EDITORIAL

THE TEAM MAKES THE DIFFERENCE

With Porsche's first works entry after 16 years, it is time to look ahead, but also to review the glorious past. That's the main aim of this special edition, which also represents the No.1-issue of our new magazine AUTOMOBILSPORT. This magazine pursues the spiritual philosophy of powerslide magazine, a philosophy that can be greatly conveyed describing the Porsche story in a big classic race. And so, here it comes: Porsche at Le Mans. The great Porsche racing manager and engineer Peter Falk described it in an interview with Herbert Linge, Egon Alber and ourselves in great detail: "Our results there were of such a great success because of our well-rehearsed team. Inside of this team everybody could fully trust the other. We grew together and stuck together – this made the difference."

Porsche visited La Sarthe with its constantly growing and increasingly experienced team regularly every year since 1951. The untold efforts of mechanics, drivers, engineers and helpers (Herbert Linge: "It was seldom possible to sleep longer then an hour somewhere in between the piles of tyres.") were again and again rewarded by successes. Every Porsche win means a milestone in the history of Le Mans as well.

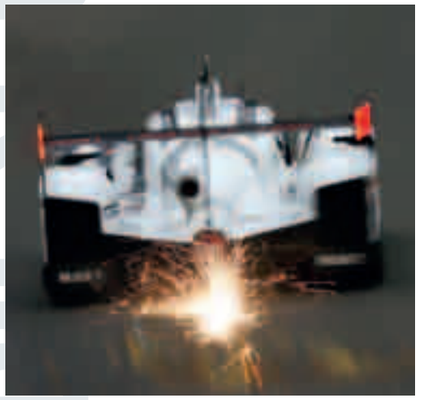
Porsches Le Mans account looks like this:
16 overall wins (1970, 1971, 1976, 1977, 1979, 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1994, 1996, 1997 and 1998), among them two overall wins (1970 and 1971) in the era of the great sportscar races, beside that a first win with a rear-engined car (the Group 5 Porsche 935 K3 turbo in 1979) and the first win in Group C with the 956 (a triple success together with two 935's, on top of that also the IMSA GTX class, even a fivefold success in 1982).

Even we could realize the importance of such a well-rehearsed, reliable and motivated team while producing this first AUTOMOBILSPORT. It was there, out of nothing, and pushed the completion of this 160-page-magazine as a matter of course. We could count on people, who carried on the philosophy of five years of powerslide in a cross generational way, using the experience of many decades of professional motorsport-journalism and having one thing in common: minimum 100 octane in their blood.

Motorsport-journalism stalwarts like the famous Karl Ludvigsen (USA), the germans Uwe Mahla and Eckhard Schimpf and from Austria Helmut Zwickl made the given theme alive by sharing with us their memories through their articles and pictures. Porsche motorsport-heroes, former engineers, mechanics and drivers, like Peter Falk, Norbert Singer, Wolfgang Berger, Walter Näher, Jürgen Barth, Egon Alber, Herbert Linge, Roland Kussmaul, John Fitzpatrick and many more offered us patiently their advice and cooperation. xxx

We would like to say 'Thank you' to them for that, and hope the resulting magazine that covers such a special part of motorsport history will please you, dear reader. There is one thing that unites us: our enthusiasm for automobilsport. xxx

Robert Weber Jochen von Osterroth



FOREWORD

Dear reader,

For the Porsche company, the 24 Hours of Le Mans has been — and still is — a vital inspiration. After 16 years' absence, we now return in 2014 with a prototype in the top class of this race and also the sports car WEC. It is fascinating to experience what this move has sparked off within the company itself and how it inspires others. During the first two world championship races at Silverstone and Spa, our garage was almost besieged. And this edition is a product of that enthusiasm too. Thank you for that.

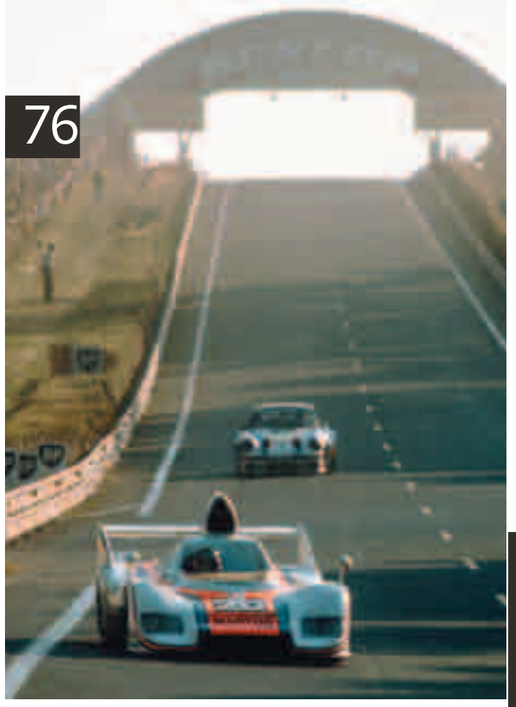
Being the record holder at La Sarthe with 16 overall wins does not really benefit our return in 2014. On the technical side, there was nothing more to fall back on in respect of preparations. We started from zero and within two and a half years have created everything from scratch. We have extended the development centre in Weissach by adding another building, taken on around 200 new employees, more than half of whom are engineers, and developed the most complex racing car ever built by Porsche.

In top-class sports car racing, a new era is dawning. Efficiency is the order of the day. The winner is the one who, with a given amount of energy, covers the greatest distance in the specified time. The rules allow the engineers maximum freedom to develop a drive concept for this purpose. The Porsche 919 Hybrid with its two recovery systems is the most daring implementation of this freedom. Our car is the only one that recovers not only during braking but also under load. And all this within entirely new dimensions: Once the 919 has driven the 24 hours, it will have recovered so much energy that you could leave a 60-watt light bulb burning non-stop for 404 days. We see a great potential for a future use in road vehicles, in particular in the exhaust energy recovery.

It is entirely in line with our sports car philosophy that these very sensible innovations are not at the expense of the drivers' fun and fighting spirit. Our passion for Le Mans is undiminished. And we know that the most exciting stories are not only about success but also include setbacks. This issue tells you all about them. And on the race track, we will be working on tomorrow's stories.

Yours sportingly

Wolfgang Hatz
Member of the Board
Research and Development
Dr. Ing. H.c.F. Porsche AG



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CONTENT

BY ROBERT WEBER · PHOTOGRAPHS: HISTORIC ARCHIVES PORSCHE AG (18)

FOR DECADES A REGULAR PLACE TO GO

THE PORSCHE HEADQUARTER IN TELOCHÉ – RECOLLECTIONS OF PETER FALK, HERBERT LINGE AND EGON ALBER

Porsche travelled with just a relatively small team to Le Mans in the fifties and sixties, but it could prove season by season that they could face bigger works outfits with their well-knit squad and well-prepared, well designed technology, even in such a car-breaking 24h race.

The team from the motorsport department that made its first pilgrimage to Le Mans in 1951 was a squad that grew into a well-rehearsed group of long-time Porsche employees, who have known each other from their families, apprenticeship or school. “We were a sworn-in society,” explains Peter Falk, former racing engineer and team director, its “Motorsportabteilung”. “Porsche was our family. This was not just a slogan – we really lived this philosophy.”

Peter Falk´s own Le Mans-story began in 1964 as time keeper at the Porsche box. He had been a member of Porsche for just five years when he was allowed “to go to the race” the first time; he began his career as time-keeper. “I was just sitting there, doing nothing else other than noting the times that were screamed at me by Herr Klauser, who was sitting up on the box-stand with all his stop watches, and then I had to calculate the differences to get the lap times,” remembers Falk. “And this had to be done for 24 hours without pausing. It was very tiring, of course.”

A fresh spirit of invention

There was a certain spirit that moved and motivated the Stuttgart team in the fifties and sixties – and it was Peter Falk, who contributed with his own ideas to a constant development of this spirit. “I had an idea how to make time keeping easier coming to Le Mans for the second time,” says Falk. “We brought an attendance recorder, which was normally used by the permanent employees at the factory gate, with us. Our electricians modified this recorder a bit, so we could stamp the pass-through times of six cars in parallel. We just had to calculate the lap-times then, this was something this “machine” could not do.” But the time keepers were not forced to sit at their places for 24 hours this way and they could arrange to work in shifts easier. The team simplified its work in many areas over the years and upgraded steadily the standard of its own preparation this in way.

FACING PAGE
THE 550 SPYDER’S ARE PREPARED IN THE MAKESHIFT WORKSHOP IN TELOCHE FOR THE 24H RACE IN 1954.

THIS PAGE
LEFT WATCHED BY CURIOUS CHILDREN, WILHELM HILD (AT THE WHEEL) SETS OFF IN HIS SPYDER 550 IN THE DIRECTION OF LE MANS IN 1955.
RIGHT TOP PORSCHE WORKS-MECHANIC WERNER ENZ MAKES FINAL ADJUSTMENTS TO THE 550-SPYDER ENGINE FOR LE MANS IN 1954.
RIGHT BELOW THE WORKS TEAM GANG IN TELOCHE SHORTLY BEFORE LEAVING FOR THE CIRCUIT IN LE MANS.

LE MANS 1969
MISSED BY METRES ONLY!

BY HELMUT ZWICKL · PHOTOGRAPHS: FERDI KRÄLING (6), MCKLEIN - ROTTENSTEINER (6), HISTORIC ARCHIVES PORSCHE AG (3), JEAN-MARC TEISSEDRE (2), FORD (1)

FORD VERSUS PORSCHE: 4,998 AGAINST 4,997.88 KM

Three days after the Nuerburgring, they decided at Porsche to start in Le Mans even though at this stage no CSI message clearly taking a stand on the movable flaps had been received. Principal Ferry Porsche cut the number of Le Mans cars to five. In the little country village of Teloché, about 8 kilometres from the Le Mans circuit, eight cars were unloaded from the transporters nonetheless. Four 917's (one already in the ownership of wealthy amateur racing driver John Woolfe), three 908 long-tail Prototypes and a brand new streamlined 908 Spyder. The long-tail 908 destined for Mitter/Schuetz bore chassis number 30. Multiplied by the material cost of DM 200,000 each this yields a DM six million effort for the contingent of 3-litre 908 coupes alone, although the first 20 cars had been built for the 1968 season. Ing. Ferry Piëch, who had moved into private quarters with his wife Corena near the garage rented in Teloché, offered: "You can't gain more than the World Championship. Here, we can only lose. What would hurt us would be an accident. After perennial success messages, an accident would be most convenient for the press…"

During scrutineering the hoary technical inspectors left themselves wide open. They tried to stuff a suitcase into the Porsche 908, even though luggage boots are no longer requested in the 1969 Prototype regulations. Practice started at half past four on Wednesday in scorching heat. While the Ferrari pilots idly waited for their two 312P coupes, Porsche's eight car armada rested lined-up in front of the pits. At this moment it was certain that Elford/Attwood as well as Stommelen/Ahrens were to drive the 917. Hans Herrmann was to have Gérard Larrousse as his co-pilot; after the April test session Hans had opted for a 908. Willi Kauhsen and Rudi Lins stood around idly. They were registered as reserve drivers and had little hope of a start, especially since just five cars were to be campaigned.

While Stommelen experimented with the 917, continuously modifying the position of the rear flaps, Siffert switched from the long-tail 908 into the Spyder and the Mitter/Schuetz car suffered clutch failure; Kurt Ahrens was to circulate in John Woolfe's private 917. Ahrens did three laps, the third in 3:36.4 despite ignition trouble. This time was to remain ninth fastest, becoming springboard into the last lap of his life for John Woolfe. 37-year- old John Woolfe slipped into his DM 140,000 jewel for the first time on the Thursday. When he returned, the engine had been over-revved – to 9,400 rpm. "I missed a shift", he shrugged.

NIGHT AT LE MANS: PIT AND GRANDSTANDS AT LE MANS 1969

Around 7:45 pm I stood at the right-hand kink on the Mulsanne straight. The newly installed guardrails started to vibrate as the big bangers sucked up the 5 km asphalt strip. John Wyer's Ford GT40s, thrusting through this kink as on rails in excess of 300 kph, Jo Bonnier's red Lola heralded from far afield by its hammering engine sound, the two works Ferraris, unable to work to capacity because their rear spoilers didn't fit, the blue narrow-gauged 3-litre Renault Alpine's with their screaming eight-cylinder engines, and finally the Porsche 917, since the Nuerburgring race featuring a new front suspension with revised geometry effecting better road holding under deflection and hopping. For this mightily roaring 12-cylinder the computer had calculated a lap time of 3:25.76 over the 13.49 km long circuit. The electronic brain estimated the speed through the kink in the long straight at 319 kph and left it to the driver's courage to improve this speed – if he dared to grope his way up to the 917's ultimate centrifugal force, a maddening balancing act at such speed. Stommelen said: "You can't apply full throttle, you have to lift slightly!

Stommelen corrected the computer at 7:45 pm when he succeeded with a lap time of 3:22.9 and an average of 238.970 kph which obliterated any previous Le Mans standards. Stommelen recalled: "Suddenly it was eerily quiet in the cockpit. Along the straight the rev counter needle rose up to 8,200 rpm in 5th…" According to the diagram this correlates to 340 kph. To that one should add the x-factor of the tyres' so-called 'blow up'. For the Porsche technicians the 331 kph top speed for the Stommelen car officially recorded by the organisers at post 44 seemed too low. They say: "350 to 355 kph would be correct" Looking back, 3:23.6 read Denny Hulme's lap record in 1967, established with a 7-litre Ford Mk IV Prototype. Meanwhile, a corner has been incorporated into the final straight by means of Ford-money – a so-called chicane hardly permitting 115 kph, forcing all cars into the lower gears and extending the lap times compared with 1967 by approx. 10 seconds. Despite the chicane Stommelen was seven tenths quicker than the Ford two years before without it. In doing so, the chicane had been installed not only to reduce speed along the final straight in front of pits and grandstands but also to reduce lap times. A misapprehension; like many things in auto racing devised by hoary officials.

During the practice runs in the evening it was established that the 917 with moveable flaps (mechanically operated by the rear suspension) were by far more stable in a straight line and also in fast corners was more stable, signalling more safety to the drivers than with blocked flaps which would have conformed to the CSI ban. This was recorded by the Porsche drivers in a communiqué. The organisers had satisfied themselves as well that aerodynamic aids in this form represented a valuable contribution to safety. They supported this construction even more so, as Porsche announced they would not start unless the flap system would be allowed. To what extent Porsche would have realised this threat remains to be seen. The CSI was at least forced to revise the general wing ban they had panicked into in Monte Carlo and puzzle out a solution for Le Mans. The chase for best times during Wednesday practice was fought-out amongst the Porsches. Behind Stommelen, Elford recorded the second-best lap for a 917 on 3:28.3, averaging 232.78 kph. Siffert did 3:23.3 in the open Spyder, Udo Schuetz 3:33.8 in the same car, Hans Herrmann 3:35.6 in a long-tail 908.

Blond 'Beatle' Johnny Servoz-Gavin did the quickest Matra lap in 3:36.4. Matra had concentrated on Le Mans for months, the name Matra standing for Mécanique, Aviation et Traction, a company founded in 1941 and involved with building rocket launch pads, remote-controlled rockets and space satellites. By now it had expanded into an industrial group, manufacturing high-class electronic devices and executing arms orders for the French government and other countries. Around 90 people work in Matra's racing department.

FACING PAGE
FIRST ENTRY OF THE MIGHTY 917 AT LE MANS IN 1969: STOMMELEN/AHRENS (NO. 14) AND ELFORD/ATTWOOD (NO. 12)

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PREPARATIONS FOR THE LONG RACE: THE 917 OF STOMMELEN/AHRENS (TOP), TWELVE-CYLINDER-MACHINERY OF THE „WHITE GIANT", AND LAST COLOUR BEING PAINTED ON THE NOSES AT TELOCHÉ

The co-operation with the aircraft technicians is very close; any self-development for motor racing takes advantage of the unlimited technical and financial capabilities of the group. After the first day of practice in Le Mans it became clear that the power output of the V12-engine had been reduced in favour of reliability; the times achieved during the April test days could no longer be achieved. What Matra had lost with regard to speed Porsche had gained with the 3-litre. Apparently also reduced was the engine power of the Ferraris, as Pedro Rodríguez informed Peter Schetty: "The engine appears to be less powerful than in Monza! Ferrari intended to recover the reduced power another way. A reduction of fuel consumption by almost 9 percent increased the driving range of the cars.

When qualifying started under a cloudless sky at 6 pm on Thursday, the light glimmered over the pine forests, which are separated by the wide asphalt band of the Le Mans track. Ing. Piëch was convinced that Stommelen would get close to 3:20 this time. Rolf tried everything to beat his fabulous lap achieved the day before. When this didn't work out, he began to revise the whole settings of the tail flaps. In the end, everything was misaligned but the previous days' time could not even be matched, let alone improved on. The high speeds introduced tyre problems on the 917 for the first time. Kurt Ahrens was frightened on the straight by "a crosswind which despite calm almost blew the car of the road". In fact tread delamination on the left front wheel of the 917 threatened to blow the car off course. A little later the same happened to Elford's 917: on the left front chunks of rubber separated from the Dunlop tyre. The tyre specialists recommended a wider tyre for Elford and higher pressure for Stommelen/Ahrens, but this would not be a resolution for the slightly concerned drivers. Since the Firestone debacle during the Monza 1000 km race Porsche allowed the 917 pilots free tyre choice. Both during the short appearance at Spa and on the Nuerburgring the 'White Giant' remained Dunlop- shod; safety took priority over speed. For Le Mans Dunlop tyres were fitted, even though it had been found on the rolling test bed in Stuttgart that the Dunlop tyre shed some rubber at 350 kph whereas the Firestone remained intact. Had the 917 drivers been aware of that, they would certainly have opted for Firestones for Le Mans. But apparently Porsche's technical governing board didn't want to oust Dunlop completely. There was no contract inhibiting this, but in Zuffenhausen they felt they owed gratitude for special developments that had been performed.

A remarkable incident happened around the private 917 of Briton John Woolfe. His co-driver Digby Martland, a British racing driver who had only minor

BY JOCHEN VON OSTERROTH · PHOTOGRAPHS: HISTORIC ARCHIVES PORSCHE AG (1), LAT (1), DPPI (1)

JOUR DE GLOIRE AT LE MANS

A TURBO COULD SHINE IN 1974, EVEN IN THE MIDST OF MATRA

"Franco, do you remember the good old days when you were the Ferrari race director and I entered my Cobras? asks US racing-legend Carroll Shelby of the journalist Franco Lini, who is loaded down with camera equipment.

"Yes Carroll, both of us homologated one hundred sports cars on paper, but to be honest, I had only twenty-six of the GTOs standing ready on their wheels in our yard, whilst your Cobras were filling the streets en masse." Carroll smiles: "But that was just because I despatched them via airplane all over the place – there were only nine cars in fact. But that's nothing compared with the cheating record of Jaguar with its three racing cars." And even they received a homologation!

Standing, leaning on his walking stick, is an older gentleman in a tie and with some pins on the lapel of his suit. He surveys the starting field, misty-eyed. It is rather thin with its 49 cars because of the absence of Ferrari- and Alfa Romeo works teams. The old man is especially interested in the Porsche Carrera RSR Turbo, which clearly towers over the low prototypes of four Matra-Simcas (670B, 670C and 680B) and both Gulf-Ford GR7. "What kind of homologation has it got?" he asked the Italian, after he heard his conversation with Shelby. He was quick to answer: "Ach, it is the new silhouette formula, which will be introduced officially in 1976. It is not very attractive and non-competitive compared with the sportscars."

Wrong Franco! The Italian was also rather surprised when he found out who his counterpart was. The old gentleman proved to be Rene Thomas the flight pioneer, who was trained personally by Wilbur Wright, a French motorcycle champion and Indianapolis-winner of 1914. Franco recognized the Indy pin too late.

500 Turbo-bhp moving 820 kilograms

It could be clearly seen that this "Silhouette-Porsche" with its overhanging rear wing is no fluke. Its boxer engine with KKK-turbo chargers (Handicap factor 1.4) and its Bosch injection generated some 500 bhp. It is definitely competitive, weighing only 820kg. Yes, the four blue Matra's and the Hailwood/Bell Gulf ran away right after the start, cheered on by the masses. It was time for the fans to light up a Gitanes, supporting the Matra sponsor. No one in the packed grandstands ordered a Martini, which sponsors the Porsche works team with the pairings Gijs van Lennep/Herbert Müller and Helmut Koinigg/Manfred Schurti.

The first car to pit is the Porsche 908/2 of the Wicky team. Its driver Boucard carries the word "Fragile" on his helmet. It's a bad omen as his car retires in the sixth hour because of a broken gearbox.

At 4.52pm the Müller-RSR was still in sixth place, but a 908/3 is blocking its path in the pitlane. "Stupen-Herbie", which is the nickname of cigar-loving Herbert Müller, is extremely angry: "My guys did a superb refuelling stop, only to be blocked by another Porsche!"

Porsche on the rise

The Martini-Porsche number 22 was lying fifth in the fourth hour, an hour later it was one place better and further 60 minutes later even on in a podium position. It just blew away all the rest of the field with the exception of two Matras. Rene Thomas acknowledges this fact with surprise as he is chauffeured off to his dinner. Franco Lini does not believe his eyes, but he is at least happy that the Ferrari GTB4 squad of the North American Racing Team (NART) is faring well and has lost only one car so far. They won their class in the end and finished fifth and sixth overall.

An amusing little story: Derek Bell, standing in the doorway of the Gulf motorhome, was asked by an attractive blonde if she could speak to Vern Schuppan. Derek smiled and said: "Just ask this woman, she happens to be his wife!"

Not much later bad news arrived; Reine Wisell, who shares the Gulf-Ford with Schuppan has stopped. In the ninth hour the Matras of Beltoise/Jarier and Jaussaud/Wollek/Dolhem also retired. The "Force bleu" has begun to crumble, because Jabouille's car is losing water. "My engine was sweating too much, so we put some sealing additive into the coolers at every stop. This deodorant helped!" smiled Jabouille. Meanwhile the second Gulf-Ford lost time at 8.42pm when a drive shaft broke, although the great race that followed its repair brought it back to an unrewarding fourth place after 24 hours. In the meantime a sensation is looming - the Martini-Porsche number 22 holds second place, they are already raising a toast in the sponsor's tent.

Everything is under German control – even the Matra gearbox!

There's frustration for both Cologne-Porsche teams; a damaged piston forces the Kremer squad to go home and at 2.12am the Gelo-Porsche of Georg Loos also went missing. It had come to a standstill just one kilometre away, because of a penny-failure. But even in the works team there are worried expressions. Koinigg had retired in the eighth hour because of a broken engine and Van Lennep is starting to worry about a problem with the right front suspension. The wheel nut seized after a short check of the damper and that costs time. But this is as nothing compared to the problems confronting John Wyer. The new drive shaft on his Gulf-Ford loses so much lubricant, that the mechanics have to tighten it anew at every stop.

At 10.59am the masses start to moan for Henri Pescarolo is creeping slowly around the track! "I can not use the higher gears anymore," comments the bearded Frenchman. It is strange, but the Matra has a Porsche gearbox. Porsche-man Manfred Jantke remarked jokingly, when I wrote this: "You see Coocoo (he called me this way after my Daytona-trip to the Race of Champions) everything here is under German control!" But suddenly there are only third and fourth gears left also in the Martini-car. At 11.46am the Matra-gearbox was changed in record time. "Usually it is forbidden this way," says one of the technical stewards, but the road to victory was free for this car again. The works-Porsche did it as well. It completed 4,527.455 km with an average speed of 188.643 km/h. It finished in second overall ahead of the Matra of Jabouille/Migault!

By collecting valuable points in most of the other races and earning another second in Watkins Glen, Porsche achieved a third place in the 1974 Championship of Makes, behind Matra and Gulf-Ford, but still ahead of Alfa Romeo. That was not a bad start in the midst of such a top-class sportscar pack.

TOP
THAT´S WHAT MOST OF THE OTHER DRIVERS SAW AT LE MANS: THE REAR VIEW OF THE 500 TURBO-HORSEPOWER 911 CARRERA RSR TURBO

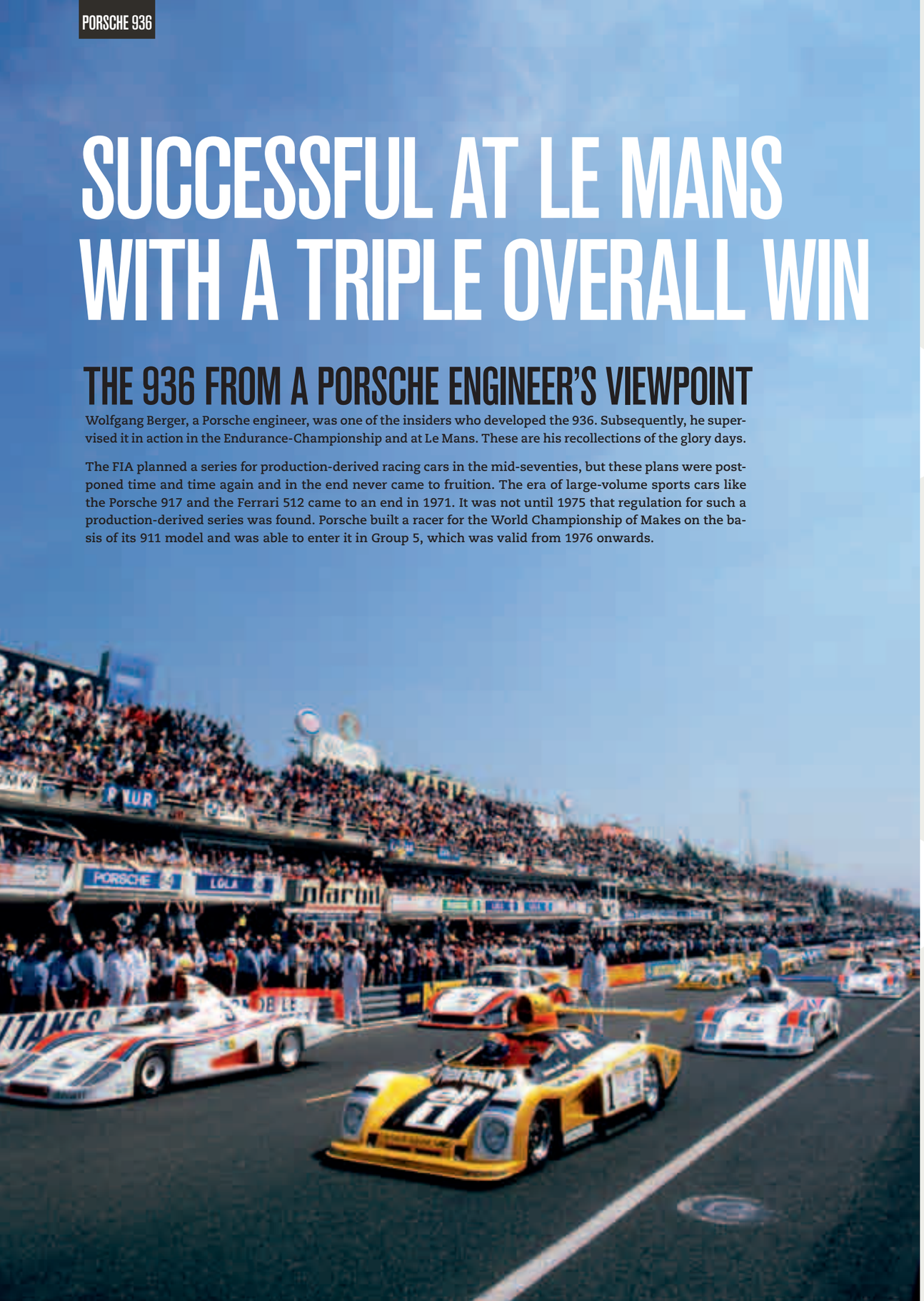
BOTTOM
THE AIRCOOLED FLAT SIX TURBO ENGINE OF THE „PROTOTYPE"-911

SUCCESSFUL AT LE MANS WITH A TRIPLE OVERALL WIN

THE 936 FROM A PORSCHE ENGINEER'S VIEWPOINT

Wolfgang Berger, a Porsche engineer, was one of the insiders who developed the 936. Subsequently, he supervised it in action in the Endurance-Championship and at Le Mans. These are his recollections of the glory days.

The FIA planned a series for production-derived racing cars in the mid-seventies, but these plans were postponed time and time again and in the end never came to fruition. The era of large-volume sports cars like the Porsche 917 and the Ferrari 512 came to an end in 1971. It was not until 1975 that regulation for such a production-derived series was found. Porsche built a racer for the World Championship of Makes on the basis of its 911 model and was able to enter it in Group 5, which was valid from 1976 onwards.



BY WOLFGANG BERGER
PHOTOGRAPHS: HISTORIC ARCHIVES PORSCHE AG (17), DPPI (3), COLLECTION WOLFGANG BERGER (8) , WOLFGANG SIEBERT (1), ED PETER (1)

Modifications of the rules: Porsche reacts fast
However, the FIA acted hesitantly shortly before the start of the season as it's mainly French, English and Italian members lobbied for an additional integration of Group 6 cars. Because of this insecurity, even Porsche decided at short notice to build a car suitable for Group 6, in order to be prepared. This pure racer promised to be even more successful than the special-production car of Group 5. The board reacted quickly. It would be possible to build a car with few resources, because the 917 parts were still in stock. The team had only six months to develop and test the car before its first race on the Nürburgring. This tight development time did not allow for the use of any unproven parts and so the concept of the car was based on tried and tested components from the 917 and 911 Carrera.

The car was barely finished when the FIA came up with the idea to establish a World Championship for sports cars. This meant that the existing rules for two-seater sports cars could be used further with just marginal modifications. The protagonists of this series were Renault with its 2-liter turbo-engines and Alfa Romeo with its 3-liter-atmospheric unit (the title went to Milan in the previous year, Alfa using its Tipo 33 TT12). Porsche decided to take part in this championship and soon agreed terms with sponsor Martini. The first 936 was painted black, adorned with the familiar Martini stripes.

The developers used existing stock
In the basic development stage, I was involved only marginally. The team consisted of engineers and staff from the 908 and 917 eras. The engine required no modifications, except some minor refinement of the inlets. Most of the modifications originated from practical try-outs. The mill itself was a good old friend - the 2.1 litre turbo, which Porsche used in 1974 in its 911 Carrera RSR Turbo prototypes. This air-cooled engine was cooled by a horizontally mounted fan. Its exhaust and inlet system was adapted for each of the cylinder rows of the six-cylinder in extensive tests.

We were all placed in an open plan office and I sat at the same desk as the Project Manager, so the flow of information was rather good.

Nevertheless, it was different with other colleagues in the development group. Their department and even their workshop were strictly separate, and the car was built with the highest secrecy. The rest of the factory was not informed about what was going on there until the day of the roll-out.

FACING PAGE
START TO THE LE MANS 24 HOURS 1978

A "borrowed" body
In terms of its body, the new 936-Spyder was a mixture of the 908 and the 917 Can-Am-Spyder. Its shape was developed on the drawing board, which was quite normal back then. The fixed positions of the structural and internal parts, for example the radiators and tanks, were defined beforehand. This rough estimation allowed for the chassis to be built up further. The chassis was designed in an approved tube-frame way of alloy tubes, welded to each other. After its completion we measured the frame and determined its rigidity.

Areas which did not achieve the targeted rigidity were stiffened by relevant bars, and we even used metal sheeting. In the end we achieved a higher rigidity than all its predecessors (908 and 917). The monocoque (?) structure of a chassis was used five years later, starting with alloy. Only carbon is used nowadays. The position of the driver was notable. Similarly to the 908/3, he was placed quite far forward, shifted slightly to the right hand side. The three-part body consisted of a removable front part with its integrated headlights; the middle part was glued to the frame featuring the doors and a removable rear part. The removable parts were fixed to the frame with quick fasteners. The shape of the body had a rather flowing line and ended in a "cut-off" long tail. Two fins that started at the rear wheel arch and ascended towards the rear end were placed on the tail. Between the fins an adjustable rear wing was placed with one flap. Its profile was adopted from the Can-Am Spyder and featured the latest data available in that area.

A great deal of work of this aerodynamically successful shape with its right positioning of radiators and its optimal airflow to the wings was accomplished in a wind tunnel.

Aerodynamic improvements in Wolfsburg
We did our measurements in the VW-wind tunnel in Wolfsburg. In February 1976, during our first test there, the main task was to check all the theoretical data we had gained previously. The influence of the pitch of the rear wing and its flap was measured, as well as the influence of the air outlets from the front wheel arches and the spoilers on the downforce and drag. We also experimented with angular approaching flow, to receive some basic data for the set-up of the car on a given track.

Drag and downforce were measured at different angles and this data was translated into a set-up database that could be used at the tracks. The wings were adjusted using a pattern and spirit-level on a horizontal floor. The areas of airflow were identified additionally. This delivered useful data regarding the optimal shape and positioning of the singular body parts. Even the driver was simulated by a dummy with helmet, which enabled us to find the optimal shape of the windscreen in the wind tunnel.

The chassis: digging deep in the "917-treasure-box"
The wheels were some magnesium cast-wheels from the 917-program. They measured 10.5 x 15" in the front and 15 x 15" in the rear, whilst the regulations limited the total width of the rear tyre to 16". The wheel carriers and the steering were also taken from the race proven 917.

Particular attention was paid to the cooling of the brakes. The air inlets were to the left and right of the oil-radiator, in the area of the biggest pressure. The air was channeled via some hose of 100 mm-diameter to a plastic housing, which was covering the brake discs. On the inside the wheels were equipped with some turbo-like air baffles of plastic to optimize the cooling. The cooling in the rear was supported by shovel-like housings, which were mounted on the wheel carriers to use the air coming from the bottom of the car.

The front suspension consisted of wishbones with push rods, a cross stabilizer and an adjustable spring/damper unit. The springs originated from the 917 range, they were made of titan. The drivers had the choice of ten spring sets of different hardness depending on the given track.

The rear suspension consisted of a top wishbone with two push braces lying below. The spring/damper unit was adjustable by a thread, the same as at the front suspension. The suspension was completed by an adjustable cross stabilizer. All the bars and rods were made of alloy tubes and their toe-in and camber were adjustable. The overrun could be adjusted additionally at the front suspension.

It was surprising to see that the drivers had to cope with a rather heavy steering, but it became lighter at top speed.

A turbo-engine from the RSR
Even the engine of the 936 was an old friend. The regs limited its volume to 3-litres. The valid coefficient of 1.5 meant a volume of 2.14-litres for a turbo six-cylinder. This engine was previously used back in 1974 in the 911 Carrera RSR Turbo prototype. Its block was of magnesium and featured a double ignition. The cooler-fan was positioned horizontally. Two intercoolers were integrated into the intake system.

The air supply was fed through NACA ducts in the rear. They had to be modified only marginally after some tests in the wind tunnel. The boost could be adjusted by the driver by a hand wheel from the cockpit. It was easier to fit the coolers to a 936 Spyder than to the 911 Carrera RSR Turbo and a boost of 1.5 bar could be used therefore, while the Carrera allowed 1.4 bar only. The power output was 500 bhp at 8000 rpm.

The rubber safety tanks were placed beside and behind the driver and they were filled with foam and safeguarded by some alloy tub additionally. This 160-litre fuel system was filled via fast-refueling-equipment. A so-called catchtank and a clever valve system in the coupling piece (to prevent fuel back flow) were used to ensure a permanent fuel flow to the engine.

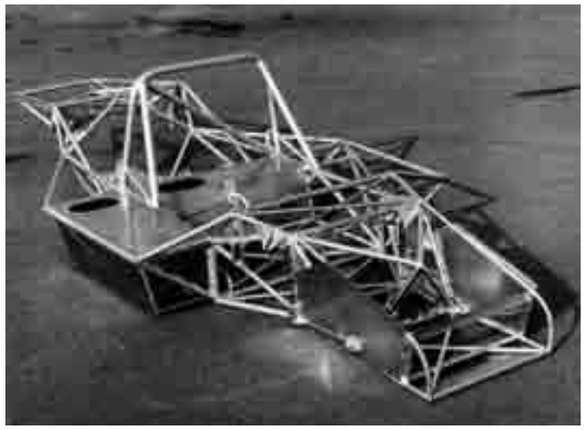
A well-proven gearbox and drive unit
The differential and the gearbox were placed behind the engine, separated by a 30cm-long alloy spacer. The power transfer to the transmission was handled by a fast-running shaft. The gearbox of the 936 was the well proven 917 five-gear-box with an external radiator. A triple-disc dry clutch was used. The gearbox was of rather favorable dimensions, considering the torque of the engine. It meant some weight disadvantage, but a big plus regarding the reliability. The drive shafts made of titanium originated from the 917 as well. Only their length had to be modified and a rubber-element with dampening effect was fitted between its drive and output side.

Teloché, our Le Mans base
Teloché is a small sleepy-looking place to the South of the race track, having about 3000 residents back then. I visited it twenty times for sure, but I knew only our garage, the bar vis-à-vis, the coffee shop, a restaurant and some private houses where we were accommodated for some days. The centre of our activities was the Garage Preworst. A workshop with a fuel pump, the patron emptied it and leased it to us for the whole week, so we could build up our "paddock" there.

Usually we put all the race cars into the garage, having still enough room to work around them. Most of the spare parts were left in the trucks and we took them out only when needed, with the exception of practice and race days. The parts and some most important components were brought to the pits at the track. Loading and unloading meant a great stress to the mechanics, considering that they had much to do all through the day anyway. They had to change engines, repair damage of the bodies and check and re-check the cars following our specially-for-Le Mans-made check lists.

A relatively pleasing job for the expert was to make sure that the right start numbers were put on the cars, that the position-lights were working, that the sponsor stickers were on the right places and that the cars were presented clean and shiny. A measure we took only in Le Mans was the applying of protection tape to the headlights. It should protect them of flying stones and had to be removed before the night-fall. Also a set of required emergency tools had to be placed in the cockpit, in case the driver had to make repairs.

Driving the 936 on public streets to the track
It was always a special challenge for us engineers to drive the cars on public streets to the race track. The transport back to the workshop was done the same way. The advantage was that the mechanics did not need to load and unload the cars onto the trucks. For me and for sure also for my colleagues, this journey with a racing car on around 10km of public road was an exceptional thrill, especially when we entered the Mulsanne corner of the circuit and the masses of spectators started to applaud.



FACING PAGE
FORMATION LAP 1976: JACKY ICKX LEADING THE FIELD IN THE 936, ROLF STOMMELEN FOLLOWING WITH THE MARTINI-935

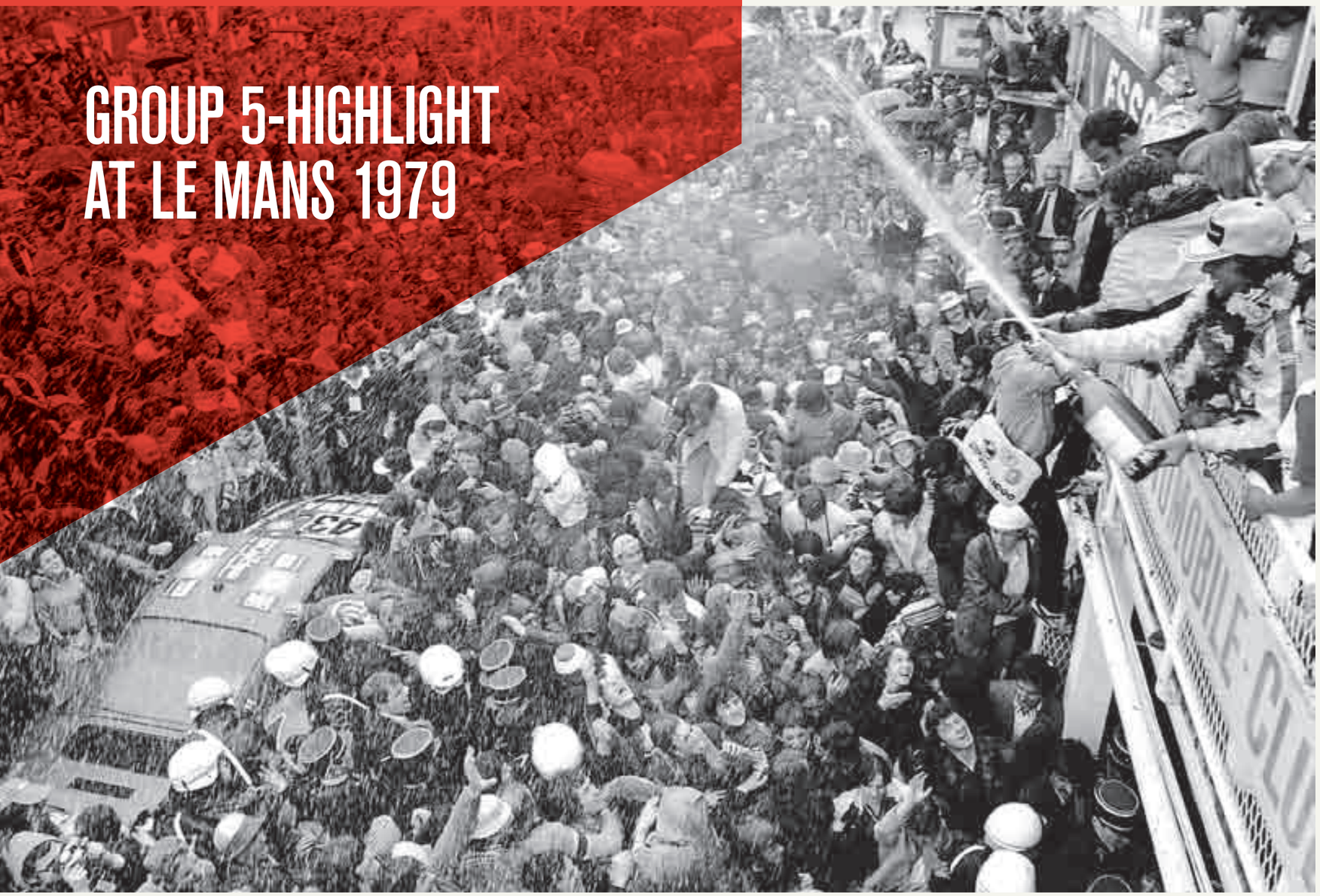
THIS PAGE
BY TOP NACH UNTEN
DEVELOPMENT OF THE 936
1 TUBULAR ALUMINIUM FRAME
2 936 ENGINE WITH SPACER FOR THE GEARBOX
3 TESTS WITH HIGH AND LOW AIRBOX VERSIONS
4 LONGTAIL TESTDRIVES AT PAUL RICARD

PORSCHE-WIN

WITH A HEFTY PRIZE SURPRISE

BY UWE MAHLA · PHOTOGRAPHS: DPPI (5), HISTORIC ARCHIVES PORSCHE AG (3), MICHEL GUILLOUX (2)

GROUP 5-HIGHLIGHT AT LE MANS 1979



A Porsche win was a certainty in 1979, but in this manner? With eight hours to go Stuttgart´s hopes and prayers were not based on their works cars anymore. No, they had to put trust in a Type 935 Group-5 racer. In addition, practicing the art of a drive belt-change would prove to be a rather important part of this story...

Two people guessed it right. To try to win Le Mans with a Group-5 car was a rather risky adventure in the face of the strong sports car competition that usually competed for top rankings.

"I am convinced that it is possible to win Le Mans 1979 with a Porsche 935," was the opinion of Georg Loos back in October 1978. He was right, even if this fact should taste bitter to him later. Speaking about the 935, he meant one of his red cars, of course – not the car of his deadly rivals from Cologne, the Kremer brothers. What he could not know back then was that Porsche had decided to enter two works 936 cars, even though they had been informed about the non-appearance of Renault. That made them favorites automatically. But it does not mean that Loos´ opinion was wrong. And there was another man, who had the same idea as Loos, as we will learn later.

The 936 won narrowly in 1977 and lost just as narrowly in 1978, but was still the car to beat in 1979. Porsche modified its inlet tract, the throttle flaps and the exhaust system to optimize the engine's behavior at low revs. They reworked the gearbox also, which was the main issue in 1978. Its position as favourite was only in doubt because of tyre problems, which arose in the Silverstone race and also during the Le Mans practice days. Dunlop could not clearly point to the reason for this issue. "We started our Le Mans program four weeks ago, which is too late," said Porsche engine expert Valentin Schaeffer, full of regret... "Can this be right?"

REAL LE MANS-FEELINGS: THE CHEERING MASSES BELOW, KLAUS LUDWIG CELEBRATING THE 1979 OVERALL VICTORY IN THE KREMER-PORSCHE 935 K3 WITH US-BROTHERS DON AND BILL WHITTINGTON

The two works-Porsches, which were unleashed from the front row, started the race with lap times in the 3.40 to 3.45 minutes bracket, a speed that caused problems for its main rivals, Mirage-Ford. It represented lap-times, which the US cars were able to achieve in practice only. They could hold this speed just for an hour and their number 10 (Schuppan/Jaussaud) became a frequent pits-visitor because of gearbox problems thereafter. The car was retired at the 12-hour mark, because it did not run within the minimum distance of 70% of the leader. But there were clear signs of a Porsche-Waterloo visible at that point. Brian Redman had a puncture on his left rear and the disintegrating tyre destroyed the bodywork and water cooler. Also, Bob Wollek's car was hampered by ignition problems. Some hectic repairs in the area of the turbocharger, the ignition, and the spark plugs were the result. Finally a cylinder was shut-off completely and the car was left cruising rather slowly into the morning hours, before technical boss Helmut Boss took the decision to order its retirement. The other works car lost its belt, which operates the ignition pump after 12 hours. No reason for retirement, you mean? Jacky Ickx was of the same opinion and started his repair operation. His bad luck was not having a reserve belt on board, so some mechanics went out to the track at three o´clock in the morning to take him the spare and offer some advice. Ickx worked like crazy and managed to repair the car. Back on the track he started to make up the lost time swiftly. But another driver was destined to repeat this repair work five hours later – with some dubious success.

Number 12 swiftly climbed up the rankings during the following hours. Even before the Ickx recovery action it had lost many places when a tyre punctured, destroying the rear bodywork, and leading to a long pit stop. (The same accident also happened during practice. The Porsche rear wheels were sent to Stuttgart therefore for some tests and were substituted by BBS products later). The charge back to the top was stopped at six o´clock in the morning anyway, although the Porsche manager commented: "We were driving much faster and our calculation was that we were still in reach of a win." Nevertheless car Number 12 of classical pairing Ickx/Redman was disqualified.

A hard, but correct decision: Ickx had not used a reserve belt that was with him on board. He used the belt that a mechanic brought with him and dropped unnoticed and "accidentally" into the wet grass alongside the Hunaudiers straight, while giving his driver advice. This was "outside assistance", which is a clear reason for disqualification. The race was run and the attempt to make up for last year's defeat was over. The works effort ended in an inglorious way, making the point that even the best of intentions does not always help in Le Mans, no matter how well you prepare for all the eventualities in the race... But there was still hope - the hope that Porsche's privateers can succeed. And the omens were really good, as Porsche engineer Wolfgang Berger opined at 10 o´clock in the morning, looking into the sky: "Seven of our cars are leading the race now, so one of them should make it to the chequered flag and win, surely?"

But what about the other competitors? On close inspection their chances couldn't be rated too highly. There were two Japanese Dome cars with Cosworth-Ford engines. Both cars were designed and produced in a hurry. They were slow from the word go and - what´s even more important – not reliable at all. The Bob Evans/Tony Trimmer car managed to hold position seven in the opening phase of the race, but an engine-failure robbed the Japanese of their hopes. Later they just watched helplessly as their second

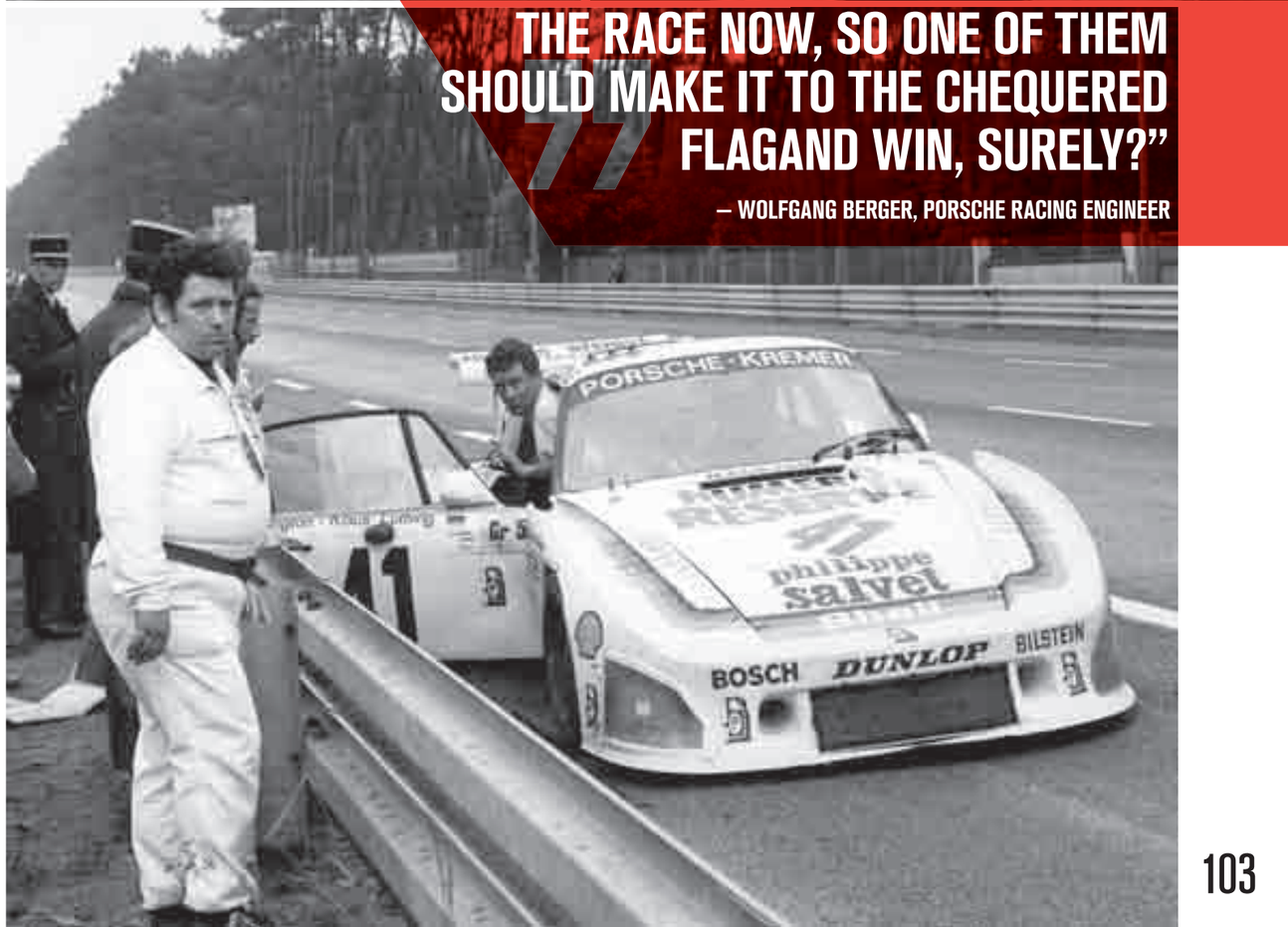
FACING PAGE
TOP LEFT DON WHITTINGTON SPONTANEOUSLY BOUGHT THE KREMER-935 WITH HIS BROTHER BILL IN THE STARTING GRID OF LE MANS 1979, NOW IT´S WAITING FOR THEIR NEXT STINT.

TOP RIGHT NOW LUDWIG AND WHITTINGTON HAVE TO WAIT FOR THINGS TO HAPPEN

BOTTOM THANKS TO A PROFESSIONAL PREPARATION WHITTINGTON IS ABLE TO CHANGE THE DRIVE BELT OF HIS 935. 1ST: HE HAS A SPARE BELT IN THE CAR. 2ND: DRIVERS TRAINED THE REPLACEMENT.

"SEVEN OF OUR CARS ARE LEADING THE RACE NOW, SO ONE OF THEM SHOULD MAKE IT TO THE CHEQUERED FLAGAND WIN, SURELY?"

– WOLFGANG BERGER, PORSCHE RACING ENGINEER



BY MICHAEL COTTON UND NORBERT SINGER
PHOTOGRAPHS: HISTORIC ARCHIVES PORSCHE AG

A DOUBLE WITH JOEST

THE OPEN TWR-JOEST WSC SPYDER

Buoyed by our success at the 1994 Le Mans, we started thinking about supporting the American market with a car for the IMSA championship. There were talks in September 1994 between our competitions boss Max Welti, our engine specialist Herbert Ampferer, and Alwin Springer, who was in charge of racing in America. Welti and Ampferer came back from America with the suggestion that we could make an agreement with Tom Walkinshaw Racing to put our turbo engines and transmissions into their TWR chassis, and prepare for the new World Sports Car category, which would be starting at Daytona in January 1995.

The price suggested by TWR's American director, Tony Dowe, was very reasonable, and it seemed a good opportunity to get into America at low cost. We got permission from our board the same month and I went straight away to visit Dowe and his engineer, Ian Reed, in Valparaiso, near Chicago, to agree the time frame and make all the necessary plans. There was not much time to prepare two cars, and there was a lot of work to be done.

We sent over an engine and gearbox and TWR had the task of adapting the chassis, which had been designed originally by Ross Brawn as the Jaguar XJR-14 prototype, and had won the World Sportscar Championship in 1991. The following year, the same chassis had been adapted to take a Judd V10 engine and raced branded as a Mazda.

Now, with open 'spyder' bodywork, the chassis needed major alterations for the installation of the Porsche flat-six engine and intercoolers for the turbocharger system. Brawn had designed a centre gearshift with the linkage running through the vee in the V8 and V10 engines, so this had to be re-engineered for the Porsche.

I went again to Valparaiso in October with Horst Reitter, the chassis designer, and Hans Eckert, our workshop manager. We realised that there was a even greater deal of work to be done. In order to get a car ready for testing, we had to design the water system, radiators, half-shafts and many other things. We had to send over a lot of parts, more than we had expected. In the end, we sent more than 10 engineers and mechanics from Weissach to get the car running.

We soon realised that Dowe had quoted us a minimum price and could not possibly do the job within his own budget. All our manpower was needed to bring two cars to readiness. I would say that he is a clever man! It was a big mistake to think that we could turn a Jaguar into a Porsche and make it a good racing car straight away. The bodywork was partly new, the wings were different, the power train, the radiators and intercoolers and parts of the suspension assemblies had to be adapted, so it was virtually a new car which had to be built in less than four months. The whole undertaking was seriously underestimated by Dowe, and by ourselves.

We did the first testing at Charlotte between 19-24 December 1994, then it was straight into Christmas. Scott Goodyear and Thierry Boutsen drove the car and Bob Wollek was also there, but Hans Stuck was too tall and could not fit into the cockpit.

At one point when Goodyear got up to speed, he came on the radio and shouted: "Look what I can do!" We did not see anything unusual but he said the same thing the next time he came round. Then we realised that he was turning the steering wheel from lock to lock and nothing was happening – there was so much lift at the front that the car went straight on at high speed! Then Boutsen went out for his first drive, on new tyres, and spun the car on his out-lap, damaging the front, the rear and the side panels, so the test was finished.

Dowe told us that, after the test, he would take a model of the car into a wind tunnel and sort out the aerodynamics, but of course he did not do it over Christmas and the New Year. The car was not changed at all when we went to IMSA's Daytona test on 7 January – it had simply been repaired. Because we were not allowed to add a wing at the front, we reduced the angle of the rear wing in order to improve the balance, and this incidentally reduced the drag.

A Ferrari 333SP lapped the Daytona combined circuit in 1m43.7s on the first day, but Mario Andretti did a 1m46.0s in our car, on soft-compound tyres. So we were more than two seconds off the pace. We had some problems fitting our drivers but, when the seat and pedals were changed for Stuck, he did a 1m46.9s on Goodyear race tyres while Rob Dyson did 1m42.5s in his Riley & Scott Ford. Now the pace was going up, and we were four seconds off it!

No one seemed to believe that we did not have enough speed. Stories came back to us that the Daytona organisers thought we were sandbagging. Three days later, we got the news that the organisers had decided to reduce the diameters of our mandatory air inlet restrictors from 34.5mm to 32.0mm, which effectively reduced the power by 13.9 percent, and to increase the minimum weight by 100lb, about 45kg. These changes made it impossible to go ahead with our preparations for the race. The car could not be competitive, so we had to withdraw from the Daytona 24 Hours.

The Kremer team won the race with their Porsche K8 Spyder. It was by no means the fastest car, but it was completely reliable, which is more than could be said of the new WSC cars. Afterwards, people said that the handicap had been right because a Porsche had still won the race! We could never go back and ask for a smaller handicap, and Porsche would not go racing with people like Hans Stuck, Mario Andretti and Bob Wollek waiting for faster cars to drop out. We could only race at the front.

LE MANS WINNER: JOEST-WSC SPYDER AT WINDTUNNEL TESTS (BOTTOM) AND AT LE MANS 1996 (REST OF BOTH PAGES)

TECHNICAL DATA PORSCHE 919 HYBRID

Type:	Le Mans prototype class LMP1
Monocoque:	Composite fibre construction of carbon fibre with alloy-honeycomb core
Board Syst. Battery:	Lithium-Ion-Battery
Engine:	V4-engine with turbocharger
Engine management:	Bosch MS5.6
Engine lubrication:	dry sump
Volume:	2000ccm
Power output:	>370 kW (>500 bhp)
Power unit:	rear drive, four wheel drive via KERS at the front axle
Clutch:	CFK-clutch
Transmission:	sequential, hydraulically-driven 7-speed-racing-box
Differential:	limited slip on the rear
Transmission housing:	Hybrid construction CFK with Titan-inserts and alloy housing
Drive shaft:	even speed-tripode-shift-power train
Suspension:	Front and rear independent suspension on Multilink, thrust arm system with adjustable dampers
Steering:	Hydraulic-supported gear rack steering
Brakes:	hydraulic-double-circle-brake-system, Monoblock-light-metal-brake-callipers, air cooled carbon fibre brake discs in front and rear.
Wheels:	BBS forged wheels in Magnesium
Tyres:	Michelin radial, front and rear 310/710-18
Weight:	870 kg
Tank capacity:	66.9 litres
Body:	Height 1050 mm / Width 1900 mm / Length 4650 mm

STAY UP TO DATE:

WWW.PORSCHE.COM/MISSION2014

STATISTICS PORSCHE AT LE MANS 1951 TO 2013

BY ULRICH TRISPEL

LEGEND: # = Number, AP = Applicant, OA = Overall, CL = Class, DNF = did not finish, NC = not classified

1951

#	Driver	Type	AP	OA	CL
46	A. Veuillet / E. Mouche	356 SL	Porsche	20	1

1952

#	Driver	Type	AP	OA	CL
47	F. Picard / E. Martin	356 SL	private	DQ	
50	A. Veuillet / E. Mouche	356 SL	Porsche	11	1
51	H. by Hanstein / P. Müller	356 SL	Porsche	DNF	

1953

#	Driver	Type	AP	OA	CL
44	H. Herrmann / H. Glöckler	550	Porsche	16	
45	R. by Frankenberg / P. Frère	550	Porsche	15	1
46	G. Olivier / E. Martin	356 SL	private	DNF	
49	A. Veuillet / P. Müller	356 SL	Porsche	DNF	

1954

#	Driver	Type	AP	OA	CL
39	J. Claes / P. Stasse	550	Porsche	12	1
40	R. by Frankenberg / H. Glöckler	550	Porsche	DNF	
41	H. Herrmann / H. Polensky	550	Porsche	DNF	
47	G. Olivier / Z.Arkus Duntov	550	Porsche	14	1

1955

#	Driver	Type	AP	OA	CL
37	H. Polensky / R. by Frankenberg	550	Porsche	4	1
38	W. Ringgenberg / H. Gilomen	550	private	DNF	
49	Z.Arkus Duntov / A. Veuillet	550	private	13	
62	H. Glöckler / J. Juhan	550	Porsche	6	
65	G. Olivier / J. Jeser	550	private	18	
66	W. Seidel / O. Gendebien	550	private	5	

1956

#	Driver	Type	AP	OA	CL
24	U. Maglioli / H. Herrmann	550 A	Porsche	DNF	
25	R. by Frankenberg / W. by Trips	550 A	Porsche	5	1
26	M. Nathan / H. Glöckler	356 A	Porsche	DNF	
27	M. Hezemans / C. de Beaufort	550	private	DNF	
28	C. Storez / G. Olivier	550	private	DNF	
34	R. Bourel / M. Slotine	356 A	private	13	

1957

#	Driver	Type	AP	OA	CL
32	U. Maglioli / E. Barth	718 RSK	Porsche	DNF	
33	H. Herrmann / R. by Frankenberg	550 A	Porsche	DNF	
34	C. Storez / E. Crawford	550 A	Porsche	DNF	
35	E. Hugus / C. de Beaufort	550 A	private	8	1
36	M. Slotine / R. Bourel	356 A	private	DNF	
60	C. Dubois / G. Hacquin	550	private	DNF	

1958

#	Driver	Type	AP	OA	CL
29	J. Behra / H. Herrmann	718 RSK	Porsche	3	1
30	R. by Frankenberg / C. Storez	718 RSK	Porsche	DNF	
31	E. Barth / P. Frère	718 RSK	Porsche	4	
32	C. de Beaufort / H. Linge	550 A	private	5	
34	J. Kerguen / J. Dewez	550 A	private	10	

1959

#	Driver	Type	AP	OA	CL
31	J. Bonnier / W. by Trips	718 RSK	Porsche	DNF	
32	H. Herrmann / U. Maglioli	718 RSK	Porsche	DNF	
34	E. Barth / W. Seidel	718 RSK	Porsche	DNF	
35	J. Kerguen / R. Lacaze	550 A	private	DNF	
36	C. de Beaufort / C. Heins	718 RSK	private	DNF	
37	E. Hugus / E. Ericksson	718 RSK	private	DNF	

1960

#	Driver	Type	AP	OA	CL
33	J. Bonnier / G. Hill	RS 60	Porsche	DNF	
34	M. Trintignant / H. Herrmann	RS 60	Porsche	DNF	
35	H. Linge / H.J. Walter	356B GTL	Porsche	10	1
36	J. Kerguen / R. Lacaze	RS 60	private	DNF	
38	C. de Beaufort / R. Stoop	RS 60	private	DNF	
39	E. Barth / W. Seidel	RS 60	Porsche	11	

1961

#	Driver	Type	AP	OA	CL
30	J. Bonnier / D. Gurney	RS 61	Porsche	DNF	
32	E. Barth / H. Herrmann	RS 61	Porsche	7	
33	M. Gregory / B. Holbert	RS 61	Porsche	5	1
36	H. Linge / B. Pon	356B GTL	Porsche	10	1
37	R. Buchet / P. Monneret	356B GTL	private	DNF	

1962

#	Driver	Type	AP	OA	CL
30	C. de Beaufort / B. Pon	356B GTL	private	DNF	
34	E. Barth / H. Herrmann	356B GTL	Porsche	7	1
35	R. Buchet / H. Schiller	356B GTL	private	12	

1963

#	Driver	Type	AP	OA	CL
27	J. Bonnier / T. Maggs	718/8	Porsche	DNF	
28	E. Barth / H. Linge	718/8	Porsche	8	1
29	G. Koch / C. de Beaufort	356B DKS	Porsche	DNF	
30	B. Pon / H. Schiller	356B DKS	Porsche	DNF	

1964

#	Driver	Type	AP	OA	CL
29	E. Barth / H. Linge	904/8	Porsche	DNF	
30	C. Davis / G. Mitter	904/8	Porsche	DNF	
31	H. Schiller / G. Koch	904 GTS	Porsche	10	
32	J. Dewez / J. Kerguen	904 GTS	private	12	
33	B. Pon / H. van Zalinge	904 GTS	private	8	
34	R. Buchet / G. Ligier	904 GTS	private	7	1
35	H. Müller / C. Sage	904 GTS	private	11	

1965

#	Driver	Type	AP	OA	CL
32	H. Linge / P. Nöcker	904/6	Porsche	4	1
33	C. Davis / G. Mitter	904/8	Porsche	DNF	
35	G. Klass / D. Glemser	904/6	Porsche	DNF	
36	G. Koch / A. Fischhaber	904 GTS	Porsche	5	1
37	R. Buchet / B. Pon	904 GTS	private	DNF	
38	J. Dewez / J. Kerguen	904 GTS	private	DNF	
62	C. Poirot / R. Stommelen	904 GTS	private	DNF	

1966

#	Driver	Type	AP	OA	CL
30	J. Siffert / C. Davis	906 LH	Porsche	4	1
31	H. Herrmann / H. Linge	906 LH	Porsche	5	
32	U. Schütz / P. de Klerk	906 LH	Porsche	6	
33	P. Gregg / S. Axelsson	906	Porsche	DNF	
34	R. Buchet / G. Koch	906	private	DNF	
35	J. Dewez / J. Kerguen	911	private	14	1
58	G. Klass / R. Stommelen	906	Porsche	7	1

1967

#	Driver	Type	AP	OA	CL
37	V. Elford / B. Pon	906	Porsche	7	1
38	R. Stommelen / J. Neerpasch	910	Porsche	6	
39	U. Schütz / J. Buzzetta	910	Porsche	DNF	
40	J. Rindt / G. Mitter	907/6 LH	Porsche	DNF	
41	J. Siffert / H. Herrmann	907/6 LH	Porsche	5	1
42	R. Buchet / H. Linge	911 S	private	14	
43	J. Dewez / A. Fischhaber	911 S	private	DNF	
60	A. Wicky / P. Farjon	911 S	private	DNF	
66	C. Poirot / G. Koch	906	private	8	
67	P. Boutin / P. Sanson	911 S	private	DQ	

1968

#	Driver	Type	AP	OA	CL
31	J. Siffert / H. Herrmann	908 LH	Porsche	DNF	
32	G. Mitter / V. Elford	908 LH	Porsche	DQ	
33	R. Stommelen / J. Neerpasch	908 LH	Porsche	3	1
34	J. Buzzetta / S. Patrick	908 LH	Porsche	DNF	
35	A. Soler Roig / R. Lins	907/8	private	DNF	
42	C. Poirot / P. Maublanc	906	private	DQ	
43	J.P. Gaban / R. Vanderschrieck	911 S	private	12	1
44	G. Chausseuil / C. Ballot Lena	911 T	private	DNF	
45	J.P. Hanrioud / A. Wicky	910	private	DNF	
60	W. Meier / J. de Mortemart	911 T	private	DNF	
64	C. Laurent / J.C. Ogier	911 T	private	13	
66	D. Spoerry / R. Steinemann	907/8 LH	private	2	1
67	R. Buchet / H. Linge	907/8 LH	private	DQ	

1969

#	Driver	Type	AP	OA	CL
10	J. Woolfe / H. Linge	917 LH	private	DNF	
12	V. Elford / R. Attwood	917 LH	Porsche	DNF	
14	R. Stommelen / K. Ahrens	917 LH	Porsche	DNF	
20	J. Siffert / B. Redman	908 Spyder LH	Porsche	DNF	
22	R. Lins / W. Kauhsen	908 LH	Porsche	DNF	
23	U. Schütz / G. Mitter	908 LH	Porsche	DNF	
39	C. Poirot / P. Maublanc	910	private	9	1
40	C. Ballot Lena / G. Chasseuil	911 T	private	11	
41	J.P. Gaban / Y. Deprez	911 S	private	10	1
42	A. Wicky / E. Berney	911 T	private	DNF	
44	C. Laurent / J. Marche	911 T	private	13	
60	J. de Mortemart / J. Mesange	910	private	DNF	
63	R. Mazzia / P. Mauroy	911 T	private	DNF	
64	H. Herrmann / G. Larrousse	907 LH	Porsche	2	1
66	J. Egretaud / R. Lopez	911 T	private	DNF	
67	P. Farjon / J. Dechaumel	911 S	private	14	

1970

#	Driver	Type	AP	OA	CL
3	G. Larrousse / W. Kauhsen	917 LH	Porsche	2	
18	D. Piper / G. van Lennep	917 K	private	DNF	
20	J. Siffert / B. Redman	917 K	Gulf	DNF	
21	P. Rodriguez / L. Kinnunen	917 K	Gulf	DNF	
22	M. Hailwood / D. Hobbs	917 K	Gulf	DNF	
23	H. Herrmann / R. Attwood	917 K	Porsche	1	1
25	V. Elford / K. Ahrens	917 LH	Porsche	DNF	
27	R. Lins / H. Marko	908 Spyder LH	private	3	1
29	H. Linge / J. Williams	908 Spyder	private		
40	G. Chasseuil / C. Ballot Lena	914/6	private	6	1
42	G. Verrier / S. Garant	911 T	private	NC	
43	J.P. Gaban / W. Braillard	911 S	private	DNF	
45	C. Laurent / J. Marche	911 S	private	NC	
46	C. Poirot / E. Kraus	910	private	DNF	
47	N. Koob / E. Kremer	911 S	private	7	1
59	J. Egreteaud / J. Mesange	911 S	private	DNF	
60	W. Meier / D. Rouveyran	910	private	DNF	
61	A. Wicky / J.P. Hanrioud	907 K	private	DNF	
62	P. Mauroy / R. Mazzia	911 S	private	NC	
63	J. Rey / B. Chenevière	911 S	private	DNF	
64	J. Sage / P. Greub	911 S	private	NC	
65	C. Haldi / A. Blank	911 S	private	DNF	
66	C. Swietlik / J.C. Lagniez	911 S	private	NC	
67	J.C. Parot / J. Dechaumel	911 S	private	NC	

1971

#	Driver	Type	AP	OA	CL
17	J. Siffert / D. Bell	917 LH	Gulf	DNF	
18	P. Rodriguez / J. Oliver	917 LH	Gulf	DNF	
19	H. Müller / R. Attwood	917 K	Gulf	2	
21	G. Larrousse / V. Elford	917 LH	Martini	DNF	
22	H. Marko / G. van Lennep	917 K	Porsche	1	1
23	R. Joest / W. Kauhsen	917/20	Porsche	DNF	
26	N. Koob / E. Kremer / G. Huber	911 S	private	10	
27	C. Poirot / J.C. Andruet	910	private	DNF	
28	G. Chasseuil / C. Ballot Lena	908 Spyder	private	DNF	
29	A. Wicky / M. Cohen Olivar	908 Spyder	private	DNF	
30	L. Cosson / H. Leuze	908 Spyder	private	DNF	
33	J. Rey / J.P. Cassegrain	911 S	private	DNF	
34	A. Johnson / E. Forbes-Robinson	011 S	private	DNF	
35	S. Garant / P. Greub	911 S	private	DNF	
36	B. Waldegard / B. Chenevière	911 S	private	13	
37	P. Mauroy / J.C. Lagniez	911 S	private	DNF	
38	R. Mazzia / J. Barth	911 S	private	8	
39	G. Verrier / G. Foucault	911 S	private	11	
40	J. Egretaud / J.M. Jacquemin	911 S	private	DNF	
41	W. Braillard / J.P. Gaban	911 S	private	DNF	
42	J. Mesange / "Gedehem"	911 S	private	9	
43	J.P. Bodin / G. Courthiade	911 S	private	DNF	
44	P. Vestey / R. Bond	911 S	private	12	
46	J. Sage / P. Keller	914/6	private	DNF	
47	J.J. Cochet / J. Selz	911 S	private	DNF	
48	M. Ilotte / J.P. Hanrioud	911 S	private	DNF	
49	W. Brun / P. Mattli	907 K	private	7	1
57	D. Martin / G. Pillon	917 K	private	DNF	
60	H.D. Weigel / C. Haldi	908 Spyder	private	DNF	
63	R. Touroul / R. Ansallem	911 S	private	6	1
65	J.C. Parot / J. Dechaumel	911 S	private	DNF	
66	J.C. Geurie / C. Mathurin	911 S	private	DNF	
69	G. Quist / D. Krumm	914/6	private	DNF	

1972

#	Driver	Type	AP	OA	CL
5	J. Fernandez / F. Torredemer / E. Baturone	908/3	private	DNF	
6	H. Krause / H.D. Weigel	908 Spyder	private	DNF	
24	P. Mattli / H. Bayard / W. Brun	907 K	private	18	
40	P. Mauroy / M. Mignot	911 S	private	DNF	
41	M. Keyser / J. Barth / S. Garant	911 S	private	13	1
42	C. Haldi / P. Keller / G.D. Merlin	911 S	private	DNF	
44	J. Sage / G. Loos / F. Pesch	911 S	private	DNF	
45	D. Bardini / F.T. Sarapoulos	911 S	private	DNF	
58	W. Roser / O. Stuppacher	908 Spyder	private	DNF	
60	R. Joest / M. Casoni / M. Weber	908 LH	private	3	
65	L. Cosson / J.L. Ravenel	910	private	DNF	
67	C. Poirot / P. Farjon	908 Spyder	private	NC	
76	J.C. Lagniez / R. Touroul	908 Spyder	private	DNF	
79	H. Delbar / R. Vanderschrieck	911 S	private	DNF	
80	J. Fitzpatrick / E. Kremer	911 S	private	DNF	

1973

#	Driver	Type	AP	OA	CL
3	B. Chenevière / J. Fernandez / F. Torredemer	908/3	private	5	
4	G. Ortega / F. Merello	908 Spyder	private	7	
22	R. Touroul / J.P. Rouget	910	private	DNF	
41	F. Vetsch / J. Selz	911 RSR	private	16	
42	M. Mignot / P. Mauroy	911 RSR	private	17	
43	G. Quist / J. Zink / M. Laub	911 RSR	private	DNF	
44	J.F. Piot / P. Zbinden	911 RSR	private	DNF	
45	E. Kremer / C. Schickentanz / P. Keller	911 RSR	private	8	
46	G. van Lennep / H. Müller	911 RSR	Porsche	4	
47	R. Joest / C. Haldi	911 RSR	Porsche	DNF	
48	P. Gregg / G. Chasseuil	911 RSR	private	14	
49	J. Egretaud / J.C. Lagniez	911 RSR	private	DNF	
52	A. Wicky / M. Cohen Olivar / P. Carron	908 Spyder	private	21	
63	G. Loos / J. Barth	911 RSR	private	10	
78	H. Bayard / R. Ligonnet	911 RSR	private	DNF	

1974

#	Driver	Type	AP	OA	CL
17	F. Merello / G. Ortega / L. Ranft	908 Spyder	private	DNF	
19	A. Wicky / J. Boucard / L. Cosson	908 Spyder	private	DNF	
21	H. Koinigg / M. Schurti	911 RSR Turbo	Porsche	DNF	
22	G. van Lennep / H. Müller	911 RSR Turbo	Porsche	2	
31	F. Torredemer / J. Fernandez / B. Tramont	908/3	private	DNF	
44	G. Cuynet / Y. Evrard	910	private	DNF	
46	G. Rojas / H. Rebaque	911 RSR	private	DNF	
58	C. Haldi / J. Fernandez / J.M. Seguin	911 RSR	private	DNF	
59	P. Mauroy / A.C. Verney / M. Renier	911 RSR	private	13	
60	H. Striebig / H. Kirschoffer / J.L. Chateau	911 RSR	private	DNF	
61	C. Ballot Lena / V. Elford	911 RSR	private	DNF	
62	R. Bond / H. de Fierlant / J. Blaton	911 RSR	private	DNF	
63	J.C. Lagniez / J. Egretaud / G. Meo	911 RS	private	14	
64	G. Loos / C. Schickentanz / J. Barth	911 RSR	private	DNF	
65	C. Poirot / J. Rondeau	908 Spyder	private	19	
66	B. Chenevière / P. Zbinden	911 RSR	private	7	
67	W. Vollery / E. Chapuis / R. Dorchy	911 RSR	private	DNF	

IMPRESSUM

Verlag:
Sportfahrer Verlag
Verlags- und Handelsgesellschaft mbH
Wilhelmstr. 27, 52349 Düren
Tel.: +49 2421 5513979
Fax: +49 2421 5514165
Internet: www.sportfahrer-verlag.de
E-Mail: info@sportfahrer-verlag.de

Redaktionsanschrift:
Sportfahrer Verlag
Verlags- und Handelsgesellschaft mbH
Redaktionsbüro – AUTOMOBILSPORT
Wilhelmstr. 27, 52349 Düren
www.automobilsport-magazin.de
redaktion@automobilsport-magazin.de

Herausgeber und verantwortlicher Redakteur (V.i.S.d.P.): Robert Weber
Schlussredaktion: Jochen von Osterroth

ISSN: 2199-1278

Erscheinungsweise: vierteljährlich

Journalistische Mitarbeiter: Alexander Monkowius, Angelo Pallavicini, Eckhard Schimpf, Erich Glavitza, Harold Schwarz, Helmut Zwickl, Jochen von Osterroth, John Elwin, John Fitzpatrick, Karl Ludvigsen, Michael Behrndt, Michael Cotton, Norbert Franz, Norbert Singer, Ulrich Trispel, Uwe Mahla, Wolfgang Berger

Design/Layout:
STUDIOPRO / Jens Peterhoff
Studiopro GmbH
Otto-Brenner-Str. 19, 52353 Düren
www.studiopro.de

Druck:
Strube Druck & Medien OHG
Stimmerswiesen 3, D-34587 Felsberg

Bildnachweis
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DPPI: 4, 6, 41, 46, 69, 71, 76, 81, 82, 85, 86, 88, 89, 100-101, 103, 108, 122, 130
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DANKE
Wir danken herzlich für die tatkräftige Unterstützung bei der Erstellung dieser Erstausgabe:

Alexander Monkowius, Angelo Pallavicini, Eckhard Schimpf, Egon Alber, Erich Glavitza, Gabriele Franz, Harold Schwarz, Helmut Zwickl, Herbert Linge, John Elwin, John Fitzpatrick, Jürgen Barth, Karl Ludvigsen, Michael Behrndt, Michael Cotton, Norbert Franz, Norbert Singer, Peter Falk, Roland Kussmaul, Roman Klemm, Ulrich Trispel, Walter Näher, Wolfgang Berger, allen Fotografen und Unterstützern, die uns in den vergangenen Wochen zur Seite standen.

Ein besonderer Dank geht an Jens Peterhoff, an Jens Torner vom Historischen Archiv der Dr. Ing. h.c. F. Porsche AG, an Jochen von Osterroth und an Uwe Mahla für ihre aufrichtige und uneingeschränkte Unterstützung in den vergangenen Wochen. Danke.

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Datum, Unterschrift AMS#1—2014

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