

GRAND PRIX

INTERNATIONAL



BRAZIL GP

Prost, McLaren and TAG
The secret of a victory

UNFAIR?

F1 on the dole

CASE HISTORY

Tyrrell's Gamble

SHAKEN.



RIVAL 4 CYLINDER TWO LITRE ENGINE AT 2500 RPM.

A Martini may be improved by being shaken. But drivers seldom are.

So to smooth your way, BMW insist on using 6 cylinder engines even in their two litre cars.

Most other car companies settle on 4 or 5 cylinders, despite the laws of physics, which decree that engines with less than 6 cylinders

can never be perfectly balanced.

You can see on the left the results of such imperfection.

And you can feel the difference yourself when you sit in the cars.

In the 4 cylinder car, you'd feel up to three times as many vibrations as in the BMW.

But in the BMW you'd feel even

fewer vibrations than if you were sitting in an 8 cylinder car.

Hence the comment of "Motor" that the 323i combines "rousing top end bite with smoothness unmatched this side of a V12"

Such a verdict reflects not only BMW's obedience to the laws of physics. But also that an individual counterweight is fitted for each

NOT STIRRED.



BMW 6 CYLINDER TWO LITRE ENGINE AT 2500 RPM.

cylinder (when others often have one balancing several cylinders).

The balance of BMW engines, happily, won't upset the balance in your bank.

For, with the help of fuel injection, the six cylinder engine uses no more petrol than many four cylinder engines of similar performance.

In the longer run, its engineering virtues

are also reflected in the way the car holds its value.

For example, a 1981 six cylinder BMW 320i is now worth 25% more than a typical four cylinder rival of similar vintage.

The six cylinder BMW range starts at £9,180 for the 320i and £10,395 for the 520i. In both cases, that's scarcely more than

cars whose manufacturers have chosen to compromise on their engines.

And if they're prepared to compromise on the most important part of the car, where do you think those compromises will stop?



THE ULTIMATE DRIVING MACHINE

DOE FUEL CONSUMPTION FIGURES FOR THE BMW 320i FIVE SPEED MANUAL: URBAN 23.7MPG (11.9L/100KM), 56MPH/45.6MPG (16.2L/100KM), 75MPH/34.9MPG (11.1L/100KM). THE BMW 320i COSTS £9,180. THE BMW 520i COSTS £10,395. FOR A BMW 3, 5, 6 OR 7 SERIES BROCHURE AND FULL SPECIFICATIONS, PLEASE WRITE TO: BMW INFORMATION SERVICE, PO BOX 46, HOUNSLOW.

PRICES, AND INFORMATION, CORRECT AT TIME OF GOING TO PRESS INCLUDE CAR TAX AND VAT BUT NOT DELIVERY OR NUMBER PLATES. INCLUDE DELIVERY CHARGE INCORPORATING BMW EMERGENCY SERVICE AND INITIAL SERVICES £198 + VAT. MIDDLESEX OR TELEPHONE 01-897 6665 (LITERATURE REQUESTS ONLY). FOR TAX FREE SALES: 56 PARK LANE, LONDON W1. TELEPHONE 01-629 9277.

C O N T E N T S

COVER PHOTOGRAPHS
DPPI - ASSET -

PAGE 6
GRAFFITI

Mexico, Brazil, Colombia. Keith Botsford whisks us away on an exotic journey through Latin America. Hang on to your sombreros.

PAGE 8
PADDOCKS

Pescarolo, Fittipaldi, Bellof, Aston Martin, Arrows and the rally raids make up the headlines of this past fortnight. Not to mention Goodyear...

PAGE 12
THIRD DEGREE

Just exactly what is Jean Sage doing in the Renault team? A "go-for", as Arnoux claims, or a backroom director...

PAGE 14
BRAZIL GRAND PRIX: AN UNFINISHED SYMPHONY

Although they were warned, quite a few got caught. And fuel shortages proved the bane of the day. But what a performance from Alboreto's Ferrari - until he, too, was forced to retire. Renault were grinding their teeth and McLaren were jumping for joy: Prost won. With JPS Team Lotus dominating the grid, the 1984 season got off to a roaring start.



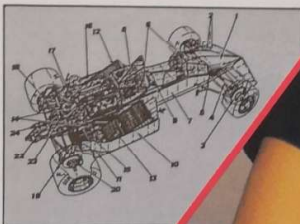
PAGE 28
BRAZILIAN PORTFOLIO



PAGE 52
FROM RIO WITH LOVE

PAGE 60
TECHNICAL EYE

Giorgio Piola takes us on an incredible journey into the heart of Brabham and Ferrari engineering. The essentials of the BT 53 and the 126 C4.



PAGE 64
MARTIN BRUNDLE

Fortune smiles on a trier, and Ken Tyrrell has found the next Jackie Stewart. Martin certainly merits F1. Now can he win races...



PAGE 70
THE OUTCASTS

Bannished from the ranks of Grand Prix drivers, these men are each searching for a separate peace. But a single goal still binds them together - to make a comeback in F1.



PAGE 78
HENRI TOIVONEN BACK ON TRACK

He's said to be fastest driver in rallying. But for a moment it looked like he had lost his way on the road to victory. With Portugal behind him, he again sees his way clear.

PAGE 84
FIFTEEN YEARS OF RALLYING

Today, it is the golden age of rallying. In order that our readers might trace the ascendancy of this exciting sport, GPI is offering a brief recap of rallying's greatest moments.

PAGE 90
POST SCRIPTUM

What you think about GPI, Formula One, motorsport... And what we have to say in return as well!

PAGE 91
TYRRELL PRESS BOOK



The first Tyrrell Ford made its debut in 1970. Already, the sleek blue look was evident. Stewart was at the wheel. For the rest of the story, you only have to turn the page.

PAGE 102
COMING UP IN GPI...

Graffiti



To Mexico then, land of Montezuma's Revenge and oysters raised on sewage. There was a time when Mexico used to be a Formula One venue, then it was realized that Mexicans, to whom death is a popular form of family fiesta, could not be kept from strolling onto the track. HIZO MOLE DE SU HIJO is an old headline I remember. Cook had served up her newborn child in a rich chocolate sauce. That sort of thing. Then there came, to return to racing, a period in which FISA and FOCA were at war and Mexico resurfaced as a possible venue: just in case some circuits fell by the wayside (a number did). I thought it worthwhile to make a little expedition out to the Autodrome on the outskirts to examine possibilities, just in case war should break out again. One never knows.

On the way, we saw a very dusty Pontiac from the early Fifties with a rather fresher blue Keke Rosberg helmet decal on the back. We felt refreshed to think that our sport still had its passionate adherents up there among the looming volcanos: just as we had been to see, on the way to the coast, at a rather desperate taco stand, a poster announcing the GRAN PREMIO DE GUADALAJARA, which, alas, turned out to be little more than a stock-car race.

The circuit was of course padlocked. There seemed to be little going on. Which is of course true of most circuits when there is no foreseeable race. But finally we did find a guardian who allowed us in (the tall wife and I). The circuit looked good, I said. The custodian said, *Si Señor*. I had learned, by then, that Mexicans always say yes, for fear of displeasing you. Thus, if you say, is my hotel to the left? They will answer. *Si Señor*, even if it is clearly visible to the right. And if you think you can win by asking, which way, you are wrong. The

correct answer to that is, *pués, no sé Señor*. I don't know. I've never been that far. Its location does not interest me.

Anyway, I pursued the conversation with my guardian. Did he remember the Rodriguez brothers, Ricardo and the Sixties (Ricardo being killed in 1962 and Pedro in 1971)? He scratched his head. *Pués no, Señor*, he said, he knew many, many Rodriguez, perhaps they were related to... Or Hector Rebaque, who had a brief run with Brabham? *Pués sí, Señor*. But it turned out he did not want to offend me. It was a hot afternoon and my eyes were full of noxious fumes, Mexico City being like three Los Angeles inverted, with all the exhaust staying at just about eye level. I finished my brilliant intervention by asking if he

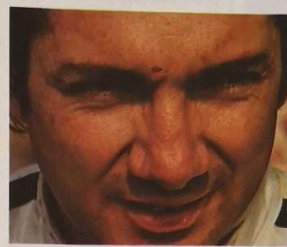
MEXICANS ALWAYS SAY YES, SO AS TO PLEASE YOU.

thought it likely there would ever be Formula One in Mexico again. Yes, he said. Why? I asked. We have the World Cup, he said. I said, is that a reason? He said, yes; if the government wished, and *si Dios quiere*. If God agrees. But then God is the government. We got stopped for doing a left turn somewhere and that cost us a pretty penny. It's called the *mordida*, the bite. And that's what the local cops put on you. We also lost our Hertz car, but that's another story. But the Rodriguez brothers were an extraordinary pair, if you listen to old-timers talk. Their Pa, alongside other business interests, was the head of the traffic police (a pretty useful job by Mexican standards) and when the sage of Maranello started to get a bit worried about the way Ricar-

do's enthusiasm for going too fast was getting the better of him, he wrote to the boy's Pa (he was only just voting age), suggesting he might take a more paternal view if he wanted his boy to survive. The result, Enzo Ferrari recounts, was that rather than pouring water on Ricardo's venturesomeness, the old man poured petrol. Older brother Pedro was no less vigorous. Going out with a journalist at the Nurburgring in the snow, he saw another car (with a white-knuckled journalist aghast) spin: 'His eyes,' said Pedro of the journalist, 'they were big like these!' My Mexican guardian was of course right. Down on the coast, we went to dine at a local fancy restaurant only to find out the whole development (marina, houses, shopping etc.) belonged to the incumbent president.

'But you should see X,' said our friendly Canadian mafia restaurateur, 'that is much bigger, that belongs to the president before. And then there is Y, which belongs to the one before him, and Z which is outside Mexico City and belongs to the son of the president before, that one who organized the main road to go that way.' He shrugged and I felt F1 might well return to Mexico. If the country is bankrupt enough to afford the World Cup, it can have our sport, too.

In Bogota, we had the pleasure of seeing José Clopatofsky Londono, a pretty handy driver himself (judging by the trophies which filled one wall of his salon), who told me that Colombia, home of Roberto Guerrero, had also been mooted as a possible venue for F1. The objections to its actually being used had something to do with its altitude of 9,000 feet plus. Some liked it, some didn't. We did not see the track, where other races and other formulae compete (mainly local) because



by Keith Botsford

Colombia, unlike Mexico, had lost its bid for the World Cup, as the president there, more sensibly, said the country couldn't afford it.

While all this traveling was going on, back in London, I am told, Messrs Derek Warwick and Nigel Mansell entertained the press and guests at one of those functions which are *de rigueur* in our sport (presentation of sponsors,

NO SOONER HAD WE ARRIVED IN RIO THAN I RECEIVED A MYSTERIOUS TELEPHONE CALL.

new brands, new hopes, new cars etc.) and which take up a large part of drivers' close seasons. As the main poobah in charge of the proceedings was taking rather a long time making his official speech and Warwick and Mansell were kept waiting in hot noxem in the wings, when the moment came for them to make their great appearance, Derek appeared first in the guise of a plumber or somewhat and started banging at the backdrops on the stage, which swayed perilously. Nigel was next, with a saw. That broke the audience up, and the speech-maker, and whether the set stayed upright or not, I cannot say, for I was not there. But the true British workman, we are constantly told (it is a foul lie!) would either (a) not have turned up or (b) left more damage than when he arrived.

No sooner had we arrived in Rio than I received a mysterious telephone call from Mr. Dixon Cade, who is, or was until very recently, the organizer of the Peking to Paris rally, last held in 1907 when, as you all know, it was won by Prince Scipione Borghese. Mr. Dixon Cade, having obtained all the consents

necessary for such a journey (Afghanistan might still be a bit of a problem) and having duly petitioned FISA to give its official sanction, was more than a little put out to find that 'his' rally, on which he had been working for some years, had been handed over to an American company. He thought it had something to do with Caesar's Palace, but could not be sure. Naturally, by association, we asked Mr. Bernard Ecclestone if this had anything to do with him.

Unusually, this year, drivers and teams were slow accumulating in Rio. As a result, gossip and backgammon languished. Maybe this tardiness had to do with the hotel arrangements. Instead of the Intercontinental which, as nearest the track, has been the chief venue for the sport, people were scattered far **EVERYTHING SHOULD BE OK FOR PEKING-PARIS. EXCEPT AFGHANISTAN.**

and wide. But we are a gregarious (from Latin *grex*, a flock) lot in F1 and by the Tuesday before the race, just about all the drivers were in their preferred bailiwick. At which point, the rains fell. March, after all, is the beginning of Autumn here and the rains were long overdue. Suntans suffered. So did tennis. Jagers could still jog, Mansell and Laffite and several others got their golf in, but tennis?

It is a democratic game, tennis. Even differs can, and do, play. The aristocrats of the sport in F1 are Jacques Laffite and Nelson Piquet (who once thought - not too seriously - of playing professionally). After that, there is a certain falling off in standards and a bewildering variety of styles, each representing singularly well the personality of the

player. For instance, Prost is canny and angles well; Mansell is brutal, direct and overambitious; Warwick plays with much brio and sweat but little elegance. And for years now, due to a chance remark once made, Carlos Reutemann never meets me without saying, 'Ah Botsford... the feet... VERY difficult.' Which, for Carlos, is something of a speech and relates to the fact that Carlos wouldn't move his.

On this trip, an honourable draw took place between the duo Laffite-Prost vs. Yours Truly and a pick-up 15 year old with a fierce, if inconsistent service. On another trip last year, Mansell and Patrick Head of Williams, forced Charlie Chrichton Stuart and myself into the worst game of our joint careers. I admit to a grudge, and to the fact that there are certain levels to which one should not stoop. Shall we say that, as on the track, a certain amount of gentlemanly cheating and incitement to mayhem took place?

A column which ends in Rio on the eve of first practice cannot end without a reference to the now traditional FOCA party in which various scantily-clad ladies parade poolside in a decor of animated silvery spoons and forks, gilded lilliers and general carnival chi chi. Dancing and seduction (not difficult), food, drink and much bonhomie. The whole is followed by the election of the Miss Brazilian Grand Prix. The idea is that each nubile lady is decked out as scantily as possible in the colours of the team she represents. The judging is done by (obviously unprejudiced) drivers, some of whom - especially the early morning fitness freaks - yawn while others ogle. I end therefore on an investigation scoop which will surprise no one: Miss Brabham won. I understand that instructions went out to assure this result. □

BRAZIL'S GP FOR SÃO PAULO?

It is four years since the Brazilian Grand Prix was last contested at São Paulo's Interlagos circuit, where the country's first world championship race took place in 1972. Interlagos has long been recognised as perhaps the world's most challenging drivers' circuit, with its long 180 degree bends. It was also popular with spectators, for the track lies in a natural depression, enabling everyone to have a good view of almost the entire 8 km circuit length. By 1980, unfortunately, the bumpy surface at Interlagos presented a danger to the hard-sprung ground effect F1 cars of the time, and with Rio de Janeiro offering incentives to Bernie Ecclestone's FOCA, the race moved north. The Jacarepagua circuit may not be the equal of Interlagos, but Rio and its beaches are much more spectacular than smoggy São Paulo. This year the FOCA contract with Rio is due to expire, and the political circumstances have also altered. Rio's tourist board (Riotur) and the local government say they are no longer willing to subsidise the race to the same extent as they have done in the

past, and the mayor of São Paulo has a son who is an active competitor in Brazilian Formula Ford events. It is also calculated that 90 per cent of the on-circuit advertising and 60 per cent of the spectators at Jacarepagua come from São Paulo, so a return to "the smoke" makes good commercial sense. Before Interlagos can be accepted, however, three conditions must be met. First, the circuit must be resurfaced, then the fencing must be rebuilt (to keep out non-paying spectators), and finally it will, alas, be necessary to shorten the track to satisfy FOCA's requirements of a shorter lap, which is believed to make the racing more attractive to the public. GPI supports a return to Interlagos, but please, *senhores*, don't butcher a classic circuit like yours just to satisfy an untested theory!

ICI FOR FRANK

The attractive yellow livery gracing the two Williams-Honda present in Rio on Sunday marks an extension of the team's association with ICI, Europe's largest



Williams-Honda.

chemical company. Keke Rosberg has had a personal sponsorship with the group's fibre-producing division, Record, for over two years, and Record has now taken over as a major sponsor of the team. Frank Williams assures us that his team continues to enjoy the financial support of several Saudi-Arabian companies, including Techniques d'Avant-Garde (TAG).

MORE BANDITRY

Having announced an association with John Fitzpatrick's private Group C Porsche endurance racing team, the US Tobacco Co made an unexpected appearance at Rio on the two RAM-Hart turbobocars of Philippe Alliot and Jonathan Palmer. "We decided to make the deal over lunch only a matter of a few days ago", said spokesman Jean-Pierre Brunier, "and both of the RAM cars will carry the green and white colours of our Skool Bandits smokeless tobacco for the remainder of the season". Another surprising change of sponsorship concerned the Toleman team. Having been associated for most of their F1 existence with Candy domestic appliances, the two British cars are now wearing a lot of white paint where the Candy identification used to be. They also carry a new allegiance to AGIP (Italian) fuel instead of the stickers for BP, which has supported Toleman for many years dating back to Formula 2 days.

THE OTHER SIDE OF NELSON

On the day before practice started for the Brazilian GP, world champion Nelson Piquet headed for Rio's distant suburb of Jacarepagua where the municipal autodrome is situated. But he drove past the circuit entrance and went instead to a tiny orphanage, the Orfanato São Jose, where he was due to meet some of the many deprived children in the care of the institution.

Like so many racing drivers, Nelson enjoys the expensive fruits of his well-paid job in the sport. He owns a fabulous cruising yacht and his own aeroplane, not to mention several road cars. But he is also a caring, sympathetic man who is always aware of the human misery which exists among so many poor communities in his country and elsewhere.

Nelson spoke with the director of the orphanage, who has worked among the kids under very great difficulties for the past 35 years. Nelson gave a contribution to the orphanage and talked quietly with many of the children. The experience was even more moving than Nelson had expected, however, and when he left Jacarepagua the world champion was in tears...



Stefan Bellof.

STEFAN BELLOF'S FULL TYRRELL F1 SEASON

Following his recent encouraging F1 test with Tyrrell at Ricard (Paddocks, GPI 76), Stefan Bellof didn't lose much time joining the British team. Sunday's Brazilian Grand Prix was expected to be the first race in a season-long association which will be fitted in with Bellof's Rothmans-Porsche sports car commitments.

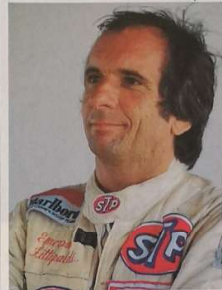
The man behind the deal is Willy Maurer, the German tonic wine manufacturer who unexpectedly wound up his own F2 team last month in order to concentrate on managing Bellof's racing career. Maurer has recruited a number of German sponsors, most of them industrial companies, whose identities will appear on the side of the Bellof Tyrrell at different races in the course of the season.

At the end of last year Bellof's name was linked with the Arrows F1 team through BMW, several of whose board members were anxious to see him racing the new Arrows-BMW. It is believed that one of the main reasons for the collapse of the Arrows negotiations was Maurer's insistence that his protégé

should be given priority over his team mate (Marc Surer), "in order to take advantage of Stefan's turbo experience." This experience will not, of course, be of any advantage. When Stefan Bellof will be driving in Group C, he will be replaced at the wheel of his Tyrrell by Danny Sullivan.

EMERSON FOR INDY

On the night of Sunday's Brazilian Grand Prix, a plane from Rio carried twice world champion



Emerson Fittipaldi.

Emerson Fittipaldi back to Miami. Emerson was due in the USA to finalise details of his arrangement to drive an Indy car for the WIT team based in Tampa, Florida.

The Brazilian expects to start the CART season at Long Beach on April 1, driving the same March 83C which Teo Fabi used so effectively last year, but his team will soon be taking delivery of one of the latest March chassis for the remainder of the season. As Emerson has said, following his disappointing experiences with the Spirit-Hart in Rio during January's tyre tests, there is no point in returning to F1 except with a top-line team.

Unlike many of the other ex-Grand Prix drivers who will be racing Indy-cars this year, Emerson is no stranger to the famous 2.5-mile Indianapolis circuit. Almost ten years ago, after winning the 1974 world championship for McLaren, he tested his McLaren M23 Grand Prix car at Indianapolis. "I enjoyed the experience," he told a Brazilian newspaper last week, "and I don't think I will find it too difficult to learn the special technique for racing there."

NOT ENOUGH TOIVONEN TO GO AROUND

Today, Henri Toivonen is finding out what it means to have a heavy schedule. Indeed, his skill on the first leg of the Portugal Rally - all tarmac - gave Cesare Fiorio the idea of putting the Finn in the driver's seat of a Lancia at the

Tour of Corsica, especially since Markku Alen won't be back in time for the Safari to carry out tests ordered up by the Italian team-manager. Under ordinary circumstances, Henri would have been overjoyed by such a proposal, even more so since it is proof that he is forgiven by Lancia for his Portuguese accident. But this year is far from ordinary. Toivonen is under contract with Rothmans-Porsche for the European Rally Championship, and is obliged to compete in mid-May at the Zlatni Piasatzki Rally in Bulgaria. For another thing, Toivonen is not familiar with this event, which means careful "reccé". At presstime, we still think it unlikely that Rothmans will accept to excuse Henri from practice, just so he can compete in Corsica for Lancia. A pity for Fiorio, who would have loved to find out if Toivonen was as fast on the long special stages of Corsica as on the Portuguese sprints.

MRS DONOHUE SUES

Currently being heard in a Rhode Island (USA) courtroom is a legal case which could have important repercussions for international motorsport. The case has been continuing for five weeks already, and in mid-March one of the witnesses called to appear was twice world champion Niki Lauda.

The court is being asked to rule on a suit brought against Goodyear and Penske Racing (among others) by the second wife of the American driver Mark Donohue, on behalf of herself and Donohue's two sons by a previous marriage.



Mark Donohue

Mark Donohue died two days after he had been injured in a 1975 accident during the morning warm-up prior to the Austrian GP when his Penske car went off the road, allegedly as the result of a tyre bursting. If the court rules that Goodyear was negligent in the accident, and awards the \$20 million that Mrs Donohue is demanding, then the law, such as it has been interpreted in motorsport up until now, will be singularly called into question.

MISFIRE

It's not often books cause a stir in Formula One. Jean-Pierre Dubreuil's Des Bolides d'Or has as its subtitle, The Financial Underbelly of F1. Dubreuil is an honest journalist, but there is no doubt he rushed into print without sufficient forethought and prudence. The merits, and demerits, of the book have been discussed in GPI already. What concerns us is something else altogether.

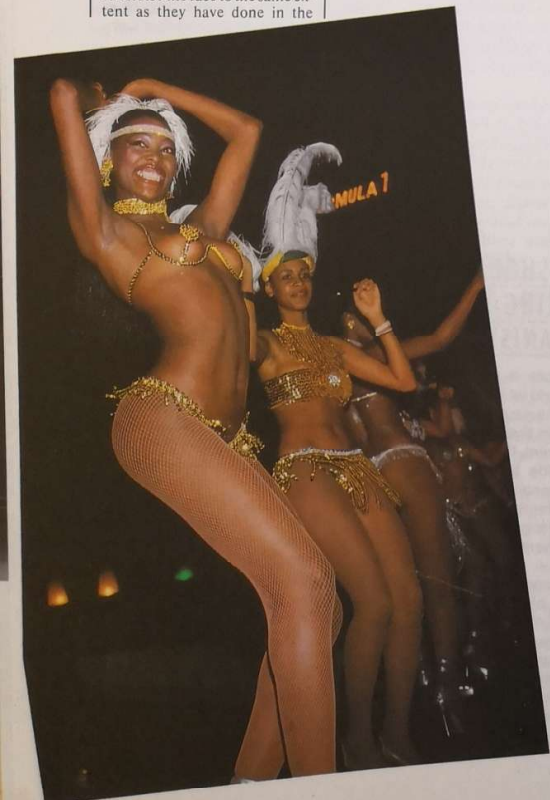
Thus, while we do not doubt that the financial structure of the sport is worthy of examination, and while it is true that for obvious reasons - the secrecy of contracts, the competition for sponsor, money, etc. - there is a climate of concealment on this subject, the truth is that he who comes in from outside to view so considerable, complex and intricate a subject is likely to make mistakes: mistakes of fact and mistakes of judgment.

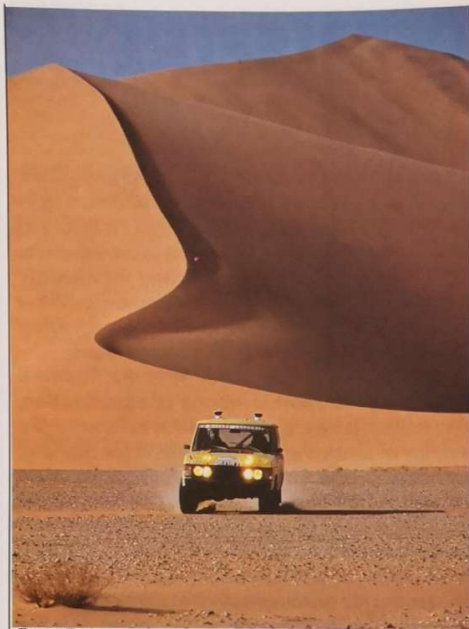
The former are serious enough in themselves, but they do carry their own legal penalties. It is the latter which concern us. Money is vital to the sport. No one would think of denying that it is the professionalisation of the sport (which is a function of money) that has brought it to its present eminence, both in terms of sport and in terms of technological development. A book which concentrates on what the author thinks are a few debatable financial transactions and which fails to get even those right, is a book that casts aspersions on the sport in general.

We happen to believe that though F1's underpinnings are financial, it remains very much a sport: highly competitive, fiercely fought and organized with the utmost professionalism. We have had our differences with both FISA (in the person of Jean Marie Balestre) and FOCA (ditto for Bernard Ecclestone) but we recognize as paramount that rules (FISA) are necessary and professional promotion (FOCA) is vital. To say that either are corrupt, in the sense that the author infers, is contrary to the facts and to our experience. M. Balestre's business involves politics, Mr. Ecclestone's money. As a politician, we have found M. Balestre shrewd; as a man of finance, Mr. Ecclestone's probity is un-guessed within F1.

Reflections of this nature on either man do damage to our sport. Our policy has always been: no whitewash, but also, wherever possible, no misfires.

Keith Botsford





Paris-Dakar

FISA'S RAIDERS

At the press conference, organised at the time the book *Des Bolides en Or* came out, Jean-Marie Balestre, president of FISA, announced that motorsport authorities would support the organisation of three major rally raids as of next summer. The first of these prestigious events will be the Amerathon. It will be held in June/July 1984, and will traverse both North and South America, passing through Panama, Caracas, Terra del Fuego, Brasilia, Ottawa and Anchorage. The start and finish will be in Los Angeles, site of this summer's olympic games. We might mention in passing that the winner of the Amerathon will pocket some \$500,000! Six months later, the traditional Paris/Dakar will this time be recognised by FISA. Again according to Balestre, this is the result of a keen appetite for this event felt by the FISA president. Finally, in 1985, the Paris/Pekin Raid will get the nod from FISA as well. Initially in the hands of Mr Dixon-Cade, this event has somehow ended up being controlled by the group, Caesar's Palace, from Las Vegas. Watch for further details...

THE MAN FROM LISBON

Jean Graton, author of the well-known feature comics, *Michel Vaillant*, was a spectator this year on the Portugal Rally route. Indeed, one of the indomitable Vaillant's upcoming adventures will have as its theme a police story that takes place at the same time as the rally. Surrounded by his aides and roughmen, taking pictures and sketching the principal players in the drama, Jean Graton wanted to thoroughly familiarise himself with the scene. Before "The Man From Lisbon", which should go to press toward the end of the year, another Vaillant story concerning Formula Ford, just getting started in France, should go on sale soon.

NEWS FROM ARGENTINA

The Argentine driver Oscar Larrauri, when we saw him at Miami, had some interesting information on the state of F1 in his native country, where the last Grand Prix race dates back to 1981. The Automobile Club has got together with the national lottery so that the latter might sponsor the organisation of the 1985 GP event. Their answer, which we suppose will be positive, should be announced in four or five weeks. In addition, the Argentine lottery, much like its French counterpart which

backs Ligier, is thinking about giving Larrauri a boost into F1 next year. Meaning an outlay of \$500,000 to \$2 million depending on the team you're talking to. Nonetheless, any optimism should be tempered by a thought for the current economic situation in Argentina, where a worker nowadays earns around \$100 a month. The Grand Prix circus will have to be paid for in greenbacks. And the turmoil this causes has not spared the Argentine press, who have been absent from the circuits for almost two years. They couldn't meet their travel expenses - even their media giants.

PESCA'S RETURN

Henri Pescarolo has been making himself scarce on the Group C World Championship circuits. He seems to prefer flying. But nowadays the wind has changed, and we have just heard about his signing with Jöst for the 1984 season. Strangely enough, the announcement coincided with Henri's victory in the Trans African, flying a Piper Malibu. The three-time winner of 24 Hours at Le Mans will be driving a Jöst Porsche in the livery of New Man. His teammate will be Ste-



Henri Pescarolo

fan Johansson. In addition, New Man and Jöst are negotiating the possibility of entering a second car in the world championship as of Le Mans. Jarier and Jabouille are being tipped, among others, to drive it.

CORSICA HOTS UP

The upcoming Tour of Corsica, May 3-6, organised by ASA Corsica with the help of the French daily "L'Equipe" and Rothmans, will be sounding a new note. For one thing, there will be the 16-valve engine, powering the Peugeot 205 Turbo 16. For another, the growl of the 20-valve twin-cam block on the Audi Quattro Sport, will herald the arrival of 550 bhp of brute strength. Indeed, these two cars are already at practice, racing around Ile de



Tour of Corsica

Beauté. Bernard Darniche (at the wheel of the new Quattro), nevertheless, will have to be content with the A2 for the event. But Blomqvist and Röhr will get a chance to take the latest creation of the men from Ingolstadt through its paces - that is providing homologation can be obtained in time. As for Peugeot, we know that Vatanen and Nicolas will be driving the French machines. Lancia who are the favourites on the Corsican tarmac, have already "rece'd" as well, thanks to Markku Alen, the 1983 winner. In addition, he'll be backed by Andruet, Bettega and Biasion. Four of a kind - a tough hand to beat.

Audi Quattro Sport



18 GRANDS PRIX IN 1985

FISA has unveiled its plans for the 1985 F1 calendar. Nonetheless, things are still in the planning stage, which is normal for FISA, since they often present us with fluctuating race schedules. For the moment, there are 18 events in the pipeline for the 1985 world championship title. It's worth noting that there will once again be a Grand Prix in Japan, a Hungarian Grand Prix, and a French Grand Prix to tickle its patriotic palate - on July 14, French Independence Day. Here is the 1985 Formula 1 calendar to date: (February 3) Brazil; (February 24) South Africa; (March 10)

San Marino, Imola; (April 7) Japan, Suzuka; (April 21) New York; (May 12) Belgium, Spa; (May 19) Monaco; (June 2) Detroit; (June 9) Canada; (June 23) Dallas; (July 14) France, Paul Ricard; (July 20) Great Britain, Silverstone; (August 4) Germany, Nurburgring; (August 18) Austria; (August 25) Netherlands; (September 8) Italy, Monza; (September 22) Hungary; (October 13) Spain, Fuengirola.

AT THE SUMMIT OF THE ACROPOLIS

The sixth round of the World Championship will be held in Greece, May 26 to June 2. The Acropolis Rally, which is entirely a gravel event, will be the first confrontation under these conditions of the trio Audi/Lancia/Peugeot. The Audi team will be bringing together for the first time this season its four mousquetaires Blomqvist, Röhr, Mikkola, and Mouton. Lancia will be fielding a no less formidable armada in the personages of Alen, Biasion, Bettega, Toivonen, and Zanussi. Peugeot will be entering, like in Corsica, Vatanen and Nicolas. Toyota, on the other hand, will be declaring default at the Greek event - in order to better prepare for the New Zealand Rally at the end of June. Last year, to everyone's surprise, it was Lancia who dominated thanks to Walter Röhr, and to Audi's chagrin. The newly-discovered competitiveness of the Italian cars, shown on the gravel of Portugal, may still give Cesare Fiorio a chance to hold onto his world title beyond Acropolis. In any event, this rally will be decisive in pushing Lancia to go all out or not for the rest of the season.



EUROPE IN THE BUSH



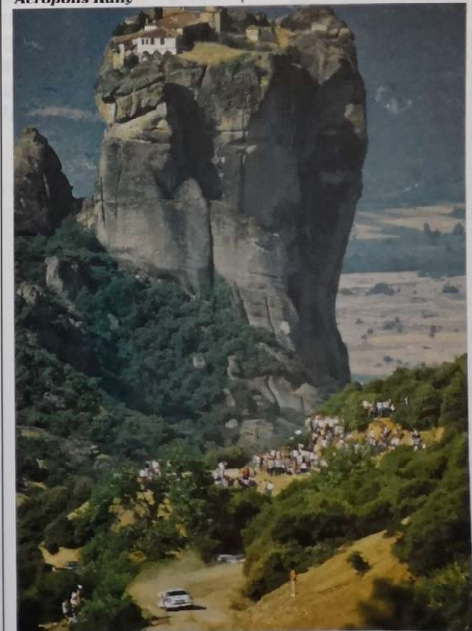
The 5th International Rally Des Garrigues, a qualifier for the European (coefficient 2) and French Championship, will bring a number of rallying's best drivers together. Indeed, at the start in Nimes, March 30, will be Henri Toivonen at the wheel of a Rothmans-Porsche 911. Hopefully, there will be no more trouble, like in their first two runs in Spain. Present as well will be the Belgian Guy Coisoul at the wheel of an Opel Manta 400. Another Opel Manta 400 will be driven by the French champion Guy Frequentin. There will be Bernard Béguin (BMW M1), Bernard Darniche (Audi Quattro), Jean-Claude Andruet (Lancia Rally), and Saby, Touren, Snobeck and Chatriot, all driving Renault 5 Turbos. In short, it will be a mini Tour of Corsica, since the rally course has been modified to cover more

tarmac rather than the gravel roads which used to be included. The last four winners are Therier, Mouton, Saby, and Frequentin. For further information, contact ASA 3 Continents, at (66) 64.23.30.

PHOTO EXHIBIT

Bernard Asset is at it again, only this time, he has brought along his friends. Indeed, at the opening of a blue-ribbon motorsport photography exhibit in Paris, Bernard presented his work along with that of Jacques Cochin, Emmanuel Zurini and DPPI. Organised under the auspices of Kodak's information centre, Mr Asset, Grand Prix International Magazine's resident photographer, welcomes you from March 16 to May 10, 1984, at 38 avenue George V, Paris. If you like our double-page spreads, you will be sure to love this exquisite look through the camera's eye at the world of automobile racing.

Acropolis Rally



"Renault has so many ramifications that it becomes impossible to know who is making decisions. Larrousse? Lower down? Higher up?" What thoughts came to your mind when you read that phrase a month ago in GPI?

That was in no way particularly troubling. I am absolutely categorical. Gérard Larrousse is the man who makes the decisions. I mean that to be, on my part, a very clear and precise statement. When an important question comes up, he discusses it with his superiors, Max Mangelot or Bernard Hanon, but he alone makes the final decision. If he is not physically present, which is the case for two thirds of our private testing, he delegates authority to me. Aside from that, I very much appreciate his asking me for advice, and the fact that he always lets me know about decisions he is planning to take before they have been acted upon. But it is obvious that he is by far the most qualified to run this ship.

Your official title is that of "Sports Director". What spectrum of activities is covered by that term?

It's difficult to clarify. My role is to be second in command whenever Gérard is present, and I assume the leadership of the team whenever he is not there, which, as I have said, is the case for a number of private tests. However, there are decisions, in the course of FISA or FOCA meetings, when it is me who takes the decisions, by right, without reference to him. This truth is, he has never overruled me. Gérard's official title is "Competitions Director", but in fact, he occupies the position, the role which is theoretically mine, that is, of 'sports director'.

When René Arnoux left Renault at the end of 1983, he said in one interview that "you would do better to busy yourself with pots and pans and not busy yourself with the rest". Did that bother you?

What René said was due to a certain animosity towards me that he felt at the time. It's true that I'm a sort of man Friday. I do all sorts of things, from doing the dishes to taking part in FISA and FOCA meetings. But as I've said before, two times out of three, I am in charge of the team during private testing. Anyway, at the time René said that, he was no doubt influenced by the fact that I had taken Alain Prost's side, against René. I was not too diplomatic about it all.

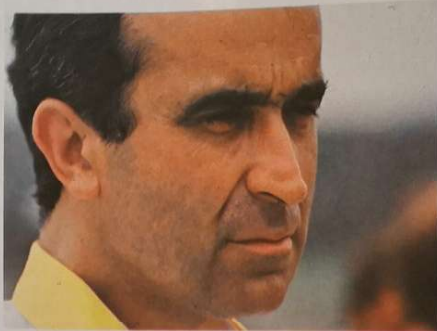
For three years now, Renault has failed to take the championship. What do you have to say personally about this defeat?

... I must admit, your question bothers me, I can see no way to answer it.

Let's put it another way: do you feel in any way personally responsible for this defeat?

It is Renault Sports that must take the responsibility for our second place in the 1983 championship. That much is true. For a second place, not for a defeat. It is only in France that we were thought of as losers. Abroad, we still finished second. Let's say I feel responsible, but not guilty. No one is singly responsible through any fault of his own, and each gave of his best.

JEAN SAGE



JEAN SAGE PASSES THE BETTER PART OF HIS TIME PERCHED ON A TOOL BOX, A STOPWATCH IN HAND. THAT VISION, HOWEVER, IS ONLY THE TIP OF THE ICEBERG. PASSIONATE ABOUT AUTOMOBILES, A CONNOISSEUR OF VINTAGE CARS, THE MAN'S ROOTS ARE ENTWINED IN THE VERY HEART OF RENAULT SPORT. HIS ROLE? WITHOUT DOUBT A CRITICAL ONE, BUT OFTEN MISUNDERSTOOD BY THE OUTSIDE WORLD. HIS TALENT FOR FINDING HIS WAY THROUGH THE LABYRINTH OF POLITICAL MANEUVERING? HE LEAVES NO DOUBT ABOUT THAT. STILL, THE NATURE OF HIS POSITION IN THE CORRIDORS OF POWER IMPOSES OF ITSELF A CERTAIN RESERVE, A SENSE OF TIMING AND TACT USUALLY ASSOCIATED WITH DIPLOMACY.

Interview by Didier Brailion

There seems to be a Renault-Ferrari "coalition", which enove itself in the close collaboration between yourself and Marco Piccini. Is there really such a "coalition"?

It's true that we often work together, for very good reasons: mainly that we both believe the rules should be strictly applied. In the future we may think those rules should be applied more liberally - with due respect given to the letter of the law. The fact is that we are slightly fed up with the way the English play the game. Maybe, the lesson to be learned is, that if Piccini and I work together, it is because he sees in me something more than chief cook and bottle-washer...

Do you really consider that the FOCA teams are a bunch of cheats?

Not generally speaking, but it is certain that they interpret the rules in a way that we would not. But on this subject, Bernie Ecclestone has come a long way. He is much more diplomatic than he was, and a lot more conciliatory. Our "bete noire" at the moment is Ken Tyrrell. In any meeting we have, Ken never agrees with us.

To leap on checking other teams to make sure they don't cheat at is that really an interesting task, or is it rather a bore?

Obviously, it is rather more tedious than fascinating. It is boring to have to be constantly on the alert, for fear that we might be had on this or that. I think only the really hard-nosed can survive such a regime, and my belief is that Gérard Larrousse and I will succeed.

You've just said that the English are cleverer in interpreting the rules: what stops you from following in their tracks?

Frankly, the fact that it wouldn't stop them from accusing us of trickery. Renault is in Formula One for its image. If we were caught cheating, you can imagine the effect on our image...

Let's go back to the earlier part: you say that Gérard Larrousse takes you into his confidence before reaching a final decision. Does this mean that you had your part in the firing of Prost?

I'd really rather not go back over all that. My relations with Prost remain excellent and I intend to keep them that way. But I did not agree with his professional behaviour: at least as far as his external relations on behalf of the Regie are concerned. As I've just said, Renault is in F1 for its image. We all agreed to that from the start. A driver cannot be allowed to run down his own team. If it came to that with me, the day I wanted to criticize Renault, that's when I'd leave.

Does that mean that you might feel at home in another team?

I am an adaptable man and I find it hard to imagine myself elsewhere. For the time being, I feel quite at home with Renault, and if an English team made me an offer, I would refuse.

Renault's traditional image is that of a team of "civil servants". Legend has it that it requires three people to sign out for a single bolt...

A legend. You say so yourself. It's a legend repeated recently by an individual, the whole year he was with us, set foot only three times in our workshop. (Ed. Note: It would seem that this person is a driver!) I am currently administrative head of the chassis department and I can tell you, we work like good buddies. There is Tétu and Carletti, and Champion, the head mechanic. This year, we are highly mobile. When we come up against a major problem, Max Mangelot or Bernard Hanon come and see us to see how they can help. Hierarchy is no impediment to taking a rapid decision.

You talk about a "chassis department". Is the engine division troubled by a "response time" of a more serious nature?

In no way. But I can't answer from inside. Your question bothers me a great deal, for there is no way I would wish to create antagonisms between our various departments. Renault Sports is one big family.

The team is not one "to raise enthusiasm". Another judgment that has appeared in GPI. How do you account for it?

Because the name that is presented to the world is that of a company. The rest they are a Frank Williams, an Enzo Ferrari. With us, Gérard Larrousse is not there to promote his own fame; he is there to promote Renault. Guy Ligier is his own promoter, and that attracts the sympathy of the French public. We have no internal star-system for individuals, but we do all we can to publicise the reputation of our drivers.

GOODWOOD TRAVEL LTD

Quality Tours and Holidays with a Touch of Class

With the 1984 Grand Prix season now under way, we can look forward to what most experts predict will be one of the most exciting for many years.

We relish the prospect of some classic races and despite the excellent television coverage by the BBC there can be no substitute for being able to say "I was there".

And the best way to get there? We believe that if you travel Goodwood you will be treated to a standard of attention that cannot be bettered by any other operator. From your first phone call to our office to the moment you return home from your holiday, we want you to feel that your Grand Prix visit was worth every penny.

Our 36-page brochure contains details of all of our Grand Prix tours.

The first tour in the calendar is:-

BELGIAN GRAND PRIX Zolder - April 29

PETTIT PRIX £26

- Full Day at Zolder
- Visit Brussels

BRUSSELS WEEKEND £49

- One night at the luxury Hyatt Regency Hotel, Brussels.
- See practice.

GOODWOOD MINI-CRUISE BRUSSELS AND BRUGES WEEKEND £79

- Two nights on Olau-Line with cabin accommodation.
- Two nights at the luxury Hyatt Regency Hotel, Brussels.
- Visit Bruges

GOODWOOD V.I.P. CLUB DAY FLIGHT £199

- Fly by executive aircraft to Hasselt.
- Complimentary champagne in-flight.
- Grandstand seat included.

SAN MARINO GRAND PRIX Imola - May 6

GOODWOOD MINI-CRUISE LONG WEEKEND £89

- Day sailings on Olau-Line.
- Two nights in Bologna.

ONE WEEK HOLIDAY VISITING PORSCHE AND MERCEDES £179

- Two nights on Olau-Line with cabin accommodation.
- One night in Karlsruhe.
- Three nights in Bologna.
- One night in Stuttgart.
- Visit the Porsche Factory and Museum.
- Visit the Mercedes Museum.
- See practice.

LONG WEEKEND BY AIR £229

- Scheduled flights on British Airways
- Three nights in Bologna
- See practice.

FRENCH GRAND PRIX Dijon - May 20

LONG WEEKEND BY AIR VISITING PORSCHE; MERCEDES AND SCHLUMPF

- Scheduled flights by Swissair.
- One night in Stuttgart.
- One night in Mulhouse.
- One night in Nuits-St-Georges, Burgundy.
- Visit the Porsche and Mercedes Museums.
- Visit the incredible "Schlumpf Collection"
- Burgundy wine-tasting.

MONACO GRAND PRIX Monte Carlo - June 3

GOODWOOD V.I.P. CLUB CONCORDE DAY FLIGHT £649

- Fly supersonic to Nice on British Airways Concorde.
- Champagne reception and private check-in.
- Top priced Grandstand seat included.
- Race programme included.
- First-class lunch tray included.
- Free car parking at Heathrow.

FOUR NIGHT HOLIDAY BY AIR £249

- Scheduled flights by British Airways.
- Four nights in Nice.
- See practice and F3 Race.

ONE WEEK HOLIDAY BY AIR £289

- Scheduled flights by British Airways.
- Seven nights in Nice.
- See practice and F3 Race.

GOODWOOD CHAMPAGNE CHARTER FLIGHT / LONG WEEKEND £189

- Exclusive return charter flights Gatwick-Nice
- Three nights in Nice.
- See practice and F3 Race.
- Best value air tour to Monaco.

GOODWOOD MINI-CRUISE / SIX DAY HOLIDAY £99

- Day sailings on Olau-Line.
- Three nights in Nice.
- See practice and F3 Race.

11 DAY "VIVE LA FRANCE" HOLIDAY VISITING SCHLUMPF £229

- Two nights on Olau-Line.
- One night in Mulhouse.
- Two nights in Nuits-St-Georges, Burgundy.
- Three nights in Nice.
- Two nights in Paris.
- Visit the incredible Schlumpf Collection.
- Special Burgundy Wine Tasting.
- See practice and F3 Race.

And remember when you book a Goodwood holiday you'll get :-

- ALL ROOMS WITH BATH / SHOWER, WC INCLUDED IN THE PRICE
- ALL PORT AND AIRPORT TAXES INCLUDED.
- ON COACH HOLIDAYS, ALL VEHICLES WITH FULLY RECLINING SEATS, WC WITH WASHROOM AND VIDEO.
- SERVICES OF ONE OF OUR MUCH-PRaised COURTIERS.
- PROBABLY THE BEST GRAND PRIX HOLIDAY YOU'VE EVER HAD

To obtain your free copy of our 36-page brochure call us on Canterbury (0227) 65967 or send the coupon below to Goodwood Travel Ltd, St. James House, Castle Street, Canterbury, Kent CT1 2QZ

Please send me the 1984 Goodwood Brochure.

Name:

Address:

ABTA 33080 ATOL 1569 GPI 84

FORMULA ONE WORLD CHAMPIONSHIP — BRAZIL

UNFINISHED SYMPHONY

ONE MIGHT HAVE CHEERED THE SUPREMACY OF THE MCLAREN-TAG AND THE VICTORY OF ALAIN PROST. THEN AGAIN, ONE COULD JUST AS EASILY BEMOAN THE BAD FORTUNES OF RENAULT. THE NEW FUEL CONSUMPTION REGULATIONS DID NOT PERMIT IT. MANY TEAMS MADE IT JUST UNDER THE WIRE, PAYING THE PRICE WITH ALL MANNER OF ARTIFICE HEADING FOR A COLLISION WITH THE IDEA OF THE ABSOLUTE. DRIVERS AND SPECTATORS BOTH LEFT JACAREPAGUA WITH A BITTER TASTE IN THEIR MOUTHS. A GRAND PRIX SHOULD BE A SYMPHONY. IN THIS CASE, IT WAS AN UNFINISHED ONE.

by Didier Brailon





Scuderia Ferrari's new star Michele Alboreto started off with a bang, but finished in a fizzle (photo: Bernard Asset)

A blistering hot sun, and not a trace of wind. Rio de Janeiro belongs to that family of cities which are capable of numbing one's intellect and promoting utter senselessness. One can splash in the rolling surf of Ipanema. Be relieved of one's wallet on Copacabana. Pass an idle moment dreaming of the feet of the Christ of Corcovado. Give in to the charm of Sugarloaf. Or even leap from the heights of Gaveia in a hang-glider. But excessive efforts can be dangerous. The depression in which lies Jacarepagua is a desert from which sprouts tarmac and enormous steel grandstands. A desert surrounded by mountains covered in lush green vegetation. The low-lying plain in which nestles the circuit could pass for an enormous petrified pancake. Here the discomfort for both drivers and mechanics takes on a whole new dimension.

JOHN BARNARD: 'THE GAIN IN FUEL IS 1.2% FOR EACH TEN DEGREES OF LOWERED TEMPERATURE'

By what divine intervention is Winkelhock able to keep his ATS on the track? Why does the sound of the Renault engines seem to indicate that they are full of unquenchable life and power? What inspires Bellof to be increasingly aggressive at the wheel, throwing his Tyrrell into the curves with all his heart? For what reason does Hesnault unexpectedly let himself understeer for so long and so dramatically in the right hand curve before the grandstands? How does one explain the orange flames which light up the exhaust of the Honda engine when Rosberg decides to shift gears with great alacrity? These questions and more were mental preoccupations during qualifying. Formula One is a grandiose spectacle whose intensity grows ever greater as the solemn moment approaches when the start light turns green.

This season, however, things are looking and evolving differently. Hidden away in the depths of their pits, the cars have become the objects of strange rites which must be performed before they are turned loose onto the track for their warm-up. The most frugal – or the least worried – content themselves with filling to the very brim and with the utmost precaution, their fuel tanks. Ligier, Lotus, Renault, McLaren and Brabham go one step further. Looking for all the world as if they were handling deadly cargoes of nitroglycerine, they gingerly fill fuel tanks with precooled fuel (down to minus 25 degrees centigrade). Frost the colour of now forms around the mouths of the tanks, which are soon covered with asbestos cloaks, sheets of aluminium or refrigerated blankets in order to maintain for as long as possible the beneficial aspects of the operation. John Barnard, who designed the McLarens which were quickest in the morning warm-ups, explains: "The refrigerated fuel diminishes in volume, meaning that it is then

possible to get more into a fuel tank with a specific capacity. My personal estimate would be that the gain is 1.2% for each ten degrees of lowered temperature."

Patrick Head, whose baby the Williams is added: "I think that a reasonable temperature, one we should not fall below, is minus 10 degrees. Below that, there is a danger: fuel has hygroscopic properties, and tiny crystals of frozen water could form. The result being that they would block the filters in the fuel pumps. And this fuel is of a very special vintage, so to speak, with a high caloric value which generates more heat, probably up to 15% more than commercial petrol. For a long time, Mobil refused to supply it to us, until we explained to them that having it could make the difference between a victory and finishing fifteenth."

What Patrick Head does not elaborate on is the price of this precious liquid: roughly \$8.00 per litre. How did things ever get to such a state? By limiting the capacity of fuel tanks to 220 litres, by banning refuelling and by imposing an extraordinarily complex set of controls at the end of each race. "I hope that you will come and watch the technical verifications after the race, it's going to be an extraordinary spectacle", Jean-Marie Balestre declared, before adding, not without a touch of wit, that he should have thought to have a special stand set up for the press so that they could watch. The cars must be weighed in the exact state in which they came across the finish line in order to be certain that they have a minimum weight of 540 kilos. They are then emptied of any fuel, after which their fuel tanks are filled once again. If the capacity of the fuel

GABRIELE CADRINGHER: 'THE POSSIBILITIES FOR CHEATING ARE INNUMERABLE'

tanks exceeds 220 litres, there is immediate disqualification. The tolerance factor on this is exactly zero per cent. The designers are somewhat ruffled:

"In 1979", specifies Gordon Murray, the man at Brabham, "the 12 cylinder Alfa Romeo engines we had in our cars were very heavy on fuel consumption. At the Austrian Grand Prix, we decided to use refrigerated petrol, and the only thing we accomplished was that we seized up the electric pump we were using to transfer the petrol." John Barnard takes up the lament: "Even the most sophisticated calibrating system in the world cannot give you a result that is more than 0.5% accurate."

Gabriele Cadringer, the official inspecting engineer of FISA, does not share their fears: "We empty the fuel tanks and the entire fuel circuit, including the electric pump and the fuel lines. We open the fuel tank, we examine the inside, we siphon out the very last drops, we seal it up again and we re-fill it. There are many possibilities for cheating: there can be supplementary flexible and

well concealed reservoirs, expandable balloons, false-bottomed tanks. If, subsequent to a control, we have any reason to doubt, we empty the tank again and take it out of the car."

The problem apparently lies, according to the teams, with the fact that flexible fuel tanks can vary in their volume without much, if any, warning, due to unexpected deformations. A theory refuted by Cadringer: "These fuel tanks are built to F3 norms, on the specifications of the American Air Force which uses them in helicopters. They are even bulletproof. If a danger exists, it exists when they are filled under high pressure conditions which would force them to dilate. In that case, it's true, they would not retract..."

At the end of the race, the winning McLaren Prost had driven was turned over to the race officials and the fuel tank was removed from the car. Imagine the surprise when it was re-filled, at which point it was seen by all that it was closer to 200 litres than 220. What a lot of fuss for nothing, but the fall of the chequered flag had all the feeling of the end of the 24 hours at Le Mans. The cars all crossed the line at a slower pace, in the middle of the inevitable crowds who had already gathered on the track, and quite a few of them ran out of petrol on the post-race lap. Many of the drivers looked less than cheerful as they got out of their cars. Such was the case with Patrick Tambay, who was set upon by Keke Rosberg in the last laps and who then proceeded to run out of petrol when the end was in sight:

"I did not enjoy myself during this race. It's not our lot in life to do this type of driving. A Grand Prix should use our capacities to 100% and not 50%. As it turns out, I drove two thirds of this race thinking about my petrol. Our engines are running at 11,000 it was not long before I found myself at 10,000, as a measure of safety, and then 9,000. Our instrument panel includes a gauge which lets us know how many litres we have consumed. So not only are we driving, we are doing mathematical problems as well. This was most especially true in my case, as the radio with which I communicate with the pit was not working. The helmet connection came undone when my head was jolted. So I was busy calculating: divisions, multiplications, I thought they would never end..."

Tambay is perhaps not an ideal test case since, right from the start, his engine was giving some cause for alarm in the left hand curves. After the finish, when his fuel tank was shown to be, in effect, empty, Gerard Larrousse favoured an explanation which found fault with the fuel injection, creating an imbalance in the richness of the fuel mixture. Whatever the case, the fact remains that, at the moment, speeds at Grand Prix races are going to resemble those at fuel economy tests at least until some further inroads have been made into electronic fuel management technology. Kyalami is a circuit which has traditionally been associated with heavy fuel consumption. The race there on April 7 should be an even more difficult one than that of Jacarepagua. Despondent drivers, spectators who lose touch with the sport, a less intense spectacle

to watch. Success does not seem to be riding with the new legislation. A further cause for thought is the cars water tanks. According to the design of the cars, they are used to store liquid; this liquid is then injected into the motor, or pulverised as a fine mist on the intercoolers. What other purpose might they serve? They could, during a tyre-changing pit stop, only Arrows failed to make one, be filled to bring the weight of the car up to the norms at the end of the race Ken Tyrrell, whose cars have these reservoirs in their right front side, justifies their existence; he says they inject water into the engine. What remains to be seen is if they actually work. When Tyrrell brought his cars around for technical inspection prior to qualifying, the 012 had, placed above the engine, the end piece from an ordinary sprinkling can. British humour, no doubt...

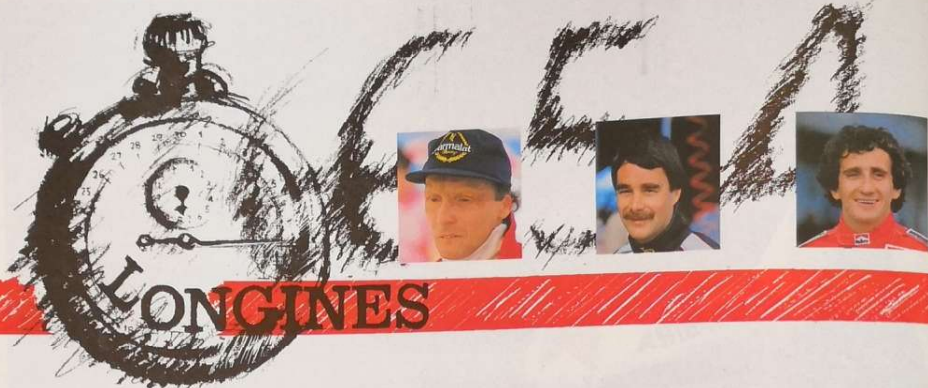
THE FUEL TANK OF PROST'S MCLAREN WAS CLOSER TO 200 LITRES THAN 220. WHAT A LOT OF FUSS FOR NOTHING.

The only weapon FISA has against techniques which would allow a certain flirting with the idea of minimum weight during certain times of the race would be to verify that the water is in fact water. Which was done directly on the dummy grid, when a representative from the federation sampled several drops of liquid with the aid of a small plastic tube. A dangerous job to have, because if his sense of smell does not give him sufficient information, he must then rely on his tongue to decide the nature of the liquid in question. The man whose job it is to verify is not spared the pranks of practical jokers. Alcohol was considered a possibility – the French pronunciation was "Ricard" – and a certain individual was rumoured to have been slightly the worse for wear after testing the cars' liquids. Formula One is full of good-natured souls; the slightest joke often helps to relax an atmosphere which might otherwise be overly tense.

When the FISA technical controls are finally over, two and a half hours after the end of the race, the results are then – and only then – finally official. At which point everyone breathed a sigh of relief. Even Ken Tyrrell, who was caught in the trap of races based on pure, hard driving. Jackie Oliver, whose Arrows finished 7th and 8th, entered a protest against Tyrrell. The protest rested on the notion that Martin Brundle, who had finished a very solid 5th, had taken on fuel during his pit stop. The protest was dismissed, but it had the merit of bringing to the forefront the total dissociation of fuel tanks and water tanks in the British car. There was no internal network of lines relaying the two. A few hours earlier, on the starting grid, the designated "tester" of water had remained thirsty: at that time the car carried only fuel. □

The 1982 World Champion Keke Rosberg pushed his Williams-Honda to a 2nd place finish and surprised himself (photo: DPPI)





After more than five months' waiting, the start of the 1984 Formula 1 season was even more eagerly anticipated than usual. It finally got under way 38 minutes late, the result of delays in completing the new track hospital at Rio's Jacarepagua circuit.

Almost immediately there were problems all the way down pitlane. For example champion Nelson Piquet's Brabham BT53 was so new that he was still being fitted into it, the two Williams-Hondas were handling very poorly following recent changes to their chassis' specification; and the two RAM-Harts were overheating badly.

A sign of good form came from Ferrari, with Michele Alboreto setting fastest time in the morning untimed session on Goodyear qualifiers. Alboreto looked serene and confident (as he was to do through the weekend), and commented that the weight reduction and lowered engine position of the latest C4 chassis had made a big difference. "I am delighted with the handling," he said, "but the steering, brakes and gearbox are all equally good."

In the afternoon, on qualifiers half a dozen cars managed to get below the magic 90-second mark which had eluded all but Patrick Tambay during the January tyre tests. They were led by the two Lotus-JPS drivers, and a joke was soon being put about that Renault had mistakenly delivered some very special engines to Lotus instead of keeping them for the RE50s at Rio. Nigel Mansell's name topped the list ("the first time I've ever been fastest in an official session"), although teammate de Angelis had just started what could have been an even faster lap when the flag was produced.

The problems continued down the pit lane, though. The Alfa Romeos of Cheever and Patrese consumed three engines in the course of the day, Piquet had a minor engine problem which prevented him from using his qualifiers, and de Cesaris lost the boost in his Ligier's Renault engine when a screw dropped out of the inlet manifold. The darkest faces were in the Pirelli camp, notably at Toleman, due to an incorrectly manufactured batch of qualifying tyres

which blistered (on Cecotto's car) on the fourth corner of his first qualifying lap. Team mate Senna, who was anxious to be fastest of the "new boys", made some remarks to Pirelli's Mario Mezzanotte which he may have cause to regret...

Equally as impressive as Lotus was the latest "lookalike" McLaren-TAG/Porsche turbo-car. Driving a chassis that had not turned a wheel before arriving in Brazil, ex-Renault man Alain Prost was delighted to have put himself in front of his old team (and Ferrari) in 3rd place. "It rained all day yesterday, so the track was very abrasive," commented McLaren's Ron Dennis. "Like all of the Michelin teams we weren't able to get the most out of our qualifying tyres, but we are delighted with the new chassis and the TAG engines, which have run without a hiccup all day."

On Saturday morning, with the track getting faster as more rubber was laid down, the two Lotuses were again fastest in the untimed morning session. But other teams were finding that their problems persisted: both Ligiers broke their rear wing mountings, and Ghinzani's new Osella turbocar caused practice to be stopped briefly after its throttle cable broke and stranded the driver on the circuit.

By the afternoon session it was time to bring out the very fastest equipment. The two works Renaults and de Angelis's Lotus had been fitted with the latest Garrett turbochargers, and this time de Angelis made no timing mistakes. Using the excellent Goodyear radial qualifiers, he ripped off a lap in 1m 28.392s, which was 0.1 second faster than the time that had been forecast for him during the tyre tests by his designer Gérard Ducarouge.

There was an element of vindication for Lotus in this performance, for rumours had been passing around the paddock that some of the speeds shown in testing by the British cars might have been the result of being lighter than the official 540 kg limit. With FISA operating their accurate weighing equipment in pit lane, however, this story was quickly scotched.

Alboreto was happy to be second fastest,

albeit half a second slower than his countryman, being particularly confident with the times he had set testing on full fuel tanks in the morning. His team mate Arnoux, however, lost all chances of adding to his "pole position" reputation when a turbo failed as he was trying to get the most from his qualifying rubber.

The tales of misfortune continued elsewhere, too. Piquet had broken a turbo in the opening minutes of the session and was forced to take over the spare Brabham (which wasn't set up for qualifiers). While he was preparing to take it over, however, the session had to be stopped to provide an opportunity to rescue his new teammate Teo Fabi, who had spun off into the fences and damaged front and rear wings.

Keke Rosberg and Jacques Laffite were still worried about the handling of their Williams, so they each chose a set of hard compound race tyres in order to do as many test laps as possible. The unhappiest man of all, however, was the previous day's "pole," Nigel Mansell, whose smaller KKK turbo units lost boost as the result of a bad spring inside one of the waste-gates. "I know I could have gone faster than yesterday," said a bitterly disappointed Nigel, whose Friday time had been beaten by four other drivers, including his friendly British rival Derek Warwick. Renault's new cross-channel recruit had more than justified his selection in the team, handsomely beating the time set by Patrick Tambay, whose fast laps had been spoiled by the heavy traffic.

The fourth fastest time set by Alain Prost in the ever-reliable McLaren might, indeed, have been faster too if Alain hadn't been held up by Mansell (there was revenge for the Frenchman when Mansell spun mightily as he attempted to pass the rival cigarette brand's car); both Prost and Niki Lauda complained of being balked many times. The final miseries of the day, however, certainly belonged to the ATS teams. Trying hard to make their new car work, they had seen their driver Manfred Winkelhock coast to a halt at the corner before the pits, out of fuel, and had sent a crew of mechanics to rescue him in order to continue practice.



SAVE THE PRICE OF A FILL-UP.

with his RAM-Hart. After spending the winter months trying to scrape together the last few thousand pounds to get this drive, you can imagine what this means to me," he said happily.



SATURDAY: DE ANGELIS AND ALBORETO TAKE THE FIRST LINE, AND ITALY IS WILD WITH ANTICIPATION

25 PER CENT DISCOUNT! FREE BINDER!

GRAND PRIX INTERNATIONAL

GRAND PRIX INTERNATIONAL MAGAZINE IS PUBLISHED ON ALTERNATE THURSDAYS

FORMULA 1 GROUP C RALLIES US RACING

GRAND PRIX INTERNATIONAL MAGAZINE - 25 ISSUES PER YEAR - TOTAL NEWSSTAND PRICE £53.80 (21 REGULAR ISSUES AT £2 AND FOUR "SPECIALS" AT £2.95)

SAVE NEARLY £14! FOR ONLY £40 YOU CAN HAVE A YEAR'S SUBSCRIPTION. SEND THE COUPON WITHOUT DELAY WITH CHEQUE OR BANKERS' ORDER TO: GPI SUBSCRIPTIONS, OAKFIELD HOUSE, PERRYMONT ROAD, HAYWARDS HEATH, WEST SUSSEX RH16 3DH

NAME _____ FULL ADDRESS _____ POST CODE _____

SUBSCRIBE TODAY!

CANADIAN SUBSCRIPTIONS TO: EDITIONS GPI INC, 387 WEST SAINT PAUL STREET, BUREAU 204, MONTREAL, QUEBEC H2Y 2A7. Tel.: (514) 282 1331. ONE YEAR: \$98 (CAN) FOR 25 ISSUES (21 at \$4.50 AND FOUR "SPECIALS" AT \$7). SAVE \$24.50 - AND RECEIVE A FREE BINDER!

Michele Alboreto setting fastest time in the morning untimed session on Goodyear qualifiers. Alboreto looked serene and confident (as he was to do through the weekend), and commented that the weight reduction and lowered engine position of the latest C4 chassis had made a big difference. "I am delighted with the handling," he said, "but the steering, brakes and gearbox are all equally good."

In the afternoon, on qualifiers half a dozen cars managed to get below the magic 90-second mark which had eluded all but Patrick Tambay during the January tyres tests. They were led by the two Lotus-JPS drivers, and a joke was soon being put about that Renault had mistakenly delivered some very special engines to Lotus instead of keeping them for the RE50s at Rio. Nigel Mansell's name topped the list ("the first time I've ever been fastest in an official session"), although teammate de Angelis had just started what could have been an even faster lap when the flag was produced.

The problems continued down the pit lane, though. The Alfa Romeos of Cheever and Patrese consumed three engines in the course of the day, Piquet had a minor engine problem which prevented him from using his qualifiers, and de Cesaris lost the boost in his Ligier's Renault engine when a screw dropped out of the inlet manifold. The darkest faces were in the Pirelli camp, notably at Toleman, due to an incorrectly manufactured batch of qualifying tyres

which teams were unable to get the most out of our qualifying tyres, but we are delighted with the new chassis and the TAG engines, which have run without a hiccup all day."

On Saturday morning, with the track getting faster as more rubber was laid down, the two Lotuses were again fastest in the untimed morning session. But other teams were finding that their problems persisted: both Ligiers broke their rear wing mountings, and Ghinzani's new Osella turbocar caused practice to be stopped briefly after its throttle cable broke and stranded the driver on the circuit.

By the afternoon session it was time to bring out the very fastest equipment. The two works Renaults and de Angelis's Lotus had been fitted with the latest Garrett turbochargers, and this time de Angelis made no timing mistakes. Using the excellent Goodyear radial qualifiers, he ripped off a lap in 1m 28.392s, which was 0.1 second faster than the time that had been forecast for him during the tyre tests by his designer Gerard Ducarouge.

There was an element of vindication for Lotus in this performance, for rumours had been passing around the paddock that some of the speeds shown in testing by the British cars might have been the result of being lighter than the official 540 kg limit. With FISA operating their accurate weighing equipment in pit lane, however, this story was quickly scotched.

Alboreto was happy to be second fastest,

opportunity to rescue his new teammate Teo Fabi, who had spun off into the fences and damaged front and rear wings.

Keke Rosberg and Jacques Laffite were still worried about the handling of their Williams, so they each chose a set of hard compound race tyres in order to do as many test laps as possible. The unhappiest man of all, however, was the previous day's "pole," Nigel Mansell, whose smaller KKK turbo units lost boost as the result of a bad spring inside one of the waste-gates. "I know I could have gone faster than yesterday," said a bitterly disappointed Nigel, whose Friday time had been beaten by four other drivers, including his friendly British rival Derek Warwick. Renault's new cross-channel recruit had more than justified his selection in the team, handsomely beating the time set by Patrick Tambay, whose fast laps had been spoiled by the heavy traffic.

The fourth fastest time set by Alain Prost in the ever-reliable McLaren might, indeed, have been faster too if Alain hadn't been held up by Mansell (there was revenge for the Frenchman when Mansell spun mightily as he attempted to pass the rival cigarette brand's car): both Prost and Niki Lauda complained of being baulked many times. The final miseries of the day, however, certainly belonged to the ATS teams. Trying hard to make their new car work, they had seen their driver Manfred Winkelhock coast to a halt at the corner before the pits, out of fuel, and had sent a crew of mechanics to rescue him in order to continue practice.



In defiance of the rules, the mechanics had pushed the car, with Winkelhock in it, into the pit lane. A misdemeanour like this would normally cost an entrant a fine, but ATS owner Gunter Schmid was allegedly so rude to the local race officials when called upon to explain his team's actions that they didn't hesitate to exclude his car from the race.

And after endless problems with engine overheating, tyre peculiarities and electrical cut-outs it was a delighted Dr Jonathan Palmer who was able to step into the race in last place with his RAM-Hart. "After spending the winter months trying to scrape together the last few thousand pounds to get this drive, you can imagine what this means to me," he said happily.



SATURDAY: DE ANGELIS AND ALBORETO TAKE THE FIRST LINE, AND ITALY IS WILD WITH ANTICIPATION



There are two ways of looking at this race: you raise your eyebrows like Reutemann did afterwards and say, "race? what race? very difficult, it was all people dropping out?"; or you say just knowing who was going to be the next victim gave it a certain piquancy. To have de Cesaris raise his hands at the first start and take up the race in his spare from the pits was a signal of what lay in store; yet the scoffers are right in a way – for a race which had only four different drivers in the lead (Alboreto, Lauda, Prost, Warwick) things were uneventful up front. Uneventful, but constantly surprising. And 61 laps instead of 63, for the delay and used fuel.

Consider just the start – hot, delayed, tense. And there was the local favourite, Piquet, stalled on his line, Cecotto too. And Prost, who simply didn't get it right and was only

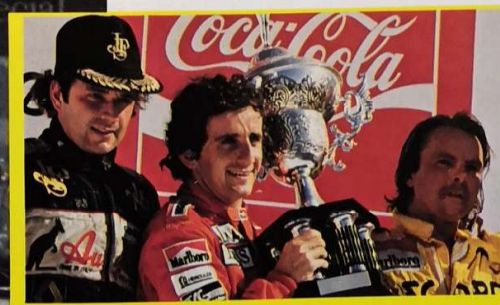
behind the touted Alfas – matched, if not in brio, by Brundle's steady climb to an excellent fifth place, Bellof's debut ended with a broken throttle cable. There was also a fine race by Piquet – when he finally got going: 21st at the end of lap 2, he had reached seventh by the halfway mark and was going strong until his engine blew.

There were the fates suffered by the fancied: pole position de Angelis had to struggle to finish third; his Renault engine failed to pull well. And Mansell, who kept fourth place for 30 laps and ended ingloriously in the catch-fencing on lap 36. Tambay who was in a strong position from the halfway mark ended up minus points due to a fuel failure (though he had two litres left).

There were also some very positive indications about the season ahead. One of these is that, despite a car that was understeering heavily and handled appallingly, Rosberg remains a hugely competitive and intelligent driver: his second place (in the words of an unbiased observer, the Michelin man) was "earned against the car". It was steady, prudent and where necessary, combative. Another is that as a beginning, poor Renault was under a double cloud: the man they sacked won and their best driver on the day was, sick at heart, a victim of fate. As they said: "ten laps from the end, first and third, and to come away with nothing! Somebody up there doesn't like us." Nothing indicated that the Alfas – despite Cheever's fourth place – are going to be world-beaters. And Renault engines in a Ligier chassis seem to do not much better than Ligiers with Cosworths. As for Ferrari, the race was inconclusive. Alboreto took off at the start, built up his lead splendidly and his brake caliper broke, giving him two spins and a fit of pique when he had to abandon the race on lap 13; and Arnoux was really never in it – he had trouble with fuel, Maranello is due for a think-in.

tenth on the end of the first lap. After that much negative excitement, the race settled into its tripartite form: Lauda's lead which went on lap 38 with a few millimeters of wire in the electronic injection system; Warwick's which went after twelve laps as the result of a broken suspension (perhaps caused by a brush with Lauda on lap 10); and Prost's strong finish for the first-ever victory for the TAG engine.

That's not all there is to it, of course. There were omens of the future, such as Bellof's excellent start to the race which put Ken Tyrrell's Cosworth-engined gamble right



QED, the McLarens were the cars of the day. It is extraordinary that an engine which had its first road test a bare nine months ago should win the first GP of the new season. Everything indicates that it will not be the last victory, for certainly Prost and Lauda are not among the less talented.

SUNDAY: LOTUS, RENAULT, FERRARI SUCCUMB AND MCLAREN SPEEDS TO VICTORY



UNDER A BAD SIGN

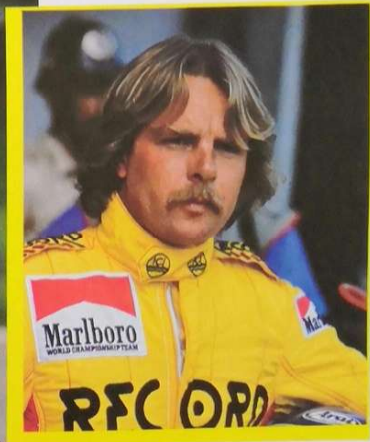
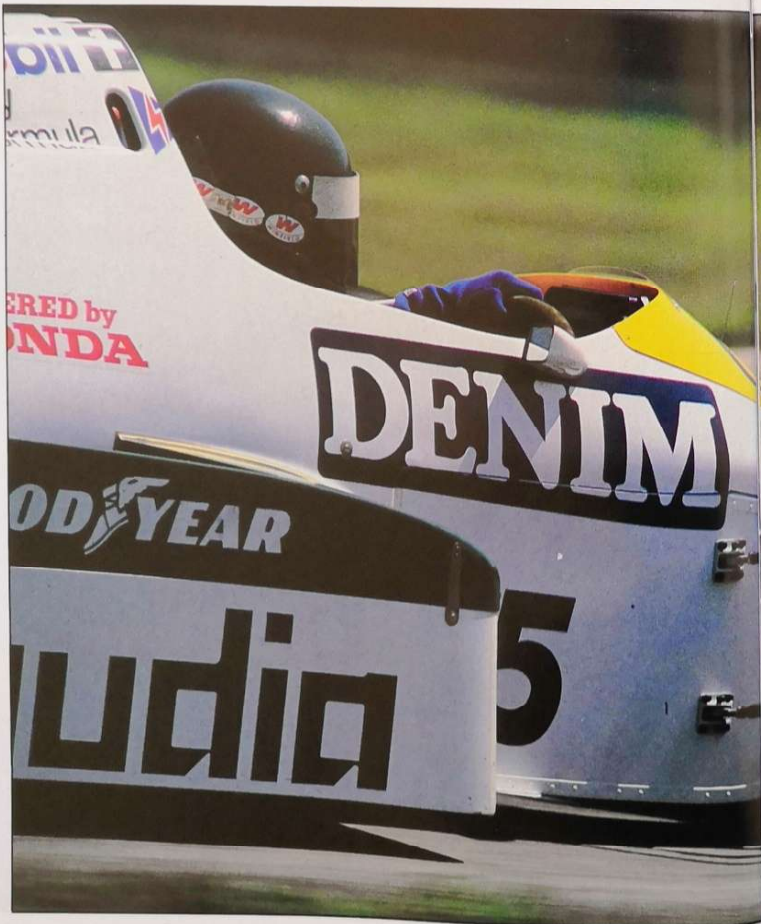
Another grim day for the Régie... Warwick almost won. Tambay, too. But in the end, neither of them finished, even if the man from Canne classed a modest 6th in the race. Patrick blamed his fuel gauge in part - it showed 2 litres left when the tank was dry - but was raging even more against the new race consumption rule limiting the cars to 220 litres. "You keep an eye on the tachometer and the gauge; you spend laps doing multiplications and divisions. What's it all have to do with racing?" In fact, his engine not being quite up to scratch, it was probably using too much petrol. But did he still deserve such harsh punishment? In any event, Renault had done their homework, and were well prepared. Bad luck. For his part, Warwick already saw himself on the centre step of the podium. Then his upper left-front wishbone snapped, sending him skidding into the grass. It would seem a faulty rear-wheel hub mounting had overstressed the front suspension. Derek (in helmet) wasn't too disappointed: "Now I've seen what we can do, I'm ready to take off." But in the pits, Gérard Larrousse and Jean Sage were down in the mouth. "What did we ever do to deserve this," they lamented. (photos: DPPI; Bernard Asset)



**W HOT
AND COLD**



Most of the teams refrigerated their fuel. But Williams, along with Ferrari incidentally, decided to go it "au naturel". There was one immediate benefit: the race start was delayed, meaning the other teams had to sweat out the danger of a topped-up tank bursting in the heat. The mechanics scampered about packing ice on idled cars in the grid. Keke smiled complacently, cool and calm with no such worries - then kept his head throughout the blistering day, to finish a nice 2nd. And in spite of handling problems. "We knew there was trouble in Kyalami, but nothing we tried seemed to help." The Williams has an



aluminium chassis, and in the corners, you could see Rosberg was having difficulty. "My tactics were to run with the hardest tyres possible, and simply try to keep four wheels on the ground." Toward the end he used softer rubber. And went all out for the last 3 laps. "Under the circumstances, I was surprised to come off with 6 points. And after such an awful weekend." (photos: DPPI; Bernard Asset)





Alain Prost/McLaren-TAG (photo: Bernard Asset)

BESTED IN PRACTICE BY RENAULT, BUT THE NEXT DAY SWEET REVENGE WILL BE HIS



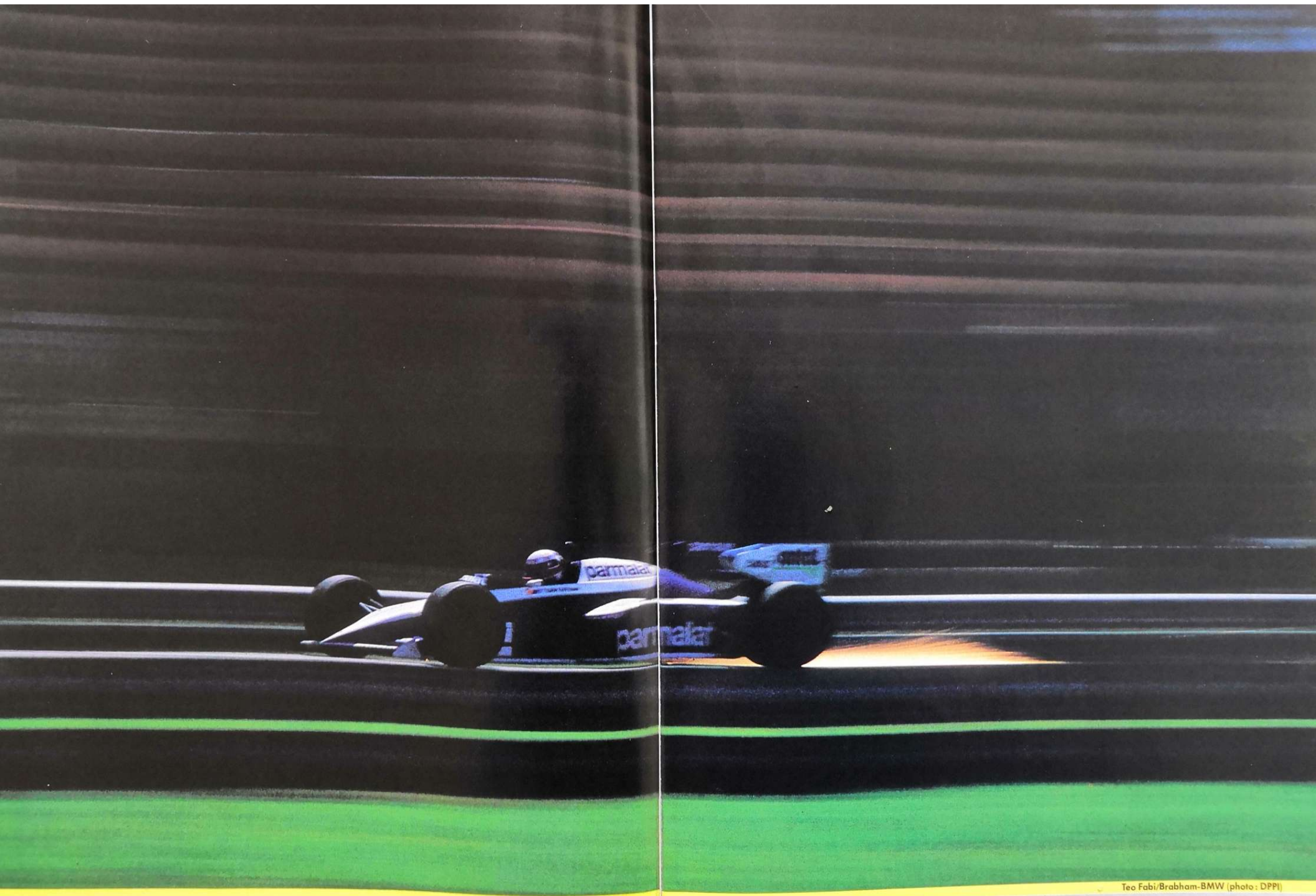
Mansell/Lotus and Lauda/McLaren (photo: Bernard Asset)

NIKI'S RIDING HIGH ON THE THRILL OF RIO, BUT THE CARNIVAL IS SHORT LIVED



Keke Rosberg/Williams-Honda (photo: Bernard Assel)

HIS SIGHTS ON A SECOND WORLD TITLE, ROSBERG AND THE WILLIAMS-HONDA TURBO SURGE AHEAD



Teo Fabi/Brabham-BMW (photo: DPPI)

TEO RETURNS TO THE FOLD AT THE WHEEL OF ONE OF THE GREATS - SPARKS WILL FLY



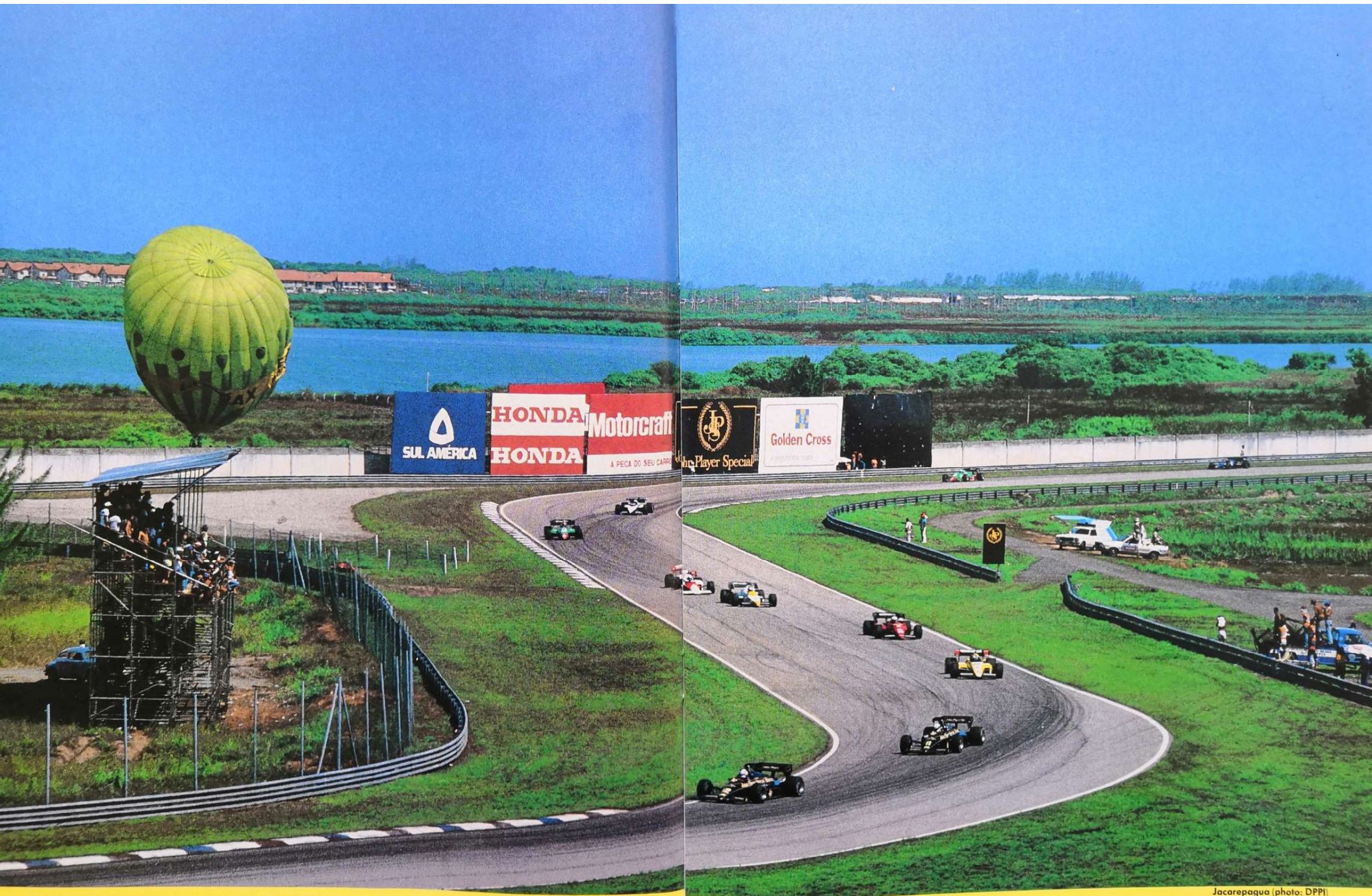
Michele Alboreto/Ferrari (photo: DPPI)

IF GLORY ELUDED SPUNKY LITTLE NUMBER 27, IT WASN'T ANY FAULT OF ALBORETO'S



Cheever/Alfa, Winkelhock/ATS, Baldi/Spirit (photo: Bernard Asset)

STARS DIM IN MOON'S LIGHT; SO GOES IT WITH EDDIE, MANFRED AND MAURO



Jacarepague (photo: DPPI)

IT'S A LONG WAY TO SÃO PAULO – AND THE GOOD OLD DAYS OF INTERLAGOS



Alboreto/Ferrari (photo: Bernard Asset)

A BROKEN CALIPER DASHED ITALY'S HOPES, AND MICHELE WENT HOME EMPTY HANDED



Tambay/Renault (photo: Bernard Ass...

DRIVERS WENT THROUGH MENTAL GYMNASTICS, BUT PATRICK'S SIXTH SENSE LET HIM DOWN

THE LOTUS POSITION

TONIGHT, THE REAL JOB I'VE COME TO DO IS FINISHED. I COULD VERY EASILY GO BACK HOME, TOMORROW DOESN'T INTEREST ME. I'M NOT HERE TO RUN ENDURANCE RACES WHOSE OUT-COME DEPENDS ON FUEL CONSUMPTION.

One does not know what bit of trickery has recently made his grey hair look golden, but Gérard Ducarouge hasn't changed. He remains strong-jawed, able. He savoured the pole position of Elio de Angelis in his own way. Pretending to minimise its importance, perhaps in hope of accentuating the fact in his mind this was neither more nor less than an everyday occurrence:

"I'm disappointed. Yes, disappointed. Because yesterday we had all the front row, and now, Nigel Mansell is fifth. He went off, he made a little mistake. That's life in Formula One."

All the same, a bit much to be disappointed by a pole position. Gérard thinks about it. And in a second, does an about face. This time, he's happy.

"Happy because, after the January testing in Rio, I'd said that we would get down to 1'28"5. We're down to 1'28"4..."

"And people around us were saying that if the Lotus 95T with a Renault engine went fast, it was because it was 40 kilos below the minimum weight. We were weighed several times during qualifying, and we were ten to fifteen kilos over. Now, maybe, people will stop telling tales..."

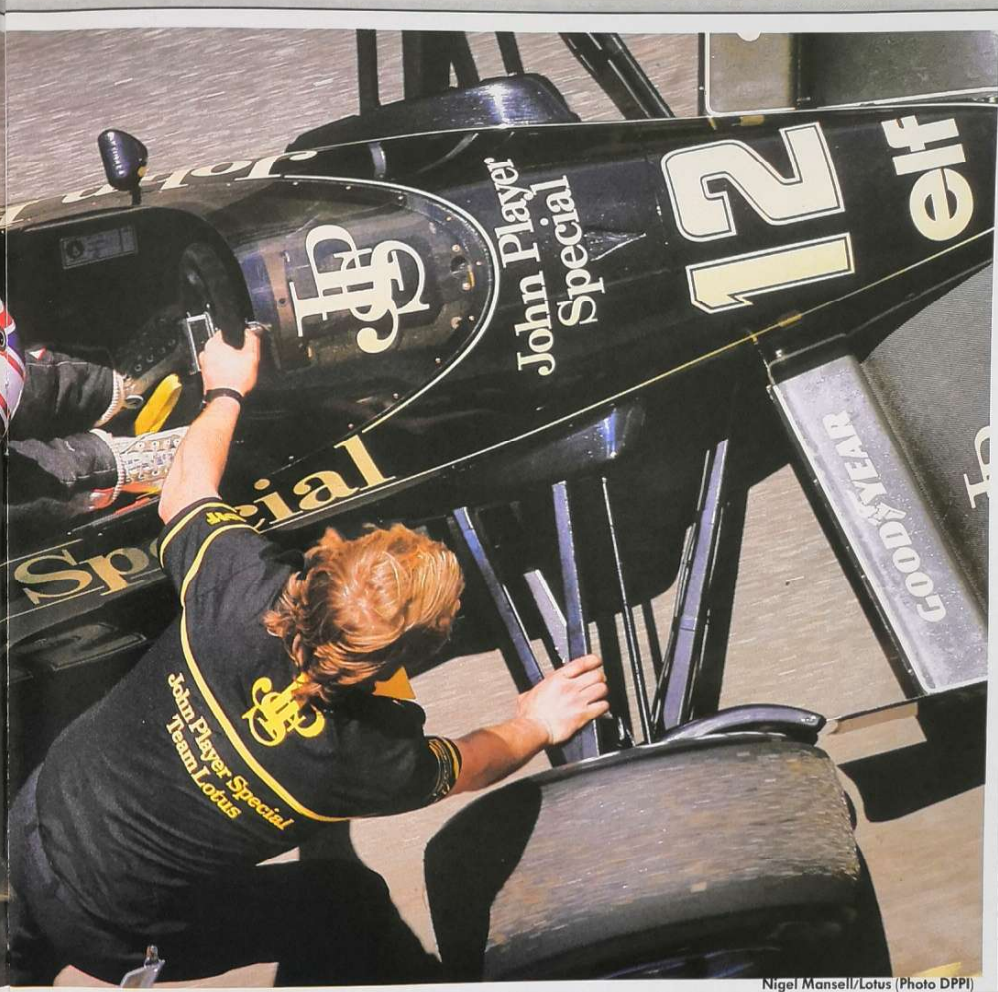
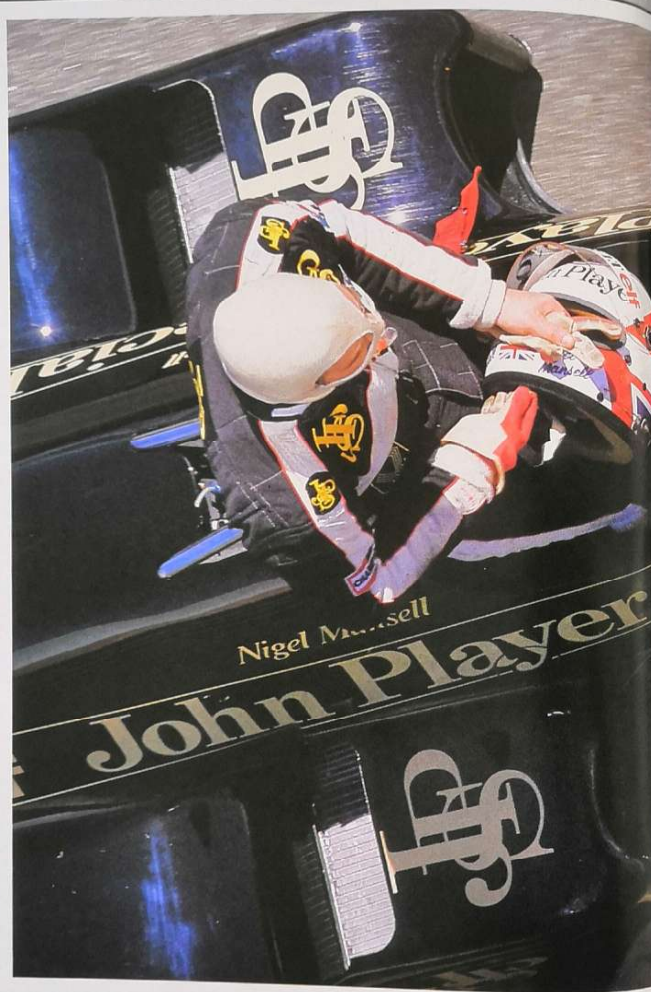
A new about-face, and Gérard is suddenly morose again:

"In fact it's not good to have so much weight, it proves that we still have progress to make. If I were capable of being 40 kilos under the weight, then I'd be something. Really something. That's not the case."

We know the man, we're prepared for anything. He could just as easily have told us that Elio took it with 220 litres of fuel, hard compounds and a jumpy fifth gear. Or even that a mechanic had taken over at the wheel. Or a monkey, why not...

Already yesterday, when the black and gold cars had the first row on the grid, Ducarouge was in between optimism and fear. First the bad news, then the good, according to the dictum so dear to the English when they have two different sorts of news to announce:

"I was expecting this result. Absolutely. We have been very quick on every circuit since we came out with the 95T. It's easy to set up, and in sheer performance it's an excellent car. We were sure to do well. In the morning, Elio suffered setbacks because of under-steering. We went over everything from top to bottom. In the afternoon, Nigel encountered difficulties with his second set of quali-



Nigel Mansell/Lotus (Photo DPPI)

fiers and Elio wasn't even able to use his, because the practice session was shortened by two minutes..."

So much for the good news. Now the bad news:

"The only thing that worries me, is that Brabham, Renault and others weren't even in it today. I mean, as far as where they placed. Their cars should be more competitive than the results might lead one to believe."

On Saturday afternoon, once he knew he definitely had the pole after reducing his own time by 1"2, de Angelis, his overalls bunched down around his waist, allowed himself the luxury of a smile. A few meters away, sitting off to one side in a shady corner of the pits,

Mansell looked decidedly less cheerful. It was he, the ruddy-faced Englishman, the darling of Colin Chapman, the one whom Peter Warr let stew in the juices of uncertainty until December before signing a new contract, who had logged the fastest lap time the day before. Against all logic, if one even considers that there exists a logic based on a number one driver at Lotus. Nigel ahead of Elio, one wouldn't go so far as to say that the world had suddenly turned upside down, but it wasn't far from that. And now, suddenly, the young Italian from Rome had succeeded in turning it all around again on a Saturday afternoon, perhaps marking at the same time the beginning of a new era. A new era, it must be said,

for which he has been waiting a long time. *"Nelson Piquet has raced in no more Grands Prix than I have, but he has been world champion twice whereas I have had only one victory. The Lotus 95T could change all that: it's a beautifully balanced car. This pole position is the result of a tremendous group effort. Gérard, Peter Warr, Nigel, we've all worked at it. We reached a compromise between aerodynamics and mechanics which is very nearly ideal. This car is 90% competitive. At the moment the others are only 60% or 70%. That makes a hell of a difference."*

"The arrival last summer of Ducarouge changed everything from one end to the

other. It was night, then suddenly it was day. He brought us new ideas, a different mentality, and the psychology of a winner. His approach is pragmatic. He works very hard and deserves to be rewarded. In Colin Chapman's day, we worked in a different way. He was a genius, a personality, and an incomparable engineer but he wanted to innovate at any price, against all odds. That was what motivated him. It didn't matter much to him whether he was competitive for a given season..."

A page has been turned in the history of Lotus, and the new regulations governing fuel consumption have compelled Ducarouge to put forth the proposition that, from now on,

only qualifying is important for him. The way in which he has chosen to exercise the demon is not all that prudent. One day in the not too distant future, when Elio or Nigel will come down from the top step of the podium, someone will be there with a pertinent reminder of the famous "tale he spun" on that Saturday night after qualifying in Rio. A reminder which, while pertinent, would no doubt have a double flavour of impertinence as well...

Didier Brailion

A GAME OF TAG

WHEN SUNDAY MORNING WARM UP WAS OVER AND LAUDA AND PROST HEADED THE LIST HANDILY, THERE WAS A SORT OF TREMOR IN THE PIT-LANE: SMART PUNTERS WERE SAYING, MCLAREN HAVE DONE THEIR HOMEWORK, LEARNED THEIR LESSONS, APPLIED THEIR USUAL COOL DISCIPLINE AND THEY'VE GOT A HEAD START—THOSE TWO WILL BE THE ONES TO BEAT. AND FEW FANCIED THE TASK. AT THE END OF THE DAY, THAT PROPHETIC FEAR AND TREMBLING WAS CONFIRMED. A TRIUMPH FOR PROST, WHICH COULD HAVE BEEN ONE FOR LAUDA, THE FIRST VICTORY FOR THE TAG/Porsche engine, first tested on a track by John Watson in July last year and a triumph for disciplined team work. Anne Boismard, who has done out lap charts for years, and just moved from Renault to stay with Alain at McLaren put it succinctly: "It's a cool team, highly organized. No one yells at anyone. They just get on with the job."

That was evident at the brief celebration in the McLaren garage after the race: beer not champagne, the trophy mounted on top of a TAG engine block, a Prost who came in smiling (after last season, with relief), confidence exuding from Ron Dennis, Porsche's Hans Mezger cool ("Judging by what we did today, on the first race of the season, it would seem we should be able to make some improvements and stay up there."), everyone congratulating everyone else, the Marlboro men, sponsors sans pareil (for consistency of support) looking justifiably smug and only Niki Lauda, victim of a few silly millimeters of wire broken in his fuel injection, gone off with his usual philosophical shrug.

To Niki all defeats are to be forgotten. He had come in dry, cool and disappointed. Obviously. But mainly because it had all been so easy up to that point. He had his race plan, he said it was to get ahead of Prost, stay ahead and put some distance between himself and his team-mate. Not because he's not pro-Prost, but because he's even more pro-Niki and thinks McLaren's destiny lies better in his experienced hands. His is not an appetite of the kind you find in back-room boxers. Twice champion, he's got it, in some ways, made. But still, he's hungry enough to want a third championship: perhaps before Piquet gets his. Piquet has more years ahead of him.

When his electronics went off, he came into the pits and Ron Dennis was momentarily irritated. A tyre change was on the cards only if the team so signalled, and Niki came in without signalling. "I was prepared to go all the way on the same tyres," said Niki earlier, "and they were absolutely perfect." In the morning warm-up, he'd had his boost down 10 percent throughout: that too was part of his game plan. How to get through the race on his 220 litres. That was no problem. A little bit of wire was. And now, Niki well knows, who

wins the first race in a team wins something more than a trophy—he wins something of a leg-up on his team-mate. That will not be, with Alain pressing him hard, a situation which Niki will relish.

As for Alain, he looked like he'd crossed the Great Divide and come back again: into the world of the living. The sulks were gone and we were back to the little man we knew four years ago when we used to go out and eat simple fish dinners in the swamps North of Guarujá: in those happy days before he (or his masters) opted for superstardom and the man fell apart. While Mezger was discoursing on the merits of the TAG/Porsche ("We will have something new electronic in two races"), Prost was assuring scattershots of questions from all sides. Small, he sat on a wheel rim while Brazilians outside rattled the bars of his McLaren cage and I crawled bet-

ween sweaty legs to catch the propos d'Alain. Here they are:

On fuel restrictions. They don't bother him. "It's still all new, and like every new rule, it has its teething problems. But with a few more races under our belt, McLaren will improve still further what is already a pretty good fuel economy." Good? After the endless verification procedures, it would seem the McLaren fuel bag, taken out and filled, barely topped 200 litres capacity! "We were quite sure of our system," he added. "I still had plenty of fuel in hand and in a few races, I'll be able to turn the boost up more."

On leaving Renault: "I always try to win every race. If I came to McLaren, it wasn't to trail behind my old team. (Broad smile) But for a first race, it was fantastic: for me and for everyone." And would 'they' (Renault?) be happy back in Paris? "Not my problem," ans-

wered Alain. And on his new team: "At first there was a kind of language barrier. But I work hard at it every day. I really have to learn to speak English with complete fluency."

On his tyres: "It was left to me. If I thought that everything was going well, I didn't have to stop. But as I went by quite a lot of cars at the beginning, mostly on the outside, I must have picked up quite a lot of grass and stones, so I began to feel a fair amount of vibration and I decided to stop. At that point, Warwick was 20s behind me and I thought—even if I do lose 20-25s, it'll still be alright." In fact, Prost's pit stop was a long one: 28s and he came out behind Warwick. As the McLaren mechanics explained, a rear wheel peg "walked off." "Unfortunately," Alain added, "it was just at the same moment Niki did, and fortunately, it didn't affect us."

Problems in the race? None. Just the start. And that little contre-temps with the wheel. The start? "The fact is, I'd never made a start in the McLaren. I asked Niki how to go about it. He said, you need at least 10,000rpm. On the grid I gave the engine a little less; it seemed enough to me, but in fact I sort of stalled. Not really stalled, but faltered—and I had a lot of problems at low revs. Otherwise no real problems. I had to get by a lot of cars, and that's never easy. But it all worked. The new regulations give you a little touch of fear at the end, but..."

A touch of fear? According to Alan Jenkins at McLaren, "Prost slowed from 1s.35 to 1.45 and he scared us half to death. But he had a huge cushion on Tambay at the time and frankly, the only man we were looking out for was Keke." From which answers can be understood that this was not only a weekend of

success for McLaren (the only problem in either car all weekend was a cracked manifold) but also one that was expected. McLaren knew they were on to a winner. That showed in the attitude, and in Prost's. Language barriers apart, he likes the McLaren system: well-drilled, calm and with ample independence for each driver: "It works better like that," said Alain. "Niki has his engineer, I have mine. We are free of each other and we can concentrate on our own problems." So, is there a new Prost? Has anything changed in the man or in that tormented, divided mind we all saw at Kyalami last year? "Nothing but the colours," answered Alain gayly. An emotion in the man we hadn't seen: at least not for some time: not in his previous colours.

Keith Botsford



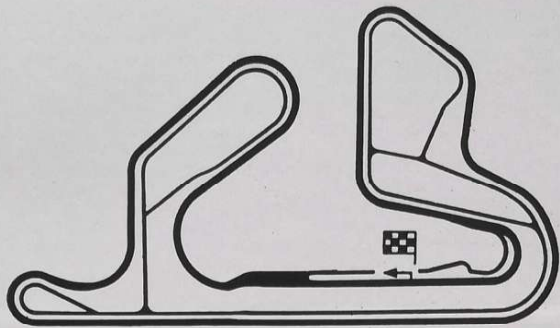
V6 TAG-Porsche Turbo (photo: B. Asset)

BRAZILIAN GRAND PRIX

Date: March 25, 1984
Circuit: Jacarepagua
Circuit length: 3.126 miles
Race distance: 61 laps, 190.686 miles
Weather: hot and sunny
Attendance: 150,000

PREVIOUS WINNERS

(last five races)
1979: Laffite (Ligier-Ford)
1980: Arnoux (Renault)
1981: Reutemann (Williams)
1982: Prost (Renault)
1983: Piquet (Brabham)



THEIR FASTEST RACE LAPS

PROST	1m36.449 on lap 42
WARWICK	1m36.556 on lap 30
TAMBAY	1m37.211 on lap 30
DE ANGELIS	1m38.180 on lap 36
LAUDA	1m38.389 on lap 7
ROSBERG	1m38.506 on lap 51
ALBORETO	1m38.530 on lap 3
MANSELL	1m38.796 on lap 33
CHEEVER	1m39.125 on lap 39
PALMER	1m39.904 on lap 9
PATRESE	1m39.919 on lap 35
FABI	1m39.953 on lap 25
PIQUET	1m40.003 on lap 6
ARNOUX	1m40.273 on lap 6
DE CESARIS	1m40.673 on lap 23
BRUNDE	1m40.804 on lap 60
LAFFITE	1m41.095 on lap 5
BELLOF	1m41.676 on lap 6
SENNA	1m42.286 on lap 6
CECOTTO	1m42.880 on lap 11
HESNAULT	1m42.998 on lap 4
BOUTSEN	1m43.247 on lap 18
GHINZANI	1m43.878 on lap 20
SURER	1m43.960 on lap 4
ALLIOT	1m44.934 on lap 14
BALDI	1m46.380 on lap 9



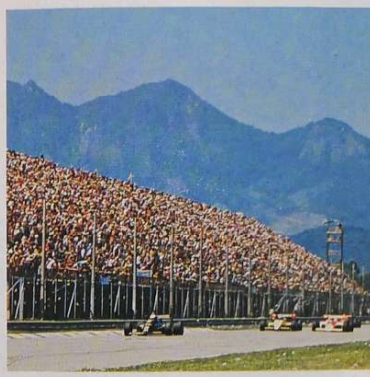
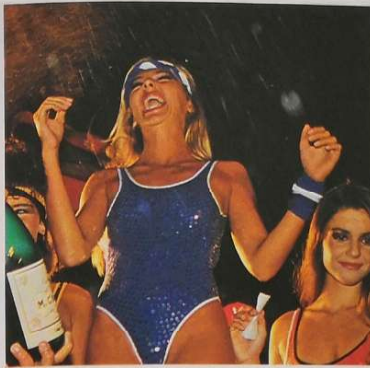
STARTING GRID

ALBORETO Ferrari 126 C4 1m28.898(2)	DE ANGELIS Lotus 95T-Renault 1m28.392(2)
PROST McLaren MP4/2-TAG 1m29.330(2)	WARWICK Renault RE50 1m29.025(2)
LAUDA McLaren MP4/2-TAG 1m29.854(2)	MANSELL Lotus 95T-Renault 1m29.364(1)
TAMBAY Renault RE50 1m30.554(2)	PIQUET Brabham BT53-BMW 1m30.149(2)
ARNOUX Ferrari 126 C4 1m30.695(2)	ROSBERG Williams FW09-Honda 1m30.611(2)
CHEEVER Alfa Romeo 184T 1m31.282(2)	PATRESE Alfa Romeo 184T 1m30.973(1)
DE CESARIS Ligier JS23-Renault 1m32.895(2)	LAFFITE Williams FW09-Honda 1m31.548(2)
SENNA Teleman TG183B-Hart 1m33.525(2)	FABI Brabham BT53-BMW 1m33.277(2)
BRUNDE Tyrrell 012-Cosworth 1m36.081(1)	CECOTTO Teleman TG183B-Hart 1m35.300(2)
BOUTSEN Arrows A6-Cosworth 1m36.312(2)	HESNAULT Ligier JS23-Renault 1m36.238(2)
BELLOF Tyrrell 012-Cosworth 1m36.609(2)	GHINZANI Osella FA1F-Alfa Romeo 1m36.434(2)
SURER Arrows A6-Cosworth 1m37.204(1)	BALDI Spirit 101B-Hart 1m36.816(1)
PALMER RAM 01-Hart 1m37.919	ALLIOT RAM 02-Hart 1m37.709(2)

Disqualified after practice:
 Winkelhock/ATS D6-BMW, 1m32.997(2)

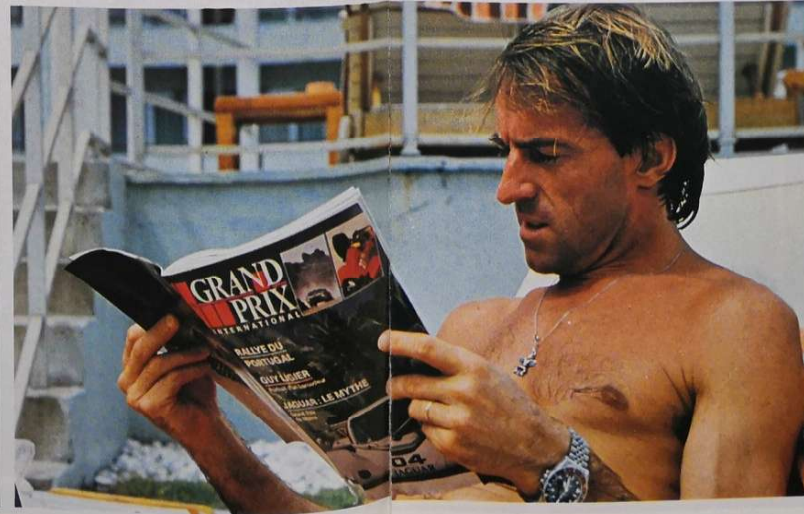
OFFICIAL QUALIFYING TIMES

	Unlimed practice 1	Timed practice 1	Unlimed practice 2	Timed practice 2	Warm-up Sunday
1. PIQUET	1m32.799	1m31.068	1m32.290	1m30.149	1m36.670
2. FABI	1m38.138	1m33.951	1m33.966	1m33.277	1m37.934
3. BRUNDE	1m36.152	1m36.081	1m40.226	1m36.191	1m39.928
4. BELLOF	1m36.442	1m36.957	1m38.083	1m36.609	1m38.720
5. LAFFITE	1m39.116	1m32.032	1m40.134	1m31.548	1m40.932
6. ROSBERG	1m33.902	1m31.778	1m36.479	1m30.611	1m40.553
7. PROST	1m32.622	1m29.823	1m35.061	1m29.330	1m34.740
8. LAUDA	1m33.586	1m29.951	1m33.984	1m29.854	1m34.061
9. ALLIOT	1m47.129	1m38.124	1m39.663	1m37.709	1m44.851
10. PALMER	1m48.569	1m39.840	1m39.551	1m37.919	1m45.275
11. DE ANGELIS	1m36.244	1m29.625	1m30.542	1m28.392	1m35.138
12. MANSELL	1m35.562	1m29.364	1m31.411	1m30.182	1m37.514
14. WINKELHOCK	1m37.739	1m35.395	1m36.693	1m32.997	
15. TAMBAY	1m34.174	1m30.719	1m33.848	1m30.554	1m38.924
16. WARWICK	1m34.963	1m30.945	1m33.499	1m29.025	1m38.392
17. SURER	1m39.911	1m37.204	1m41.780	1m37.348	1m42.631
18. BOUTSEN	1m36.685	1m36.737	1m40.670	1m36.312	1m41.742
19. SENNA	1m37.528	1m36.867	1m35.731	1m33.525	1m39.746
20. CECOTTO	1m37.663	1m35.980	1m36.252	1m35.300	1m41.299
21. BALDI	1m37.954	1m36.816	1m39.809	1m39.873	1m43.086
22. PATRESE	1m39.199	1m30.973	1m37.238	1m31.679	1m40.285
23. CHEEVER	1m34.146	1m33.115	1m40.148	1m31.282	1m39.164
24. GHINZANI	1m42.505	1m40.431	1m38.377	1m36.434	1m40.971
25. HESNAULT	1m40.324	1m36.257	1m40.472	1m36.238	1m40.484
26. DE CESARIS	1m35.629	1m34.622	1m34.905	1m32.895	1m40.388
27. ALBORETO	1m31.445	1m29.950	1m34.671	1m28.898	1m35.863
28. ARNOUX	1m36.029	1m30.832	1m38.587	1m30.695	1m37.705



CONSTRUCTORS' WORLD CHAMPIONSHIP POINTS

1. McLaren 9 pts; 2. Williams 6 pts; 3. Lotus 4 pts; 4. Alfa Romeo 3 pts; 5. Tyrrell 2 pts; 6. Renault 1 pt.



DRIVERS' WORLD CHAMPIONSHIP POINTS

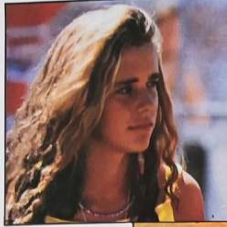
	BRAZIL	SOUTH AFRICA	BELGIUM	SAN MARINO	FRANCE	MONACO	CANADA	DETROIT	DALLAS	GREAT BRITAIN	GERMANY	AUSTRIA	HOLLAND	ITALY	EUROPE	SPAIN
1 - PROST	9															
2 - ROSBERG	6															
3 - DE ANGELIS	4															
4 - CHEEVER	3															
5 - BRUNDE	2															
6 - TAMBAY	1															



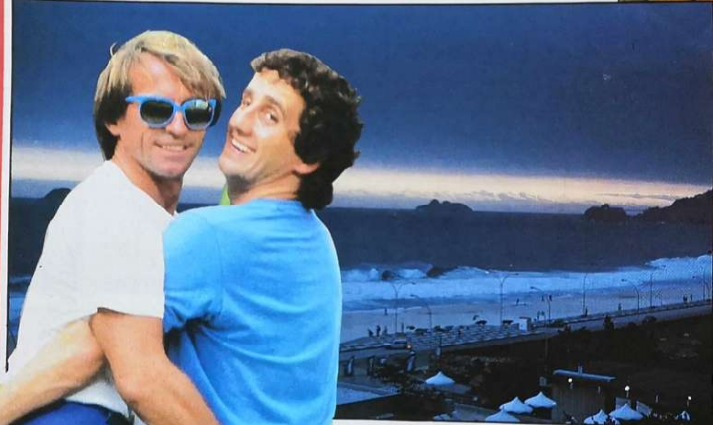
RESULTS

1. Prost (McLaren MP4/2-TAG), 61 laps, 190.7 miles in 1 h 42m34.492s, an average of 112.2 mph.
2. Rosberg Williams FW09-Honda 40.514s
3. De Angelis Lotus 95T-Renault 59.128s
4. Cheever Alfa Romeo 184T 1 lap
5. Brunde Tyrrell 012-Cosworth 1 lap
6. Tambay Renault RE50 2 laps
7. Boutsen Arrows A6-Cosworth 2 laps
8. Surer Arrows A6-Cosworth 2 laps
9. Palmer RAM 01-Hart 3 laps

Fastest race lap: Prost (McLaren MP4/2-TAG), in 1m36.499s, on lap 42, an average of 117.3 mph.



Hello, hello little swallow



Five birds, thunderbird and ...



My turbo is fantastic !!



RIO



... birds of Paradise



BRABHAM-BMW

1. BRABHAM MOTOR RACING DEVELOPMENTS LTD/BRABHAM-BMW BT53-5: Nelson Piquet (BR)

7st in qualifying, DNF in race

2. BRABHAM MOTOR RACING DEVELOPMENTS LTD/BRABHAM-BMW BT53-2: Teo Fabi (I)

16th in qualifying, DNF in race

T-CAR. BRABHAM MOTOR RACING DEVELOPMENTS LTD/BRABHAM-BMW BT53-3

Five of the latest BT53 chassis have already been built at Chessington; the details of this new car are the subject of a double-page technical feature by Giorgio Piola elsewhere in this issue. After the recent tests at Kyalami (where the specifications of the BT53 in our drawing were settled), an oil cooler has been added inside the right hand side pod, the size of the wings has been in-

creased, and an orifice has appeared in the nose cone to accept the nozzle of the airgun for the quick-lift on-board jacking system. Other details include lighter bodywork panels. The 4-cylinder 1.6-litre BMW M12/13 BMW engine with its single KKK turbocharger still has an external radiator cooling system using water piped from a tank behind the roll-bar to spray nozzles fitted ahead of the intercoolers. In Rio the Brabham team had eight engine/rear suspension/radiator assemblies built up ready for instant fitting if required. This is an expensive procedure, but permits substantial savings in time when preparing the cars. New this year is a digital on-board screen which provides Piquet and Fabi with accurate information about fuel consumption. In qualifying Fabi had a transmission problem (a shattered 4th gear ratio) on Friday, and on Saturday he damaged the front and rear wings in a lurid spin. The Brabhams used Heatox carbon fibre brake discs.



LIGIER-RENAULT

25. LIGIER-LOTO/LIGIER-RENAULT JS23-02: François Hesnault (F)

20th in qualifying, DNF in race

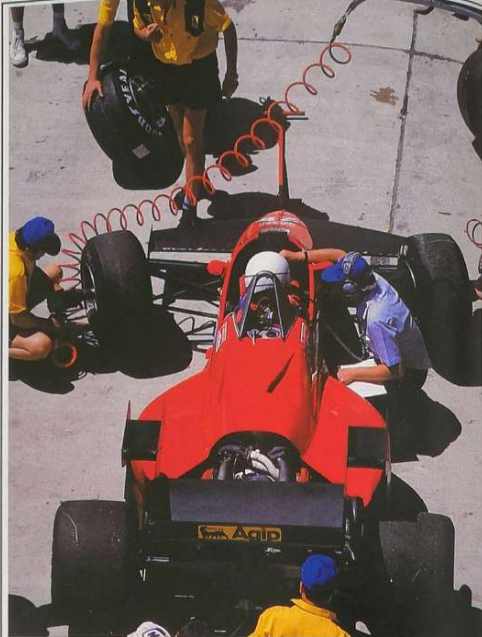
26. LIGIER-LOTO/LIGIER-RENAULT JS23-03: Andrea de Cesaris (I)

14th in qualifying, DNF in race

T-CAR. LIGIER-LOTO/LIGIER-RENAULT JS23-01.

Following the tests in Rio and at Ricard, the original 01 chassis was relegated to become the spare. Chassis 02 and 03 are both brand new tubs which were completed just before the team left France. The latest suspension was appreciably strengthened and is now able to handle the horsepower of by the 1.5-litre V6 Renault EF4 engine. The nose was shortened, bringing the front wings closer to the wheels, and there is a complicated new rear wing using twin vanes mounted one in front of the other in an assembly with large side winglets. Unlike the radiator arrangement on the works Renaults (which have one-piece oil/water radiators separated by a blanking plate), the Ligiers are fitted with completely separate radiators, with the water unit in front of the oil cooler. In qualifying de Cesaris was given the "big boost" version of the EF4 engine with American

Garrett AiResearch turbochargers, and the other two cars retained the German KKK turbos. Both Ligiers had wing troubles in Rio (Andrea's collapsed on Friday), François's on Saturday) before they were finally strengthened by using lateral supports. For the race, JS23-02 kept its KKK turbos, and JS23-03 its Garretts, but de Cesaris broke his gearlinkage on the warm-up lap and started in the spare, fitted with KKK units.



SCUDERIA FERRARI

27. SCUDERIA FERRARI/FERRARI 126 C4-072: Michele Alboreto (I)

2nd in qualifying, DNF in race

28. SCUDERIA FERRARI/FERRARI 126 C4-073: René Arnoux (F)

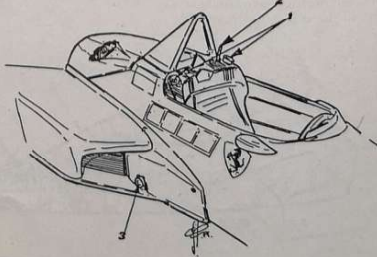
10th in qualifying, DNF in race

T-CAR. SCUDERIA FERRARI/FERRARI 126 C4-071

Since the preparation of Giorgio Piola's cutaway drawing which appears in this issue of GPI the C4 has gone through some further developments which have been tested at Ricard. The winglets attached to the extremities of the rear wing have been increased in size, and the team is using carbon fibre brake discs for the first time in timed qualifying and in the race. It would appear that the weight of the C4 can be reduced if required well below the minimum limit of 540 kilos, possibly to as little as 510 kilos. To compensate for this light weight it has been necessary to fit a large capacity tank for the water which may be injected into the 1.5-litre V6 en-

gine with its twin KKK turbos. On the T-car the water tank is fitted in the same position as last year (under the driver's seat), but on the two race cars the driver's seat is the tank itself, moulded to the driver's shape, complete with water fillers and the appropriate piping. We estimate the capacity of the tanks at a minimum of 25 litres each. The water is piped to the engine emulsifier (an AGIP patented device) via a smaller bottle placed between the water radiators and intercoolers inside the sidepod. A modification which was new at Rio was the addition of substantial brake scoops at the rear, together with redesigned oil catch tanks. During qualifying the two cars used different injection systems: Alboreto was given the latest Marelli/Weber electronic twin-injector set-up, while Arnoux had the classic Ferrari-modified Lucas layout. The Frenchman's engine broke a turbo on Saturday afternoon.

(1) shows one of the water tank fillers; the tank forms the driver's seat. (2) shows the emulsifier and (3) is the new electronic Marelli-Weber injection system.



LOTUS-RENAULT

11. JOHN PLAYER SPECIAL TEAM LOTUS/LOTUS-RENAULT 95T-03: Elio de Angelis (I)

1st in qualifying, 3rd in race

12. JOHN PLAYER SPECIAL TEAM LOTUS/LOTUS-RENAULT 95T-02: Nigel Mansell (Great Britain)

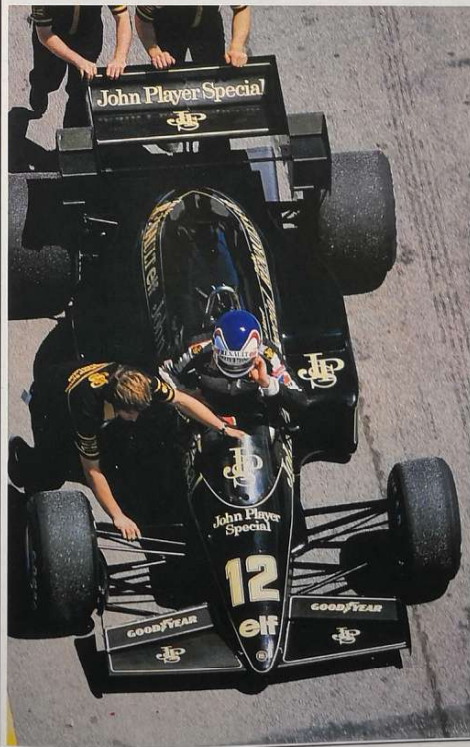
5th in qualifying, DNF in race

T-CAR. JOHN PLAYER SPECIAL TEAM LOTUS/LOTUS-RENAULT 95T-01

With memories of his very quick Rio testing times still fresh, de Angelis preferred to use the "Brazil" bodywork instead of the later "Ricard" version, which generates less drag. The "Ricard" body does not provide adequate cooling, however, and Mansell switched to the original version at midday on Friday after a series of difficulties with high cooling temperatures. The new bodywork can be distinguished by the rounded shape of the air intakes and exhaust ducts in the side pods. The shape of the front wings is now different, and there are twin winglet extensions to the rear wing. New on both cars was the adoption of small scoops to take cool air to the rear shock absorbers and the turbocharger waste-gate units. A supplementary water radiator is also fitted. The tank for the water to be injected into the 1.5-litre V6 Renault



EF4 engine is generously dimensioned and has two filling pipes, one on each side. It is placed underneath the driving seat. Throughout qualifying de Angelis' engine was fitted with the "big boost" US-made Garrett AiResearch turbos, while Mansell had to make do with the regular German KKKs. A second T-car was available if required, this being the older 94T (chassis number 02), which had been brought to Rio for the January tests and left in Brazil as a show car for Souza Cruz the Brazilian tobacco company which is now manufacturing the JPS brand in the country.



OSELLA-ALFA ROMEO

24. KELEMATA OSELLA SQUADRA CORSE/OSELLA-ALFA ROMEO FA1F-01: Piercarlo Ghinzani (I)

22nd in qualifying, DNF in race

At first glance, the FA1F looked like an entirely new car, but that wasn't the case. In fact it comprises nothing more than one of last year's Alfa Romeo 183T tubs with revised pushrod suspension mounting points. However, the pullrod rear suspension had caused the gearbox casting, on which it is mounted, to be considerably modified by Osella, not only to take the suspension but also the anti-roll bar. The upper part of the fuel tank incorporated a water tank, not only for injection with fuel into the engine, but also to cool the heat exchangers of the twin turbo (Avio), 1500cc V8 engine, naturally built by Autodelta. This cooling system, as on the works

cars, is by spray. The FA1F at Rio weighed 563 kilos but a new Osella-built car should weigh in at 540 kilos when it appears at Kyalami. It has been designed by Osella themselves as Tony Southgate is no longer consultant. In actual fact, the car should weigh less than the limit and obviously it will be designed for the new suspension. The fuel tank, newly designed, will incorporate a water tank while the vertically mounted oil tank will be mounted in its own cavity. The new monocoque will be manufactured by Composite Material Aeronautic who already make Renault and Ligier wings in Italy, and all suspension mounting points will be in carbon fibre. During practice at Rio, Ghinzani had a turbo break on Friday afternoon.



McLAREN-TAG

7. MARLBORO McLAREN INTERNATIONAL/McLAREN-TAG MP4-2/02: Alain Prost (F)

4th in qualifying, 1st in race

8. MARLBORO McLAREN INTERNATIONAL/McLAREN-TAG MP4-2/01: Niki Lauda (A)

6th in qualifying, DNF in race

T-CAR. MARLBORO McLAREN INTERNATIONAL/McLAREN-TAG MP4-2/03

While the first of the new MP4-2 chassis was being successfully tested in France, a second chassis was being completed at Woking. The T-car was

present but not complete. Following the tests of the new car (which was described in GPI 76), the exhaust pipes have been shortened and are now level with the back of the rear underbody profile. Previously they projected behind. The carbon fibre brake discs are made in France by SEP. Three more MP4-2 chassis are presently being built. The Porsche-developed 1.5-litre V6 TAG engine with its twin KKK turbos has been put through an outstandingly thorough development programme to reduce fuel consumption. A novelty anticipated for the near future is the adoption of a single "black box" to control the electronic Bosch Motronic injection system, replacing the present two control boxes.



RENAULT SPORT

15. RENAULT-ELF/RENAULT RE50-03: Patrick Tambay (F)
8th in qualifying, 6th in race
16. RENAULT-ELF/RENAULT RE50-04: Derek Warwick (GB)
3rd in practice, DNF in race
T. RENAULT-ELF/RENAULT RE50-02

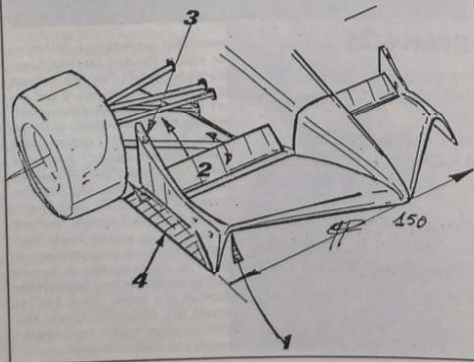


During testing in Kyalami, Renault tested a turbocharging system using four little Garrett AiResearch turbos mounted in relay, two by two. However, this system wasn't adopted in Rio but there were air scoops into the engine cover which included flexible water pipes for cooling. Chassis 04 was a new one and all three cars were fitted with a read-out display system allowing them to check fuel consumption, while the drivers could talk by radio to the pits. The team expected to cool their fuel to minus 30 degrees before the race in order to accommodate more of it at its contracted

temperature. This refrigeration would take place at high pressure. Renault Sport had brought 12 engines for its own use to Rio for the team would go on to Kyalami direct. There were another 15 engines for Lotus and Ligier. During practice, the cars were fitted with 1500cc V6 EF4 engines with two large Garrett AiResearch turbos. On Friday, Tambay tested a one-piece front bodywork section, styled along Brabham lines, intended to give more downforce. It had already been tried during private testing in Kyalami. The race engines were fitted with Garrett turbos, and steel brake discs were fitted to the cars.



In (1) is seen the front one-piece bodywork intended to give great downforce and reflect air from the tyres. In (2) the little flaps which are adjustable as in (3). In (4), the horizontal part.



RAM-HART

9. SKOAL BANDIT RAM AUTOMOTIVE/ RAM-HART 02-01: Philippe Alliot (F)
26th in qualifying, DNF in race
10. SKOAL BANDIT RAM AUTOMOTIVE/ RAM-HART 01-03: Jonathan Palmer (GB)
27th in qualifying, 9th in race

Palmer's car was based on one of last year's modified cars, made entirely of aluminium, while Alliot had the latest carbon fibre/aluminium 02. Designed by Dave Kelly, it has been made by Ralston Auto Technics.



TOLEMAN-HART

19. TOLEMAN GROUP MOTORSPORT/ TOLEMAN-HART TG183B-05: Ayrton Senna (BR)
17th in qualifying, DNF in race
20. TOLEMAN GROUP MOTORSPORT/ TOLEMAN-HART TG183B-04: Johnny Cecotto (VZ)
18th in practice, DNF in race
T. TOLEMAN GROUP MOTORSPORT/ TOLEMAN-HART TG183B-03

The spare car was entirely new, having been built for last year's season but never raced. All three cars were only slight modifications of the team's 1983 models: there was a new



Both cars used pullrod suspension, unlike last year. The cars are now fitted with four cylinder Hart engines, boosted by Holsett turbochargers and now using revised oil systems and Marelli electrics. The car's big bodywork wasn't the most attractive, and the engine covers were soon discarded as they upset the air flow to the rear wing. Alliot suffered fuel pressure problems and consistent electrical problems, but preceded his teammate who became the lone non-qualifier until Winkelhock was excluded 90 minutes after practice ended, allowing the second RAM into the race.

fuel system, an on-board read-out for fuel consumption information, backed up by radio contact with the pits, and a new gearbox cooling system. The Hart four cylinder engine was fitted with bigger Holsett turbos than last year, while its oil system had been modified and Marelli electrics were being used. Water from a tank mounted just ahead of the right wheel was sprayed onto intercoolers. During practice Senna had an engine problem on Friday afternoon.

C O C K P I T S



SPIRIT-HART

21. SPIRIT RACING/SPIRIT-HART 101B-1: Mauro Baldi (I)
24th in qualifying, DNF in race

A single Spirit was entered in Brazil, the same car that Emerson Fittipaldi drove at Rio in January. It was fitted with a four cylinder 1500cc Hart en-

gine fitted with a Holsett turbo. Like the other Harts, the engine had a revised oil system and Marelli electrics. The car was fairly heavy and had radiators in the right hand side pod, and heat exchangers in the left. It was the only car to have adopted the arrow shape of last year's Brabham.



TYRRELL-COSWORTH

3. TYRRELL RACING ORGANISATION/TYRRELL-COSWORTH 012-3: Martin Brundle (GB)
19th in qualifying, 5th in race
4. TYRRELL RACING ORGANISATION/TYRRELL-COSWORTH 012-2: Stefan Bellof (D)
23 in qualifying, DNF in race
T. TYRRELL RACING ORGANISATION/TYRRELL-COSWORTH 012-1

Brundle's car was entirely new, stronger and lighter than previous models. Some people reckoned that it could weigh as little as 470 kilos on dry tanks. Both race cars were fitted with quick-lift jacks like the Brabhams. Furthermore, the cars were fitted with wings incorporating the fashionable winglets, and the suspen-

sion had been revised for use with radial tyres. Both front and rear brakes were of Formula Two dimensions, neither ventilated nor very big. Ken Tyrrell has ten three litre Cosworth engines, six DFYs and four DFVs. The DFYs are linked to a water injection system fed by a 13 litre tank in the right hand pod. But some sources claimed that this tank was in fact bigger, and that the injection system wasn't working either.



WILLIAMS-HONDA

5. WILLIAMS GRAND PRIX ENGINEERING/ WILLIAMS-HONDA FW09-04: Keke Rosberg (SF)
9th in qualifying, 2nd in race
6. WILLIAMS GRAND PRIX ENGINEERING/ WILLIAMS-HONDA FW09-03: Jacques Laffite (F)
13th in qualifying, DNF in race
T. WILLIAMS GRAND PRIX ENGINEERING/ WILLIAMS-HONDA FW09-05

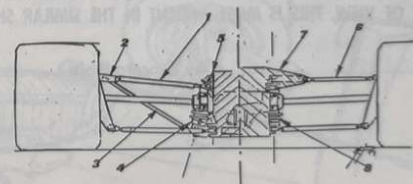


All three chassis were completely new and contrary to what it appeared, the team had worked very hard since last year. Giorgio Piola's drawing in the last issue of GPI did not include entirely new suspension which was ultimately fitted to all three cars in Rio. This new pullrod suspension comprised mounting points cast into the gearbox, redesigned heat exchanger, and smaller oil radiator mounted, as before, in the right pod. The V6 1500cc Honda RA163-E engine, boosted by two Ihi Japanese turbochargers was fitted with higher mounted exhausts in order to prevent them from blowing straight onto suspension parts. This had also meant a slight redesign of the underbody. There are two water tanks, one each side, spraying the heat exchangers in the sidepods. However, the driver can also now adjust the turbo

boost pressure from the cockpit by turning a button on the left side of the instrument panel. This was not possible last year. Patrick Head admitted that he had gained 15 kilos from the rolling chassis and the same amount from the engine, which leads one to suppose that the aluminium monocoque FW09 could weigh 30 kilos less than the limit with empty tanks. Rosberg and Laffite both had a read-out system on their instrument panels to inform them of fuel consumption, while the drivers were also in radio communication with the pits. Honda had brought eight engines to Rio, but expect to build between 35 and 40 for the whole season. Their electronic fuel feed system, still secret, uses two injectors per cylinder, like Ferrari's Marelli-Weber system. During practice, Heateco carbon fibre discs were mounted on Rosberg's car but were replaced by steel models for race day.



Left, the 1984 FW09 suspension, and right, the 1983 version. In (1) the upper suspension link is longer and at an angle. It attaches directly to the gearbox in (5) and the bodywork link is visible in (2). In (3) the pullrod link to the combined spring/shock absorber (4) is mounted at an angle. In (6), the older model is shorter and less slanted, and in (7) is seen the older mounting finally, the combined spring/shock absorber (8) was mounted vertically.





FERRARI 126 C4

THE CONSTRUCTION OF A NEW FORMULA 1 FERRARI IS ALWAYS A NEWS-WORTHY EVENT. THIS TIME, THE 126 C4 IS BUT THE NEXT LOGICAL STEP IN THE EVOLUTION OF ITS PREDECESSOR THE 126 C3, UNVEILED IN MID-SEASON 1983. AS OF ITS DEBUT AT THE SILVERSTONE GRAND PRIX, THE C3 WAS ALREADY CHANGING. THE BODYWORK HAD TO BE MODIFIED BECAUSE OF A DECISION TO RETURN TO A MORE CLASSICAL ARRANGEMENT OF THE ANCILLARY UNITS FOR THE 1.5-LITRE V6 ENGINE. IN FACT, THE INITIAL BODY DESIGN WAS NOT REALLY ABANDONED, BUT ONLY SHELVED, SINCE WE AGAIN SEE IN THE C4 MANY OF THE NEW IDEAS ORIGINALLY INCORPORATED INTO THE C3. FROM A SPECTATOR'S POINT OF VIEW, THIS IS MOST EVIDENT IN THE SIMILAR SHAPE OF THE SIDEPODS.

by Giorgio Piola

1. The 126 C4 looks slimmer than its forerunner the 126 C3. At the same time, the nose reflects an effort to improve the streamlining.

2. Brembo radially-vented, carbon fibre disc brake. Each one is equipped with a single caliper.

3. The tub of the 126 C4, like on the 123 C3, is composed of two half-shells, an upper and a lower one. The weight savings in relation to the 126 C3 is 2.5kg.

4. Sidepod air-intake fairing over water tank for engine water-injection system.

5. The driver's seat was moved forward 10cm, allowing for a new fuel tank profile that is lower and longer.

6. The roll bar appears to stand out higher than on the 126 C3 because of the overall lower profile of the 126 C4. Indeed, the height of the roll bar was not changed.

7. In accordance with the new 1984 capacity ruling, the fuel tank holds only 220 litres, instead of 250l as in the 126 C3.

8. Dual-purpose radiator for both oil and water cooling. The intercooler was in this position on the 126 C3.

9. The engine-cover for the 6-cylinder turbo is placed very low and integrates the two NACA air scoops for cooling. The easily recognised "camel back" of the 126 C3 is gone.

10. Electronically-managed Marelli-Weber fuel injection system.

11. Air scoop for cooling the electronic ignition-timing complex.

12. Heat exchanger. It is flow regulated and longitudinally mounted in front of the rear wheels.

13. The engine-cover is very short, exposing the turbines of the KKK turbochargers in order to favour their cooling.

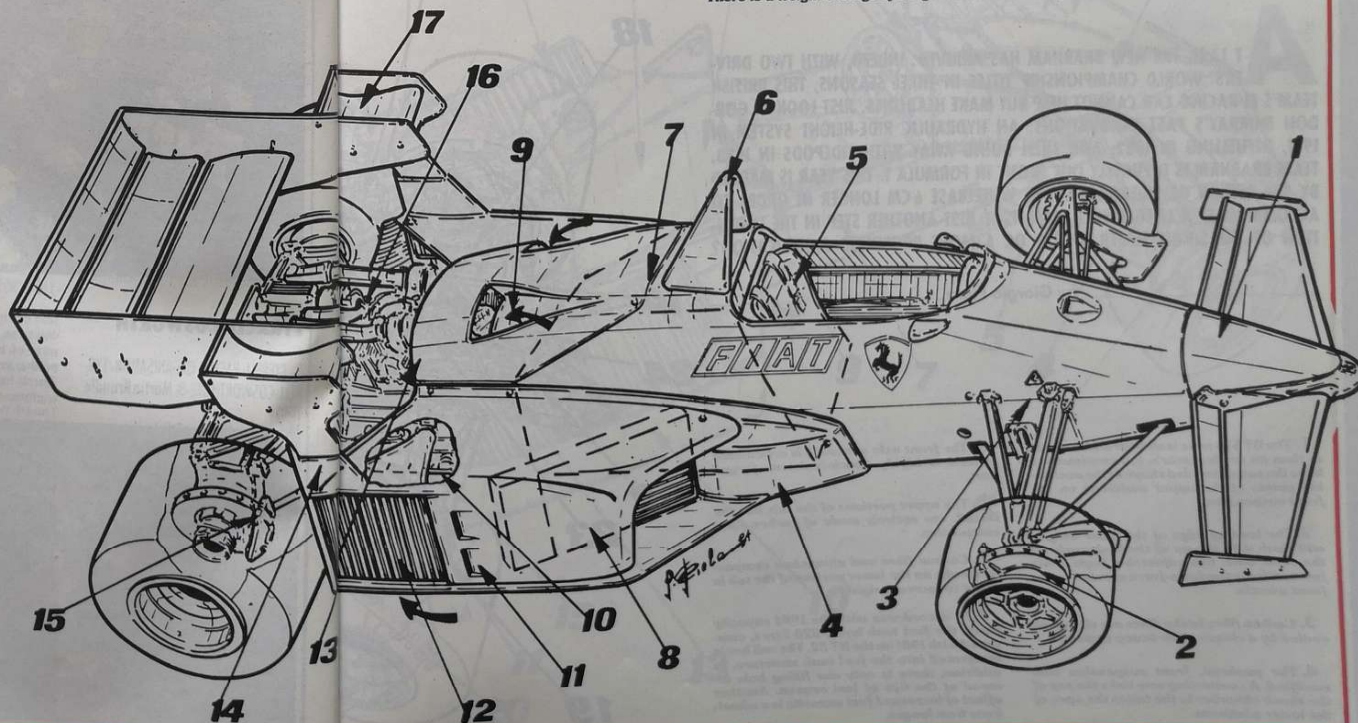
14. Lateral extensions of the bodywork onto which are attached the forward supports of the rear wing and winglet assembly.

15. Brembo radially-vented, carbon fibre disc brake. Each one is equipped with a single caliper.

16. The engine was extensively modified to the point that it is practically a new block. There is a weight savings of 15kg over the

engines used in 1983. There is a weight savings of 3kg for the gearbox as well, bringing the 126 C4 almost to the minimum limit of 540kg.

17. Rear winglets, used by Ferrari for the first time on the 126 C2 in private tests at the end of 1982. They have since been copied by a number of teams, for instance, Renault, Williams, Lotus, McLaren, Brabham, ATS, and Tyrrell.



BRABHAM BT 53 - BMW



AT LAST, THE NEW BRABHAM HAS ARRIVED. INDEED, WITH TWO DRIVERS' WORLD CHAMPIONSHIP TITLES IN THREE SEASONS, THIS BRITISH TEAM'S F1 RACING CAR CANNOT HELP BUT MAKE HEADLINES. JUST LOOK AT GORDON MURRAY'S PAST INNOVATIONS: AN HYDRAULIC RIDE-HEIGHT SYSTEM IN 1981, REFUELLING IN 1982, AND THEN DOING AWAY WITH SIDEPODS IN 1983. TEAM BRABHAM IS DEFINITELY OUT FRONT IN FORMULA 1. THIS YEAR IS MARKED BY THE RETURN OF SIDEPODS, AND A WHEELBASE 6 CM LONGER IN ORDER TO ACCOMMODATE A LARGER FUEL TANK. IS IT JUST ANOTHER STEP IN THE EVOLUTION OF THE SINGLE-SEATER BT 52? OR A MORE PROFOUND MODIFICATION?

by Giorgio Piola

1. The BT 53's nose is shorter and narrower than its predecessor's, but continues to have the same rounded shape at the anchoring points of the upper wishbone on the front suspension.

2. The leading edge of the front wing is still flush with the tip of the bodywork. At the same time, two adjustable flaps allow for modifying the down-force exerted on the front wheels.

3. Carbon fibre brake discs are still used, cooled by a classical air scoop system.

4. The pushrod, front suspension was modified. A connecting arm links the top of the shock absorber in the tub to the apex of the lower wishbone.

5. The front axle assembly is articulated around a highly shock-resistant forged part.

6. The upper portions of the tub, like the BT 52, are entirely made of carbon fibre composites.

7. Carbon fibre and aluminium composites make up the lower portion of the tub in order to increase rigidity.

8. In accordance with the 1984 capacity rules, the fuel tank holds 220 litres, compared with 190l on the BT 52. The roll bar is integrated into the fuel tank structure. In addition, there is only one filling hole instead of the two of last season. Another effect of increased fuel capacity is a wheelbase 6 cm longer.

9. The gearbox shift-lever linkage is made up of three sections, articulated with two universal joints.

10. The BT 53 has relatively long sidepods to accommodate the large water-cooling radiator and oil cooler. Several arrangements were tested during the off-season.

11. The sidepods have the same shape in front of the rear wheels as the McLaren cars. Dubbed the "coke-bottle effect", the idea is to reduce aerodynamic drag.

12. Large, water-cooling radiator.

13. Oil cooler.

14. The oil tank is situated behind the engine and connected by a pipe to the oil cooler in the right sidepod.

15. Bosch electronic engine management system.

16. There is only one turbo intercooler and it is mounted near the water-cooling radiator in the left sidepod.

17. The location of the KKK turbocharger was changed. It is now placed to the back of the left sidepod and is air cooled through a port in the bodywork ahead of the left rear wheel. The location of the waste-gate pop-off valve was also changed.

18. Newly-designed exhaust pipes, dumping above the left half-shaft.

19. Rear hydraulic jacks, which were mounted in front of the rear wheels on the BT 52, are now built onto the wheel bearing

mounts. This way, the Brabham team doesn't need to use garage jacks.

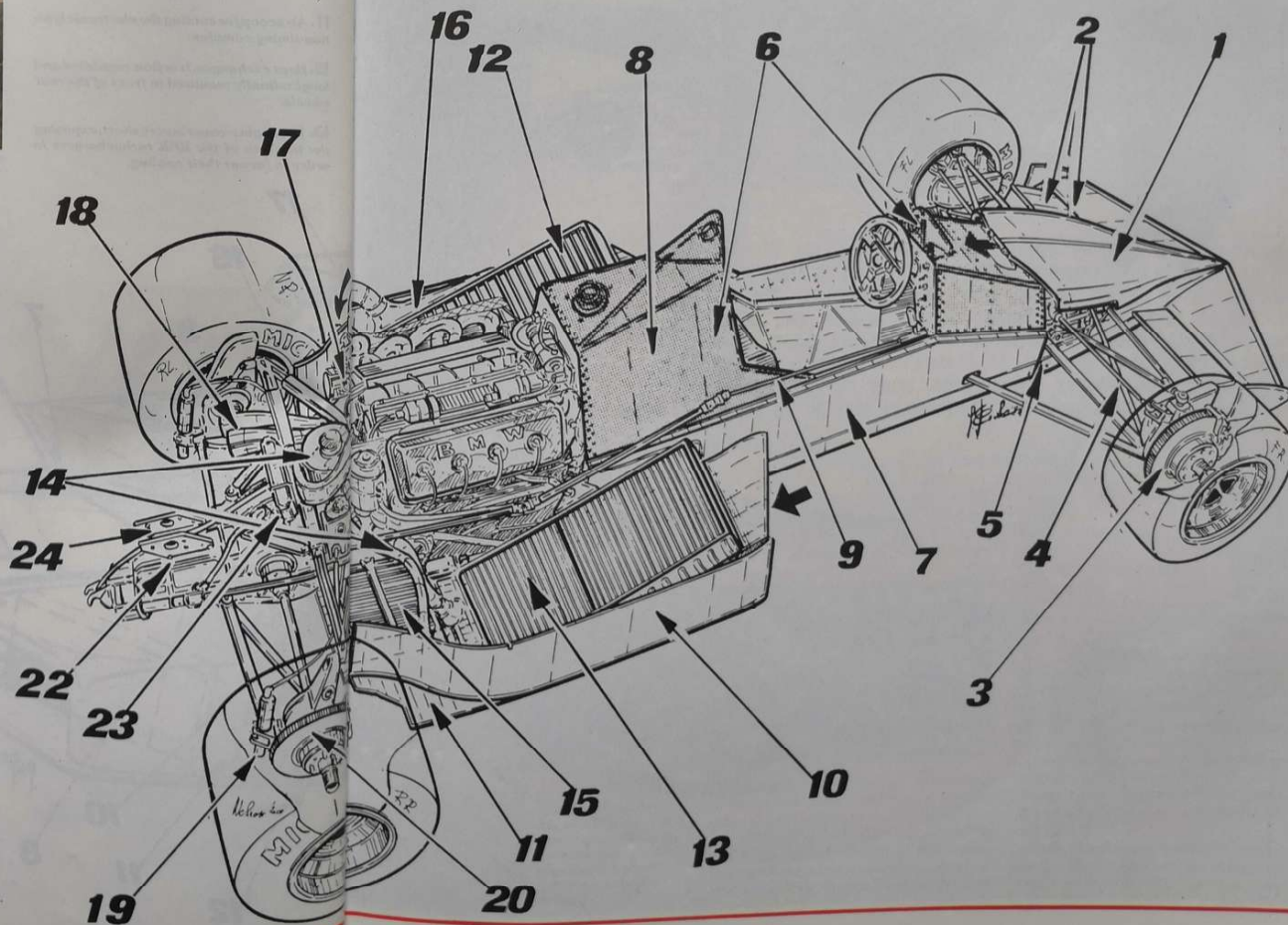
20. Each rear-brake caliper is situated to the front of the disc, like in 1983.

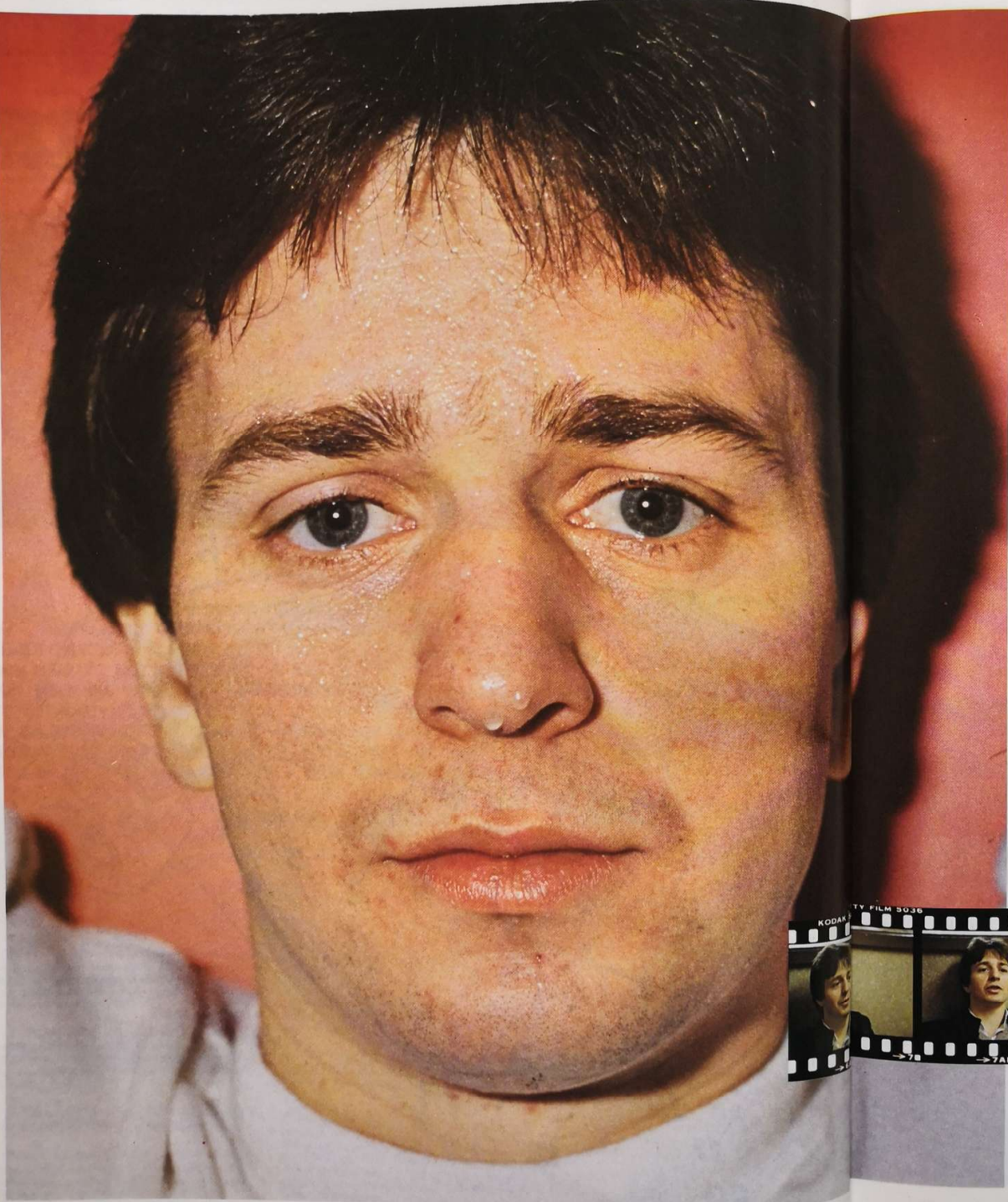
21. Air scoop for rear-brake cooling.

22. Narrow gearbox in order to facilitate air flow out of the sidepods.

23. Gearbox cooling element, which was on the right in 1983, is now behind the oil tank in a central position between the power output half-shafts.

24. The rear wing support is mounted on the gearbox bell-housing. Already seen on the BT 52, this design solution allows for changing the ratios without having to pull the gearbox.





NOW THE HARD PART



Could Ken Tyrrell have discovered a new Jackie Stewart? (photo: Bernard Asset)

THE POPULAR YOUNG DRIVER, TOUTED BY THE BRITISH MOTORSPORT PRESS AS BEING THE NEXT JACKIE STEWART, STILL MANAGES TO KEEP HIS WITS ABOUT HIM. WHAT SOME WOULD QUALIFY AS EXCEPTIONALLY GOOD LUCK, MARTIN BRUNDLE PREFERS TO THINK OF AS 90 PER CENT HARD WORK. ALWAYS COMPETITIVE IN SINGLE-SEATERS, BRITAIN'S FAVOURITE SON WILL GET HIS CHANCE TO SHOW IF HARD WORK CAN ALSO WIN GRAND PRIX RACES. AND AGAINST OVERWHELMING ODDS, AT THE WHEEL OF THE LAST COSWORTH-ENGINED CAR ON THE FORMULA 1 SCENE.

by Maurice Hamilton

He says it keeps his feet on the ground. Standing in the Toyota showroom, wearing an open-neck shirt and brown leather jacket, he scarcely looks like a smooth

selling himself - and then the car. So far, so good. Now Mr & Mrs Buyer want a trade-in price on their Renault 14. Mr Salesman steps outside and carries out a quick appraisal. His sharp eyes scan the dented body panels; note the rust; check the mileage. A glance in the trade guide confirms the price he had in mind. "She's worth £1,500", he says confidently, as if he were giving away a fortune. Mr & Mrs Buyer are appalled. Convinced they will get £2,000 from a Renault dealer, they say a polite thankyou and quickly depart. Mr Salesman isn't surprised. "The Renault dealer gave them that price over the phone. Wait 'till he sees the car. I've convinced them of the benefits of having a Toyota and I'll be surprised if they don't come back." Martin Brundle seems sure of himself. Not in a cocky, arrogant way, but in the manner of a man who knows he has done a profes-



Martin Brundle has his work cut out for him, and suddenly, he's the new British standard bearer. (photo: Malcolm Bryan)

super-salesman. But listen to him show a potential customer and his wife around a Corolla and you soon realise he is. He emphasizes the customer benefits; points out the advantages of this model, talking all the while in a calm, controlled and enthusiastic manner. Not pushy. Just

sional job. Selling cars in the family garage is enjoyable work for Brundle. The challenge of converting a genuine customer to Toyota and then building up a relationship is hard work. It requires tact, confidence, empathy and quick thinking.

It's a vital alternative for a young man about to be elevated to greater things in a world far-removed from the neat little showroom on a street corner in the market town of Kings Lynn. Like Derek Warwick and his trailers, Martin Brundle finds the motor trade a necessary link with the outside world.

"I'm sure it can only help me keep my feet on the ground," he says. "I mean, look at what happened when it was announced that I will be driving for Tyrrell. One day you read in the papers that I'm going to be the next Jackie Stewart. The following day, I'm bargaining with a farmer over the price of his car..."

JACKIE IS WELL ORGANISED, HE MOTIVATES PEOPLE, HE HAS EVERYTHING UNDER CONTROL - BRUNDLE AFTER SPENDING A DAY WITH STEWART

The link between Tyrrell, Stewart and Brundle was obvious - and Martin has no complaints about that. JYS has not only been a hero to Brundle ever since he saw him race at Snetterton but the former World Champion is, in Martin's opinion, a thorough professional in and out of the cockpit. Brundle should know; he recently spent a day in the company of Stewart as he dashed around England earning more money than he ever did as a driver. Brundle was, quite naturally, impressed.

"It was a superb day. He was doing a selling job for Goodyear and what pleased me was the fact that he didn't do anything which I won't be able to do - given time and experience."

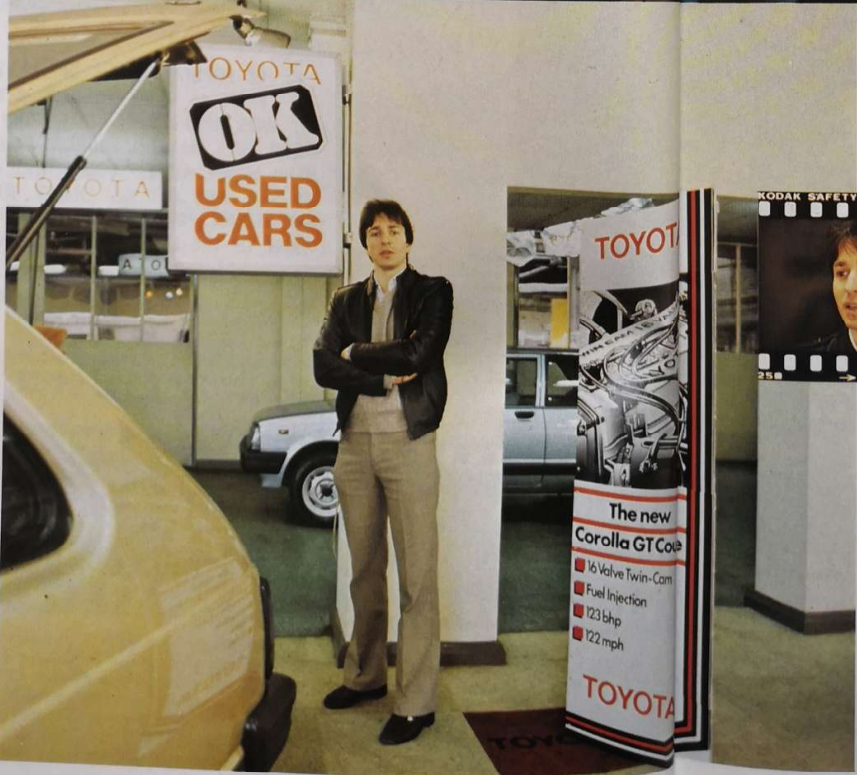
"He was well organised; he motivated people; he had everything under control. It's something which interests me very much. I asked a lot of questions and I had the impression that he seemed genuinely keen to help. Okay, so I haven't even taken part in a Grand Prix yet and I don't want to run before I can walk, but I do mean to start out my involvement with the PR side as I mean to go on. I want to show that I am as good off the track as I am on."

"I've always admired Jackie. Look at what he's done: three World Championships; never spilt blood while racing; a great ambassador for the sport. Everything he has done appeals to me: He's a down-to-earth family man. I'm not a high-flyer. I'm not the sort who rushes down to the nightclubs in London."

Brundle has spent his 24 years living in Kings Lynn at the northerly tip of Norfolk.



From F3 to F1 in a single bound. Others have done it, but can this young Brit hope to succeed? (photo: Charles Knight)



Martin Brundle of John Brundle Motors Ltd. You can't say Formula 1 has gone to his head. (photo: Malcolm Bryan)

His gentle East Anglian accent matches an unassuming nature compatible with the rural life and a competitive career far removed from the cut-and-thrust of European racing. He says there is nobody he really dislikes. He is, by his own admission, "a touch shy". Doubtless these commendable qualities will be put to the toughest of tests during the next few months. Yet there is the distinct impression that a quiet self-assurance will carry him through - regardless of an admission that his confidence has, in the past, required a boost from time to time.

THERE WAS NOTHING BETTER THAN SENNA TO BRING OUT THE RACING DRIVER IN ME

"I had pole position for my first ever circuit race in 1977 (a saloon car event at Oulton Park) and I suppose I was surprised about that. I know I was chuffed about it! But I have surprised myself ever since really. If I had to criticise myself then I would say I was not super-confident about my own ability. I know I have the basics: I can step into a Formula 1 car or a Jaguar - or anything - and drive it quickly. But it still surprises me a little - and it shouldn't."

Brundle's confidence could have taken a considerable battering last year when he came face-to-face with Ayrton Senna. Initially, the British F3 Championship was seen as a straight fight between the two with victory going to Senna. By mid-season, there was no question about it; Senna was walking away with the title. What's more, Brundle and his entrant, the indomitable

that's the end of him. I've won this. And then he came out of the corner in front of me! Next time, I followed him through on the outside and discovered it was much quicker on all the rubber and dirt than it was on the polished, slick line on the inside. I began to understand why everyone was saying he was something special...

"So, he kept beating me. But it was good for me. I could not have had anything better than Senna to bring out the racing driver in me. I was beaten nine times during the first half of the season and yet my determination was stronger than ever. Once again, I surprised myself. I never gave up. And, as for Eddie (Jordan), he was excellent. He was just the sort of bloke I needed behind me. He kept saying we would win. I mean, there we were, 32 points adrift and Eddie is saying, quite emphatically, that we will win the championship. And, what's more, I believed him - and we damn well nearly did win the championship!"

Jordan: "Yes, I did hustle him but he was very easy to motivate mainly because he is such a straight-forward, realistic sort of guy. I felt confidence was the key to it all. I could see Martin was capable of fighting back. He could handle a beating from Senna. But, I felt sure it would be a different story if Martin beat Senna."

'THE OBJECT WAS TO GO AS QUICKLY AS I COULD AND BE SENSIBLE' - BRUNDLE AT THE MCLAREN TEST

Brundle: "I actually won more races than Senna during the second half of the year. We didn't have a vast budget but I would never pretend that Senna had a better car than me - apart from the last race of the year. The only difference was that Ayrton probably gave his team more information than I gave mine. But there's no doubt, it was a confidence and character building year." It was also a sad one. Having won the supporting race to the Austrian GP, Martin's joy was numbed when the team's truck crashed on the return journey, killing Rob Bowden, Brundle's Chief Mechanic. The truck and four Ralts were wrecked. The team was in disarray. Now, Brundle needed to win more than ever.

Jordan: "Martin had always been what you might call an adopted son of ours and he took the whole incident very personally. He became deeply involved in the deals which helped put the entire team back on its feet and, I tell you, I didn't need to say another word after that. Martin had the motivation, the fire, the fight, call it what you like, but he had it. It was there because he felt he had to win for the team."

In recognition of Martin's efforts during the year, Marlboro McLaren gave him a run in their Cosworth car at Silverstone. Here was the ultimate goal. But there were nagging doubts as he watched Senna and Bellof take their turns.



Eddie Jordan, were still struggling with their budget. Senna's domination was extremely frustrating.

"What I couldn't come to terms with was the fact that Senna was rated from the start as the man who would win the championship. That annoyed me because he was the new boy to F3 and I had done one year and had the experience. I should have been the favourite."

"But, when he kept beating me, that really was aggravating. I came so close to beating him on a number of occasions but, I have to admit, he just kept putting one over on me. Silverstone, our third race of the season, was a classic example."

"Going down to Stowe, side-by-side, and you've never seen so much water in your life. I outraked him and took the inside line. He went round the outside and I thought 'Well,

"I had to wait all morning. I knew an F1 car had 550 bhp and weighed not much more than an F3 car. I thought 'What is this going to be like? It's triple the power-to-weight ratio of anything I have ever driven. Do I really want to do this? Am I going to be able to handle it?'"

"Eventually, I got in and, as I went down the straight, I had to pinch myself and say 'Is this me - in a F1 car?'. But, within 10 laps, I had done a respectable time - comfortably quicker than Watson's target time."

A BRITISH DRIVER WITH RELATIVELY LITTLE EXPERIENCE MAKES IT WITH A BRITISH TEAM AND IS CHOSEN ON MERIT

Brundle did a competent job that day but, in terms of his immediate future, it meant little. More important by far was the offer of a test by Tyrrell for the highest placed British driver in the F3 Championship. That test took place at Silverstone on November 9. Tyrrell: "I knew very little about Brundle and we went there more or less to keep our promise. Danny Sullivan warmed O11 up on a wet track and then we let Martin have a go. The track was still damp for the first eight laps or so and quite tricky at Stowe. But his lap times came down progressively. I watched at the chicane; he was very smooth, didn't touch the kerbs, applied the power nicely. By lunchtime, he was down to 14.90s. He was in the same car that Michele Alboreto had used to set 14.651s during practice for the British Grand Prix - on qualifiers. Don't forget that Martin was on race rubber. We had O12 with us, so we thought we'd better give him a run in that in the afternoon... "Danny warmed it up and, within a few laps, Martin was lapping quickly. But, more important, he had come in early on to ask for adjustments to be made. I was impressed that he had found some sort of balance and we then found that he was able to react immediately to the changes. The times kept coming down. He did 13.71s and I thought that was very good. So we gave him a new set of tyres and he finished on 13.26s. I had seen enough."

Brundle: "At the McLaren test, I didn't want to do anything stupid like spinning off. The object was to go as quickly as I could and be sensible. I knew Senna had done quite a few laps in a F1 car and I didn't want to try and match his times. In the event, I did quite well. "As for Tyrrell, I knew there was half a chance of a drive. I went there with the intention of really creating the right impression. Danny Sullivan was a great help. He told me that, while he may not have been the quickest driver in a similar situation the year before, he had been consistent, didn't fall off; just drove sensibly. So, I followed that and added a little bit more."

"I knew that was the day. I had to impress." An invitation to test at Rio followed. This would be an altogether more serious affair,

run in searing heat on a track with predominant left-handers. And, at the end, then would be one lap on a set of qualifiers. Once again, Brundle had to impress. And he did it by dealing sharply with Derek Warwick when the Renault driver threatened to ruin Brundle's lap on qualifiers. Tyrrell watched his man give Warwick the chop - and was impressed. Martin, once again, was slightly surprised.

"That business with the Renault didn't impress me that much. I was on qualifiers; no way could I let the Renault by. There was no other option, was there? What was I going to do? Back off? It was the first time I had ever driven a single-seater on qualifiers - and I knew it might be my last if I didn't produce a decent time on that lap."

Brundle produced the time alright. But had the physical pounding been a shock?

"I thought my head was going to fall off after the first 20 laps. But I think that was partly due to nervous tension. In fact, I don't think I drove particularly well at Rio. I knew I could go out and do the job but I wondered what might happen if, say, I inadvertently gave someone like Prost or Tambay the chop. I knew I had to go quickly but I didn't want to fall off - and that's a very fine line indeed."

"When I returned home, I knew there was no more I could do. I had no money so I knew the situation couldn't change. I had no option but to sit and wait."

The agonising wait. Meanwhile, Ron Tauranac was keen to have Martin in the Ralt F2 team.

"Throughout this time, Ken kept saying 'If you feel you've got to go, then do it - but hold on if you can.' He could say no more than that. I wasn't sleeping at night. I didn't know what to do."

Eventually, Tauranac could wait no longer. Brundle took a deep breath - and said no. The sleepless nights continued.

Then, another call from Tyrrell. Would Brundle make the 2 1/2 hour trip to the factory?

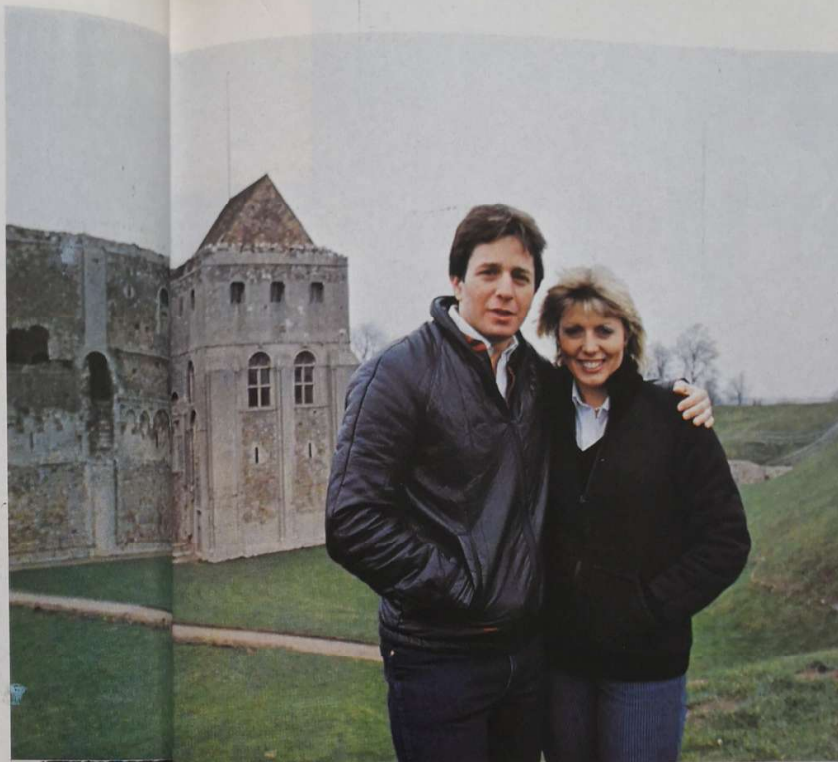
"I sat there and he started off by telling me he had no sponsors, no turbo, he was using O12 again. Everything was negative. Then he said he wanted to go ahead with me. I said 'Fine. Good,' but, really, I wanted to jump up and fly round the room!"

The testing was not over. Brundle had to



keep the news to himself prior to the official press announcement a few days later. With the phone ringing constantly, everyone anxious to know about his future, Martin produced some devious and delicate footwork - and kept his promise. Martin Brundle, Grand Prix driver, stepped before a surprised group of pressmen in London's Mayfair Hotel on February 22.

'I am not the sort who rushes down to the nightclubs in London.' Some drivers are still family men. (photo: Malcolm Bryan)



For the moment, mutual confidence reigns between Ken Tyrrell and Martin Brundle. But will the winds of F1 racing blow them apart? (photo: David Winter)

It made an excellent news story: a British driver with relatively little experience makes it with a British team and is chosen on merit. Money is not involved. Why?

Tyrrell: "I suppose it's a question of Martin being in the right place at the right time. If we had a sponsor, he would not have got the drive; circumstances would have probably dictated that we run someone else, particularly if we had a European sponsor. But, we were trying to secure a British sponsor and we felt we had to make a positive move - so we signed Martin. He had proved his potential in the car. The rest of it was more or less good fortune."

Brundle believes in luck. But he also believes that luck is 90 per cent hard work. In fact, the chain of events leading to his works Jaguar drive last year stemmed from a letter he had written to a BMW dealer in 1979. In the letter, he asked if he could drive the dealer's car in the BMW championship. To his surprise, the dealer agreed. Brundle drove exceptionally well all season and, along the way, he beat aces such as Hobbs, Stuck and Mansell. The BMW was prepared by Tom Walkinshaw - the man who would eventually run the Jaguar team. Walkinshaw was impressed. Hence the Jaguar drive and a little help from Walkinshaw to run the Formula 3 effort last year.

"The Jaguar drive has been very useful", says Martin. "I've raced on a number of Grand Prix circuits with the Jaguar and I have also been driving for 1 1/2 hour stints. That's been good experience when you consider a F3 race lasts about 40 minutes."

THE TYRRELL CONTRACT HAS MEANT A CERTAIN AMOUNT OF DECISION MAKING WITHIN THE BRUNDLE FAMILY

"I was in the winning car at the Osterreicherung but I received incredible coverage when we won at Donington Park. It was pouring with rain and we came from a lap and a half behind to win. It was a very satisfying drive and it was made even more rewarding when people in Formula 1 took notice."

Tyrrell, a man who forbids his drivers to ride motorbikes or go skiing and barely allows them to drive anything remotely competitive, has permitted Brundle to continue his association with Jaguar in 1984. It was a move which received full approval at the London Press Conference. Clearly, Martin will have a busy year.

The Tyrrell contract (for three years) has meant a certain amount of decision-making within the Brundle family. Martin's wife, Elizabeth, will leave her job in advertising to travel to the races. The family business, started by his father, will be restructuring plans for expansion to suit Martin's long periods away from home and his new life in the limelight.

But, at the end of each trip abroad, the Sales Director of John Brundle (Motors) Ltd will return to his favourite patch; the showroom floor. Just to keep his feet on the ground □

THE OUTCASTS

MANY A GIRL'S HEART GOES PITTER-PATTER FOR THE GALLANT YOUNG MEN AND THEIR RACING MACHINES. BUT WHO WILL SHED A TEAR FOR THE FORMER F1 DRIVERS SWEEPED ASIDE BY FICKLE CHANCE IN GETTING A CONTRACT THIS YEAR? LAST SEASON, THEY WERE ON TOP OF THE WORLD, AMONG THE CHOSEN FEW AT THE PINNACLE OF MOTORSPORT. THIS SEASON, THE SHOW GOES ON, BUT WITHOUT THEM. A NOTE OF REGRET, A SIGH, A BITTER AFTERTASTE, LIKE WHEN YOU'VE DRUNK TOO DEEPLY OF A HEADY WINE. THEIR FEELINGS ARE CERTAINLY MIXED, BUT LIKE MOST AMBITIOUS PEOPLE, THEY ARE LOOKING TO THE FUTURE, ALTHOUGH THE VIEW IS FROM THE OUTSIDE IN.

by Xavier Chimits

What are the reactions of a driver forced out of F1? It all depends on character, faith in oneself, and seniority. Boesel is on vacation. Serra is being realistic. Johansson is fighting his way back. Giacomelli and Guerrero are thinking about CART. Jarier is on the look-out. And Watson is having trouble realising what happened. But they all have one thing in common: you might detect a note of bitterness in their voices, but no one contests the verdict. They know Formula 1 all too well, and they accept its unwritten code, cruel though it may be.

We shall take only a brief look at the most illustrious of this past off-season's outcasts. John Watson has contested 151 Grand Prix, was 1st five times, including once last year at Long Beach, driving a McLaren, which had not yet switched to a turbo. Our editor, Keith Botsford, has already written a long article on the Northern Irishman, just a month ago. Pursuing the theme of an F1 driver out of a job, he discovered that John refused to believe the second Brabham drive would slip through his fingers. Yet it happened. Ken Tyrrell tried to scrape together the funding needed to pay for the costly services of the most successful F1 driver still active.

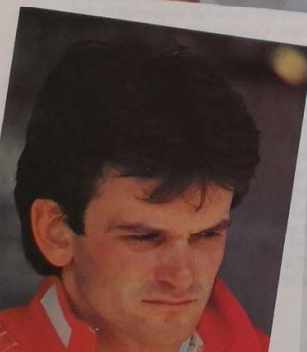
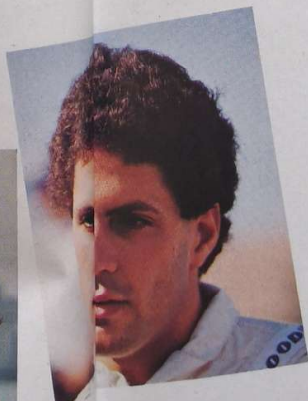
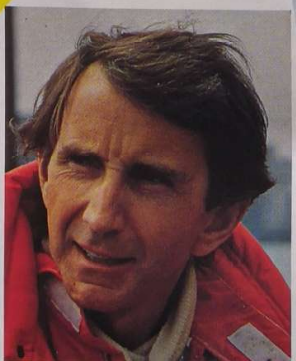
However, his efforts met with little enthusiasm on Watson's part. "At this stage in my career," declared John, "I cannot see that there is anything to be gained from driving a DFV-powered car. I want to be winning from the front, not qualifying from the back and hoping for a freak result."

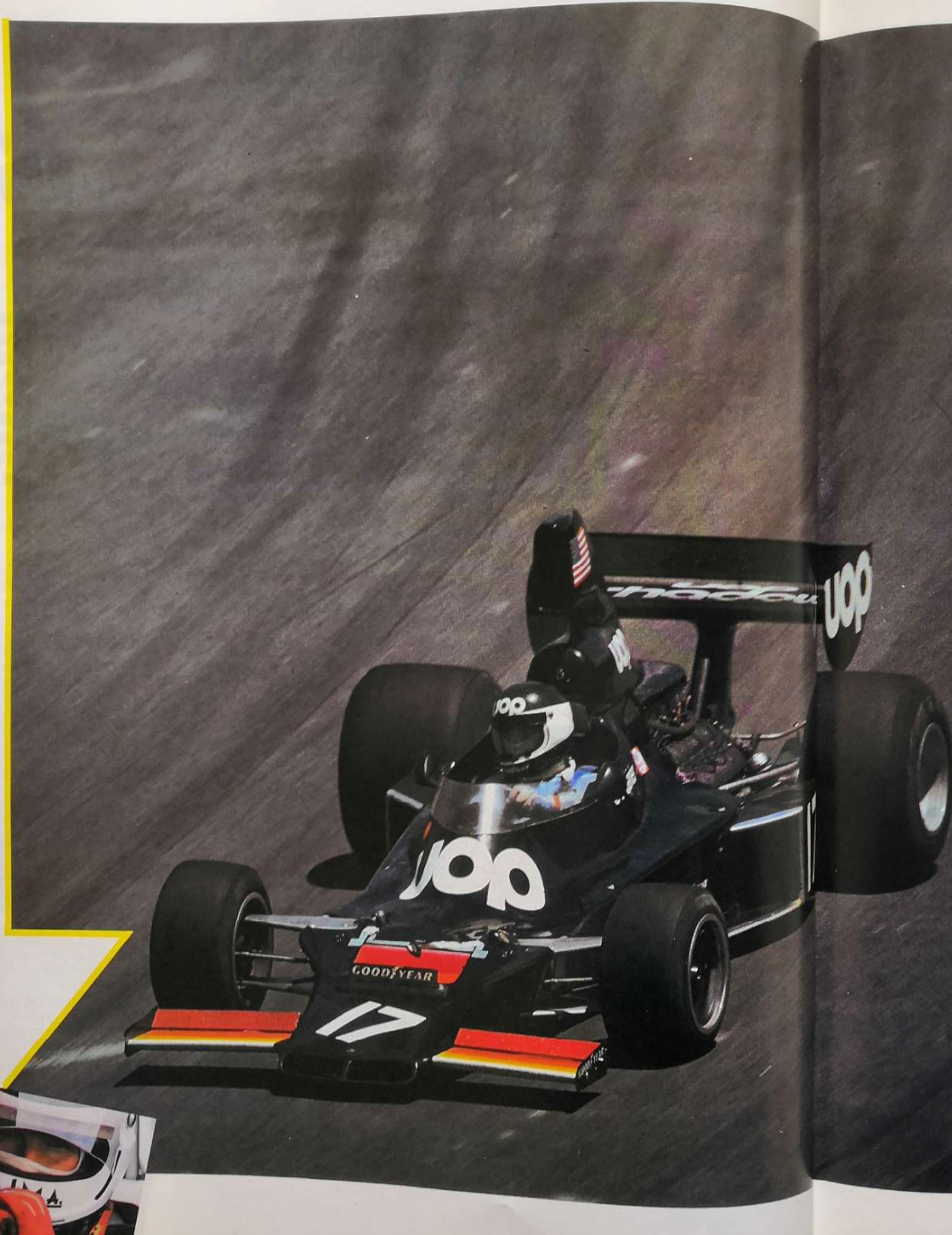
At least Watson is clear about his goals. During the winter, the Irishman, following perhaps poor advice, set a specific price on his talents. It would seem that Lotus, Tele-

man and others found he had set the bar a wee bit high. So he's left with two choices: (1) endurance racing, and (2) CART. In endurance, he would of course be expecting a works Porsche drive. This could be the result of Bell of having made it into F1, as pre-season rumours often predicted. But when John recently went to Germany, he left no doubt that it was on business and not to discuss a Group C drive... As to CART, Watson will be in Long Beach for the first round of the American championship - as an interested spectator.

There's a good chance in California that John will run into his fellow countryman Kenny Acheson. Last year, this feisty Irishman, bubbling over with nervous energy, took advantage of the winds of change sweeping through John Macdonald's RAM team to find his way into F1. His record is modest at best: he failed to qualify six times in a row before the South African Grand Prix. In addition, the backbiters delight in pointing out that there was no real merit in qualifying at Kyalami, since it was more or less a foregone conclusion that all the drivers would be in the grid because of the small number of entrants.

Nonetheless, at the wheel of a car that was certainly not among the best, Acheson was far from being a washout. Still, it was not enough to ensure his continuing in F1 this year. "I'm disappointed. But that's the way of life in F1. You need to bring money, and this year I don't have any. There are still some opportunities, though, and I am hoping to have a chance later in the season. I have been in touch with several potential sponsors, but I had to get an answer from them in time for the FISA registration date on Febru-





The shadow of happy days gone by still shows on the face of Jean-Pierre Jarier. With Shadow, then, he could think his star was on the rise. He was not the only one. (photos: DPPI; Bernard Asset)

ary 28. Unfortunately, my sponsors will not be able to give me a definite decision for another two months, so I'm still talking to them and hoping for a favourable response. "I've had offers in F2. Group C would interest me, and I have had one offer, but even that would require me to bring money. I shall be going to the Long Beach CART race as a spectator, hoping to find a drive for the season. I have been offered two Indy-car races, including Indianapolis, but although it is a good series I'm not yet sure about the quality of the different teams. At 200 mph round Indianapolis you don't want wheels falling off your car."

You can't say that Kenny had a great time in F1 during his five months with RAM. But that doesn't mean that Formula 1 has any less fascination for him, or for his peers in misfortune. "In the short term, if I can make money doing something else, I shall. In the long term, F1 is still the best. It's what I always wanted to do. But I'm 26 years old now, which is getting on a bit. I suppose I could be out of F1 for a year or two before I had to consider giving up my ambition. In the meantime, I must stay sharp and competitive.

'I CANNOT SEE THAT THERE IS ANYTHING TO BE GAINED FROM DRIVING A DFV-POWERED TYRRELL' - WATSON

"I haven't really thought about another kind of career. But you have to be positive. In motor racing you can at least get ideas for business by talking to all the different people. But I don't want to think about anything else for at least another two years."

Senna's and Brundle's rise to fame proves the springboard effect of the British F3 Championship. Indeed, in 1980, three men were vying for the title right up until the final round at Thruxton. Their names: Acheson, Guerrero and Johansson. Acheson spun and Johansson won, snatching the crown. After two seasons in F2, the Swede with the toothy smile became the works driver for Spirit-Honda in F1. An apple with a worm in it: because, at the end of 1983, following Honda's decision to concentrate its efforts on the Williams team, Spirit's management found itself in trouble. In order to keep pace, they needed a driver with some financial backing. Exit Johansson. "Terrible. I don't know how to describe it. I had been trying to get into F1 for five years and at last I was there. I suppose it's like having your head chopped off. For me, the worst part is having to swallow my pride. All through the winter I've been looking back and trying to think what I did wrong. I can't put my finger on anything exactly, although I knew the situation in F1, with drivers being able to bring money, etc."

At a time when many former F1 drivers have left to pursue their fortunes in the United States, Stefan Johansson has other

plans. He's turned his sights towards the rising sun. "I shall be doing eight F2 races in Japan with the Nova team's March-Honda, sponsored by Yokohama tyres. I am doing it mainly to keep my very good relationship with Honda. Obviously I hope they will help me to get back into F1, but they have made no promises."

"In Europe, I shall be doing about four Group A touring car races with the German Hartge Racing Team, in a BMW. I'm also expecting to sign a deal with Reinhold Jöst's team to race a Porsche in Group C. I shall be going to Sebring to race a Porsche 935 for Jöst on March 25. I'm prepared to drive anything, to keep me as busy as possible."

The right attitude. And it proves that Johansson has not given in to despair. Especially when chance chooses to be capricious in Formula 1. It was only a year ago that Johansson was earmarked by Honda to drive the Spirit - to the detriment of his teammate in F2, Thierry Boutsen. The Belgian was going through a difficult period. Nowadays, his star is rising rapidly in a discipline which has spurned the Swede in turn. But he still counts on better days to come. "If I don't make it into F1 will feel a complete failure. I will not give up my ambition, and I don't think that any driver can give up as long as he believes in his own ability. Look at Keke Rosberg. He never gave up. In fact, Keke is a friend of mine, he has tried to help me. But he has been very limited in what he could do, because of my nationality. It doesn't help to be Swedish, you know!"

"I'm going balls-out for a good sponsorship deal, and at the moment I'm trying to find the money in Sweden. We have done a very attractive presentation which I will be taking to various big Swedish companies, if they will agree to see me. Not all of them have agreed yet."

The third rogue in the lineup for the 1980 British F3 Championship was Roberto Guerrero. For his part, he doesn't seem too upset by his fall from F1 grace. The 25-year old Colombian, with 21 Grand Prix races under his belt, all driving for Theodore, has been happy to move to the United States, home of his wife Katy (who has often appeared in our special department "Post Card"). "I'm obviously a little bit disappointed not to be in F1, because I worked hard with Theodore over the past two years, and I thought that I had done well enough to get a paid drive in F1. At the same time I'm very happy to have a good Indy-car drive. Everyone in my team (Dan Coffer/TruValue Hardware Stores) is very good, we have enough money for the whole season and I am enjoying working again with Morris Nunn, who has also left F1."

Formula 1 has turned away its face, but Roberto seems to have shrugged it off. And yet, reading the laudatory commentaries on his two seasons with Theodore, you might think he could honestly have expected better. "F1 was always my goal. I always hoped to be a Grand Prix driver, and I still hope to do it in the next couple of years. Fortunately, I have a very good alternative here in America. I take things as they come, and at the moment I'm happy with my team and happy to be making a decent living."



If Bruno Giacomelli (Alfa Romeo number 23) has gone to the United States to forget F1, John Watson, on the other hand, doesn't know where to go. (photos: DPPI; Bernard Asset)

"As for my plans this year, with a full season of CART racing I don't have much time for anything else, but I would like to do some endurance races if I get the opportunity. I like to drive anything.

"Of course I still have ambitions in F1. But if and when I get offers of a place in F1, I will consider them carefully. They would have to be very good, with a top-line team, for me to want to go back."

On the subject of a top-line team, Guerrero missed the boat this winter. For a long time it was looking as if the second Brabham drive would go to him. "I tested the car in November and had a very encouraging dinner with Gordon Murray and Herbie Blash. I thought I had made a good impression.

"Unfortunately, a rumour started in the Colombian newspapers that I was going to drive for Brabham with \$3 million of sponsorship money from Cafe de Colombia. This was very serious, because Colombia is a poor country and \$3 million is a crazy amount of money. After that sort of bad publicity the coffee people could not help me at all, because even if they had put in a much smaller amount of money everyone would still have believed they were putting in millions. That would not have been acceptable in my country. So Cafe de Colombia pulled out."

Guerrero, Salazar, Serra, Boesel; the South American connection is no longer what it used to be. Maybe Guerrero's plight is far from hopeless, but as for Salazar, Serra, and Boesel, the outlook for their F1 careers is bleak indeed. In fact, it seems their worst fears may be well-grounded. For instance, Eliseo Salazar, 29 years old, 24 Grand Prix starts and 3 world championship points to his credit, has no more than a rally in Chili coming his way from motorsport. And it'll take more than a return to basics to get him back into F1. A shame, since this underrated driver had shown a glimmer of real talent, first with Ensign in 1981, then with ATS in 1982. All for naught, as he failed to qualify four times at the beginning of last season, at the wheel of a modest RAM. For another thing, it was rumoured that his Chilean sponsors promised more than they delivered...

'THAT'S THE WAY IT IS IN F1... SOMEONE LIKE ME NEEDS MONEY TO FIND A DRIVE' - ACHESON

He says it himself that the simple fact of having broken off his F1 career on the eve of the Belgian Grand Prix in May, 1983, long before the end of the season, has worked against him. Has-beens are soon forgotten - a well-known fact.

That goes for Chico Serra as well. And yet, it was not so long ago that this muscular Brazilian, at the wheel of a Fittipaldi on its last pins, was able to set times which kept him in the slipstream of his teammate, Keke Rosberg. With 18 Grands Prix spread over three seasons against 13 failures in qualifying, a single world championship point, you might say his record was not very flattering.

Serra admits it: "I can't claim to have left my mark on F1. That's why I'll be really disappointed if I can't make a comeback. I feel I still have a lot to give to the sport. But I've never had the car I needed. For another thing, I feel like I've been manipulated by certain teams. They took me in because I had a little money, but I didn't get value in return. It's very frustrating to finally break into F1, the goal of every young driver, only to be held back by an insufficient budget.

'I CAN'T IMAGINE ANY OTHER KIND OF DRIVING CAREER THAN F1' - JOHANSSON

"I don't have a personal fortune, and it isn't easy to find sponsors in Brazil at the moment. What with Piquet the reigning champion, Fittipaldi's possible comeback, and Senna's reputation, it's difficult to see how I might manage to interest anyone in myself. As things stand, I'll have to be happy with the Brazilian Touring Car Championship. Maybe I can get into Group C, too."

Not much to get excited about. And Raul Boesel is in the same fix. The 26-year old Brazilian has contested 23 Grands Prix, first with March, then Ligier, and has failed to qualify six times. Over the winter, he has tried to close contracts in both F1 and in CART. Without success. With nothing left to do, he has gone off on vacation. Undoubtedly he'll be looking for a change of air, and will want to forget that the fans who missed him on the starting grid of Rio were few and far between. "No one had anything to offer me during the pre-season, absolutely nothing. Last year, I was in a difficult position with Ligier - second driver in a team racked with doubt and led by a man with more than 130 Grands Prix behind him. I was almost never at private practice. My engines had 30 bhp less than Jarier's. In some races, I even had to use tyres that Jean-Pierre had had in practice."

Let's talk about Jean-Pierre Jarier. He has 136 Grands Prix to his credit, from 1971 to 1983. His reputation is one of the fastest drivers in F1, an ex-driver with punch. But his record somehow falls short: only 31.5 world championship points. A mystery. Nevertheless, Jarier is still in love with F1. "I read the article on Watson in Grand Prix International Magazine. And I can certainly sympathize with his point of view. I'm 37 years old, and I'm at the peak of my skill. I feel fully capable. But I don't want to return to F1 unless it's with a top team. I thought there might have been an opening for me with Renault, in place of Warwick. But that didn't work out. I'm presently negotiating with an F1 team to be their test driver this year. But that's just a stopgap solution." In stock car racing, he should run into Beltoise, Jabouille, Schlesser and maybe even Pescarolo. However, this discipline has never been considered as a jumping-off point toward F1. "I know. Yet I can't stay around and do nothing. My problem isn't money, or



The wheel turns in South America as well. Serra (Fittipaldi number 20) has been replaced in F1 by another Brazilian, Senna, and Guerrero the Colombian has been banished to CART. (photos: DPPI; Bernard Asset)

to race no matter what. I could have got a drive in CART. In fact, I just turned down a very attractive offer. It's that I absolutely don't want to be tied down by a contract if ever another opportunity in F1 comes along." In short, Jarier has put himself on hold. A tactic that worked pretty well for Tambay.

They're still talking about what happened at Long Beach. And the debate is far from being resolved. Yet, this incident weighed heavily in the balance. "As of mid-season, there were already rumours among the team concerning my future with Ligier. I didn't pay them any heed. I truly thought I would be staying at Vichy. With the Cosworth and hydraulic suspension, I considered 1983 to be a transition year. The hydraulic system was hardly reliable, but I was looking at the long term and I believed in this solution. De Cesaris preferred shoving it, more power to him, but he doesn't have my experience. Perhaps, he hadn't completely understood the potential of hydraulic suspension."

In addition, Guy Ligier criticised Jarier for being content with the equipment given him, without making any effort to improve it. "The Ligier was slow on the straights. It wasn't my job as a driver to try and change the aerodynamics of the car. I know from experience that I adapt quickly and well. In the days when the Shadows were the fastest cars in F1, I was the one who worked the bugs out. It was the same for Lotus. That year I was faster than Andretti, but he became champion. I had a difficult year. I was the only one who was working on the Ligier. I gave it my all, only to end up in Rosberg's wheels, who all the same had one of the best Cosworths. I feel all the worse about Ligier, since I'm sure they will return to the first concept."

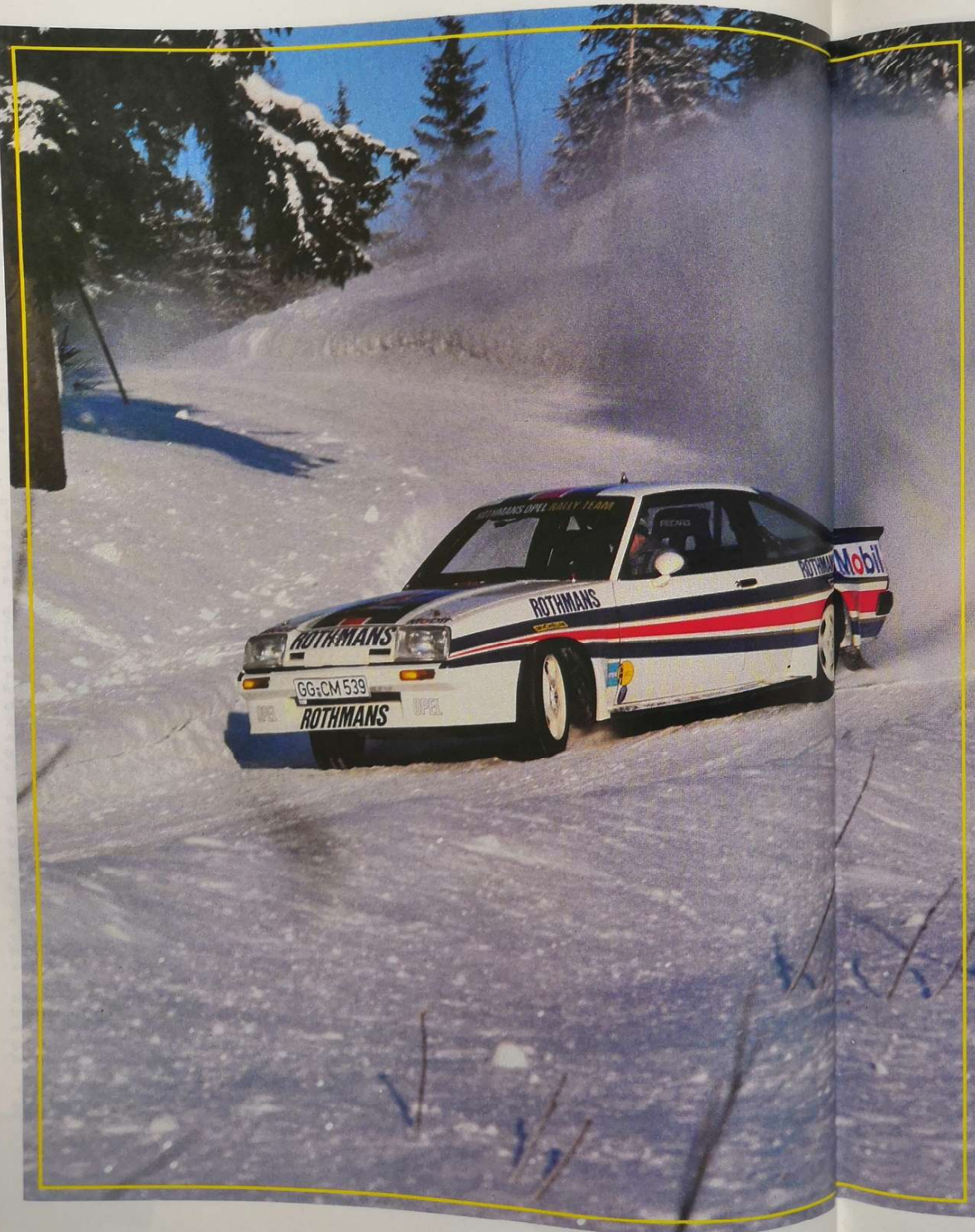
'I TESTED THE BRABHAM IN NOVEMBER, AND HAD DINNER WITH MURRAY... I THOUGHT I HAD MADE A GOOD IMPRESSION' - GUERRERO

And what if Jarier never gets back into F1? Will he consider his career to have been a failure? Jean-Pierre pauses for reflection: "I don't have the right to talk about failure. When you add it all up, everything counts. I could have done better, I could have done worse. I'm too much in love with Formula 1 to ever be bitter. I don't ask for too much from life. I've never been seriously hurt, and that's extraordinarily lucky for having contested more than 130 Grands Prix. F1 follows its own laws. Watson had a better season than Lauda, but Watson is without a drive." Lauda, but Watson is without a drive. Last, but not least, on our list of outcasts from F1 racing is Bruno Giacomelli. This happy-go-lucky Italian from Brescia is 31 years old and has contested 69 Grands Prix since 1977. Yet, he only has 14 world championship points. "What I regret most is never

having won a Grand Prix with Alfa. Nonetheless, in 1980, nobody could keep up with me at Watkins Glen. With Toleman, the dice were loaded. I understand now what it is to be on an English team where the first driver is an Englishman. Derek did ten times more practice than me, and he was always first to get technical modifications. Promises were broken, and the team's sponsors, who were all Italian, did nothing to reestablish equality between me and Derek. However, they could have if they'd wanted. Over the winter, I went knocking at the doors of all the teams, except RAM and Spirit, and everywhere they kept asking me for money. I got the message that it was time I went looking in America."

'I HAVE THE UNCOMFORTABLE FEELING OF HAVING BEEN MANIPULATED BY CERTAIN TEAMS' - SERRA

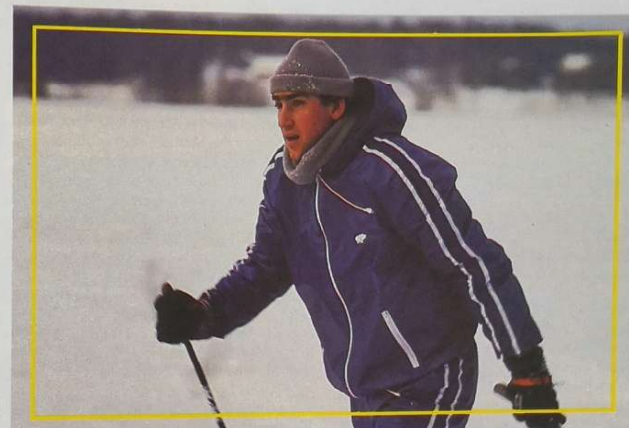
Indeed, Teo Fabi's experience shines like a beacon for many of the abandoned children of F1. In a single season, this distinguished looking Italian, has reformed his reputation on the other side of the Atlantic, bringing him, to put it bluntly, one of the most coveted drives in the F1 world. In the opinion of Giacomelli, "I'm driving better today than when I was leading the US Grand Prix in 1980. But no one sees it. CART is the only alternative for a driver who wants to continue competing on a high level. For another thing, I'd rather be driving a car that can win in CART than drive a second-class car in F1. And the Theodore is competitive, plus I'm again with people I knew in Europe. As for Indianapolis, I've been dreaming about it since I was a kid. I have video tapes of it. I'm always rerunning them." However, we find it difficult to imagine the thoroughly Italian Giacomelli, leaving Brescia and Monaco for the USA without the slightest regret. "It's not easy to pack your bags, and strike off on your own. We'll be based in Indianapolis. I've heard it's not one of the most exciting places to live. I've rented a little apartment. But there shouldn't be any problem. When I arrived in England to race in F3, I didn't know anyone, I didn't speak a word of English, and I was broke. I feel I'll find in America a competitive car that will allow me to make it back into F1. So I'm happy." Since you'll be in the Americas at the same time as the Brazilian Grand Prix, why not take a trip to Rio? "Because I have nothing to do there. Go and see the rest of them driving when I'm not - that's not my idea of a good time." And so we've seen that they all dream of returning to the F1 fold. Because they have it in their blood, and it'll never leave them. Yet in not a few cases, hope comes up against the cold wall of statistics: if it's difficult to break into Formula 1, it's even harder to make a comeback. Only time will tell if any of our outcasts overcome this barrier. □



Henri Toivonen has decided to set his sights high.

Out for a pleasant spin in the Finnish snow, at the wheel of an Opel Manta in days gone by.

BACK ON TRACK



HE LOOKED UNSTOPPABLE. MAJESTICALLY, HIS LANCIA WAS GALLOPING ALONG IN THE LEAD. HENRI TOIVONEN, WIDELY REPUTED TO BE THE MOST NATURALLY GIFTED RALLYMAN OF HIS GENERATION, WAS HAVING A FIELD DAY IN PORTUGAL. THEN CAME THE SILLY MISTAKE, THE KIND YOU WANT TO KICK YOURSELF FOR AFTERWARDS. A TIGHT CORNER, AN ACCIDENT, AND TOIVONEN'S LANCIA WAS SUDDENLY OUT OF COMMISSION. OVERCONFIDENCE WAS UNDOUBTEDLY TO BLAME. AND NOW THIS KING WITHOUT A CROWN, INWARDLY RAGING, MUST AWAIT THE ACROPOLIS RALLY FOR ANOTHER SHOT AT GLORY.

by Cyril Frey

Snow, snow and more snow. In the forests it's never-ending trees and snow. On a winter morning like this, the peace of the wide-open Finnish steppes is hardly disturbed by the slow, measured pace of a column of soldiers huddled into their well-worn parkas. The arctic cold doesn't really slow them: they're in no hurry. It's a routine march, although the border isn't far away. Indeed this particular group of military Finns - conscripts to a man - have other things on their minds than their powerful and worrisome Soviet neighbours across the border. In the ranks, today, they're wondering what sort of kid it is who'll be arriving tonight, a raw recruit, but definitely out of the ordinary. It's not every day that an internationally famous sports star is sent to join a tiny provincial garrison like theirs.

Henri Toivonen, of course, is no David Bowie. But he's a fine rally driver, and he should have some tales to tell on dull evenings. However, it's not to be. At the last moment the authorities decide not to send him on garrison duty. He's needed for a rally in Italy, or is it in England? His would-be fellow soldiers aren't particularly disappointed, because in Finland it's quite normal for a sportsman to be excused duty in order to represent his country. Henri is destined to spend the minimum amount of time in uniform: he looks much better in fireproof togs. For another thing, it was to get out of doing time in the military - a not very attractive prospect for the ex-Opel driver - that he turned down an offer from Peugeot for 1984. Indeed, the French firm was only willing to let Henri drive the 205 Turbo 16 in a

half-dozen events. This would have meant his special agreement with the Finnish army, which called on him to present a much heavier programme than that, would not have been valid. The upshot is that he's been able to accept offers from everywhere: suddenly he's going to be the busiest Finnish rally driver of them all, with his signature on three spectacular contracts. Just look: with Porsche and Rothmans he will be tackling the European championship; he'll have a Lancia for selected rounds of the world championship (WRC); and there's also a racing deal with Porsche that will give him an opportunity to break out of the rally world by enabling him to try some Group C racing with a works 956. With such a full programme, it seems there's little chance of him being seen doing rifle drill on a military parade ground.

SUDDENLY HE'S GOING TO BE THE BUSIEST RALLYING FINN OF ALL

Toivonen's perhaps getting on a bit for someone who's still regarded as a newcomer. That doesn't mean that he's not going to make it, certainly not if you take the word of rivals who still tip him for the top. Indeed, a glance at his record might give anyone cause for reflection. One must wonder whether this latest youth to catch the eyes of rally team managers genuinely deserves the effusion of praise which has been heaped upon him by the motorsport magazines.

He has one world championship rally to his credit (the Lombard-RAC in 1980, with a Talbot Lotus), plus several wins on forest events in the British "Open" championship. That doesn't suggest too much to get excited about. In addition, you might suppose his accident in Portugal makes him look frankly bad... But already, everyone seems to have put the incident to bed.

Certain of his seasoned rivals may think that they have nothing to fear from this kid, still wet behind the ears, who wants to make a challenge. But it's worth digging a little deeper. The most important fact to emerge from the welter of comparatively modest results is that they have been won with technically nondescript equipment. First there was the Talbot Lotus, a little Group 2 car which undoubtedly benefited from the regulations to win the 1981 world championship by picking up good placings here and there, but only rarely an outright winner. And although Toivonen's Talbot teammate that year, Frenchman Guy Fréquelin, managed to win the "Codasur" in Argentina, elsewhere there was no holding the Ford Escort, Datsun Violet and Audi Quattro from mopping up the other WCR events.

For 1982 Henri signed for Rothmans-Opel alongside the 1980 world champion Walter Röhrl, who was going flat out for a second title. It was not an easy situation for an ambitious youngster, as he explains. "I was number 2 on the team, in every sense of the word. I wasn't given as many events to do as

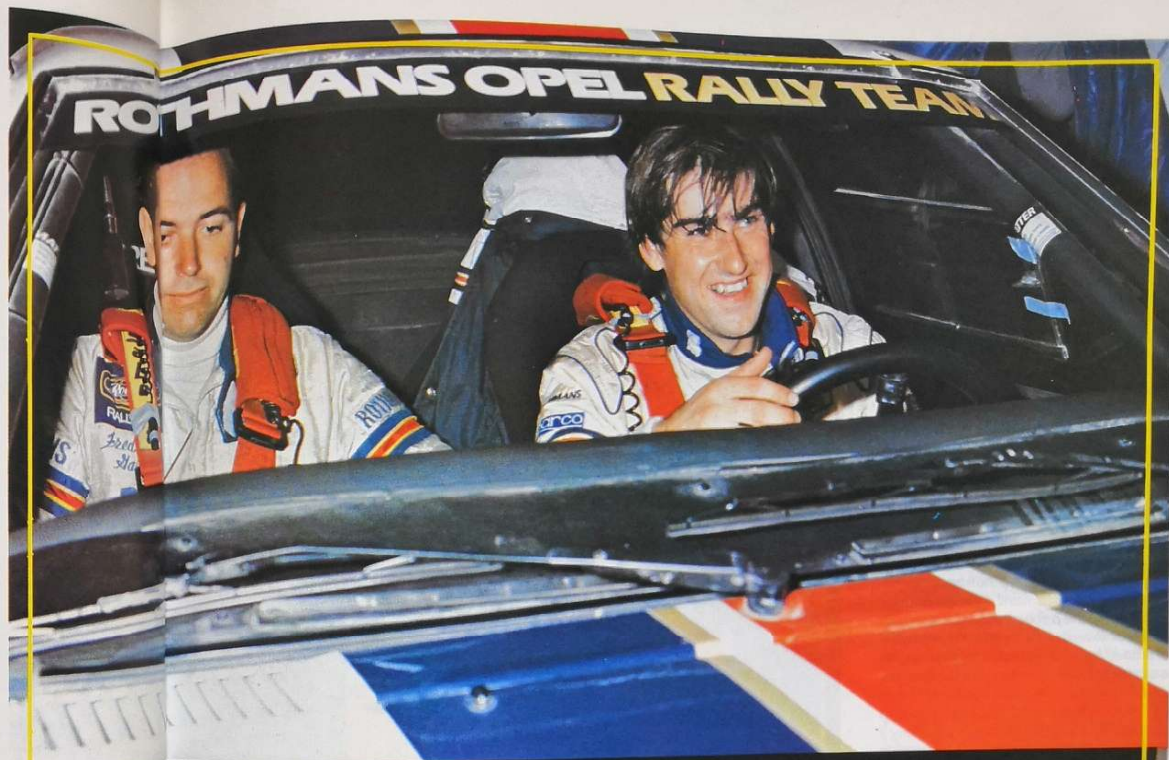
Walter, so I had to try my hardest on each one of the five rallies that I was allowed to do. Being asked to go easy for his sake wasn't easy to take. From the tactical point of view, though, I had to do it. It's a difficult situation, though, if you're determined to win at all cost, and refuse to be bound by team orders, the only alternative is to go out and buy your own car. If you can...."

By the end of Henri's first year with Opel, Röhrl had achieved his objective. Henri, meanwhile, had not even confirmed the ability which he'd shown on the 1980 RAC. Nor was there any hope of being able to do it in 1983, when he stayed with Opel. Despite a splendid Safari victory by Ari Vatanen, his new teammate, there was no hiding the fact that the Ascona 400 - and then its successor the Manta - was fundamentally outclassed. The age of the conventional front-engine/rear-wheel-drive rally car was over, and any hope of success for Opel lay in the possibility of a breakdown by the entire Audi Quattro or Lancia 037 contingent.

In theory, both Ari and Henri were to be given equal treatment by Opel rally boss Tony Fall, but it didn't make any difference. "Try to imagine how frustrating it is to have driven flat out in training and to have driven way over the limit throughout a rally, only to find that you're being consistently blown off on the special stages by at least five or six rivals. It's something that we just had to accept, though. What good does it do to try to fight the inevitable or to rebel against team orders in that situation? If I'd done that in 1982 they'd have kicked me off the team in no time at all. Where would I have gone? There aren't many works teams in rallying. Places are even scarcer than they are in F1. You have to fit in with company policy. Last year I didn't let the lack of success get me down. I have always been convinced that my day will come. But I wouldn't mind knowing exactly how long I'm going to have to wait! OK, I'm 27 now, not exactly ready to take my pension, but I don't want to be known forever

WORKS DRIVER THOUGH HE MAY BE, HENRI IS STILL REMEMBERED AS A KID IN SHORT PANTS.

as the youngest driver ever to have won a world championship rally... It was because I wanted to pick up some more wins that I accepted the Lancia offer from Cesare Fiorio. And going the European championship with Rothmans-Porsche will give me an opportunity to try the car properly before it's ready for the world championship events in 1985. Since we should have the 4wd 911 we will be in with a chance of tackling Audi, Lancia, Peugeot, Mitsubishi and the others. My contract only goes to the end of this year, so we'll have to see what happens in 1985." Henri Toivonen knows about rallying from way back. His father was responsible for instilling the rally driving passion which



Henri (top) and his old friend Fred Gallagher. As of this year, they're former associates.



His thirst for victory isn't limited to rallying. In the company of Derek Bell (bottom) and the Porsche 956.

took the youngster away from his business school studies after only a few terms. Pauli Rovonen was fastest one of the top Scandinavian drivers of the 60s, a former winner of the World Rally Championship, and he had the same attitude. "I was not born in Europe. Poor! Being in school means we Finnish guys to the lad from an early age. Hardly surprising, therefore, that the boy should want to follow his father's sporting instinct."

Believe it or not, but I've known my new boss, Cesare Fiorio, since all seven years old. The rally stars were all my friends, so I never had any problem getting along with them. It's always been one big family for me. And now my brother is joining the circus, so I'm not coming in with the family's blood. With Henri, I'm not coming in with the family, no piece for me. He's bloody quick, you know. The best way to escape would be for me to admit that I've never seen anyone who had so much raw driving talent as Henri. He had a works Mitsubishi on the 1000 Lakes and the RAC; he managed to break the record time on one stage in Finland with it—right at the end, a bit red-necked. He doesn't even think about it. He's not the one I can't keep up the pace, although I know he can't. But as soon as he's found out how to control himself he's going to be a threat. Used to be a bit like that. I was nervous and disgruntled. Nowadays I'm more confident in myself. I've matured, but I'm still likely to flare up occasionally. I love to be active and busy, I hate sitting still. You'll never catch me stuck in front of the TV for hours on end. I'm still *edgy*, no doubt about that.

IF I'D REBELLED IN 82 I'D HAVE BEEN KICKED OFF THE TEAM IN NO TIME

Most race and rally drivers go through a process of youthfulness, from the over-enthusiasm of youth to the maturity of a 20. Even when you've passed the age of 20. Even when you've been through it. The Waldenports, the Mikolais, the Blomqvists. Now comparatively advanced in years, nevertheless they continue to rule the roost in international rallying and retirement hardly seems to be on their minds. After all, they've already won world titles with one (Lorenzen), Pauli, Markku, and with two (Fiorio), Henri is still remembered as a kid in show business, taken two or three years for him to mature, but it's unthinkable to suggest that he may have acquired even one quarter of the experience and rally savvy of, say, his friend and neighbour Hannu Mikko, who lives not far away from Henri in Helsinki's residential suburb of Espoo. In addition, his professional status is also a consideration. He still has a lot to prove, not only to himself but to others. "Ei, Cesare Fiorio seems to understand and continues to treat Henri with a sort of paternal indulgence. There will be an opportunity for him to race the Group C car of Spd and La Mura, possibly in other events if he can find a place



Scenes from idyllic life in Helsinki suburbs, the home of many a great rallyman.

with a private Porsche team. His first attempts with the 956 in preparation for a race at the end of 1983, were distinctly promising. He looked equally good when he had a chance to try on a F3 car in a round of the British championship a year earlier. From the moment he sat wheel on torque, Fiorio looked as though had been doing it all his life. He has clear memories of his brief single-seater 'career'.

"I was historically exciting. In F3 everybody wants to win at any cost, they're all crazy. It was a pity, I didn't have a very powerful engine. Still, although I really enjoyed the sailing, I'm already too old to make getting into F1. I think I might be able to cope to it by the time you're 25. I'm not quite ready, well up the ladder. I'm not in the condition. But F1 really is great. Two years ago, I was allowed to test Rauli Roosen's F1 March. What a thrill!"

There have been great all-rounders before: Larroussa, Eloff and Bianchi, for example. But the opportunity to race and rally doesn't come very often and Henri chose his way to the top at an early age. At the age of 17 he was already an international hockey player, and he's a gifted soccer player too. "Henri was only six years old, the teachers asked us what we intended to be when we grew up. I always used to say 'rally driver', since then my studies haven't been a lot of help to me. Sure, I sometimes think about the future. I have a car business in Helsinki, and I intend to devote more time to it eventually; maybe my business studies will help me then. For the moment, though, motorsport is my life. I was driving cars by the time I was seven, and I had my first car when I was 14, on ice. He wanted to know getting – and not on, and I won. Had a big toy, a Porsche then, because being so much younger than anyone else I also happened to be very light in weight. Ten years later, he's still a star, especially in Finland of course.

WHEN I GET TO THE AIRPORT A STRANGE FEELING COMES OVER ME...

At the time, the effect of youthful success pumicked him. The fame of his rivals hardly impressed him, but being on the scene was certainly odd. Everything that he could handle things the beginning to enjoy. It, indeed, was the experience of winning, and really enjoyed that, go with it. The is by no means boast though, and the official-looking most of a works driver often tends sport to reveal the happy face of a lad. The who may have grown up to the fact that he is on pleasure of knowing the childhood dreams the way to achieve them being bitter or from prevents the disappointment that some show-off's older drivers. Inappreciation is mixed with euphoria, not anxiety. For a cer-

tain extent he is still a young man who has yet to discover all the delights of the end of living it to the full.

"I always wanted to travel and meet different people, make friends. I'm not unhappy at home, of course, but whenever I go to the airport, I'm very eager to get going, and it's because I've always enjoyed doing stunts and unusual. I'm married and I have a one-year old daughter. I'm well aware of my responsibilities as a father, and I've already decided not to have any more children for the time being, because I'm not at home very often and it would be too much work for my wife. For the time being, I don't want to change my life or to travel less. I'm too young for that, and anyway I hope to carry on rallying for at least 20 more years. It's important and profitable, though, it may have been. It will have more than one victory in Britain, back in November 1980, to satisfy the youngster's ambition. His greatest wish is to win the 1000 Lakes Rally, his home event. He wants to win of Monte Carlo, too, because he likes it, and also the San Remo, because it's a mixture of torque and dirt roads. Then the Acropolis, because he loves Greece, and the Safari, because Adriano is an endurance and soon and so on... In fact Henri wants to win everything. He will have more opportunities, this year, to do it. As the old rally saying goes, 'if you want to win, win a Finn'.

I KNEW EVERYONE IN RALLYING BY THE TIME I WAS SEVEN. I WAS PART OF THE FAMILY

Indeed, it seems pointless for any works team to go rallying unless it has at least one Finn on the strength. Mikko, Adren, Aho, Stahler, Steides, Forskelo, and late the racing game taken over from the veterans like Modernen, Adrenen, and champion in their Rallying Hall of Fame. Their weakness, such as it is, must be a comparative lack of ability or torque, an untimely surface for a man who's been brought up on loose treads or snow treads. On snow, dirt or even mud they remain at home. But a sign of roads once on the four de Corse, rally's big torque event but then old Markku has been with Fiat and Lancia for such a long time that he's almost an Italian these days. Henri has demonstrated himself to be the exception. Whether on circuits, or on the torque surfaces of Siro, his performance remains remarkable. In the world of rallying, however, no sign of being diminished to Henri's obvious satisfaction. Fortunately, there is still a resolute Italian determined to stand in the way of the Viking invasion, ready to block the horses from the land of the frozen north. His name is Walter Rohli... but that's another story altogether. □

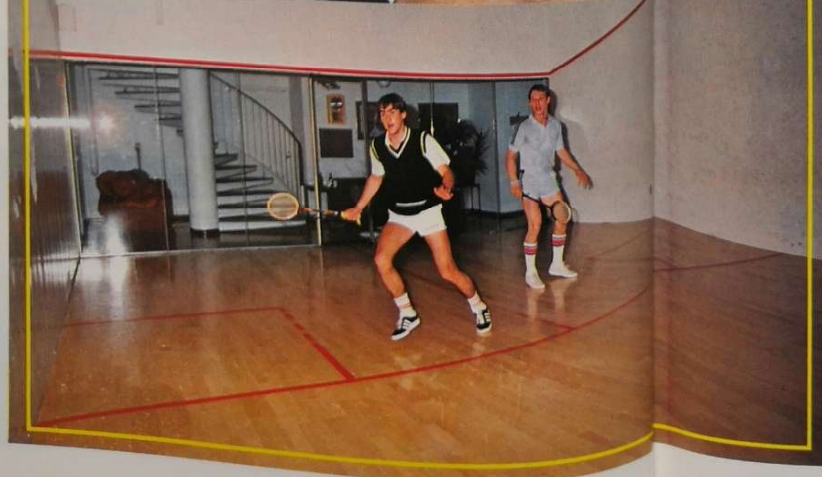
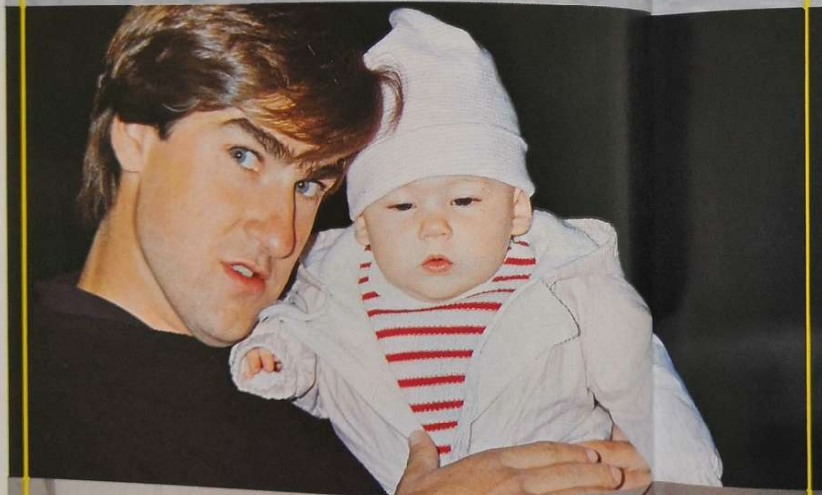
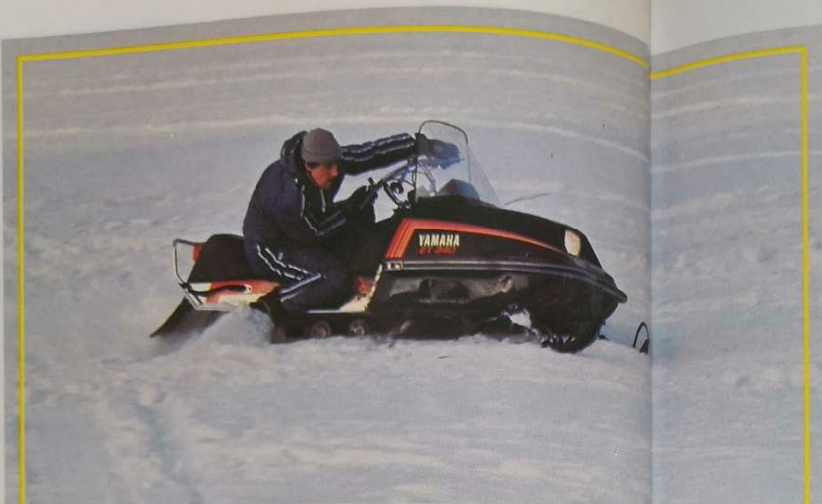
took the youngster away from his business school studies after only a few terms. Pauli Toivonen was himself one of the top Scandinavian drivers of the '60s, a former winner of the Monte Carlo Rally with Citroën – and he had the habit of trailing his son with him across Europe. Parcs fermés and time controls were familiar sights to the lad from an early age. Hardly surprising, therefore, that the boy should want to follow his father's sporting instinct.

"Believe it or not, but I've known my new boss, Cesare Fiorio, since I was seven years old. The rally stars were all my friends, so I never had any problem getting along with them. It's always been one big family for me. And now my brother is joining the circus, so it must be something in the family's blood. With Harri hard on my tail, I know there'll be no peace for me. He's bloody quick, you know. The best way to escape would be for me to find a completely different job... I have to admit that I've never seen anyone who had so much raw driving talent as Harri. He had a works Mitsubishi on the 1000 Lakes and the RAC: he managed to break the record time on one stage in Finland with it during practice. The problem with Harri, though, is that he's a bit hot-headed. He doesn't concentrate hard enough and he can't keep up the pace all through a long event. But as soon as he's found out how to control himself he's going to be a threat. I used to be a bit like that. I was nervous and disorganised. Nowadays I'm more confident in myself, I've matured, but I'm still likely to flare up occasionally. I love to be active and busy, I hate sitting still. You'll never catch me stuck in front of the TV for hours on end. I'm still edgy, no doubt about that."

IF I'D REBELLED IN 82 I'D HAVE BEEN KICKED OFF THE TEAM IN NO TIME

Most race and rally drivers go through a period like that, from the over-enthusiasm of youth to the wisdom that's acquired when you've passed the age of 20. Everyone's been through it. The Waldegaards, the Mikkolas, the Blomqvists. Now comparatively advanced in years, nevertheless they continue to rule the roost in international rallying, and retirement hardly seems to be on their minds. After all, they've already crossed swords with one Toivonen, Pauli. Works driver though he may be, Henri is still remembered as a kid in short pants. It's taken two or three years for him to mature, but it's unthinkable to suggest that he may have acquired even one quarter of the experience and rally savvy of, say, his friend and neighbour Hannu Mikkola, who lives not far away from Henri in Helsinki's residential suburb of Espoo. In addition, his Portuguese crash has vividly reminded him that he still has a lot to prove, not only to himself, but to others. Yet, Cesare Fiorio seems to understand and continues to treat Henri with a sort of paternal indulgence.

There will be an opportunity for him to race the Group C car at Spa and Le Mans, possibly in other events if he can find a place



Scenes from daily life in Espoo, a Helsinki suburb, home of many a great rallyman.

with a private Porsche team. His first attempts with the 956, in practice for a race at the end of 1983, were distinctly promising. He looked equally good when he had a chance to try an F3 car in a round of the British championship a year earlier. From the moment he set wheel on tarmac, Toivonen looked as though he'd been doing it all his life. He has clear memories of his brief single-seater "career":

"It was fantastically exciting. In F3 everybody wants to win at any cost, they're all crazy. It was a pity I didn't have a very powerful engine. Still, although I really enjoyed racing, I'm already too old to make the switch to single-seaters. If you want to get into F1 I think you have to be pretty close to it by the time you're 25, with one foot already well up the ladder. I'm not in that position. But F1 really is great. Two years ago I was allowed to test Raul Boesel's F1 March. What a thrill!"

There have been great all-rounders before: Larrousse, Elfond and Bianchi, for example. But the opportunity to race and rally doesn't come very often and Henri chose his way to the top at an early age. At the age of 17 he was already an international hockey player, and he's a gifted soccer player too.

"At school, when I was only six years old, the teachers asked us what we intended to be when we grew up. I always used to say 'rally driver': since then my studies haven't been a lot of help to me. Sure, I sometimes think about the future. I have a car business in Helsinki, and I intend to devote more time to it eventually: maybe my business studies will help me then. For the moment, though, motorsport is my life. I was driving cars by the time I was seven, and I had my first rally when I was 14, on ice, with my father competing – and watching. He wanted to know how I would get on, and I won. I had a big advantage then, because being so much younger than anyone else I also happened to be very light in weight." Ten years later, he's still a star, especially in Finland of course.

WHEN I GET TO THE AIRPORT A STRANGE FEELING COMES OVER ME...

At the time, the effect of youthful success panicked him. The fame of his rivals hardly impressed him, but being in the public eye certainly did. Everything's OK now: he can handle things like autograph hunters. Indeed, he's even beginning to enjoy it. "I really enjoy the experience of winning, and all the things that go with it." He is by no means blasé, though, and the official-looking mask of a works driver often breaks apart to reveal the happy face of a child who may have grown up a little too fast. The pleasure of knowing each day that he is on the way to achieving his childhood dreams prevents him from being bitter or from showing the disappointment that sometimes strikes older drivers. Impatience is mixed with euphoria, not anxiety. To a cer-

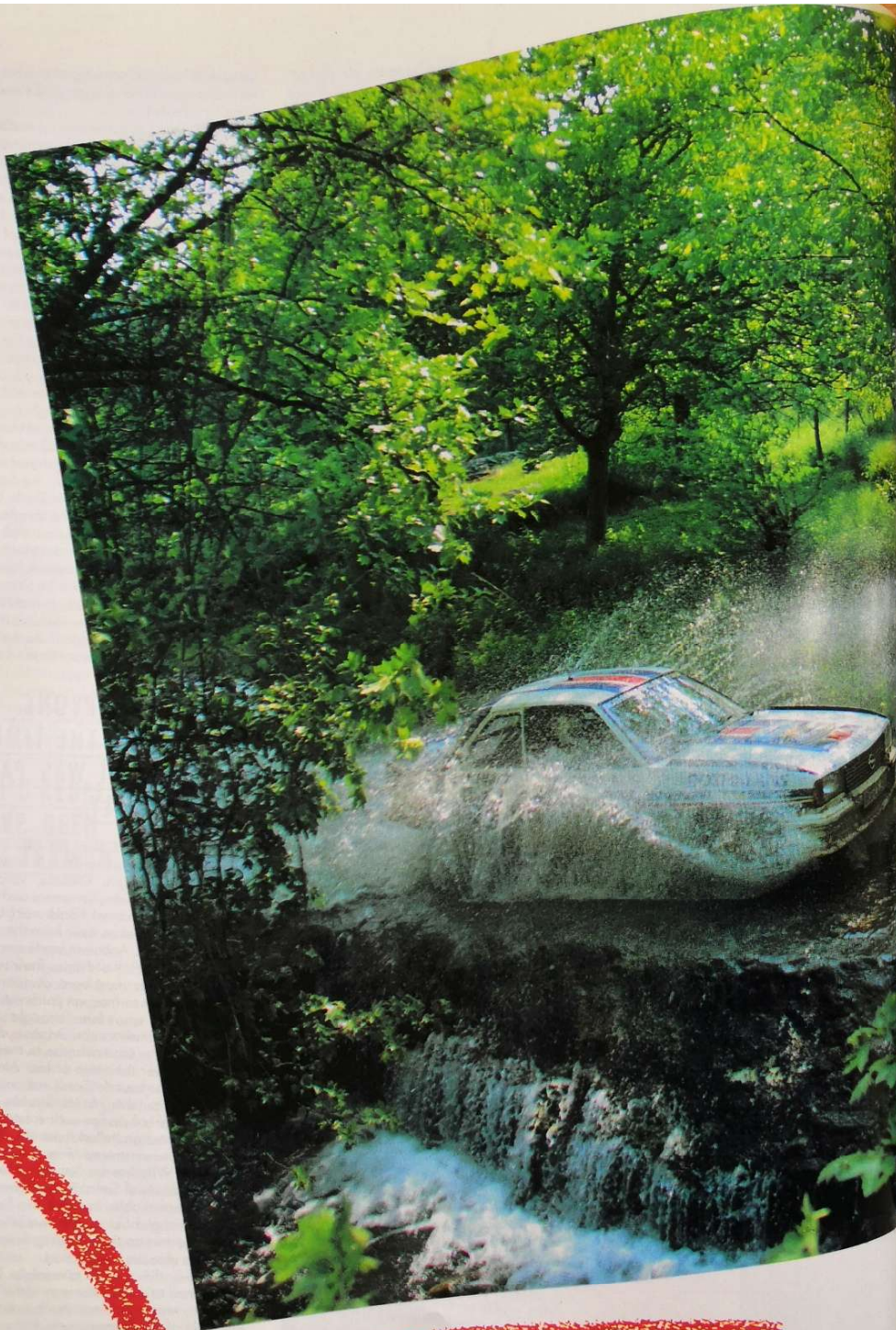
tain extent he is still a young man who has yet to discover all the delights of life and of living it to the full.

"I always wanted to travel and meet different people, make friends. I'm not unhappy at home, of course, but whenever I go to the airport I get a very strange feeling. Perhaps it's because I know that what I'm doing is new and unusual. I'm married and I have a one-year old daughter. I'm well aware of my responsibilities as a father, and I've already decided not to have any more children for the time being, because I'm not at home very often and it would be too much work for my wife. For the time being I don't want to change my life at all, or to travel less. I'm too young for that. And anyway I hope to carry on rallying for at least 20 more years..."

It would be remarkable if it were not so. Important and prestigious though it may have been, it will take more than one victory in Britain, back in November 1980, to satisfy the youngster's ambition. His greatest wish is to win the 1000 Lakes Rally, his home event. He wants to win at Monte Carlo, too, because he likes it; and also the San Remo, because it's a mixture of tarmac and dirt roads. Then the Acropolis, because he loves Greece; and the Safari, because Ari won it and because it's Africa, which he wants to explore: and so on and so on... In fact Henri wants to win everything. He will have more opportunities, this year, to do it. As the old rally saying goes, "if you want to win, use a Finn".

I KNEW EVERYONE IN RALLYING BY THE TIME I WAS SEVEN. I WAS PART OF THE FAMILY

Indeed, it seems pointless for any works team to go rallying unless it has at least one Finn on the strength. Mikkola, Vatanen, Alen, Salonen, besides Toivonen, and then the rising generation of Kankkunen, Laine and Lampi have taken over from the veterans like Makinen, Aaltonen, and Lampinen in their Rallying Hall of Fame. Their weakness, such as it is, must be a comparative lack of ability on tarmac, an unfamiliar surface for a man who's been brought up on loose forest or snow tracks. On snow, dirt or even mud they're most at home, but regular roads are never their cup of tea. Alen, of course, won the Tour de Corse, rallying's big tarmac event but then old Marcku has been with Fiat and Lancia for such a long time that he's almost an Italian these days. Henri has demonstrated himself to be the exception. Whether on circuits, or on the tarmac surfaces of Sintra, his performance remains remarkable. In short, the Scandinavian stranglehold on the world championship shows no sign of being diminished to Henri's obvious satisfaction. Fortunately there is still a resolute Teuton determined to stand in the way of the Viking invasion, ready to block the hordes from the land of the frozen north. His name is Walter Röhrl... but that is another story altogether. □



ECONOMISEZ UN PLEIN D'ESSENCE



IT WAS IN 1970 THAT THE INTERNATIONAL RALLY CHAMPIONSHIP FOR MAKES CAME INTO EXISTENCE — BECOMING, THREE YEARS LATER, A GENUINE WORLD CHAMPIONSHIP. HOWEVER, IT WAS NOT UNTIL 1977 THAT THE DRIVER'S TITLE FIRST APPEARED IN THE FORM OF THE FIA CUP. AND EVEN MORE BELATEDLY, THE FIRST WORLD CHAMPION RALLY DRIVER WAS NOT OFFICIALLY CROWNED UNTIL 1979. THIS JERKY, NOT TO SAY BLUNDERING, START NEVERTHELESS SLOWLY BUT SURELY TOOK ROAD COMPETITION TO ITS PRESENT HEIGHTS AS A WORLD-CLASS EVENT. THE STORY IS MUCH THE SAME AS THE INTERNATIONAL F1 CHAMPIONSHIP, AND OVER THE NEXT TWO SEASONS, THE MOST AMBITIOUS OF CONSTRUCTORS WILL GATHER TO TEST THE METTLE OF MAN AND MACHINE. THE PRESIDENT OF FISA CAN BE PROUD THAT 15 MAJOR MARQUES WILL BE VYING FOR THE WORLD TITLE IN 1986. AS FOR 1984, THE LANCIA/AUDI DUEL CONTINUES TO RAGE, WITH PEUGEOT WAITING IN THE WINGS TO JOIN THE FIGHT. FROM THE ALPINE SNOWFIELDS TO THE MUD FLATS OF AFRICA THE CLASH OF GEARBOXES AND THE ROAR OF ENGINES RESOUNDS. AND DON'T FORGET THE SWEET AND SOUR OF CORSICAN TARMAC AND PORTUGUESE GRAVEL. WITH LESS THAN A MONTH LEFT BEFORE WHAT PROMISES TO BE AN EXCEPTIONAL SAFARI, WE THOUGHT THE TIME RIPE TO PRESENTE OUR READERS WITH A BRIEF RECAP OF GREAT MOMENTS IN THE LAST 15 YEARS OF INTERNATIONAL RALLYING HISTORY.

**182 FRANCS D'ECONOMIE
UNE RELIURE GRATUITE**

**GRAND PRIX INTERNATIONAL MAGAZINE
PARAIT UN JEUDI SUR DEUX**

**GRAND PRIX INTERNATIONAL MAGAZINE - PARAIT 25 FOIS PAR AN : 21 NUMEROS A 22 FRANCS
ET QUATRE NUMEROS SPECIAUX A 30 FRANCS, SOIT 582 FRANCS.**

PRIX DE L'ABONNEMENT : 400 FRANCS PAR AN POUR LA FRANCE AUPRES DE **GRAND PRIX INTERNATIONAL**,
SERVICE ABONNEMENTS, 7, RUE DE LILLE, 75007 PARIS, EN RENVOYANT CE COUPON ACCOMPAGNE D'UN
CHEQUE BANCAIRE, D'UN CHEQUE POSTAL OU D'UN MANDAT-LETTRE A L'ORDRE DE **GRAND PRIX
INTERNATIONAL.**

NOM PRENOM

ADRESSE COMPLETE

CODE POSTAL


ABONNEZ-VOUS SANS TARDER !

CANADA : ABONNEMENTS AUPRES DES EDITIONS CANADIENNES-GPI, 387 SAINT PAUL OUEST, BUREAU 204, MONTREAL, QUEBEC
H2Y 2A7.
TARIF DE L'ABONNEMENT : \$98 POUR 25 NUMEROS A \$4,50 ET 4 NUMEROS SPECIAUX A \$7, SOIT UNE ECONOMIE DE \$24,50 ET UNE
RELIURE GRATUITE.
TARIF AVION SUR DEMANDE. * 450 FRANCS PAR AN POUR L'ETRANGER.

**GRAND
PRIX**
INTERNATIONAL

**FORMULE 1
GROUPE C
RALLYES
ETATS-UNIS**

THE GOLDEN AGE OF RALLYING



IT WAS IN 1970 THAT THE INTERNATIONAL RALLY CHAMPIONSHIP FOR MAKES CAME INTO EXISTENCE — BECOMING, THREE YEARS LATER, A GENUINE WORLD CHAMPIONSHIP. HOWEVER, IT WAS NOT UNTIL 1977 THAT THE DRIVER'S TITLE FIRST APPEARED IN THE FORM OF THE FIA CUP. AND EVEN MORE BELATEDLY, THE FIRST WORLD CHAMPION RALLY DRIVER WAS NOT OFFICIALLY CROWNED UNTIL 1979. THIS JERKY, NOT TO SAY BLUNDERING, START NEVERTHELESS SLOWLY BUT SURELY TOOK ROAD COMPETITION TO ITS PRESENT HEIGHTS AS A WORLD-CLASS EVENT. THE STORY IS MUCH THE SAME AS THE INTERNATIONAL FI CHAMPIONSHIP, AND OVER THE NEXT TWO SEASONS, THE MOST AMBITIOUS OF CONSTRUCTORS WILL GATHER TO TEST THE METTLE OF MAN AND MACHINE. THE PRESIDENT OF FISA CAN BE PROUD THAT 15 MAJOR MARQUES WILL BE VYING FOR THE WORLD TITLE IN 1986. AS FOR 1984, THE LANCIA/AUDI DUEL CONTINUES TO RAGE, WITH PEUGEOT WAITING IN THE WINGS TO JOIN THE FIGHT. FROM THE ALPINE SNOWFIELDS TO THE MUD FLATS OF AFRICA THE CLASH OF GEARBOXES AND THE ROAR OF ENGINES RESOUNDS. AND DON'T FORGET THE SWEET AND SOUR OF CORSICAN TARMAC AND PORTUGUESE GRAVEL. WITH LESS THAN A MONTH LEFT BEFORE WHAT PROMISES TO BE AN EXCEPTIONAL SAFARI, WE THOUGHT THE TIME RIPE TO PRESENTE OUR READERS WITH A BRIEF RECAP OF GREAT MOMENTS IN THE LAST 15 YEARS OF INTERNATIONAL RALLYING HISTORY.

FIFTEEN YEARS OF INTERNATIONAL RALLIES

	1970	1971	1972	1973	1974	1975	1976
ACROPOLIS (GR)	Jean-Luc Th��rier Marcel Callewaert Alpine-Renault 1 3	Ove Andersson Arne Hertz Alpine-Renault 1 6	Haakon Lindberg Helmut Eisendle Fiat 124 Spyder	Jean-Luc Th��rier Ch. Delferrier Alpine-Renault 1 8		Walter R��hrl Jochen Berger Opel Ascona	Harry Kallstrom C G Andersson Datsun Violet
ARGENTINA							
AUSTRIAN ALPS (A)	Bjorn Waldegaard Lars Nystrom Porsche 911-S	Ove Andersson Arne Hertz Alpine-Renault 1 6	Haakon Lindberg Helmut Eisendle Fiat 124 Spyder 1 6	Achim Warmbold Jean Todt BMW 2002 Alpina			
BRAZIL							
CANADA					Sandro Munari Mario Mannucci Lancia Stratos		
IVORY COAST							
TOUR OF CORSICA (F)				Jean-Pierre Nicolas Michel Vial Alpine-Renault 1 8	Jean-Claude Andruet "Biche" Lancia Stratos	Bernard Darniche Alain Mah�� Lancia Stratos	Sandro Munari Silvio Maiga Lancia Stratos
MOROCCO		Jean Deschazeaux J Plassard Citro��n SM	Simo Lampinen Solve Andreasson Lancia Fulvia	Bernard Darniche Alain Mah�� Alpine-Renault 1 8	Hannu Mikkola Jean Todt Peugeot 504		Jean-Pierre Nicolas Michel Gamet Peugeot 504
MONTE-CARLO	Bjorn Waldegaard Lars Helmer Porsche 911-S	Ove Andersson David Stone Alpine-Renault 1 6	Sandro Munari Mario Mannucci Lancia Fulvia	Jean-Claude Andruet "Biche" Alpine-Renault 1 8	Sandro Munari Mario Mannucci Lancia Stratos	Sandro Munari Silvio Maiga Lancia Stratos	
NEW ZEALAND							
POLAND				Achim Warmbold Jean Todt Fiat 124 Abarth			
PORTUGAL				Jean-Luc Th��rier Jacques Jaubert Alpine-Renault 1 8	Raffaele Pinto Arnaldo Bemacchini Fiat 124 Abarth	Markku Alen Ilkka Kivimaki Fiat 124 Abarth	Sandro Munari Silvio Maiga Lancia Stratos
PRESS-ON-REGARDLESS (USA)			Gene Henderson Ken Pogle Jeep Wagoneer	Walter Boyce Doug Woods Toyota Corolla	Jean-Luc Th��rier Ch. Delferrier Renault 17 Gordini		
R. A. C. (GB)	Harry Kallstrom Gunnar Haggborn Lancia Fulvia	Stig Blomqvist Arne Hertz Saab 96-V4	Roger Clark Tony Mason Ford Escort RS	Timo Makinen Henry Liddon Ford Escort RS	Timo Makinen Henry Liddon Ford Escort RS	Timo Makinen Henry Liddon Ford Escort RS	Roger Clark Stuart Pegg Ford Escort RS
SAFARI (EAK)	Edgar Hermann Hans Schuller Datsun 1600	Edgar Hermann Hans Schuller Datsun 240-Z	Hannu Mikkola Gunnar Palm Ford Escort RS	Shekhar Mehta Lofty Drews Datsun 240-Z	Joginder Singh David Daig Mitsubishi Colt	Ove Andersson Arne Hertz Peugeot 504	Joginder Singh David Daig Mitsubishi Colt
SAN REMO (I)	Jean-Luc Th��rier Marcel Callewaert Alpine-Renault 1 3	Ove Andersson Anthony Nash Alpine-Renault 1 6	Amilcare Balestrieri Arnaldo Bemacchini Lancia Fulvia	Jean-Luc Th��rier Jacques Jaubert Alpine-Renault 1 8	Sandro Munari Mario Mannucci Lancia Stratos	Bjorn Waldegaard Hans Thorszelius Lancia Stratos	Bjorn Waldegaard Hans Thorszelius Lancia Stratos
SOUTH PACIFIC (AUS)				Timo Makinen Henry Liddon Ford Escort RS	Hannu Mikkola John Davenport Ford Escort RS	Hannu Mikkola Atso Aho Toyota Corolla	Markku Alen Ilkka Kivimaki Fiat 131 Abarth
SWEDEN	Bjorn Waldegaard Lars Helmer Porsche 911-S	Stig Blomqvist Arne Hertz Saab 96-V4	Stig Blomqvist Arne Hertz Saab 96-V4	Stig Blomqvist Arne Hertz Saab 96-V4		Bjorn Waldegaard Hans Thorszelius Lancia Stratos	Per Eklund Bjorn Cederberg Saab 96-V4
1000 LAKES				Timo Makinen Henry Liddon Ford Escort RS-1 6	Hannu Mikkola John Davenport Ford Escort RS-1 6	Hannu Mikkola Atso Aho Toyota Corolla	Markku Alen Ilkka Kivimaki Fiat 131 Abarth
MAKES' CHAMPIONSHIP:	1 Porsche 2 Alpine 3 Lancia	1 Alpine 2 Saab 3 Porsche	1 Lancia 2 Fiat 3 Porsche	1 Alpine 2 Fiat 3 Ford	1 Lancia 2 Fiat 3 Ford	1 Lancia 2 Fiat 3 Alpine	1 Lancia 2 Opel 3 Ford
DRIVERS' CHAMPIONSHIP:							

	1977	1978	1979	1980	1981	1982	1983	1984
	Bjorn Waldegaard Hans Thorszelius Ford Escort RS	Walter R��hrl Ch. Geistd��rfer Fiat 131 Abarth	Bjorn Waldegaard Hans Thorszelius Ford Escort RS	Ari Vatanen David Richards Ford Escort RS	Ari Vatanen David Richards Ford Escort RS	Mich��le Mouton Fabrizia Pons Audi Quattro	Walter R��hrl Ch. Geistd��rfer Lancia Rally	
				Walter R��hrl Ch. Geistd��rfer Fiat 131 Abarth	Guy Fr��quelin Jean Todt Talbot Lotus		Hannu Mikkola Arne Hertz Audi Quattro	
					Ari Vatanen (P) David Richards Ford Escort RS	Mich��le Mouton Fabrizia Pons Audi Quattro		
	Timo Salonen Jaakko Markkula Fiat 131 Abarth	Walter R��hrl Ch. Geistd��rfer Fiat 131 Abarth	Bjorn Waldegaard Hans Thorszelius Ford Escort RS					
		Jean-Pierre Nicolas Michel Gamet Peugeot 504-V6	Hannu Mikkola Arne Hertz Mercedes 450-SLC	Bjorn Waldegaard Hans Thorszelius Mercedes 500-SLC	Timo Salonen Seppo Harjanne Datsun Violet GT	Walter R��hrl (P) Ch. Geistd��rfer Opel Ascona 400	Bjorn Waldegaard (P) Hans Thorszelius Toyota Celica	
	Bernard Darniche Alain Mah�� Fiat 131 Abarth	Bernard Darniche Alain Mah�� Fiat 131 Abarth	Bernard Darniche Alain Mah�� Lancia Stratos	Jean-Luc Th��rier Michel Vial Porsche 911-S	Bernard Darniche Alain Mah�� Lancia Stratos	Jean Ragnotti Jean-Marc Andr�� Renault 5 Turbo	Markku Alen Ilkka Kivimaki Lancia Rally	
	Sandro Munari Silvio Maiga Lancia Stratos	Jean-Pierre Nicolas Alain Mah�� Porsche 911-S	Bernard Darniche Alain Mah�� Lancia Stratos	Walter R��hrl Ch. Geistd��rfer Fiat 131 Abarth	Jean Ragnotti Jean-Marc Andr�� Renault 5 Turbo	Walter R��hrl Ch. Geistd��rfer Opel Ascona 400	Walter R��hrl Ch. Geistd��rfer Lancia Rally	Walter R��hrl Ch. Geistd��rfer Audi Quattro
			Hannu Mikkola Arne Hertz Ford Escort RS	Timo Salonen Seppo Harjanne Datsun Violet 160J				
	Markku Alen Ilkka Kivimaki Fiat 131 Abarth	Markku Alen Ilkka Kivimaki Fiat 131 Abarth	Hannu Mikkola Arne Hertz Ford Escort RS	Walter R��hrl Ch. Geistd��rfer Fiat 131 Abarth	Markku Alen Ilkka Kivimaki Fiat 131 Abarth	Mich��le Mouton Fabrizia Pons Audi Quattro	Hannu Mikkola Arne Hertz Audi Quattro	Hannu Mikkola Arne Hertz Audi Quattro
	Bjorn Waldegaard Hans Thorszelius Ford Escort RS	Hannu Mikkola Arne Hertz Ford Escort RS	Hannu Mikkola Arne Hertz Ford Escort RS	Henri Toivonen Mike White Talbot Lotus	Hannu Mikkola Arne Hertz Audi Quattro	Hannu Mikkola Arne Hertz Audi Quattro	Stig Blomqvist Bjorn Cederberg Audi Quattro	
	Bjorn Waldegaard Hans Thorszelius Ford Escort RS	Jean-Pierre Nicolas Jean-C. Lef��vre Peugeot 504-V6	Shekhar Mehta Mike Daughy Datsun Violet 160J	Shekhar Mehta Mike Daughy Datsun Violet 160J	Shekhar Mehta Mike Daughy Datsun Violet 160J	Shekhar Mehta Mike Daughy Datsun Violet GT	Ari Vatanen Terry Harrymann Opel Ascona 400	
	Jean-Claude Andruet Ch. Delferrier Fiat 131 Abarth	Markku Alen Ilkka Kivimaki Lancia Stratos	"Tony" Fassina Mauro Mannini Lancia Stratos	Walter R��hrl Ch. Geistd��rfer Fiat 131 Abarth	Mich��le Mouton Fabrizia Pons Audi Quattro	Stig Blomqvist Bjorn Cederberg Audi Quattro	Markku Alen Ilkka Kivimaki Lancia Rally	
	Fulvio Bacchelli Francesco Rossetti Fiat 131 Abarth							
	Stig Blomqvist Hans Sylvan Saab 99-EMS	Bjorn Waldegaard Hans Thorszelius Ford Escort RS	Stig Blomqvist Bjorn Cederberg Saab 99 Turbo	Anders Kullang (P) Bruno Berglund Opel Ascona 400	Hannu Mikkola (P) Arne Hertz Audi Quattro	Stig Blomqvist (P) Bjorn Cederberg Audi Quattro	Hannu Mikkola (P) Arne Hertz Audi Quattro	Stig Blomqvist (P) Bjorn Cederberg Audi Quattro
	Kyosti Hamalainen Hans Sylvan Ford Escort RS	Markku Alen Ilkka Kivimaki Fiat 131 Abarth	Markku Alen Ilkka Kivimaki Fiat 131 Abarth	Markku Alen (P) Ilkka Kivimaki Fiat 131 Abarth	Ari Vatanen David Richards Ford Escort RS	Hannu Mikkola Arne Hertz Audi Quattro	Hannu Mikkola Arne Hertz Audi Quattro	
	1 Fiat 2 Ford 3 Opel	1 Fiat 2 Ford 3 Opel	1 Ford 2 Datsun 3 Fiat	1 Fiat 2 Datsun 3 Ford	1 Talbot 2 Datsun 3 Ford	1 Audi 2 Opel 3 Datsun	1 Lancia 2 Audi 3 Opel	
Sandro Munari (I) (Lancia)	Markku Alen (SF) (Fiat)	Bjorn Waldegaard (I) (Ford et Mercedes)	Walter R��hrl (D) (Fiat)	Ari Vatanen (SF) (Ford)	Walter R��hrl (D) (Opel)	Hannu Mikkola (SF) (Audi)		

WINS IN CHAMPIONSHIP EVENTS SINCE 1970

Makes:

LANCIA	26
FORD	22
FIAT	21
AUDI	14
ALPINE	12
NISSAN	10
SAAB	7
PORSCHE	5



OPEL	3
RENAULT	3
TOYOTA	3
MERCEDES	2
MITSUBISHI	2
TALBOT	2



BMW	1
CITROEN	1
JEEP-AMC	1

NB: Final results as of March 15, 1984, but do not include victories obtained in the drivers' championship alone.



Drivers:

HANNU MIKKOLA (SF)	17
BJORN WALDEGAARD (S)	15
WALTER ROHRL (D)	13
MARKKU ALEN (SF)	12
STIG BLOMQUIST (S)	10



SANDRO MUNARI (I)	8
BERNARD DARNICHE (F)	7
JEAN-LUC THERIER (F)	7
ARI VATANEN (SF)	5
JEAN-PIERRE NICOLAS (F)	5



SHEKHAR MEHTA (EAK)	5
OVE ANDERSSON (S)	5
MICHELE MOUTON (F)	4
TIMO MAKINEN (SF)	4
TIMO SALONEN (SF)	4
JEAN-CLAUDE ANDRUET (F)	3
JEAN RAGNIOTTI (F)	3
HARRY KALLSTROM (S)	2
JOGINDER SINGH (EAK)	2
ROGER CLARK (GB)	2
EDGAR HERMANN (EAK)	2
ACHIM WARBOLD (D)	2
HAAKAN LINDBERG (S)	2

GUY FREQUELIN (F)	1
JEAN DESCHAZEAUX (M)	1
RAFFAELE PINTO (I)	1
WALTER BOYCE (USA)	1
GENE HENDERSON (USA)	1
AMIL CARE BALLESTRIERI (I)	1
PER EKLUND (S)	1
HENRI TOIVONEN (SF)	1
FULVIO BACCHELLI (I)	1
ANDERS KULLANG (S)	1
KYOSTI HAMALAINEN (SF)	1
"TONY" FASSINA (I)	1



SIMO LAMPINEN (SF) 1
NB: As of Marche 15, 1984.



THE HALDA TROPHY FOR CO-DRIVERS:

1973: HENRY LIDDON (GB)
1974: MARIO MANNUCCI (I)
1975: HANS THORSZELIUS (S)
1976: ALAIN MAHE (F)
1977: HANS THORSZELIUS (S)
1978: ILKKA KIVIMAKI (SF)
1979: ARNE HERTZ (S)
1980: CHRISTIAN GEISTDORFER (D)
1981: DAVID RICHARDS (GB)
1982: FABRIZIA PONS (I)
1983: BJORN CEDERBERG (S)

RECORD NUMBER OF WINS IN A SINGLE SEASON (drivers):

HANNU MIKKOLA (4 in 1979; 4 in 1983)
WALTER ROHRL (4 in 1980)
OVE ANDERSSON (4 in 1971)



NUMBER OF WINS BY COUNTRY (drivers):

FINLAND (44 victories)	36
SWEDEN	29
FRANCE	25
GERMANY	12
ITALY	9
KENYA	2
GREAT BRITAIN	2
UNITED STATES	2
MOROCCO	1

NB: As of March 15, 1984.



RECORD NUMBER OF WINS IN A SINGLE SEASON (makes):

ALPINE (6 in 1973)
AUDI (6 in 1982)

NB: Makes' championship only. If we count the drivers' championship, Audi won seven rallies in 1982.



GRAND PRIX INTERNATIONAL

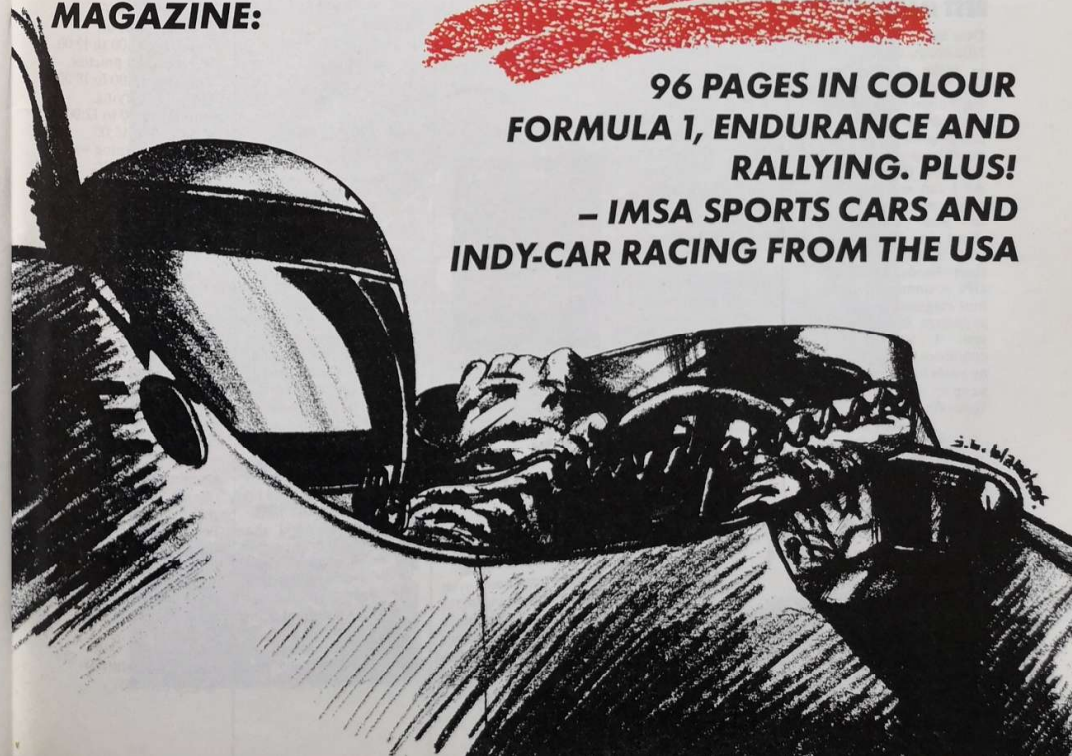


EVERY OTHER THURSDAY

THE EXCLUSIVE WORLD CHAMPIONSHIP MAGAZINE:



96 PAGES IN COLOUR
FORMULA 1, ENDURANCE AND RALLYING. PLUS!
- IMSA SPORTS CARS AND INDY-CAR RACING FROM THE USA



BIG MISTAKE

Dear Editor,
It seems another good thing has unfortunately come to an end. After reading your reasons for the format change I'm afraid I just can't buy them. For a start there are other magazines which have excellent coverage of Endurance and Rallying... I was appalled to find that the last issue of GPI had a mere sixteen pages devoted to F1 as compared to a massive 71 pages of rallying and IMSA racing which I believe most F1 enthusiasts are just not interested in. The reason I've bought GPI in the past is that I've paid for the unique pleasure of reading about F1 and nothing but F1. Not swimming, football or CART racing, but formula one! Imagine paying \$40 for your annual Autocourse and finding it filled with something else. I believe you've made a big mistake.
Yours truly,

Gary K. Royle
Mentone, Australia

BEST MAGAZINE

Dear Sir,
I did not quite know what to make of the "new style" GPI, but after reading numbers 74 and 75, my opinion is that it is just as good as the previous five seasons of GPI, if not better than them. All I can say about the people who have written to you complaining about the "new style" GPI, is, that they need their heads examined! GPI is undoubtedly the best magazine in its class anywhere in the world and, I would hope, continues to be so for many years to come. Keep up the great work. Yours sincerely,

Graham Briscoe
Southport, England

Well, this is the price of success! Sometimes flattered, sometimes slaughtered, we remain yours sportingly, growing up in the most sensible way, believe us. How about becoming open-minded?

VARIOUS FEELINGS

I remember reading in a motoring publication that F1 could survive without spectators, and the writer waffled on about how sad it was. Jolly good, is all I can say, at least the sport is not dependant on the public, unlike football, it's too big for that... I was recently seated in front of the Telly (Bernie would have invented it if someone else had not) and I heard the words: "Here comes Derek Warwick, could he be the next James Hunt?". Ah! If I hear that once more, I will go mad. The times I've heard, or read: "Warwick, Brundle, Palmer, the next James Hunt?"... This annoys me for two reasons. First, James was not really one of the best, yet fair enough he won the championship. But take for example the late Ronnie Peterson, he was simply brilliant, burning with natural talent and determination. As you say, though, "a king without a crown". Sad. Secondly, without a doubt, the greatest British driver on the F1 scene at the moment is none other than the great Nigel Mansell, ignored by the media, overshadowed by teammate Elio de Angelis, Nigel is the best British driver in the best British team. I wish the best of luck to Elio, Nigel, Peter Warr, "Duca" and everyone at team Lotus for the coming seasons, as we need luck!
Yours sincerely,

Colin Eldress
Hounslow, England

Hurrah for our first reader writing something other than "GPI is good, GPI is bad, you were wrong, you were right!". We enjoy compliments and need critics, however severe, but it's always nice to see you express your feelings. Thank you, GPI.

FORMULA 1 SEGRETA

by P. Alleivi and E. Colombo
Forte Aidirote
Via Flumendosa, 46
20100, Milano, Italy
Price: It. L 50,000

A pretty good book, even though the arrangement of Ercole Colombo's photos doesn't evoke our art director's enthusiasm. It's also a shame



McLAREN

The Grand Prix, Can-Am and Indy Cars
by Doug Nye
Hazleton Publishing
3 Richmond Hill
Richmond, Surrey
TW106RE Great Britain
ISBN: 0 905138 28 7
Price: £ 12.95

Published by the people behind the annual Autocourse, this is the first in a series of exhaustive "marque" racing histories. Written in the typically super-detailed style of author Doug Nye, not everyone will appreciate the nuts and bolts, but no one could resist the story of how McLaren, son of a New Zealand garage owner, learned about racing in an ancient Austin Seven and went on to become the youngest-ever winner of a world championship Grand Prix. Two), a labour of love.



24 HEURES DU MANS 1982

by C. Moity and J.-M. Teissédre
Publi-Inter
75, rue Voltaire
92532 Levallois-Perret
CEDEX
ISBN: 2 903356 09 2
Price: FF 195

The book concerning Le Mans '83 will be published in June - as in the past - on the occasion of 24 Hours at Le Mans 1984. To pass the time, while we await this upcoming retrospective, we can take a look at the 1982 event. Although the duo Moity-Teissédre certainly aren't in any hurry, these two lovers of the world's most renowned endurance race have again hit the mark. This is their seventh collective work on Le Mans and their format is impeccable. The text is incisive, the statistics complete, and the photos poignantly re-create the atmosphere of the circuit. Nonetheless, that little spark, which separates a good annual from a great book, is still lacking. Maybe something in the style of writing? Two), and no surprises.

WHAT'S ON

5/7 APRIL
SOUTH AFRICAN F1 GRAND PRIX KYALAMI

Kyalami Enterprises
P.O. Box 781898
Sandton, 2146
Johannesburg
tel: (11) 786.52.64
Untimed practice on Thursday and Friday, 10:00 to 11:30 and timed qualifying from 13:00 to 14:00.
Saturday morning warm-up, 10:30 to 11:00. Race starts at 14:30 on Saturday.
Entry prices: open stands, 5 rand Thursday, 25 rand Friday, and 25 rand Saturday. All-in two-day ticket, Friday and Saturday, 25 rand. Covered stands: Saturday, 35 rand to 50 rand.
1 rand = approx. 50p.

21/23 APRIL
1000 KM OF MONZA GROUP C

Autodromo Nazionale di Monza
20052 Monza Parco (Milano)
tel: (039) 32.98.66
Open practice on Saturday, 10:00 to 12:00, and untimed practice, Saturday, 15:00 to 18:00. Timed qualifying, Sunday, 10:30 to 12:00 and 16:30 to 18:00. Monday morning warm-up, 09:00 to 09:30. Race starts at 11:30 on Monday.
Entry prices: It. L 7,000 Saturday, It. L 7,000 Sunday, It. L 11,000 Monday.
1,000 Lira = approx. 40p.

13/15 APRIL
PHOENIX CART

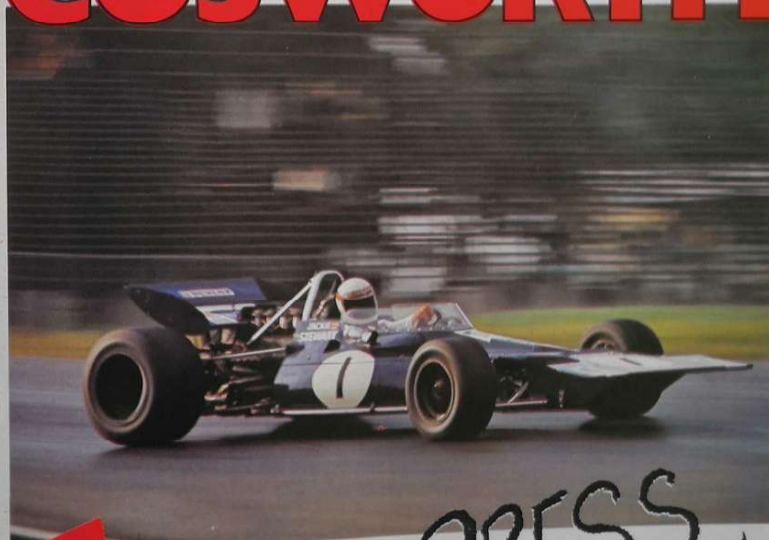
Phoenix International Raceway
5033 North 19th Avenue Suite 125
Phoenix, Arizona 85015
tel: (602) 246-7777
Open practice on Friday, 08:00 to 15:00; untimed practice on Saturday, 08:30 to 12:00 and timed qualifying 12:30 to 16:00. Sunday morning warm-up, 11:00 to 11:30. Race starts at 13:30 on Sunday (subject to change).
Entry prices: free on Friday, \$5 Saturday, \$13 to \$20 Sunday.

TYRRELL

KEN TYRRELL HAS AGAIN TAKEN UP THE GAUNTLET OF FORMULA 1 COMPETITION. "I'VE FOUND IN MARTIN BRUNDLE THE NEXT JACKIE STEWART." AND EVER SINCE THE THREE-TIME WORLD CHAMPION LEFT THE SPORT, KEN HAS RELENTLESSLY BEEN SCOUTING FOR TALENT. THE YEARS OF GLORY SLIP FARTHER INTO THE PAST, AND NOWADAYS JOURNALISTS LIKE TO REMEMBER KEN TYRRELL WAS ONCE A HUMBLE WOODCUTTER. FOURTEEN YEARS OF MOTORSPORT HISTORY HAVE FLOWN BY. YEARS THAT WERE OFTEN STIRRING, SOMETIMES CRUEL. IN THESE DAYS OF TURBOS, ONLY THE NEW FUEL CONSUMPTION RULES STILL OFFER A GLIMMER OF HOPE FOR THE NORMALLY-ASPIRATED POWER PLANTS. AT LEAST THAT'S WHAT TEAM MANAGER TYRRELL SAYS. BULLDOG BRITISH TO THE END, AND THREE CHEERS FOR THE COSWORTH - ALREADY WITH 155 VICTORIES TO ITS CREDIT. WHY NOT A FEW MORE?

by Didier Brailon and from the photo archives of DPPI

COSWORTH



Jackie Stewart/
Tyrrell 001,
Watkins Glen
70



Ford-Cosworth V8

PRESS BOOK



Ken Tyrrell



Peter Revson



François Cevert & Jackie Stewart



Derek Gardner & Patrick Depailler



Chris Amon



Eddie Keizan



Eddie Keizan/
Tyrrell
004,
Kyalami
74



Peter Revson/
Tyrrell
001,
Watkins
Glen 71

Chris Amon/
Tyrrell
005,
Mosport
73



François Cevert/
Tyrrell
006,
Buenos Aires 73



Jody Scheckter



Ian Scheckter



Jean-Pierre Jabouille



Michel Leclère



Alessandro Pesenti-Rossi



Kazuyoshi Hoshino



Ronnie Peterson

Kunimitsu Takahashi
Tyrrell
007, Fuji
77



Ian Scheckter/
Tyrrell
007,
Kyalami
76



Alessandro Pesenti-Rossi/
Tyrrell
007,
Zeltweg 76

Kazuyoshi Hoshino/
Tyrrell
007, Fuji
76



Patrick Depailler/
Tyrrell
007, Long Beach 76



Maurice Philippe

Didier Pironi

Mike Thackwell

Jean-Pierre Jarier

Kunimitsu Takahashi

Geoff Lees



Derek Daly

Ronnie Peterson/
Tyrrell
P34,
Zandvoort
77



Derek Daly &
Jean-Pierre Jarier/
Tyrrell
009,
Watkins
Glen 79



Patrick Depailler/
Tyrrell
008,
Monza 78



Jody Scheckter/
Tyrrell
P34,
Jarama 76



Eddie Cheever

Jean-Pierre Jarier/
Tyrrell 010,
Long Beach 80



Kevin Cogan



Mike Thackwell/
Tyrrell 010,
Montreal 80



Riccardo Zunino



Michele Alboreto



Slim Borgudd



Brian Henton



Danny Sullivan



Michele Alboreto/
Tyrrell 011,
Monaco 82



Danny Sullivan/
Tyrrell 012,
Zandvoort 83



Eddie Cheever/
Tyrrell 011,
Montreal 81

World championships/Championnats du monde/Campionati del mondo

1971: Stewart P01/62 pts, Cevert P03/26 pts.
 1972: Stewart P02/45 pts, Cevert P06/15 pts.
 1973: Stewart P01/71 pts, Cevert P04/47 pts.
 1974: Schecter P03/43 pts, Depailler P09/14 pts.
 1975: Schecter P07/20 pts, Depailler P04/107 pts.
 1976: Schecter P03/49 pts, Depailler P04/39 pts.
 1977: Depailler P01/20 pts, Peterson P14/07 pts.
 1978: Depailler P05/34 pts, Pironi P15/07 pts.
 1979: Jarier P10/14 pts, Pironi P10/14 pts.
 1980: Jarier P10/06 pts, Daly P10/06 pts.
 1981: Cheever P11/10 pts.
 1982: Alboreto P07/23 pts.
 1983: Alboreto P12/10 pts, Sullivan P17/02 pts.

MT-TREMBLANT 70	Stewart	---
WATKINS GLEN 70	Stewart	---
MEXICO 70	Stewart	---
KYALAMI 71	Cevert	---
MONTJUICH 71	Stewart	P01
MONACO 71	Stewart	P07
ZANDVOORT 71	Cevert	P01
PAUL RICARD 71	Stewart	P01
SILVERSTONE 71	Cevert	P02
NÜRBURGRING 71	Stewart	P01
ZELTWEG 71	Stewart	P02
MONZA 71	Cevert	---
MOSPORT 71	Cevert	P03
WATKINS GLEN 71	Cevert	P01
BUENOS AIRES 72	Reyson	---
KYALAMI 72	Stewart	---
JARAMA 72	Cevert	---
MONACO 72	Cevert	---
NIVELLES 72	Cevert	---
CHARADE 72	Stewart	P01
BRANDS HATCH 72	Depailler	---
NÜRBURGRING 72	Stewart	P01
ZELTWEG 72	Cevert	P09
MONZA 72	Stewart	---
MOSPORT 72	Cevert	P01
WATKINS GLEN 72	Cevert	P02
BUENOS AIRES 73	Depailler	---
INTERLAGOS 73	Stewart	P02
KYALAMI 73	Stewart	---
MONTJUICH 73	Stewart	---
ZOLDER 73	Cevert	P04
MONACO 73	Stewart	P01
ANDERSTORP 73	Stewart	P05
PAUL RICARD 73	Stewart	P04
SILVERSTONE 73	Stewart	P10
ZANDVOORT 73	Cevert	P01
NÜRBURGRING 73	Stewart	P01
ZELTWEG 73	Cevert	P02
MONZA 73	Stewart	P04
MOSPORT 73	Cevert	P05
WATKINS GLEN 73	Amon	P10
BUENOS AIRES 74	Depailler	---
INTERLAGOS 74	Depailler	---
KYALAMI 74	Depailler	---
JARAMA 74	Depailler	---
NIVELLES 74	Depailler	---
MONACO 74	Depailler	---
ANDERSTORP 74	Depailler	---

ZANDVOORT 74	Depailler	P06
DIJON 74	Schechter	P03
BRANDS HATCH 74	Depailler	---
NÜBURGRING 74	Schechter	P01
ZELTWEG 74	Depailler	---
MONZA 74	Schechter	P11
MOSPORT 74	Depailler	---
WATKINS Glen 74	Schechter	---
BUENOS AIRES 75	Depailler	P05
INTERLAGOS 75	Schechter	P11
KYALAMI 75	Schechter	---
MONTJUICH 75	Depailler	---
MONACO 75	Depailler	---
ZOLDER 75	Depailler	---
ANDERSTORP 75	Schechter	P02
ZANDVOORT 75	Depailler	---
PAUL RICARD 75	Depailler	---
SILVERSTONE 75	Schechter	P03
NÜRBURGRING 75	Depailler	P09
ZELTWEG 75	Schechter	P11
MONZA 75	Schechter	P08
WATKINS GLEN 75	Depailler	---
INTERLAGOS 76	Depailler	P02
KYALAMI 76	Schechter	P04
LONG BEACH 76	Schechter	---
JARAMA 76	Depailler	---
ZOLDER 76	Depailler	---
MONACO 76	Schechter	P04
ANDERSTORP 76	Schechter	P02
PAUL RICARD 76	Depailler	---
BRANDS HATCH 76	Schechter	P03
NÜRBURGRING 76	Schechter	P03
ZELTWEG 76	Schechter	P14
ZANDVOORT 76	P. Rossi	P11
MONZA 76	P. Rossi	P05
MOSPORT 76	Depailler	---
WATKINS GLEN 76	Schechter	---
FUJI 76	Depailler	---
BUENOS AIRES 77	Hoshino	---
INTERLAGOS 77	Depailler	---
KYALAMI 77	Depailler	---
LONG BEACH 77	Depailler	---



NÜRBURGRING 75	Depailler	P09
ZELTWEG 75	Schechter	P11
MONZA 75	Schechter	P08
WATKINS GLEN 75	Depailler	---
INTERLAGOS 76	Depailler	P02
KYALAMI 76	Schechter	P04
LONG BEACH 76	Schechter	---
JARAMA 76	Depailler	---
ZOLDER 76	Depailler	---
MONACO 76	Schechter	P04
ANDERSTORP 76	Schechter	P02
PAUL RICARD 76	Depailler	---
BRANDS HATCH 76	Schechter	P03
NÜRBURGRING 76	Schechter	P03
ZELTWEG 76	Schechter	P14
ZANDVOORT 76	P. Rossi	P11
MONZA 76	P. Rossi	P05
MOSPORT 76	Depailler	---
WATKINS GLEN 76	Schechter	---
FUJI 76	Depailler	---
BUENOS AIRES 77	Hoshino	---
INTERLAGOS 77	Depailler	---
KYALAMI 77	Depailler	---
LONG BEACH 77	Depailler	---

JARAMA 77	Depailler	---
MONACO 77	Peterson	P08
ZOLDER 77	Depailler	---
ANDERSTORP 77	Peterson	P08
DIJON 77	Depailler	---
SILVERSTONE 77	Peterson	P12
HOCKENHEIM 77	Peterson	---
ZELTWEG 77	Depailler	---
ZANDVOORT 77	Peterson	---
MONZA 77	Depailler	---
WATKINS GLEN 77	Peterson	P16
MOSPORT 77	Depailler	---
FUJI 77	Peterson	---
BUENOS AIRES 78	Depailler	---
RIO 78	Pironi	P14
KYALAMI 78	Depailler	---
LONG BEACH 78	Pironi	P06
MONACO 78	Depailler	---
ZOLDER 78	Depailler	---
JARAMA 78	Depailler	---
ANDERSTORP 78	Depailler	---
PAUL RICARD 78	Depailler	---
BRANDS HATCH 78	Depailler	---
HOCKENHEIM 78	Depailler	---
ZELTWEG 78	Depailler	---
ZANDVOORT 78	Depailler	---
MONZA 78	Depailler	---
WATKINS GLEN 78	Depailler	---
MONTREAL 78	Depailler	---
BUENOS AIRES 79	Pironi	P07
INTERLAGOS 79	Jarier	DNS
KYALAMI 79	Jarier	P03
LONG BEACH 79	Jarier	P06
JARAMA 79	Jarier	P05
ZOLDER 79	Jarier	P11
MONACO 79	Jarier	P03
DIJON 79	Jarier	---
SILVERSTONE 79	Jarier	P03
HOCKENHEIM 79	Lees	P07
ZELTWEG 79	Pironi	P09
ZANDVOORT 79	Daly	P08
MONZA 79	Pironi	P07
MONTREAL 79	Jarier	P06
WATKINS GLEN 79	Jarier	P10
BUENOS AIRES 80	Daly	---
INTERLAGOS 80	Jarier	P04
KYALAMI 80	Jarier	P12

LONG BEACH 80	Jarier	---
ZOLDER 80	Daly	P06
MONACO 80	Daly	P05
PAUL RICARD 80	Depailler	---
BRANDS HATCH 80	Jarier	P11
HOCKENHEIM 80	Jarier	P14
ZELTWEG 80	Daly	P10
ZANDVOORT 80	Jarier	---
MONZA 80	Jarier	---
MONTREAL 80	Jarier	---
WATKINS GLEN 80	Thackwell	DNS
LONG BEACH 81	Thackwell	N.Q.
RIO 81	Cheever	P05
BUENOS AIRES 81	Cagan	N.Q.
IMOLA 81	Zunino	P13
ZOLDER 81	Cheever	---
MONACO 81	Alboreto	P06
JARAMA 81	Alboreto	P12
DIJON 81	Alboreto	N.Q.
SILVERSTONE 81	Alboreto	P13
HOCKENHEIM 81	Alboreto	P16
ZELTWEG 81	Alboreto	N.Q.
ZANDVOORT 81	Alboreto	---
MONZA 81	Alboreto	---
MONTREAL 81	Alboreto	P12
LAS VEGAS 81	Cheever	---
KYALAMI 82	Alboreto	P07
RIO 82	Borgudd	P16
LONG BEACH 82	Borgudd	P06
IMOLA 82	Alboreto	P09
ZOLDER 82	Henton	---
MONACO 82	Alboreto	P10
DETROIT 82	Henton	---
MONTREAL 82	Alboreto	---
ZANDVOORT 82	Henton	---
BRANDS HATCH 82	Alboreto	P08
PAUL RICARD 82	Alboreto	P05
HOCKENHEIM 82	Henton	P10
ZELTWEG 82	Alboreto	---
DIJON 82	Henton	P07
MONZA 82	Alboreto	P05
LAS VEGAS 82	Alboreto	P01
RIO 83	Alboreto	P11
LONG BEACH 83	Sullivan	P10
PAUL RICARD 83	Alboreto	P08
IMOLA 83	Sullivan	---
MONACO 83	Alboreto	P05
SPA 83	Alboreto	P14
DETROIT 83	Alboreto	P12
MONTREAL 83	Alboreto	P08
SILVERSTONE 83	Sullivan	DNS
HOCKENHEIM 83	Alboreto	P14
ZELTWEG 83	Alboreto	P12
ZANDVOORT 83	Alboreto	P04
MONZA 83	Alboreto	---
BRANDS HATCH 83	Alboreto	---
KYALAMI 83	Sullivan	P07

P01 Ist in race/er en course/1. in corsa.
 --- Retired in race/Abandon en course/Ritirato in corsa.
 N.Q. Did not qualify/Non qualifié/Non qualificati.
 DNS Did not start/Forfait en course/Forfait in corsa.
 DIS Disqualified/Disqualifié/Squalificato.
 * Private team/Ecurie privée/Scuderia privata.



COMING UP APRIL 12 IN

**GRAND
PRIX**
INTERNATIONAL



SOUTH AFRICAN GRAND PRIX

The vertiginous plateau of Kyalami host the second round in this year's F1 Championship. The air will be rife with revenge after Rio. And the fight for the world title in Grand Prix racing should take on a more definite shape. What's more, there's the heat and the long Kyalami straight - taking turbos to the limits of destruction.



LONG BEACH CART

The first event of the season, kicking off our regular coverage of this discipline. From the sun-baked shores of California we'll bring you CART, its teams and its drivers. You'll thrill as this championship takes on an international flavour with Fittipaldi, Guerrero, and Giacomelli (not to mention Ligier) swelling the ranks.

IMSA 12 HOURS AT SEBRING

The third race in the IMSA championship. Sebring may regret days of glory gone by, but there's still magic in the Florida night. And the same stars shine on Sebring as Daytona - April 12 in GPI.



on sale every other Thursday

United Kingdom: 6 York Street, London W1A 2LA
Tel: (1) 486 1277, Telex: 267 509
France: 69, rue de Richelieu, 75002 Paris.
Tel: (1) 261 80 74, Telex: 215 840
Italy: Via Assarotti 14/1, 16122 Genova.
Tel: (010) 89 27 25
Canada: 387, rue Saint-Paul Ouest, Montréal,
Quebec H2Y 2A7. Tel: (514) 282 1331

CHAIRMAN
Michel A. König

EDITOR
Keith Botsford

MANAGING EDITOR
Didier Brailion

ARTISTIC DIRECTOR
Pascal Tournaire

EDITORIAL STAFF
English Editor: Mike Doodson;
Rallies Editor: Cyril Frey;
Technical Editor: Giorgio Piola;
French Editor: Xavier Chimits

PHOTOGRAPHY
Bernard Asset, Reinhard Klein, DPPI (Thierry Boy, Stéphane Foulon, Eric Vargioul, Gilles Levent)

SPECIAL FEATURES EDITOR
Michel A. König

SPECIAL CORRESPONDENT
Derek Bell

SUBEDITORS AND TRANSLATORS
Kevin Fenwick, Vincent Rozel, Paolo Bombara,
Viviane Pastourel

DESIGN STAFF
Alain Convard, Jean-Bernard Blanchet,
Cédric Puyenchet

EDITORIAL COORDINATORS
Martine Fréour, Assistants: Nathalie Rodride,
Gislaine Champion

CONTRIBUTORS
Bob Constanduros, Franco Lini, Heinz Prüller,
Jeff Hutchinson, Giancarlo Baccini

PHOTOGRAPHERS
Harald Strebelle, Gamma (Bernard Bakalian),
David Winter, Autopress, André Marzoli

ILLUSTRATORS
Didier Bussat, Jean-Marc Monceau

PUBLISHING DIRECTOR
Régis Lacroix

INTERNATIONAL ADVERTISING
Robin Goodman

Advertising: England
Stuart Dent

Advertising: France
Caroline Duret

Advertising: Italy
SPI Milano

INTERNATIONAL SECRETARY
Sarah Redmond, Assistant: Nikki White-Smith

ACCOUNTING
Brian Moore

SUBSCRIPTION SERVICES: United Kingdom: Grand Prix
Subscriptions, Oakfield House, Perryment Road,
Haywards Heath, W Sussex. Subscription: 1 year, £40.
France: Josiane Germe, 7, rue de Lille, 75007 Paris. Tel:
(1) 260 34 65, Telex: 270 096. Subscription: 1 year, 400 FF.
Canada: Editions Canadiennes - GPI, 387, rue Saint-
Paul Ouest, Room 204, Montreal, Quebec H2Y 2A7.
Subscription: 1 year, \$98. Italy: Editoriale Domus, Via
Achille Grandi 5/7, 200 39 Milano. Price on request.

Typesetting: Typelec, Boa
Colour separations: RPM, SA Incontro,
FIP Photogravure
Printer: Avenir Graphique

Unsolicited manuscripts and photographs will
not be returned. Any reproduction of any
material in Grand Prix International, in whole
or in part, is strictly prohibited.

Distributed by COMAG



Black Power



JP

John Player Special
KING SIZE

John Player Special King Size



WORLD LEADER

Wherever excellence is a way of life, the swing is to Rothmans King Size. Rothmans extra length, finer filter and the best tobaccos money can buy give you true King Size flavour. Rothmans King Size really satisfies.

THE GREATEST NAME IN CIGARETTES