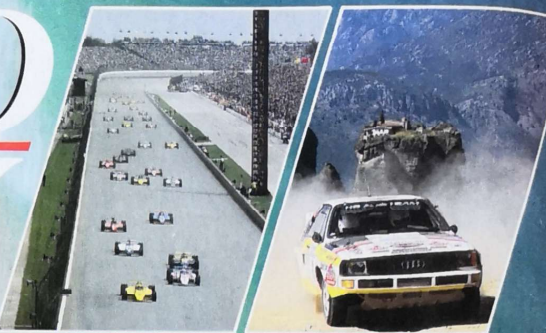


GRAND PRIX INTERNATIONAL



MADNESS AT MONACO

Prost or Senna?



INDIANAPOLIS 500

Faster and Faster...

ACROPOLIS RALLY

Greek hell for Peugeot



If you look into the paintwork of a BMW, you'll see yourself looking out. That impeccable finish is a reflection of the overall quality of the car. For example, before the exhaustive paint process begins, the sheet metal is subjected to a rigorous test.

It's immersed in salt water for a full ten days. If one sheet shows the slightest hint of rust, the whole batch is rejected. (After all, what's the point of creating a masterpiece if the canvas is rotten?) First stage in the paint process itself is an anti-corrosion dip, in which the whole

car is submerged. There's nothing particularly unusual about that — except that BMWs are held under for up to twice as long as other cars. BMW also take more time in the paint shop itself. Here the body inches along in the slowest two mile journey of its life.

It will spend up to 15 hours in a series of cleaning baths, spray bays and baking ovens. It will undergo a special, 6-stage underbody protection process, to give even greater resistance to rust. It will be hand washed, polished and

finished by painters who are encouraged to take a break every hour, in order to keep their concentration sharp. Finally, it will be examined by inspectors who have to take a special eye test before they are considered fit for the job. Small wonder then, that in a recent

independent rust survey of cars up to 6 years old, BMW outshone all the rest. Now that you know how much care goes into perfecting a BMW, can you see yourself in anything else?



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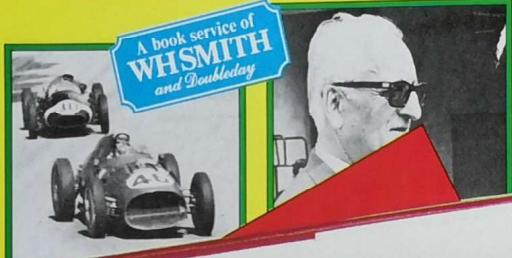
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T H I R D D E G R E E

Nelson Piquet has suggested that the reason for the present unreliability of the BMW engine is that during the winter your engineers concentrated too much on increasing the power of the engine instead of trying to maintain its reliability. True or false?

I don't think Nelson is correct. The problems we have had with our engine this year have been the result of poor quality components. Many of the parts that go into our engine come from outside manufacturers, and this year we got quite a lot of bad parts. Unfortunately, our quality control department was not big enough to check all the parts before they were used in the racing engines. **Is this because you have been obliged to supply engines to two other teams, ATS and Arrows?**

No, no: basically, everyone gets the same specification of engine. Last year we sometimes had problems with parts, this is normal in racing. For example, there might be a problem with valve springs, and as soon as you have fixed it you start to have trouble, say, with the oil. What has happened this year is that all the problems have happened at the same time. We have to accept this possibility, because in racing all the components are on the limit of reliability.

I will not speak about specific parts. Our components come from many different companies, and normally they are very helpful. But it makes things difficult for us when we find that a part is faulty, because often it has already been installed in several engines. They have to be brought back to the factory so that the parts can be changed – and this puts a lot of pressure on us.

Has the 220-litre fuel consumption rule forced you to put more strain on your engine this year?

No. We modified the engine internally, but it was not a big change. We did some Endurance tests on the modified engine at the end of last year, both on the test bed and in circuit testing, and these tests were good.

To have done as well as you did last year, when you led every lap of the last three GPs, you must have had a very special fuel...

We run exactly the same fuel now. We heard the suggestions that we were using illegal fuel last year, but I still don't know who said it, and it's certainly not true. I am responsible for such things to the BMW company. Believe me, I cannot cheat. We always had legal fuel.

Before each race we send samples of our fuel to a special independent institute for checking. They always checked it, last year and this. Let me show you the documents. (He finds an impressive-looking analysis written under the letter-head of a well-known German chemical company.)

We have to go on the limit and it is not easy to check the fuel exactly. There are tolerances which have to be considered, both in the checking procedure and the fuel, so I suppose

PAUL ROSCHE



BMW MOTORSPORT GMBH IS JUSTIFIABLY PROUD OF HAVING WON THE WORLD CHAMPIONSHIP LAST YEAR. THE COMPANY'S SENIOR ENGINEER IS PAUL ROSCHE, 50, AFFECTIONATELY KNOWN AS "HOCKEN-PAULI" FOR HIS LEGENDARY SKILL IN THE DEVELOPMENT OF CAMSHAFT PROFILES. ROSCHE'S PERSONAL PROFILE HAS ALSO BEEN THROUGH A PROFOUND CHANGE, FOR SINCE LAST YEAR HE HAS SHED NO LESS THAN 17 KILOS. THIS PERSONAL METAMORPHOSIS HAS COINCIDED WITH A COMPLETE TURN-AROUND IN THE FORTUNES WHICH, ONLY A FEW MONTHS AGO, MADE NELSON PIQUET, BRABHAM AND BMW THE TOAST OF THE RACE TRACKS...

Interview by Mike Doodson

there will always be differences. **Do you think that Renault made these accusations to justify their failure to win the world championship again last year?**

I don't believe this can be possible. But it was funny for us to hear that Renault, or Elf, knew something about our fuel. We never gave them any fuel, we only gave samples to the FISA representatives when they asked. We have never had any samples of the fuel used by Renault...

At the end of '83, Renault also said that BMW had received special treatment from KKK in the supply of turbo-chargers. True or false?

Absolutely not true. We changed the type of turbocharger we were using,

as I remember, at Zandvoort, and it was a production turbocharger, not a special one. It worked very well at the time, and we used exactly the same type at the early races this year. All that talking was just a big speaking show...

Both Renault and Ferrari seem to have been successful in using water injection to improve the power and fuel consumption of their engines. Why doesn't BMW use this principle?

We have done many tests with water injection. The engine produced the same power, more or less, as it does without water injection. We prefer to have the external water-spray system over the inter-coolers for practice: this seems to work better for us. In my opinion

there must be better things to inject into the engine than water!

Ferrari's chassis engineer, Doctor Harvey Postlethwaite, has stated that turbo-charging is a blind alley as far as passenger car engines are concerned. Do you agree with his forecast that in five years time there will be no turbo-engined passenger cars in production?

Basically, yes. I believe the future for passenger cars is in the development of efficient engines with four valves per cylinder, not turbochargers. Look at what manufacturers like Toyota and Honda are doing, as well as BMW. The important point is that you get much better throttle response from a four-valve engine than from a turbo.

Which of the current F1 engines do you like the best? Looking from the outside, I would choose the TAG/Porsche. It looks like the right compromise of shape, weight, volume, etc.

Being realistic, and remembering what you achieved with Nelson Piquet and Brabham at the end of last year, what are the chances of BMW winning the world championship again this year?

I don't know. We still have a chance, but from race to race it gets smaller. We are working very hard, and I hope that we can come out from the bad period we are going through at the moment.

Is it a handicap to have to use a standard touring car cylinder block for the racing engine?

I think you could make a better engine, in the end, with a special block. But this year we have had no problems with the block and the crankshaft, which are basically production parts.

Is it true that you like to have second-hand cylinder blocks because they are well run-in?

In theory we would like to have them, because second-hand blocks haven't got the internal stresses that you get with new blocks. People have heard about this, and we are always getting telephone calls from owners of old BMWs to offer us their used cylinder blocks. I think the F2 department has sometimes used them; in F2 it is much more critical to get the most possible horsepower from the engine.

If you had a clean piece of paper, what type of engine would you have designed for the 1984 regulations?

It's a good question. For qualification you need a lot of top-end power, and I think that a six-cylinder engine is best. For the race, you need good fuel consumption, so maybe the best solution would be two completely different engines, one for qualifying and one for the race! Racing costs a lot of money...

Well, do you think that racing is too expensive? It costs a lot, yes. But when you look around the world and think how much money is wasted on wars, motor racing is not so expensive...

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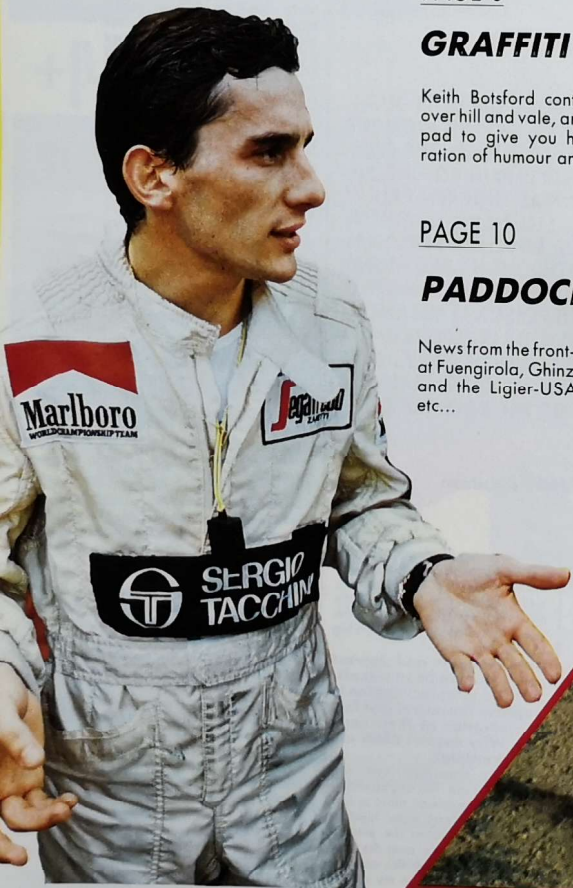
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A poster included in this issue.

PAGE 5

THIRD DEGREE

Prince of F1 last year, the BMW turbo has either been overheating or going up in smoke this season. Paul Rosche, the German turbo mastermind is up for questioning.



PAGE 16

INDIANAPOLIS 500

A March tidal-wave, Johncock's accident, Sneva's retirement and Mears wins ahead of a fantastic Guerrero. All this happened at Indianapolis, the world's most famous oval circuit. We were there for the first time.

PAGE 8

GRAFFITI

Keith Botsford continues his travels over hill and vale, armed with his note pad to give you his twice monthly ration of humour and friendly digs.



PAGE 10

PADDOCKS

News from the front-line: we won't be at Fuengirola, Ghinzani's struck lucky, and the Ligier-USA set-up in peril, etc...



PAGE 38

MONACO GRAND PRIX

Not quite the same thing as Indianapolis. But hiding between old ruins, modern buildings, lazy yachts and models cleverly stripped of their charms, is one of the world's most selective circuits. And everyone thought it was going to be McLaren...



PAGE 74

THE ACROPOLIS RALLY

Third part of car racing news which at this time of year, is still galloping along at full speed. Audi, Lancia and Peugeot, what do you call a duel when there are three protagonists waiting to fight it out?



PAGE 100

POST SCRIPTUM

Don't tell your mother that Niki Lauda's written a book, she thinks that he's a racing car driver - and she's quite right too.

PAGE 102

COMING UP IN GPI...

Graffiti



It took a visit to Dijon to establish the real reason why Turks have those funny slippers with long curlies at the end. It is to hold on to your feet while you are negotiating those extraordinary primitive toilet arrangements which prevail still in the Middle East and, alas! in parts of France. Visitors to circuits will have noticed that as one of the many amenities lacking at circuits throughout the world. They will also have noticed that in circuit conditions, the availability of a handy loo is of vital importance, hence the emergence of a new breed of exploiters, the lavatory attendant. At Dijon, if you were short on change, the sky was the limit; at Le Mans one year, I remember a fine old man who had written up his services in six different languages; the English read "to drink" in lieu of tip, that being the literal translation of the French *pourboire*.

Dijon is run by a charming gentleman called Chambelland, whose sole property the circuit is. It is a matter of joking affection, the Dijon circuit. Annually, scores of thousands of irate Frenchmen write their favourite magazines or papers and say they are never going to go back to Dijon after this year's experience; by the scores of thousands they go back to say they have been again and it was even more appalling than the year before. The fact is, for the spectator, the circuit is a bloody scandal. Chambelland gets them in and then it's each man for himself. The equally charming police (this time some of them were imported Austrians armed with no language), are very effective making sure no one can get into any place they have not paid for, but when it comes to doing your job, then the police are no longer there.

The tale is told of bus-loads of ICI Vip's who had paid a fortune for their privileged seats but were stranded at the entrance to the circuit for want of being able to get in to collect their passes. Some of the more outrageous activities of M. Chambelland (such as: "La presse? Why should they get in? I don't give a damn about the press!") were sorted out by FISA's amiable new press man, Gilles Geignault, who practically had to wrest the passes from Chambelland's hands.

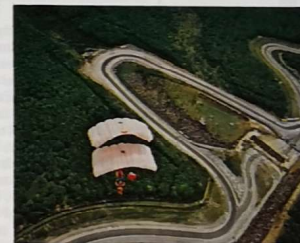
IT IS A MATTER OF JOKING AFFECTION, THE DIJON CIRCUIT.

In the house where we stayed, near the circuit, the owner of which was a staunch Socialist, we heard that improvements had been made to the camping arrangements at Dijon. Apparently the first water pipe had been installed. Just one, mind you, for some twenty thousand paying customers, but even one is progress. Our host then added that M. Chambelland had actually asked the local commune of Prenois to pay him a subsidy of three thousand francs to help with the costs of this improvement. That seemed a bit daft, but apparently there was more to come. Under the original plans for the siting of the circuit in that picturesque plateau outside Dijon, Chambelland had apparently promised that, in perpetuity, every inhabitant of the 200 or so souls in Prenois would have free admission. This year, he had sought to abrogate that agreement. The local far-

mers apparently threatened a blockade of the incoming roads (roads?) with tractors. They got in.

THE SPORT IS NOT AS RELAXED AS IT LOOKS.

While we sat in the rain on that dreadful Friday, it was time for tales to be told in the paddock. As most of us were desperately trying to keep warm and dry, it was obvious that stories were going to emerge. After all, paddock people can't pose particularly well in the wet. One such concerned two of the most gracious peripherals in the sport ("peripherals" are those whose actual connexion with the sport itself is not known to all, but whose power at the heart of matters is awesome, even when unidentifiable): Sheridan Thynne of Williams and Patrick McNally, once the Marlboro man and now the developer of advertising and other ancillary rights at the FOCA-owned or controlled circuits (of the very splendid marquee, too, which graced the paddock fringe at Dijon). It seems that in their salad days, Patrick and Sheridan had gone racing, once on a similar filthy day at the Nürburgring. Patrick was doing the driving with that kind of *desinvolture* (that is, nonchalance) which characterized the early days of racing. I gather the fog and the rain were something awful and that Patrick was going very fast. Coming into the *Hünsenruck*, which is a very nasty area of the Ring at the best of times, Sheridan yelled: "Look out Patrick! You're not going to make it!" To which Patrick is reported to have answered something like, "Sorry old



Kath Bolford

boy, there's nothing I can do to slow down!" The reason being that McNally was wearing a pair of moccasins (note the cavalier touch) and the throttle had somehow penetrated the very wet sole of his shoe and got affixed, so that he couldn't let up. Luckily, both survived to tell the tale.

PADDOCK PEOPLE CAN'T POSE PARTICULARLY WELL IN THE WET.

To move from Dijon to Greece, where the Acropolis Rally was wending its picturesque way through the bare mountains and dirt tracks of the Peloponnese, was like shifting cultural gears in a hurry. Our Rallyman, Cyril Frey, assures me that the sport is not as relaxed as it looks. I wouldn't know. I went years ago to an RAC Rally and have a memory of wet forests, as much mud as on the Somme and a bunch of Finns who were trying to kill themselves in various spectacular ways. But I must say that, gathered about a taberna table quaffing Boutari (the least sweet I could find of Greek wines) and demolishing lobster, squid and giant prawns, they bore very little resemblance to the heroes of Formula One. One of them, for instance, the only Arab I believe on the international circuit (he was lying seventeenth when I arrived, but the scoring is so serene and slow in coming through - unlike our quick monitors in F1 - that when he had vanished from the board the next day I never found him again), a Mr. Al Hajri, had apparently hired two whole floors of the best hotel in Athens for his

retinue. Mr. Rosberg, you still have a ways to go! Compared to Mr. Al Hajri, the Finns were a relaxed and laid back lot, cultivating their own Finnish gardens and not much else, except suitable tans. There were kids and wives about and not one of them looked like those dour types we saw walking about in Gorky Park looking distinctly murderous. My own memories of Finland are few. I think of it as the place where, in an hotel, you do everything for yourself (because service is demeaning) and where a lady friend of mine, not getting the language right, entered a building which began with *krema* something-or-other and wound up in a very efficient crematorium which all but swallowed her up. It extinguished at least her enthusiasm for an ice cream. Of course Rallying has its cock-ups too.

A LITTLE ROMANCE GOES A LONG WAY IN MONACO.

It appears for instance that even the best cars can go to rack and ruin for want of the simplest forethought. Thus Jacky Ickx and the self-same Al Hajri, once took part in the Rally of the Pharaohs in real style: new super cars, spare engines, 300,000 mechanics and all - and then burned the lot out promptly because they filled their tanks with Egyptian petrol, which apparently has an octane rate of seventy and going down fast. And to prove that knowledge of our sport is not all that widespread, (GPI will shortly be doing missionary work in that region with its all-new Arabic edition) I was shown a front page photograph of Prost's car flashing

by the finish line at Kyalami (see the enthusiasm?). The man with the chequered flag was leaping in the air, with Prost's car in the background, and there underneath was the caption: **PROST LEAPS FOR JOY AS HE WINS GRAND PRIX!** Well, we all know what happened to Vittorio Brambilla when he celebrated his finish in Austria some years back with both hands off the wheel. Alain, don't jump! Arrived in Monaco, *not* our favourite venue, we promptly fell across a postscript to Dijon: to which, so the story goes, Mr. Bernard Ecclestone came without the appropriate "unmentionables" as they were known to my mother's generation. A Lear Jet was despatched, we hear, to recover from London the priciest Y-fronts in F1. One man who was as unhappy as myself in Monaco, (Madame B. is working in Paris, the skies are grey and the pickpockets out) was Elio de Angelis. His beloved Roma had just lost to Liverpool in the European Cup Final. Greeted by a friend in his motor home the morning after, he said *porca miseria*, that first goal, it was interference. Rubbish said his friend, a Liverpool man. Anyway, cheer up, you can do all right here. *Porca miseria*, repeated Elio, still looking glum. No, I'll go get your dad and he'll make you feel better. *Porca miseria*, repeated Elio a third time (like you-know-who: just don't mention Liverpool to him!) I just like to reflect, now and again, on what a broad scale is our sport conceived, what splendid players stroll our boards, etc. etc. A little romance goes a long way in Monaco. For instance, tonight is a naked Russian night at Loews. That's romance, baby.

Despite his public doubts about the number of laps attributed to 2nd place Indy finisher Roberto Guerrero by the (confused) timekeepers, team owner Roger Penske stated when at last the official race results were posted on the morning after the '500', that he did not intend to protest. Penske, who was involved in a serious dispute over the results of the '500' in 1981, said "I do not want to spoil the image of Indy-car racing." If Guerrero had been docked one lap, Penske's cars would have filled the first two places this year.

American journalist Pat Bedard, whose March was involved in this year's most spectacular accident at Indianapolis, is expected to be able to take his place in the Group 44 team of Jaguar IMSA cars at Le Mans later this month. The team has completed a successful Endurance test at Pocono, which ended after more than 23 hours, only when a gearbox failed.

The F1 Minardi should be making its debut at the next Italian Grand Prix. The Italian constructors, who to date have been in F2, will be using Pirelli tyres and an Alfa Romeo turbo engine. Their driver will be Alessandro Nannini, who already drives the Minardi F2.

The future AGS F1, which should have been ready for the Monaco Grand Prix, will not be present. The car is ready, but Henri Julien, owner of AGS, did not wish to show the model without its engine. The French constructor has been talking with Gérard Larousse, who did not say no, but that he preferred to wait until he knew whether or not Lotus will still be using the Renault turbos next year.

A surprise was in store for Andrea de Cesaris on Thursday afternoon during the traditional after-practice meal served by each team. Stéphane Collera produced an enormous birthday cake with 25 candles in the Ligier tent. It was in fact the little Roman's twenty-fifth birthday.

Seen in the paddocks, Nelson Piquet, totally unworried by the fact he hasn't finished a race yet this season. Said his team of the World Champion: "It just shows what a professional he's become." And who can't remember the tantrums?

MONACO THREATENED?

The controversy continues between FISA and AC Monaco who still refuse to concede a 7.5% share of the television rights to FISA, according to the Concorde agreement. FISA continues to claim the amount due to them for the 1983 edition, and AC Monaco does not intend to change its strategy for 1984, based on its personal agreement with Bernie Ecclestone on broadcasting rights. Now, apparently, Jean-Marie Balestre has firmly decided to quite simply exclude Monaco from the World Championship as from next year. A measure that could be voted for by FISA, but which would no doubt create quite a stir with the constructors, who are aware of the impact of this race on the sponsors. A case to be followed as neither party seems prepared to make any concessions.



THANKS, WILLI

Last Thursday there was some doubt about whether Manfred Winkelhock would be able to participate in the Monaco GP after seriously spraining his left shoulder muscles in the accident which put him off the road at the Casino right-hander. The paddock was already abuzz with the names Johansson, Martini or Gartner to replace Manfred at the wheel of the ATS. But on Saturday the blonde German driver, recovered, was able to qualify in fine form.

To explain his miraculous recovery, he had only one thing to say: Willi Döngl. "At the hospital, the doctors were talking about three weeks without moving the shoulder. I went to see Willi. He massaged me for a long time, Thursday night and Friday, and today I don't feel a thing." Willi Döngl, the man who jealously watches over the well-being of Niki Lauda, has a new convert.

BALLS OUT

One of the unexpectedly intriguing technical problems posed by the new-for-'84 fuel restriction has been to ensure that fuel tanks hold no more than the exact permitted maximum of 220 litres. The modern bag-type fuel tank, made from flexible rubber, inevitably sags, folds and expands depending on temperature and many other considerations. One solution adopted by several British teams was to make tanks slightly larger than the permitted limit, and then to reduce their capacity by placing hollow plastic balls in the tank until the capacity was exactly 220 litres. To the great amusement of McLaren International, some journalists suspected that the balls might even have contributed to the early Prost/Lauda successes of the year. McLaren no longer employs its balls, which has increased speculation rather than eliminating it, so we discussed the matter with Steve Nichols, Niki Lauda's race engineer.

FABI'S MISFIRE

It continues to puzzle the people at Brabham that any car driven by a Fabi has a misfiring problem. At team-manager Herbie Blash says, "Clearly BMW does not build engines specially so that the Fabi engines misfire." The fact is, however, that the problem struck again at Monaco, where Corrado, Teo's younger brother, had his go in the Brabham BMW. In this instance, it was a waste-gate problem. Said Blash: "What is tantalizing is that it is always another problem, never the same twice."



When Nelson had finished qualifying the car at Monaco, Corrado was ready to have another go. You guessed it. Another misfire.

FISA MEETING

It seems less and less likely, following the concessions made by Ken Tyrrell (see Paddock's, GPI 81) that the lower 189-litre fuel limit envisaged for 1985 will now be imposed. FISA President Balestre has announced an extraordinary FISA committee which will take place in Paris on July 18 to discuss the matter.

At the same meeting, FISA will consider how best to deal with such additional F1 problems as the use of special qualifying engines; the ballasting of cars during races, as currently practiced by Tyrrell; and a more precise definition of the word "fuel", coupled with a possible ban on the refrigeration adopted by the major teams at races that are held under hot conditions.



SAYONARA FUENGIROLA, HELLO ESTORIL

Although FISA has yet to receive anything from the national federation of Spain, it has now been definitely established that the Grand Prix of Spain, which was to have closed this year's championship, will not take place. The news came from the municipality of Fuengirola, which made it official by declaring that there was no way in which they could handle the building of a circuit in the middle of their busy summer season, priority having to go to tourism. Real reason of flimsy excuse? Nonetheless, the last Grand Prix of the season will take place as planned, but in Portugal. The government is completing the construction of a circuit south of Lisbon, at Estoril. So, make a note in your diaries, and rendez-vous for a Portuguese finale to the F1 season.

DUMFRIES TESTS A WILLIAMS

It was only to make sure that the gearbox and the rest of the old Cosworth-powered FW88 was in working order, but for Johnny Dumfries, the all conquering hero of the British F3 Championship, it was an opportunity to show his stuff. So at Snetterton, round he went for nine laps; the VIP's for whom he was testing the cars were very important people indeed. The points to make are two: first that Dumfries was, in Frank Williams' words, "very quick indeed"; the second is that Johnny Dumfries is in his own right the Earl of Dumfries. Frank, a staunch patriot and royalist, has long merited—if only for his services to export — his knighthood. His connections with the Prime Minister and her family are known. So why the delay? As for Dumfries, word is that he has sponsorship all lined up for the leap to F1 when he feels he is ready.

FISHING OUT RENE

There was a moment of surprise on the circuit Thursday afternoon when we saw Arnoux's Ferrari go by, apparently undamaged, after a loudspeaker had just announced that the French driver had gone off the track at Sainte Devote. Usually going off at Monaco leaves some traces. Checking into it, it turned out that René had gone off the track trying to avoid another car which was coming into the pits. The no.27 Ferrari ended up perched on a pile of tyres, dangling at an impressive angle but without having suffered any real damage. The crane came to the rescue, delicately lifting the car out of its uncomfortable and slightly ungraceful position. René, who had stayed at the wheel throughout without stalling, carried on with practice.

THE HIGH COST OF ART

The great man in American sports illustration is LeRoy Neiman, whose poster 'graced' the Las Vegas Grand Prix (the last one there was). It was a characteristic Neiman quickie job: splodges of colour and streaks of movement. We were thus astonished to hear that Neiman got a cool \$175,000 for that poster and that he is getting as much or more out of the otherwise sensible organizers of the Dallas Grand Prix. It appears that when it comes to art Americans say, "Who is that guy? You know, the guy who does all those pictures in Sports Illustrated..." and Neiman's name just pops up.

What is galling about this is that Dallas is one of America's great art centres and contains a dozen illustrators who could have done the job better for a fraction of the price. Incidentally, word is that ticket sales in Detroit are very slow. Some 3 percent have gone so far. Shades of Vegas One.

PEAKS AND PEAKS

Between Greece and Monaco there is a vast distance, culturally, spiritually, sportingly. One is ancient, timeless, poor, bare; the other garish, new and devoted to speculation more material than spiritual.

What links the two in this issue is motor sport, but again the contrast could not be more striking. Between Rallying and Formula One racing there is not so much a gulf as a completely different angle of vision. The way one sees the world — as between learning the patterns of a forest alongside the road or the high technology of a fixed circuit — affects the man driving in different ways.

In a way, one can call Rallying the more complete skill and F1 racing the more specific and intense. The latter is bred and trained to an ultimate test of skill and courage; the former must cope with the greatest possible variety of terrain, of surface, of weather. F1 is an enclosed world; Rallying operates in the world that belongs to all of us. F1 has its tidiness: its regular length, its repetitive circuits. Rallying has the variety of life itself: day-time, night-time, a measure in days rather than 100 minutes.

Even the mechanical sensibilities are different. F1 looks to the future and to the tweak; Rallying must conserve driver and car, it must spare both just to the last. F1 is an all-or-nothing sport, Rallying a series of gradations. F1 glorifies the individual alone in the cockpit; Rallying is a shared event. The psychological pressures in both are great, but different in specificity, in density, in gravity.

It's good to have both worlds between our covers, but on a wet Sunday in Monaco commerce as much as sport raised its ever-useful head, leaving us all in doubt: did that flag have to drop when it did? Or did it seem opportune with Prost in front (only just)? And what role did Porsche, Marlboro, and other 'interests' play in the decision? From the peaks, alas! we sometimes have to look down into some pretty shallow valleys.





Teo Fabi: no CART in 1985?

FABI PUTS THE RECORD STRAIGHT

Teo Fabi has denied American press reports stating that he will be giving up racing at the end of the year in order to settle down to a more serious kind of occupation, helping his father in the family talc business. "I don't speak very good English," explained the small Italian. "I've probably been misunderstood. I meant that I wanted to give up CART racing in order to devote myself to FI, that's all. But, it is true that I don't intend spending a great deal of time in the sport. About three seasons I think. Then I'll work with my father. It's a natural progression, because you can't race cars the whole of your life. Anyway, that's how I feel, and I believe that my younger brother, Corrado, will continue racing when I've stopped."

BRUNO OUT IN THE COLD

Strange things happen in CART, as Bruno Giacomelli can tell you. A victim of the Theodore team's sudden retirement from racing, Bruno had just got home to Brescia when we contacted him. He hardly knew which way was up when discussing the state of his career: "No sponsors, not a single race coming up on my calendar, I am in a difficult situation. I haven't had time yet to contact people in Europe, but I absolutely want to race". The way in which he learned of the end, and we all hope it is only a temporary halt, of the Theodore team merits telling: "My engine broke during the fourth series of rookie tests (special qualifying sessions which are obligatory for all newcomers to Indy). I brought the car back into the pits so that the mechanics could change the block. When I came back the next morning, everyone had gone. I finally dug up a head mechanic who told me that Unser had decided to retire the Theodore from the race. His judgment was that the car was inade-



Ligier-Curb: uncertain future.

LIGIER-CURB

First it was Theodore, and now it's Ligier. Teams from F1 are having quite a hard time fitting into CART. At Vichy, no one can say as yet just what the future for the Ligier-Curb team will be, since Cogan refused to continue driving the French car after he had completed 5 test laps. He declared that he preferred the Eagle. Following Cogan's qualifying on the back lines of the starting grid at Long Beach and Chandler's failing to qualify at Phoenix, without mentioning Cogan's decision to forfeit his place at Indianapolis which was made in full agreement with Mike Curb, the promoter of the idea, it does rather seem that the bell has tolled for Ligier's hopes in CART. "At present," explained Jean-Pierre Paoli, Guy's right hand, "we are facing two problems, firstly finding the budget to finance technological developments which have to be made on the car, and secondly, we also have to find a driver willing to ensure these developments." Jean-Claude Guenard, the technical manager, has gone back to live in France again it seems, and Danny Hindenoch, the sporting director, will be going back to the States if the situation between Curb and Ligier clears up. "We have signed a two year contract with Curb," continues Paoli, "and in our way of thinking, the first season was meant to be a kind of trial run to find out just what this new discipline for us actually is. Curb was probably expecting too much of us too soon. If we manage to agree on a policy whereby we can include technological development, we will be able to continue with this project. But only on that condition."

LE MANS

Not a day goes by without some modification being made to the list of entries for the Le Mans 24 Hours. Changes continue to be made, up until the last minute: the weighing of the cars, the traditional meeting moment between drivers whose pockets are bulging with cash and teams whose budgets are under strain. Here then are the latest changes we have received from the ACO: in the number 6 Lancia LC2, Andruet is replaced by Gabbiani. The Jaguars have confirmed their entries, and John Watson will be behind the wheel of one of the Group 44 cars; no news, on the other hand, from Carlos Reutemann, who (rumours

Le Mans.



had it) was going to return to motor racing at Le Mans driving a Porsche 956-Brun. The number 37 Rondeau 482, powered by a 3.3 litre Ford DFL engine and not a Chevrolet engine as had been initially announced, will be driven by Jim Mullen, who triumphed at Sebring in 1983. He will be joined by another American driver and Alain Ferté, who had been Jean Rondeau's co-driver at Le Mans last year. René Metge, winner of the last Paris-Dakar, joins up with Lloyd-Mason in the number 16 956. The two WMs will be driven by Dorchy, Couderc and Sourd for one, and Rautet, Pignard and Mamers for the other. The Ecosse team of Wilds and Duffield is to be completed by Robertson. There are three forfeits which have been declared: the number 90 Tiga-Ford entered by Spice Tiga Racing and meant to be driven by Bellini; the Chevrolet Challenger of François Migault, which was entered in the C1 class, and the Sauber C7-BMW. Those three will be replaced in qualifying by Bartlett-Kempton's Lola-Ford C1, Descartes-Hubert-Lemerle's ALD-BMW C2, and Pallavicini's Group B Porsche 930.

SPECIAL ISSUE

A special issue, our first one of the year, will be hitting the news-stands on Thursday, the 21st of June. We're going to be hitting you in the wallets a bit: the cover price will be a little higher, but for that you'll get 136 pages, that is to say 40 pages more than what we publish in our regular issues. It struck us that the events were worth it: Le Mans and Montreal both taking place the weekend before we went to press. Rather than give top billing to one or the other, we decided now was the time for a special issue. We think you'll find it was the best of all possible solutions.

ARGENTINA DESERTED

As we go to press, it doesn't seem likely that the Rally of Argentina (July 25th - August 1) will bring together an impressive list of entries. Only the Audis seem certain of participating (with Blomqvist and maybe Mikkola, but neither Röhrl nor Mouton), and even more so if Lancia refuses to be bothered — the 83 edition of the South American test is still fresh in their minds. The Nissans have also kept an unhappy memory of last year's edition, where their two wheel drive cars had found themselves tackling snowy terrain with an absolute bare minimum of winter tyres on hand. There are going to be points up for the grabbing over towards Cordoba at the end of July.



Jean-Pierre Nicolas.

PEUGEOT: HORIZON 85

Jean Todt made some waves at the press conference held before the Acropolis Rally, when he announced that Jean-Pierre Nicolas, who is currently his team's second driver, would be taking over the "Promotions" department of Peugeot-Talbot Sport in 1985. Although he had apparently rediscovered the pleasures of driving, which his times in the Corsican Rally bore witness to, Nicolas will be giving up his rallyman's driving suit to put on a director's business suit, which should prove to be a happy transition for him. He will be replacing Olivier Quésnel, who left his job several weeks ago. The surprise came from the suddenness of this announcement of an internal "transfer" at Peugeot, especially in light of the fact that the race season was only just starting for Jean-Pierre. His absence will leave a

TOTOCALCIO SHAREOUT

All drivers with scanty budgets, from all parts of the world, get your handkerchiefs out — the Italian Federation has just handed out the manna it receives every year, (as all sporting federations on that side of the Alps do), from the "Totocalcio", the national football pools organization. The money is shared out by the CSAI to promising young drivers according to their past results and their racing calendars. Nannini was thus attributed 80 million Liras, (approximately £40,000), to finance his Endurance programme and F2 races. Pirro, an F2 driver, found himself richer by 60 million Liras, Capelli, in F3 obtained 50 million Liras, and the Barilla-Francia tandem were given 15 million Liras. This list is by no means exhaustive, as other F2, F3 and Production drivers were also included in the great Totocalcio share out. The Junior Rally Team, for example, received 200 million Liras. Is it really any wonder that so many young Italians are so keen to take up international auto racing? It should be mentioned that the generous budget given to Pirro has undoubtedly a little to do with his father's position at the Federation.

ANTIPODES FOR AUDI

No surprises at Audi — they will in fact be at the start of the upcoming New Zealand Rally (June 22 - 26). The remaining questions concerned the make-up of the German team for this seventh test in the World Rally Championship. Answer: the "little" Sport Quattro A2s will be entered by Walter Röhrl and Stig Blomqvist. As for Michele Mouton and Hannu Mikkola, it was well known that they had been looking to lighten up their obligations during this season, and their wishes have apparently been satisfied. Röhrl and Blomqvist will be facing off against Waldegaard and Kankkunen in Toyota Celicias, who will be trying to repeat the double they did in New Zealand in 1982 (without turbos, at the time), as well as their recent victory in the Safari. Nissan will also be engaged in the fray, with perhaps more modest ambitions, and as for Lancia, it was all to depend on how things went for them in the Acropolis...



What happens when your FM station fades here?



In all likelihood, you'd attempt to retune. If you did it manually, the results would make ugly reading. At best, you'd miss your junction, and would be forced to circumnavigate the interchange forever. At worst, the juggernaut in your rear-view mirror, overfilled with noxious chemical waste, could career off your rear bumper and cause an ecological disaster covering three counties. Of course, if you had the new Audioline 416, you'd flick an electronic gizmo, and the radio would do the rest. It would busy itself finding the closest powerful signal, enabling you to find the correct turnoff, and stay alive. (Audioline, who make nothing but car entertainment equipment, prefer motorists to stay alive, because live drivers make the best customers.) Our 416 has a brain which stores 18 stations across three wavebands. They can be summoned at the push of a button. The station



frequency will be displayed on the digital screen (which otherwise serves as a fiendishly accurate digital clock) as will the waveband, and the mode (stereo or mono).

Scanning (finding the next strong signal) can be done by remote control but this is an optional extra.

At laughably low cost.

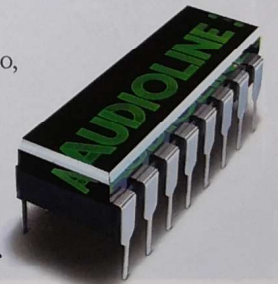
Now, a few words about the tape player.

Because we're keen to keep you alive, you'll find that the tape reverses automatically and plays the other side without human interference. Which means you keep your hands on the wheel and your eyes on the road and your ears on the music.

A sensible state of affairs.

How much does this amazing, powerful, stereo, non-distorting, electronic marvel cost?

From around £129, give or take a couple of pence. Which, when you consider we're offering you your life and your limbs, is quite a bargain.



Perhaps we should charge more.

MEARS OUTRUNS 'EM ALL



Success again for Rick Mears, after his victory in 1979, at the wheel of the Penske team March-Cosworth. (Photo Stéphane Foulon / DPPPI)

HE STILL WEARS THE SCARS OF PREVIOUS ATTEMPTS TO WIN MOTOR RACING'S RICHEST PRIZE: THE INDY 500. HE TOOK IT IN 1979, BUT SINCE THEN VICTORY HAS ALWAYS ELUDED HIM. NOW, 5 YEARS LATER, THE MEARS - PENSKE MAGIC WORKED AGAIN TO SCOOP THE 400,000 DOLLAR JACKPOT, OUTRUNNING AND OUTLASTING SOME TOUGH COMPETITION TO WIN THE FASTEST EVER INDY 500. AS LAST YEAR'S WINNER TOM SNEVA PULLED OUT OF THE RACE WITH 32 LAPS TO RUN, MEARS CRUISED HOME TO A 2 LAP LEAD OVER ROBERTO GUERRERO, WHO TOOK A FINE SECOND PLACE AND THE COVETED "ROOKIE OF THE YEAR AWARD". IT WAS HIS FIRST TIME OUT AT THE INFAMOUS BRICKYARD, WHICH HE DEFIED AND WON.

by Jeff Hutchinson

When you leave Indianapolis Airport on highway 465 there is a big sign which says, "Welcome to Indianapolis-the Crossroads of America." It is signed by the mayor. For 11 months of the year, that's just what Indianapolis is to most people—a crossroads. People arriving usually turn towards one of the four points of the compass and drive straight on out again. They are always heading somewhere else. The disinterest in the surrounding rolling farmlands of the state of Indiana by the rest of America has recently prompted state officials to spend 40,000 dollars in surrounding states in a bid to attract more tourists. But there is one month a year when they have no need to spend their money.

The month of May is the month of the Indy 500, the biggest single sporting event in the world and the richest of all motor races. It's Thursday night. "You want a room for the night? Yes sir, no problem. That'll be 25 dollars, tonight, but if you want a room for the 3-day race weekend, it will be 100 dollars per night." The story is the same from all the surrounding cheap motels. You don't even bother to ask at the better hotels. They have all been booked for months in advance by sponsors and teams and cost four times the price. The Speedway itself is ugly. A drab grey amphitheatre of concrete and steel. Once owned by the famous WW 1 flying ace,

The pace car has just moved away, and Rick Mears is already leading the field. An intense struggle lies ahead. (Photo Stéphane Foulon / DPPPI)



Eddie Rickenbacker, who operated the "brickyard", as it is known, from 1928 to 1941. It stood idle for four years and almost died before local businessman Tony Hulman purchased the dilapidated remains of the weed filled brick oval and tumbling wooden stands for 750,000 dollars. Now, 39 years later with a new track surface and stands, a fine museum packed with the old racers and mementos of the Speedway's 68 races, an 18 hole golf course and its own hotel, the ticket sales alone for this year's race must have been close to 10 million dollars.

The Speedway is now the life blood of Indianapolis and a giant business, not only for the descendants of the late Tony Hulman, but for just about everyone else in town in some way or another. You don't hear any complaints from the locals about the annual invasion of their town, while even the local police make 25 dollars a car, from those rich enough to afford a police escort past the waiting lines of traffic, straight to the Speedway entrance on Sunday morning.

"ANY TIME YOU SPIN HERE AND STAY OFF THE WALL IT'S PURE LUCK."

Outside the track, along Hulman Way and Speedway Road, American free enterprise thrives. A shanty town of motor homes and makeshift stalls will sell you anything from a brass bed to "snakepit" survival gear for the area inside Turn One, known as the snakepit, where the most beer gets drunk and the partying never stops.

In the exclusive private suites perched high atop the main stands - or behind the pits themselves if you have been coming to Indianapolis long enough - the champagne flows instead of beer and the steaks are eaten with silver knives and forks instead of the fingers. But the privileged and public alike, all share the same flood of patriotism as they rise to the sound of the "Star Spangled Banner" and "Back home in Indiana" as a million balloons are set free, minutes before the start, to drift off lazily into the distance.

Then comes the sound of Mary Hulman's voice, "Gentlemen, start your engines," and the 33 car field bursts into a muffled turbo roar that is drowned in the opening seconds by the even louder roar of 400,000 cheering faces that form an incredible patchwork of human colour, as far as the eye can see.

There is a moment of anguish as poleman Sneva's car refuses to start. Eventually it fires up and he threads his way back through the field to take his rightful spot at the head of the field and complete the second pace lap before the green flag waves them into the race.

In 11 tight rows of three cars each, they burble around the track to the start line at a slow 100 mph in second gear. The tension is electrifying, the glory of Rome reborn, only these chariots hit 210 mph and are powered by 600 horses apiece. The helmets are all brightly coloured and the only

plumes in sight are the dark plumes of unburned fuel as the green flag comes out and the drivers floor their throttle, temporarily flooding their engines, until the revs begin to rise.

Mears makes a dive for the first turn from the outside of the track, just a few feet ahead of Sneva's Texaco March. That's all he needs. By the unwritten codes of Indy car racing, he has no second thoughts about diving across Sneva's nose and down into the "groove" where they will run for the next 200 laps.

Mears sets a hard pace from the start. "I wanted to take advantage of running the clean air out front, for behind another car there is a lot of turbulence and that is hard on the tyres," explained Mears who peels off several laps at over 200 mph averaging 199 mph for the first 10 laps of the race. Behind Sneva, Michael Andretti, Mario Andretti, the two Unserers and the rest of the pack struggle to keep the leader's pace. For poor Geoff Brabham the race is soon run. Just one lap after the start he pulls into the pits with a small fire blazing under his car's engine cover, after a fuel line came adrift. He walks off in disgust. A whole month at the Speedway for just one lap.

Gordon Johncock's race starts badly. An ignition problem sends him to the pits and his radio isn't working to tell them about it. Derek Daly is struggling with the handling of his car that's even worse than it had been in practice, now that it's on full tanks. Before too long he decides to give up the struggle before an accident makes the decision for him.

On lap 25 Mears heads for the pits, handing the lead briefly to Sneva before he also stops for his routine stop. After the stops, it's Mario Andretti who leads the field for the next 20 laps, but things are not going well for Andretti Sr. "After 30 laps I heard the sound of the engine change and the engine started to lose revs. I thought it was a broken exhaust pipe, but when we looked at the car after the race it was OK and it must have been an ignition problem," explained Mario, who despite his troubles was managing to stay out front and in the race for a good finishing position.

Emerson Fittipaldi is another early retirement. Coming out of Turn Two, an oil line comes off his engine and sprays oil all over the rear right tyre. It's a big moment for the F1 champion who uses all of his skill to stop the car spinning. By the time he gets the car straight again, he is already at Turn Three and the oil pressure warning light is telling him he is out of the race for good.

Lap 47 sees the first yellow light at the race when Spike Gehlhausen loses his car coming out of Turn One. Sheathed in rubber smoke he spins the entire length of the first short chute, staying on the track before coming to rest just short of the wall at Turn Two. Good driving to have kept the car off the wall? "Hell no, it was just luck. I had my eyes shut and was just praying I wasn't going to end up in the wall. Any time you spin here and stay off the wall it's just luck," says Gehlhausen whose car is towed off the track and out of the race.

As the green came back out it saw both Daly and his team mate Tony Bettenhausen drop out of the race, Bettenhausen with a burned piston, his sixth of the month.

Mears - yellow no.6
March - and Sneva -
white no.1 March -
were the grand masters
of these 500 Miles: 150
laps in the lead
between the two of
them.
(Photo Stéphane
Foulon / DPPI)



And the race went on. In a state of confusion, for the electronic scoring and timing broke down, and there was uncertainty as to just who was leading the race and filling the positions behind.

Danny Ongais, Teo Fabi and Unser Jr had each shared the lead briefly with Mears, Sneva and Andretti. Sneva getting a bigger share of the lead when Mears had trouble finding his pit crew and Sneva made a quicker stop to move ahead.

"THE SNAKE PIT, WHERE THE MOST BEER GETS DRUNK AND THE PARTYING NEVER STOPS."

Behind Mears, his opposition was fading fast. Only Sneva stayed in the hunt, as Al Unser Jr fell back with an overheating engine and then retired for good with a water leak that had caused his problems. Al Unser Sr was also falling behind the leaders with poor handling, which he had been fighting from the start of the race, while still running strong was Guerrero's March which moved into third place. Ongais had ignition problems and lost time in the pits, while a good run by Kevin Cogan in the Eagle came to nothing, when he stopped at the pits and his crew couldn't get the right rear wheel off. "The pegs holding the wheel on had been splayed out on the other side of the hub and despite kicking and hammering at the wheel by Gurney himself, the team eventually gave up the struggle and the car was pushed away."

50 laps to go and it was down to a two car race, only Sneva still on the same lap as Mears. There was another rush to the pits when Guerrero had his second lucky break of the day, when he spun trying to get by Bobby Rahal. "We were going past a slower car and my car suddenly lost all its downforce in the turbulence. I spun I don't know how many times, but managed to keep the engine going and drove back to the pits with a punctured front tyre." Because of the yellow, he didn't even lose a lap, while a bad set of tyres forced him back into the pits again, but again he did so without losing a lap.

Tension began to build for the expected race for the lead, but suddenly the race fell flat as the green came out and Sneva headed for the pits with a vibration from the back of his car. A CV joint had failed. The race was over. Mears turned down his boost pressure to 45 inches and took a safe Sunday drive to the finish and the second 500 win of his career.

It was Guerrero who finally took second place in what was a close fight for second, even though he didn't know it at the time. Behind him Al Unser, Al Holbert and Mike Andretti were all on the same lap. There was confusion after the race, over who had actually finished in second spot, but when the results were confirmed the following morning there were no protests against Guerrero's position and he kept his second place. He deserved it. □

MEARS' MOMENTS OF DOUBT

ALTHOUGH RICK MEARS LED FOR A TOTAL OF 119 LAPS OUT OF THE 200 LAPS RACE, WON BY A CLEAR 2 LAPS AND BROKE MARK DONOHUE'S 1972 RACE

record, it wasn't all plain sailing for the 33-year old Californian.

"As far as the car was concerned I had no problems at all, the only thing that went wrong with it, in the whole race, was that the left mirror came loose. I tried to pull it off, but it seemed to still be held on o.k. and at my next pit stop the chief mechanic tore it loose."

There was a period in the early stages of the race when Mears didn't look as fast as he had been in the opening laps. "We made a little change to the car's set up in the first pit stop and went too far. It was understeering a bit too much and to run fast here, you have to have a car that's a bit loose. The next stop we changed the wing settings and tyre stagger again and the car was perfect as before. I was running very quickly around the middle part of the race. My pit got several laps at the 206. 207mph mark, but I guess the timekeepers missed them because

fastest lap of the race was given to Johncock at 204.8mph. I was running hard to try and build up a cushion on Sneva in case we were slow at the next pit stop, but it was all o.k." Mears' pit crew did a great job and picked up an extra 20,000 dollars prize money when they won the Purlator Quick Stop Award completing their 8 scheduled pit stops in a total of 4m 57 secs, quicker than any other team in the pit lane. "Our only bad stop was my fault. Coming out of Turn 4 I popped the car into neutral and the engine died. I had to wait until the car had slowed down some more before attempting a re-start to save damaging the gearbox. I was so busy concentrating on that I went to two different pits before I found my own and that was the reason Sneva got by me for the only time in the race."

As with any Indy 500 it is rare that the winner doesn't have a few heart stopping moments. Mears had two. "The first time was coming out of the pits. I was coming out of the pit lane with a full head of steam on when Mike Andretti pulled out of his pit at the top end. I had to pull my elbows in to squeeze by, but I made it through O.K. It was close. The other time was a similar situation coming into the pits. I was behind Garza, who stayed out wide and when I had committed myself for the run into the pits he also turned in just before the yellow line, which he had the right to do. Mario, who was right behind me was not so lucky and they ran into each other which put Mario out of the race."

About his record race speed of 163.612 mph, despite running a total of 33 laps under the yellow flag, Mears, unlike some of his fellow drivers was not worried about his higher speeds in this year's race. "When I won in 1979, I was on the pole at 195 mph and it certainly felt no different running the race at over 200mph. As long as I have a 5mph advantage over the rest, I don't mind how quick the speeds are."

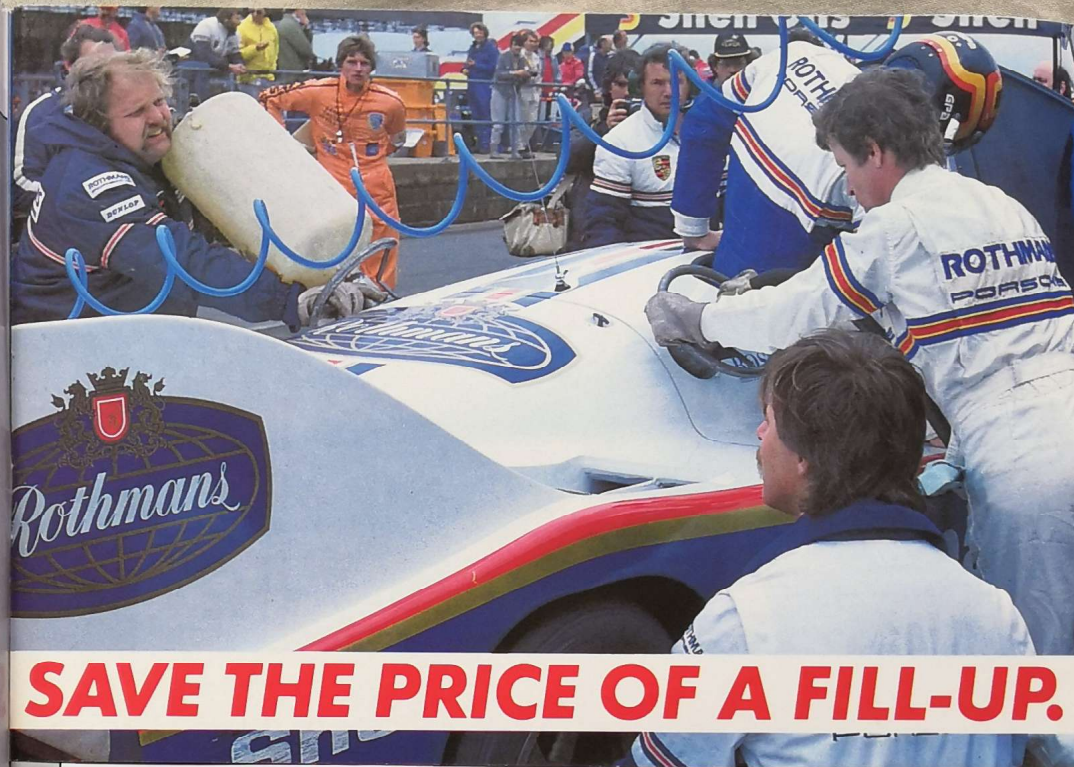
Would he like to do F1 in the future? "No, three years ago I had a contract with Brabham and all I had to do was give my o.k. on the deal. I was married at the time and I didn't want to move my family to Europe for six months of the year and leave California. Now my situation has changed, but I still like living in California and I think there is still a lot left for me to do here. I cannot see F1 in my immediate future-later perhaps."

For now, he is content to concentrate on winning the CART Championship again. Of his second Indy 500 win he says. "Much sweeter than the first. First time around was great, but I didn't realise then just how hard it is to get."

Did he think it would have been a close finish had Sneva not dropped out?

"With me in front it would have been a lot harder for him than it would for me. I was just getting ready for the shootout when Roger came straight on the radio and told me Tom was out. It certainly saved me a few grey hairs."

Jeff Hutchinson



SAVE THE PRICE OF A FILL-UP.

Rick Mears (photo S. Foulen/DPP)

GUERRERO'S LUCK COMES GOOD

ROBERTO GUERRERO'S FIRST VISIT TO THE BRICKYARD COULD HARDLY HAVE BEEN A BETTER ONE. HE TOOK A FINE SECOND PLACE AND IN DOING SO EARNED

the coveted "rookie of the year" award which was also awarded jointly to Michael Andretti, who qualified a fine fourth ahead of Guerrero in practice and finished fifth in the race. Both drivers deserved it.

"For me it was a very lucky race" admitted a modest Roberto after the race. "The first time when Danny Sullivan ran into me without damaging my car and the second time when I spun trying to get by Bobby Rahal. I had been stuck behind him for a lot of laps and when he went down onto the apron to pass a slower car I went in behind him. It must have been the turbulence from the two cars plus running out of the groove. The car suddenly lost all its grip and spun. I just held on and luckily it stayed off the



Roberto Guerrero (photo S. Foulen/DPP)

wall. When it was stopped it had a punctured front tyre, but as it rolled down the straight at the end of the spin I was able to get into second gear and get the engine going again, so I got back to the pits without losing very much time at all," explained Roberto.

"I didn't know where I was in the field after that, plus when I went out on my new tyres the car was handling so badly I had to come in for another set. I got to the pit and couldn't get in so I did another lap and stopped again. At the end of the race the car was handling really well, just as it had done for most of the race."

Guerrero put in a strong finish driving several laps around 203 mph in the closing stages.

"I was just driving as hard as I could passing every car that was in front of me. If I had known where I was I might have been able to slow down, but I didn't get any pit signals as even the pit didn't know. It was great to have found out afterwards that I was second."

Was he tired at the end of the race? "Not a bit, I didn't think it was as tiring as it is driving a Grand Prix. Now that we have proved we can be competitive on the oval tracks I am really looking forward to the road courses because I prefer those and I am sure that with more luck like we had today I can finish well up in the championship. George Bignotti has a lot of experience on the oval tracks and Morris Nunn

has the same kind of experience for the road races, so we should be in a good position."

Roberto, like everyone else visiting the Indy 500 for the first time, was overwhelmed by the huge crowd and all the parades and presentations that go on around the race.

"All the drivers have to sit in a stand for an hour while they introduce you to the crowd and then afterwards you have to go downtown for the Indy 500 parade with floats and marching bands with us waving out the top of a car at the thousands of people that come to watch it. You would never see anything like it in Europe and probably the drivers wouldn't do it if there was something like that. Here they all take it as part of the job and I think it's a good thing, because it gives the public much more interest, even though it's not much fun for us.

When I saw the crowd before the start, I honestly felt a bit nervous, but once the race starts you don't have time to think about those sort of things and you treat it like any other race."

Any other race it certainly isn't, especially now for Guerrero, who in three short hours and one second place has put his name around the world in more countries than he did in several seasons of Grand Prix racing. Now they even manage to pronounce his name right. He must have arrived in the world of Indy car racing.

J.H.

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E X T R A



Rick Maers (photo S. Faulen/DPP)

guess the timekeepers missed them because of the race

Jeff Hutchinson

GUERRERO'S LUCK COMES GOOD

ROBERTO GUERRERO'S FIRST VISIT TO THE BRICKYARD COULD HARDLY HAVE BEEN A BETTER ONE. HE TOOK A FINE SECOND PLACE AND IN DOING SO EARNED

the coveted "rookie of the year" award which was also awarded jointly to Michael Andretti, who qualified a fine fourth ahead of Guerrero in practice and finished fifth in the race. Both drivers deserved it. "For me it was a very lucky race" admitted a modest Roberto after the race. "The first time when Danny Sullivan ran into me without damaging my car and I went in behind him. I had been stuck behind him for a lot of laps and when he went down onto the apron to pass a slower car I went in behind him. It must have been the turbulence from the two cars plus running out of the groove. The car suddenly lost all its grip and spun. I just held on and luckily it stayed off the



Roberto Guerrero (photo S. Faulen/DPP)

wall. When it was stopped it had a punctured front tyre, but as it rolled down the straight at the end of the spin I was able to get into second gear and get the engine going again, so I got back to the pits without losing very much time at all," explained Roberto. "I didn't know where I was in the field after that, plus when I went out on my new tyres the car was handling so badly I had to come in for another set. I got to the pit and couldn't get in so I did another lap and stopped again. At the end of the race the car was handling really well, just as it had done for most of the race." Guerrero put in a strong finish driving several laps around 203 mph in the closing stages. "I was just driving as hard as I could passing every car that was in front of me. If I had known where I was I might have been able to slow down, but I didn't get any pit signals as even the pit didn't know. It was great to have found out afterwards that I was second." Was he tired at the end of the race? "Not a bit, I didn't think it was as tiring as it is driving a Grand Prix. Now that we have proved we can be competitive on the oval tracks I am really looking forward to the road courses because I prefer those and I am sure that with more luck like we had today I can finish well up in the championship. George Bignotti has a lot of experience on the oval tracks and Morris Nunn

has the same kind of experience for the road races, so we should be in a good position." Roberto, like everyone else visiting the Indy 500 for the first time, was overwhelmed by the huge crowd and all the parades and presentations that go on around the race. "All the drivers have to sit in a stand for an hour while they introduce you to the crowd and then afterwards you have to go downtown for the Indy 500 parade with floats and marching bands with us waving out the top of a car at the thousands of people that come to watch it. You would never see anything like it in Europe and probably the drivers wouldn't do it if there was something like that. Here they all take it as part of the job and I think it's a good thing, because it gives the public much more interest, even though it's not much fun for us. When I saw the crowd before the start, I honestly felt a bit nervous, but once the race starts you don't have time to think about those sort of things and you treat it like any other race." Any other race it certainly isn't, especially now for Guerrero, who in three short hours and one second place has put his name around the world in more countries than he did in several seasons of Grand Prix racing. Now they even manage to pronounce his name right. He must have arrived in the world of Indy car racing.

J.H.



21
22
23
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Dummy grid (Stéphane Foulon/DPPi)

ALL IS STILL CALM. IN A FEW SECONDS, THE TRADITIONAL CALL: "GENTLEMEN, START YOUR ENGINES"



Mario Andretti/Lola (Stéphane Foulon/DPPI)

HIS 17TH INDY FOR MARIO. A RECORD LAP IN QUALIFYING BUT STILL NO POLE POSITION



Turn One (Stéphane Foulon/DPPI)

BEST SEATS IN THE HOUSE... AND 400,000 FANS WHO STAY RIVETED TO THE SPECTACLE FOR THREE HOURS



Michael Andretti in G. Brabham's March (Stéphane Foulon/DPPI)

ANYTHING GOES TO LAY DOWN A FAST LAP. YOUR TEAMMATE'S CAR, FOR EXAMPLE...



Daly/no.61 March; Mario Andretti/no.3 Lola; Snea/no.1 March (Stéphane Foulon/DPPi)

NO EASY FEAT TO OVERTAKE AT OVER 200 MPH IN THE MIDST OF AERODYNAMIC TURBULENCE...

INDIANAPOLIS 500 MILES

Third race in Championship Auto Racing Team (CART) 1984.
Official designation: Indy 500
Date: May 27, 1984
Distance: 200 x 2.5 mile (4.023 km) laps for a 500 mile (804.672 km) race.
Weather: cloudy and cool.
Attendance: 400,000

CART CHAMPIONSHIP POINTS AFTER THREE RACES:

1. Tom Sneva, 37 pts; 2. Michael Andretti, 27 pts; 3. Mario Andretti, 22 pts; 4. Rick Mears, 21 pts; 5. Roberto Guerrero, Geoff Brabham and Howdy Holmes, 16 pts; 8. Al Unser Sr and Danny Ongais, 14 pts; 10. Al Holbert, Jim Crawford, Dick Simon and Bobby Rahal, 12 pts; 14. A.J. Foyt, 8 pts; 18. Derek Daly, 6 pts; 19. Kevin Cogan, Pete Halsmer, Gordon Johncock and Herm Johnson, 5 pts; 23. Chris Kneifel and John Marton, 4 pts; 25. Jasele Garza, 3 pts; 26. Chip Ganassi and George Snider, 2 pts; 28. Ed Pimm and Dennis Firestone, 1 pt.

RACE LEADERS:

Laps 1 to 24: Rick Mears.
 Laps 25: Tom Sneva.
 Laps 26 to 47: Mario Andretti.
 Laps 48 to 49: Tom Sneva.
 Laps 50 to 53: Mario Andretti.
 Laps 54 to 59: Rick Mears.
 Laps 60: Tom Sneva.
 Laps 61 to 63: Mario Andretti.
 Laps 64 to 70: Teo Fabi.
 Laps 71 to 73: Danny Ongais.
 Laps 74 to 80: Teo Fabi.
 Laps 81 and 82: Tom Sneva.
 Laps 83 to 86: Al Unser Jr.
 Laps 87 to 109: Tom Sneva.
 Laps 110 to 143: Tom Sneva.
 Laps 144 to 200: Rick Mears.

LAPS UNDER YELLOW FLAG

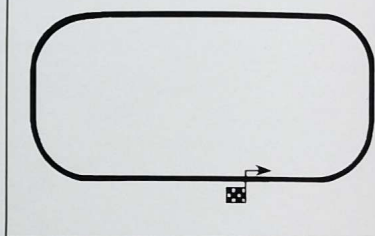
46th to 52nd (Gelhausen), 58th to 67th (Bedard), 107th to 114th (Johncock), 153rd to 157th (Guerrero), 163rd to 167th (Brayton). Total: 33 laps.

STARTING GRID

- | | | |
|---|--|---|
| 1. Tom Sneva (USA)
March 84C-Cosworth
210.029/338.008 (*) | 41. Howdy Holmes (USA)
March 84C-Cosworth
207.977/334.706 | 6. Rick Mears (USA)
March 84C-Cosworth
207.847/334.497 |
| 99. Michael Andretti (USA)
March 84C-Cosworth
207.805/334.429 | 20. Gordon Johncock (USA)
March 84C-Cosworth
207.545/334.011 | 3. Mario Andretti (USA)
Lola T800-Cosworth
207.467/333.885 |
| 9. Roberto Guerrero (COL)
March 84C-Cosworth
205.717/331.069 | 18. Geoff Brabham (AUS)
March 84C-Cosworth
204.934/329.804 | 28. Herm Johnson (USA)
March 84C-Cosworth
204.618/329.300 |
| 2. Al Unser Sr. (USA)
March 84C-Cosworth
204.441/329.015 | 25. Danny Ongais (USA)
March 84C-Cosworth
203.978/328.270 | 14. A.J. Foyt (USA)
March 84C-Cosworth
203.860/328.080 |
| 77. Tom Gloy (USA)
March 84C-Cosworth
203.758/327.916 | 33. Teo Fabi (I)
March 84C-Cosworth
203.600/327.662 | 7. Al Unser Jr. (USA)
March 84C-Cosworth
203.404/327.347 |
| 21. Al Holbert (USA)
March 84C-Cosworth
203.016/326.722 | 16. Tony Bettenhausen (USA)
March 84C-Cosworth
202.813/326.395 | 5. Bobby Rahal (USA)
March 84C-Cosworth
202.230/325.457 |
| 35. Pat Bedard (USA)
March 84C-Cosworth
201.915/324.950 | 22. Dick Simon (USA)
March 84C-Cosworth
201.834/324.820 | 10. Pancho Carter (USA)
March 84C-Cosworth
201.820/324.797 |
| 40. Chip Ganassi (USA)
March 84C-Cosworth
201.612/324.631 | 47. Emerson Fittipaldi (BRA)
March 84C-Cosworth
201.078/323.603 | 55. Jasele Garza (USA)
March 84C-Cosworth
200.615/322.858 |
| 57. Spike Gelhausen (USA)
March 83C-Cosworth
200.478/322.638 | 37. Scott Brayton (USA)
March 84C-Cosworth
203.627/327.722 | 98. Kevin Cogan (USA)
Eagle 84-Pontiac
203.622/327.697 |
| 30. Danny Sullivan (USA)
March 83C-Cosworth
203.567/327.609 | 61. Derek Daly (IRL)
March 84C-Cosworth
202.443/325.800 | 84. Johnny Rutherford (USA)
March 84C-Chevrolet
202.062/325.187 |
| 4. George Snider (USA)
March 84C-Cosworth
201.860/324.862 | 50. Dennis Firestone (USA)
March 82/83C-Cosworth
201.217/323.827 | 73. Chris Kneifel (USA)
Primus PR84-Cosworth
199.831/321.596 |

Jacques Villeneuve (March 84C-Cosworth) qualified at 200.013 mph (321.889 kph) which placed him in 26th position, but he was not allowed to take part in the race following a medical check-up after his accident during practice. This involuntary retirement enabled Chris Kneifel to join the other 32 entrants.
 (*): The speeds shown are in mph and in kph, respectively: 210.029 and 338.008.

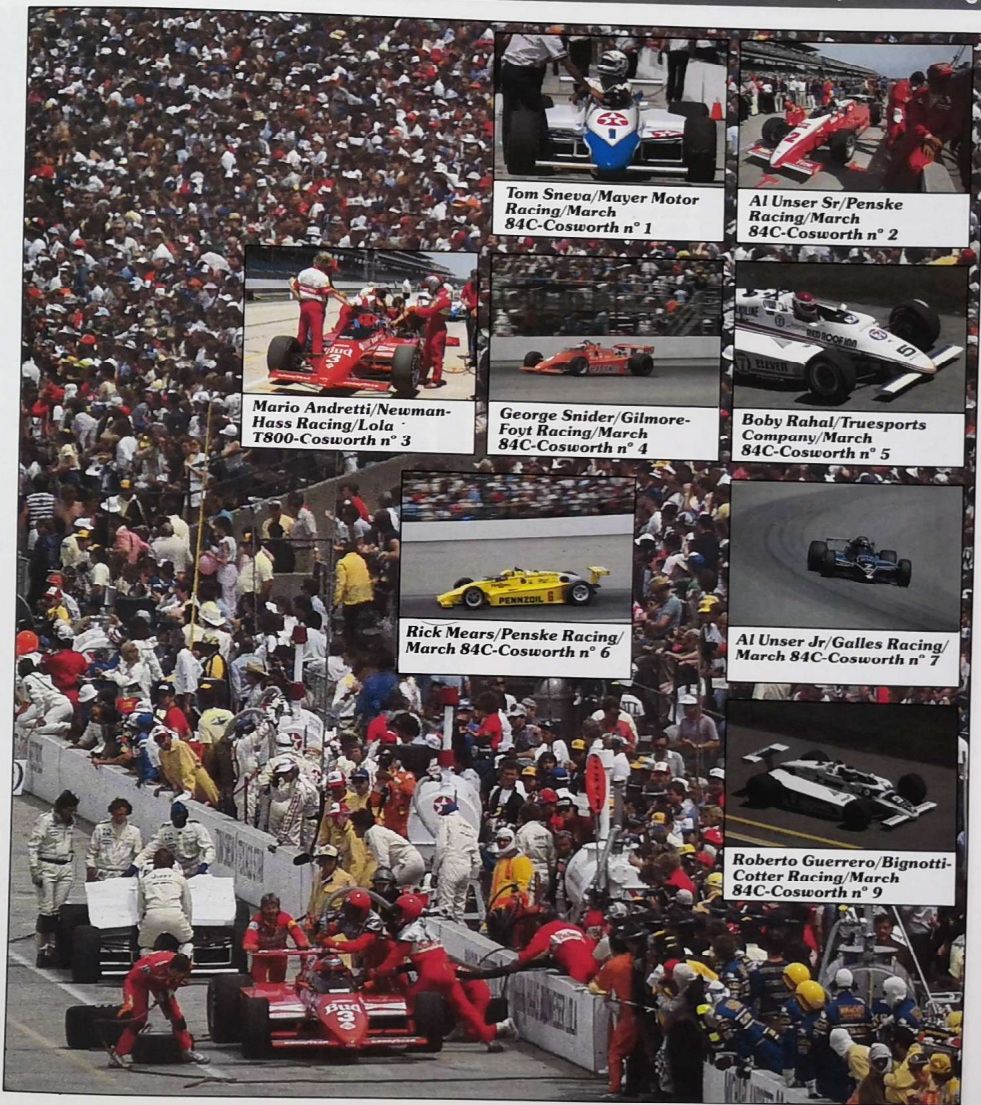
Indianapolis Motor Speedway
2.5-mile oval



RESULTS

- | | |
|---|---|
| 1. Rick Mears/March 84C-Cosworth, 500 miles, or 200 laps in 3 h 03'21''660, average: 163.612 mph/263.308 kph. | |
| 2. Roberto Guerrero | March 84C-Cosworth 198 laps |
| 3. Al Unser Sr. | March 84C-Cosworth 198 laps |
| 4. Al Holbert | March 84C-Cosworth 198 laps |
| 5. Mike Andretti | March 84C-Cosworth 198 laps |
| 6. A.J. Foyt | March 84C-Cosworth 197 laps |
| 7. Bobby Rahal | March 84C-Cosworth 197 laps |
| 8. Herm Johnson | March 84C-Cosworth 194 laps (*) |
| 9. Danny Ongais | March 84C-Cosworth 193 laps |
| 10. Jasele Garza | March 84C-Cosworth 193 laps |
| 11. George Snider | March 84C-Cosworth 193 laps |
| 12. Dennis Firestone | March 82/83C-Cosworth 186 laps |
| 13. Howdy Holmes | March 84C-Cosworth 185 laps |
| 14. Tom Gloy | March 84C-Cosworth 179 laps |
| 15. Chris Kneifel | Primus PR84-Cosworth 175 laps/retired, broken half shaft |
| 16. Tom Sneva | March 84C-Cosworth 168 laps/retired, broken CV joint |
| 17. Mario Andretti | Lola T800-Cosworth 153 laps/retired, accident with Garza |
| 18. Scott Brayton | March 84C-Buick 150 laps/retired, engine failure |
| 19. Pancho Carter | March 84C-Cosworth 141 laps |
| 20. Kevin Cogan | Eagle 84-Pontiac 137 laps, retired, rear right wheel stuck |
| 21. Al Unser Jr. | March 84C-Cosworth 131 laps/retired, water leak and overheating |
| 22. Johnny Rutherford | March 84C-Chevrolet 116 laps/retired, engine and electrical failure |
| 23. Dick Simon | March 84C-Cosworth 112 laps |
| 24. Teo Fabi | March 84C-Cosworth 104 laps/retired, fuel pump |
| 25. Gordon Johncock | March 84C-Cosworth 86 laps/retired, piston |
| 26. Tony Bettenhausen | March 84C-Cosworth 76 laps/retired, bad handling |
| 27. Derek Daly | March 84C-Cosworth 61 laps/retired, engine failure |
| 28. Chip Ganassi | March 84C-Cosworth 57 laps/retired, collision with Guerrero |
| 29. Danny Sullivan | Lola T800-Cosworth 55 laps/retired, crash |
| 30. Pat Bedard | March 84C-Buick 45 laps/retired, spin |
| 31. Spike Gelhausen | March 83C-Cosworth 37 laps/retired, oil leak and engine failure |
| 32. Emerson Fittipaldi | March 84C-Cosworth 1 lap/retired, fuel line and fire |
| 33. Geoff Brabham | March 84C-Cosworth |

(*) one lap penalty for running over a fuel line in the pits.



Tom Sneva/Mayer Motor Racing/March 84C-Cosworth n° 1

Al Unser Sr/Penske Racing/March 84C-Cosworth n° 2

Mario Andretti/Newman-Hass Racing/Lola T800-Cosworth n° 3

George Snider/Gilmore-Foyt Racing/March 84C-Cosworth n° 4

Bobby Rahal/Truesports Company/March 84C-Cosworth n° 5

Rick Mears/Penske Racing/March 84C-Cosworth n° 6

Al Unser Jr./Galles Racing/March 84C-Cosworth n° 7

Roberto Guerrero/Bignotti-Cotter Racing/March 84C-Cosworth n° 9

Whatever the outcome of the 1984 Indy 500 race, the event was already a major victory for Robin Herd and his Bicester March racing concern. In an unprecedented domination of the grid, Herd's cars filled 29 available places on the grid, 27 of them the latest 1984 model. It was also an equally impressive domination by Keith Duckworth's Ford Cosworth DFX engine, Duckworth watching as all but three of his engines powered off the line at the start of the race. At the end of the race, it was only the March Cosworth combination

that made it to the finish line. Although each of the teams had put their own minor differences into each of their cars, such as driver adjustable shock absorbers (on Sneva's car), light solid drilled brake discs instead of the heavier ventilated type, different springs and shock absorbers etc, there were only two major variations on the same theme, a high or low downforce aerodynamic set-up. The high downforce set-up usually preferred for the road circuits and the short oval tracks was used by only three of the 84 March 84C

teams. It consisted of a different undertray with reshaped profiles which stopped just short of the car's gearbox and a revised radiator layout. With this set-up the Mayer racing cars of Sneva and Holmes and the Al Unser Jr car were able to run very narrow rear wings: as low as 9 inches across without any flaps and very small side plates. The wings themselves became little more than trim tabs to set up the fine balance of the car in clean air. Al Unser Jr even ran a few laps in practice without any wings at all

and then just rear wing looking for that possible 'edge' over his rivals, but in the end it was generally agreed that the wings would be necessary for the race where turbulent air behind other traffic might make the car too nervous to drive. The fact that both Sneva and Holmes took the first two places on the grid was not in itself a justification of the use of the high downforce bodywork, but also the fact that Indy expert Sneva had spent many days of patient testing setting up the cars to the delicate balance necessary for fast times at the Speedway.



Pancho Carter/American Dream Racing/March 84C-Cosworth n° 10



A.J. Foyt/Gilmore-Foyt Racing/March 84C-Cosworth n° 14



Tony Bettenhausen/Provimi Racing/March 84C-Cosworth n° 16



Geoff Brabham Racing Team/March 84C-Cosworth n° 18



Gordon Johncock/Patrick Racing Team/March 84C-Cosworth n° 20



Al Holbert/CRC Chemicals Special/March 84C-Cosworth n° 21



Dick Simon/Pabst Racing/March 84C-Cosworth n° 22



Danny Ongais/Interscope Racing/March 84C-Cosworth n° 25



Danny Sullivan/Doug Shierson Team/Lola T800-Cosworth n° 30



Herm Johnson/Menard Inc./March 84C-Cosworth n° 28

The speeds are so high that the slightest mistake in the set up can make the difference between pole and 33rd place on the grid. There was a point during the practice before qualifying when the McLaren mechanics now working for Mayer were getting disheartened with Sneva's series of single flying laps, wondering how Sneva could run two or three corners fast and come back to the pits and say that the car was not right. "Half way through the week Tom went out and did a couple of laps setting a 207 mph lap before coming in and

saying, 'that one was for team morale'," explained Mayers team manager Tyler Alexander. Needless to say the mechanics were learning fast that practice for Indy car racing is nothing like practice in Grand Prix racing, where more often than not the best times are a result of the best compromise. The thing that impressed drivers like Guerrero and even an old hand like Fittipaldi was just how precise the cars must be set up for a 'Super-Speedway' like Indy. The configuration chosen by most of the teams was the low downforce

high speed set up, the undertray extending almost to the back of the gearbox. As Mears showed both in practice and the race, there was very little to choose between the two configurations. What was particularly interesting and also of great credit to Herd, was that people like Roger Penske, having seen the superiority of Sneva's car at Phoenix, could order two cars to replace his own Penske design at Indy just a month away and begin to run competitively with the cars "straight out of the box" as several others were to

do during the month. Robin Herd, always the politician and himself a director of Mayer Racing, had to tread a careful path of diplomacy as he spread his knowledge of his car amongst the different teams, being careful not to give away another's secrets and keep every team happy that they were getting the same treatment as the rest. Herd was no doubt the most knowledgeable man on chassis set-up at the Indy Speedway, but Tyler Alexander refuted any favoritism from Herd over the others. "In



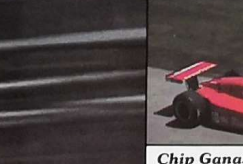
Teo Fabi/Forsythe Racing/March 84C-Cosworth n° 33



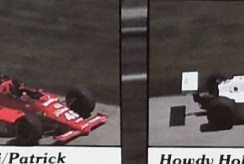
Pat Bedard/Brayton Engineering/March 84C-Buick n° 35



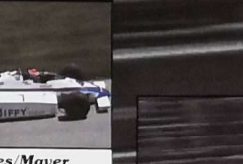
Scott Brayton/Brayton Engineering/March 84C-Buick n° 37



Chip Ganassi/Patrick Racing Team/March 84C-Cosworth n° 40



Howdy Holmes/Mayer Motor Racing/March 84C-Cosworth n° 41



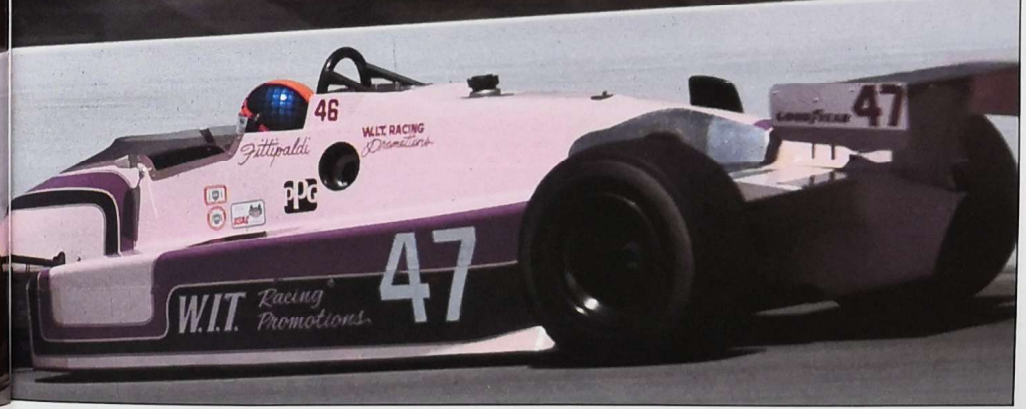
Emerson Fittipaldi/WIT Racing Promotions/March 84C-Cosworth n° 47



Dennis Firestone/Hoosier Transportation/March 82/83C-Cosworth n° 50



Dennis Firestone/Hoosier Transportation/March 82/83C-Cosworth n° 50



fact, he spent very little time with our team. Our pole position was all down to Tom. He knows what it takes to go fast here and how to achieve it. His lap after lap of fine tuning and his pole winning time were the proof of his skill at a place like this," said Alexander. The March chassis might not have had much in the way of opposition against it, but what there was, was good. Mario Andretti and his Nigel Bennett engineered Lola T800 set a shattering practice lap of 212 mph, fastest ever lap of the Speedway, and might well have

taken his first Indy pole for 17 years had it not been for bad luck in official qualifying. Just as he got to the last turn at the end of his four lap qualifying run, his car's engine cut out because of an electrical problem and he coasted the last few hundred yards with a dead engine. As it was, he averaged 207.4 mph which was still good enough for a sixth place on the second row of the grid. Another March challenger from the Doug Shierson racing team never made it to the grid when after a miserable time with their new DSR 1 chassis, which Sullivan

couldn't lap fast enough for a place on the grid, it was replaced with a Lola T800. After just a few laps in the car Sullivan went out and turned a 203.5 mph lap which proved to be the fastest of the second weekend's qualifying. Of the 100 plus cars entered at 1000 dollars per entry only 34 actually posted their 4 lap qualifying runs, the high speeds set by the new Marches in the race as well as the two Lolas, leaving very little chance for the older slower machinery of finding a place in the race. However, when the track doctors

refused to let Jacques Villeneuve run, saying that he was still not 100 percent fit after his bad crash the previous week, 34th qualifier Chris Kneifel added another chassis to the starting line up with his Ray Kuehltau designed Primus based on the old Longhorn design. Kneifel turned out to be the only runner in the field with under 200 mph qualifying speeds with a best of 199.8 mph for his four lap average. Last year there had been only ten cars to break the 200 mph barrier. The fourth chassis in this year's



**Josele Garza/Schaeffer
Machinists/March
84C-Cosworth n° 55**



**Spike Gehlhausen/Indy
Auto Racing Ltd./March
83C-Cosworth n° 57**



**Derek Daly/Provimi
Racing/March 84C-
Cosworth n° 61**



**Chris Kneifel/Primus
Motorsports/Primus PR
84C-Cosworth n° 73**



**Tom Gloy/Galles Racing/
March 84C-Cosworth n° 77**



**Johnny Rutherford/
Gilmore-Foyt Racing/March
84C-Chevrolet n° 84**



**Kevin Cogan/Mike Curb-
AAR/Eagle 84SB-Pontiac
n° 98**



**Michael Andretti/Kraco
Racing Team/March
84C-Cosworth n° 99**

field was the pretty new 84 Eagle being run by Dan Gurney for Kevin Cogan. After hurriedly building a new car following Mike Chandler's near fatal crash in practice a week earlier, Cogan moved over to the Gurney team when he split with the Ligier team. The new Ligier chassis was a long way from qualifying and the car was withdrawn and will probably never race again, the French side of the team having already returned to France before the race. Running the only normally aspira-

ted stock block in the race, a 5.8 litre alloy Pontiac engine, Cogan had only 14 laps in the car before setting a creditable 203.6 mph qualifying time which was the fastest ever lap at Indy by a normally aspirated car, which the USAC engine rules make an impressive challenge at the speedway. USAC's rules allowing the stock block Buick engines fitted to Bedard and Brayton's Marches also give them a strong chance at Indy, for they are allowed to run 10 inches more boost with their 3.4 litre turbo engines than are the Cos-

worths, limited to 47 inches of boost. The V6 Buick engines were not the only ones seen at the Speedway this year. AJ Foyt's team had started off practice with a Brian Falconer developed Chevrolet V6 turbo, but after considerable reliability problems, particularly with the valve gear, Foyt switched to Cosworth power to ensure a place on the grid. Technically, the Cosworth March combination ruled the roost at the brickyard this year, while the CART races the rest of the season, which don't allow the same 'unfair'

advantage given to the V6 Buick and Chevy powered cars at Indy means that it is unlikely that Cosworth will see any stiffer competition in the future. As yet, Lola have no plans to go into the kind of mass production that March have done with their cars, so that with Penske probably sticking to their March chassis for the rest of the season, it looks as though March will continue to dominate Indy car racing by simple weight of numbers, even if the Lola is developed into a March beater.



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FORMULA ONE WORLD CHAMPIONSHIP: MONACO

TRUNCATED

THE RAINS FELL; THEY FELL SOME MORE; AND FINALLY THEY STOPPED THE RACE AT THE 31st LAP. A HALF-POINT RACE, AND NO POINTS TO MONACO'S WEATHER. IT WAS A WEEKEND IN WHICH PROST WON POLE AND RACE, BUT ALSO A RACE MANSELL LED, ONLY TO LOSE IT TO A GUARDRAIL AND A SPIN. A FREAKISH RESULT WAS ALWAYS IN PROSPECT BUT THE WAY SENNA WAS DRIVING HIS TOLEMAN, AND THE WAY PROST WAS FALTERING, A SENNA VICTORY WOULD HAVE BEEN MERITED. THE CONSPIRATORIAL BRIGADE WILL POINT TO THE FACT THE TELLY WAS DUE TO STOP AT FIVE; THEY WILL REMEMBER A RACE AT DIJON WHICH PROST WON THANKS TO A STOP FOR A BIT OF RAIN. DISAPPOINTMENT FOR SENNA AND BELLOF, WARWICK IN A SPLIT-IN-TWO CAR, TAMBAY HURT, BUT NO DOUBT A RACE FAIRLY TRUNCATED.





Nothing new in Monaco. The yachts still laze around in the harbour, the women are more and more beautiful, there are more Rolls and Ferraris per square metre than ever, the police is polite but efficient and the circuit keeps its unforgiving nature, the heart of its evident charm. Monaco pardons nothing. The slightest error in driving and it's the guardrail. Without further ado. The list of all those who suffered misadventures during qualifying would be far too long: Alboreto, Arnoux, De Angelis, Hesnault, Alliot, Baldi, Bellof, Warwick, Senna, etc...

The award for best accident would have to be shared between Winkelhock and Brundle. The German was unable to stop his car from stealing away from him on Thursday. It happened up there, where the treacherous bump at the Casino seems to exist only for the purpose of throwing accelerating Formula One cars off balance. As for Martin Brundle, he lost all hopes of

qualifying when he lost control, along with two wheels, of his Tyrrell in the rapid left-hander of the Bureau de Tabac. The Tyrrell slid a long time on its right side before coming to a halt. Martin, slightly groggy, extricated himself from the car, his helmet and right sleeve covered with black, proof to the fact that they had been dragged along the ground. The bathtub type cockpits are probably not the safest around... McLarens, as everyone knows, are never favoured to do well at Monaco. Alain Prost wasted no time in burying that myth when he took pole position, which he attributed (was he being modest or sly?) to luck: "I only had to overtake two cars in my quick lap, without any trouble. At Monaco, that's unheard of." Prost did a total of 8 qualifying laps. On Thursday, the session was cut short for him when he inadvertently hit the car's on-off switch. On Saturday, he didn't let uncertainty rule for long. Mansell was the only driver who even got close to

the time which clinched the pole for Prost. Nigel, superbly adroit and hugely determined at Monaco, a circuit he loves, got his time in with only one set of tyres on his race car, an engine failure having immobilized his spare car. Incidentally, he had so complained of congestion on the circuit on Thursday that the Team Lotus mechanics, always ready for a laugh, had installed a horn on his car for Saturday qualifying. De Angelis, who made a bad choice in shock absorbers, was well behind his teammate. As was Lauda, in fact, and there were murmurings in the pits to the effect that Prost had been using a new type of turbo prepared for qualifying. No difference for the two Ferrari drivers, on the other hand, who were both on the second row of the grid, and their colleagues from Renault, sitting right behind them. Alboreto, who was quickest on Thursday, had a scrape at Sainte Devote while Arnoux watched as his turbo pressure

plummeted at the end of the session. De Cesaris was in front of Piquet, which is a sure sign of the undoubted progress being made by the Ligier team. One cannot say the same about Williams, where Rosberg was only 10th, breaking two turbos, a very rare event indeed on the Monaco circuit.

At the rear of the grid, Corrado Fagioli, who hasn't seen competition in quite some time, had the merit of qualifying in one session after having had intercooler and engine problems on the Thursday. At Osella, Ghinzani's qualification was celebrated like a victory of itself. Bellof, the last man to qualify, spent the last half-hour in the pits anxiously waiting to see what his playmates were up to. A mere tenth of a second faster than Surer had made him the only driver defending the honour of the Cosworth engine on Sunday. As with both Senna and Palmer, he had never raced at Monaco until the first day of qualifying.



Red flag, chequered flag, that's it. After 31 laps. The crowd is incensed, Rosberg climbs out of his car and says, "Not a lap too soon." Senna, who has been gaining up to five seconds a lap on the race winner Prost, can't wait to get off the podium; he is sick in soul. Mansell can't believe the price he paid for a "little mistake". And the rain keeps falling, falling. Not since 1972, when Beltoise won, has there been such a downpour. Conspiracies aside, Jacky Ickx, Clerk of the Course, is right to end the race: who will take the responsibility if something worse happened? For the bad has already happened: at the usual place in Monaco, at the start. Warwick is rammed by Arnoux, flying over the kerb. Warwick hits the tyre barrier; he bounces back; Tambay hits him on the rebound and ends up with a fracture just short of the knee joint: at least three weeks out of racing. De Angelis and Patrese stop

Otherwise, it is Prost who at the start makes it first into Sainte Devote. Mansell, second on the staggered grid, tried it briefly on the outside, but tucked safely in. It is soon obvious, however, that Prost is not going to have an easy time of it. Mansell stays a mere couple of seconds in his wake and on lap 10 makes it past going up the hill. He leads for the next five laps and then hits the guardrail at a fairly innocent spot; his rear ends starts shuddering, his rear wing is bent and shortly afterwards he spins again, this time out of the race. The order then, when Prost regains the lead, is Prost, Lauda, Senna, Arnoux (team-mate Alboreto is well behind after a spin and finishes 7th), Rosberg and Bellof, and it is Senna that everyone is watching. His Toleman is starting to bite deeply into Prost's once-majestic lead of 33s.

As we watch that lead shrink and others slow down or drop out after brave races in impossible conditions (Ghinzani, for instance, with water-logged turbos; Piquet with yet another set of problems in his engine; Winkelhock after a doughty fight with Rosberg), it seems entirely possible the Brazilian will catch Prost, who is having vibration problems and a mysterious ailment in his left front wheel. The two come into sight of each other, the flag falls. It is unfair on Senna, on Bellof who finishes third. But unfair only in the context of a freakish race. Prost's other main challenger seemed to be Lauda, but Lauda spun and the two McLarens were split, the one condemned, the other ekeing out a narrow and controversial half-point victory. Arnoux made it into fourth to salvage something for Ferrari out of the incident that put Renault out: into the cold and the very, very wet.



behind them but manage to get clear, Elio to work his way through the spray to an honourable sixth, Patrese to drop out after a brush with Hesnault and an eventual spin.

Saturday : Prost is king

Sunday : Prost is lucky

TOUCH AND GONE

AT THE END OF A FATEFUL WEEKEND AT RENAULT, DEREK WARWICK WAS REASONABLY CERTAIN WHAT HAD HAPPENED TO HIMSELF AND PATRICK — CERTAIN and deeply worried — and Jean Sage, Renault's Sporting Director, was philosophizing about "the injustice, to Telemann" of the truncated race. Derek's concern was with his team-mate Tambay and his own car, which literally split in two just behind the bulkhead, something that Niki Lauda was to say, "just should not happen." Tambay reported to Sage (after he was taken to hospital with a jagged fracture of the leg just below the knee) that he "saw Arnoux push into Warwick and saw Derek go into the tyre barrier and bounce out." Which Arnoux explains by saying Derek was "crowding him". The rest had better be in Derek's words: "I am going into the corner and the next thing I know, Arnoux come up on the kerbs and he just went bang! Straight into me; I went straight into the barrier and the car just split in half. Just snapped into two bits. Two cars completely wrote off."

What is clear is that René was on the right hand, Patrick behind Derek and that the accident could have been far worse for Derek. "Patrick come by," continued Derek, "caught my left rear and bent the suspension back, the same thing happened to me in Dijon, just caught the top of his leg."

What is less clear is why what happened

did happen. The Renault chassis is made by a carbon-fibre supplier, not in house. Carbon-fibre, combined with kevlar, is a very strong material and it is built in strands that run in different directions, horizontally, vertically and diagonally. Depending on the construction at the point of impact, it will break or bend. Neither Sage nor Warwick would be drawn into comment on the failure of the Renault chassis, but at McLaren, the comment was that the French chassis might be inadequately reinforced: against just such an eventuality. Sage would only say that "in rain, the tyres no longer slow the car down; the impact is correspondingly greater. And remember that Derek's car faced two severe impacts."

The truth is that in two meetings running the Renault's cockpit has been penetrated and at Monaco the car snapped. Worrying enough. A suspension should not penetrate the cockpit, yet both Warwick and Tambay have had injuries from similar accidents. As though this were not a sufficiently severe problem, the weekend was what one team-member described as "shit in paradise". Monaco this weekend was no paradise and as Derek said, turning to Sage, "it looks like we need some more cars doesn't it, Jean?" Someone said, "and perhaps more drivers." That one was firmly scotched. "The most likely outcome," said Sage, "is that we will race only one car in Montreal and Detroit. You don't find drivers off the street." No points and Patrick out for at least three weeks. Renault's touch has gone: a touch in Monaco and two cars and a driver were gone.

Keith Botsford



Patrick Tambay (photo B. Asset)

CATHARSIS AT THE CASINO

SHE HOLDS A LITTLE GREY STOP-WATCH IN HER HAND. BLACK FISHNET STOCKINGS, A TIGHT, SLIT RED SKIRT, CLAW-LIKE FINGERNAILS, THE LOOK OF A BRAZILIAN. Profession: model. A photographer brings her in and out of focus while fidgeting with his flash in broad daylight. The girl moves for him, adopting a series of pre-ordained poses. Behind her legs are two rows of guardrails. Further in the distance, the background is provided by the Hotel de Paris, where the restaurant is densely packed. To her right, on the far side of the metallic barrier, the Place du Casino. The girl in red deliberately ignores the track. Mindlessness is a form of politeness in Monaco.

The area around the little newspaper stand, deliberately old-fashioned in its design, just outside the Casino turn and some ten metres past its apex, has traditionally been a gathering spot for aesthetes, and rather masochistic ones at that. Year after year, they hurriedly leave the pits and climb slowly up the interminable hill at Sainte Devote, short of breath, to set up their positions there during qualifying sessions. Under grey skies on Thursday, my nearest co-spectator here was David Yorke, former team manager for the John Myer team. As for myself, I've been coming to this spot since 1972, the year of Jean-Pierre Beltoise's victory. Drawn here like a fly to honey, I find myself coming back year after year, choosing to overlook the possibility that there might have been a story or two to pick up in pit lane which is, as always, crowded out with all manner of hangers-on. Coming out of the rapid right-hander, the track drops off towards Mirabeau. As if by magic, the cars suddenly appear before your eyes, heading for the guardrails which they avoid by only a few millimetres. Then it's over a bump which seems to throw them back to the other side of the track, narrow as a piece of ribbon here. A hellish noise, a burst of speed and they're gone. The following day my colleague Johnny Rives from *Equipe* writes that, at Monaco, Formula 1 cars now resemble dragsters. He is not mistaken. Very short gear ratios, special engines with increased low-end torque, smaller qualifying turbos which reduce the amount of throttle lag, increased turbo-charging pressure which easily gets them over the 800 horsepower mark, the backing of the tortured waste-gate valves, it all adds up to an extravagant spectacle. In front of the little newspaper stand, you have to be constantly alert. For an entire hour. Because anything might happen. What's important is to stay firmly in place and when two cars come by within a few seconds of each other, to watch the line



René Arnoux (photo B. Asset)

second one takes through the turn rather than turning to admire the quick getaway of the first one.

The exit from the Casino turn has, it's true, never been the site of a spectacular crash. More often than not, it's a left rear wheel which bounces off the steel rail, but never with serious consequences. Which doesn't help when a rush of adrenalin gets your heart beating like a runaway horse. Who knows what might happen. There are drivers you instinctively wait for, pretending as you do not to admire them, but at the same time biting your lip in anticipation of the moment when your worst fears might become reality. A qualifying lap of Keke Rosberg's is invariably an exceptional show. The man with the golden mustache is good for three or four per day of qualifying. A prisoner of the rule allowing only two sets of qualifying tyres? Not necessarily. More in this case is not necessarily better. Keke Rosberg has some very talented imitators, as well. For pure stylistic violence, there's Stefan Bellof, Elio de Angelis and René Arnoux. But the man who's definitely second to the Williams driver in showmanship is undeniably Manfred Winkelhock. People are quick to criticize his Germanic style. They are wrong. It's been a long time since the man had a serious shunt. More precisely, it was his flight off a bump at the Nürburgring in Formula 2. His March had taken off from the track like a Boeing, and this several years ago.

There are less than fifteen minutes left in qualifying. The ATS D7-BMW broke a turbo in the early moments of the session and the car is still not qualified. Only the spare is available, an old D6, and one set

of tyres. Winkelhock hasn't got much to choose from. But he has to try. It's his fastest lap, he's going to appear in a few seconds, those in the know are waiting. From Massenot, you can hear the backfiring of his BMW engine's waste gate. Then the yellow and black car appears. At the top of the hill, going sideways. A la Keke. Manfred corrects it immediately, heads into the downhill putting his tyres on the bump at the left of the track. The considerable engine torque throws the car back to the right. Normal, except for the violence with which he reacts. He doesn't even slow down. There's no time left for that, the Pirellis last only one lap. The ATS affects a crab-like movement, its nose to the inside of the track, the front tyres turned the other way, then with incredible speed he has completely reversed the movement of the car. He is now sideways again, at a terrifying speed, the nose of the car pointing towards the Tip Top bar whose round sign can be seen not so far in the distance, a mere ten metres away. A giant hand seems to have made a plaything of the ATS. There is all of a sudden nothing more to be done. Its engine screaming, the ATS hits with its right flank the three guardrails which are at a 45 degree angle to the track. It shoots into the air, does a full 180 degrees and finally stops in the middle of the tarmac. The accident has lasted two seconds, an eternity. In the ravaged tub, the driver appears to be knocked out. When he finally gets out of the car, it's only to fall into the arms of the rescue squad. A first-aid station is hastily set up on the sidewalk, an ambulance waits. But Winkelhock is a man of iron. He only has a pain in his left shoulder, a torn

muscle no doubt. A nurse is massaging it non-stop. His hands on the ambulance's bonnet, arms outstretched, he is staring at the ground with an eerie, faraway look. A tempest of sorts must be raging within that head, a strange brew of mixed emotions. There's the initial onrush of fear which hasn't disappeared yet, disgust — of which he quickly rids himself — and frustration. He's still not qualified.

Eddie Cheever had this to say after Villeneuve's accident at Zolder in 1982: "I think that the last thing that went through Gilles' mind must have been a feeling of great disappointment. He probably thought quite simply that he was ruining a good qualifying lap." Drivers all come from the same mold, and when the German finally opens his mouth to speak, the fear has given way to anger:

"I went out this morning with the D6. Nothing great. They changed all the adjustments on the car before the afternoon session, without asking me about it. With new shocks, it was a total trap. Undrivable. It was oversteering and bottoming all the time. I had to make it or break it. And then it got away from me all of a sudden. It was completely down on the shocks, there was nothing I could do. No way to control..."

Two days later, after intensive looking after by Willi Dungal, the iron man qualifies his car. But the Casino corner will never be the same for the masochistic group of spectators who gather there every year. This year, their tense anticipation had finally exploded in a spectacular catharsis.

Didier Brailon

SEVEN SORROWS

THEY USED TO BE SO CRUEL, THOSE PRE-QUALIFYING SESSIONS AT THE BREAK OF DAWN ON THURSDAY MORNING WHICH PITTED, AGAINST THE BACK-GROUND

of a groggy Monaco, a handful of second string cars against the dock for the right to participate in official qualifying. The list of cars being considerably shorter than what it once was, the organizers at Monaco decided to abandon the procedure which had essentially been a game of roulette. No one will regret it. The fact still remained, however, that 27 cars entered was 7 too many. Until now, non-qualifiers had not constituted a dramatic issue this season. With the exception of Imola, it was one driver per race, a RAM here or there, nothing to turn the paddocks into a wailing wall. But at Monaco, they were heaped up like prisoners waiting for the executioner's cart. Without flowers but without gnashing of the teeth either, if one is to judge from the two RAM drivers who, in the best of cases, could not have been nursing high hopes after their most recent results.

Jonathan Palmer, a naturally calm man, was incriminating neither man nor machines: "I did everything I could, the team worked hard, but the car just wasn't quick enough, that's all. I came up behind Cheever and Senna on my last try in qualifying, but the few tenths that I lost wouldn't have been enough to qualify me. So, I don't have too many regrets." Richard Lloyd's presence in the Skoal Bandit tent had Palmer thinking of other days and other races. At Le Mans, he'll be fighting to win at the wheel of Lloyd's 956. Which should be a breath of fresh air for him.

Philippe Alliot was slightly less laid back about it all than his team-mate: "I wasn't even able to use the set of resurfaced Pirellis which McDonald was offering me. What would have been the use? The car was undrivable, I couldn't even get up to speed passing in front of the pits. The sum total of what I did was 9 laps in my car before the last qualifying session, as I broke an engine on Thursday and went off this morning. I didn't have time to set the car up."

Two non-qualified cars for Arrows as well, that came as more of a surprise. Having just got out of his car, Thierry Boutsen simply stood and stared at it, contemplating the cause of his troubles, a BMW turbo which had shown itself to be extraordinarily lazy in accelerating. "Already on Thursday I was suffering with this turbo lag problem. But not as badly as this. I tried to use my best engine today, but BMW wouldn't let me. They were saving it for the race. I ended up using a block which had already clocked up 600 kms. What happened? It brake after two laps. So I got into the spare car, which had Thursday's engine in it. The turbo lag problem just got worse and worse. Absolutely impossible to get a tick-

et into the race under those conditions." As for Marc Surer, all was at peace with him: "No, nothing special, the car was working well but you musn't forget that the A6 hasn't evolved at all since last year. I wasted my second set of qualifying tyres because of the traffic. Otherwise, I think I would have been ahead of Bellof. But fate is a part of the game." The Swiss driver, an unfortunate casualty at last year's Monaco Grand Prix, had deliberately chosen to drive the A6-Cosworth rather than the A7-BMW, suspecting no doubt that this gave him a better chance of finishing in the points on a difficult, twisting circuit where retirements are many: "I didn't doubt that I would have difficulties qualifying. But I think that it was worth trying for. I'm probably going to put my money on the Cosworth engine again in Detroit. Over there, at least, there are 26 cars on the grid."

Mauro Baldi is going through the most trying times of his career. His team's ambitions are limited by an overwhelming lack of money and, lacking sufficient personal contributions, Monaco may have been the last time he got behind the wheel of a Spirit. When he came into the pits, he stayed

frozen in his car for a moment, ignoring the flames coming out of the rear. The start of a fire was quickly extinguished by his mechanics: "Thursday evening, I still had some hope of qualifying. I was 22nd, three tenths from the 20th car. This morning, I broke the 02's suspension on the guardrails on the last chicane. I had to use the spare car this afternoon. The chassis was bottoming, the engine wasn't too fresh and oil was getting into the turbos, which was the reason for the fire at the end of the session. I'm the only one who didn't improve his times over Thursday's."

These are difficult days for Spirit and Baldi. They are not very good for Eddie Cheever, either, the only surprise elimination in a qualifying session which was, for the most part, what one might have expected after the last few Grands Prix. The American was without a doubt the most disappointed among the non-qualifiers at Monaco: "It's very bad for a driver's image not to qualify at Monaco. Simply because everyone knows that this is a circuit where your driving ability can overcome certain flaws your car might have. But really, it was impossible. I had everything going against me: traffic, a car which was bottoming, but

most of all incredible turbo lag. That's the major problem with the Alfa engine. Elsewhere, the gap is only tenths of seconds. Here, it's in seconds."

Cheever's anger was in marked contrast with the reserve of Martin Brundle. One has to say that the English driver had good reasons not to be overly talkative; he remembered nothing of his spectacular accident at the Bureau de Tabac: "Honestly, I can't remember a thing. Except that the spectators were applauding when I got out of the car. I think, after seeing the traces on the track and hearing witnesses describe it, that I put the car sideways to brake after coming into the turn too quickly. I certainly left the line and slid on the dust. The accident is not a good thing. But not qualifying, that's much worse. That hadn't happened to me yet in Formula One."

And that, very briefly, is the story of seven non-qualifiers, seven vexations, not all of them perceived in the same manner. One remembers the name of a winner far more easily than the name of a non-qualifier. But one thing drivers never forget is the bitter taste of defeat.

Xavier Chimits



Jonathan Palmer (photo DPPI)



Alain Prost (photo DPPI/Vargiolu)

FORCING DESTINY

IT'S RAINING, IT'S POURING, JUST LIKE IN 1972, BUT THIS TIME THE MONACO GRAND PRIX DIDN'T RUN TO THE END. FAR FROM IT. AFTER DESCENDING FROM THE

princely podium, Alain Prost comes back up the straight in front of the pits with a hurried stride. Surrounded by radio reporters, clamoured at by a crowd which the police, for some unknown reason, is trying to prevent from getting where it's going to. The ceremony is over, the race lasted 31 laps. Everything is finished now. Except that every one is not in agreement with the outcome. From the stands, the balconies of buildings come jibes, whistles, a particularly excited chap chases after the championship leader shouting "vendu" (traitor) so loudly you think his vocal chords are going to snap from the strain. Is it Alain's fault that the directors of the race decided to stop it just when Ayrton Senna's unexpected Toleman-Hart was a mere seven seconds behind his McLaren-TAG? "I was having big problems with the brakes. Those carbon fibre discs aren't a cure-all in the rain. I nearly lost it on several occasions. One time in particular, at the Piscine, I very nearly spun. In fact, I never tried to go too fast. When Mansell overtook me, I didn't try to stay close on his heels." The Lotus-Renault had overwhelmed the McLaren-TAG on the 11th lap. The circumstances were unexpected and just missed being dramatic.

"Corrado Fabi's Brabham-BMW had spun at Portier, and a marshal crossed the track just in front of me, without looking. I had

to brake, Nigel overtook me, but I hit the marshal in the leg."

Alain Prost later admitted that he had never driven in such a trying race. Even when compared with the deluge at Montreal in 1981, on which occasion Jacques Laffite had taken it with his Talbot-Ligier. Which led Alain to declare, without the least note of malice, that the decision to stop the race had been a good one:

"When I saw the chequered flag, I had long since given in to the idea that I wouldn't be able to put up a fight against Senna. Seeing myself threatened by a Toleman wasn't really a surprise for me. Ayrton, like Bellof, benefitted from favourable circumstances. They didn't have the best cars, but under this torrential downpour, the way a car is set up and the quality of its construction disappear, in favour of the drivers' talents. Everybody had a chance, with equal opportunities. They didn't let the opportunites slip by."

With extraordinary calm, Alain Prost had ignored the jeering of the rain-soaked crowd. And, with exemplary discretion, side-tracked around the principal technical problem which had been responsible for slowing him down during the last ten laps. "I was neither carbon fibre discs, nor the engine, which was set to very low turbo pressure, and which, in the race car, manifested some of the electrical hitches it had been plagued with at Imola. None of the above. Quite simply, it was a surprising vibration from the left front wheel. No doubt its origins were in the caliper, as at Dijon. It's never a good sign when the same part appears at the root of a problem in two successive races, but isn't winning the main thing? It's also the lot of champions to force destiny in their favour, when required."

Didier Brailion

HALF POINTS FOR FULL EFFORTS

IF WEREN'T FOR THE STEADY BEATING OF THE RAIN OUTSIDE, YOU COULD HEAR A FLY BUZZ IN THE TOLEMAN MOTOR HOME. SILENCE CAN BE ELOQUENT AT

times, when it's expressing an emotion that's more powerful than disappointment. The members of the British team are taking badly the stop of the race at the 31st lap. Just as Ayrton Senna was about to devour Prost who was obviously in trouble. Only the boss, Ted Toleman, hints occasionally at the anger they are all feeling: "Did you see Ayrton's face on the podium? He was obviously disgusted by what happened." The Brazilian is nowhere to be found. No doubt trying to rid himself of the bitterness he must be feeling. For Ted Toleman and his team, Alain Prost's victory will forever be tainted by an awful suspicion. Even if they have to admit that the rain was coming down twice as strong when Jacky Ickx took the decision we all know.

And yet, at the end of the race, the hero of the day was making his appearance without grumbling at the traditional press conference, held in the little theatre which doubles as the press-room at Monaco. Under fire from pressmen and sitting alongside the race winner he was handicapped slightly by his lack of French, but he fielded some difficult questions - and matched Prost's every little excuse with an equally convincing one of his own - with impressive aplomb.

Senna, as regular GPI readers already know, is a man who has a positive idea of where he is going. On the face of it, however, Monaco had not looked like being the right place for him to demonstrate his abilities, at least not until the clouds descended on the Principality at dawn on Sunday. After 31 laps of the race, though, he was catching Prost's McLaren at the rate of six seconds a lap. When Prost stopped at the end of lap 32, Senna was only feet behind him as they crossed the line, and who knows what would have been the result if the race had been allowed to go on for another lap?

At lunchtime, a few hours earlier, he had not been ready to forecast any fireworks. Sitting with his Portuguese adviser Domingos Piedade under the canopy of the Toleman motorhome he sounded happier than he had all weekend, despite the rain. "We had a lot of understeer through practice and we expected it to be worse in this morning's rainy warm-up session."

In fact, the opposite happened. In dry qualifying, his 13th fastest time had raised a few eyebrows, but in the wet the Toleman-Hart had growled its way round the streets 7th fastest, quicker than both of the Fer-

raris and one of the Renaults, without using the softest of the available Michelin rain tyres. "We did quite a good time with the harder rain tyres and the car seemed very nicely balanced, so for the race we chose the softest available tyre, just like the other Michelin users."

Plainly the soft Michelins were to play a major role in the afternoon's performance. Later, under questioning in the press-room, he was presented with an opportunity to rubbish the team's early-season supplier, Pirelli. After all that bad blood between Toleman and Pirelli at Imola a month ago it might have been expected. But Ayrton replied like a gentleman. "In the dry I would not have been able to make a race like this one either on Michelin or Pirelli tyres. I can only say that under conditions like today's you don't need power."

It certainly wasn't power that took him past all those vastly more experienced drivers early in the race: Laffite, Winkelhock and Rosberg all in the first ten laps. Alboreto would have been next to go if he hadn't spun off at Mirabeau, and Arnoux was so amazed to see the party-coloured Toleman gobbling up his Ferrari, that he did his best to cream the Brazilian into the wall on the inside of the same corner as Senna came up to pass him on lap 13.

That brave move put him into 3rd place, closing fast on Lauda. And the Austrian's double crown was dented after a duel that had lasted only three laps when Ayrton showed him the untidy-looking nose of the Toleman as they splashed past the pits to start lap 19. In the Toleman pit there were hearts in the mouths of those who remembered Derek Warwick trying a similar move at the same place, and the accident that followed it, exactly a year ago. But the Brazilian was through cleanly, and all that stood between him and the lead was Prost and the 35 second cushion that the McLaren had built up.

By then Prost was having trouble with his brakes, enabling Senna to get within striking distance after a 12-lap pursuit. As they sat side by side in the spotlight afterwards, however, Senna was obviously irritated by Prost's explanations. "My brakes were not perfect either, he said, "and there was something coming loose in my gear linkage." He also revealed that his back had been burned by leaking fuel, "although you don't notice the pain when you're fighting..."

Six attempts to qualify, one of them unsuccessful, a point in his second GP (South Africa), and now a 2nd place at Monaco. Is there no end to this stream of talented Brazilians? On Sunday in the streets the worst of the weather brought out the best of Toleman's new boy. It was a breath of fresh air which they - and he - needed as the season enters what promises to be its most difficult period for the low-budget team from Witney. Even if the rule book decreed that they could only claim half points...

Mike Doodson

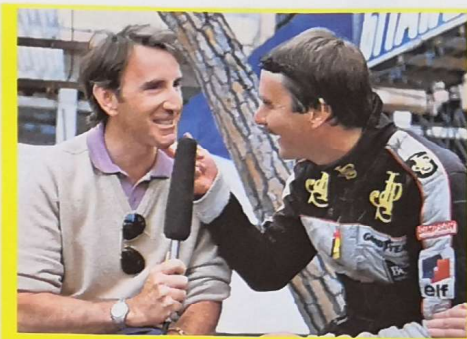


Ayrton Senna (photo DPPI/Bovv)



**THE WOOD-
CUTTER'S CHOICE**

On Saturday evening, Tyrrell had lost some of its prestige on the F1 market. Bellof had only just managed to qualify, 20th on the starting grid with 20 cars making up the pack. Brundle probably had the worst scare yet of his young career, when he went in for some track polishing with his helmet at the Bureau de Tabac. When you think that big Ken had promised us that his cars had all the chances of laying down the law in the Principality... How's that for being an optimist? At 4 p.m., the mockers were laughing no more. Stefan Bellof had finished 3rd, and he had also obtained the 2nd fastest race time. Bellof would certainly have been crowned hero of the day if a certain Mr. Senna hadn't nipped in there before him to steal the limelight. Ken really made a good move when he took on the young German driver. He might even forget Alboreto's leaving him. It would be unfair to leave Brundle out of the praising just because he didn't qualify and because he came off the track. Former woodcutter, Tyrrell, chose the right grain to from his champions — his new recruits are spectacular and accurate drivers. The former woodcutter made the right choice. (photos B. Asset and DDPI / Bovy-Vargiolu).



MISSED OPPORTUNITIES

Because he wouldn't stop complaining about the congestion on the circuit at Monaco, the Lotus mechanics had equipped Nigel's 95T with a horn for Saturday's qualifying. Very funny, eh? But a foghorn would have been a more appropriate touch on the black and gold car, to give advance warning of the traps and pitfalls on a circuit drenched with rain on race day. It took only a bump, a very small bump in the uphill leading to the Casino to put an end to Mansell's hopes. The dream that could have come true had lasted only five laps. And no one to blame but himself. The worst fate of all. His team-mate De Angelis at least managed to finish in a respectable



sixth place, and this after having stopped a few millimetres short of Tambay's Renault in the first lap at Sainte Devote. Some days it's tyres, some days it's fuel, then sometimes the drivers; Gérard Ducarouge has yet to stop counting the number of missed opportunities for a Lotus team which is otherwise cut out for victory. Being up front all the time is nice. But winning is even nicer.

(photos B. Asset, E. Vargiolu DPPI)





THE SHORTEST DAY YET FOR WARWICK AND TAMBAY



BARCLAY

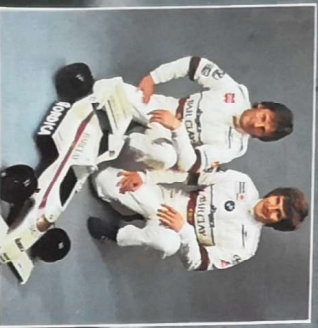
DUNLOP

MAGNETI MARELLI

GRAND PRIX

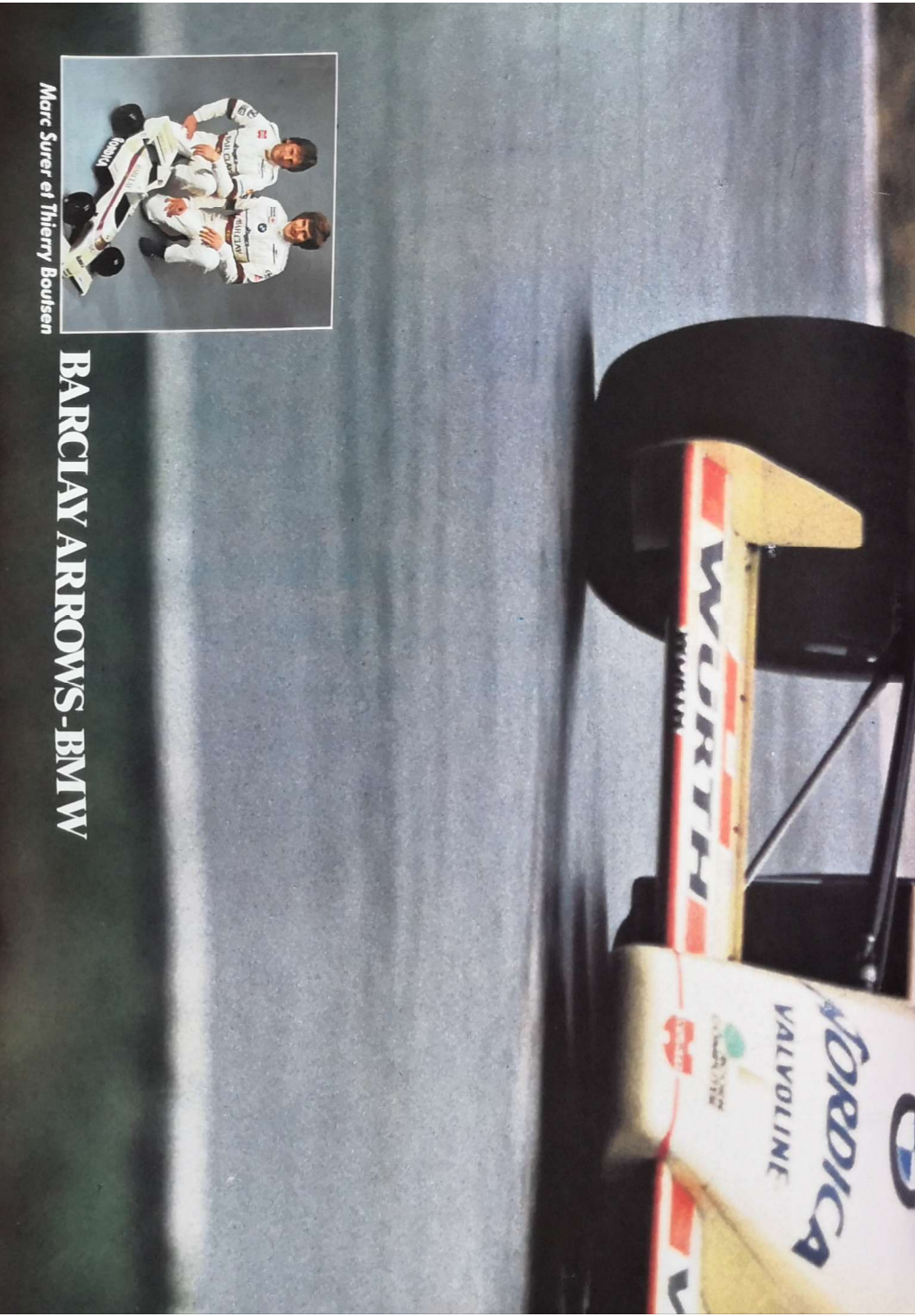


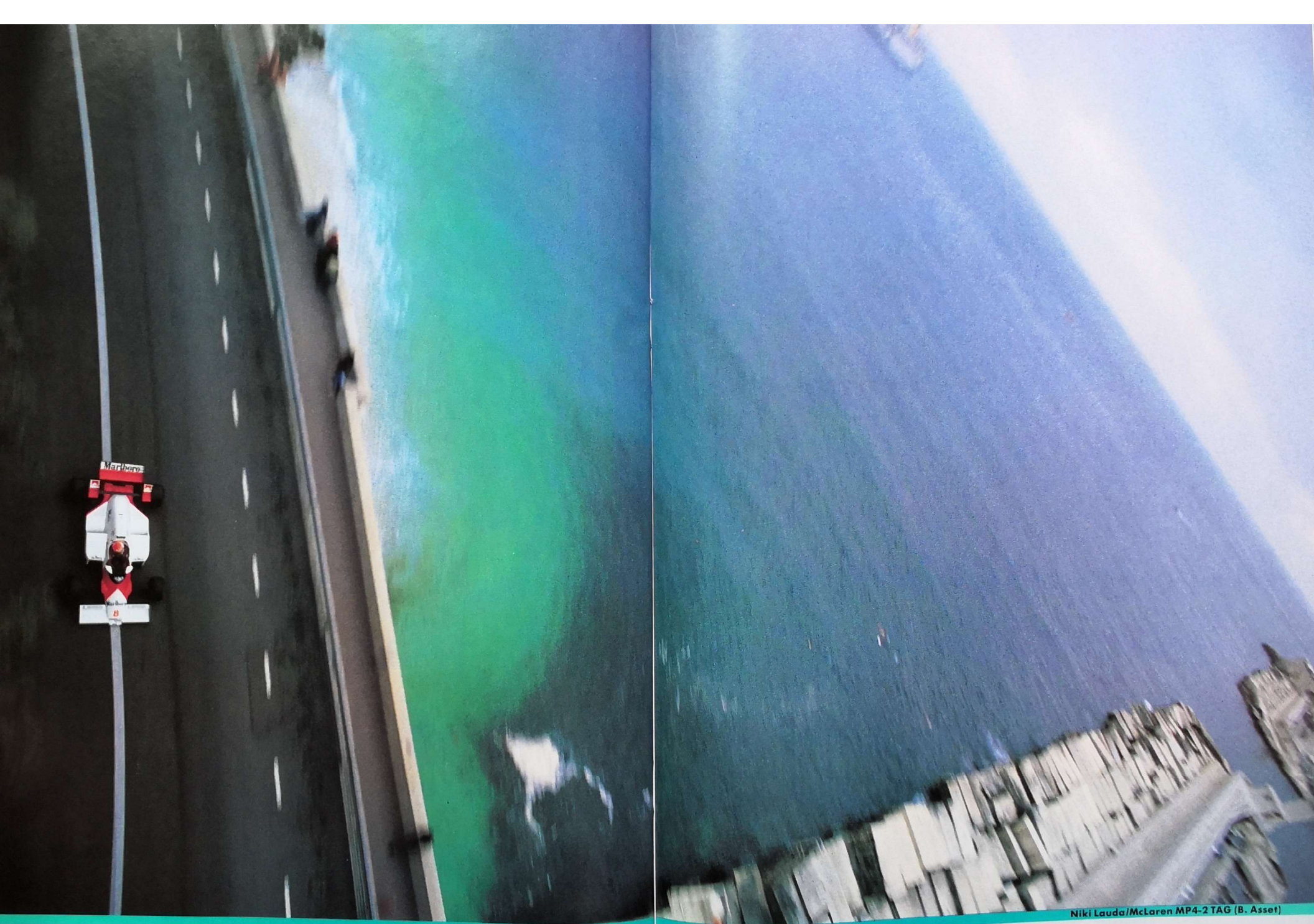
Warwick No. 16. Tambay No. 15 (B. Asset)



Marc Surer et Thierry Boutsen

BARCLAY ARROWS-BMW





Niki Lauda/McLaren MP4-2 TAG (B. Asset)

THE SEA ALONG THE MURKY GULF LEAVES LAUDA INDIFFERENT



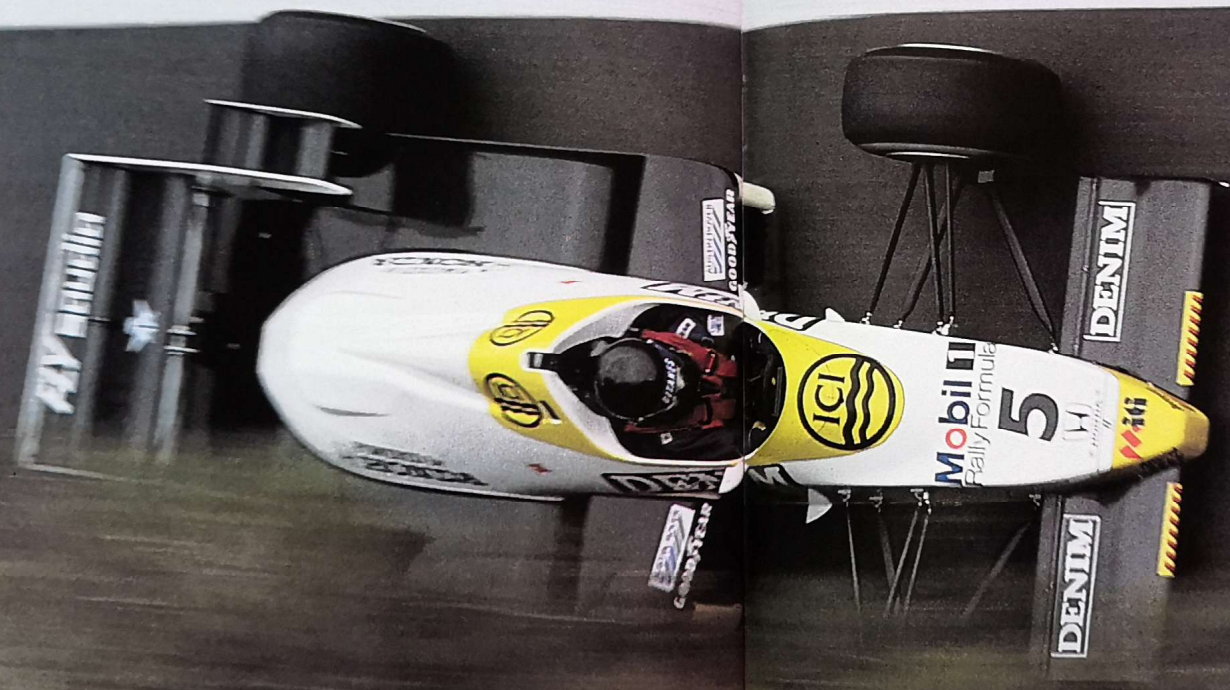
Ayrton Senna/Toleman TG184-Hart (B. Asset)

AT LAST A CHANCE FOR AYRTON SENNA TO PARADE HIS PRODIGIOUS TALENT BEFORE THE WORLD



Alain Prost/McLaren MP4-2TAG (B. Asset)

ALAIN PROST THE WINNER OF HALF A GRAND PRIX. THE GODS WERE WITH HIM



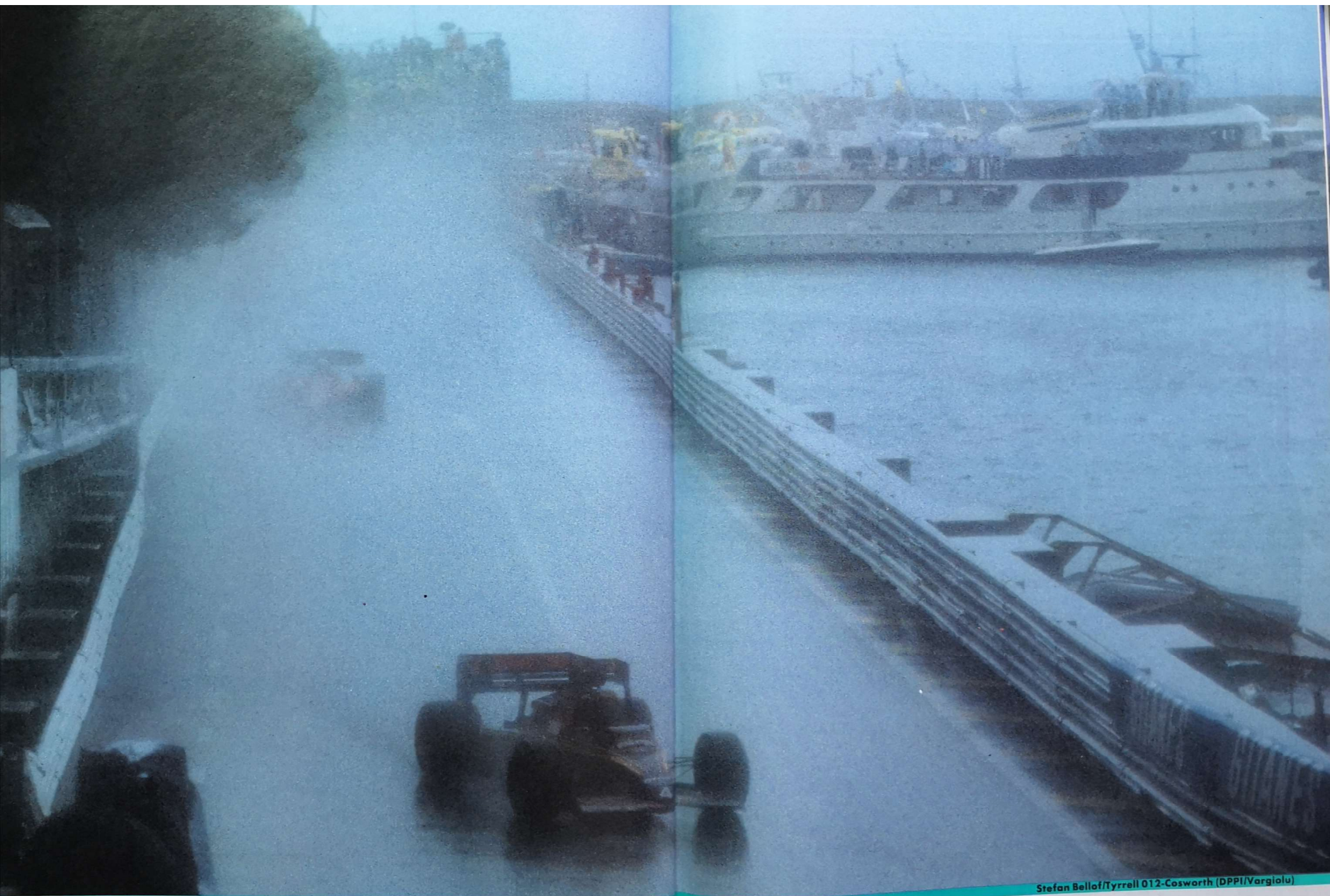
Jacques Laffite/Williams FW09-Honda (B. Asset)

THE WILLIAMS WERE UNABLE TO REPEAT THEIR 1983 WIN



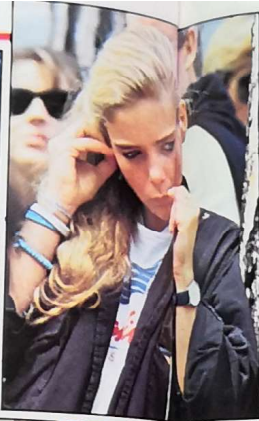
Riccardo Patrese/Alfa Romeo 184T (DPPI/Bovy)

ALFA THROUGH THE TUNNEL. LITERALLY FOR PATRESE, FIGURATIVELY FOR CHEEVER

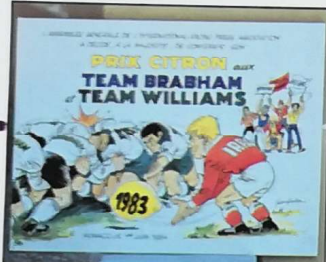


Stefan Bellot/Tyrrell 012-Cosworth (DPPI/Vargiolu)

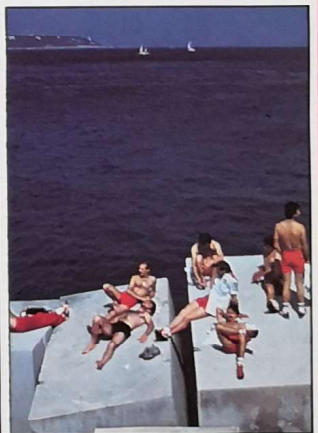
LAP 31, THE TORRENTIAL RAIN BEATS DOWN EVEN HARDER OVER MONACO



Excalibur shelters at Monaco.



Monaco, a quaint fishing port. Renault hasn't lost all!



Balstrie-Boeri we're not amused... The veterans return in style.



ALFA ROMEO EURORACING

22. ALFA ROMEO BENETTON. ALFA ROMEO 1847/02: Riccardo Patrese (I)
14th in qualifying, DNF in race.
23. ALFA ROMEO BENETTON. ALFA ROMEO 1847/03: Eddie Cheever (USA)
DNQ in qualifying.
T. ALFA ROMEO BENETTON. ALFA ROMEO 1847/01.



spare car but the turbo let go while the Italian was on his second set of qualifiers. At this point Patrese was the slowest of the qualifiers while Cheever hadn't managed to secure a place on the grid at all. On Saturday afternoon - in search of greater flexibility - Paulo Pavanello's team changed the turbo wastegate system. Instead of the boost control being controlled through the exhaust it was routed through the engine intakes thus producing sharper throttle response from the turbo engines. In the morning session Patrese collided with De Cesaris while in the afternoon Cheever still wasn't able to qualify. Engine: 1500cc V8 890T Alfa Romeo with double Avio turbo. Tyres: Goodyear.

Alfa kept their six-speed gearbox casings for Monaco but used only five speeds for this demanding street circuit. The team also kept the new, longer sidepods first seen at Dijon. The rear wing layout, using a secondary flap as well as the usual side-fins is a new design. The Alfa engines still use a mechanical injection system but a new electronic system has been tested at Balocco and is the result of joint research between Alfa and the Milan electronics company Nord Electronic. On Thursday the team didn't make much progress due to the engine's bad throttle lag out of the slow corners. For the afternoon session Patrese used the



ATS-BMW

14. ATS WHEELS/ATS-BMW D7/1: Manfred Winkelhock (D)
12th in qualifying, DNF in race.
T. ATS WHEELS/ATS-BMW D6/3.

The German team had hoped that their brake problems of Zolder and Imola would be cured by the Dijon race but the brakes on both D6 and D7 continue to give trouble. For Monaco the steel discs were fitted with wider single AP calipers than in previous races. The front section of the chassis - just ahead of the sidepods - has been modified and now has a slightly more angular shape. An influential team member had told us that a new car was being designed which would use a longer, low-lying fuel tank. However engineer Stefan Fober said that any advantage in this design would be negated by the extra weight of a spacer between the engine and the gearbox. On Thursday afternoon a turbo broke while Winkelhock was on his first set of

qualifiers. He continued in the spare but later spun off on the downhill section out of Casino Square, injuring a shoulder muscle. It was rumoured that if Manfred wasn't fit enough to drive on the Saturday his place would be taken by either Stefan Johansson or Pierluigi Martini. But Winkelhock's injury responded quickly to treatment from Niki Lauda's guru Willi Döngel. On Saturday morning a driveshaft broke but the team qualified in the afternoon. Engine: 1500cc in-line BMW M12/13 with single KKK turbo. Tyres: Pirelli.

ARROWS-BMW & COSWORTH

17. BARCLAY TEAM ARROWS/ARROWS-COSWORTH A6/4: Marc Surer (CH)
DNQ in qualifying
18. BARCLAY TEAM ARROWS/ARROWS-BMW A7/2: Thierry Boutsen (B)
DNQ in qualifying
T. BARCLAY TEAM ARROWS/ARROWS-BMW A7/1.

As usual Arrows brought one Cosworth and one BMW car to Monaco. For the second race running the BMW went to Boutsen. It was Surer's turn to have the turbo car but he chose to stick with the tried and tested Cosworth chassis around the twists and turns of the Principality. The Cosworth car was unchanged except for slight alterations to the rear wing. But the BMW machine was much modified since Dijon. Both front and rear discs used single Brembo-type calipers. Aerodynamically much was changed, especially in the profile of the rear wing and the shape of the rear bodywork which now produced increased airflow over the wing which itself had been enlarged to produce greater downforce.

On Thursday morning Boutsen collided with Tambay but without damage to the car. The A7/2 had a new engine which was slightly down on power while A7/1 had the Dijon unit. By Saturday the BMW engines had been swapped over and Boutsen blew a turbo on his first set of tyres. Once relegated to the spare he had lost all hope of qualifying. Surer also failed to make the grid in the Cosworth car despite some desperate efforts. Engine: 1500cc in-line BMW M12/13 with single KKK turbo or normally aspirated 3000cc V8 Cosworth DFV. Tyres: Goodyear.



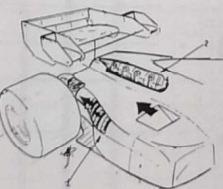
BRABHAM-BMW

1. BRABHAM MOTOR RACING DEVELOPMENTS/BRABHAM-BMW BT53/5: Nelson Piquet (BR)
9th in qualifying, DNF in race.
2. BRABHAM MOTOR RACING DEVELOPMENTS/BRABHAM-BMW BT53/2: Corrado Fabi (I)
15th in qualifying, DNF in race.
T. BRABHAM MOTOR RACING DEVELOPMENTS/BRABHAM-BMW BT53/3.

For Monaco Teo Fabi's place in the Brabham team was taken by his younger brother Corrado. Teo's CART schedule takes precedence over his Formula One commitments and this weekend Teo was racing for the Forsythe team at Milwaukee. Last year Corrado drove for Osella and he'd been to Nogaro with Brabham to familiarise himself with the BMW turbo-powered BT53. For Monaco all three Brabhams sported new rear bodywork in an effort to improve airflow to the engine, and therefore better cooling. This new bodywork gives a clue to the look of the all-new BT53B which was tested in secret at Snetterton before the Belgian GP. For the Monaco race there were certain mechanical changes to allow the BMW turbo to operate as efficiently as possible on this tight street circuit. Most importantly there was improved air flow and cooling to the engine.

For Thursday the race cars were fitted with an extra water radiator as they were at Rio and with carbon fibre brakes. In the morning Fabi stopped with electrical problems while Piquet had engine trouble. Two new engines were instal-

led for the afternoon. In the afternoon session Fabi had problems with the fuel system while Piquet's engine failed again. He changed to the spare for his second run on qualifiers. On the Saturday the spare car was fitted with the usual BMW engine with the normal air duct and the original rear bodywork. Piquet tried this set-up without success. Meanwhile Fabi lost his new-type air duct in front of the pits. For the race the car was fitted with the old-type equipment. Engine: 1500cc 4-in-line BMW M12/13 with single KKK turbo. Tyres: Michelin.



Modification of the rear of the "Monaco" type BT53's: in (1), the new bodywork, more rounded and containing three lateral air ducts and one air duct placed higher up. In (2) the oblong shape of the BMW M12/13's new air ducts whose purpose is to improve the engine's performance at low revs.

LIGIER-RENAULT

25. LIGIER-LOTO/LIGIER-RENAULT JS23/02: Francois Hesnault (F)
17th in qualifying, DNF in race.
26. LIGIER-LOTO/LIGIER-RENAULT JS23/04: Andrea de Cesaris (I)
7th in qualifying, DNF in race.
T. LIGIER-LOTO/LIGIER-RENAULT JS23/01.

Ligier have recently been testing a new rear suspension layout at Nogaro which has greatly improved the handling. All three cars at Monaco used this new design which features modified pick-up points. Their Renault engines - like those of the factory team - were fitted with smaller Garrett turbos to help minimise throttle lag out of the slow corners.

On Thursday morning Hesnault touched the barrier at Ste-Devote damaging the front suspension and continuing in the spare car, which had been set up for de Cesaris so the pedals and brake balance weren't to his liking. For Saturday both cars had new defectors on the sidepods to help with cooling. In the morning Hesnault damaged a rear wheel while de Cesaris collided with Patrese at Rascasse on his second set of tyres. Engine: 1500cc V6 EF4 Renault with double Garrett turbo. Tyres: Michelin.



SCUDERIA FERRARI

27. SCUDERIA FERRARI/FERRARI 126 C4/074: Michele Alboreto (I)
4th in qualifying, 7th in race.
28. SCUDERIA FERRARI/FERRARI 126 C4/075: René Arnoux (F)
3rd in qualifying, 4th in race.
T. SCUDERIA FERRARI/FERRARI 126 C4/072 (Alboreto) and 126 C4/071 (Arnoux).

A new chassis, 126 C4/075 for Arnoux at Monaco. His Dijon chassis, 126 C4/073, is already on its way to Brands Hatch for testing there on June 6th and 7th. All four cars have reverted to the original pre-Dijon front suspension and only 074 and 075 still have the re-designed rear suspension which was lengthened by four centimetres. Recent engine development aimed at improving bottom end power was immediately obvious at Monaco and equally effective was the use of smaller KKK turbos to improve throttle response. A modified version of the electronic injection system based on the Marelli-Weber set-up had been tried at Imola as had some new Brembo calipers specially designed for the carbon fibre brakes. But neither of these improvements was tried at Monaco, the Ferrari team preferring to rely on the Lucas mechanical injection system and the steel disc brakes. On Thursday only Alboreto's spare car featured the old exhaust layout (three into one) while the other three cars used the new (six into one) system. In the morning session Arnoux brushed the barriers and in the afternoon he spun without hitting anything. The Frenchman spent some time experimenting with different tyre compounds. On Saturday,

the cars were unchanged from Thursday. Arnoux tangled with Mansell but without any damage while Alboreto went off at Ste. Devote and broke the front suspension in the afternoon.



That meant using the spare car for his second set of qualifiers. On Sunday in the warm-up, Alboreto went off in the rain at Rascasse but damage to the Ferrari was minimal. Engine: 1500cc V6 126C Ferrari with double KKK turbo. Tyres: Goodyear.

LOTUS-RENAULT

11. JOHN PLAYER SPECIAL TEAM LOTUS/LOTUS-RENAULT 95T/03: Elio de Angelis (I)
11th in qualifying, 6th in race.
12. JOHN PLAYER SPECIAL TEAM LOTUS/LOTUS-RENAULT 95T/02: Nigel Mansell (GB)
2nd in qualifying, DNF in race.
T. JOHN PLAYER SPECIAL TEAM LOTUS/LOTUS-RENAULT 95T/04 (De Angelis) and 95T/01 (Mansell).

Having recently tested at Nogaro, Lotus came to the Principality with four cars thanks to the return of 95T/01 which was a spare for Mansell. As usual the cars featured a bevelled edge along the full length of the sidepods in conjunction with a fin along the full length of the bodywork. The rear wings are now more steeply angled and the sideplates too are positioned at a greater angle to the wing. Lots of little mechanical mods had been done specially for the twisty Monaco track, but Gerard Ducarouge would not reveal his secret tweaks. Like the other Renault users, Lotus had the smaller Garrett turbos to sharpen throttle response. On Thursday morning De Angelis hit the barrier in Casino Square and spent the rest of the day in his spare car. On Saturday morning Mansell had a spin and De Angelis tangled with Arnoux which

meant both drivers had to qualify their spare cars. But Mansell blew his turbo while on his first set of tyres and had to use 95T/02 for his final run (for a front row slot. Engine: 1500cc V6 EF4 Renault with double Garrett turbo. Tyres: Goodyear.



McLAREN-TAG

the MP4/2s are using SEP carbon fibre disc brakes with the McLaren calipers described in the 'cock-pits' section of our last issue. In the morning, Prost is stranded on the circuit with ignition problems and decides to use the T car. In the afternoon, back in his own car, he inadvertently activates the circuit breaker on the steering wheel after having his first set of qualifiers fitted and is thus unable to use the second set. Niki Lauda, meanwhile, prepared for the race in his usual painstaking way and qualified on the fourth row after various niggling practice problems. On Saturday, Prost clinched his spectacular pole position using the T car, his own car undergoing preparation on the turbos for the race. The Porsche engineers had their own ideas about how to win with the TAG turbo unit on this twisty tortuous circuit which tests both driver and car to the absolute limits of skill and technology. Engine: 1500cc TAG P01 V6, with double KKK turbochargers. Tyres: Michelin.

- 7. MARLBORO McLaren INTERNATIONAL McLaren-TAG MP4/2-2: Alain Prost (F)
- 1st in qualifying, 1st in race.
- 8. MARLBORO McLaren INTERNATIONAL McLaren-TAG MP4/2-3: Niki Lauda (A)
- 8th in qualifying, DNF in race.
- T. MARLBORO McLaren INTER-



NATIONAL McLaren-TAG MP4/2-1.

Ron Dennis's team hasn't taken a break since its Dijon victory, having spent three days private testing at Michelin's track at Ladou. The TAG P01 engines have been specially prepared for Monaco, in an attempt to reduce a too brutal power supply and throttle lag. To achieve this a new type of KKK turbocharger is being used. It would also appear, according to rumours at Dijon, that there has been some innovation in the transmission department but when we questioned Alain Prost on the subject he just burst into laughter. But in all probability it could be the differential shaft, unique in its self-locking capacity. On Thursday, unlike most of their rivals, with the exception of Brabham,



OSELLA-ALFA ROMEO

or nose section with larger nose fins. The rear wing has also been tidied up and the exhaust system seems at last to be right following many different modifications during the season. The pipes now go under the half-shafts as opposed to under the suspension arms. On Thursday Ghinzani impressed everyone by qualifying 14th fastest - by far the best performance so far from the Osella. On Saturday the Italian improved less than the others but nevertheless he qualified in the top twenty. An excellent performance from Ghinzani considering that Cheever - using the same engine - failed to make the grid in his Alfa. Engine: 1500cc V8 890T Alfa Romeo with double Avio turbo. Tyres: Pirelli.

- 24. KELEMATA OSELLA SQUADRA CORSE/OSELLA-ALFA ROMEO FA1F/2: Piercarlo Ghinzani (I)
- 19th in qualifying, 8th in race.
- T. KELEMATA OSELLA SQUADRA CORSE/OSELLA-ALFA ROMEO FA1F/3.

Now that the new FA1F/3 is built Ghinzani has at last got a spare car at his disposal. Both cars have been modified aerodynamically - both sporting a long-



RAM-HART

- 9. SKOAL BANDIT RAM AUTOMOTIVE/RAM-HART 02/1: Philippe Alliot (F)
- DNQ in qualifying.
- 10. SKOAL BANDIT RAM AUTOMOTIVE/RAM-HART 02/2: Jonathan Palmer (GB)
- DNQ in qualifying.

New bodywork for the RAMs won't be ready until Montreal. So the cars were unchanged for Monaco and are still troubled by inefficient aerodynamics, especially the lack of downforce at the back where a new rear wing is being tried. This new rear wing is similar to

the Ligier and uses two flaps plus a central fin. The rear geometry on 02/01 has been modified while 02/01 featured a completely new layout. The top wishbones have been replaced by new rockers arms while the pull-rod system remains as before. On Thursday morning both Alliot and Palmer stopped with blown engines. The Frenchman was stranded out on the circuit while Palmer managed to get back to the pits. There wasn't time for the team to change engines on both cars so the two drivers had to share one car for the afternoon session - forty minutes for Palmer and twenty for Alliot. On Saturday morning Alliot brushed the barrier on the climb up to the Casino and lightly damaged the left front suspension. Meanwhile Palmer was stopped out on the circuit with electrical failure. In the final afternoon session neither managed to qualify. Engine: 1500cc in-line 415T Hart with single Holset turbo. Tyres: Pirelli.



RENAULT SPORT

- 15. RENAULT-ELF/RENAULT RE50/05: Patrick Tambay (F)
- 6th in qualifying, DNF in race.
- 16. RENAULT-ELF/RENAULT RE50/06: Derek Warwick (GB)
- 5th in qualifying, DNF in race.
- T. RENAULT-ELF/RENAULT RE50/03.

Derek Warwick had a new chassis RE50/06 for Monaco to replace RE50/04 which was damaged in his collision with Surer at Dijon. Like the old car the new RE50/06 was equipped with the new fuel system which is designed both to lower the turbo temperature and to keep the fuel consumption as low as

possible. So as to minimise throttle lag both cars were fitted with the smaller Garrett turbos. With Monaco being so tough on brakes both chassis featured steel discs instead of the usual carbon fibre variety. On Thursday morning Tambay tangled with Boutsen and bent a steering arm. He continued in the spare car which he also used in the afternoon qualifying session. Meanwhile Warwick broke third gear while on his first set of tyres, returning to the fray at the end of the session after repairs to the gearbox. In the afternoon Warwick had two minor brushes with the barriers, breaking a wing and a steering arm. Engine: 1500cc V6 EF4 Renault with double Garrett turbo. Tyres: Michelin.



SPIRIT-HART

- 21. SPIRIT RACING/SPIRIT-HART 101B/1: Mauro Baldi (I)
- DNQ in qualifying.
- T. SPIRIT RACING/SPIRIT-HART 101B/2.
- No changes for Spirit at Monaco. As

they did at Dijon the cars now feature a new rear wing arrangement which includes side panels tapering down to the bottom of the engine. Engineer Gordon

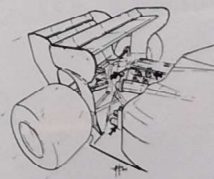
Coppuck missed the Monaco race, staying in England to work on a new rear driveshaft design for Montreal. From Canada onwards the team will use Cosworth engines because of a shortage of spares for the Hart Turbo units. Brian Hart's production line has been stretched to the limit with three teams now using his engines. On Saturday morning Baldi hit the barrier at Noghes, damaging the rear suspension and forcing him to use the spare car. In the afternoon the turbo blew up and Baldi failed to qualify. Engine: 1500cc 4-in-line Hart with single Holset turbo. Tyres: Pirelli.



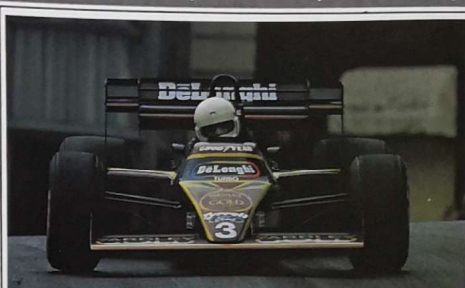
TOLEMAN-HART

- 19. TOLEMAN GROUP MOTORSPORT/TOLEMAN-HART TG 184/02(4): Ayrton Senna (BR)
- 13th in qualifying, 2nd in race.
- 20. TOLEMAN GROUP MOTORSPORT/TOLEMAN-HART TG 184/03: Johnny Cecotto (VV)
- 18th in qualifying, DNF in race.
- T. TOLEMAN GROUP MOTORSPORT/TOLEMAN-HART TG 184/01

Following Dijon we said that Senna's car was chassis number TG184/04 which - officially - is true. But the numbering is for customs purposes and transport



TOLEMAN-HART
Electronic controls of the mechanical injection system used on the T car TG Hart 415T mounted on the T car TG 184 01: at the bottom, the Marelli casing, at the top the ram of the two injectors per cylinder.



TYRRELL-COSWORTH

- 3. TYRRELL RACING ORGANISATION/TYRRELL-COSWORTH 012/3: Martin Brundle (GB)
- DNQ in qualifying.
- 4. TYRRELL RACING ORGANISATION/TYRRELL-COSWORTH 012/4: Stefan Bellof (D)
- 20th in qualifying; 3rd in race.
- T. TYRRELL RACING ORGANISATION/TYRRELL-COSWORTH 012/2.

All three cars were equipped with gas-filled shock absorbers and new rear wing sideplates had been fitted since Dijon.

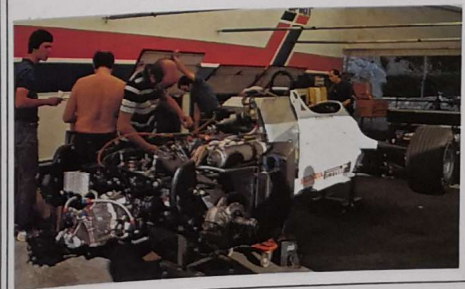
Steel ventilated discs were featured all round with single Lockheed calipers. Tyrrell has found sponsorship from the Yardley cosmetics firm for Brundle's car. Yardley were last involved in Formula One in 1973. Tyrrell hopes to keep their support for the rest of the season. On Thursday morning Bellof touched a barrier and changed to the spare car but the damage was easily repaired for the afternoon session. On Saturday afternoon Brundle crashed at Tabac while on his last set of qualifiers. The car flipped onto its side and slid along the track for about fifty yards. The car was badly damaged but Martin escaped with concussion and of course had missed his place on the grid. Engines: Normally aspirated 3000cc V8 Cosworth DFY. Tyres: Goodyear.

WILLIAMS-HONDA

- 5. WILLIAMS GRAND PRIX ENGINEERING/WILLIAMS-HONDA FW09/03: Jacques Laffite (F)
- 16th in qualifying, 9th in race.
- 6. WILLIAMS GRAND PRIX ENGINEERING/WILLIAMS-HONDA FW09/05: Keke Rosberg (SF)
- 10th in qualifying; 5th in race.
- T. WILLIAMS GRAND PRIX ENGINEERING/WILLIAMS-HONDA FW09/04.

Still plagued by understeering problems and poor handling, the Williams team have reverted to using the rear suspension layout seen at the end of last year, although the rocker arms have been

strengthened. Since Rio they've used a pull-rod layout at the front. The fuel system has been altered on the Honda engine with the 1th turbos being moved further back. This allows more efficient airflow over the rear bodywork and gives increased cooling for the turbo. As they did at Dijon the Williams drivers had a choice between using the original raised front suspension layout or the new lowered set-up seen in Friday qualifying at Dijon. In Monaco on Thursday only the spare was fitted with the raised wishbones and this was abandoned for Saturday. For Saturday the spare featured another new front suspension design; this time the front geometry being still further modified for the demanding Monaco corners. Saturday afternoon saw Rosberg with a broken turbo while on his first set of qualifiers. He changed to the spare for his second run and again a turbo failed. Engine: 1500cc V6 RA163-E Honda with double 1th turbos. Tyres: Goodyear.



SENIORITY

IT COULD HAVE BEEN REAL TROUBLE FOR AUDI BUT THEY CAME THROUGH WITH FLYING COLOURS. ANYONE FAMILIAR WITH THE GERMAN TEAM'S ORGANIZATION COULD ONLY MARVEL AT THEIR AUDACITY IN ENTERING TWO DIFFERENT TYPES OF CARS IN GREECE. IN SPITE OF THE HITCHES WHICH TROUBLED SOME SERVICE POINTS, AND THE NEW SPORT-QUATTROS NOT MAKING IT TO THE END, THERE WAS NO IGNORING THE FINE FORM OF THE QUATTROS DRIVEN BY BLOMQUIST AND MIKKOLA. THEY FINALLY GOT THE BEST OF A NEWCOMER'S YOUTHFUL AMBITION: VATANEN'S PEUGEOT. AS FOR THE LANCIAS, THEY WENT DOWN ON THEIR TYRE MANUFACTURER'S SINKING SHIP. ONE PUNCTURE, NO PROBLEM, BUT TWENTY-ONE... WAS FAR TOO MANY!

by Cyril Frey



Around the Lancia motor-home, the surprise which reigned after the first special stages has given way to real worry. Looking perplexed, Cesare Fiorio is examining the extent of the damage. The left rear tyre of Alen's car, a Pirelli G1, is peeling off in formless shreds on half of its surface. Unspoken anger wells within his large frame, Markku paces up and down, muttering under his breath in his adopted language. "Incredibile, incredibile... I don't stop puncturing. This is what my tyres look like, after only ten kilometres!" A new-comer arrives on the scene and Fiorio tells him between clenched teeth: "La merda con le gomme." The Pirelli technician has not heard him. He is stroking, spitefully rather than lovingly, a destroyed tyre, the side of which has no doubt been torn apart by a stone. Toivonen, Bettega, Biasion: they too have all been the victims of punctured tyres. It's the middle of the first day of the race, and the Italian team has suffered ten punctures among its four cars. "We're getting rid of the G1s", announces Fiorio. It's the hardest compound they have to take on the punishing Greek terrain, the toughest in the entire world championship. Although the heat has been torrid for late spring, Lancia refuses to believe that it can be responsible for the multiple punctures which have afflicted them. "We had the same tyres in Portugal and in Kenya and we hardly had any punctures there. So..." The Pirelli engineer makes a preliminary comment: "This abnormal wearing of the tyres didn't occur at all on Biasion's car. There's no doubt in my mind that it must be a question of wheel camber, the settings must be different." Fiorio: "All our cars have the same wheel camber. There must be a defect in the manufacture. Alen and Bettega, who were the hardest hit by the problem, had tyres from a new run. Biasion and Toivonen were using tyres left over from our stocks after the Safari Rally."

Pirelli: "There are not two stocks. All these punctures are of a classic type. It's only their frequency which is abnormal." Granted. In spite of which, all of the Italian machines go back out on G2s instead, softer tyres but tyres which have so far escaped the rash of punctures. Only so far, however. On the next special stage, Alen bursts a right rear tyre. Bettega is complaining about the dust and Toivonen has a migraine. Biasion, concentrated and faithful to his usual habits, says nothing. From one end of the rally to the other, the Lancias never stopped having punctured tyres. It was now one, now the other, sometimes all of them at once. When they stopped at Kalambaka on Monday night, at the end of the first leg, Fiorio didn't want to lose confidence altogether. But at the head of the standings were Röhr, Vatanen, Blomqvist and Mikkola...

"What the two cars in the lead are doing is very good. But those are new machines, and this is a very, very tough rally. If they make it to the end I take my hat off to them. I think that our real adversaries are Blomqvist and Mikkola."

Events will prove him to be right, although he still hadn't given his opponents the benefit of all of his damned punctures. Still full of optimism for his best-placed driver in whom rested all his hopes, the Italian team-manager was, there too, in for some disillusionment. It was during the Rally of Portu-

gal, as we recall, that Henri Toivonen had made a very remarkable entrance into Lancia. Only to leave the road, while he was in the lead, and thereafter succumb to an overwhelming sadness from which Fiorio had quickly saved him. Cesare, after all, knew the intrinsic worth of this man who had won the R.A.C. four years ago and who had not won anything since. "He is so quick! It doesn't matter if from time to time he goes off the road."

And in fact on Tuesday, during the second special stage, Henri is not destined to keep his fifth place for long. First of all it's a little side trip into a ditch, a trip he takes with enough violence to require help from the helicopter, which attempts to lift the Lancia back onto the road with the help of a cable. The 037 swings gently into the air, but the load is too heavy and it drops back down into the reddish Greek soil with a dull thud. When it finally makes it out of the ditch and back onto the route of the special stage, it is only to collide with the first available boulder. Out of the question, however, to stop there. Don't forget that when the Italian public was asked three years ago to pick a "Villeneuve of Rallies" they had split their votes almost equally between Toivonen and Vatanen. Henri's blood is up by now and he is determined to continue at any cost.

LITTLE CHOICE IN THE MATTER: COME ON HENRI, LET'S CALL IT A DAY.

When he arrives at the service point, the mechanics' jaws drop at the sight of the wreck he is bringing in. It would be impossible to bend it any further! There is little choice in the matter; come on Henri, let's call it a day. And that's how Lancia didn't win the Acropolis Rally. Alen's persistence in the third leg paid off with a third place finish for him, ensuring that he would be present at the New Zealand Rally. The Italians are very determined to hang onto their world title.

Flashback. Sunday night. Tomorrow, the start of the race. At rally headquarters, in this case the Hotel Xenia in Lagonissi, the atmosphere feels of the calm before the storm. There is the star-filled night, the sea, the wind which is whipping up the waves at the foot of a little restaurant where a man and a woman are dining in silence, alone and a bit withdrawn. Ari and Rita Vatanen. "I'm all right. A little bit nervous, but that's normal." The man has a heavy weight on his shoulders: the hopes of a young and untested team, but one which comes from Peugeot, a considerable company. Little by little their victories — and even more important their defeats, the sharing of disappointments, all these things will create the human ties which are so much the heart of a team. Vatanen likes the Acropolis Rally, which he has already won twice. After all, is there not some resemblance between Finland and Greece, in their common and infinite dialogue between water and rock? The sea is to the Greeks what lakes are to the Finns, it is

Walter Röhrl is suddenly in the lead, but loses it soon. (photo R. Klein). Preceding double: second victory of the season for Blomqvist, fourth for Audi. (photo André Marzoli).



tangled in their land, laps at their harbours, swallows up islands and drowns unwary sailors. One begins to wonder whether Greece is an immense ocean full of cliff-dwellers, an oriental fjord or simply that blasted country of rocks and dust which has to be crossed once a year in pursuit of rallymen. Tomorrow, Vatanen will slowly climb the steps of Olympus. Second at Kalambaka, he sneaks into the lead on Tuesday morning, then drops down in the standings, then moves up again, gathering scratch times along his way (eleven in all), and continues his ascent towards the top until that gloomy dusk when I arrived all smiles at Peugeot's service point and was met by these words from Jean Todt: "Ari broke



down. In the last special stage." Which left Nicolas, a little further back, but who would not let the third leg leave without him. He was in the Peloponnese when he gave up. The same reason was given for the retirement of both Peugeots: a lack of protection around various vital parts, which were constantly being attacked by the inevitable flying stones here. Both oil pump and distributor belts proved problematic for Ari, while it was transmissions and brake calipers especially which suffered in Jean-Pierre's car. Details in both instances, but details heavy with unhappy consequences. Those responsible for the technical side in the French team, continually motivated by a still passionate and conscientious André de Cortanze, learned a great deal during this, the début of their four-wheel drive treasure on gravel. They are more convinced than ever that theirs is the right formula, an opinion which the day's winner, Audi team-manager Roland Gumpert, didn't seem to share with them: "We won because we have a better philosophy concerning four wheel drive," he stated to one of our colleagues, touching upon a debate which has only begun to get the ink flowing around the world of rallying. It is one, in any case, whose outcome will be decided not on paper but out in the field. Far be it from us to minimize the German team's performance in the Acropolis: after two frustrating races in the Safari and Corsican Rallies, they well deserved a victory to get their morale back up.

Blomqvist and Mikkola easily dominated the first two legs, proving to be especially quick in the sections most likely to provoke breakdowns. Problems with their alternators made it impossible for them to maintain the comfortable margin they had after Kalambaka, and it was only the troubles of Röhrl and Vatanen which allowed them to recover their initial advantage. The Peugeot 205 Turbo 16 was the best in the second leg, but once it had been retired, there was no longer any need to think of changing the order in the standings, and Gumbert ordered Stig and Hannu to sit tight on their positions in the Peloponnese. We'll never know what might have happened had Vatanen been able to carry on his attack into the last night of the rally. What's certain now is that the attention at Ingalstadt will be turned to the engine of the new Sport-Quattro which neither Röhrl nor Mouton were able to finish with. Even when he was in the lead, at Kalambaka — thanks largely to the number one position which allowed him to lead the way and thus escape the blinding dust which the others couldn't do enough complaining about — even then, Walter was unhappy: "This has been the worst rally of my life. I have to constantly watch the oil pressure and I'm just ambling along. Because if someone challenges me and I'm forced to accelerate, I break down. It's lucky for me that I'm the first one out on the road. It's also an advantage when I get to a service point because the mechanics can look after me first. As far as what's going on behind me, I don't dare think about it..."

In fact, the Audi team has had the same vulnerability for season after season. Too often, panic reigns at their service points, and when it isn't two mechanics both trying to tighten the same bolt, it's Mikkola having to change tyres himself before a special stage on asphalt (there were a few), in order to put slicks on his car. No one around to help him at that particular moment (Itza), the rest of the staff being engaged in performing the same task for Röhrl and Blomqvist. What would have happened had one of the three Audis still out in the race had a serious problem at that spot? Better not to think of it, like Walter.

"That's why it's interesting for me to enter only two cars," remarked Jean Todt when asked why he refused to increase the number of Peugeot participants in the rallies. In that respect, the Peugeot back-up demonstrated admirably that by concentrating on two cars, a superior level of workmanship could be attained, one which might make the entry of a third car superfluous. The next date on the agenda for the French team is at the end of August, in Finland. Only one 205 will be entered on that occasion, that one being driven by Vatanen, of course. In the meantime, Audi and Lancia will have slugged it out on the roads of New Zealand and, who knows, perhaps Argentina (if Lancia decides to go): the battle for the world championship is as pitched as ever it was, but what's now certain is that the Italians have no margin for error left. As for the drivers, Stig Blomqvist has re-appropriated the top spot in the standings for world championship points. With the number of races he will be entering, he remains the favourite to win this year.

In the middle of the last leg, retirement for the Nicolas-Pasquier Peugeot... Too bad... (photo R. Kein).



ARI

IT'S BEEN A LONG TIME NOW THAT I HAVEN'T HAD THE PLEASURE OF HAVING MY OWN COLUMN IN A MAGAZINE

devoted to motor racing. After several years of absence, or shall we say semi-absence, it's a sign that I've come back to a top level of competition. In a certain sense I suddenly feel very young again, and I'm happy that GPI's readers are going to be able to take advantage of that. Although we haven't won anything in these first two meetings of the season for us, Corsica and Greece, my impression of them is a very positive one. They are two tests which are extremely different, and terribly difficult as well, and in both instances our performance proved to be more than encouraging. If you consider the facts that the team is new, the car is new, then you can understand why we're happy to have been in a position to win on both occasions. The 205 Turbo 16 is derived from an original concept which should prove efficient for the totality of the world championship, having already proven itself in two rallies as different as the Acropolis and the Corsican Rally. I've often been asked in recent times how I had gotten used to driving this new car. With the exception of the Opel days, one could say that I've had a long romance with the Ford Escort, which has very little in common with the Peugeot. Among other things, I was apprehensive of the infamous turbo lag, and I wondered if I would be able to brake with my left foot, something I'm not used to. Me, the specialist in oversteering, was I going to adapt myself to a car which was a potential understeerer? As you can guess, I modified my driving to suit the car. In the Corsican Rally it happened naturally, the car was easy to drive.

Here in Greece I still had more to learn. From time to time I would brake with the left foot to get into the tight corners a little better, other times I would be asking myself: how should I brake? I was discovering, little by little, how the car behaves. On the whole the 205 is fairly neutral, it oversteers a little at times, when you let go of the brake too late in a bend. But that also makes the Peugeot easier to get into the curves. Spectators are interrogating themselves: that bit of driving there, that doesn't look like Vatanen! They're right. Maybe I've reached the age where you have to learn how to be efficient in order to save time! Why wouldn't an old dog learn new tricks? Which brings me to the accident during the Corsican Rally. It was a difficult ordeal, physically — and morally as well, for my wife Rita and for me. When you see the wreck of the car after the accident, it's terrifying. That precipitous slope, the car rolling, the fire... I've often won-



dered just why it happened. Why pay so dearly a fraction of a second of lack of concentration? All of my accidents have taught me something, but I still have a lot to learn to avoid anything similar happening again. It's a matter of concentration, in fact, that's all it is! I don't feel traumatised today by what happened in Corsica but I got a lot of support from the team, and from Rita, too. She was of enormous psychological help and her advice, which was founded in true mutual comprehension, helped to lessen the moral consequences of the accident. Which is very important. I have to say as well that when I got home the presence of my children, the sound of their laughter, filled me with a real sense of well-being. How I loved life at that moment! Then came the Acropolis... The first leg went fairly well. We were a little short of time to choose the ideal combination for the suspension. In the front they proved to be too soft, perhaps the height of the car was a little too high, but I got used to it. On the road to Kalambaka I was a little disappointed in my times but little by little I got into a steady rhythm. It's not impossible that I might have lacked confidence at the beginning of this rally. Something in the subconscious, the Corsican Rally that stuck in my mind... The next day, apart from the incident in the morning, things went better. When you start having problems the trick is to stay calm because a rally is very long, especially this one, and it does no good to get aggravated, even momentarily. I concentrated on my driving and I quickly realized that I had a good chance of... doing something. You know the rest of the story. Overall in the rally I probably did lose my cool a few times, in the heat of the moment. At times like those, you tend to expect the maximum from everyone around you. But that's part of the race and in no way damages my relationships with the members of the team. We can communicate with a look, or a handshake, you know. We're all in the same boat, aren't we? My schedule for the month of June is quiet and pleasant: holidays in Finland with my family (don't forget that I'm living on the outskirts of London at the moment). In July we start setting the car up in preparation for "my" rally: I'm sure you've already heard it said, but the 1,000 Lakes is a fantastic event...

Ari Vatanen

MIRACLE AT KALAMBAKA

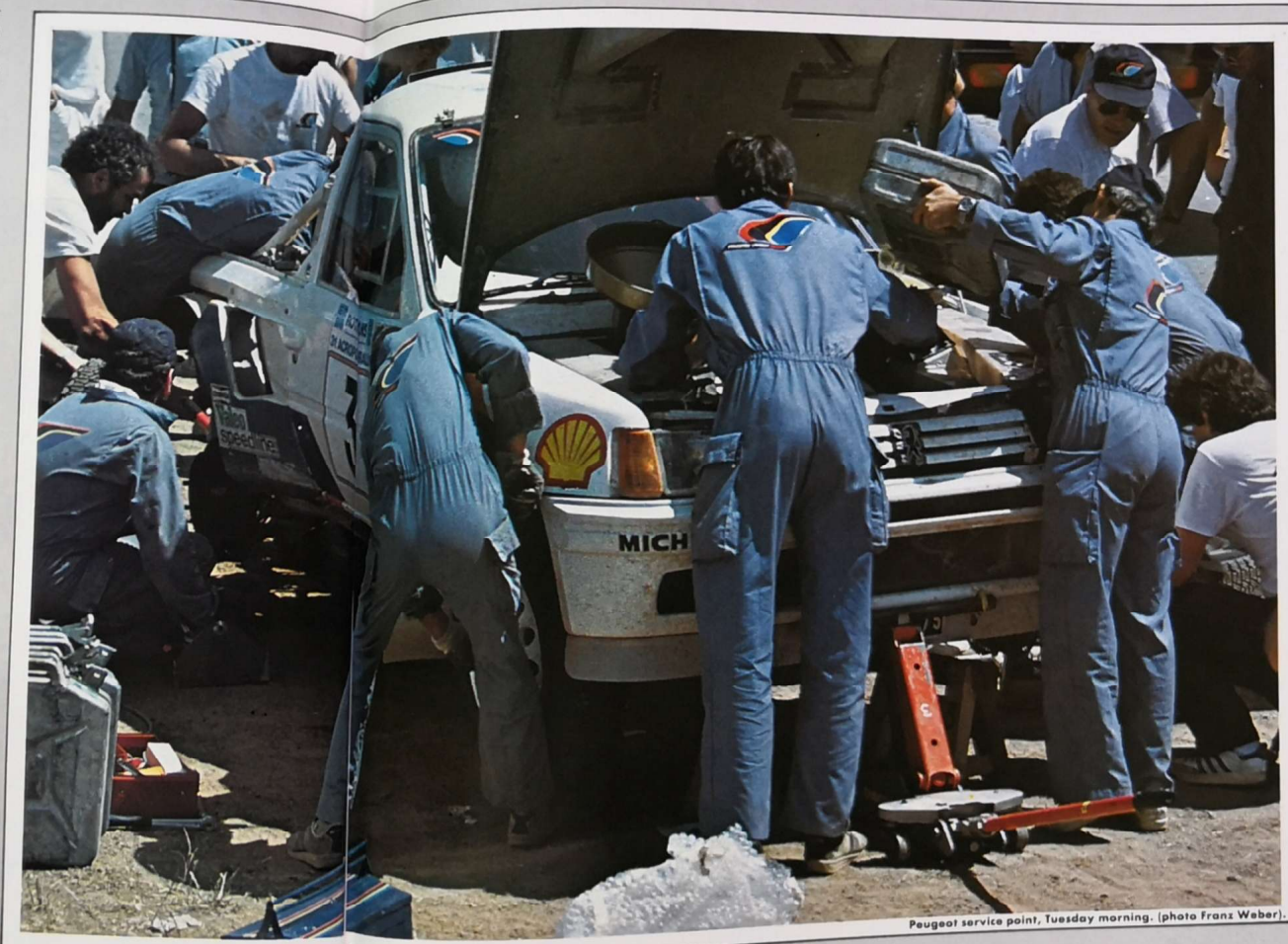
THE FIRST LEG ENDED LAST NIGHT BELOW THE METEORA MONASTERIES PERCHED HIGH UP ON THE JAGGED MOUNTAIN TOPS WHERE ZEUS MIGHT HAVE placed them in a fit of anger. At Kalam-baka, the hotel putting up the rowdy lot of Rallymen was full, but I managed to get myself a room under the name of Bision, thanks to Nini Russo.

So near and yet so far from us and our earthly fooling around, the Byzantine Fathers' "descendants" set up home on the summit of those crazy stone pillars 8 centuries ago. Today they don't really seem to care much about the pagan party taking place below them. Although Röhrli's Audi took over the lead in the Rally last night, it was having problems on the Meteora special, spluttering and hiccupping along, and no amount of praying from the well-placed neighbours seemed likely to help. Former seminarist of sorts, Walter Röhrli only stayed in the lead a short while. By some stroke of luck ordered by heaven (which does add a certain pleasure to life once in a while), his successor to the lead, the no less pious Ari Vatanen, was sent back down no sooner had he got there, an apparent reminder of his more humble place as modern pilgrim. In the shadows of the Meteoras, the Gods won't have competition. On the Karditsa road, the Peugeot No. 3 has just let out what seemed like its last breath in one shudder. A tall fair man got out, looking rather resigned to what had just happened, and came towards me.

"I'm sorry, but it's finished, no more oil pressure." The news travelled like lightning along the Peugeot wave bands. Nicolas' 205 turbo 16 was the first to come to a grinding halt. Jean-Pierre got out hurriedly. "It's working?" "No, it's seized. You could hear it going 'flap-flap-flap-flap' or something like that, anyway the engine started to seize. Then I noticed that there was no more oil pressure." Nicolas had already got to his car radio, and was talking to the team's helicopter. They answered him in no time at all. "We're coming. Where are you exactly? — on the last bit of the Trikala road." Vatanen was feeling miserable and had lost all hope. "There's not much point really. In Corsica I was ahead, and then I had to retire. Here as soon I took the lead, my engine broke down. It's a real shame."

Nicolas had a more positive attitude. André de Cortanze (the technical advisor) then came on the air, just barely audible over the crackling. "Have a look and see if it isn't the oil pump belt that's gone." J.P.N.: "Do I have to take the side off the car?" A de C. "Affirmative, Jean-Pierre." A fantastic spark of hope flashed over

Jumbo's face. At that time he was further down the results list than his northern team mate, but they had the same reasons for racing in common — serve the team. He yelled at his navigator — "Hey, Charley get the tool box, and make it quick." Then he called over to Terry Harryman, Vatanen's co-driver — "Give me your tool box quickly," and lastly he shouted at Vatanen, "It may be the belt." Ari was contemplating, looking rather doubtful, all the hard work that Nicolas was putting himself to in hopes of getting himself going again. Crowds started gathering around the antique theatre scene they were putting on — men versus machines... and time, for if their leader's car managed to get going once again, it would have to be in within the time limit at the next check point. Nicolas to Pasquier, "Open a tool box to do the same on mine, we'll fix my car afterwards." What we are talking about is the famous belt, tucked away on the right side of the "Turbo 16 engine", behind an engine case that Jean-Pierre was trying to dismount as quickly as possible. Vatanen began talking to himself, saying things like, "it may be the belt because of the flip-flap noise, I didn't think of that, not until the engine started seizing." A gust of wind swept up the dust, the chopper had landed, ejecting onto the road a mechanic came to rescue these poor stranded souls on the wayside. The guy ran over with all the energy that can be mustered when in despair, towards the silent cars. At that very moment, Nicolas bending over the innards of the wounded car, let forth a victorious cry. "It's the belt! It's O.K. Undo mine, over there!" Ari couldn't believe his ears. "I just hope it's not too late. I should have cut the engine sooner instead of carrying on like that. What surprises me, is that the engine even held out this long." Jumbo didn't have to make any more sacrifices, a new belt had appeared out of the helicopter. Vatanen then took the wheel and tried to start the engine up. No good. Again. Yes! No. Stalled. Among the gawkers standing around, there were a few experienced and interested onlookers. Arwed Fischer, from the Audi team. He wasn't what you might call angry at this change following Röhrli's problems. Cesare Fiorio (Lancia) understood everything at a glance and was already striding away towards his car. De Cortanze, who was following the Rally with JeanToot in a 205 Turbo 16, had arrived. Vatanen repeated his speech with the "flap-flap" and all the rest. "The engine's already done 7,000 km, it's not new." Back at the belt area, they were still working. Just a few seconds later, and this improvised back-up team on a Greek main road burst into applause when the French 4 cylinder, 16 valve bomb came back to life. It was 11:23. Ari carried on. 50 metres. Another halt. The spectators to the previous scene had spread out going towards their cars, now they had to come back again. What the hell was happening? "The turbo pressure's gone," Vatanen said quickly. "Only one bar." The turbo had broken, a problem more familiar to the mechanics at Audi. It hadn't put



Peugeot service point, Tuesday morning. (photo Franz Weber)

up with the strain of the brutal stopping of the engine when the belt had gone. It was not going to be changed here. Ari had to rejoin another back-up point about 12 km away. We followed him at 110 kph. He was watching the instrument panel looking reasonably worried. He knew that this race, against the clock which he had to undertake must be done by calmly hurrying. A difficult but necessary constraint. Once with the back-up boys, they sprayed the turbo with cold water before changing it. A huge, unnatural cloud of steam billowed out behind the 205. It's the first time that mechanical trouble had reared its ugly head at the French team. The Finn then realized that the race wasn't over for him yet and he began incriminating himself. "It was such a fool. Why didn't I realize sooner what was happening? It's true that I haven't had

much time to get to know this engine, or the belt. How was I supposed to know what noise it would make? The next time it goes 'flap-flap' on the right hand side, I'll definitely know where it's coming from. Well, I suppose it can be put down to teething problems, it would have happened to anyone, but I only wish that I had stopped straight away. It would have been that much easier to have called for the helicopter then, and changed the belt. Instead of that what have we got? The turbo's damaged, and that is oil lubricated too. Anyway, there's nothing to dramatize over. Even if we get in half an hour late at the control point, we'll get 15 penalty minutes, according to the rules. That means we'd be with the Lancias. Anything might happen." The turbo change took place carefully, while at the front, mechanics were changing

the suspension. Problem. They weren't the right ones. "What the hell are those shock absorbers? Ari never asked for them." The whole operation had to be gone through again; they were lucky to have the time to do it as the turbo hadn't been changed yet. This time, the turbo and the engine were ticking over as soundly as each other. Vatanen made his way to the start of the 20th special stage. He even scored the best time. During the next stage, an over-officious scrutineer gave him the order to go, and he hadn't even put on his gloves or helmet. Harryman got out of the car to make a protest. "Get back in your car, Sir, the stopwatch has been started and you're wasting your time." As in the "old style" Le Mans 24 hours start, car No. 3 made as good a try as it could, Ari's full face helmet was half down

over his eyes. Terry didn't have his note book open on the right page. We'll fix our belts later! Would you believe it, even after all those long seconds wasted, the Peugeot was yet again the fastest car! It slowly managed to crawl its way up to first place. There was nobody who could put up a fight against the Franco-Finnish tornado that afternoon. Ari has believed in miracles for a long time. His resurrection at Kalam-baka was another proof that they do exist. However, most miracles only happen once. When his engine ran into trouble again that evening, just at the most romantic time when the setting sun reddens the olive trees, Ari could no longer bring his car back to life. Or was he too far from the Meteoras?

Cyril Frey



Toivonen-Piironen/Lancia (Gilles Levent-DPPI)

AT THE END OF THE DAY, HENRI GOES OFF THE ROAD. BUT NO MATTER, FIORIO STILL TRUSTS HIM



ECONOMISER UN PLEIN D'ESSENCE.



Blomqvist-Cederberg/Audi (Gilles Levent-DPPI)

HE'S LEADING THE WORLD CHAMPIONSHIP AGAIN, HE'S WON HERE FOR THE FIRST TIME, HE'S HAPPY...

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Blomqvist-Cederberg/Audi (Gilles Levent-DPPI)

HE'S LEADING THE WORLD CHAMPIONSHIP AGAIN, HE'S WON HERE FOR THE FIRST TIME, HE'S HAPPY...



Salonen-Harjanne/Nissan (Gilles Levent-DPPI)

TIMO SALONEN'S QUIET RACE MAY HAVE SEEMED LIKE A LEISURELY STROLL, BUT AT LEAST HE FINISHED!



Vatanen-Harryman/Peugeot (Gilles Levent-DPPI)

A 205 TURBO 16 DOESN'T OVERSTEER LIKE AN ESCORT, BUT APPARENTLY VATANEN'S GOT USED TO IT



Acropolis Rally 1984 (Reinhard Klein)

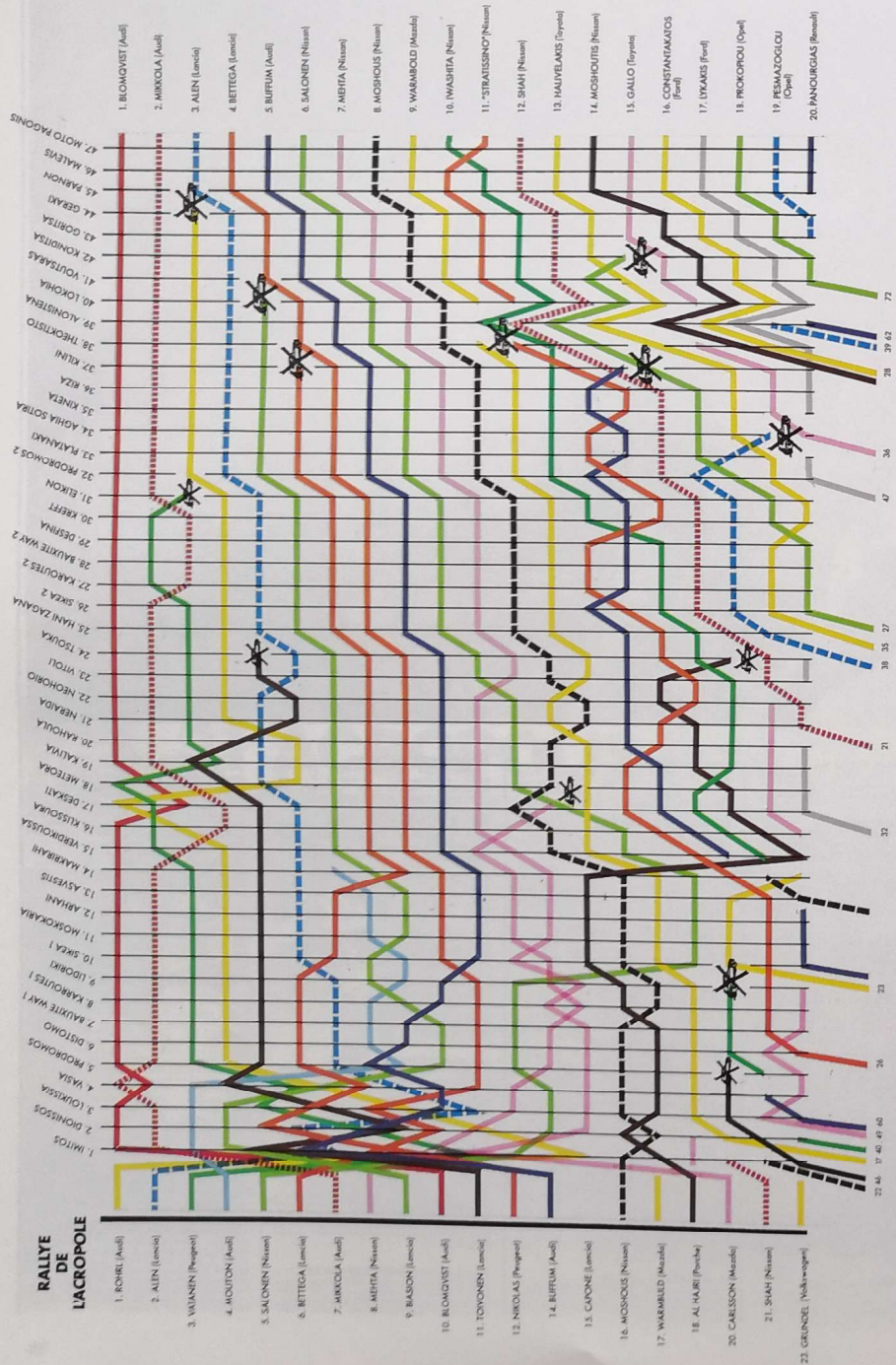
TOO TOUGH, THE ACROPOLIS RALLY? MAYBE, BUT WHAT CHOICE TERRAIN FOR UNBRIDLED CAVALCADES!



Röhrl-Geistdörfer/Audl (Reinhard Klein)

THE "SPORT-QUATTRO" WAS IN THE LEAD AT KALAMBAKA, BUT IT WAS THE BEGINNING OF THE END FOR RÖHRL...

RALLYE DE LACROPOLE



22. JASHIAS (Nauvabak) - 46. TABATONI (Cimben) - 49. HIEDING (Perf) - 60. GRIFFMANN (Audi 80) - 32. KOKKINIS (Renault) - 38. PAPATRIANTAFILOU (Toyota) - 37. "MELAS" (Lancia)

C O C K P I T S



AUDI

1. Röhl-Geisdorfer (D)
4. Mouton-Pons (F) (I)
7. Mikkola-Hertz (SF) (S)
10. Blomqvist-Cederberg (S)
14. Buffon-Callagher (USA) (GB)

This was a first-ever in gravel conditions for the two Audi Sport Quattros. They weighed in at a little more than 1,000 kilos for almost 390 hp (the turbo was set at 1.5). Michèle Mouton and Walter

Röhl were appointed to give them their first Greek stone bath, something the German double World Champion was not exactly enthusiastic about doing. He had made the reconnaissance in the "long" Quattro A2, and found himself landed with this seemingly disagreeable task at the last minute thanks to R. Gumpert. The German team manager explained why he'd chosen Walter - because of his nationality. He would thus be able to give the necessary information to the engineers, logically better than anyone else, so that the new

Ingolstadt weapon could be perfected. "You have to think of this Rally as a test for our two Sport-Quattros. We haven't time for more test runs between the races, so, the Acropolis will have that function. We'll only be able to win with the two "long" Audis." Gumpert's forecast was going to turn out as he had predicted in spite of alternator problems cropping up in both Blomqvist and Mikkola's cases. They did, however, finish 1st and 2nd, whereas the American, John Buffon drove his Quattro "Goodrich" up to a promising 5th placing

although he had injection problems. The Sport-Quattros did not finish the race. Michèle Mouton's clutch went on the first day, and the same happened to Röhl on the last. Walter lost the lead he had at Kalambaka when he fell victim to injection problems - there are two injectors per cylinder, and only one was working. Walter complained less of the brutal throttle reaction than in Corsica, whereas Michèle was absolutely delighted with her car, feeling sure that she would be able to obtain some very good results with it.



NISSAN

5. Salonen-Harjonne (SF)
8. Mehta-Mehta (EAK)
16. Moshous-Constantakatos (GR)
21. Shah-Doughty (EAK)

A double Kenyan team was seen in Greece, although they are more used to the Safari conditions. The two teams after a cautious race (as Salonen and Moshous) saw the chequered flag come down, and their overall results prove that the Japanese cars are reliable. In the first leg, Timo Salonen had the most problems, he broke the gearbox and then the rear differential. The Nissans were on Dunlops.



MAZDA

- 17. Warmbold-'Biche' (D) (F)
- 20. Carlsson-Melander (S)

A good start for the Mazda RX7 Group Bs with the rotating cylinder engines, developing 300 hp for approximately 1,000 kilos. The Swedish driver, Ingvar Carlsson had an excellent race until he was forced to retire when the final drive went. Achim Warmbold and his lady co-driver, 'Biche' Petit, (formerly Andruet's navigator), finished the race 9th. It is probable that the RX7 Gr.B will be equipped with a turbo and 4wd drive next year.

PEUGEOT

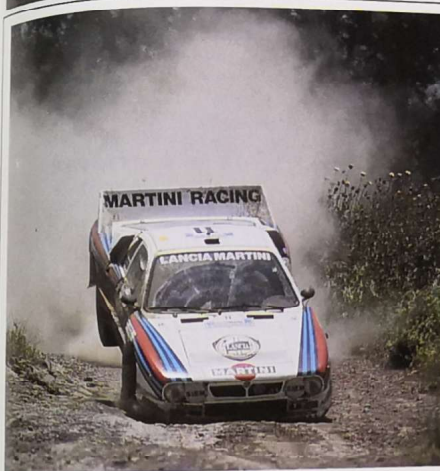
- 3. Vatänen-Harryman (SF) (GB)
- 12. Nicolas-Pasquier (F)

This was the first gravel Rally for the 205 turbo 16, and, fortunately, Ari Vatanen's injuries from the Rally of Corsica were no longer giving him any problems. Amongst the technical chan-

ges that had been made between the two races, the following were noted: smaller brake discs (diameter) as the circuit chosen called for less hard braking than in Corsica, together with brake disc covers similar to the ones used on the Audis for the Safari Rally; all the structures had been reinforced with new Bilstein suspension replacing the Peugeot shock absorbers used in Corsica. The distributor belts were also completely covered. Road clearance was made 80 cm higher; the most important modi-

fication was a different torque ratio 33 % to the front and 66 % to the rear, (25 %-75 % in Corsica). Following the additional reinforcements that had been made on the car, its weight went up to 1,030 kilos (50 kilos heavier). On the first day, Vatänen fell victim to a slow puncture (ES 1) and complained about the suspension, in spite of having adjusted the shock with a longer displacement. In all, the Bilstein suspension system was not as it should have been on either of the two cars. Ari's retire-

ment was in fact due to the distributor belt jumping out of place, and not just the oil pump belt which had been blamed on Tuesday morning. As for Jean-Pierre Nicolas, one of the brake caliper brackets broke, which resulted in one of the rear discs exploding which in turn broke the suspension. The reason each time, was attributed to stones being thrown up whether in the case of the belts or for the suspension. The French team will have gained a lot of experience in Greece.



LANCIA

- 2. Alen-Kivimaki (SF)
- 6. Bettego-Cresto (I)
- 9. Biasion-Siviero (I)
- 11. Toivonen-Piironen (SF)
- 15. Capone-Spollon (I) (GR)

Lucky winners (it must be admitted) here at last year's edition, the Lancias were this time in their gravel configurations. The front suspension had been modified (still progressive, but not as hard as in Portugal); 20 cm road clearance; 985 kilos for 320 hp and longer gear ratios than at Portugal (182 kph for top speed). Carlo Capone came off the road at the first special when he was on his way to getting a good time in; we now know that his tyres were to cost Lancia the victory; one after another, the Lancias had flats. Toivonen also came off the road during the second stage, Biasion waited for the last night to break



his transmission half-shaft when he tangled. Alen finished 3rd in spite of everything, and Bettego 4th. Attilio had an ear abscess, and was not in the best of shape during the race.



PORSCHE

- 18. Al Hajri-Spiller (C) (GB)

Qatar driver Al Hajri in a Rothmans-Porsche 911 SC RS retired when his

gearbox jammed. He had had a good race up until then putting in some fine performances. The Porsche developed 285 hp for 1,020 kilos. It is powered by a flat 6 cylinder three litre engine fitted with an electronic Bosch fuel injection system.



VOLKSWAGEN

- 23. Grundel-Diekmann (S) (A)
- An average race for the Swedish-German duo, whose transmission on the

Golf they were driving went. The new Golf 2 is still not quite ready but it should be present at the 1,000 Lakes Rally. The Golf 4 x 4 Group A Golf is expected for 1985.



TYRES

A Michelin victory. Michelin said they were satisfied with the new M90 and its reactions. The tyre was of a different structure suited for the hard surfaces and braking conditions of the Acropolis. The

Pirellis proved to be faster on short specials, but a great deal less enduring for long legs. All the punctures will be accounted for shortly, but as a Michelin technician put it, "it's the kind of thing that can very well happen to us tomorrow." That's how the penny drops with the manufacturers, he who laughs best, laughs longest.

POINTS SYSTEM

Would you please send me a copy of the points system currently in use for the World Rally Championship. I was surprised to note that, according to my calculations, only two points separate the winning constructor from the runner-up. Toyota, who was in the lead for practically the whole of the Safari Rally, scored 18 points, whereas Opel, who came in second, was awarded 16. In a World Championship where victory is the prime objective behind the constructors taking part, I feel that the narrow difference does little but encourage competitors to adopt a 'wait and see' technique, rather than show what they are capable of.

J.B. Yoncard
Rennes-le-Château
France

Here, we have an observant reader with whom we agree entirely concerning the much to be deplored points system. To make things a little clearer for everyone, we'll start from the beginning. In the Constructors' World Championship, the first ten scratch placings are theoretically awarded 10, 9, 8, 7, 6, 5, 4, 3, 2, or 1 points, and the first 8 of each Group (A, B or N), if they manage to finish in the top ten scratch list, get a further 8, 7, 6, 5, 4, 3, 2 or 1 points. Thus the winner scores the maximum amount of points - 10 (1st overall) + B (1st in its Group, usually Group B, with the Audis and Lancias). = 18. The runner up will find itself with 9 points (2nd overall) + 7 points, if the car is second in Group B, or 8 points if it is first in another Group, (A, for example). Conclusion: the first ten cars score 18 and 17 points respectively if they are competing in different groups; 18 and 16 points if they are in the same category. But! only the first car of each constructor coming in between 1st and 10th, is attributed points. If the first four cars are Audis, and a Lancia finishes 5th, the Italian firm will obtain 10 points, and his German rival, 18. Supposing that a Golf GTI were to come in 10th overall, and win in Group A. Volkswagen would find itself with 9 points (B+1). If the same Golf came in 11th scratch, even if it had won in Group A, Volkswagen would not score a single point. Out of the ten rounds constituting the Constructors' World Championship, only the best 7 results are taken into account at the end of the year, there by attenuating the small difference between 1st and 2nd to a slight extent. Don't forget, though, that it was with honourable placings and Group (2) wins that the Talbot Lotus became the 1981 champion. The car had one outright victory. As for the drivers' championship, everything is that much easier as the first ten overall placings are rewarded with 20, 15, 12, 10, 8, 6, 4, 3, 2 and 1 points.

ROLLING STARTS

So, five Grands Prix since the beginning of the season, and in the first four, a driver near the front of the grid has either almost stalled or failed to get away cleanly - Piquet in Brazil and South Africa, Rosberg in Belgium and Rosberg and Lauda at San Marino. The dangers of these incidents are only too obvious - surely no one can have forgotten the horrifying accident at the beginning of the 1982 Canadian Grand Prix that claimed the life of Riccardo Paletti. When I started going to Grands Prix in the mid 70s, it was most unusual for a car to stall on the final grid whilst awaiting the green light. It is clear that turbo cars are more prone to stalling than their normally-aspirated cousins. For better or for worse, we now have a turbo F1. It is vital for the rule makers to recognize the fact and react accordingly. The rolling starts in Endurance races are tremendously spectacular, at least as exciting, in my point of view as the traditional Grand Prix start. How much longer must we wait before FISA directs that rolling starts be adopted in F1 before there is another tragedy? Of course motor racing is dangerous, but why increase the risks?

Peter Lovering
Streatham Hill,
London.

It's true that one of the first Grands Prix of the season might have turned into a terrible pile-up when one of the drivers to the front of the grid was having problems. Can it be deduced that turbos stall more easily than the normally-aspirated engines and that a rolling start would be less dangerous? We don't think so. A turbo engine isn't any more problematic than a normally-aspirated one. The series of bad starts since the beginning of the year can mainly be attributed to specific problems as in the case of Rosberg's Honda engine. Rolling or standing starts? This has been the subject of discussion for many years now. We still prefer standing starts for another reason, with which the drivers and the federation agree, F1 wheels are uncovered meaning that a standing start, all things considered, is less dangerous. Remember Indianapolis 1966 when 17 cars crashed at the start? An ugly record.

Happy reading, GPI.

NIKI LAUDA
Les années Turbo



NIKI LAUDA
LES ANNEES TURBO

Editions Solar
8, rue Garacière
75008 Paris
PRICE: 80 FRANCS

What a let down! Worse than that, the feeling that you've been conned. Niki Lauda's actual contribution is nothing more than an interview taking up about 12 pages. The rest is an attempt by authors Fritz Indra and Herbert Volker to popularize F1. The technical part is interesting enough, but the translations are approximative, and some really unforgivable mistakes such as front stabiliser instead of anti-roll bar occur as a result. This book is utterly incoherent, with no real story. The photos are hardly worth looking at. We honestly don't know who would be interested in it. Here is a sentence picked out at random: "At Zolder, the most difficult part is the right hander before the straight. You can negotiate it at almost top speed, you turn, you put foot down hard on the accelerator and clench your teeth." How's that? We warned you.

Nothing, zero, re-read "Prokoll" by the same author.



DOSSIER AUTO:
LANCIA RALLY

Editions EPA
83, rue de Rennes,
75006 Paris
PRICE: 49 FRANCS

At first glance, No 2 of the "Dossier Auto" collection on the Lancia 037, 1983 World Rally Champion looks like

being an exhaustive technical book, and potential 'must' for all motor sport fans. All the mechanical parts of the Turin-made engine are described in detail, with a few race photos to illustrate, (should appeal to model makers). However, a second glance leaves the reader wishing that there were another 20 or so more pages, EPA are selling their book at a rather high price for 28 pages. This book is not really destined for the specialist in the subject, but gives a quick and interesting approach to the different techniques used in the building of a rally car.

Two £ at least it exists.



NELSON PIQUET
THE STORY OF
HIS 1983 WORLD
CHAMPIONSHIP

Ric van Kempen
Kimberly's
19 Heath View
London N2 0QD
PRICE: £2.50p

We shall continue declining the Kimberly series, this time with a book relating Nelson Piquet's path to victory last year. The author begins with a brief account of Nelson's life. He then goes over the future World Champion's races and finishes with a technical article on the Brabham BT52. There aren't any particularly exciting photos to ponder over, apart from a few colour ones in the central pages. One feels that the whole book is rather inconsistent, and 32 pages isn't much really. Van Kempen might at least have included an analysis of the season, not to mention an interview with the driver himself.

Two £ lacking in detail.

WHAT'S ON

20-22 JULY
BRITISH GRAND PRIX F1

BRANDS HATCH
Brands Hatch
Circuit Ltd,
Fawkham,
Nr. Dartford,
Kent. DA3 8ND
Tel: (0474) 872331
Untimed practice on Friday and Saturday from 10:00 to 11:30. Timed practice on Friday and Saturday from 13:00 to 14:00. Warm-up on Sunday from 10:45 to 11:15. Race starts at 14:45. Admission prices: public enclosures: £5 on Friday; £5 on Saturday; £12.50 on Sunday. £17.50 extra for covered stands on Sunday.

27 July - 1 August
WORLD RALLY CHAMPIONSHIP
ARGENTINIAN RALLY

Automóvil Club Argentino
Av. del Libertador 1850,
1425 Buenos Aires
Tel: (1) 802.06.86
Wednesday 25 and Thursday 26 July 9:00 - 12:00 and 14:00 - 18:00: scrutineering. Friday 27 July 22:00 start given at Buenos Aires for the first leg. Monday 30 July 7:00 start from Cordoba for the second leg. Tuesday 31 July 7:30 start from Cordoba for the third leg. Wednesday 1 August 7:00 start from Cordoba for the fourth leg.



RIO 1984

Black Power



John Player Special King Size



MONTREAL GRAND PRIX

Even though Gilles Villeneuve is no longer with us, the Canadian public are still the fervent F1 fans they have always been. Montreal is the starting point of the American championship, followed by Detroit and then Dallas. Bye bye Good Old Europe...



THE LE MANS 24 HOURS

You may have heard that Le Mans is no longer what it once was. Perhaps, but it will still look the same at five in the morning, near 'Arnage' or 'Terre Rouge', the champagne will flow as steadily until the three o'clock finish on Sunday afternoon, and this year the cats are away...

IMSA, TECHNIQUE, ETC.

Although Le Mans and Montreal are the main features of this first special edition of the year (136 pages), you will also find all your favourite articles including Third Degree, Eye on Technique and we'll be taking a glance at IMSA.



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