brake-by-wire electro-hydraulic braking system – and the Electronic Stability Programme, which further

The overall style and external look for the Mercedes-Benz SLR McLaren was based on the 'Vision SLR' concept car. Much of that vision has been kept intact, with numerous advances to take the design into the 21st century



Building the Future



The new Mercedes-Benz SLR McLaren is the world's first series production car to feature entirely carbon/composite bodywork and a monocoque chassis structure. As a result, unprecedented levels of safety, rigidity and strength have been achieved, while performance, handling and economy have also been maximised by minimising weight.

The high labour-intensiveness of this sort of manufacture previously made its costs prohibitive for series production, but, for the Mercedes-Benz SLR McLaren, advanced manufacturing concepts have been developed permitting a high degree of automation.

"One of the biggest challenges has been building a complex and high-quality production car to what has to be a reasonable cost," says Mike Phillips, Managing Director of McLaren Composites.

"With the McLaren F1, that cost was less significant, but for the Mercedes-Benz SLR McLaren, we've had to look at individual parts, find new materials to control costs and create new methods to ensure they take fewer hours to produce.

"We haven't compromised any area, though. If you look at other cars that use carbon/composites, they tend to use just one technique for all the parts, but we've used individual techniques for different areas of the car to suit their individual requirements."

Carbon/composite production techniques have been incorporated from industries such as the growing wind energy market, in which the huge volumes lead to significantly reduced costs, and McLaren Composites are already looking to see how new production techniques for items such as the 'spider' roof

and crash structures can be adapted and used by DaimlerChrysler in volume production cars.

Even so, hand assembly, hand finishing and traditional standards of Mercedes-Benz and McLaren craftsmanship are evident in every pore of the product.

Following AMG standard practice, each engine for the Mercedes-Benz SLR McLaren is hand-built, and, to achieve optimum quality, each unit is the responsibility of one AMG engine-builder, who carries out the process from bare block to final cabling.

The chassis is based on a moulded carbon/composite monocoque of exquisitely sophisticated simplicity. Encompassing the car's cabin it comprises just 16 significant individual mouldings.

Body-in-white preparation – uniting and final-curing all the monocoque's component sections – takes place at McLaren Composites in Portsmouth, England, before delivery for painting and final assembly at the brand-new, state-of-the-art production facility in the McLaren Technology Centre, the TAG McLaren Group's new headquarters in Woking.

As another example of new technology, beneath the Mercedes-Benz SLR McLaren's rear screen is a shelf which performs a critical stiffening function. It has a complex form with several apertures, yet is manufactured as a single part by the Advanced Sheet Moulding Compound system.

A handling process positions individual carbon fibre composite layers at preset angles and positions to create the blank rear shelf. This is then heated and pressed into the precise shelf form demanded, with no need for subsequent reworking. As such, Mercedes-Benz is the first car manufacturer

to use ASMC components.

McLaren Composites also manufactures more than 50 carbon fibre and fibreglass components for the Mercedes-Benz SLR McLaren. Here, again, processes familiar in the aerospace industry have been developed. The degree of section-integration achieved in the monocoque is stunning. The floor assembly comprises just one piece, for example.

Separate structural components and body panels are united by high-strength bonding and riveting, then the cast-aluminium engine beams are bolted and bonded to the monocoque's front bulkhead.

The rear of the monocoque supports a separately-moulded luggage box containing the rear energy-absorbing crush structure. From the front bulkhead along each side of the engine bay project two sophisticated cast-aluminium bearer beams, supporting the engine front mounts, the front suspension and Formula 1-style nose crush structures. In fact the Mercedes-Benz SLR McLaren is the world's first series-produced car with a front crash structure made from carbon fibre.

The Mercedes-Benz SLR McLaren's hybrid carbon/composite and cast aluminium chassis structure is the most rigid production car frame created – its stiffness figures proving to be multiples of those achieved by its rivals.

Once the structure of the car's chassis has been fitted together, the interior can be hand-fitted to ensure optimum quality control before the car goes through the automated painting, drying and in-house testing procedures before being delivered into the hands of its new owner in a customer service procedure that promises to be as revolutionary as the car itself. ■

The construction techniques used on the Mercedes-Benz SLR McLaren are just as pioneering as the car itself. They ensure that minimal weight, and high levels of rigidity and safety, can still be combined with hand-built quality and reduced manufacturing costs



Engine

Engine size	5.5-litre
Engine type	M155 Supercharged V8, 90-degree vee angle
Bore / Stroke	97mm / 92mm
Compression ratio	8.8:1
Valve train	Single overhead cam per bank, chain driven
Induction system	Eight-butterfly system – carbon airbox/tilter
Engine block	Cast aluminium
Cylinder head	Cast aluminium alloy – three valves per cylinder
Flywheel	None (torque converter in gearbox)
Engine management	Bosch ME 2.8.1
Fuel	95 RON (RO2) unleaded (97.6-litre twin tank)
Oil	Mobil 1 5W-50
Lubrication	Dry sump with separate oil tank, scavenge and pressure-fed pumps. Oil to air cooler mounted in radiator duct
Emission control	Front-mounted (two per side) catalytic converters and silencers with side exit pipes

Dimensions

Length	4675mm
Width	1925mm
Height	1275mm
Wheelbase	2700mm
Front track	1638mm
Rear track	1569mm

Performance

Max. Power	442KW @ 6600rpm
Max. Torque	780Nm @ 3500rpm
Maximum rpm	7000
0-100kph time	3.8 seconds
0-200kph time	10.6 seconds
0-300kph time	28.8 seconds
Max. Speed	334kph

Chassis

Front brakes	370mm diameter carbon ceramic disc brakes with eight-cylinder fixed aluminium calipers. Front brake cooling inlets in front bumper assembly.
Rear brakes	360mm diameter Carbon ceramic disc brakes with four-cylinder fixed aluminium calipers at the rear. Drum brake on rear wheels incorporated as parking brake. Rear brake-cooling inlets situated underneath vehicle.
Braking control	Sensotronic Brake Control system and Electronic Stability Programme including ASR and ABS with override switch.
Transmission	Mercedes NAG-V five-speed auto with reverse. Fully automatic with semi-automatic option.
Front suspension	Forged aluminium double wishbone assembly, housed in die-cast aluminium uprights. High mounted anti-roll bar, coil-springs & telescopic dampers. Carry-over steel hub & bearings. Anti-dive geometry with rocker-actuated double wishbone rising rate.
Rear suspension	Forged aluminium double wishbone assembly, housed in die-cast aluminium uprights, incorporates coil-springs & telescopic dampers & carry-over steel hub & bearings. Features anti-squat geometry with rocker-actuated double-wishbone rising rate.
Aerodynamics	Automatic downforce enhancement, incorporating variable-position flap at the rear edge of the boot. Features two automatic and one manually-selected positions between zero when stationary and 65 degrees under heavy braking.
Steering rack	Rack & pinion power-assisted. Valve optimised for maximum driver feel. Energy-absorbing upper column with bespoke intermediate and lower column.
Wheel rims	Lightweight cast aluminium with five-stud fixing. (Front) 18-inch by nine-inch; (Rear) 18-inch by 11.5-inch
Tyres	Bespoke ZR rating asymmetric/directional tyres developed by Michelin (Front) 245x40x18-inch; (Rear) 295x35x18-inch
Luggage capacity	(Boot) 272-litres; (Interior) 46.1-litres

“ONE OF THE BIGGEST CHALLENGES HAS BEEN BUILDING A COMPLEX, HIGH-QUALITY CAR TO A REASONABLE COST”

MIKE PHILLIPS, McLAREN COMPOSITES MANAGING DIRECTOR

enhance the car's handling.

There are automatic tyre pressure monitors, adaptive front airbags which deploy in stages depending on the severity of an accident, sidebags, belt tensioners and belt force limiters.

The automatically-deployed rear aerofoil reacts to heavy braking by extending to a 65 degree angle. Even the environment is cared for, with four catalytic converters which help the car already meet stringent European Union exhaust regulations for 2005.

One most extraordinary feature of the car's safety system is the brake discs' self-cleaning mode in wet weather, in which the eight caliper pistons gently clasp the pads close enough to the disc surface to peel away water film, ensuring instant optimum grip the moment application is required.

All these systems have been honed

during Mercedes-Benz's standard 300,000-kilometre programme of proving tests, which included around 12,000km of runs on the 14km-long Nordschleife circuit in Germany, and hot- and cold-weather testing in Death Valley in the United States, South Africa and the Swedish Arctic.

Neither the driver's personal comfort or the functionality of the cockpit have been forgotten, though, and the Mercedes-Benz SLR McLaren's interior has been as painstakingly developed as the rest of the car. Here, for the first time, one outside company – Johnson Controls – has manufactured and supplied the interior, hand-finished trim and furnishing of a Mercedes-Benz model.

“You've got all the comfort and electronic features which are offered on the Mercedes-Benz SL,” says Antony

Sheriff. “From the Bose audio system to the navigation system, and the automatic headlamps which come on whenever the car enters a darkened area. And it's all superimposed upon the style, the power, the torque and the dynamic handling of the Mercedes-Benz SLR McLaren.

“Wherever you look through the car's specification there's a system or feature which breaks new ground. It's typical of the detail thinking invested in this car that there's some capability or some advantage of one system which combines with the next to promote even greater advantage or capability overall. It takes a very big book to describe it all!”

What more can we say? A new car class is here, and now, and in the Mercedes-Benz SLR McLaren the phrase 'hypercar' has truly been born. ■

The styling of the Mercedes-Benz SLR McLaren harks back to the SL and SLR coupés of the 1950s. The front-engine design, swooping lines and gullwing doors all fulfil this superb heritage

OCEAN DRIVE



When David Coulthard joined the crew of racing yacht HUGO BOSS during Cowes Week he wasn't expecting a pleasure cruise, but the pace of competition really caught the Formula 1 star by surprise

WORDS MARK SKEWIS PHOTOGRAPHS HUGO BOSS

It's 5.30 in the morning when David Coulthard's alarm clock wakes him in Monaco. He doesn't need to draw the curtains to know that this afternoon will bring a wet race. He's encountered many of those before, but nothing quite like the one today will throw at him.

This afternoon, he will take the helm of a yacht in a race rehearsal for one of sailing's most prestigious events – the 608-mile Fastnet Race, part of the famous Cowes Week held every year off the Isle of Wight in England.

The Team McLaren Mercedes driver is no stranger to life on the waves, for he owns a yacht of his own. But that is propelled by a motor, rather than by sails, and David admits that playing at parking in the Monaco marina – the extent of his ocean-going skills – is a rather different proposition from the full-blooded competition that is awaiting him on touchdown in England.

Quite how different only sinks in during the dinghy ride out to the HUGO BOSS, a 65-foot racing machine moored off the Cowes coastline. The Farr 65 yacht design, conceived in 1999

for the Millenium Around the World Race, has plenty of ocean-going pedigree. It's new recruit's pedigree is less impressive. "I haven't sailed since I was at school," he confesses. "How were you?" asks a colleague. "Rubbish!"

Of all the promotional and sporting assignments that David has tackled before, this promises to be one of the most daunting. "You're going into somebody else's domain, where they are the professionals," he admits. "It's a bit like Pro-Am golf tournaments where you're scuffing the ball into the undergrowth and saying, 'Don't worry, I'll just drop another,' but everyone else in the team wants to win so badly!"

In fact, David need not worry. Although half a dozen of the crew are top professional sailors, the rest all have a regular, and very different, day job. Some have been setting their alarm clocks at three-hour intervals during the night to accustom their bodies to the rigours of the shifts they will face during the Fastnet Race. For them, this ordeal is called a holiday!

Their helmsman for the day casts a worried glance in the boat's direction

as the dinghy draws closer. Twenty-two pairs of eyes meet his gaze. The yacht couldn't look any more intimidating if its black sails carried the Jolly Roger rather than the logo of a Team McLaren Mercedes Corporate Partner.

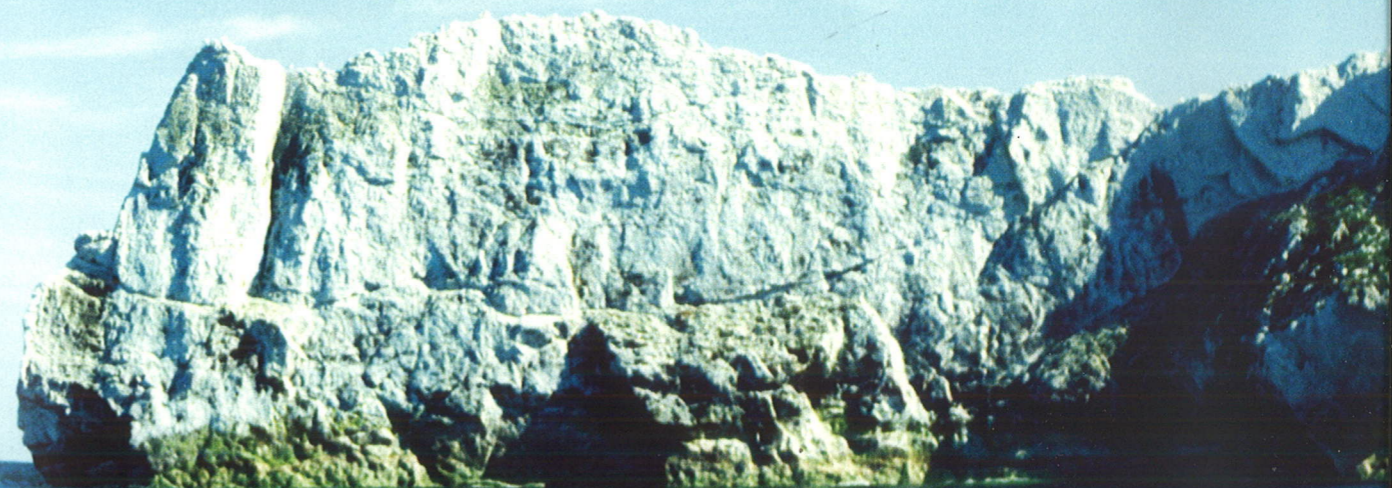
Once aboard, David films a quick sequence for the cameras of British Formula 1 broadcaster ITV. Then he is guided through the Farr 65's sophisticated instrumentation.

"As in Formula 1, so much of our racing is done by numbers," explains skipper Alex Thomson. "We have data on the wind and the tide, as well as the boat's position on the ocean."

David must quickly master such details, as well as steering to anticipate the waves and manoeuvres of rival ships, if he is to stay out of trouble.

The only good news on the horizon is that he couldn't hope for a better instructor. Thomson is the youngest ever winner of a round the world race.

"I'm a bit more used to being on a boat like that," David admits, gesturing to one of the motor yachts that is scrutinising his training session from nearby. "To you, they're probably not >>



>> boats at all!"

"We call them stinkpots," shrugs his tutor. If unmoved by his pupil's taste in boats, Thomson can't fail to be impressed by his determination. Left bemused by the initial skim through his role, David works diligently to learn his duties.

'Tacking', or zigzagging a course to harness the wind, is the principal art of sailing – especially today, when there is hardly a breeze to catch. David's practice period is twice extended by news that the calm conditions have caused the start to be deferred. Confidence grows with each stay of execution.

There are only as many competitors in the HUGO BOSS's class as there are in a grand prix. The water is teeming with craft from other categories when the start finally takes place, however.

Far from coasting up to the line, as drivers do on a Formula 1 formation lap, the yachts jockey for position at speed. "Organised chaos," is David's wide-eyed verdict as boats sail away from the marker buoys, then time a flick back in the right direction to coincide with the start signal.

When the klaxon finally sounds,

confusion reigns. To an untrained observer, two fundamental questions loom large. Are we still racing? And, if so, in which direction are we supposed to be facing?

In fact, the start is quickly aborted because too many vessels have jumped the gun. HUGO BOSS is not one of them, however, and a rival acknowledges that fact. "Nice start," comes a cry from a yacht that slides past just a few unnerving feet away from David's position at the stern.

"That is one of the biggest adrenaline rushes I've had in my life," he admits, shaking his head in disbelief. "A lot of what's going on actually looks a bit naughty. Boats are skimming alarmingly close to you from every direction. There are some seriously underhand tactics going on, with people trying to take the air from your sails."

The second start isn't quite from the textbook. The HUGO BOSS's speed drops too low and, with the steering compromised, it glides perilously close to an increasingly irate rival.

"We were lined up beautifully for the first start but fluffed the second one,"

David later admits. "I even had someone shout across, 'Learn how to drive.'"

You know, just the normal comments really!" Did they have any idea who their assailant was? "Do you think a big 'David' on my back gave it away?" he shoots back. "I can't afford to have my reputation damaged in this way – next time, I'm going to wear a Kimi T-shirt!"

David could well have 'Superman' emblazoned on his chest but he still wouldn't stand a chance of winning the race in these weather conditions.

The Farr 65 design is at its best when harnessing strong wind in the sails billowing from its carbon fibre mast. In today's calm conditions, its 28,720kg displacement is too heavy to generate anywhere near its normal 14-knot cruising speed. Most of the opposition quickly disappears into the distance.

For close to two hours David steers a course under the blazing sun. Only once does Thomson intervene at the twin-wheel helm, averting a clash when one straggler comes too close for comfort. It's not only his celebrity driver's blushes that he's keen to protect – the HUGO BOSS is worth in excess of US\$1.5 million.

RIGHT Even though he has scaled the heights of the Formula 1 podium on countless occasions, David Coulthard was still impressed by the view from the 87-foot main mast of HUGO BOSS

BELOW The Team McLaren Mercedes driver was surprised to learn that teamwork is a vital part of success for the 22-strong crew of HUGO BOSS – very much like in Formula 1



"DAVID WAS GENUINELY VERY GOOD. THERE WAS A LOT GOING ON, BUT HE WAS STILL ABLE TO FOCUS ON WHAT HE WAS DOING"

ALEX THOMPSON, HUGO BOSS SKIPPER



ABOVE Given the size of the oceans, sailing can be a comparatively solitary sport for each yacht – a stark contrast to the close-fought tussles of Formula 1. As David discovered, though, that will to win and the desire to beat your rivals is still highly evident

The experience of taking its helm, though, is priceless. That much is evident in David's grin when the yacht finally ducks out of the fleet and he trades the wheel for a number of press microphones.

You might not imagine that racing at all of nine knots (around 10mph) would make much impression on a Formula 1 driver, but you'd be wrong.

"You are not going flat-out physically but, mentally, you are," he reveals. "I know it will seem hard for anyone who hasn't been on a sailing boat to understand how nine knots

can seem anything like as exciting as 200mph. But the start of the race was genuinely exhilarating.

"With the strategy of the turns whilst you're in the race, you're not aware that you're doing nine knots, other than the fact that the dial is telling you. It's not about seeing the water whizzing past. It's about seeing your competitors doing nine knots as well, and you're trying to do 9.1."

David isn't the only one impressed by the yachting experience. HUGO BOSS, a partner of Team McLaren Mercedes for 22 years, only recently

added this discipline to a sponsorship portfolio that boasts Formula 1, golf and even boxing.

Just like its official teamwear for Team McLaren Mercedes, HUGO BOSS has developed a special range of clothing for the Fastnet Race. But its Green Label sport and leisurewear is not the only catalyst for its involvement. "Sailing is a perfect match for our brand," explains Dr Bruno Saelzer, the CEO of HUGO BOSS AG. "Like Formula 1, it is all about technology and teamwork."

David is used to the excellence of

Team McLaren Mercedes' teamwork during a grand prix but he wasn't expecting its importance to be mirrored in yachting.

"The team element was something that surprised me," he admits. "It's totally about a team working together. If any of the guys aren't pulling their weight on turns, you lose performance."

David's efforts at the helm of the HUGO BOSS commanded column inches and glossy photos, but how did he measure up to the professionals? Surprisingly well, is the answer.

As current Round Britain monohull record holder, skipper Alex Thomson is not easily impressed. Yet he is fulsome in his praise of the Formula 1 driver's race debut.

"David was genuinely very good and that's not just a PR phrase," he insists. "Yes, I would say he was good anyway, but I really mean it! His concentration was the most impressive thing that he clearly brought from Formula 1. There was a lot going on – 22 people giving input, boats all over the place – but he was still able to focus on what he was doing."

"He told me he'd watched sailing on television but didn't understand why

people could find it exciting. I think he changed his mind at the start..."

Just how well the new recruit has integrated himself into this tight-knit crew only becomes evident at the end of the day. By now the media has departed and so, seemingly, has David's sanity – he is persuaded to don a safety harness and climb the mast!

Only once he has athletically raced to the top, a dizzyingly long way above the water, does he actually check how high the mast is.

Eighty-seven feet is the answer he really didn't want to hear. Jubilant whistles and a spontaneous round of applause from below signal not only the fact that he has reached the top but also that he has won the hearts of his new colleagues for his plucky

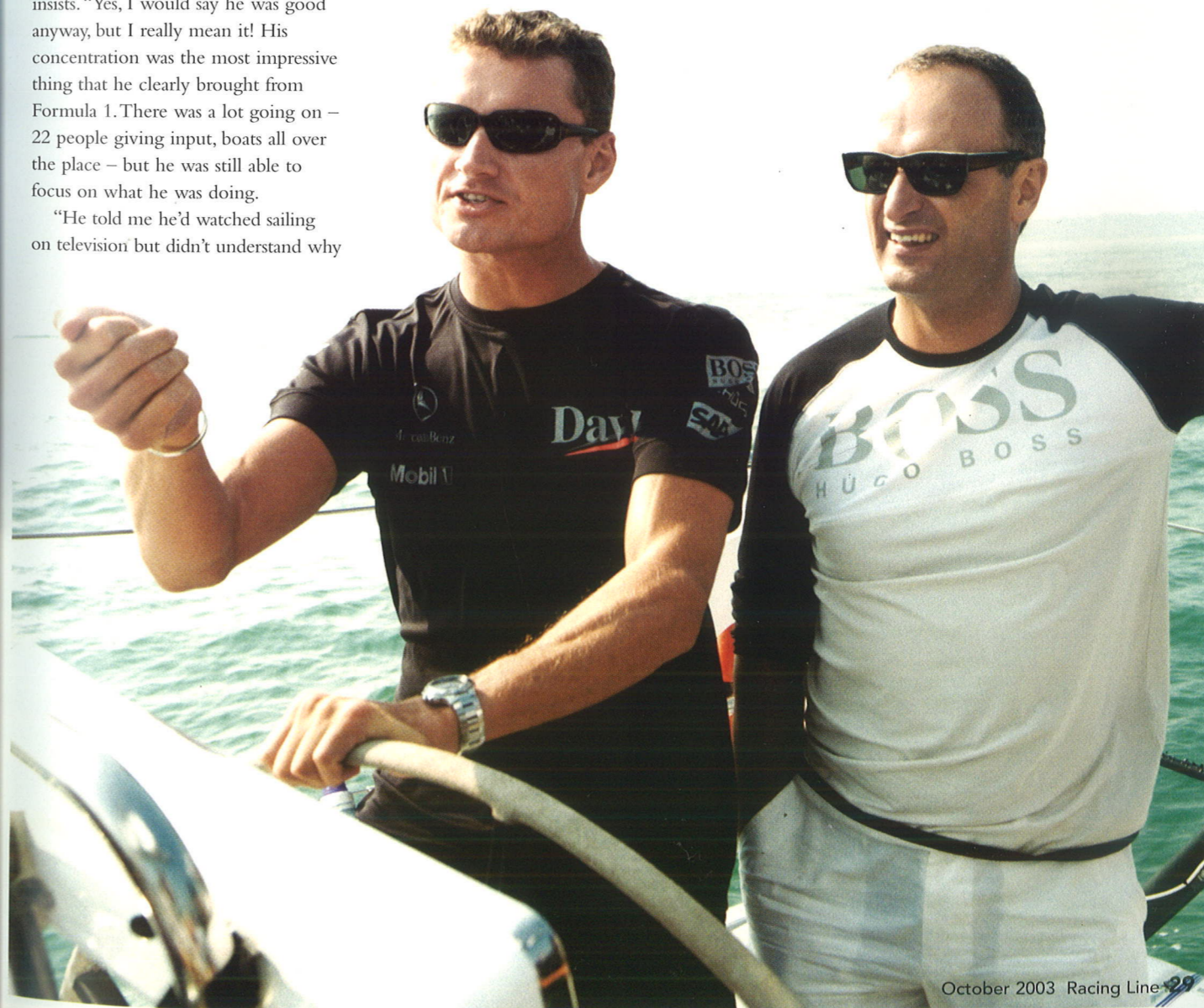
effort throughout the day.

To the strains of the theme tune from the film *Rocky*, adeptly played on a trombone by appreciative onlookers in a dinghy, he is lowered back to the deck. He departs among a flurry of handshakes.

David may have escaped unscathed from his heroics, but the day has certainly left its mark on him. "I was amazed at what an eye-opener it's been," he admits. "That is genuinely one of the most impressive promotional events I've ever been involved with."

But will it change his approach to life on board his own yacht in between grands prix? "Absolutely," he replies without hesitation. "I'm going to enjoy relaxing and doing nothing on board even more than I normally do!" ■

MAIN David and HUGO BOSS CEO Bruno Saelzer take the opportunity to discuss race strategy at the helm of the HUGO BOSS during the run-up to the event itself



British comedy writer and performer **Rowan Atkinson** is famous throughout the world for his numerous television and cinema roles, but he also harbours a passion for cars and motorsport – an area that *Racing Line* was more than keen to explore

WORDS LUKE HAYTER PHOTOGRAPH PBJ MANAGEMENT

You're well known for your love of motoring – how did this passion come about?

A fascination with machines was what drew me to cars. I spent a lot of my childhood on a farm and I started off actually driving tractors. I remember taking my tractor test when I was 16 years old, with the examiner riding in a car behind me. That was a rather bizarre experience because he couldn't really see what I was up to. I managed to pass though. My mother also had a Morris Minor and I used to spend time driving it around the farm, scaring the livestock and, in many cases, myself.

Didn't you develop an interest in trucks as well?

Trucks fascinated me in my late teens. I haven't driven one for 20 years now, but I did a lot back then. In fact, I still have my HGV [Heavy Goods Vehicle] licence. To me, a truck represents the ultimate expression of the connection between man and machine. There is a huge responsibility with driving trucks – a lot of momentum to control. It's the overcoming of those challenges that I enjoyed. I derived great satisfaction from being able to drive them well.

You're one of the lucky few who own a McLaren F1 road car. What is its appeal to you?

You had to be very inspired to order a McLaren F1 road car, purely because the expense was off the scale! I regarded it almost as a statement of religious belief to order a car like that. The important thing for me was that buying the car was an act of faith, buying into the quite singular vision that the car represents. The fact that a small group of people came together with the aim of building the ultimate driver's car

makes this car unique from any other that's been built in the past 25 years. It was this uncompromising vision, and the work of Gordon Murray, that made it special. There are many obvious appeals to owning a McLaren F1. The intoxicating performance and quite the most magnificent engine that has ever been made, in my opinion. The fact that it was designed as a road car engine and turned out to be a brilliant racing powerplant is testament to that.

Another thing about the car is that it's an absolute delight to drive slowly, which is a very rare quality for a car of that nature. In my experience, cars which go that quickly are noisy, uncomfortable and very unsatisfying unless you're driving like a madman, whereas the McLaren F1 is an absolute pleasure to drive slowly, and that's just part of the pragmatism of the design. I've now done nearly 20,000 miles in mine, which is quite a lot for a car of that type. I think the whole point is to take the car out regularly and enjoy it, and that usability is a very important part of its appeal to me.

You do a lot of racing yourself. How did that come about?

It started in the late 1980s, when I raced in a Renault 5 Turbo, a car which was cheap both to buy and to mend, and of course very light. It was like racing in a go-kart. It was a great learning experience for me but unfortunately I'm still not any good at racing! I tend to tootle along in the middle of the field, and so it was back then, but it was an educational experience nonetheless.

I did 12 races in two years, but then I stopped and didn't do any more racing until 1997, when I bought an Aston Martin DB2 which I campaigned for two years. I then decided to prepare another

Aston, this time a V8 Zagato, which I've been racing – not very competitively – for a couple of years now.

You're noted for your perfectionism on-set. How does this manifest itself at the race track?

I don't think that I'm too much of a perfectionist; I just like things to be as good as they can be. For example, I'm not a particularly tidy person, but I love it when things just look the business, and I try to make sure that my racing car does.

In terms of my racing, I think I'm a long way from being perfect, but I do try to constantly improve. When I get a corner completely right, for example, it's tremendously satisfying. It doesn't happen that often to me, but when it does it gives me great pleasure. Perfectionism in my professional work can be as much of a burden as an aid, because it can be quite frustrating – it is the constant pursuit of the unattainable, in fact. In motor racing I can live with that because I'm so far from being genuinely skilled, but to get things right is great when it happens.

What about Formula 1? Do you like to attend races?

I have in the past, but it's always something of a hassle for me, simply because my work has made my face recognisable in so many parts of the world. I have actually been a guest of Team McLaren Mercedes on occasion, and I've always greatly enjoyed the hospitality that the team has shown me. I do try to catch as many races as possible on television, though. I think the ideal thing would be for me to watch the race from a grandstand, wearing a disguise, clutching a small hand-held television. ■

shooting the ICEMAN

Team McLaren Mercedes driver Kimi Räikkönen's face is already well-known for his Formula 1 success. At the Hungarian Grand Prix he added a fashion shoot to his portfolio

WORDS ADAM COOPER PHOTOGRAPHY STEVEN TEE/LAT



It's the Thursday ahead of the Hungarian Grand Prix weekend, and

Kimi Räikkönen has a couple of promotional duties to undertake at the hotel which is temporary home to Team McLaren Mercedes and several other visiting Formula 1 teams.

They call him the Iceman, but, tonight in Budapest, Kimi is really going to live up to that nickname. As part of a photo shoot for a German magazine, he's going to get the full movie make-up treatment. Apparently he'll look a bit like a frozen Leonardo di Caprio at the end of *Titanic*.

First stop for Kimi is the hotel bar, where he meets local journalists and does a few quick interviews. Then it's on to the main business of the evening.

The shoot has been arranged by the German version of men's lifestyle magazine *Maxim*, or, more specifically, the special fashion edition that comes out twice a year. Kimi is to be the cover star in the upcoming Autumn/Winter edition, which will be in the shops for several months, boosting the profile of both Kimi and the team in Germany.

Kimi has done photoshoots before, but this is the first time he's plunged into the mainstream fashion world that girlfriend and model Jenni knows so well. Did she give him any advice?

"No, she was just laughing when I told her I was doing it!," he jokes.

A team of four people has come from Germany for the shoot. There's fashion editor Carola Niemann, top freelance photographer Karel Kuehne, his assistant Moriz, and make-up and hair guy Ciel. Carola was behind the decision to choose Kimi.

"We have a theme throughout the magazine which is based on ice and everything Nordic," she explains.

"We started by going to Greenland and took some nice shots there, and, as we were discussing the cover, we started thinking of Kimi as the right person for it, because he's also from a northern country.

"He's a cool guy, and he's someone of the future, and that's why we wanted him on our cover now."

Ironically at first she didn't even know of the Iceman nickname.

"We didn't know that!" she laughs. "It was really funny. It was only when we were trying to get an appointment and it was clear it was going to happen that somebody said his nickname is the Iceman. It was a coincidence, because we had the idea of the ice on the face and the whole Nordic thing before we even knew that."

Another happy coincidence was McLaren's Partnership with HUGO BOSS, which made a perfect fit.

Carola has worked with non-models before – including musicians Lenny Kravitz and Iggy Pop – and she's



Kimi had a large number of HUGO BOSS outfits and poses to get through, but the young Finn seemed to handle the pressures of modelling with ease

>> looking forward to the challenge of working with a racing driver.

Finding a slot in Kimi's busy schedule was not easy, and the Hungarian Grand Prix was the last possible chance. Due to production and printing deadlines, the layout has to be ready go by the Monday after the race – leaving the staff barely three days to get it turned around. Usually, in their business, lead times are

frozen at first, and then we'll put more and more snow effects to his face and to his hair. I think it's going to be wild."

With the interview sessions over, Kimi heads upstairs to a conference room where the shoot is to take place. Lights are placed strategically around, and they're attached to an electronic gizmo box that must be a nightmare to get through airport security.

There are some other clues as to

"All of it!" Carola confirms.

His interest clearly aroused, Kimi submits himself to a short make-up session with Cicel. He then slips behind some carefully stacked chairs to get some degree of privacy as he changes into the first outfit. He emerges wearing a red and grey jacket with the legend 'Naked' written on the back.

The first set-up involves the

THE TEAM FROM MAXIM HAS SPENT THE DAY PREPARING AND REHEARSING SO THAT KIMI CAN BE IN AND OUT AS SOON AS POSSIBLE.

measured in weeks or even months. So the pressure is on to get the shot...

"This time it's like a race," admits Carola. "We're here, we shoot, we go back, we edit. We have to do everything as fast as possible."

There's no time to lose and, for that reason, Carola has hired a photographer who's known for getting the job done with the minimum fuss.

Make-up man Cicel is experienced in movie special effects, and it will be his job to create the literal interpretation of the Iceman nickname.

"We're going to build it up step by step," says Carola. "He'll be a little

what's about to take place. A silver backdrop is taped to one wall, and there's a huge stepladder in the middle of the room, borrowed from the hotel.

In one corner there's a table with make-up equipment laid out, in another there's a trolley containing drinks and a few snacks, and in another there's a large hi-fi system. The guys like to have music playing while they work.

Kimi says hello to Carola and the crew, and begins to soak up the atmosphere. The clothes he's going to wear are laid on the floor, all in his size.

"Is it all from HUGO BOSS?," he asks. It is. "So I can keep it?" he jokes

stepladder. Like the other planned shots, the team has spent the day preparing and rehearsing so that Kimi can be in and out as soon as possible.

There's still time for a final check. While Kimi changes, the photography assistant Moriz doubles for him. Lensman Karel takes a few shots and pronounces himself satisfied. Now it's Kimi's turn to climb the ladder. He tries a few poses, looking first at the camera, and then away from it.

The shots take just a few minutes before Kimi is back down and changing into his next outfit. Karel is happy, and it's already clear that Kimi





“HE’S A COOL GUY, ONE OF THE FUTURE, AND THAT’S WHY WE WANTED HIM ON OUR COVER RIGHT NOW”

CAROLA NIEMANN, MAXIM GERMANY FASHION EDITOR

is going to be easy to work with. He’s unpretentious and unselfconscious, despite the fact that all eyes in the room are on his performance.

The second set-up involves a bench seat that has been placed against a wall. Now wearing a dark and light grey hooded jacket, he stares into the camera with an intensity that clearly impresses the man on the other side of the lens. Kimi tries a few poses, at one point sitting with his hands

clasped in front of him.

Then a degree of levity spreads around the room, thanks to an unexpected change of background music. The previously punky sound suddenly disappears as the group on the hi-fi launches into a 1930s-style vaudeville number called, perhaps appropriately, ‘Hey There, Fancypants.’ Kimi allows himself a chuckle.

There are more shots without the jacket, and with sunglasses. Then there’s

a quick swap for Kimi to his racing overalls. He returns to the bench, and this time lies down. He stares at the ceiling, his eyes closed at one point.

Another quick change into a dinner suit, and something of a James Bond look. The labels are carefully cut off, and the collar is turned up to give the outfit a more modern approach.

This time Kimi sits on the floor next to the wall. He’s holding, rather than wearing the bow tie, and, with his

head bent down, he stares straight into the camera. Wow! Everyone agrees that was a good one, and again Karel is impressed. As a final trick Kimi is asked to throw the tie at the camera.

He tries it three times, and, on each occasion, Karel captures it in mid-air. Kimi smiles as he checks the shots on the digital camera’s little screen.

“Now you’re going to get icy,” smiles Carola. After a refreshing drink Kimi heads back to the make-up table, and effects expert Cicel sets to work. He puts special gel on Kimi’s face and hair, and sprays his face.

Kimi does a few close-up shots in front of the silver background. They’re OK, but more ice is needed. White powder is flicked all over Kimi. More water is sprayed, then more ‘snow’, and finally some rather gooey icicles are hung in strategic places.

It looks great, and even better when the light from the flash is caught in all the right places. There’s some more topping up for the final look, and more shots are snapped until Karel is satisfied with the result.

Everyone crowds round and takes a look at the little screen. It has worked out far better than anyone dared hope, and Kimi can leave earlier than originally planned.

Kimi gathers up the rest of the clothes that now belong to him, with the exception of the tuxedo, which will go first to the hotel dry cleaning service. With all that sticky stuff in his hair and on his face, Kimi himself is also in need of a wash. After saying his goodbyes he heads up to his room for a brief shower.

The crew breathes a collective sigh of relief. They got the shots they wanted, and Kimi was a joy to work with.

“It went perfectly,” says a relieved Carola. “It was nice working with him, and it went very easily.”

“He was very relaxed, although you can see that he’s quite shy. But if you ask him to do this or that, he does manage to do it. I was worried in the beginning that there might be too many people around him, but he was very concentrated.”

“He looks really good, and the older he gets the more interesting his face



shape will become. I hope we have another chance to shoot him. Now we fly back to Berlin Friday morning, work all the weekend, and Monday evening it’s going to be ready...”

Photographer Karel is also pleased with the results of the photoshoot.

“I was quite astonished,” he admits. “I thought maybe he’s not used to it, he’s shy, he doesn’t like cameras, but he was great. It was very easy with him. I’d only seen older pictures before, but he has a modern haircut now, and he looks cool. If somebody had told me he was a model, I would believe it! He has a strong look.”

The following day, Kimi has had a

chance to reflect on the experience and offers his thoughts on the evening. He clearly had a good time.

“I didn’t know what to expect,” he admits. “But it was good fun. The people were very nice, and I really like the clothes. It felt a bit strange to have the make-up on and all that stuff, but it wasn’t a problem. I saw the ice pictures, and they were nice. It was a really good idea to do it like that.”

So does another career as a model now beckon for Kimi?

“No, I will never change – I will not go into modelling!” he smiles as he leaves the Team Communications Centre, to return to his proper job. ■

Kimi’s ‘Iceman’ moniker is amply illustrated by the cool shots of the Finn that will appear in the fashion edition of German Maxim

THE FRONT WING

WORDS JOHN LEACH PHOTOGRAPH TED HUMBLE-SMITH



"The front wing is the most important part of a Formula 1 car's aerodynamic package,"

explains Team McLaren Mercedes Senior Aerodynamicist Doug McKiernan.

"Because of its position, it controls how the air flows over the rest of the vehicle.

"Unlike the rear wing, the front wing utilises ground effect. This is the aerodynamic principle that uses the ground to accelerate the airflow to higher speeds than would be possible if the wing were in free air. The higher speeds generate lower pressures which suck the car down to the racetrack."

The wing's optimum shape is determined using Computational Fluid Dynamics computer programmes, in conjunction with many hours spent evaluating a scale model in the wind tunnel.

The sport's governing body, the FIA, has strict guidelines regarding the size of aerodynamic devices. The front wing must not exceed 1400mm across, by 550mm deep and 200mm high. However, there is no limit on the number of aerofoils within that specified area – unlike the rear wing, which is restricted to three.

"In theory," says Doug, "we could run 30, 40 or even more elements. However, typically we fit just three and this can drop to as few as two for a low-downforce circuit, such as Monza in Italy."

The two rearward aerofoils are adjustable so that, between them, a driver and his engineer can fine-tune the handling of the front of the car. If the driver feels that his front tyres aren't giving as much grip as he would like, for example, he can ask for an increase in the angle of the wing to give him more downforce and consequently more front-end grip. This can be carried out in a

matter of seconds by inserting and turning an hexagonal wrench, or Allen key, in a screw thread located in the wing's endplate. It is not unusual to see this done during mid-race pitstops to adapt the car to changing weather or track conditions.

The aerofoils are made of carbon fibre and are held together at each end by upright carbon fibre fins, known as endplates.

The whole unit is suspended from the car's nose by two pylons and held securely in place by four bolts. To test the rigidity of the structure, the endplate must be capable of withstanding the force of a 500 Newton weight applied to its upper edge.

Despite its sturdy construction, the front wing is prone to breakage, but not through aerodynamic stresses. Its position forward of the front wheels makes it vulnerable to accident damage. What might look like a gentle tap against another car in the first-corner mêlée at the start of a race is in fact a 150 kph-plus collision, which can seriously damage or remove the front wing completely. First-lap pitstops for a replacement nosecone and front wing assembly are therefore a frequent sight.

As you would expect, however, Team McLaren Mercedes does not subscribe to the philosophy of running on a wing and a prayer. It arrives at each grand prix fully prepared with six complete nosecone and wing sections, two for each race car and two for the spare, ready to bolt on at a moment's notice.

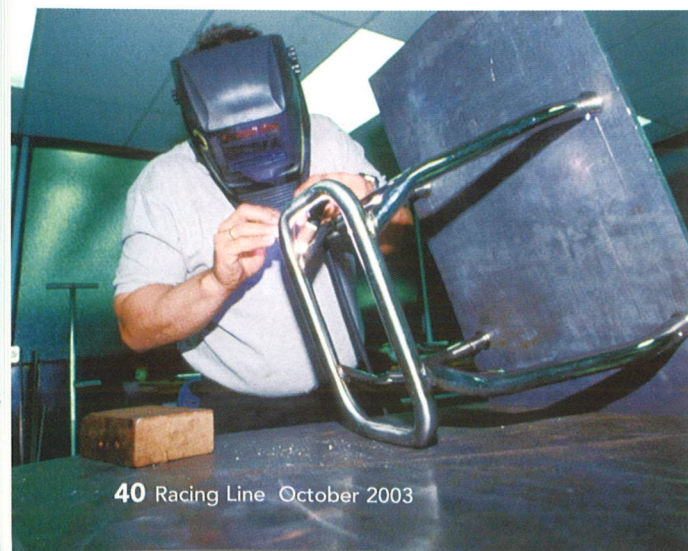
i TECHNICAL SPEC

DIMENSIONS Width 1400mm, depth 550mm, height 200mm

MATERIAL Carbon fibre

NUMBER USED PER SEASON 40





SO YOU WANT TO WORK IN FORMULA 1?

Each grand prix represents only the visible tip of a Formula 1 team's efforts. There are many people who form an integral part of the team, yet are rarely seen. *Racing Line* finds out just what it takes to become one of their number

WORDS LUKE HAYTER PHOTOGRAPHS STEVE ORINO

For many people, Formula 1 represents a dream – a high-octane world of fast cars and exotic locations.

Not surprisingly, then, it's often considered an attractive career option. However, given that Formula 1, by its very nature, demands the best of the best, the attainment of a job in the sport would seem difficult to achieve. There is a way, though, for those in love with the sport to make it their profession, because Formula 1 has a myriad of fulfilling roles to offer.

For Team McLaren Mercedes, the continuous quest to be the best in every area of the Formula 1 business demands a special kind of person – a person who is willing to integrate seamlessly into the working culture that has brought the team untold

“WE ARE LOOKING FOR PEOPLE WHO CAN MAKE A DIFFERENCE TO THE TEAM”
VICKIE SIMS, HUMAN RESOURCES CO-ORDINATOR



PERSONNEL PROFILES



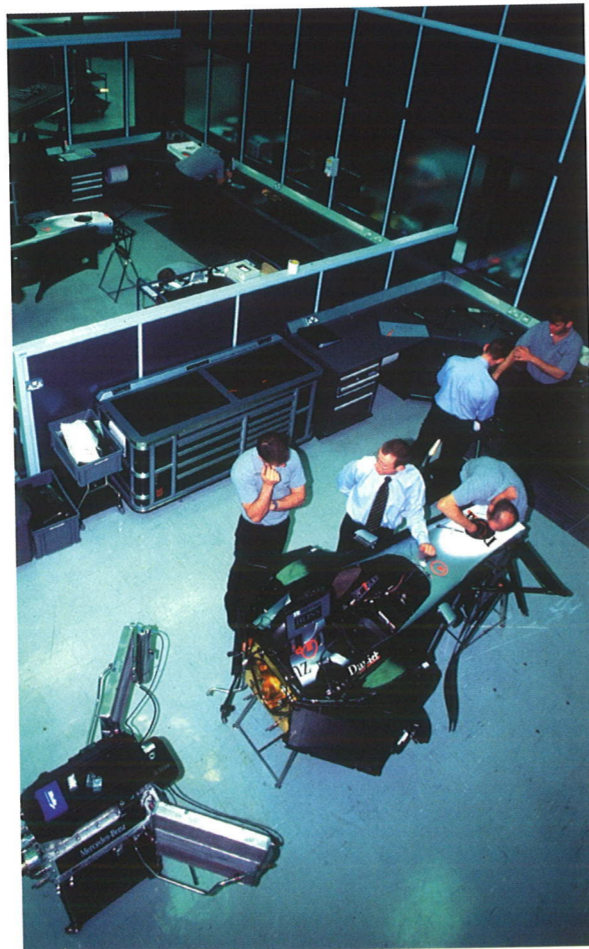
MIKE ELLIOTT
AERODYNAMICIST

Mike Elliott has been with the team for three years, spending 50 percent of his time wind tunnel testing and 50 percent in the aerodynamic office designing and driving projects. He is educated to PhD level and had prior experience of working in a wind tunnel.

“I studied aeronautical engineering with a view to working in that industry,” Mike explains. “One day, the Head of Aerodynamics at McLaren called my university supervisor and said he was looking for somebody for that department. I had the experience and qualifications required, so I went along to the interview, and got the job!”

Mike’s qualifications meant that he was subject to offers from other Formula 1 teams, but the decision to join McLaren was easy.

“It was the strength of the technical organisation which persuaded me to join and, since I arrived, I’ve learned a host of new skills.”



success in motorsport’s top echelon.

“Because we’re one of the top teams, we attract a lot of respondents when we have a vacancy to fill,” explains Vickie Sims of the Human Resources team at McLaren International, “which, given the finite number of jobs within the team, is not too often.

“Ultimately, though, we are looking for people who can make a difference to the team. Not just in terms of the position they fill, but in a broader way – the way they contribute to the company as a whole.”

So how does one translate the dream into reality – in other words, how does a Formula 1 fan become a Formula 1 employee? The answer is that there is no easy answer. Because, as with any rewarding career, the way to achieve success is through a combination of hard work, pertinent qualifications and relevant experience.

At the heart of Team McLaren Mercedes’ success in Formula 1 lies the team of designers and engineers who report to the Chief Designer, Mike Coughlan, and Technical Director Adrian Newey, and it goes

CLOCKWISE FROM LEFT
Roles for potential
Formula 1 employees
are hugely varied, with
many producing the
numerous parts of the
car that can make the
crucial difference on
the race track

without saying that the team will only consider applicants of the highest calibre for these positions.

In most cases, relevant degrees must have been obtained from those universities with the highest quality and reputation. Ideally, the team would look to recruit those applicants who have a solid record of academic achievement in aeronautical, automotive and mechanical engineering, or systems, software and aerodynamic disciplines.

When a vacancy becomes available in the aerodynamics department, for example, masters or doctorate level degrees may be required before a candidate is considered for an interview.

Not all positions require such high levels of academic attainment, though, because there are several roles which – while still demanding the highest calibre of applicant – draw from a much larger pool of potentials.

“There is always lots of interest in positions in the design and aerodynamic departments,” continues Sims. “However, we receive hundreds of applications each month from those seeking more varied positions.”

The 2003 season featured a restructuring and an expansion of McLaren International’s technical department, and this keeps the HR department very busy sifting through letters from hundreds of applicants.

“We’ve been busy matching the right people to the right position,” explains Sims. “All candidates must prove they can not only fulfil the role they are applying for, but also that they are capable of providing that bit extra.”

These ‘extras’ are where the main difference lies between the good candidates and a potential Team McLaren Mercedes employee.

In a sport as complex and demanding as Formula 1, the people who make up the team – from the drivers down – are the difference between winning and losing.

There are hundreds of roles and responsibilities running side by side that make up a world-class team such as McLaren. From the catering to computational fluid dynamics, there are numerous elements required to make up the complete package.

It is obvious that it is not going to be easy to gain employment in a

PERSONNEL PROFILES



PETER CUMMINGS
PURCHASING DEPARTMENT

Peter Cummings, who has worked with McLaren International for 15 months, grew up near the Silverstone circuit in the UK and became intoxicated by the sport as he watched races and tests at the Northamptonshire track.

“I had no doubt in my mind that Formula 1 was the right career for me,” he says. “Although it was a lucky break that I managed to get to McLaren!”

Peter speculatively sent a CV to the team and, by chance, a suitable position arose in the purchasing department. He was invited to apply for the vacancy. “I look after the sourcing of proprietary items for the race and test teams, and this involves a number of skills, including internal liaison, negotiation and so on,” he says. “My advice to anyone wanting a job in Formula 1 is never to give up trying.”



CHRIS PARKER
CAD SYSTEMS ANALYST

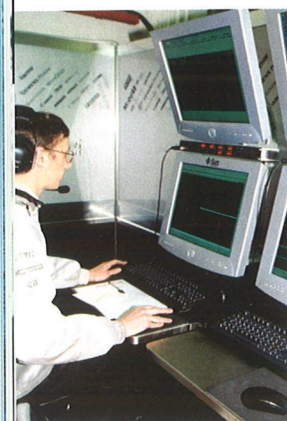
Chris Parker is currently a Computer Aided Design Systems Analyst in the information technology department. He came to McLaren International straight from university, where he had obtained a degree in Information Technology.

“I gained work experience here while I was studying for my degree,” explains Chris. “When I had completed my assignment, they asked me to come back to work with the team on a permanent basis.”

Since joining the team, Chris has added to the skills he learned during his period of study.

“I’ve learned a lot about working under pressure,” he says. “A different kind of pressure from that of university.”

“To work in Formula 1 demands very high standards and an inquisitive nature, and a desire to work hard under extreme pressure. If you have all those qualities, then you won’t go far wrong.”



ABOVE AND TOP
The constant quest
for perfection in
Formula 1 means that
potential applicants
need to be the best
in their fields – and
only the very best of
these are eventually
employed by McLaren

**“ANY JOB IN FORMULA 1 DEMANDS
A UNIQUE BRAND OF COMMITMENT”**
VICKIE SIMS, HUMAN RESOURCES CO-ORDINATOR

company that is consistently adapting and pushing the boundaries of the sport. However, McLaren has created a number of initiatives to ensure that it is in a strong position for the future, and is particularly committed to helping develop the talent of young people.

The work experience scheme for Year 10 school pupils from the UK is a prime example of this.

Priority is given to schools in the Woking area around McLaren’s headquarters, and the scheme allows youngsters an opportunity to see what goes on away from the track, gaining valuable insight into what it takes to be a member of a successful Formula 1 team. McLaren also runs industrial placement schemes for undergraduates wishing to gain experience in their chosen field, but places on these schemes are always oversubscribed.

There are other, more personal qualities to be displayed by any potential employee, however.

“We are looking for people who are prepared to make the right kind of commitment to the team,” says Sims.

“Any job in motorsport, particularly Formula 1, demands commitment, as many roles demand long hours and substantial periods away from home.”

Keeness and dedication, then, are among the important characteristics a potential candidate must display, along with, of course, a commitment to teamwork. To get a job in Formula 1 you have to display qualities that raise you above and beyond the level of other applicants.

It seems that once someone is an integral part of the well-oiled McLaren machine, though, it is hard to pull them away. “We tend to have a lot of people at the company who have been here for a number of years,” says Sims.

“McLaren is a company where people want to stay for a long time and I guess that speaks volumes for the kind of long-term career strategies and personal fulfilment we offer the right people.”

The Formula 1 dream, then, is there to be chased. ■
To find out more about careers in the TAG McLaren Group, log on to: www.mclaren.com/partners/careers.htm

PERSONNEL PROFILES



JOHN SUTTON
POWERTRAIN DESIGN

John Sutton has worked in Formula 1 since 1988 and he joined McLaren in 2002 to head the group responsible for design of the transmission and rear suspension.

“As a child, I was inquisitive and very keen on making things,” he explains. “I went on to study engineering at university.”

John worked initially in the aerospace sector and then automotive consultancy, but when the chance to enter Formula 1 arose, the appeal of leading-edge technology proved hard to resist.

John has worked for a number of Formula 1 teams but he jumped at the opportunity to join McLaren.

“It’s fantastic to work with a company such as McLaren because they have the capability and adaptability to be able to take on the biggest engineering challenges and succeed in them,” he says.



STEVE ROAKE
COMPOSITES LAMINATOR

Steve Roake joined McLaren in 1988 and currently works in the composites department as a laminator. Steve gained a Higher National Diploma from technical college and came to Formula 1 from the aeronautical industry.

“McLaren represented the first chance I had to work with a real top team,” says Steve. “I spotted the vacancy for a composites expert in the local press and I knew I was joining a successful team, which would reward flair and hard work.”

As composites technology develops, so does Steve’s role, meaning that no two seasons are the same. “There is always stimulus to keep you on your toes,” he continues. “The sport has changed a lot since I started, but the best advice I would offer to anyone is to get solid and relevant qualifications, and to be adaptable and enthusiastic.”

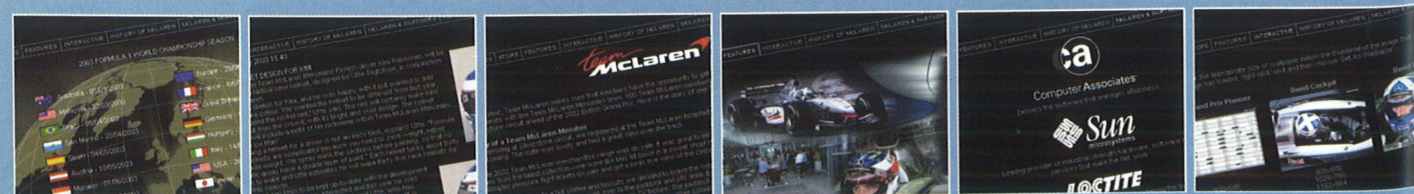
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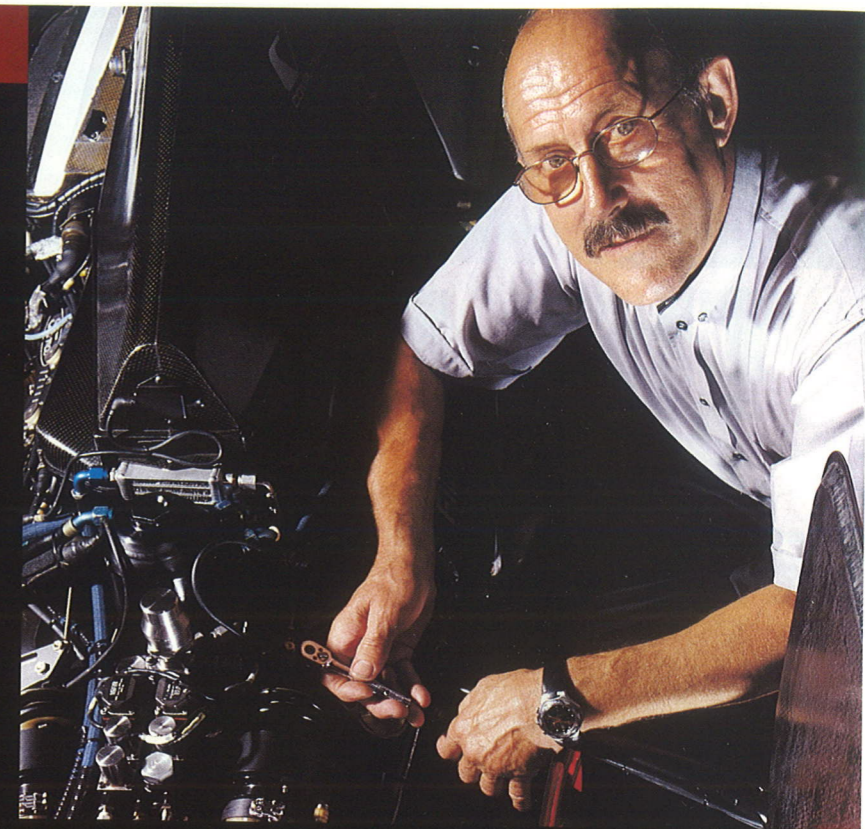


For the most up-to-date news and features log on to the official Team McLaren Mercedes website

UNsung HEROES >

RON PELLATT HERITAGE DEPARTMENT

WORDS LUKE HAYTER PHOTOGRAPH STEVE ORINO



How did you join McLaren?

I started in Formula 1 back in 1973, when I was number two mechanic on a car driven by a young John Watson, who incidentally went on to race at McLaren. I continued until 1977, when I was approached by McLaren. They asked me to come and work for them. I had a lot of respect for the team, so I said yes. I undertook my first full season with them in 1978. Unfortunately, I had a very bad motorcycle accident that stopped me from working for almost a year, so I had no choice but to leave the team.

How did you find your way back to the sport after such a long lay-off?

I had gradually started to get involved with cars again through various enterprises, including working at a car dealership on a full-time basis, while still doing freelance work on several different racing cars. Then one day I happened to spot a job vacancy at McLaren. I applied immediately, was lucky enough to get the job, and I'm still here today!

What were your responsibilities on your return, and how did you come to join the heritage department?

I joined as a mechanic and managed to work my way up to the position of number one mechanic on the test team, which was a great honour for me. After five years in this role, I moved on

to looking after the hydraulic, brake and clutch systems on the test cars, much to the relief of my wife, who now gets to see more of me.

My current role involves ensuring that any of McLaren's cars from past seasons in Formula 1 is in pristine condition and ready to run when and where required. For example, the MP4/8 of 1993 had been stood in a museum collection for nine years before it was required for a run at an historic event. This meant that the car had to be stripped down and rebuilt, and that is where the work of the heritage department comes in. On a day-to-day basis, our function is to keep the cars in running condition, and this requires a lot of specialist expertise.

It must be special to be surrounded by so many successful and prestigious Formula 1 machines?

The real buzz for me comes from knowing that I've worked on such a large variety of different cars, both the successful and not-so-successful ones! There's a lot of hard work that goes into each and every car that's here at McLaren – long hours, late nights and a lot of human energy – and it's great to see so many of them still in perfect condition today.

Have you got a favourite car?

The active suspension MP4/8 of 1993 was a tremendously developed piece of

machinery, and I was lucky enough to have been involved in its development before and during the 1993 season.

The technological advances of cars since then have been phenomenal. The fact that the 'active' car ran for only one season, and was in many respects more advanced than current Formula 1 cars, makes it a very special machine indeed. It's certainly one that I look after with a great deal of pride.

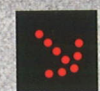
You worked with Ayrton Senna for a long time. That must have been a pretty memorable experience?

Ayrton was not only an amazing driver, he was also great fun to work with because he liked to play the odd tricks on his mechanics! I remember one incident in particular at a test where we were doing some work on Ayrton's car. I was standing in the garage and I suddenly felt the backs of my legs were becoming rather wet.

Of course, I swung around to find Ayrton emptying the contents of his drinks bottle onto my overalls! This was the side of Ayrton that the public rarely got to see. I made sure I got my own back on him though, so, when I was tightening the seatbelts on him when he was in the car later that day, I made sure that the crotch straps were, let's say, very secure! ■

>RETRO

The Indycar Years



It was in July 1969 that McLaren took the decision to build an Indycar – quite an undertaking, given that the racing team was already competing in both Formula 1 and the CanAm series.

As much as anything, the decision was taken because Denny Hulme, McLaren's number one driver of the time, had raced an Eagle in that year's Indianapolis 500 and run as high as second before the car failed.

In those days, as McLaren knew from its CanAm successes, the financial

rewards in US racing were considerably greater than those in Formula 1.

At the top of the tree, not least from a prestige point of view, stood the famed Indianapolis 500 oval race.

Thus Gordon Coppuck was given the brief to design a car to take on the established Indycar teams, and, by November of 1969, the prototype M15, powered by the near-ubiquitous turbocharged Offenhauser four-cylinder engine, was at the Speedway. Already Hulme and McLaren had given the car a brief shakedown at Goodwood in

England, but they were keen that it should run in its natural habitat before the onset of winter.

The test went well, with Hulme lapping at 168mph, just a few miles per hour shy of A.J. Foyt's pole speed that year. All went home in optimistic frame of mind, but when they returned the following May, nothing went right.

First, Chris Amon, down to drive one of the M15s, withdrew after deciding he really didn't care for ovals. Then Hulme seriously burned his hands in a practice accident. Ultimately,

After achieving considerable success in CanAm, the still fledgling McLaren outfit decided to add oval-based single-seater racing to its portfolio in 1969. Like everything that McLaren did, the prospect of success was just around the corner in the United States' biggest race – the Indianapolis 500

WORDS NIGEL ROEBUCK PHOTOGRAPHS LAT ARCHIVE

the cars were raced by Carl Williams, who finished in ninth place, and Peter Revson, who ran fast, but retired.

Soon after, Bruce McLaren tragically lost his life in a CanAm testing accident at Goodwood and, for some time, the company was thrust into turmoil. It still continued to function effectively, however, and the M15 programme was not neglected.

Late in the year, at the California 500 (run at the now-defunct Ontario Motor Speedway), Revson's car was in the lead until its final pitstop, when the

engine died and, for several laps, refused to restart. The American ultimately finished in fifth place.

Although McLaren, with its other commitments, had decided to concentrate only on the major races with the 'works' cars, other teams were keen to run the company's chassis in the entire USAC [United States Automobile Club] Championship.

Roger Penske visited McLaren, with his driver Mark Donohue, and swiftly concluded that the new, wedge-shaped, M16 was what he needed to run.

At Indianapolis Revson's works car took pole position, at over 178mph, but in the race it was Donohue who dominated until his gearbox broke.

A few weeks afterwards Donohue scored McLaren's first Indycar win in the Pocono 500, held west of New York. Later in the year he also triumphed at Michigan, but it was in May the following year that he achieved McLaren's greatest success on US soil. On its third attempt, McLaren's chassis design had won the biggest race in America – the Indianapolis 500.

MAIN The M15 was the first car to be built by McLaren specifically for the unique challenges of Indycar racing. In the hands of Peter Revson it proved to be quick on its debut at Indianapolis in 1970, but it was also fragile



>RETRO The Indycar Years

>THE DRIVERS

JOHNNY RUTHERFORD, PETER REVSON, MARK DONOHUE



ABOVE The experienced trio of Rutherford (left), Revson (centre) and Donohue all tasted success in McLaren Indycars

Although Peter Revson showed flashes of speed in the early days of McLaren's Indycar participation, the man who made the most impact was Mark Donohue, at the wheel of Roger Penske's car.

Not for nothing was the title of Donohue's autobiography 'The Unfair Advantage'. He was meticulous in his approach to everything he did, and, as a consummate test driver, Mark was the master of set-up. At Indianapolis in 1971, he had the measure of everyone, including McLaren's factory driver, Revson. Ultimately Donohue retired, but ran away with victory in the event the following year.

Penske ceased to run McLaren's after 1972, but other private teams continued to run alongside the factory cars, Roger McCluskey winning a couple of races in Lindsey Hopkins' car.

For the works team, McLaren had run Gordon

Johncock alongside Revson in 1972, but the partnership never really gelled, and the following year Johnny Rutherford was signed. This was the start of something rather good.

From the moment he joined the team, Rutherford was a McLaren believer. "I always told my wife," he said, "that if I ever found a team that loved racing as much as I did, I'd be a winner. When I came here, I could tell right away that I had found the magic. McLaren Racing was a business. It was not a hobby."

Rutherford would drive for the team for the next seven years, and in that time would account for 15 of McLaren's 25 Indycar victories, two of which came in the Indianapolis 500. Besides Donohue and McCluskey, Gary Bettenhausen and Tom Sneva would also win Indycar races in McLaren's, but all the victories for the factory team came from Rutherford.

RIGHT Johnny Rutherford's 1976 Indianapolis 500 win was the third for McLaren and the second for the works team, but would turn out to be the team's final success there as an Indycar constructor

Although still concentrating only on the 500-milers, the McLaren team brought in Johnny Rutherford to partner Revson in 1973. Rutherford would prove to be easily McLaren's most successful Indycar driver – his victory at Ontario that year was the first of 15 wins that he would score for the team over a six-year period.

His subsequent victory in the 1974 Indianapolis 500 was as good as it gets. Although he recorded the second fastest qualifying time, it was set on the third day, which meant that he started only 25th. Rutherford was hugely frustrated by that, for he had lost his shot at pole position only because a new chief steward at the Speedway had chosen to interpret the qualifying rules differently from his predecessor. McLaren protested, but to no avail.

"This was a good example of why I

liked McLaren so much," Rutherford said later. "I always appreciated their philosophy and steady attitude. They said, 'Okay, if we can't go for pole, we're not going to take a chance with the car by trying to grab the fastest speed. We'll just put together a good, solid qualifying run and give it all we've got when it counts.' At McLaren we always ran *our* race, not someone else's."

On race day Rutherford did just that. In no time he was up with the leaders, and no-one could live with him. "It was," he admitted, "the only time in my career when I drove an absolutely perfect race car."

By this time McLaren had decided to field a works car for Rutherford in the entire USAC Championship, and he won a total of four races in the M16D that season, followed by another two victories in 1975.

More success followed in 1976. Rutherford's most notable victory was another in the Indianapolis 500, which meant three wins at the event for McLaren in five years. By the end of the season the M16 series, now up to 'E' spec, was at the end of its developmental road, however, and in 1977 there appeared the M24 – which was similar in appearance to the M23 Formula 1 car which had twice won the Drivers' World Championship.

There was another important change, too, for now McLaren, like many other leading teams, had finally abandoned the venerable Offenhauser engine and gone with the new DFX turbo motor from Cosworth. Rutherford had a great season with the car, winning four races, while Roger Penske's team added a couple more to McLaren's tally, both courtesy of Tom Sneva.

Rutherford won twice in 1978, too, but his victory at Phoenix was to be McLaren's last in USAC. Although Rutherford had several good placings with his M24B in 1979, McLaren decided to wind up its Indycar operation to concentrate all attention on the Formula 1 team, which, at that time was relatively uncompetitive.

A glorious chapter in the company's history had come to an end. ■



Mark Donohue scored McLaren's first win in the Indianapolis 500 in 1972, albeit in a privately-entered M16 run by Roger Penske

>THE CAR **McLAREN'S INDYCARS**

The first McLaren Indycar, the M15, was a very straightforward machine. "Nothing fancy," said Bruce McLaren. "We were going into a new world, and it seemed sensible not to do it with anything radical."

Thus, chief designer Gordon Coppuck concentrated on keeping it simple. As was standard practice in that era, the monocoque was aluminium and the engine chosen was the four-cylinder Offenhauser – an old unit, but recently given a new lease of life with the advent of turbocharging, it was virtually standard issue in the Indycars of the time.

The M15 rarely raced in 1970, but Peter Revson proved it was competitive and, for 1971, Coppuck's design was much more adventurous. Although not convinced that the 'wedge' shape, as pioneered by the Lotus 72, was necessarily the right way to go in Formula 1, he felt it would be ideal for

the ultra-high speeds of Indianapolis.

Thus, when it appeared, the M16 created a sensation at the Speedway. In qualifying, Revson's factory car took pole position and, in the race, Donohue's Penske-entered car dominated until its gearbox failed.

At Pocono and Michigan, though, Mark won as he liked. In sundry guises, the M16 stayed competitive for a remarkably long time, winning a total of 15 races over five seasons, all of them with the relatively old Offenhauser motor.

By 1977, though, it was clear something new was required, and thus appeared the M24, powered by Cosworth's first 'Indy' engine, the DFX, which swiftly dispatched the Offenhauser to the museum. More victories followed, and the car, suitably updated over time, served McLaren until the company's departure from Indycar racing, at the end of 1979.

>RETRO
The Indycar Years



MAIN AND INSET
 Johnny Rutherford
 faced numerous
 problems during
 qualifying for the
 1974 Indianapolis 500,
 but came through
 them all to score a
 fine first win for the
 works McLaren team

>THE CRUCIAL RACE
INDIANAPOLIS 1974

Before the qualifying sessions for the 1974 Indianapolis 500, Johnny Rutherford thought that his McLaren-Offenhauser M16C/D was a good bet for the pole, but on the opening day he blew an engine during practice, and, although the team astonishingly changed it in a little under an hour, by the time the car was pushed into the 'qualifying line' for its runs, it had passed 11 o'clock.

Although, strictly according to the rules, this was the cut-off time if you wished to qualify on the first day, Harlan Fengler, for countless years the chief steward at Indianapolis, had always taken a relaxed attitude. So long as you and your car were on hand when it was your time to go through technical inspection, that was fine. The problem was, Fengler had retired, and the new man in the job, Tom Binford, insisted that 11 o'clock was it.

Thus, Rutherford could not make a qualifying run on the opening day, and therefore had no opportunity of taking pole, for another rule at the Speedway is that that goes to the quickest driver on the first day – hence its title, 'Pole Day'.

Appeals got Rutherford nowhere, but he came to appreciate the McLaren way of doing things. "They calmed me down," he said. "They just said, 'Look, let's not go too far out on a limb – someone's liable to saw it off.' They always had a good plan, those



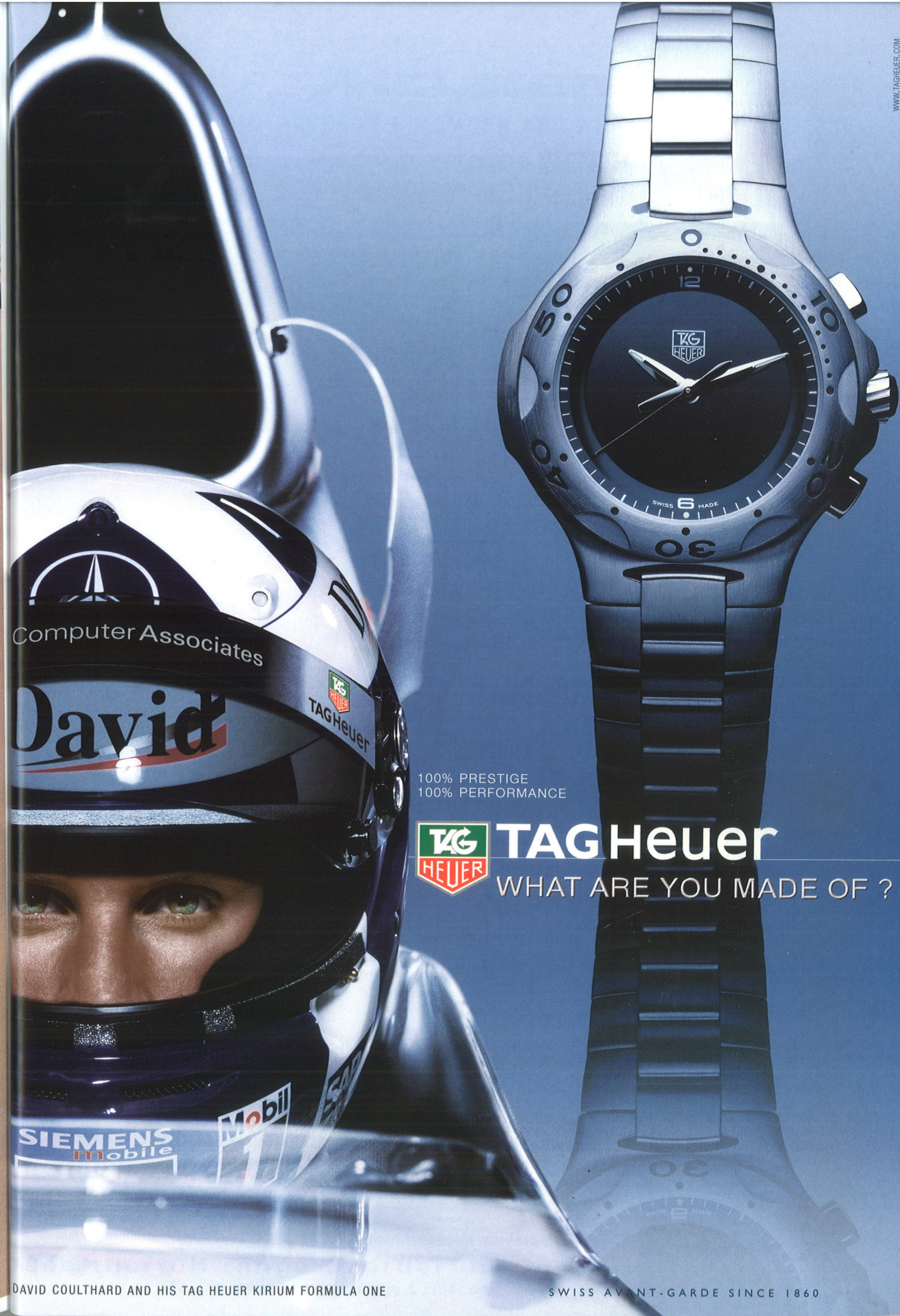
guys, and they gave me a great car to drive. Although we set the second best time, we had to start 25th, but when the race started, I could pass every car I came upon."

Ultimately, the race distilled down to a battle between Rutherford's McLaren and the Coyote of A.J. Foyt. Rutherford's car was superior in the oval's four corners, while Foyt's was blistering down the straights.

The fight went on for the best part of 100 laps, until the Coyote started blowing oil, leaving Rutherford home free. "It was the McLaren team's first win at Indy," he said, "and the sweetest day of my life. That car was better than good – it was perfect."

>1971-1978
McLAREN'S INDYCAR WINS

- 1971 Pocono (Pennsylvania) – Mark Donohue
 Michigan (Michigan) – Mark Donohue
- 1972 Trenton (New Jersey) – Gary Bettenhausen
 Indianapolis (Indiana) – Mark Donohue
 Ontario (California) – Roger McCluskey
- 1973 Michigan (Michigan) – Roger McCluskey
 Ontario (California) – Johnny Rutherford
 Texas (Texas) – Gary Bettenhausen
- 1974 Ontario (California) – Johnny Rutherford
 Indianapolis (Indiana) – Johnny Rutherford
 Milwaukee (Wisconsin) – Johnny Rutherford
 Pocono (Pennsylvania) – Johnny Rutherford
- 1975 Phoenix (Arizona) – Johnny Rutherford
 Michigan (Michigan) – Tom Sneva
- 1976 Trenton (New Jersey) – Johnny Rutherford
 Indianapolis (Indiana) – Johnny Rutherford
 Texas (Texas) – Johnny Rutherford
- 1977 Phoenix (Arizona) – Johnny Rutherford
 Texas (Texas) – Tom Sneva
 Milwaukee (Wisconsin) – Johnny Rutherford
 Pocono (Pennsylvania) – Tom Sneva
 Texas (Texas) – Johnny Rutherford
 Milwaukee (Wisconsin) – Johnny Rutherford
- 1978 Michigan (Michigan) – Johnny Rutherford
 Phoenix (Arizona) – Johnny Rutherford



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WHAT ARE YOU MADE OF ?



McLAREN TOURS STILL A HIT

Hundreds of Team McLaren members who registered their interest in taking a tour of the Team McLaren Mercedes' Formula 1 outfit's current headquarters in Woking, England, got their chance to visit the facility this year.

For the lucky members who were invited to participate in this year's tours over several weekends in April, May, June and August, it was a particularly special experience because this would be the last chance to visit the current facility before the move to the new McLaren Technology Centre, currently nearing completion nearby.

Demand for tours has remained very high this year, and we have been delighted that some members made the journey from Belgium, France, Germany, Italy, Malta, the Netherlands and Spain, as well as the UK.

We have even played host to members from as far afield as South Africa and New Zealand

who have incorporated the tour into a trip to the UK.

The tours began with a look at the impressive display in the team's trophy room and a talk detailing the history of its cars and drivers. Our guests were delighted to be able to see and take photographs of recent trophies won by Kimi and David, some of which had arrived only a few days before.

After a short break for refreshments, the tour continued into the factory itself, where members were told about the processes used in building the MP4-17D cars currently raced by David and Kimi.

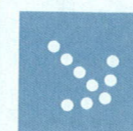
Members discovered how the cars start their lives as hundreds of individual parts, manufactured in the Composites, Machine Shop and Fabrication departments. They were able to handle the raw carbon fibre materials, examples of nose cones, gears, pedals and many other components.

The groups saw cars in the Test and Race Team bays in the process of being stripped down from the last event or built back up for the next race. Some members were lucky enough to see this season's all-new race transporters at rest in the despatch area behind the building.

Some light relief from technical jargon was given when members were treated to a special visit to the VIP theatre, where they relaxed in comfort to watch a few short presentations about the team and Formula 1.

Since the tours took place, we are very grateful to have received many letters from guests expressing their thanks and we're delighted to hear how enjoyable and informative they have found the tours.

Team McLaren were very happy to be able to meet those of you who attended and we look forward to seeing you again at future events.



Team McLaren Member Profiles

Team McLaren members are continuing to deluge the *Racing Line* office with their member profiles. This month we introduce David Momcilovic and David Orr, both of whom hail from the UK

- What is your name? David Momcilovic
- How long have you been a Team McLaren Member? Since 2002, though I've been a McLaren fan since 1990.
- How old are you? 24-years-old.
- Who is your favourite McLaren driver of all time? Simply the best ever – Ayrton Senna.
- What is the best race you have seen? Live, it would have to be the 2003 Australian Grand Prix in Melbourne. We watched the race at the first turn. One of the best races in years, which Kimi could have won, but David played it smart and took the victory after Juan Pablo Montoya spun off right in front of us. Mega!
On television, it would have to be the 1993 European Grand Prix at Donington Park. What more can anyone say about this race? Ayrton Senna proved (again!) what a master he was by trouncing the opposition in style with the McLaren MP4/8.
- What is your favourite McLaren memory? There are so many, but if I had to pick one it would be Ayrton Senna winning at Adelaide in the 1993 Australian Grand Prix against the Williams-Renault of Alain Prost – after which they embraced one another on the podium for the final time. Truly awesome!

- What is your name? David Orr
- How long have you been a Team McLaren Member? I have been a member of Team McLaren since July 30 1996, although I have supported the team since I was knee-height!
- How old are you? 29-years-old.
- What is your most prized piece of McLaren merchandise or memorabilia? Although not an official piece of McLaren memorabilia, the British Grand Prix T-shirt I was wearing at Silverstone in 1996 was autographed by none other than Mika Häkkinen.
- Who is your favourite McLaren driver of all time? A difficult decision, because McLaren have never selected less than the best. However, it has to be the brilliant Alain Prost – a genius and an artist in a Formula 1 car.
- What is the best race you have seen? Live, it would have to be the 2000 British Grand Prix, when David and Mika roared home to a one-two finish on my 10th trip to Silverstone. On television, it would be a joint choice of three – the 1986 Australian Grand Prix in Adelaide, when Alain Prost won his second title, the 2000 Belgian Grand Prix, in which Mika was mighty, and the 2002 Monaco Grand Prix, when David was 'King of the Streets'.
- What is your favourite McLaren memory? It has to be the British Grand Prix in 2000, when I felt so humble and honoured to support Team McLaren Mercedes – a team that has never forgotten its loyal supporters – and, through thick and thin, we never forget McLaren!

Send your profiles in to racingline@mclaren.com

Answers to questions must be a maximum of 50 words long. *Racing Line* reserves the right to edit all contributions

2003 MODEL CARS NOW AVAILABLE

STOP PRESS!



Team McLaren is pleased to inform you that the 2003 Team Edition

die-cast model cars are now available to reserve by contacting Team McLaren on the usual hotline number, by fax, post or through the website, www.mclaren.com

The 2003 Team Edition includes the MP4-17D racing car from the 2003 season. This will feature 'Kimi' and 'David' logos on the bodywork of the car, and all models come packaged in an exclusive Team McLaren Mercedes-branded presentation case.

The model cars are in production now and will be available in the coming months. As a guide, we

expect the 1:43 models to be in stock in November and the 1:18 scale to follow in January 2004.

Now is the ideal time to update your collection with the latest edition of the model car range, so make sure you place your order in good time to avoid disappointment. As always, supplies will be limited.

In addition to these exclusive Team Edition models, there are also a number of earlier models available in 1:18 and 1:43 scale ('Kimi', 'David' and 'Mika' branded).

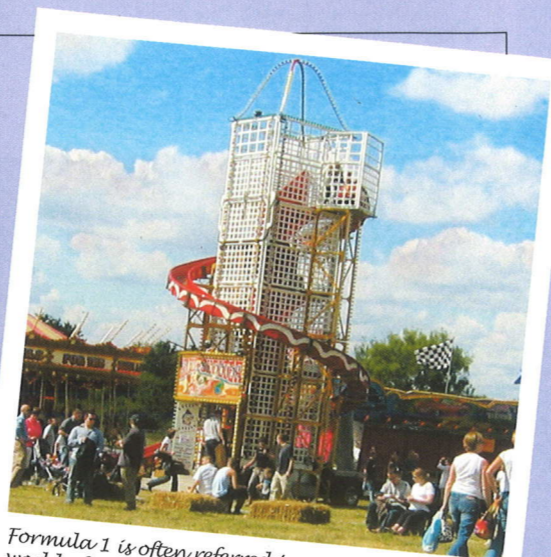
There is also a standard production MP4-17D model, which is currently in stock. These can also be ordered in the usual way.

IN THE
NEXT
ISSUE

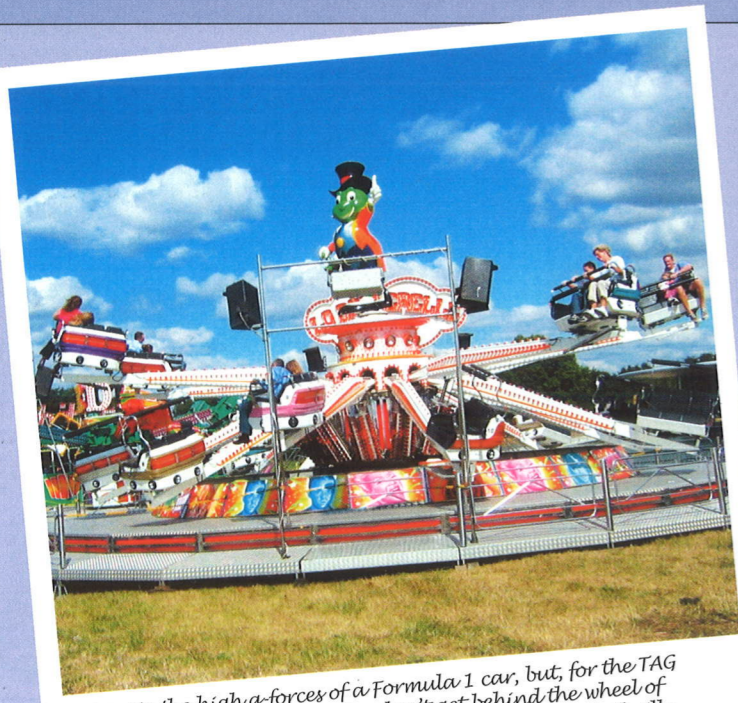
POSTCARDS FROM WOKING

IN ASSOCIATION WITH CANON

Taking full advantage of Formula 1's three-week summer break from racing, the TAG McLaren Group held a family fun day at its future headquarters, the McLaren Technology Centre. *Racing Line* turned up to experience all the fun of the fair



Formula 1 is often referred to as a roller-coaster world of emotions. Appropriately, a helter-skelter was on hand with its own twists and turns



Not quite the high g-forces of a Formula 1 car, but, for the TAG McLaren Group's employees who don't get behind the wheel of a Formula 1 car, this ride provided more than enough thrills



What would a day at the fair be without a few snacks to keep you going. Luckily, there were plenty of food stalls on hand, offering a wide variety of delicious items from around the world to cater for all possible tastes



One of the highlights of the day was a special display by a UK parachute troupe, who made a pinpoint landing in the McLaren Technology Centre's grounds



Keep in time now! Line dancing was one of the many activities on offer for the TAG McLaren Group's employees and their families



DESTINATION:

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