

Great Britain : 75 p. Canada : 2 95 can \$.

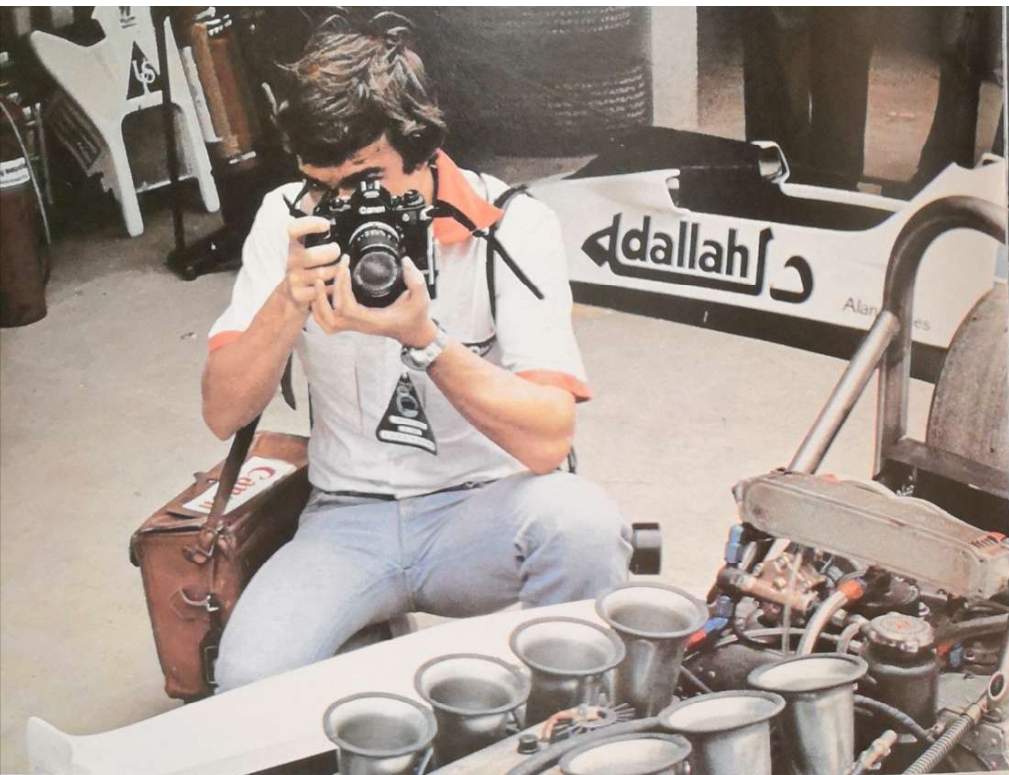
Grand·Prix

international

BRAZIL



n:2



Canon A-1

« THE YEAR'S PHOTOGRAPHIC EVENT »

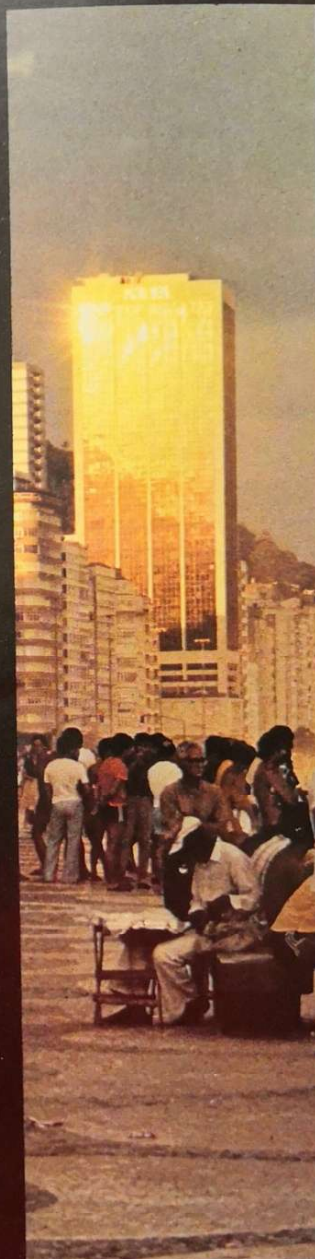


CANON A-1

- Professional tool: selected by « AUTOhebdO » photographers to record the F1 races.
 - Public's favorite: appointed « camera of the year » by Britain's « Practical Photography » readers.
 - Press' marvel: « The A-1 is an extraordinary camera, perhaps the most sophisticated 35 mm ever to reach the market ».
- Popular photography, U.S.A.

CANON SLR

Designated « official camera » for the Olympic games in Montreal, world cup football in Argentina, commonwealth games in Canada, Asian games in Bangkok and in 1980 Olympic winter games in Lake Placid.



Blue frog's day

By entering two cars in the 1979 world championship, Guy Ligier took an important bet. If he had double his chances of victory he had double his chances of misfortune too.

His team manager Gerard Ducaurouge, had a much more important task in organising the Team, and had to look after every detail to make sure everything was running smoothly.

A Grand Prix can be won or lost on the slightest mistake.

Guy Ligier has not only won the first two Grands Prix. He has won his bet too. His team has not wait long before everything run perfectly. Immediately fully operative the Ligier team has taken its place within the greatest names of the Formula One. It took three seasons of hard work and mistakes to reach this result. The French team has managed to conceive an efficient car, make it immediately competitive on the track and what's more have it to win, all at once. On Interlagos race track, a few miles away from Sao Paulo, you must play the game. The slightest defect on men or machines can be found immediately on this track, one of the hardest in the world.

For Laffite, Depailler and their two JS11, not the slightest defect appeared.

Total domination, complete success. Jacques and Patrick dedicated their triumph to their boss, Guy Ligier.

On the 4th february, at Sao Paulo it was Ligier's day.



GRAND PRIX INTERNATIONAL IS DISTRIBUTED BY SEYMOUR PRESS LTD: 334 Brixton Road, London SW9 7AG. Telex: 8812945 Seypress London. CHIEF EDITOR: Eric Bhat. ASSISTANT EDITORS: Paul Wilson, David Waldron. EDITORIAL SECRETARY: Xavier de Nombel. ART DIRECTOR: Marc Blais. ILLUSTRATION: Marc Monceau. Lionel Frossard. PHOTOGRAPHERS: Bernard Lasset, Harald Ströbel. Camera CANON. D.P.P.I. GRAND PRIX INTERNATIONAL is published by S.N.E.P. PUBLISHING DIRECTOR: Michel Hommell. ASSISTANT DIRECTOR: Gerard Lips. EDITORIAL/ADMINISTRATION: 7, rue de Lille, 75007 Paris - France - Tel.: 260.34.65. ADVERTISING: Profil 18/30, 7, rue de Lille, 75007 Paris - France - Tel.: 260.34.65. COMMERCIAL DIRECTOR: Philippe Michin. PHOTO SETTING: Typo-Elysees, Comptonic. PHOTOGRAVURE: R.P.M. DISTRIBUTED IN ITALY by: M.E.P.E. via Carcano 22, 20141 Milano; tel.: 02/6458141. DISTRIBUTED IN GERMANY by: W.E. Saarbach GmbH. 5000 Köln 1 - Postfach 10 16 10 - Folterstrasse 2 - Tel.: 0221/2444531 - Telex: 8881067. DISTRIBUTED IN FRANCE by: N.M.P.P. Distributed in Belgium by: A.M.P., 103, rue de la Poëssie-île, Brussels. DISTRIBUTED in Argentina, Brazil, South Africa, Canada, U.S.A., Holland, Spain, Switzerland, Sweden, by: G.I.H. PRINTED IN ENGLAND by: Group-Print - London. C.P.P.A.P.: in waiting.

On sale 10 days after each Grand Prix

PADDOCK PATTERN

PIERRE DUPASQUIER'S REPLY

The engineer Pierre Dupasquier, head of the Michelin competition service told us that he was interested by Paul Lauritzen's statements in our columns. But he told us that he did not share the views of his American colleague.

"It's only a question of time; we'll beat Michelin just as we beat Firestone." Lauritzen had said to us. "Our technology is such that we must be the best. The unfortunate thing is that Dupasquier must be thinking the same thing."

But no Dupasquier does not think the same thing at all.

"Lauritzen says that Goodyear is going to beat Michelin, it's his right. But contrary to what he thinks Michelin can't say the same thing. Michelin's attitude has been clearly defined; we are competing in Formula 1 with a radial tyre to pursue the development of a solution which we're trying to bring to its limit. It's obvious that we want to win, but our aim is not to win at any cost just to beat Goodyear. The proof, we supply only two teams. If our objective had been to win the Championship before anything else we would have undoubtedly equipped more teams to increase our chances and to widen the scope of our work."

"Will that be your aim in 1980?"

"It's not evident that we'll continue in Formula 1 next year. Once the work has

been brought to its conclusion whether good or bad, it will have to stop one day.

—It it's really good, you won't stop. It doesn't follow.

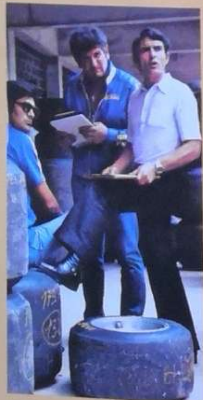
"Why not? As far as I'm concerned if we manage to have clear results and feel we are quicker and more reliable on a regular basis than our competitors, the problem will be solved. Afterwards Michelin may decide to continue but for reasons other than technical ones. For example, to assume its responsibilities in the context of Motor Sport in so far as Michelin wishes to remain there."

—You must admit however, that you want to beat Goodyear, as Lauritzen supposes.

"But no, he has every chance of beating us. Goodyear supplies many more top teams than us, and benefits from contact with "wing cars" thanks to Lotus. It's unthinkable to compare their position to ours. We're going to begin our "wing car" experiments in a few weeks, not before. There's no possible comparison. I think my friend Paul Lauritzen is certainly going to win his best."

—Even so Renault has a lot of potential. Ferrari has thirty years of experience and one of the best sets of results which exist. You bet on them as your winners. I find it strange your saying "we're certainly going to lose."

"It's not strange. Already in the past Michelin has had such experiences. In Monte-Carlo for example, the Fords and Fiats had every chance of winning. We only equip-



ped Darniche's Stratos. On paper Michelin did not start out to win.

—Many people saw the Stratos as favorite.

"No, not against Ford. I don't think so. The Chardonnet team is one of the best but without the potential of factory assistance. All you had to see was the equipment used by some of the others."

—Interlagos, you don't know, but from the next Grand Prix onwards you will be working on known territory. You showed your potential last year. This year you will have experience. That should give good results.

"That's already given good results here at Interlagos. To succeed in getting the good times of Scheckter, Ville-

AN ALFA-ROMEO IN SPAIN?

The question mark is obligatory. It is possible that the F1 Alfa-Romeo will make its first appearance in the Spanish Grand Prix. Bruno Giacomelli has already signed a contract to drive it. His morale has been saved. It would be unthinkable for the little Italian, last year's European Formula 2 champion, to remain without a seat. Indeed Alfa-Romeo often has the bodywork of its competition cars designed by the engineer Choulet... the very same who took part in the design of the Ligier JS 11.

neuve and Jabouille with already out dated cars, that's pretty good!"

—And afterwards?

"We're in a difficult situation. Each one is trying to push as far as possible to get better performances; and to finish the race in these conditions is rather difficult. "To play" with the "wing cars" thanks to tyres, is just a little dangerous."

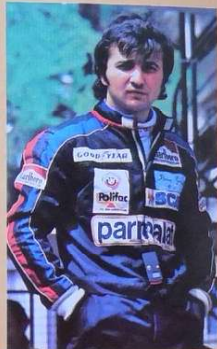
RIO: ASIDES.

In spite of the economic and industrial power of Sao Paulo and its inhabitants, it seems that the Brazilian Grand Prix has a certain wish to emigrate to Rio for the next two years. Rumour has it that Bernie Ecclestone, in the name of the FOCA, has signed a two year contract with the Cariocan organizers.

Scheckter was not the scapegoat. Contrary to what we thought was the possible cause of the Buenos Aires pile-up, the chaos was not because of Scheckter's Ferrari losing a wheel.

LOTUS 80: WITHOUT WINGS.

In the Lotus team while the 79s are standing still in relation to the Ligiers, the construction of the future 80s is going full steam ahead in England. All that Chapman's team would say was that it was a normal and logical evolution of the 79 in the ground effect design. To corroborate this information a strong rumour has it that it is an entirely new car without any wings. The Brabham BT 48 has been designed with this in mind but has not yet



succeeded in doing without the traditional wings. Will Colin Chapman, in his expected role as innovator, be the first in this field.



KEEGAN: A LOTUS FROM SPAIN ONWARDS?

Rupert Keegan was at Interlagos as a spectator and spent most of his time with the Lotus team. He confirmed to us that he would most probably have a Lotus from

the Spanish Grand Prix onwards, entered by an official Lotus B team. Some sponsorship details have still to be sorted out which did not allow Rubert to state that every thing was cut and dried.

NEW CARS: KYALAMI LONG BEACH OR JARAMA.

The so-called conventional cars in relation to the "wing cars" are from now on irrevocably out dated by the new generation of single-seaters. Furthermore they will all disappear in a short time. The new Williams, Ensign, and Merzario are expected at Kyalami, where the Copersucar F6 will make its real debut, after its fleeting appearance at Interlagos. The new Renault will perhaps appear at Long Beach and the Lotus 80s at Jarama. The beginning of the European season will also undoubtedly be marked by the debut of a new Arrows.

FERRARI: A V6 TURBO.

Contrary to its rival company Alfa-Romeo which has chosen to design a narrow V12 to be adapted to ground-effect techniques, Ferrari seems to be turning in the direction of a V6 turbocharged engine... which of course, does not exclude a possible use of the "wing car" technique as Renault will soon demonstrate.

This turbocharged engine exists. Mauro Forghieri affirmed it to us once again. "Its being bench tested at the moment" said Forghieri, "but as long as these tests are not completely satisfactory, it's obvious that we won't use this engine."

— Can you give us an idea of its power?

— No, that doesn't mean anything. With a turbo power can easily be generated. The problem lies in the use of this power.

— Have you set a time limit for the use of this engine in an F1 car?

— No, we're still involved in research. Even when the bench tests, give good results, we'll probably still hesitate. Theoretically its an excellent solution, but in this field there's such a gap between theory and practice. Knowing the technical potential of the Scuderia,

one can believe that the turbocharged Renault will soon have a little brother. It is only a question of time, and of months rather than years.

DEPAILLER: THERE WAS A FAULT

At the finish of the Argentinian Grand Prix in which he came fourth after stopping at the pits because of an electrical problem, Patrick Depailler complained bitterly about the road-holding of his car, which he found to be oversteering a lot in relation to that of Laffite, his teammate.

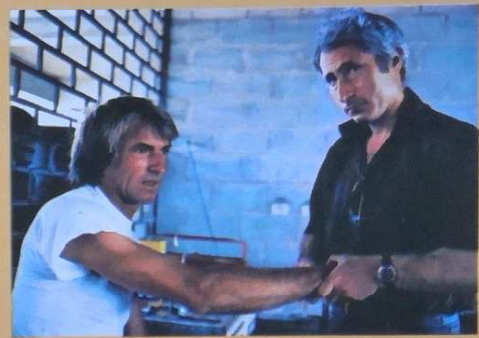
To get to the heart of the matter Patrick went out again on the Buenos Aires track on the Tuesday following the Grand Prix, and quickly put his finger on the problem; a shock absorber joint was sticking. Within only a few laps he got round in 1'46"1 (pole position: 1'44"20 with qualifying tyres) and recaptured his usual serenity. He did not yet know that he was fated to meet the same problem in Brazil.

A MASSEUR FOR THE "EQUIPE DE FRANCE"

The French Motor Sporting Federation very proud of having seven drivers in the

"Equipe de France", has decided to do something in its favour. Jean-Marie Balestre has hired a masseur who will follow the drivers round all the circuits. It is Doctor Moreau who has already

looked after the Renault team at the le Mans 24 Hour Race. A great swimming and tennis enthusiast he will train the drivers physically as well as looking after them should the need arise.





G. Ducarouge: behind the victory

They were too fast and too reliable at both Buenos Aires and Interlagos for it to be pure chance. Veritable champions of the South American "tournament", the Ligiers will be the cars to beat in the coming Grands Prix. Still too happy to worry on the day after the Brazilian Grand Prix, Ducarouge is confident about the immediate future of his troops. Already he knows that his cars are quick... and that they can still go quicker.

Gérard, yesterday was the Ligier's first double. And today, is it complete euphoria?

No it's more or less the opposite. Above all I feel very tired, I'm in a state of total decompression. I don't feel at all euphoric, indeed I don't even realize how well things have gone in South America. I had a moment of really intense emotion at the end of the race. Twenty minutes later, I had a sort of let down due entirely to tiredness. We're a bit lost far away from home. We've got no papers and don't realize the impact that this double success is having. *What's more, the whole team must have been living on its nerves during the last three weeks?*

Not only the last three weeks, as for the last three months the whole team, at every level, has worked like demons to get the cars ready in time. There was a lot of midnight oil burned. During the South American campaign I'm sure that nobody slept more than four hours a night. Yesterday after the finish we left really great for about an hour, and then everybody just relaxed. We still feel a little dazed by it all.

Two wins, a second and a fourth place in two races. How can the Ligier JS II's superiority be explained?

Over the last three years we have

accumulate an enormous amount of experience, and we have invested the best of our knowledge in this car. If today, we had to design a new car I would have a new JS II made because I don't see at the moment, how we can do any better from a chassis and suspension point of view.

By designing this car, did you really think that you could advance the desing of the ground effect car, as demonstrated by Colin Chapman? One has to be very careful. Of course the JS II is a ground effect car which is responsible for its performance capacities. But I think that most of the observers and people who know the motor racing world, have noticed that the strong points of the Ligier are not fast bends but slow or medium speed corners. Already aerodynamics are playing a role at low speed, but it appears, according to the spot times which I was able to take in Buenos Aires, that our strong point is in the mechanical field rather than the aerodynamic one, but the bodywork, the chassis, and the suspension cannot be separated: it's a consistent whole which is working well at the moment.

What exactly are the reasons for this superiority in the slower parts of the course?

It's the result of an accumulation of elements which we noted, measured and analysed in depth with the JS 9 last year. It wasn't a very competitive car but it allowed us on the one hand, from an aerodynamic point of view to put our finger on the mistakes not to be made, and on the other to increase our knowledge of suspensions. During the year we designed three different sets of suspensions, the last of which allowed Jacques to become more competitive at the end of the season, because of an improvement in the geometry. We've adopted this principle to the JS II. But I would like to repeat the fact that a good car is a whole made up of good suspensions, a good chassis, and good bodywork. The Ligier's superiority is due to this ensemble, which nonetheless, can be improved point by point. And you can rely on us to do that!

The JS II has proved that it was well designed, and also well built, as it was one hundred per cent operational straight away. How did you manage this?

There again it was experience which counted. Why team is now perfectly "run in". The public understood this last year as from sixteen starts was finished fourteen times. This is also un-

doubtedly due to the fact that I was trained in the school of Sports Prototypes, where preparation was of primordial importance to enable the cars to finish races of 24 hours or even 1,000 kilometres. All the energy which we expended to this end with Matra has been passed on to the members of the Ligier team who were not with me at Matra. Anyway good preparation has been a tradition for Ligier who brought home two JS 2s in the first two places of the 72 Tour de France. All that explains the reliability of our cars. What surprise our English rivals the most was to see an entirely new car with an engine unknown to the team, show such reliability.

I was however, rather worried when arriving at the Interlagos circuit, as the state of the surface is dreadful. Indeed it is hardly conceivable that a Formula 1 race can take place on such a circuit, as the cars are submitted to such stresses that the suspensions or other parts could break. This could have serious consequences as safety is more than doubtful in certain places. Thus for us, Interlagos represented a real test from a reliability point of view, and I think we've passed it pretty well. Two cars at the finish in the first two places on such a testing circuit; it's a fantastic team victory which I'd like to dedicate to Guy Ligier.

Thus Interlagos showed the homogeneity of your cars.

Yes, the JS 1Is proved that they have very strong suspension attachments, a very rigid chassis, and bodywork accessory attachments which are also very well made as we had no really serious incidents. That being said the car is not yet perfect. I think that from a performance point of view, we were certainly one and a half seconds down per lap because our lateral skirts were not working properly. In the two weeks to come we're going to put a lot of work into this area to make a real improvement in our cars efficiency.

Between Buenos Aires and Interlagos, you did however modify your skirts system.

Yes, in Buenos Aires the springs were defective. At Interlagos we used a mixture of springs and elastic. But on this circuit because of the surface, the parts of the bodywork rubbing against the surface received an impact almost every meter. The only cars which didn't have this problem were Niki Lauda's Brabham and of course the Lotus which have already had a year's experience in this field. So we're giving ourselves fifteen days to try and perfect the setting up of these skirts to gain another second per lap.

The JS II are completely new. In what other areas apart from skirts can they evolve for the future?

In every direction. We're going to try and find slightly different suspension systems, we're going to work on the dampers and the flexibility, as we may have problems on the slow circuits where it's necessary to run

with a very high aerodynamic load. As well as this continuous air tunnel development must be carried out to improve the Cx-Cz compromise i.e. straight hire speed and aerodynamic load.

In this field there is a great deal of work and research to be done as there are multiple possibilities. We'll never find the real solution, but we have to keep on working. To this end we've had a programme going on since January 1st. We should have enough results to try new parts for the South African Grand Prix, in order to improve the famous Cx-Cz compromise. At Kyalami, it's important to have a high straight line speed, as it's almost impossible to overtake anywhere except at the end of the straight. Let's not put ourselves down however, as at Interlagos the Ligiers were the quickest in a straight line after the Renault.

From now on the Ligier team is entering two cars. Does that pose big problems from an organisation point of view? It must surely be more difficult.

It is much more of a burden, but in fact everything is going OK as I'm very well backed up. I delegate a lot of mechanical problems to the head mechanic Lionel Hublet, who really does a fantastic job. We've been working together for twelve years. He's a very intelligent bloke who knows his job inside out which is a great help to the team. He looks after all the mechanical problems and supervises each mechanic. This is a great asset for the reliability of our cars.

Furthermore I asked Michel Beaujon, head of our design office to come and back me up on the track temporarily, as it's obvious that if the two cars stop at the same time, I can't be in two places at once. In the very near future I'm going to take on somebody who will be with me all the time on the track, a young bloke that I'm going to train so that our team is properly welded together.

Another big change for your this year, the use of the Ford Cosworth. How have you managed to lessen the problems posed by the vibrations of this engine?

There again, experience has been a great help. Don't forget that in 1975 we finished second at Le Mans with a Cosworth engined JS 2. In the multiple initial tests which we carried out we managed to isolate and overcome all the vibrations. As well as this small experiment it must be added that we kept a very close eye on what our competitors had designed. Don't forget that in Formula 1 everybody tries to see what tweaks the other teams have found, and I'm no different from the rest. Whenever I see a really good idea I note it down and remember it.

An then above all Michel Beaujon, with his Matra "know-how" has perfected his calculation methods. Fewer and fewer parts break on our cars as everything is well calculated by Michael. We are more and more sure



when for example, we fit a new suspension. In principle although anything can happen in Motor-Racing, our suspensions are very well measured and don't give us any reliability problems.

What is still giving us problems are all the accessories fitted to the chassis and thus subject to engine vibrations, the various pipes, the radiator supports, the water tank supports, the pump supports. All these parts have to be protected from the chassis vibrations. At the moment it's a big problem for us but we've managed to find a partial solution, the proof being that our cars didn't stop either in Argentina or here in Brazil on a very difficult circuit. We feel we have a pretty good chance of solving the problems which still remain. That doesn't mean however that we'll be completely safe, even the most reliable cars in the World stop one day or another.

Lets talk about the drivers! Jacques Laffite now has a car capable of winning races. Have you noticed any changes in his behaviour?

Jacques's a guy, I'm very fond of. He's a very quick driver and I knew this even before he won. He still acts like the maggot two minutes before the start. Jacques will never change. He likes the good things in life, but as soon as he gets into his car he becomes another guy whom we don't know as we're not in contact with him. This we're not in contact with him. This Jacques goes very quickly, can think and knows how to drive a race as it should be driven. He's given striking proof this during the last two Grands



Prix. But at the end when he gets out of the car he is again the Jacques we know, jovial and full of fun, with a sense of humour which infects everybody around him. I don't think he'll ever change.

Was he underestimated beforehand?

Not at all, at least not by me in any case. Perhaps by some others. A lot of people said he wasn't serious enough. Me, first of all, I often told him that he should adopt a slightly more professional attitude. But you must know how to accommodate yourself to people's character. It's difficult to change an adult's mind and his way of life, and Jacques is of course an adult.

Did Patrick Depailler's inclusion in the team take place in the best conditions?

Absolutely, and I think he'll be associated with Jacques in our successes. Both Jacques and Patrick are equally good drivers and ultra quick. They have known different fortunes in these last two Grands Prix, but the opposite could have happened, which would not have damaged Jacques's reputation as it has not damaged Patrick's. He drove a good race in Argentina. The rev limiter was cutting in lower and lower and Patrick was increasingly penalized in revs in the straight. However he put up a great fight to try and keep Reutemann at bay. At Interlagos he was hindered by a problem which we must overcome.

Have you found it an advantage to have two cars on the track?

Yes, the second car brings us a

whole heap of different information. During a practice session I get double the information in relation to last year. Two sets of information enter into the discussion which sometimes agree, or which differ, as the cars are not exactly alike and the tyres are not necessarily the same. The fact of having more information allows us to evolve the cars more quickly. Patrick's inclusion is a great thing in this respect. I hope that the rest of the Championship will prove this.

During the last two Grands Prix, the cars had the same settings. However in Brazil as in Argentina Patrick complained of excessive oversteer at the finish. What caused this?

Obviously because of factors we couldn't control on the spot in Argentina and Brazil as we didn't have the equipment to do it. In principle all parts are the same. When we go back to Vichy we'll get down to discovering the problem. The cars will be completely stripped down.

We're going to fit other suspensions, other shock absorbers to a stripped chassis, we're going to check the spring settings and we're going to re-adjust the gearboxes. In South Africa the drivers will have almost new cars. Perhaps the opposite will happen and Jacques' car will have problems. It must not be forgotten that a car pushed to the limit has a certain tendency once it reaches this limit. In any case something is happening. Patrick's car was oversteering and in Brazil Jacques' was understeering. In fact it's great that the drivers feel that something is

preventing them from going quicker: we'll overcome this to make them go even faster. It's really very positive.

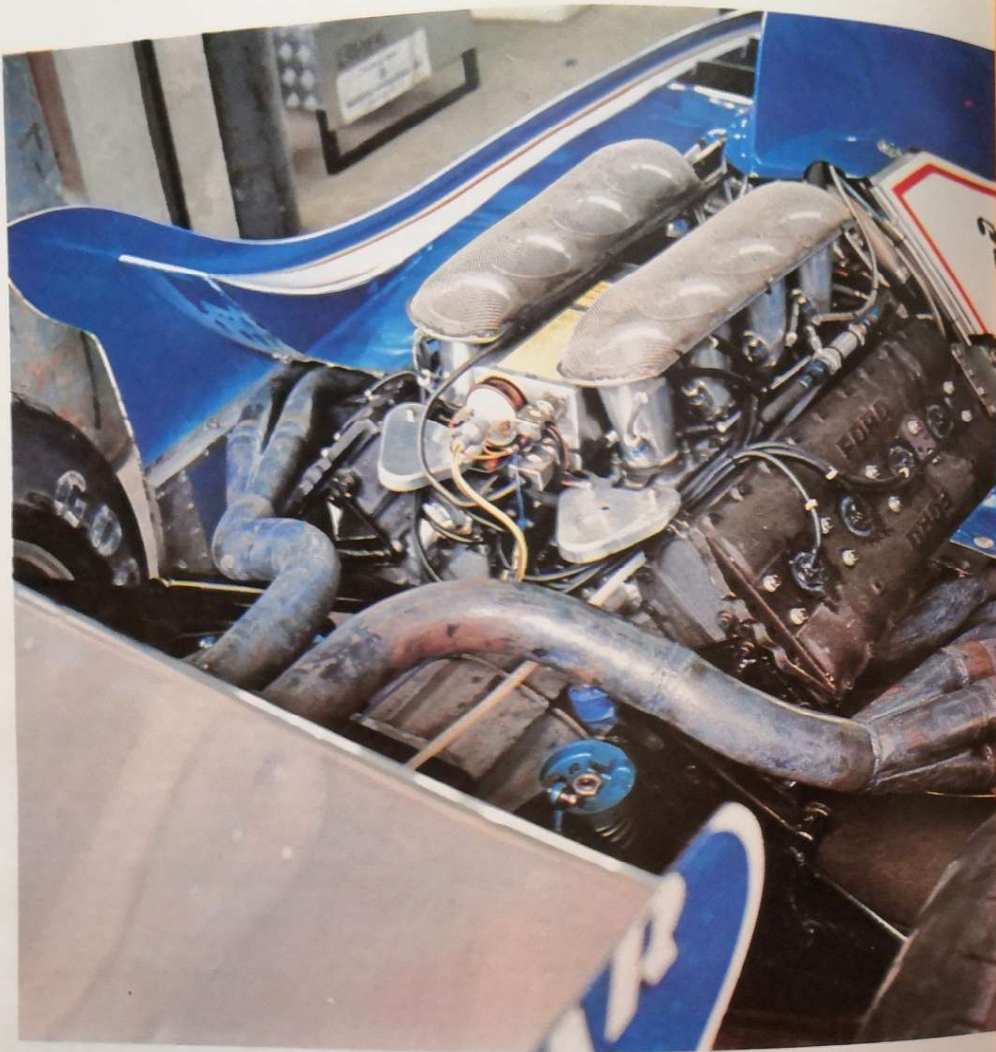
If the two cars were at their limit, it was also because the two drivers were fighting between themselves. Could that not be dangerous for the team?

We're dealing with two adults who drive the car to its limit a safety margin. At Interlagos they covered the first lap very quickly gaining 4" on the Lotus. Their advance then stabilized at around 2" and then 1"5 per lap. For various reasons, understeering for one, and oversteering for the other Jacques and Patrick lifted off a little to save the car.

But Jacques as much as Patrick admitted that they were really flat out and that they were racing against each other. Doesn't that make you want to impose some team discipline?

Whether Depailler passes Laffite or Laffite passes Depailliers or whether one or the other tries to pass Reutemann, Andretti or Scheckter, there's not much difference.

It's too easily forgotten that it's the World Driver's Championship they're fighting for. Let the drivers give their best until the end, without giving any particular instructions. It would be a stupid and arbitrary choice as things stand at the moment. In all cases the two drivers have equal status. If one day a decision has to be taken we will take it in favour of the one who has the best chance of becoming World Champion. But I hope there won't be any need to make that choice, and if I



Laffite and Chapman at loggerheads

On Sunday morning at 9 o'clock on 4th February Colin Chapman almost swallowed his salt and pepper moustache. At the end of the warm-up session Jacques Laffite continued his practice unruffled by the fact that the chequered flag had been waved. A little more than two minutes later Chapman was on the point of eating his black hat as Laffite continued to lap. Hesitating between apoplexy and anger he opted for the second solution, and went to Bernie Ecclestone to tell him what he thought of the situation, and he in his turn started to boil.

With a firm step the two men set out for the entry of the slowing down area to block Jacques Laffite route as he attempted to reach his pit after three additional laps. Jacques just missed hitting Bernie by the skin of his teeth.

On getting out of his cockpit the Frenchman was set upon by the two Englishmen who vented their anger in public, before dragging the supposed "criminal" into the Clerk of the Course's Office, claiming nothing more or less than his disqualification from the Brazilian Grand Prix.

But how in heaven's name did things become heated to such a degree?

In fact, Chapman's anger was justified, contrary to what certain people thought who, feeling that Colin could not bear to see the Ligiers making a mockery of his Lotus, suspected the English Constructor of showing his urge to win in a somewhat inelegant fashion.

In reality, Chapman certainly knew that Jacques had lost both

Saturday sessions because of fuel feed problems. Perhaps for this reason the Ligier driver had not had time to set up his car with racing tyres and a full tank. He had only Sunday morning practice to do this.

But this practice had started under rainy conditions and the track began to dry only at the end of the session. It is this plausible that Jacques ignored the chequered flag as he needed some extra laps. This was the reason for Chapman's anger as he saw his principal rival, the man to beat, bending the regulations.

But Laffite whose honesty and integrity are well known explained in good faith: *At the place where the chequered flag is shown the cars are going by at around 280 kph. Thus for the flag to be seen it has to be waved for a long time in an obvious position. If it is lowered at the moment when you're passing, it can't be seen because you're already looking at the long curve which follows. The same thing happened to René Arnoux yesterday. Of course I might have asked myself whether or not the practice was finished as my mechanics didn't show me any boards. But I thought they were looking after Patrick's car which might have had a problem.*

However things were soon put in order and Laffite was not disqualified. But being furious with Chapman he promised himself that he would avenge this insult during the race by showing a clean pair of heels to the Lotus. This he did easily. And at the finish he saw the chequered flag which brought him victory, a long time in advance!

have to do it that it will be as late as possible in the season.

The Ligier team has become a big name among the F1 teams. Do you have this feeling?

Let's just say that this is the year we

want to do well and we've worked in this direction. We've got very competitive very quickly. It's great. It could be said that we were lucky in Argentina. That's what our competitors thought. But they can't say the

same thing about Interlagos on the most difficult circuit in the World. All our competitors who came to congratulate us in Buenos Aires, did not come back at Interlagos. I think we're beginning to cause them a problem.

they don't feel like congratulating us any more.

Perhaps the World Championship is going to become a reality. What do you think?

It's never been more on my mind!

The Watson affair

In appearance an affair in three acts. 1. The Stewards of the Meeting of the Argentinian Grand Prix impose a fine of 10,000 Swiss Francs on John Watson held responsible for the Argentinian Grand Prix pile-up. 2. A violent reaction on the part of Mr. Laren. 3. The FOCA pays the fine and John Watson can start as scheduled, in the Argentinian Grand Prix. But in fact much more was discussed and judged at Sao Paulo than just Watson's case.

McLaren's reply

Article 156 makes the entrant jointly responsible for the driver. Thus the above communiqué was addressed as much to the McLaren team as to John Watson. The reply from the aforesaid team was not long in coming. It was direct and to the point.

"Through its treatment of the Argentinian Grand Prix affair the C.S.I. has in our opinion, showed its incompetence to administer Motor Sport in a sensible manner.

The events took place as follows

1. Publication of provisional results after the race, without any mention being made of a possible inquiry.

2. During a Press conference held two days later, the C.S.I. President announced the setting-up of a Commission of Inquiry, which is not provided for in the Sporting Code and reprimanded Watson for the accident.

3. There were many rumours and counter rumours in the press for a week but no official information was given to the parties involved.

4. At a Meeting held in Sao Paulo by the Stewards of the Meeting of the Argentinian Grand Prix ten days after the race, John Watson was declared responsible for the accident, and a fine of 10,000 Swiss Francs was imposed on him. Neither Watson nor the McLaren team was officially informed of this meeting, nor were they invited to be present at it.

5. The McLaren team's team manager was informed of this decision in his hotel room seven minutes before mid-

night on Wednesday 31st January, by a messenger who did not let him know where the Stewards could be contacted; a tactic obviously designed to prevent an appeal in the time limit laid down following the Stewards decision.

In no case does the McLaren team dispute the fact that inquiries may be set up because of infringements of the regulations, or that disciplinary measures should be taken if necessary. But the application of a summary justice through press communiqués coming from a minority part of the Sporting Authority is completely out of place in a sport which represents a livelihood for thousands of people and in which millions of dollars are invested.

To pay or not to pay!
What followed is rather complex. What happened between the FOCA and Jean-Marie Balestre? We don't know exactly, but certain rumours indicated that the FOCA did not want to pay the fine.

All the same on Friday afternoon during a Press Conference Jean-Marie Balestre announced that everything was in order, and that the sum would be paid to the Argentinian Automobile Club in the evening. How was this achieved? Jean-Marie Balestre told us that he had convinced the FOCA by assuring them that from 1st March onwards an official C.S.I. Commission would pronounce on such occasions working on the basis of a system of warnings. Was this the only reason why the cheque for 10,000 Swiss Francs was signed? We do not have enough information to answer this question.

Watson guilty?

Beyond the procedure it is the principle of this penalty which was questioned at Interlagos in many heated discussions. Could a fine be imposed on a driver supposedly responsible for an accident at the start? The driver's opinions diverged on this point.

Some of them thought that it was absolutely necessary to be firm in the face of the growing number of accidents at the start, of which the Monza drama was the culminating point. "I have the favourable opinion of several former world champions" said Jean-Marie Balestre. "I had a two hour discussion with Jackie Stewart who also thought it necessary to show firmness. Motor racing should not be a game of risk. Only further disciplinary measures can moderate the ardour of over-impetuous drivers".

Others though the sanction imposed on Watson unjustified. Their remarks did not consist in judging whether John was wrong or not. Their reasoning was as follows, it a driver guilty of an error of judgement is brutally condemned in this fashion, then this sanction must give rise to others. But errors are an integral part of the driver's job in that nobody is infallible. Thus what faults should be sanctioned, and how should the limits be defined?

Moreover the judging of an error can easily be done in an arbitrary manner, above all in litigious cases where a driver's responsibility risks being as much influenced as a combination of unfortunate circumstances. Besides this how can people who do not even drive racing cars judge racing drivers.

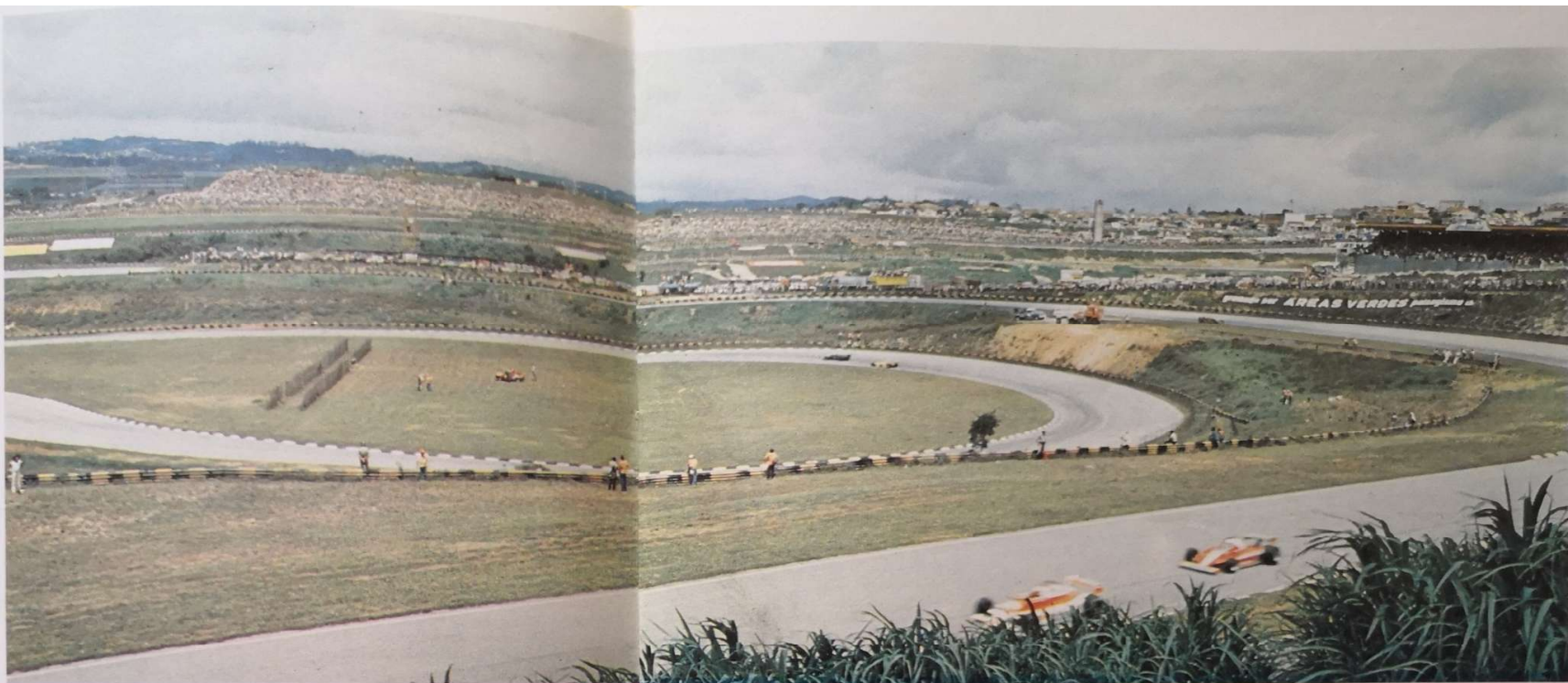
Those who follow the above reasoning, among whom are as many drivers as observers, are rather more in favour of modifying the starting procedures. Do cars get entangled because they are too near each other? Their move them away from each other by staggering the starting grid as at Monaco.

Other solutions must exist, among them the warning system raised by Balestre which would have the merit of punishing habitual offenders.

Or are we slowly reaching the stage of starts in Indian file.

Where are the old starting grids of 4'34"3 in the good old days of the Nurburgring?





The race...

**Practice:
no stopping
the two JS IIs**
**First session:
Laffite's
pole position**

It did not take Jacques Laffite long to get into the groove. In fact it took him about nine laps and three sets of tyres to get round Interlagos at a record speed in 2'23"07. This time was not to be beaten during the other two official sessions, and it gave Laffite his second consecutive pole position. "I could probably have gone a little quicker," Jacques said, as I lost time passing Merzario during my best lap. Besides, my brakes are not perfect, a disc is slightly warped." Depailler, who had spent the sessions improving the handling of his understeering car, was the second quickest, but more than a second behind Jacques. Scheckter and Jabouille, third and fourth quickest respectively showed the value of the Michelin qualifying tyres. On the other

hand the Goodyear qualifying tyres, officially speaking, had not yet been distributed in accordance with the sharing out system explained at Buenos Aires. In addition to this the very good position of the Renault can be explained by the fact that it was exceptionally cool for the end of a Brazilian summer. René Arnoux also took advantage of this as he was ninth quickest adapting himself remarkably quickly to the turbo engine. Lauda's Brabham B.T. 48 had also made a lot of progress and was tenth fastest. The Copersucar F 6 however was too new to show its potential.

Second session: Depailler's turn

While Jacques Laffite did not think it worthwhile practising (the higher afternoon temperature reducing any chance of improvement), it was Patrick Depailler's turn to set the track ablaze. He also got under 2'24". Not by a lot however (1/100) but enough to have a psychological impact as only the

in blue

Ligiers broke through this barrier. To do this Patrick had to use qualifying tyres. "The car's absolutely perfect", he said. "If I don't go any quicker, it's my fault. Gilles Villeneuve, second quickest in this session, overtook his team-mate Scheckter on the combined times of the two sessions, and Pironi began to show his teeth; third in this session in spite of bad row-holding, he was now sixth fastest over all. Nothing of note from the Lotus' which were still being set up. In the evening of this first day of practice the hierarchy was as follows; two Ligiers in front of two Ferraris, a Renault, a Tyrrell, and two Lotuses.

Third session, Lotus' come-back

In much heavier weather than the day before, the Lotus drivers began their attack. Using their qualification sets Reutemann and Andretti showed everybody the way (with the exception of the two Ligiers) by monopolizing the second row of the grid. Those

immediately behind them did not improve on the previous day probably because of the all encompassing heat. However Villeneuve and Jabouille were fairly happy with their cars, their only worries being the Michelin racing tyres. If this time Laffite did not practise in his car for the race, it was against his wishes, as a fuel feed fault interfered with the running of his Cosworth. He did however cover a few laps at the wheel of the reserve car to set it up in case the above mention problem continued the next day. James Hunt's considerable progress did not go unnoticed; he was eight fastest in the final session improving by 1'3" in relation to Friday. On the other hand Lauda's Brabham did not go any faster.

Race

In truth nobody on the starting grid held any real hope of being able to compete with the Ligier drivers who,

during all the untimed practice sessions, were again the quickest with full tanks and racing tyres.

Then neither did anybody foresee that at the end of the first lap Laffite and Depailler would pass by in the lead a mere 4 seconds ahead of the Lotus who led the chase! That, however, is exactly what happened at the beginning of the race. In front of one hundred thousand amazed Brazilian spectators the Ligiers began their race within a race between themselves. Four seconds. It is true that Mario Andretti third during the first two laps probably held up his team-mate. His Lotus had suffered from the beginnings of a fire on the starting grid which damaged the ignition, and Mario retired at the end of the second lap, leaving Carlos to try and worry the Ligiers.

But the blue cars continued to get away, at the rhythm of a second a half a lap already giving a hint of what was to be their triumphant "gallops" throughout the race. Nose and tail to each other, Laffite and Depailler put all their strength into the scrap, one holding off the other who was trying to

overtake him. Both of them were burning with the will to win.

However Laffite began to sneak away insensibly tenth by tenth. On the fifth of the forty laps the gap between the two Ligiers was 2". It was to remain at that for half of the race, only changing by tenths when slower cars were being lapped. For Laffite haunted by the blue shadow in his mirrors the situation was uncomfortable, to say the least. It was that of any leader harried by his immediate pursuer, the mouse stalked by the cat. Jacques indeed, took some risks to keep his position. His car's behaviour, slight understeer, at the beginning of the race, gradually got worse, and Jacques was obliged to literally fling his car into the long turns. In his cockpit Patrick was struggling with the opposite problem, his JS 11 was oversteering, and he had the greatest of difficulties following the rhythm imposed by Jacques.

Things continued like this until the half-way point (20 laps). Up to that moment the Brazilian Grand Prix was not lacking in interest in spite of the obvious superiority of the Ligiers (Reutemann 20" away). First of all because of the duel between the leaders. Then thanks to a very good start to the race by Emerson Fittipaldi who gave Carlos Reutemann a lot of trouble during the opening laps for third place before falling back (12" gap at the half-way stage). Then Didier Pironi's progress caught the eye. Little by little the Tyrrell pulled back the 12" gap between himself and the Brazilian on the eleventh lap, after passing, in spite of a spin, the Ferraris of Scheckter and Villeneuve whose tyres were beginning to go off. Another focal point of attraction during the first half of the race behind Alan Jones who was in a lonely eighth place, was the duel between the Arrows from the sixth to

the 15th lap. Mass had caught up Patrese and literally "glued" himself to his gearbox before passing him in the 13th lap. Also watched with interest was the superb climb back up through the field of Jabouille, who had started last after stalling on the starting line and was 10th behind Mass at the half-way stage. Lammers, Daly, Stuck, De Angelis, Arnoux and Watson were not able to fight him off and Patrese finally gave in on lap 20.

And then unfortunately the interest slumped, Depailler's pressure on Laffite began to lessen. From 1"5 half way through the race, the gap opened out to 2"5 on the 23rd lap, then 5"0 on the 28th. That was the end of the blue car's battle. Tiredness on Depailler's part? No, Patrick stuck it out well. Better in fact as he was in good shape having fitted two side cushions in his cockpit which held his head in corners without discomfort. "In fact my car began to suffer from violent oversteer and I was almost at right angles everywhere like in Argentina", he was to say after the race, somewhat disappointed at having allowed Jacques to get away all alone. Ten laps before the end one felt that Jacques Laffite was going to win the Brazilian Grand Prix unless unforeseen circumstances intervened. The last laps kept the Ligier team on tenterhooks as they feared that the double might be lost because of a minor fault as in Argentina. When the Clerk of the Course finally produced the chequered flag, Ducarouge and his men know the joy so often felt by Chapman and his team, the Double.

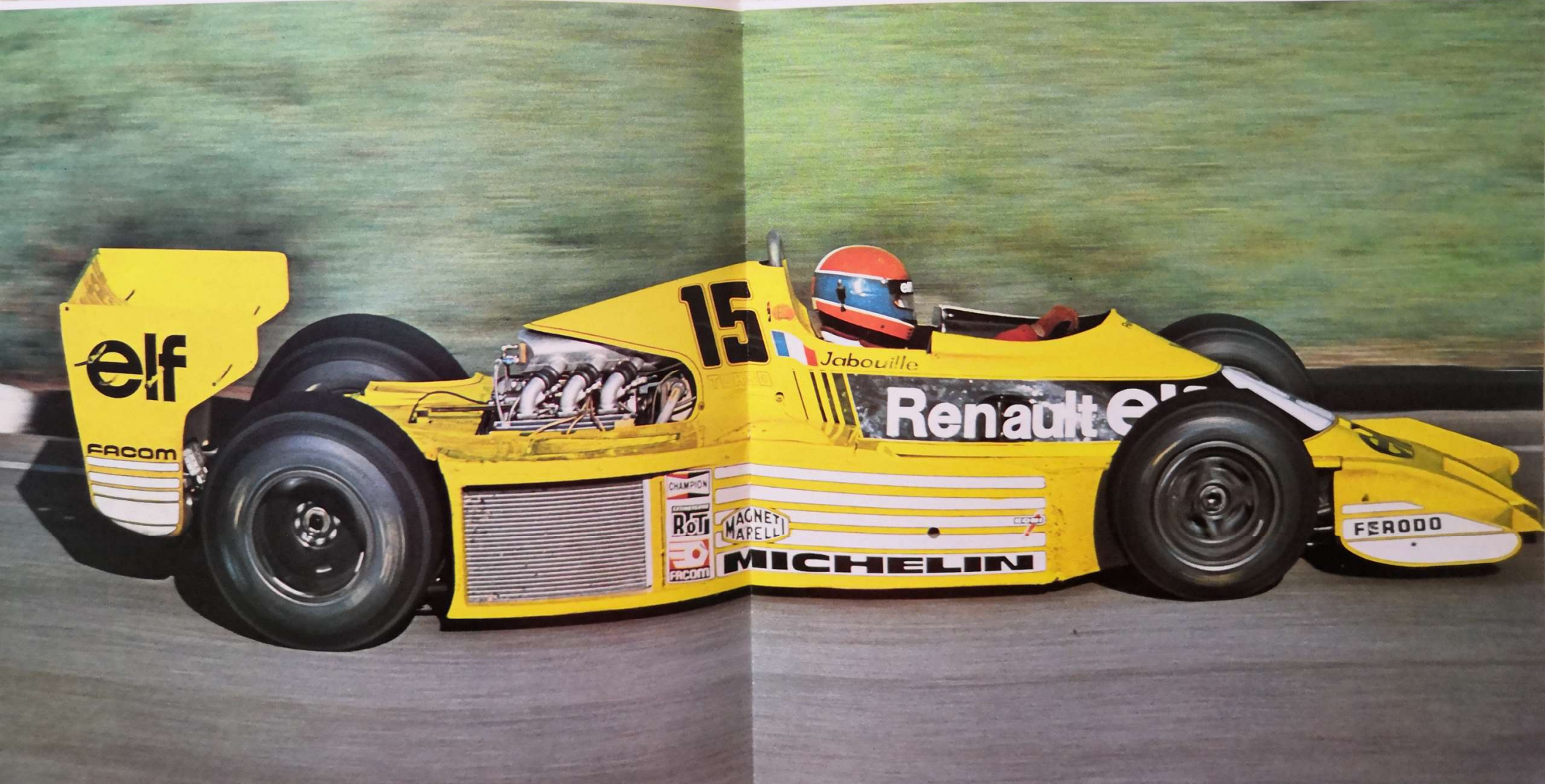
If the intensity of the struggle between the first two diminished considerably during the second half of the race, it was the same thing for the other points of interest in the event. For Carlos Reutemann who kept on losing ground to the two French cars, the possible threat from Fittipaldi

disappeared on the 22nd lap when Emerson had to stop in the pits because of a loose wheel which forced him to cover half a lap at reduced speed. When he set off again he had fallen to the 16th place. Thus Didier Pironi got up to 4th place although too far behind Reutemann (45") to have the slightest hope of worrying the Argentinian. He had a lonely race in fourth place till the end although his car began to oversteer very badly towards the finish of the race.

In any case he did not have to worry about the Ferraris which went "slowly but surely", in the words of Gilles Villeneuve at the finish. However not as surely as that as Gilles on the 21st lap, and Jody on the 27th had to stop for a change of tyres. That should have spelt happiness for Jones and Jabouille who thus found themselves in 5th and 6th places, but Jabouille had to pit stop in his turn for the same reason as the Ferraris, and Jones was to retire 6 laps from the end with a fuel pressure problem. Thus, without too much trouble the Italian cars found themselves in the points but this time with Villeneuve in front of Scheckter.

When the last engine died after the finish the race was not over. Nobody knew who was going to be third, not even the officials who put Didier Pironi on the rostrum in the place of Carlos Reutemann. A one minute penalty hung over the Argentinian as his car had been pushed at the start to get its engine going. According to the regulations he should have been black flagged. He was not, and this penalty the result of a non-existent rule was unjustified. Thus Carlos got back his third place but Tyrrell and Ferrari lodged a protest. At the moment of going to press we have heard that the protest has been rejected.





Grand Prix d'Argentin Grand Prix du Brésil 7



ne 79
79

LIGIER
GITANES





The Fittipaldi family's passion

Wilson Fittipaldi, Emerson's big brother smiled when he talked about his son, and his words expressed as much tenderness as worry: "He's seven, six months ago he began racing Karts. He never stopped asking me about it and promised he would be careful. I found him a little kart with a 50 cc engine and two days later he asked for a 125 cc one. Within two weeks he was within a second of the record for the category on the Interlagos Karting track. He's careful and goes quickly, he corrects naturally. But I don't want him to race, I'd prefer him to do something else. He does nothing but talk about motor racing from six o'clock in the morning. He wants to do it. You can't say no to him. He knows that Emerson and I have raced, and doesn't understand why I won't him to do the same thing."

From all the evidence the Fittipaldi family lives for Motor Racing. Wilson Fittipaldi the father has followed Formula 1 racing for a long time for a Brazilian radio station. Wilson the elder son spent four seasons in Grand Prix racing. The younger son Emerson was World Champion in 1972 and 74. Still today his fellow drivers consider him as one of the best. And his nephew dreams of following in his footsteps in the near future. "We've a lot of respect for cars", says Wilson Junior. "Motor racing has given us everything we've got today. And we'd still stay in Motor Racing even if it brought us in nothing."

Wilson's sacrifice: Emerson's bet

Emerson and Wilson Junior are not just content being drivers. They are also constructors. For almost four years now their life has revolved around the team they have built up, the



They were all there, Emerson's father, his brother, his wife and his nephew, for as far as the Fittipaldi are concerned Motor Racing is a family business. All driven by the same passion, all galvanized into action by the resolution of their champion they were going to be present at, or take part in the debuts of the new Copersucar F6. A new family car and one with which Emerson was going to reconquer his World Championship crown.

Copersucar team. Wilson even gave up his driving career to back up Emerson both for the F1 team itself and for business. "We're split up into two parts" he explains. The construction

work shop and the design office are in Sao Paulo (just opposite the Interlagos circuit) and the racing team is based in England for most of the season. I'm responsible for the Brazilian side of the business,

and I also look after the advertising of the name Fittipaldi, as well as various business interests we have in Brazil. I take all this kind of business off Emerson's back, thus he can devote himself almost exclusively to Copersucar."

In fact Wilson did not really have any choice "When we were both racing in Europe "he says," our business affairs almost came to a halt in Brazil. At that moment I decided to come back here and give up racing". Today he often regrets this decision; "for me it was terribly difficult to give up. If you retire after a serious accident then you can easily forget Motor Racing. But I didn't have an accident and I had cars. All my life I dreamed of racing in Formula 1. I had that chance for 4 years. During the two years since I've stopped, I really want to drive again. So sometimes I get into a car and do a few laps of Interlagos. When I get out of the car I feel better for about a month. I watch it every day but I know that for me it's finished I think it was the best decision for us."

"For us, that is the significant phrase and it reveals the close links which exist between Wilson and Emerson. They do not date from today as Wilson says."

Emerson and I have a fantastic relationship. We really get on like a house on fire. It was already like that when we were children. Each always helped the other. We've always taken our decisions together."

Thus it was together that they decided that Wilson would give the Copersucar its debuts in 1975, and it was together that they decided that Emerson would take over in 1976. For the former World Champion it was a bet. "I was taking a risk. It's true. I could have been in a very comfortable situation and

kept on winning races in other teams, but for a long time I had it in mind to create my own team and become a Constructor. Moreover I'm certainly much more motivated in my own team than I would have been in another."

Non-qualified

At the setting up of the team, "we worked very hard," Wilson recalls. "But when Emerson joined us we were forced to work even harder! And it hasn't stopped since. We've worked for three years without anybody taking a holiday. I have personally spent 60% of any week-ends at the factory."

Emerson also reminds himself of the difficulties they had.

"We built up a complete team from nothing. We didn't buy a team and change its name. We really did start from zero without any experience or know-how. We had to learn in three or four years what the other teams had already known for ten!"

Emerson's first contacts with the Copersucar on the track were very trying. The Brazilian driver fell from the front rows of the grid to the back, and even then he sometimes did not find a place. Wilson still blushes.

"The first time that Emerson didn't qualify, in the 1976 Belgian Grand Prix, I wanted to disappear from the face of the earth. The whole of Brazil was behind us urging us to win races and we couldn't even make the starting grid."

Emerson's personality was then the deciding factor in the team's survival as Wilson explains: "Any other driver in that situation would have got rid of the lot, but Emerson stimulated everybody. He has always remained optimistic and never gets discouraged. It's incredible how he drives everybody on. He wants to work, work, and more work, practice, do more practice. He's very demanding but gives his all and is the driving force in the team. When we were really down, he was the one who got us out of it and gave us back our moral. I'm not saying this because he's my brother, but because things really happened like that."

Adversity welded the team together around Wilson in Brazil, and Emerson in England. "When everything is going well in a team," Wilson

explains, "then life is rosy and everybody gets on well. But when you touch rock bottom then people's true character comes out. There are those who hold out and those who don't. A lot of people left us but those who've stayed on form a very solid structure at the present time. Richard Divila who designed the first three cars and who is presently working with Ralph Bellamy, and Dave Luff chief technician for the car in England have given us great support. They've never threatened to leave the team even when things were at their lowest."

Improvement

Three seasons passed. Long and barren ones first of all. And then in 1978 the Brazilian team began to see the light at the end of the tunnel. Emerson began the season with a superb second place in Brazil. Following that even if the Copersucar never appeared so high up on the list it allowed Emerson to hold his own in the pack and the Brazilian picked up several good placings. "They've given me a lot of pleasure. I attach more importance to these results obtained with our car than to the other better results which I obtained before. During the first years I found it very difficult not to be winning any more as I was struggling for the 20th or 22nd place. But last year I was starting to fight among the first seven or eight places. At last I had a car which allowed me to pass someone under braking and to really have a go. I could hold my own. It was Motor Racing again."

At the same time Emerson showed that he had lost nothing compared with the years when he won the Championship. "Experience is the main asset for a formula 1 driver. I'm certain that with the additional experience I've gained over these last three years I've improved, and I hope to improve even more in a year."

As if it were necessary he gives an example to back up his words: "At the last Argentinian Grand Prix I was on pole 30 minutes after the beginning of official practice. I had the fastest lap. That shows that I can still get into a car and reach its limit within 3 or 4 laps."

Postponed debuts

The Brazilian Grand Prix was to be a very big step for the Copersucar team. Everyone had worked like demons to finish the new F6 in time. In Emerson's hands it had completed its first laps a few days previously. He had got round Interlagos in 2'29"5.

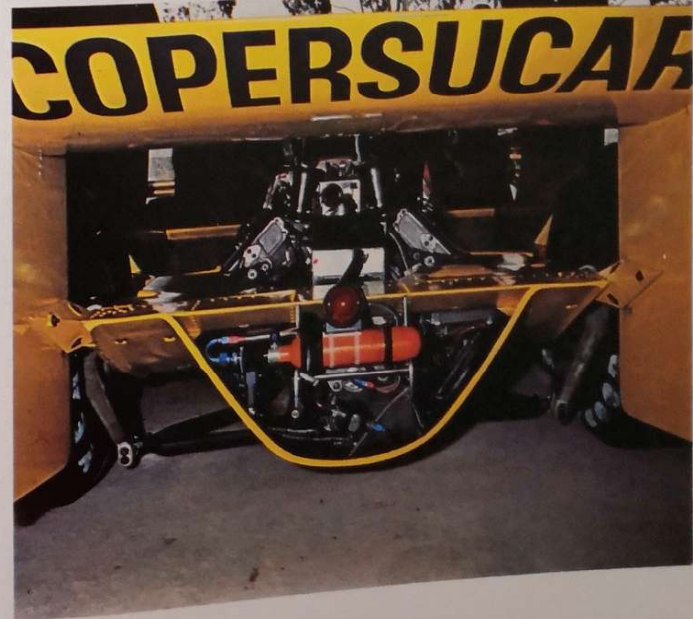
Ralph Bellamy had supervised the design of this beautifully built and original ground effect racing car. The Australian engineer claims his role in the parentage of the first "wing car" the Lotus 1978 which appeared 2 years

He thinks he has evolved the principle with the F6. However to both Wilson's and Emerson's disappointment first results have not been immediately conclusive. During the first official session the new Brazilian car could not get below the 2'30" barrier, whereas at the same time Laffite was getting near the 2'22" mark.

"We have a big problem but we don't exactly know which Emerson complained." "We're going to have to do a lot of work to find the solution. But I'm not too surprised we first of all decided to give the F6 its first outing in South Africa, and I was more or less expecting it not to be ready for Brazil."

Emerson went back to the old and trusty F5 with which he drove a superb race, managing to harass Reutemann during the first quarter of the event far ahead of all the other conventional cars. His start was like lightning and his first part of the race almost perfect. But to the great disappointment of the public Emerson stopped at the pits on the 24th lap with a loose right rear wheel. His mechanics misinterpreted his reason for stopping and changed all four wheels considerably lengthening this unforeseen stop.

Disappointed certainly at having lost his fourth place, Emerson was already thinking of the future after the race. "I'm sure that from mid-season onwards we'll be among the best five or six teams in the World." He believes in this, the proof, listen to the following. "When I win a Grand Prix in the Copersucar that will give me even more pleasure than my First Grand Prix victory. A lot more pleasure" (his dark eyes began to shine even more...).



Pironi: "Sweat Sanary"

Between the Pironi who fainted after his victory in the Le Mans 24 Hour Race and the Pironi who stepped out of his Tyrrell, dripping with sweat after finishing fourth in the Brazilian Grand Prix, two things in common, heat and sweat.

An athlete's body an Appolo like face, rounded muscles, a pink skin touched with sunburn Didier Pironi unveils himself to Brazilian eyes. Slowly he removes his overalls with the feeling of a job well done. He seems to emerge from a chrysalis of which there are so many in South America.

On the Interlagos circuit the temperature exceeded 30°, the race was long and exhausting and the youngest French driver had given a good account of himself. The effort had paid off and for Didier it was the "sun and sweat".

Jean-Pierre Moreau physiotherapist at the INSEP and newly nominated "national trainer" or more exactly "national masseur" had taken all the necessary precautions to avoid dehydration.

In such boiling temperatures Pironi is subject to excessive elimination, but for all that he is not exhausted.

Caught up in the French whirlpool Didier is on the rostrum at the side of Laffite and Depailler. Three French men on the rostrum, is it a dream?

Carlos Reutmann theoretically in 3rd place, and soon to be rightly established there was, it seems penalized 1 minute for being pushed on the starting grid. It's

on the starting grid. "The scene was too beautiful" said President Balestre with joy. Thuns because of ill-defined regulations Pironi found himself back in fourth place.

His life follows the rythmen of his tastes. He likes speed, the conquest of space and time, modern things and advanced technology. The race had hardly finished when he was heading for Sao Paulo airport to fly to Rio and then take Concorde. Airplane and helicopter pilot Didier was looking forward to taking the supersonic jet. Later on he was to go into the pilot's cockpit.

In this Concorde more French than ever before there is a sense of joy and euphoria. Balestre is still there, exuberant and jovial at the same time, proud and happy, surrounded by his "Musketeers": Laffite the hero, Depailler, Jarier, and of course Pironi. Champagne is flowing but tiredness is beginning to show, the drivers relax and Didier still sweats freely.

From one season to another Pironi evolves.

"I feel I've a lot to learn", he admits, "I lack experience and each race and each practice session teaches one something. Last year I was a number two driver and I had the feeling of being left out, abandoned even. This year it's completely different, I'm more highly thought of and people often refer to me. I'm equal N° 1 with Jean-Pierre Jarier and this new situation is very important for me. Psychologically speaking I feel more motivated and not as frustrated as last year. Anyway during my short career, I've learned to wait, to be patient. But without lapsing into routine and boredom. I also feel that I'm not yet using my full potential as I can progress, and that's encouraging. I know I can get better and that reassures me. I think I've got Ken Tyrrell's confidence

if I still have some regrets about not signing for Renault. In any case my entry into the Renault team was a long term perspective. This year I still prefer being with Tyrrell, but next year it'll be the opposite as I believe in the turbo engine and in the development of this technique even in Formula 1.

At Interlagos Didier Pironi had his best result. Since his entry into Formula 1 he has made constant progress. However last year at Patrick Depailler's side he was in an uncompetitive car and the Lotus' domination destroyed the balance in F1. This year it is Ligier's turn to upset the hierarchy, but the new Tyrrell is also a ground effect car and the practices in Argentina (for Jarier) and in Brazil for Pironi have confirmed its evolution.

In Buenos Aires Pironi was eliminated by the pile-up after the start caused by Watson and Scheckter, and the lack of a reserve car prevented him from starting the second time.

Jarier had also left the track and damaged his car. There were no spare single seats for the two Frenchmen and thus the Tyrrell team had worked hard in difficult conditions to bring the two cars to the starting line in Brazil. Both Pironi and Jarier were not very satisfied with their "mounts" during practice at Interlagos. "My car's tub is twisted"

Didier said drinking iced water between two sessions. "it's less rigid and therefore more difficult to drive in the bends".

Placed alongside Jabouille on the 4th row Pironi made a good start without moving up or losing a place. But after having quickly passed Villeneuve he had to stalk the impetuous Scheckter for three laps, and then took him on the outside which is not something that happens to Scheckter every day!

Meanwhile the Brazilian

Emerson Fittipaldi, who had found his old form in front of his public, had opened up a gap. Furthermore Didier committed a braking fault, and had a spin. Scheckter took advantage of this to get ahead again. Completely cool the young French driver controlled his car, put it into first gear and got back into the track. More sweat for Didier.

"I managed to avoid putting the car into the catch fences or damaging it in a hole.

Setting off like a rocket Pironi soon put Scheckter in his place, namely behind. At that moment he was 14 seconds behind Fittipaldi. He took two seconds a lap of the Brazilian who had to stop at his pit. Pironi inherited 4th place. One moment 3rd then back to the fourth spot. Didier's performance however was a little overshadowed by the French cars' double.

After my spin the car was unbalanced. There were flat spots on the tyres caused by the force of my braking and my excursion off the track. My car was oversteering at

the end, and to this were added braking problems. The pedal got soft and I had to pump continually to have any brakes.

Obviously the Tyrrell is better than last year but not up to Ligier's standard.

We've a "wing car like the Ligier", Didier continues, "but we're not up to their standard, indeed we're far away from it. We're at about Lotus level. We have more work to do on a better base than with cars which are damaged, or buckled as was the case in Brazil. You'll see, the Tyrrells are going to progress.

There is however a point which worries both the Tyrrell Boys Jarier and Pironi namely the rigidity of the car and both put forward the same comments. "It's true that wing cars obey very special techniques, and a ground effect car is absolutely essential to be competitive, but this year Ken Tyrrell has not found any sponsors and he has developed his car for better or worse by economising. The Ligier is a very solid car and is 5 times more expensive than a Lotus and 8 times more expensive than a Tyrrell. Ligier uses special metal and alloys. Nothing has been neglected where the suspensions and the monocoque are concerned.

It's not the same thing with us and the Tyrrell is very fragile from a safety point of view. Furthermore the CSI should turn its attention to the problem of car safety before a serious accident happens. Regulations are obvious difficult on this point but they should exist. If the CSI doesn't do something the drivers will react one day.

Both Jarier and Pironi repeated these comments. Patrick Depailler himself a former Tyrrell man noticed its weaknesses.

Concerning Pironi and Jarier "With Jean-Pierre everything is going well, better than I thought", admits Didier. Jarier is a pleasant guy to live with and also an interesting one as he knows about many things which don't belong to the World of Motor Cars. I don't yet have the same affinities as Patrick Depailler but we get on well together.

After 15 days in South America of which 8 were spent with Depailler and Arnoux at Tabatinga a small Brazilian port on the Atlantic coast, among bananas and pineapples, the hot sand and the hot sea, Didier is back in France after surfing, water skiing underwater fishing and open air billiards.

However each morning Didier puts on his training suit or takes up his racquet for either a run across the Bois de Boulogne or a game of squash at Montparnasse. All that just to lose a few extra drops of sweat!

Bernard Giroux



From the cockpit

Ligier-Gitanes

Ligier-Ford JS II/03:
Patrick Depailler
Ligier-Ford JS II/02:
Jacques Laffite
Ligier-Ford JS II/01:
Reserve.

The Ligier team did not rest on its laurels after the Argentinian Grand Prix. Even if they had dominated the opening race they were still new cars, and the mechanics stripped them down after the race with particular care. "We've changed several small supports, worn because of the Cosworth's vibrations" explained Gerard Ducarouge. "A lot of little details had to be looked at, like stopping the incessant little leak from the water radiators. We've also modified the system holding the skirts against the ground, as the springs we had in Buenos Aires were defective."

Jacques Laffite got the pole position in the first session. He thought it not worthwhile to practise during the second, but the next day his sessions were interrupted by a fault in the fuel feed system. So on Saturday afternoon Jacques practised

in the reserve car and got back into his race car on Sunday morning. During the race he had to put up with the attacks of his teammate until the end at the wheel of a car which he felt was understeering too much. Depailler had the same problem in



the first session, stopping many times to increase the downforce at the front. With the same settings as Laffite he managed to achieve an ideal balance, but after the race he complained about the exaggerated oversteer of his car.

Martini Racing Team Lotus

Lotus 79/4:
Mario Andretti
Lotus 79/2:
Carlos Reutemann
Lotus 79/3:
Reserve

After their problems of adapting to the new larger diameter Goodyear

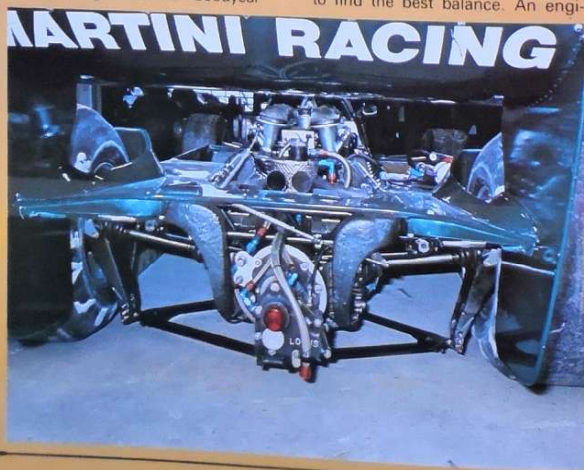
racing tyres in Buenos Aires, Reutemann's and Andretti's cars were fitted with new rear suspensions; very flat lower triangles with three mounting points. "This way, the geometries are better adapted to the new tyres" said Mario Andretti. Carlos Reutemann found the new system was a little more efficient, but not much.

The Lotus drivers took a long time to find the best balance. An engi-

neer from another team thought that this was due to the fact that the Lotus chassis are still not absolutely rigid.

Even before the start Mario Andretti lost any chance he had of winning. The metering unit membrane was holed and the petrol caught fire as it flowed out thus damaging the ignition. This was the reason for his retirement.

Carlos Reutemann also nearly lost his chances of winning at the start. He was pushed to start his engine. During the race although he could not do anything about the flying Ligiers, he held on to a good third place but was prevented from getting up onto the winners' rostrum at the finish, as it appeared that a one minute penalty was supposed to be inflicted on him. The Lotus team however realized that there was no such penalty in the regulations and Carlos was given back his third place. The Ferrari and Tyrrell teams lodged a protest nonetheless, judging that the Argentinian should be disqualified.



Team Tyrrell

Tyrrell-Ford 009/1:
Jean-Pierre Jarier
Tyrrell-Ford 009/2:
Didier Pironi
Tyrrell-Ford 008/5:
Reserve

Still no sponsors for the Tyrrell team as it appears that Ken Tyrrell demanded exorbitant sums of money for the Brazilian Grand Prix. From every point of view Didier Pironi and especially Jean-Pierre Jarier had a pretty difficult weekend. Things however had started well as, on arriving at the circuit the French drivers realized that their mechanics had done a fantastic job by repairing the two tubs damaged in Buenos Aires. But as soon as they got onto the track they discovered that the damage although apparently repaired, was still affecting the cars.

Jarier, usually completely at home on the Interlagos circuit never managed to make his car competitive. "I can't 'feel' my car", he complained. "I can't find the right settings. The steering is very heavy. I'm not driving well. He qualified way down in fifteenth place. The fault was discovered too late, just after the end of the last session.

The front steering arm being damaged. It was repaired during Saturday night, and on Sunday morning Jean-Pierre felt much more at home, but he was not destined to



start, his ignition failing during the warning-up lap. He really has no luck at Interlagos. Twice he has had victory snatched away from him, and on two occasions he has been prevented from starting (in 1978 Jochen Mass took over his car). Didier Pironi saved the weekend for his team, but not without a struggle. He too had practice problems: "My car is very brutal, very difficult to drive. Whenever I attempt to slow down the car breaks away very suddenly."

Besides this he complained about the instable behaviour of his car. "The tub is certainly a little twisted. By adjusting the rear arms, I've made a correction of one and a half centimetres to try, and have equal weight on the rear wheels." Having

aged to improve his road-holding in spite of everything he drove a good race catching up on Fittipaldi after having passed Scheckter. When the Brazilian stopped, the French driver took over fourth place which he held until the finish, in spite of the increasing oversteer of his 009.

Ferrari-Sefac

Ferrari 312 T3/036:
Gilles Villeneuve
Ferrari 312 T3/035:
Jody Scheckter
Ferrari 312 T3/033:
Reserve

Ferrari's position is closely linked to that of Michelin tyres. On Friday everything went well. Villeneuve and Scheckter (on qualification tyres) were third and fourth quickest after the two Ligiers. "It's a miracle" declared Pierre Dupasquier. "The conventional cars are not yet condemned" underlined a delighted Mauro Forghieri. Their enthusiasm waned on Saturday however. During the untimed session the racing tyres did not give great results. And in the afternoon the Ferrari drivers could not prevent the Lotus from ousting them from the second line. "And we're really



on the limit" said Jody and Gilles. The Ferraris finished fifth and sixth. Their tyres did not last the distance Gilles and Jody stopped within a lap of each other to change them. Even without these pit stops the start of the race showed that this was all they could hope for.



From the cockpit

War Steiner Arrows

Arrows-Ford AI Mk 2/3:
Riccardo Patrese
Arrows-Ford AI Mk 2/2:
Jochen Mass

Even if the two Arrows manager to finish the race, they showed nonetheless that they have to progress as much from a reliability point of view as from that of performance. With this in mind the absence of Tomy Southgate may have made itself felt.

Jochen Mass broke his rear suspension upper arm link, and the same thing happened to Riccardo Patrese during the Sunday morning warm-up. The German drove a worthy race, catching his team-mate, passing him, and coming in seventh.



Marlboro team McLaren

McLaren-Ford M 28/2:
John Watson
McLaren-Ford M 28/1:
Patrick Tambay
McLaren-Ford M 26/5:
Reserve

Very difficult days for the McLaren drivers who will certainly not have good memories of the Brazilian Grand Prix. Both in practice and during the race John Watson found himself up against serious roadholding problems. "I can't have a real go otherwise I'll be in the catch fences." Patrick Tambay was even more unhappy as he had three accidents during practice, the

second time because of a puncture, and he was thus obliged to drive the old hastily set up M26. "I created a roadholding problem on three occasions" said the Frenchman with a philosophical laugh. During the race he tangled with Regazzoni and retired, while Watson lost in the pack ended up in eighth place. It was noted with interest on arriving at Interlagos that Tambay's McLaren 28 was fitted with side-pods obviously inspired by the Ligier. It was in fact Jaws III.



Renault Elf

Renault RS 02:
Jean-Pierre Jabouille
Renault RS 03:
René Arnoux
Renault RS 04:
Reserve

Things went both well and badly for the French team, which should have had a better result than Jean-Pierre Jabouille's tenth place. Alerted by the engine failures which had struck Renault in Argentina, François Castaing had had extra oil radiators fitted on the front of the side pods. But they were quickly removed "the oil temperature did in fact go down" explained the French engineer, "but that of the water rose, as the water radiators were in the path of the hot air coming from the extra radiators. So we thought it better to remove them.

Taking advantage of the clement temperature and of the Michelin tyre's efficiency, Jabouille was fifth fastest on Friday but he fell back two rows on Saturday because of The Lotus progress. He stalled at the start but fought back splendidly from the last to the sixth place, when his efforts were cancelled out by a tyre change. René Arnoux although having covered only a few

Copersucar Fittipaldi

Copersucar F 06/1
Emerson Fittipaldi
Copersucar F 05/A1:
First reserve
Copersucar F 005/A2:
Second reserve.

Emerson Fittipaldi quickly gave up his new F06 which was not get sorted, and look over the old F05. He had an excellent start to the race, but lost fourth place because of a stop to change tyres.



laps, got used to the turbo engine very quickly and qualified in a promising eleventh place. He was sixteenth when he left the track.

Samson Shadow

Shadow-Ford DN 9/2B:
Jan Lammers
Shadow-Ford DN 9/1B:
Elio De Angelis
Shadow-Ford DN 9/3B:
Reserve

Don Nicols has in fact the job of controlling a couple of rather hot-headed lads. And on Sunday evening he was very satisfied. Although having run at the back of

the field in cars which were not all that quick, both De Angelis and Lammers reached the finish and gained some valuable experience. During practice they had reaped the fruit of their inexperience. On Thursday Elio and Jan both left the track on the same lap in two different places, after which Jan was obliged to take over the reserve car. And on Friday Elio did it again luckily without damaging the car too much.



Saudia Williams

Williams-Ford FW 6/05:
Alan Jones
Williams-Ford FW 6/03:
Clay Regazzoni
Williams-Ford FW 6/04:
Reserve

Very quick on the Thursday the Williams did not take long to reach their limits, and it was only because of qualification tyres that Alan Jones managed a noticeable improvement on his first session's time. A fuel pressure problem deprived him

of fifth place during the race. Clay Regazzoni, for his part, stopped at the pits and lost a lap after being hit by Tambay.



Team Ensign

Ensign-Ford MN 177/06:
Derek Daly

For Derek Daly and his team the Brazilian Grand Prix was much like that of Argentina, in that the Irishman did all he could in a car which he knew to be uncompetitive. During the race he could only manage to overtake Arnoux and Lammers.



From the cockpit

Ats Wheels

ATS-Ford DI/02:
H. Stuck

Big Hans' ATS had been repaired and indeed strengthened after its unfortunate Argentinian experiences, but it was still difficult to drive, and Stuck accomplished prodigious feats during the race by keeping on the track, a car which seemed to want to leave it at every possible opportunity.



Parmalat Racing

Brabham Alfa-Romeo BT 48/1:

Niki Lauda

Brabham Alfa-Romeo BT 48/2:

Nelson Piquet

Several modifications to the BT 48, new skirts, new front and rear wings and a modified fuel circuit. As he had destroyed the old BT 46



Olympus Wolf

Wolf-Ford WR 7:
James Hunt
Wolf Ford WR 6:
Reserve

A lot of work had been done on the Wolf since its first appearance. The underneath of the car had been modified as had the cooling system. Only real alert a broken suspension on Thursday. James Hunt showed how his new car had progressed by qualifying tenth. He was ninth on the fifth lap when he retired because of a steering problem.

Team Merzario

Merzario-Ford A 2/B:
Arturo Merzario



The courageous Arturo and his team had repaired their car which unfortunately did not qualify because of electrical problems.



in Argentina Nelson Piquet inherited a BT 48 with Niki Lauda taking over the other one. The Austrian driver was a lot more impressive than in Buenos Aires and qualified twelfth fastest. After a great start he quickly retired with a blocked gear-box. Nelson Piquet was still suffering from the foot he had injured in Argentina. He started well but retired at the same time as his team-mate.

Team Rebaque

Lotus-Ford 79/1:
Hector Rebaque
JPS 18(Lotus-Ford 78):
Reserve

Victim of suspension problems and not having enough time to really get to know the track, the young Mexican did not manage to qualify.



Brazil in figures

Starting grid

Laffite	Depailler
Ligier JS 11	Ligier JS 11
2'23''07	2'23''99
Reutemann	Andretti
Lotus 79	Lotus 79
2'24''15	2'24''78
Villeneuve	Scheckter
Ferrari T3	Ferrari T3
2'24''34	2'24''48
Jabouille	Pironi
Renault RS 02	Tyrrell 009
2'24''85	2'25''16
Fittipaldi	Hunt
Copersucar F5	Wolf 7
2'26''35	2'26''37
Arnoux	Lauda
Renault RS 03	Brabham-Alfa BT 48
2'26''46	2'27''57
Jones	Watson
Williams FW 06	Mc Laren M 28
2'27''67	2'27''82
Jarier	Patrese
Tyrrell 009	Arrows A 1B
2'27''89	2'28''08
Regazzoni	Tambay
Williams FW 06	Mc Laren M 26
2'28''88	2'29''39
Mass	De Angelis
Arrows A 1B	Shadow DN 9B
2'29''42	2'30''29
Lammers	Piquet
Shadow DN 9B	Brabham-Alfa BT 48
2'31''60	2'31''64
Daly	Stuck
Ensign-MN 117	ATS D1
2'31''78	2'32''27
DID NOT QUALIFY	
Rebaque	Merzario
Lotus 79	Merzario A 1B
2'32''66	2'34''08

Results (last five years)

1978	Reutemann	Ferrari T.2 (Rio)
1977	Reutamen	Ferrari T.2
1976	Lauda	Ferrari T.
1975	Pace	Brabham BT 44
1974	E. Fittipaldi	McLaren M.23

World Championship for Drivers

1 Laffite	9 + 9 = 18
2 Reutemann	6 + 4 = 10
3 Depailler	3 + 6 = 9
4 Watson	4 + 0 = 4
5 Pironi	0 + 3 = 3
6 Andretti	2 + 0 = 2
7 Villeneuve	0 + 2 = 2
8 Fittipaldi	1 + 0 = 1
9 Scheckter	+ 1 = 1

Practice Times

	1 ^{re} séance	2 ^e séance	3 ^e séance
26 Laffite	2'23''07		
25 Depailler	2'24''31		2'29''55
2 Reutemann	2'26''55	2'23''99	2'24''48
1 Andretti	2'25''93	2'25''91	2'24''15
12 Villeneuve	2'25''42	2'25''85	2'24''28
11 Scheckter	2'24''48	2'24''34	2'24''71
15 Jabouille	2'24''85	2'30''59	2'24''74
3 Pironi	2'27''21	2'25''65	2'25''40
14 Fittipaldi	2'28''69	2'25''16	2'25''46
20 Hunt	2'30''32	2'26''35	2'27''61
16 Arnoux	2'28''14	2'27''60	2'26''37
5 Lauda	2'28''47	2'26''46	2'29''98
27 Jones	2'30''44	2'27''57	
7 Watson	2'28''66	2'27''67	2'28''70
4 Jarier	2'28''64	2'27''82	2'27''82
29 Patrese	2'29''09	2'28''22	2'27''89
28 Regazzoni	2'28''88	2'28''68	2'28''08
8 Tambay		2'29''20	2'30''66
30 Mass	2'30''32	2'29''99	2'29''39
10 De Angelis	2'30''58	2'29''42	2'29''42
17 Lammers	2'31''66	2'30''80	2'30''29
6 Piquet		2'31''60	2'32''88
22 Daly	2'33''18	2'37''08	2'31''64
9 Stuck	2'33''64	2'32''26	2'31''78
24 Merzario	2'34''08	2'36''44	2'33''03
31 Rebaque	2'33''74	2'32''86	2'34''86
			2'32''66

Warm up

	Jeu-di matin	Samedi matin	Dimanche matin
26 Laffite	2'25''90	2'23''42	2'28''61
25 Depailler	2'26''25	2'24''40	2'30''35
2 Reutemann	2'26''46	2'26''72	2'33''94
1 Andretti	2'26''03	2'25''44	2'33''63
12 Villeneuve	2'27''55	2'25''72	2'39''92
11 Scheckter	2'31''25	2'24''68	
15 Jabouille	2'29''34	2'25''24	2'33''84
3 Pironi	2'28''24	2'27''18	2'31''71
14 Fittipaldi	2'30''29	2'28''22	2'36''70
20 Hunt		2'30''50	2'31''92
16 Arnoux	2'32''72	2'28''22	2'35''15
5 Lauda	2'30''53	2'28''28	3'01''67
27 Jones	2'30''02	2'30''63	2'33''73
7 Watson	2'31''03	2'28''66	2'34''01
4 Jarier	2'30''78	2'28''57	2'47''36
29 Patrese	2'29''83	2'29''45	
28 Regazzoni	2'29''38	2'28''42	3'56''45
8 Tambay	2'30''11	2'30''27	2'32''53
30 Mass	2'30''41	2'30''27	2'35''19
10 De Angelis	2'31''83	2'30''16	
17 Lammers	2'35''15	2'31''07	
6 Piquet	2'43''47		
22 Daly	2'37''05	2'33''22	2'49''66
9 Stuck	2'33''54	2'33''68	3'26''34
24 Merzario	2'37''69	2'34''38	
31 Rebaque		2'32''40	

Brazilian Grand Prix F1/79/2

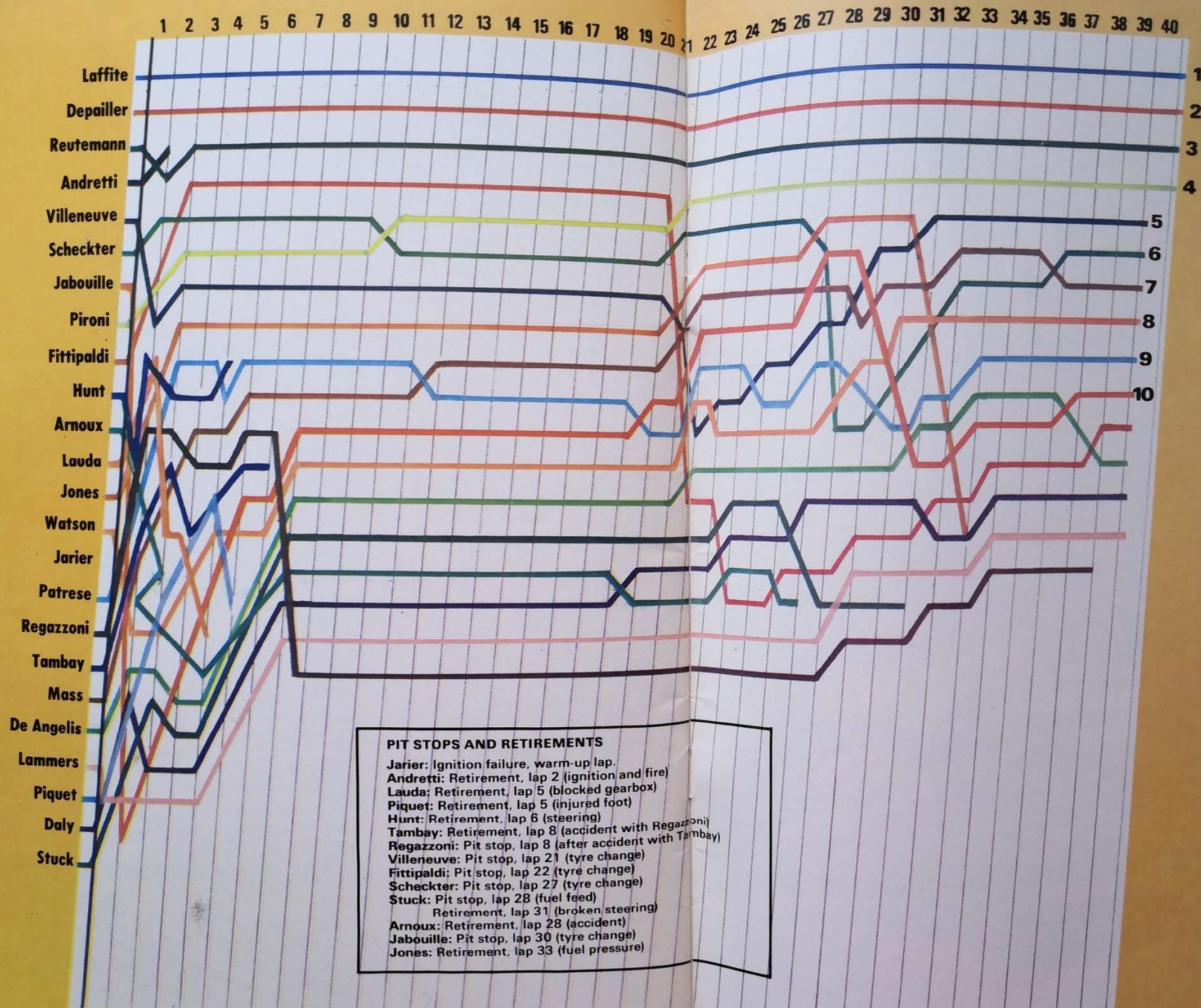
Date: 4 February 1979
Circuit: Interlagos 7.960 km
Distance: 40 tours or 318.413 km/h
100,000 spectators

World Championship for Constructors: positions

1 Ligier	9 + 9 = 18
2 Lotus	6 + 4 = 10
3 Mc Laren	4 + 0 = 4
4 Tyrrell	0 + 3 = 3
5 Ferrari	0 + 2 = 2
6 Copersucar	1 + 0 = 1



Lap by lap





MARTINI

