

The Motor Racing Year

Anthony Pritchard



The Motor
Racing Year

By the same author

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(with Keith Davey)

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Historic Motor Racing

The Motor Racing Year

Anthony Pritchard



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In 1950 was held the first Drivers' World Championship and victory in this and the British Grand Prix went to Nino Farina at the wheel of Alfa Romeo 158 cars. (Guy Griffiths) *facing page 64*

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Author's Note

The aims of this book are simple in concept but much more difficult in execution. It is intended to provide a comprehensive review of motor racing in 1969. The problem was not what to include, but what to omit, and I apologise to any reader whose branch of this great sport has been omitted. I still believe that, despite the ever-increasing commercialism, it is a great sport built on skill, enthusiasm, courage, determination and team-spirit. Even though I was never a boy scout, I hope it stays that way! One further point; this book does not contain anything new except my opinions – and it was not meant to. As usual, I am exceedingly grateful to Keith Davey for his unfailing help, without which this book would never have appeared.



Part One

The Grand Prix Year



1 The Cars and Teams

Motor racing at its best is closely fought from the beginning of the season to the end, with no driver and no car having a definite edge over rivals. To add spice to this mixture there should be at least one exciting new car appear during the season and at least one Grand Prix victory by an underrated driver. These are the factors that made the 1951 Grand Prix season with its race after race duel between Alfa Romeo and Ferrari and the unexpected victory at Silverstone by Gonzalez rank as an outstanding motor racing year both at the time and in historical perspective. Likewise 1954, when the brand-new Mercedes and Lancia cars appeared and of the Championship races two each were won by Ferrari and Maserati and four by Mercedes, was a great season by any standard.

1969 provided an enjoyable season of races, sometimes closely fought, sometimes Matra-dominated, but little unexpected happened. At the end of 1968 it was obvious, mishaps apart, that Stewart would win the 1969 Championship, that Graham Hill was past his best and that the men to watch were Rindt and Ickx. Everyone knew that four-wheel-drive cars were on their way – although they have taken rather longer to sort out than one would expect – and that motor racing would be increasingly and depressingly commercial. Fifteen years ago Grand Prix entrants were usually manufacturers of substance, independent of sponsorship, drivers were primarily members of a closely-knit team working together and their role of ‘star personality’ was secondary. Money was rarely mentioned in connection with Grand Prix racing and starting money squabbles were almost unknown. But times – and motor racing – have changed – and those of us who *think* we remember better days have to adapt ourselves to the present and accept motor racing as it is – with all its commercialism and sponsorship and financial squabbles. It is still a very great sport and will continue to be so as long as it remains a sport dependent upon skill, courage, tenacity, comradeship and endeavour and does not become a rather debased form of public entertainment governed by financial greed.

The one tragedy of 1969 was that the two entrants who survive as constructors in their own right, using their own engines, BRM and Ferrari have enjoyed such a miserable year. It is bad for Grand Prix racing that it should be dominated by one engine, whether it be Ford today, Coventry-Climax during the years of the 1½-litre Grand Prix Formula or General Motors in the future. But the ever-spiralling cost of developing and building engines means that without proprietary engine builders, teams such as McLaren and Brabham would not be able to race at all. With the possible appearance of a Grand Prix Mercedes-Benz in 1971 and engines and cars from other sources, this side of Grand Prix racing could well change for the better.

It was also sad that Honda, Eagle and Cooper should withdraw from racing at the end of 1968. Dan Gurney's cheerful grin was missed during 1969 and the Eagle had power and promise in abundance. Honda's greatest need was a development engineer, for although it was possible for John Surtees to drive and test the Honda, to supervise the development of the Japanese car as well was too great a burden, and one which he faced out of necessity rather than desire. With Cooper the need was sponsorship, and that is a reflection on the changing face of motor racing, for when Cooper entered Grand Prix racing, they had but minimal sponsorship.

Before considering the cars that were raced in 1969, it is necessary to look at the engine that powered the majority of them, the Ford-Cosworth DFV. Something of the spirit behind this project was revealed in the letter in *Autosport* of March 28, 1969, from Walter Hayes of Ford:

In your editorial last week you talked about 'all those who are concerned at the increasing Ford domination of Grand Prix racing.' The previous week our good friend and customer Bruce McLaren wrote about 'King-sized Formula Ford.'

Well now . . . it wasn't so long ago that 'all those' were expressing great unhappiness about the withdrawal of Coventry-Climax leaving Britain with only one GP engine shop: BRM (and they also ran their own cars).

Worried constructors, concerned about the shortage of power units and the future of Formula 1 itself, actually went to the SMMT with a proposal for a British Motor Industry Grand Prix engine. One constructor tried to interest the Government, and a distinguished SMMT personality did his best to involve the Minister of Technology. The fact that a number of oil, petrol and tyre companies packed their tents at the same time wasn't encouraging.

Ford of Britain, therefore, decided to fill the gap because:

1. It believes that motor sport is the one form of international activity in which Britain is supreme, and would like things to stay that way.
2. You can judge any school by the quality of its sixth form, and if the sixth form is in trouble so is the school.
3. Ford enjoys motor racing; some of our best friends are racing drivers.
4. It gave a genius called Duckworth a chance to do what he'd always wanted to do.
5. The programme also produced a Formula 2 and a 16-valve road engine.

In the first season all available engines went to Lotus. Some people started to say, halfway through the season, that it was not fair for Lotus to receive privileged treatment, although Ford thought they owed Colin Chapman a thing or two; they had been living together for a long time.

Nevertheless, in the second year of the engine's life it was made available, which means sold, to many other teams, and since then we have encountered many things which have at least gladdened us and, we would have thought, one or two other spectators. For example: Rob Walker's face when Jo Siffert won the British Grand Prix last year and a great privateer had a great day; Graham Hill in a sombrero after Mexico; Jack Brabham's grin when he landed pole position at Kyalami this year after a miserable 1968 season; Jackie Stewart water-skiing at Nürburg; Bruce McLaren after last year's Race of the Champions, and Denny Hulme too come to think of it.

Meanwhile, if 'all those's' concern increases too much, why don't they persuade somebody else to have a go?

BRENTWOOD, ESSEX.

WALTER HAYES.

Briefly, the Cosworth DFV is a 90-degree V-8 of 2,993 cc (85.7 x 64.8 mm) and all-aluminium construction. The twin overhead camshafts per bank of cylinders are driven by a train of gears from the front of the crankshaft and operate the valves through piston-type tappets. In the vee of the engine are the inlet ports, the Lucas fuel injection system is driven from the timing gears and there is Lucas transistorised ignition. The engine is fitted with a Lucas electronic controller preventing the driver from over-revving. When the Cosworth DFV engine appeared in 1967, the maximum power output was 400 bhp at 9,000 rpm, but it is now with the latest 9-series approximately 430 bhp at 9,500 rpm. The engine is neat, compact, light, well-designed and well-executed. It is not the

last word in engine design – and was not when it first appeared in 1967 – but the present dearth of engine designers connected with motor racing makes it unlikely that a successor will appear in the near future. One of the most interesting factors about the Cosworth engine is that it is a design with little room for development – everything went into the original 1967 engine and the latest and more powerful 9-series engines appear to be less reliable than their predecessors. When the Cosworth engine first appeared in 1967, it was available only to Lotus, but in 1969 it was employed by four different works Grand Prix teams.

Matra International

After the comparatively unsuccessful appearances of the V-12 Matra Grand Prix car in 1968, Matra Sports followed the highly intelligent policy of leaving the racing of the Grand Prix cars to Ken Tyrrell's Matra International team, while at Vélizy they concentrated on racing the Group 6 Prototypes. Even so, throughout the season, Matra Sports were actively engaged on design and development work, as well as repairing the MS80 of Stewart after its crash in practice at Silverstone and testing their new V-12 engine with the inlet ports in the vee, instead of, on the older design between the camshafts. The new Matra unit is much narrower than the original V-12, is lighter than the Cosworth and, like the Cosworth, bolts directly to the monocoque structure and forms the rear part of the car. One is always a little suspicious of an engine that is a re-hash of an existing and unsuccessful design, but there is no doubt that the new Matra has great promise.

In the early part of the season Stewart drove the old MS10 which he had used in 1968 and which is, in essence, the Formula Two Matra modified and with strengthened suspension to take the V-8 engine. The team's hopes were in the main, however, centred on the new MS80 – Matra Sports with the 80 chosen to indicate that the car had an 8-cylinder engine – and two of these cars were raced by Stewart and Jean-Pierre Beltoise. The MS80 was the first proper Formula One car built by Matra and it is distinguished by a fat, bulbous monocoque with fuel tanks on each side – this obviates the need for the scuttle and seat tanks fitted to the MS10. As on the Lotus 49, the Cosworth engine forms the rear part of the car. The suspension design is completely new. At the front the rocker-type front suspension with inboard-mounted springs has been abandoned in favour of a double A-bracket layout with outboard springs as on the BT26 Brabham. The rear suspension is

akin to that of 1968 BRM practice with parallel-link lower arms. Inboard rear brakes mounted either side of the differential housing were fitted.

When it appeared, the aerofoil layout of the MS80 was very sophisticated. At the rear a large aerofoil was mounted on the suspension, while at the front there were twin nose fins – these were pivoted and were linked with the front anti-roll bar; therefore, as the MS80 was cornered and the front suspension depressed down on the outside of the corner and up on the inside, the link mechanism altered the angle of the fins.

Below are the main dimensions of the MS80 with those of the old MS10 in parentheses for comparison:

Wheelbase: 7 ft 10½ in (7 ft 11½ in) *Front track*: 5 ft 0 in (4 ft 8¼ in)
Rear track: 5 ft 0 in (4 ft 8¼ in) *Weight*: 10.72 cwt (10.53 cwt)

In addition to the conventional rear wheel drive cars, Matra International also raced during the season the four-wheel-drive MS84. This is described on pages 31–32 and it suffices to say here that it was no more successful than any of its competitors with a similar transmission layout.

Certainly the Matras are of brilliant conception and superb construction and Stewart's driving was clearly superior to that of any of his rivals, but these ingredients are not sufficient to assure continued success. The foundations of Matra domination lay in efficiency and confidence. Both these all-important factors stem from Ken Tyrrell, known as 'chopper' because of his involvement in his timber business. Tyrrell sees the running of his team 'in broad sweeps' taking in the overall picture of the situation, but not overlooking details. His experience as an entrant and driver is vast, starting with his own racing days with a Cooper 500 Formula Three car, getting a test drive with the Aston Martin team and then progressing on to a Formula Two Cooper. Although he raced this for a couple of seasons, he did not rate his own abilities very high and decided that he would do better as an entrant. Among drivers to handle Tyrrell cars were Bruce McLaren, John Surtees, Henry Taylor, Jacky Ickx and Jackie Stewart.

In 1968 Tyrrell was both competing against and supported by the Matra works and because Stewart cracked his wrist in a Formula Two race, he did not enjoy as successful a season as would probably otherwise have been the case. Then, racing this one car, his capital involvement included five Cosworth engines at £7,500 apiece. But Tyrrell ran what amounted to the works team in 1969 and fielded a second car for Matra's number one driver Jean-Pierre Beltoise, he had full factory support in every way that he could have wished

and the partnership has proved near perfect. Matra International standards of preparation are unsurpassed, the cars always look superb and Tyrrell is always on hand to cope with any situation that might arise. His trust in the mechanics is reciprocated and the team's success has bred confidence – confidence in every sense of the word from the mechanics trusting the boss to get them out of any sort of scrape to Stewart having the confidence to belt his car round the circuit from the word go without any fears that a wheel will come off or the suspension break – and the fear of mechanical breakage is one that haunts several drivers.

Gold Leaf Team Lotus

On the strength of their performances in 1969 there is not a great deal to be said about Team Lotus. Apart from the new 63 four-wheel-drive car which impressed rather more than its Matra and McLaren rivals and is described on pages 30–31, little technical progress was seen during the year. The leading team-drivers relied throughout on the 49B cars first raced as the 49 in 1967 and with little in the way of modifications since the race appearance of the improved 49B at Monaco in 1968. At one stage in the season Colin Chapman was on the verge of selling off all the two-wheel drive cars and relying entirely on the 63 – and would probably have done so but for the reluctance of Graham Hill and Jochen Rindt to handle these.

The Lotus 49 was, of course, the first car to use the Ford-Cosworth engine and like Matra, McLaren and Brabham they used it in 1969. The main monocoque structure of the 49 has remained unchanged – this, incorporating the cockpit, is constructed from 16 swg aluminium alloy sheet with rubber-bag fuel tanks in the hollow sides and behind the driver's seat. The 49B has the upper rocking levers of the front suspension, which incorporates inboard-mounted coil spring/damper units and lower wishbone members, angled forwards to increase the wheelbase length by two inches. The rear suspension sub-frames – upper and lower – are carried on the Hewland DG300 gearbox (the earliest 49s in 1967 had ZF gearboxes) and the suspension itself consists of lower radius rods, wishbones, upper transverse links and coil spring/damper units. The principal dimensions of the 49B are: *Wheelbase*: 8 ft 0½ in; *Front track*: 4 ft 11¾ in; *Rear track*: 4 ft 11¾ in; *Weight*: 9.94 cwt.

Lotus suffered from a lack of ability to pull together as a team in 1969; Hill and Rindt behaved as rivals, rather than team-members and it was only during the latter part of the season that Rindt and Colin Chapman came to a satisfactory working relationship. One

of the weaknesses of Lotus has been the poor preparation of the cars and their lack of readiness has frequently revealed itself in practice. At the British Grand Prix, for example, Rindt's car was found in practice to have a leaking fuel tank; the cause was traced to a loose rivet left in the monocoque – the sort of slip-up that would be expected of Lotus in their early days, but not in recent years. The 49B – in the hands of Rindt – had the speed to match any of its rivals, but proved insufficiently reliable to win races.

Motor Racing Developments Ltd

After a thoroughly miserable season in 1968, the Brabham team enjoyed a renaissance of their success of the first two years of the 3-litre Formula. Using the simple single-cam per bank Repco engines in 1966 and 1967, Brabham and Hulme, respectively, had won the Drivers' Championship through a combination of the Brabham cars' inherent reliability and the lack of any serious opposition before the appearance of the 49 Lotus at the 1967 Dutch race. In 1968 Brabham and Rindt enjoyed a season of complete failure with the very powerful, but very fragile, four-cam version of the Repco.

But 1969 and the switch to Ford power brought the team considerable success using the same cars. And the team, and not just Jacky Ickx, enjoyed success, for Jack Brabham himself was fastest in practice at Kyalami, won the *Daily Express* Trophy before his tyre-testing crash at Silverstone upset his season and took second place at Mosport. The BT26 (known as the BT26A when fitted with the Cosworth engine) is the simplest of the current batch of Grand Prix cars, it is the easiest to handle, very forgiving and can be flung about in a way that Ickx will not find possible with his flat-twelve Ferrari in 1970.

The BT26, the last of the Grand Prix cars to have a multi-tubular space-frame, is like all Brabham designs the work of Ron Tauranac, who favours a simple layout wherever possible. The 1970 BT33 car is a monocoque and in a sense the BT26, which first appeared at the 1968 Spanish Grand Prix, is a half-way house with aluminium sheet riveted to the tubes round the cockpit area to provide extra stiffness. For 1969 Tauranac simply removed the unsuccessful Repco engines and replaced them with Cosworths that took up less space. As on all the Ford-powered Grand Prix cars Hewland gear-boxes are used. The principal dimensions of the new Brabham BT33 are: *Wheelbase*: 7 ft 11 in; *Front track*: 4 ft 10¼ in; *Rear track*: 5 ft 1¼ in; *Maximum body width*: 2 ft 6¾ in.

There is little doubt that Brabham was on the verge of withdrawing from Grand Prix racing and that Ickx's successes at Silverstone, the Nürburgring and Mosport caused him to change his mind. The Brabham team is small, closely-knit and very enthusiastic and the one thing that it lacks at the present time is adequate sponsorship.

Bruce McLaren Motor Racing

Besides Matra and Brabham only one other team has been consistently competitive during 1969 – McLaren. It is often said of Bruce McLaren and Denis Hulme that they go Can-Am racing for money and Grand Prix racing for fun. Certainly both drivers enjoy their Formula One racing enormously. Bruce McLaren has said that if the team did not compete in Grand Prix racing, they would be unable to keep ahead in other fields, for it is from the Formula One teams that nearly all technical innovation emanates. Apart from the M9A four-wheel-drive car described on pages 32–33, the Grand Prix McLarens are extremely conventional monocoque designs, but they are beautifully turned out, far more reliable than the majority of their rivals and are driven consistently well.

McLaren is the only team without a spare two-wheel-drive car and during the 1969 season Hulme always used the same car while McLaren has used two cars, the first of which was sold off during the season to Colin Crabbe. Hulme's car was the faithful old M7A which dates back to 1967. When Bruce McLaren entered Grand Prix racing in 1966, he raced a new car with a chassis constructed from Malite, a material formed by compressing a sheet of balsa wood between two thin sheets of aluminium. The original power unit was the Indianapolis Ford 4.2-litre four-cam lined down to 3-litres, but both this and the 3-litre Serenissima engine used in certain races were complete failures. For 1967 McLaren built a monocoque Formula Two car and, with a BRM 2-litre engine, he ran this in a couple of Formula One races. At the 1967 Canadian Grand Prix there appeared the new M5A car, based on a strengthened Formula Two chassis and with the then brand-new BRM V-12 3-litre engine. It was on this car that the much improved 1968 M7A with Cosworth engine and Hewland gearbox was based.

The M7A, like the Lotus, has the engine attached rigidly behind the cockpit and forming the rear part of the chassis and a welded framework attached to the rear of the engine carrying the rear suspension members. The suspension at the front is by wide-based A-brackets and coil spring/damper units and at the rear there are

the usual lower A-brackets, single transverse top struts, twin radius rods on each side and coil spring/damper units. The principal dimensions of the M7A are: *Wheelbase*: 7 ft 9.6 in; *Front and Rear track*: 4 ft 8.5 in; *Weight*: 1,120 lb.

During 1968 McLaren raced M7A/1, which was sold in 1969 to South African driver Basil van Rooyen, but Hulme has continued to use M7A/2 throughout 1969. For *le patron* the team built a new car, basically unchanged, but with pannier tanks blended into the monocoque between the front and rear wheels. This car typed the M7A/B was raced by McLaren at Kyalami and the Race of the Champions, but he then switched at the *Daily Express* Trophy to another new car typed the M7C. This was in fact based on the team's M10A Formula 5000 model's monocoque (which extended round the back of the cockpit) with the usual M7A suspension, wheels, steering and other ancillaries. The new car had been rather hastily built up because McLaren was unhappy with the handling of the pannier-tank car and this was then sold to Colin Crabbe and driven by Vic Elford.

Owen Racing Organisation

What can honestly be said of BRM in 1969 that is either favourable or complimentary? The season proved a complete failure with no glimmer of hope for the future. The BRM team have been racing since 1950 and so 1969 was their twentieth season. In only four years, 1962-65, can the team be said to have done really well and the present V-12 car is just as big a white elephant as its H-16 and V-16 predecessors. At the beginning of the year Sir Alfred Owen announced that there had been a big shake-up in the BRM organisation, that the 48-valve version of the V-12 was developing a prodigious output and that, according to Tony Rudd, they were 'going to start off winning, keep on winning and be winning at the finish.'

At a press conference at Shell-Mex House in February the team displayed a revised version of the H-16 engine that had sapped the team's energies during 1966-67 - two seasons of failure during which successes were limited to a second place by Stewart in the 1967 Belgian Grand Prix and a win by Jim Clark with an H-16 BRM-powered Lotus in the previous year's United States Grand Prix. Although the team made it clear that there was no intention of racing the H-16 engine, it is worth a brief mention in its revised form. The design features 64 valves, at 405 lb is 100 lb lighter than the original H-16, but 50 lb heavier than the 24-valve V-12, and

has four separate cylinder heads, each with twin overhead camshafts driven by a simplified gear train. This unit had run at speeds up to 12,000 rpm for twenty hours without trouble and had provided much useful information for the design of the 48-valve version of the V-12 which the team was to rely on in 1969.

As mentioned previously, the 24-valve version of the 60-degree V-12 BRM engine with a capacity of 2,999.5 cc and a power output of 365 bhp at 10,000 rpm had first appeared in McLaren's own car at the 1967 Canadian Grand Prix. Since the 1968 South African race where the H-16 made its last race appearance in the hands of Mike Spence the Bourne team has relied exclusively on the V-12 cars. For the 1968 Tasman series BRM produced 2½-litre versions of the V-12 engine and raced these in new monocoque chassis designed by Len Terry and known as the P126. It was one of these chassis with a 3-litre engine boosted to develop close to 400 bhp that Pedro Rodriguez drove at Kyalami and it formed the basis of BRM efforts in 1968. The first three cars were built by Terry, but the fourth was constructed at Bourne and was known as the P133. Generally, the front suspension design followed that of the H-16 cars with lower wide-base A-brackets, upper rocking arms and coil spring/damper units, while at the rear there was a slightly more unusual layout – a rectangular-shaped tubular bracket located the bottom of the hub carrier and there were the more usual single top arm and double radius rods on each side.

At the 1968 Italian Grand Prix BRM produced yet another new car, the P138, which differed from the earlier monocoques in having the monocoque structure extended beyond the rear bulkhead to carry the suspension mountings (previously there was a tubular sub-frame bolted to the rear end bulkhead of the monocoque) and a BRM gearbox instead of a Hewland. It was this model that BRM relied on during the early part of the 1969 season, while works-assisted Tim Parnell raced an old P126 for Pedro Rodriguez. The dimensions of the P138 are: *Wheelbase*: 8 ft 0½ in; *Front track*: 5 ft 0 in; *Rear track*: 4 ft 11 in; *Dry weight*: 1,270 lb.

The new 48-valve engine, typed the P142, was easily distinguishable by having the exhausts in the vee and it was claimed that it was developing 452 bhp at 10,500 rpm which would have easily made it the most powerful racing car. It was maintained throughout the season that an output of this order *was* being developed, but it was equally clear that a lot less power was reaching the road. The 48-valver first appeared in practice for the South African race, but it was not until Monaco that both Surtees and Oliver had new units.

At the Dutch Grand Prix there appeared in practice a new car

which was designed to take advantage of the very considerable power output of the 48-valve engine, but failed to do so! The new P139 had a monocoque tapering in very close to the engine at the rear and in the space gained were mounted the oil coolers. The suspension is similar to that of the P138, but the hubs are different and there are 13-in wheels at the front. Fuel capacity is increased from 38 gallons to 45. BRM missed the French Grand Prix and at Silverstone the P139 re-appeared with more bulbous cockpits and the tapering at the rear had been changed so that the monocoque was cylindrical in appearance. This had been done to strengthen the monocoque and incorporated extra sheeting. The oil coolers had been removed from the sides and replaced by a single cooler above the gearbox and blended in with the air spoiler. At the suggestion of John Surtees the cockpit had been lined in fireproof 'Nomex' material. The P139 has a 7 ft 11½ in wheelbase.

At Silverstone the P139 with Surtees at the wheel retired with collapsed suspension on the first lap and this seems to sum up BRM efforts during the year. Both Surtees and Oliver were uncompetitive in every race and it was rare for either to finish. After the Dutch race the BRM team had decided to give Clermont-Ferrand a miss whilst they sorted out their troubles and Tony Rudd who had been with BRM for nineteen years was asked to resign. Rudd, who is forty-six, had joined BRM in 1950 after working for the Siamese driver Prince Bira and for Rolls-Royce. He had collaborated with Peter Berthon on development work and in 1962 was appointed chief engineer; later he acted as team manager as well. There is no doubt that Rudd is a first-class technician and after leaving BRM he accepted the offer of a job on engine development work from Colin Chapman. His place was taken by three different people. Aubrey Woods, who had developed the very successful 1½-litre V-8 BRM of 1962-65 and who had later worked on the AAR Eagle project, was appointed chief engineer (with a view to his concentrating on engine work), while Tony Southgate, responsible for the design of the 1969 Indianapolis Eagles, came into the team to head the chassis team. By the Italian Grand Prix the burly, jovial Tony Parnell who had previously been the entrant of a private BRM, was appointed team manager.

Alas, these changes did not improve the team's fortunes and BRM remained little more than a joke in bad taste for the remainder of 1969. Clearly, there had been a clash of temperament between Rudd and number one driver Surtees, but it seemed an odd move to get rid of a man who had served the team well and true for nineteen years and who had been largely responsible for their successes during the 1½-litre Grand Prix Formula.

What is basically at fault with BRM? In this writer's view, the team lacks and has always lacked a strong man, a real leader, like Colin Chapman or Ken Tyrrell, whose moral strength, knowledge and experience is recognised by all the team from the mechanics to the technicians and drivers. Tony Rudd lacked the necessary force of character and Raymond Mays is nowadays in little more than the role of hanger-on. Instead BRM has Louis Stanley, brother-in-law of Sir Alfred Owen, whose activities have ranged from – at one end of the scale – founding the Grand Prix Medical Service to – at the other – writing golf and motoring books.

SEFAC Ferrari

Ferrari's fortunes in 1969 fared little better than those of BRM. The team was managed in the early part of the season by Franco Gozzi, while Jacoponi acted in technical matters. Again, Gozzi is not a strong man and the team's morale remained pretty low until Mauro Forghieri came back to the scene later in the year. In the early part of the season the team fielded only one car, for Chris Amon, and this was no way to win races. Without proper team support, Amon had very little chance of doing well and when the car was competitive, he was generally let down by engine failures.

Until the Italian Grand Prix at Monza Ferrari failed to reveal anything dramatically new. Chassis changes since 1968 were of a detail nature only and until aerofoils as such were banned, Ferrari remained the only team to use a chassis as opposed to suspension mounted type. The only major change affected the engine, which, as a basic design, can be traced back to 1956 and has been revamped and revamped time and time again. At Kyalami in March, 1969, there appeared a new version with the gas flow reversed so that the fuel entered between the vee and with the exhausts outside. There had been camshaft changes and the lubrication system had been revised. Power output was claimed to be 436 bhp at 11,000 rpm and although Amon was in the thick of things in the early races of the season, the Ferraris became less and less competitive as the year progressed.

In brief, the Ferrari 312 engine is a 60-degree V-12 of 2,990 cc (77 x 53.5 mm) with 48 valves. This version appeared at the 1967 Italian Grand Prix, the 36-valve version won on its debut the previous year at Monza with Scarfiotti at the wheel and the earliest 3-litre cars had 24 valves. The new 48-valve version had a single plug per cylinder, whereas Ferrari had always previously favoured

a twin-plug layout. Ignition is by Marelli and there is Lucas indirect fuel injection.

The Ferrari chassis is a monocoque with tubular extensions either side of the engine and bodywork in aluminium and glass-fibre. Over the years it has not changed drastically, but has become lower and sleeker. Suspension is conventional Grand Prix with, at the front, top rocker arms, wide-based lower wishbones and inboard coil spring/damper units and, at the rear, lower wishbones, single upper transverse arms, radius arms and coil spring/damper units. The dimensions of the Ferrari are: *Wheelbase*: 7 ft 10½ in; *Front track*: 4 ft 11½ in; *Rear track*: 4 ft 11¾ in; *Weight*: 10.04 cwt.

Although Ferrari entered an additional car for Rodriguez at the British race, he rather lost interest in the V-12 Grand Prix cars at this point. There were no Ferraris in the German race, a single 1968-type car was driven by Rodriguez at Monza and thereafter the Mexican driver drove outdated machinery entered in the name of the North American Racing Team. Ferrari's hopes were pinned on the new flat-twelve car that appeared in practice only for the Italian race and as this was not raceworthy for the trans-Atlantic events he decided not to bother at all. The 312B flat-twelve car has an engine based on that used in the 1965 1½-litre 1512 model that was not developed before the end of the Formula and the 1969 2-litre hill climb car and has a back-bone chassis. It will do much to enliven the Grand Prix scene in 1970.

2 The Evolution of Four-Wheel-Drive

Whether four-wheel-drive eventually proves superior to the conventional rear wheel drive layout or not, certainly it is with us in Grand Prix racing for the time being while the teams experiment. Although 4wd has only become an accepted part of the Grand Prix scene in 1969, there is certainly nothing new about the basic idea and the objectives it is intended to achieve. Basically, designers have always felt that it is inherently wrong for cars to be driven through two wheels only and that a 4wd system would achieve greater stability, better adhesion and more power to the road.

One of the first companies to build a 4wd car was the Dutch Spyker concern, both Maserati in Italy and Bugatti in France experimented – of Ettore's two Type 53 4wd 4.9-litre cars, his son Jean crashed one at Shelsley Walsh in 1932. In the States Gulf Oil sponsored Harry Miller's project. Then there were the British specials, Robert Waddy's 'Fuzzi' of 1937–38 with two JAP 500 cc Speedway engines and Archie Butterworth's air-cooled Steyr-powered AJB based on a jeep chassis which ran in British hill climbs in 1950–51. Another fascinating 4wd car was the flat-eight Anderson Special sports car built in Scotland in the late 'thirties.

The first really serious attempt at building a 4wd Grand Prix car was the early post-war Cisitalia. This was designed by the Porsche team and in many respects was an extension of pre-war Auto Union practice. This 1½-litre flat-12 supercharged car, now at the Porsche museum, was the most promising of early post-war Grand Prix designs and featured four-wheel-drive that was engageable or disengageable at the driver's will – it was intended mainly to provide good acceleration at the start and out of corners. Money, however, ran out before the car was raced. The next major development was also German, the Mercedes' project to run their 1954–55 W.196 Grand Prix car with 4wd, but the team withdrew from racing before the 4wd system reached fruition.

The real pioneer of four-wheel-drive was Harry Ferguson, the

tractor king, who formed Ferguson Research Ltd with the specific purpose of furthering the system. When Ferguson died, he left funds for research to continue under the directorship of former Aston Martin designer Claude Hill and ex-racing driver Major Tony Rolt.

The essence of the Ferguson system is that not only should there be the differentials between the front wheels and the rear wheels as on most previous 4wd systems, but an additional differential between the pairs of wheels with a system whereby the torque was divided automatically between front and rear so that no single wheel could spin – either it is all four or none.

Ferguson proved the value of this system with their own front-engined P99 Grand Prix car which was raced in Rob Walker's colours and name in 1961. Jack Fairman retired the P99 in the Inter-Continental Formula British Empire Trophy at Silverstone, where it ran with a 2½-litre Climax engine. The following week the P99 ran in the British Grand Prix at Aintree, but it was disqualified after receiving a push-start and after Moss had relieved Fairman at the wheel. After these two failures – which were not attributable to the Ferguson transmission system – the car vindicated itself with a victory by Moss in the Oulton Park Gold Cup. It was also driven in the 1962 Tasman series by Graham Hill and Innes Ireland. As the results of tests at Indianapolis in 1963, Andy Granatelli ran the Studebaker/STP car with Ferguson transmission and 2.8-litre Novi engine there the following year; the STP car was eliminated in a crash, but a direct result of the experience with this car was the STP 4wd Turbocar which Parnelli Jones drove into sixth place in 1967 (the car broke near the finish but was still classified). The old, original Ferguson had not reached the end of its working life, for, in 1964, Peter Westbury used it to win the RAC Hill Climb Championship. Later Westbury built a small number of cars using the Ferguson system and these included a BRM-powered sports car.

Despite the very considerable promise which the Ferguson P99 had displayed – especially in the wet – no Grand Prix constructor but BRM was interested or had the facilities to build a Grand Prix car on similar lines. The BRM team used a 1963 Grand Prix chassis with the usual 1½-litre V-8 engine turned back-to-front in the frame so that the flywheel and clutch were immediately behind the driver's seat. The drive was taken through a drive-train to the left of the cockpit via a 6-speed BRM gearbox mounted to the left of the driver's knees. The central Ferguson differential was attached to the gearbox with a gear-train to front and rear prop-shafts. To drive the new car in 1964 BRM signed up Dickie Attwood, but the

T-67 was never raced. In 1967 this BRM was sold to David Goode and it was subsequently driven, with a 2.1-litre engine, to victory in the 1968 RAC Hill Climb Championship by Peter Lawson.

Now, in 1969, after a period in which it seemed that the Ferguson system was not going to be fully exploited, three different constructors have raced 4wd Grand Prix cars. The first of the teams to plunge into 4wd was Lotus and Colin Chapman is probably the one technician with complete faith in the system. In 1966 Lotus had sketched out plans for a 4wd car powered by the BRM H-16 engine, but the appearance the following year of the Cosworth-Ford engine brought an end to these plans. Lotus switched their 4wd ideas to Indianapolis and raced there in 1968 wedge-shaped 4wd cars with Pratt & Whitney engines and sponsored by STP. Mike Spence was killed at the wheel of one of these cars during qualifying trials, and in the race all three retired. Eric Broadley also built a 4wd Lola with Hewland transmission for the 1968 '500' race and one of these cars, typed the T150 and powered by the Ford turbocharged engine, was driven by Al Unser, but crashed.

In 1969 Chapman still persevered with 4wd cars in the shape of the Lotus 64s with turbocharged Ford engines and huge rear spoilers and these were to be driven by Hill, Rindt and Andretti. Three days before final qualifying Andretti had a rear hub fail on his Lotus as he entered the final turn during practice, the car smashed into the wall at 150 mph, disintegrated and caught fire. Chapman was unable to get new hubs made in time for the race and so the 64s non-started. Also at this race were the 1968 turbine Lotus 56 wedges now fitted with turbocharged Offenhauser engines and three of the latest Lola T152 4wd cars - that of 1968 winner Bobby Unser took third place.

And it was Colin Chapman who was one of the first to have a 4wd Grand Prix car ready to race in 1969. The transmission of the new 63 was designed by Lotus, largely made by ZF in Germany and is based on the 1961 Ferguson P99 system. Basis of the 63 is a stressed-skin monocoque with the Cosworth V-8 engine mounted back-to-front so that the clutch and flywheel face forwards. The 5-speed gearbox, transfer gears and torque control unit are mounted between the driver's seat and the engine. The fore-and-aft drive-shafts are on the left of the car, as the system is derived from the Lotus Indianapolis cars on which there is a left-hand weight basis to suit the Indy curves. These drive-shafts run in enclosed tubes to the two cross-shafts mounted at either end of the chassis and with differential units offset to the left. The disc brakes are mounted inboard on the cross-shafts and this counteracts the extra unsprung weight of the outer universal joints, and the brake calipers are hung

below the discs. There are short drive-shafts to all four wheels and the hubs are in deep recesses in the wheels.

To achieve a satisfactory 50/50 weight distribution the driver is seated well forward and as a result the pedals are in front of the front axle cross-shaft. Because of this layout there is no room for a normal steering mechanism. Vertical pillars at the corners of the chassis carry pivoting arms of triangular shape. Joining the inner corners of the slave arms is a transverse track rod and links run rearwards at an angle of about 45 degrees to the steering arms on the hubs. A rack-and-pinion unit is mounted on the front of the chassis and the left-hand end of the rack is fitted to the chassis so that the free end also acts as a push-pull arm and this is attached to the right-hand triangular swinging member.

Another completely new feature of the 63 is the suspension and this represents a complete breakaway from normal Grand Prix practice. At front and rear there are fabricated rocker arms operating inboard-mounted coil spring/damper units. Fuel bag tanks are mounted on both sides of the monocoque and in the rear cross-member. The 63 has a sleek wedge-shape with a long, pointed nose and looks most unusual by conventional Grand Prix standards. The Lotus 63 was intended to eventually replace the existing 49B 2wd model, but while it was being developed Chapman arranged for the 63s to be driven by John Miles, who had no previous Formula One experience and therefore no preconceived ideas and, whenever he was available, Mario Andretti, who on the strength of his Indianapolis experience is a great 4wd enthusiast. In 1969 the 63 was plagued by torque-split ratio problems and in later races in the season it ran with by far the greater proportion to the rear wheels, which seemed to negate the idea behind the design.

Although it looks like a conventional Grand Prix car, the Matra, in contrast to its Lotus rival, is a purely experimental 4wd car. It is typed MS84, which means Matra Sports 8-cylinder, four-wheel-drive. The MS84 has a transmission system designed and built by Harry Ferguson Research Ltd. Because it is purely experimental it has a tubular space-frame chassis which is far easier to modify as development progresses than a monocoque. Furthermore, it features conventional Grand Prix suspension. As on the Lotus, the engine is turned back-to-front so that the clutch and flywheel face forwards. Enclosed in a single casing behind the driver's seat are the 5-speed gearbox, central differential and control unit and the stepped take-off drive. The basis of the gearbox is the usual Hewland and from the Ferguson unit enclosed drive-shafts run fore and aft along the left-hand side of the driver's cockpit and at approximately the height of his elbow. The gearbox has a right-hand change. The

shafts running fore-and-aft lead to the offset differential housings which have fully enclosed, short transverse shafts. These are rigidly attached to the chassis and on their ends are mounted the disc brakes with the calipers hanging below. The power is transmitted to the wheel hubs by very short universally jointed drive-shafts. As the car is so experimental, great things are not to be expected of it, but it could well lead to a really competitive 4wd Grand Prix Matra in 1970-71.

The Lotus 63 and the Matra first appeared in practice at Zandvoort, the Lotus was raced at Clermont-Ferrand, the Matra at Silverstone and at the latter circuit the third of the new cars appeared for the first time. There is the McLaren M9A which differs substantially from both of its contemporaries. The Cosworth V-8 engine is the sole stressed member behind the bulkhead – just like the 2wd Lotus 49B and Matra MS80 – and the remainder of the car is a monocoque structure riveted up from light alloy panels. The monocoque consists of two tubes containing the fuel tanks joined by the floor panel and the steel-reinforced bulkheads. As would be expected, the engine is reversed in the frame; the crankcase and cylinder heads are attached to the rear bulkhead and the transmission housing is inside the body ahead of the bulkhead. At the end of the engine (what is in fact the normal front) a fabricated box-section member is bolted to the cylinder heads and crankcase to carry the rear suspension. The driver sits well to the front of the car with one half-shaft enclosed in a tubular extension passing over his legs.

The transmission housing is a McLaren design and the only items of outside manufacture are the ten pinions of the Hewland DG300 5-speed gearbox. The gearbox has a hollow primary shaft with a shaft from the twin-plate clutch passing through it to the front, where the two are splined together. A pinion on the layshaft drives through an idler pinion to a straight-cut gear on the central differential. This central unit is of McLaren design, but of Ferguson type. So as to transmit more torque to the rear wheels than to the front, the McLaren has a special differential, equivalent to a normal bevel differential with a large sun wheel on one side and a small sun wheel on the other. This is made in epicyclic form with the outer annular wheel acting as the large sun wheel and the spur gear within it acting as the smaller. From the central differential, two shafts lead to the spiral bevel drives front and rear, each of which incorporates its own differential. There are exposed drive-shafts with constant velocity joints. Again, the disc brakes, with hollow discs for turbo-cooling, are mounted inboard. As on the Lotus 63, there are 13-in wheels, these being the centre-lock, peg-drive type.

The suspension uprights, shorter than those on 2wd cars, are buried within the wheels.

Suspension is by double wishbones and torsional anti-roll bars front and rear, the upper wishbones operating coil spring/damper units. Long, lower radius rods at the rear run to the rear bulkhead of the monocoque. The bodywork is neat and simple without any engine cover. The McLaren was driven at Silverstone by Derek Bell, but it retired early in the race with suspension trouble. It was not again raced during 1969, but there is no reason to suppose that it would have recorded better lap times than any other 4wd car.

Another 4wd car, practised but not raced in 1969, was the Cosworth designed by Robin Herd. It was scheduled to run in the British Grand Prix with Brian Redman at the wheel, but failed to appear because of technical problems. The Cosworth has exceedingly odd but aerodynamically very efficient lines and, although it was still very much of an unknown quantity in 1969, it had the best brains in the business behind it and could well prove the most successful of all the 4wd designs.

Early in 1969 it seemed as though that technical blind-alley, the aerofoil, would make 4wd pointless, but since these have been banned in their more extreme forms, modern, very wide tyres have proved that a 4wd car has not only to be as mechanically efficient as its 2wd rivals, but more so. Not only have 4wd cars been slower in the dry, but they were slower in the wet practice session for the United States Grand Prix. As the technical problems are gradually overcome, 4wd cars will become as fast as their conventional rivals, but it is possible that they will display no real advantage, be it wet or dry, until there is a limit placed on rim and tyre widths.

3 The Drivers

Matra International

'Jackie' (John) Stewart

Born: Milton, Dunbartonshire, 1939

Few drivers have enjoyed a more rapid rise to success than Jackie Stewart, few drivers have been so obviously superior to their rivals and none has succeeded so brilliantly in combining a thoroughly likeable personality with such outstanding business acumen. Stewart was one of Ken Tyrrell's many discoveries and, unlike so many drivers who have forgotten those who helped them on their way, he has stayed with Tyrrell over the years and would now be reluctant to handle a Grand Prix car for any other entrant.

When Stewart entered motor racing, he already had two members of his family who had been successful at the game – elder brother Jimmy who drove C-type Jaguars for Ecurie Ecosse and cousin Ian who was a member of the works Jaguar team in 1952–53. Before he took up motor racing Stewart had already proved himself at clay pigeon shooting, and had made the Olympic team.

In his early days, Stewart raced a Lotus Elan, and there were few better cars for a driver to gain his initial experience on. For 1964 Jackie was invited to drive a Cooper Monaco-Climax for Ecurie Ecosse, but the opposition was strong, and his best performance was a second place at Goodwood. His most important activity that year, however, was in Formula Three. Stewart's talent had been recognised by Ken Tyrrell and he was offered a drive at the wheel of a Cooper-BMC. The young Scot dominated the British races with wins at Snetterton, Goodwood, Aintree, Silverstone and Oulton Park and also scored wins at both Rouen and Rheims. During 1964 Stewart also handled a Lotus 32-Cosworth for the Ron Harris team which ran the works cars, and with this he was second at Montlhéry and Clermont-Ferrand and third in the Oulton Park Gold Cup.

So impressed were team managers by Stewart's performances that he received Formula One offers from several teams for 1965. He did not accept the highest offer, but went to the BRM team which he thought would give him the best experience. At that time, Grand

Prix racing was closely fought out among Lotus, Ferrari and BRM and the results of the 1964 Championship could hardly have been closer, with Surtees (Ferrari) pipping Graham Hill (BRM) with 41 points to 39 and Clark (Lotus) a good third with 32.

Young Stewart enjoyed a brilliant first season in Formula One, showing many of the old hands new tricks and displaying a brilliance that has now been fulfilled. Although Graham Hill was Stewart's number one in 1965, the new BRM driver was Jim Clark's shadow in more than one race. At Monaco he took a fine third place, but at Spa a fortnight later, a wet and miserable race, Stewart drove brilliantly to finish second to Jim Clark, and was the only driver on the same lap as the winner. It was exactly the same story at both Zandvoort and in the French race at Clermont-Ferrand and Stewart was beginning to make his team-leader look just a little bit foolish, for Hill could manage to finish no higher than fourth and fifth in these two races. In the British race it was Stewart who was fifth, and he retired early at the Nürburgring after running on the grass and bending the front suspension. The Italian race was dominated by the two BRMs and when Hill made a slight mistake on the last but one lap, Stewart nipped through into the lead to gain his first ever Championship victory. He retired in both the United States and Mexico races, but even so took third place in the Drivers' Championship.

In Formula Two races in 1965 Jackie drove a Cooper-BRM for Tyrrell, but this was neither very competitive nor reliable and his only satisfactory performance was a second place at Oulton park at the beginning of the season. He co-drove the Rover-BRM gas-turbine car at Le Mans with Graham Hill and although he is not particularly fond of sports cars, made the odd appearance with these, driving a Lola T70 into third place in the Guards Trophy at Brands Hatch.

Stewart stayed with BRM for 1966, and at the beginning of the year the team contested the Tasman series. With victories in the Lady Wigram, Teretonga, Sandown Park and Longford races and a second in the New Zealand Grand Prix, Stewart won the Tasman Championship. At Sebring he co-drove with Graham Hill a Ford GT40 entered by Alan Mann, but this retired with engine trouble.

BRM's chances during the first two years of the 3-litre Formula were hampered by the failure of the H-16 engine. For much of 1966 Hill and Stewart were forced to rely on the old V-8 cars enlarged to 2-litres, and when the H-16s were raced they were hopelessly unreliable. Even so, Stewart succeeded in winning at Monaco with a V-8. Then at Spa he crashed badly; on the first lap after a dry start the drivers had shot down the Masta straight to find rain

falling, and several had gone off at the ess-bend. Among these was Stewart, who was trapped in the car, and Graham Hill stopped to release him from the wreckage. Stewart was back in the BRM team for the British Grand Prix, but retired early in the race with engine trouble. His fortunes looked up after this, and he was fifth at the Nürburgring, but, at the wheel of the H-16, he retired in the Italian race with a fuel leak. Engine failure caused his retirement in both the United States and Mexican Grands Prix.

1966 also saw Stewart at the wheel of Ken Tyrrell's Formula Two Matras, the start of a long and successful association between the Vélizy team and Tyrrell, but then these Cosworth-powered cars were no match for the Brabham-Hondas which dominated this, the last year of 1,000 cc Formula Two racing. Stewart's best performance was a second place at Barcelona.

Although Stewart has since admitted that he stayed with BRM too long, he does not regret it, because it taught him what it was like to be a loser. Unfortunately, too many critics attributed his lack of success to loss of confidence after his Spa crash in 1966, but Stewart endeavoured to prove otherwise at the wheel of Tyrrell Formula Two Matras in 1967, and scored victories at Karlskoga and Enna, together with second places in the Madrid, Guards Trophy and Oulton Park Gold Cup races. In the Tasman series he had won the New Zealand and Australian Grands Prix with a 2-litre BRM and finished second in the Championship. All season Stewart had struggled hard with the H-16 BRM and had nothing to show for it, but a second place at Spa and a third in the French race held on the Bugatti circuit at Le Mans with a 2-litre BRM. In 1967 he also drove a works Ferrari P4 in the BOAC '500' race.

For 1968 Stewart took the plunge and threw in his lot with Ken Tyrrell's Formula One Matra-Cosworth venture. After a retirement when in third place with engine trouble in the South African Grand Prix, Stewart crashed in practice for the Formula Two Madrid race at the end of April and broke a bone in his wrist. As a result he missed the Spanish and Monaco races, but reappeared at Spa with his right forearm in a plastic corset. Here he took fourth place, but scored a fine victory at Zandvoort, was third at Rouen and because of trouble with his arm could manage no higher than sixth at Brands Hatch. The German Grand Prix was held in atrociously wet and misty conditions and Stewart dominated the race to secure a fine victory in appalling conditions. His subsequent victory at Watkins Glen assured him of second place in the Drivers' Championship. In Formula Two racing with the Matra MS7 of the same team Stewart won three races, at Barcelona, Pau and Rheims and he scored an additional Formula One victory in the Oulton Park Gold Cup.

That Stewart was the top driver, even in 1968, with a definite edge over his rivals was clear and but for his unfortunate Formula Two crash he would almost certainly have won the Championship then. His supremacy in 1969 was unquestionable and with six Championship race victories compared to the two of Ickx and one each by Hill, Rindt and Hulme he won the Championship with consummate ease. Stewart combines tremendous speed with an acute and canny judgment and restraint matched by none of his present rivals.

He is a happy family man with two children, avoids British taxes by living in Switzerland and is affable, friendly and forthcoming. He is not merely respected by his rivals, but liked immensely. His pleasant Scottish accent and warm smile make him a popular figure wherever he goes.

On two subjects Stewart has very pronounced views. He feels keenly about circuit safety, has played a leading role in bringing about circuit improvements and had a hand in the decision not to use Spa-Francorchamps for Grand Prix racing in 1969. Stewart was the first of the drivers to appoint a business promotion firm to represent him, that of American Mark McCormack. Stewart is firmly convinced that McCormack will revolutionise the financial aspects of Grand Prix racing by encouraging the investment of more money in the sport so that he and others can take more out. Whether Stewart is right or whether he finds himself an outsider because of the refusal of constructors, fuel companies and sponsors to respond to American big business techniques, time alone will tell.

Jean-Pierre (Maurice George) Beltoise

Born: Paris, 1937

In Beltoise, Stewart could not have been partnered by a more reliable number two driver. He is consistent and safe and has lost completely the wildness that characterised his earlier days. Beltoise started his racing career with motor-cycles, for which his slim, light build is ideally suited. In 1964 his motor racing career very nearly came to an abrupt end when, as he was lapped by the leading Ferraris and Fords, he crashed his René Bonnet – a car that was a direct predecessor of today's Matras. Beltoise was badly injured, the car was burnt out and he still bears a bitter memory of that accident in a permanently deformed arm. Where many drivers would have retired, Beltoise returned to the circuits and enjoyed a successful career with Matra Formula Two and Three cars that culminated in victory in the 1968 European Formula Two Championship. In 1968 he drove the works V-12 Formula One Matra and as well as

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handling the second Tyrrell car in 1969, he continued to drive a Formula Two model for the works. During 1969 he accepted the situation cheerfully when his car was snatched away for Stewart to drive and he always did his best with the 'mule.' Beltoise will never be a great driver, but he is a great trier and always shows up well on circuits which he likes.

Gold Leaf Team Lotus

Graham (Norman) Hill

Born: London, 1929

Poor Graham Hill – after driving Lotus Grand Prix and sports cars during the years 1956–59, seven consecutive seasons with BRM and another two back in the Lotus camp, his star had at long last begun to wane in 1969. All season he was over-shadowed by younger men with cars that were no superior, and the hostility on the race-track between himself and Rindt could hardly have been more open. His best performances were at Monaco where he won after the retirement of the leading Matras and at Monza where he managed to stay with the fast boys until his car broke towards the end of the race. To crown an unhappy season, he crashed at Watkins Glen by spinning off when he knew that he had a punctured tyre. Hill's 1969 season earned him high marks for trying, but little else.

(Karl-) Jochen Rindt

Born: Mainz, Germany, 1942

Austrian-domiciled Rindt, who has now moved to live in Switzerland, started his very fine career in 1962 with an Alfa Romeo Giulietta. Between 1965 and 1967 he drove works Cooper Formula One cars – most of the time this was an unrewarding task, as the cars were uncompetitive – and he scored a victory at Le Mans in 1965 co-driving a Ferrari 275LM with Masten Gregory. His season with Brabham in 1968 was equally unrewarding as the Repco four-cam engines proved so unreliable. He started 1969 as a Team Lotus member with a fixed determination to do well, but his drives in the early part of the season were fast and furious, lacking in restraint and usually ended in mechanical failure. It was only towards the end of the year that he appeared to come to a satisfactory working relationship with Colin Chapman and fellow team-member Hill. His self-discipline notably improved and so did his performances – a second at Monza and a fine win at Watkins Glen. At the mid-

point in the 1969 season most critics would have written Rindt off as potential World Champion, but it is now a different story.

John Miles

Born: 1944

Quiet, bespectacled Miles still has to prove himself as a Grand Prix driver. All that can be said so far is that he has handled his 4wd Lotus 63 with great restraint and care and not attempted to go too fast too soon. Time alone will evaluate his ability.

Mario Andretti

The Italian-American driver who won the 1969 Indianapolis race is probably as fast as both Stewart and Rindt, but he is still very much an unknown quantity, as he drives in Grands Prix so infrequently. His most impressive performance was as long ago as the 1968 United States Grand Prix, where he led with ease until his car broke. If he tackles European racing seriously, he will undoubtedly be up with the established leaders.

Motor Racing Developments Ltd

'*Jacky*' (*Jaques-Bernard*) *Ickx*

Born: Brussels, 1945

Ickx shares with Stirling Moss the distinction of being able to jump into virtually any car and drive it really fast from the word 'go.' Also like Moss, he is a very fine sports car driver and not exclusively a single-seater exponent. His early saloon car and Formula Three racing brought him great success and in 1967 he won the European Formula Two Championship at the wheel of a Tyrrell-entered Formula Two Matra. In 1968 he would have driven a second Formula One Matra-Ford for Tyrrell had the team's finances permitted this. Instead he started his Grand Prix career with Ferrari and marked his first season with a win in the French race at Rouen, third places in the Belgian, British and German races, together with a crash in practice for the Canadian Grand Prix. 1969 could hardly have been more encouraging for the young Belgian, as he coupled wins in the German and Canadian races with a fine second place at Silverstone and victory at Le Mans after the most hard-fought closing laps in the history of the race. Ickx has returned to the Ferrari team for 1970, his potential is as great as was Stewart's

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at the same point in his career and, given the right machinery, he is destined to be a future World Champion.

Jack Brabham

Born: Hurstville, Australia, 1926

The Australian three-times World Champion has succeeded in remaining perpetually young. He was, perhaps, never a really great driver in the sense that Moss, Fangio and Clark were, but he possessed a determination and skill that he retains at the age of forty-four. After gaining much experience in Australia, Brabham drove Cooper-Climax sports cars in the United Kingdom in 1955 and also made his Grand Prix debut at Aintree with a rear-engined Cooper-Bristol. He dabbled with the ex-Owen Organisation Maserati 250F in 1956 and from 1957 onwards drove works Cooper single-seaters, finally leaving the team at the end of 1961. Since then he has driven his own Grand Prix cars designed by Ron Tauranac. It was superior machinery and Brabham's press-on determination that brought him his World Championships in 1959-60 when the opposition was weak and the same was largely true in 1966. Over the years Brabham's style, which at one time smacked of the Australian dirt-tracks, has improved immensely. He is still a fine driver, reliable, consistent and kind to the mechanical side of his car. The Brabham BT26s did not always run well in 1969, but Jack had every reason to be pleased with his fastest practice lap at Kyalami, his win in the *Daily Express* Trophy and his second place in the Canadian Grand Prix. The latter was particularly gratifying after his Silverstone tyre-testing crash had caused him to miss three of the season's races.

Bruce McLaren Motor Racing Ltd

Bruce McLaren

Born: Auckland, 1937

McLaren is another old hand at Grand Prix racing and his European career started in 1958 when he drove a works Cooper-Climax Formula Two car. He graduated to the Grand Prix team the following year and stayed with Cooper until the end of the 1½-litre Formula in 1965. Always McLaren tried hard, however uncompetitive his car. He is a brilliant and perceptive test driver and his Cooper successes included second place in the Drivers' Championship in 1960 and third place in 1962 when he won the Monaco race. McLaren played a vital role in the development of the Ford

GT40 and he won at Le Mans in 1966 co-driving with Chris Amon. Since 1966 McLaren has run his own Grand Prix team and after two shaky seasons in which little progress was made, the project got into its stride in 1968 when he was partnered by Hulme. McLaren can no longer be regarded as a race-winner, but he is usually very well placed at the finish and his consistency reveals itself in his high Championship placing.

Denis Hulme

Born: Te Puke, New Zealand, 1936

Denny Hulme makes a perfect partner for Bruce McLaren and their working relationship could hardly be better. Both are careful, deliberate people, they do not take unnecessary risks, they do not over-step what they know to be their own limits, but Denny is always very, very fast and it is rare for him not to be on the first or second row of the grid. Hulme's European career started with the Brabham team and he drove Formula Junior cars in 1962 and 1963. For 1964 he graduated to Formula Two, but was given his first Grand Prix drives the following season. He partnered Brabham in the Formula One team on a regular basis in 1966-67 and won the World Championship in the latter year. His working association with McLaren started in 1967 when he drove for him in the Can-Am series and took second place in the Championship. Hulme won the Can-Am Championship in both 1968 and 1969 and in 1968 was also third in the Drivers' Championship. Hulme is a driver with a great past, but, equally, still with a very bright future.

BRM

John Surtees

Born: Tatsfield, Surrey, 1934

Several times World Champion motor-cyclist, Surtees started his four-wheel racing career in 1959 with his own Formula Two Cooper-Climax. He drove for the Bowmaker-Yeoman team in 1961-62; in the latter year he handled Eric Broadley's new Lola Grand Prix car and took second places in both the British and German races. When this team withdrew from racing at the end of 1962, Surtees signed up with Ferrari and he stayed with Maranello until mid-1966. During these years Surtees scored innumerable successes in both Grand Prix and Prototype racing and he won the Drivers' Championship in 1964. In 1965 he also ran his own Lola T70 Group 7 cars and in the Can-Am series he crashed so badly

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that it seemed improbable that he would ever again be fit enough to race. With tremendous tenacity and courage Surtees fought his way back to health and won the 1966 Belgian Grand Prix with a Ferrari. But shortly afterwards he left the Maranello team because of a dispute at Le Mans. For the remainder of that season he drove works Cooper-Maseratis and on the strength of his performances with both makes took second place in the Drivers' Championship. At the end of 1966 he left the Cooper team and has since then tended to associate himself with lost causes. For two seasons he struggled to turn the Grand Prix Honda into a race-winning proposition, but his only real success was a victory in the 1967 Italian Grand Prix. Likewise the Lola-Aston Martins which he ran at Le Mans in 1967 were a complete failure. In 1969 Surtees became BRM team-leader, but his season could not have proved a greater failure and his sole consolation was the success of his TS5 Formula 5000 cars. It is now so long since Surtees handled a truly competitive Grand Prix car that it seems unlikely that he could fight his way back to the forefront of racing. This is a point on which the writer would very much like to be proved wrong.

'Jackie' (Keith) Oliver

Born: Romford, Essex, 1942

One of the most promising of young drivers with experience ranging from the Mini with which he started racing in 1960 through an Elan in 1963-64 to a Formula Two Lotus in 1967, Oliver was given his big chance in 1968 when he became number two in the Lotus Grand Prix team. He drove sensibly and with restraint and was rewarded with fifth place in the Belgian race and third at Mexico City. For 1969 he signed up to drive BRMs, but, like Surtees, his season was a complete failure. His consolation lay in his drives with John Wyer's Sports Car team and he co-drove the winning Ford at Le Mans.

SEFAC Ferrari

Christopher Amon

Born: Bulls, New Zealand, 1943

Amon plunged into Grand Prix at the tender age of nineteen when he was given a place in a Lola by the Reg Parnell team. He remained with the team until the end of 1965, but scored little in the way of success. In 1966 he co-drove the winning Ford at Le Mans and was also seen at the wheel of Group 7 sports cars. For 1967 Amon was

signed up by Ferrari and after Bandini's fatal crash at Monaco, he became the mainstay of the team, taking third places at Monaco, Spa, Silverstone and the Nürburgring. He took second place for Ferrari in the 1968 British race, but although he tried very hard in 1969, without a truly competitive car and without support from at least one other team-driver, he was unable to achieve much success and did not appear at the wheel of a Grand Prix car after the British race in July.

The Privateers

Joseph Siffert

Born: Freiburg, 1937

Siffert struggled to make his way into Grand Prix racing on his own and after running in Formula Junior in 1961, drove his own Lotus and with this he struggled until Rob Walker took him under his wing. In these early days Siffert performed the remarkable feat of winning the Mediterranean Grand Prix in both 1964 and 1965 with Rob Walker's Brabham and on both occasions defeating Jim Clark. During 1966-67 he drove a Cooper-Maserati for Walker, moving on to a Lotus 49B in 1968 and with this he scored a fine victory in the British Grand Prix, albeit after the retirement of the works Lotus entries. During 1968 he was probably the fastest, if not the most consistent Grand Prix driver, but in 1969 he was largely out of luck and the Walker car let him down time and time again. Undoubtedly, Siffert's real *forte* is Sports Car racing and in this he is head and shoulders above every other driver with the possible exception of Jacky Ickx.

Piers Courage

Born: Colchester, 1942

In 1968 Courage drove an uncompetitive P126 BRM entered by the Parnell team, but he showed his worth by always endeavouring to make the best of his inferior machinery and he was often ahead of the works cars. He succeeded in taking sixth place in the French Grand Prix and was fourth at Monza. After a successful sortie in the 1969 Tasman races with a Brabham-Cosworth V-8, his entrant, Frank Williams, decided to provide Courage with a Grand Prix mount. This was a Brabham BT26 and Courage drove it excellently throughout the season, mixing it with the faster works cars in most races and taking second places at both Monaco and Watkins Glen. Although probably not World Championship material, Courage

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has a fine future ahead of him. His 1970 mount, the De Tomaso-Ford is, however, very much an unknown quantity.

Vic Elford

Born: London, 1935

Elford had enjoyed an exceedingly successful career as a rally driver before he turned to racing. In 1968 and 1969 he was a leading member of the Porsche Sports Car team and he scored a fine victory in the 1968 Targa Florio. He was signed up by Cooper in mid-1968 and took fourth place in the French Grand Prix. When Cooper withdrew from racing, it looked as though his Grand Prix chances were gone for ever, but then Colin Crabbe stepped into the picture and offered Elford an outdated Cooper-Maserati. After a couple of races in this, Elford was provided with an ex-works McLaren and he drove this with skill and great forcefulness until an unfortunate accident at the Nürburgring brought a sudden halt to his Formula One activities.

4 The Championship Races

South African Grand Prix

Transferring the Kyalami race from January to March had brought several advantages and no snags. The constructors had more time after Mexico to prepare themselves for the 1969 season, there was no clash with the Tasman races and the temperature was slightly lower. The medium-speed Kyalami circuit is situated at a height of 5,400 ft on the northern outskirts of Johannesburg and the addition of new safety fences at various points round the circuit have made this one of the safest used for Formula One.

It was sad that there were no Hondas, Coopers or Eagle entered, these three teams having withdrawn at the end of the 1968 season, but all the other teams were present in strength and all cars were now fitted with compulsory built-in fire extinguishers and enlarged roll-over bars. Gold Leaf Team Lotus fielded three 49Bs for the new World Champion Graham Hill, Jochen Rindt and American Mario Andretti. All three Lotus cars had full front-wings mounted on the outer ends of the top links and both front and rear wings were movable and were cable-operated from a narrow pedal alongside the clutch. Andretti ran in the race, however, without a front wing – as did Jo Siffert with the Walker-Durlacher 49B. One other Lotus 49 ran in this race, the 1967 Hill car in the hands of local private owner John Love – this was fitted with his own system of movable front and rear wings operated by compressed air from a bottle.

Next in the programme after Siffert (Siffert was No. 4 and Love No. 16) were the two McLarens, as beautifully turned out in orange as ever. Denis Hulme had his usual M7A, but with a larger rear wing suspension instead of chassis-mounted and redesigned hub carriers fitted with needle bearings. *Le patron* Bruce McLaren drove a very handsome interim 1968/69 car with a basically unchanged monocoque structure, but with pannier fuel tanks blended into the monocoque and mounted between the front and rear wheels. On this car the wing was movable by a left-hand lever and cable system;

when McLaren operated the lever, the wing feathered and stayed put, but operation of the brake pedal automatically put the spring-loaded wing back into the working position. Another McLaren in the race was that of South African driver Basil van Rooyen, the M7A which McLaren had raced in 1968.

Jackie Stewart should have driven for Ken Tyrrell's Matra International team the new MS80 (described on page 18), but there were minor troubles with both engines tried in it, probably caused by the use of foam in the fuel tanks, and so he appeared with his 1968 MS10. For the first time in a race this ran with wings front and rear, the latter operated by an electric motor attached to the gearbox, but only when fifth gear was selected. Team-mate Jean-Pierre Beltoise had the old 1968 car with front and rear wings.

Once it was quite common for Ferrari to enter as many as six Formula One cars, but at Kyalami there was a single entry for Chris Amon; this was a 1968 chassis, with fixed nose spoilers moulded into the nose section, the hydraulically-operated rear wing mounted further back and higher and the oil tank moulded round the gearbox. The V-12 engine had a reversed gas flow with the fuel going in between the vee and with the exhausts on either side; the lubrication system had been redesigned, the engine ran much cooler and power output had risen to a claimed 436 bhp at 11,000 rpm.

Another 'should have run' was the new four valve per cylinder BRM entered for John Surtees. This car ran badly in practice and finally broke, so, like Jackie Oliver, he drove a two-valve car in the race. Both the works cars and the Tim Parnell BRM entered for Pedro Rodriguez were unchanged from 1968. Like the BRM team Brabham had made no chassis changes to their BT26A cars, but for 1969 they were, of course, using Cosworth engines and 'Black Jack' was the only driver in the race to have the new and higher revving 1969 version with revised camshafts and modified timing gears. Both cars had fixed front and rear wings and as the Cosworth engine was five inches shorter than the Repco, the space behind the cockpit was used to accommodate the gas tank for the fire extinguisher. The field was completed by the old Brabham-Repco single-cams of Peter de Klerk and Sam Tingle.

In practice both Rindt and Andretti had their rear wings collapse. The uprights were twisted, but were unbroken and it was Andretti who guessed correctly the cause of the trouble; when the cars were being cornered on the limit, the wings leant sideways sufficiently for the upright to touch the top of the tyre; the rubber then gripped against the upright, turning it and causing it to distort. As a result the works 49Bs ran in the race with the rear

wings at the same height as the front ones. Surtees had to start from the back of the grid although he had recorded 1 min 23.4 sec with the two-valve car because the organisers had not been notified in time that he would be using this.

THE GRID

J. Brabham (Brabham) 1 min 20.0 sec	J. Rindt (Lotus) 1 min 20.2 sec	D. Hulme (McLaren) 1 min 20.3 sec
J. Stewart (Matra) 1 min 20.4 sec	C. Amon (Ferrari) 1 min 20.5 sec	
M. Andretti (Lotus) 1 min 20.8 sec	G. Hill (Lotus) 1 min 21.1 sec	B. McLaren (McLaren) 1 min 21.1 sec
B. van Rooyen (McLaren) 1 min 21.8 sec	J. Love (Lotus) 1 min 22.1 sec	
J-P. Beltoise (Matra) 1 min 22.2 sec	J. Siffert (Lotus) 1 min 22.2 sec	J. Ickx (Brabham) 1 min 23.1 sec
J. Oliver (BRM) 1 min 24.1 sec	P. Rodriguez (BRM) 1 min 25.2 sec	
P. de Klerk (Brabham) 1 min 27.2 sec	S. Tingle (Brabham) 1 min 50.4 sec	J. Surtees (BRM) —

When the flag fell, Brabham shot away from the rest of the field, but before the second corner Stewart had come through to take the lead. Brabham hung on to the tail of the blue Matra until lap five when the rear wing supporting struts collapsed and he was forced to make a pit stop for both front and rear wings to be cut off. Stewart now led from Rindt, Hill, McLaren, Hulme, Amon, Siffert and Andretti. With a lack of team spirit that was to persist all season Hill and Rindt were not giving each other an inch, but the World Champion managed to force his way past on lap eight. Amon started to fall back because of a power loss and then Jacky Ickx, who was fighting out a private battle with Beltoise, had his rear wing collapse; he came into the pits for the wings to be cut away, but the car would not restart because of solenoid failure.

While Rindt with a rough-sounding engine dropped back at the front of the field and was passed by Andretti, who was going great guns and had worked his way up to third place after a slow start, poor Surtees and Oliver circulated with the BRMs right at the back in twelfth and thirteenth places—a situation all the more embarrassing because Sir Alfred Owen was watching the race!

Much of the excitement in the race was hinged on whether Andretti could catch and pass Hill and then have a go at Stewart. But it was not to be and on lap 31 the little Italian-American retired out on the circuit with transmission failure. The next to fall by the wayside was Amon, who had passed Rindt on lap 33 only to drop out the next time round with damaged engine bearings. Without the aerofoils, Jack Brabham found his car unstable through corners and over-revving in top along the straight – it was timed at 176 mph compared with 174 mph for Stewart and 170 for the McLarens – and so he decided to stop before anything drastic happened. Next to go were the BRMs of Rodriguez – which lost most of its water and had a puncture in its left-hand front tyre – and Surtees, who had valve trouble.

At the 40-lap mark Stewart led Graham Hill by twelve seconds and another three seconds behind was Hulme, who had caught and passed Jo Siffert. By the time Rindt retired on lap 44 with fuel pump trouble, *all* the excitement had gone out of the race and Stewart reeled off the remaining 36 laps completely untroubled, and setting a pattern of domination that was to characterise the 1969 season.

SOUTH AFRICAN GRAND PRIX

Kyalami

1st March, 1969

Circuit length: 2.55 miles. 80 laps (204 miles). Weather: Hot and cloudy.

- 1st, J. Stewart (Matra MS10-Cosworth), 1 hour 50 min 39.1 sec (110.62 mph),
- 2nd, G. Hill (Lotus 49B-Cosworth), 1 hour 50 min 57.9 sec,
- 3rd, D. Hulme (McLaren M7A-Cosworth), 1 hour 51 min 10.9 sec,
- 4th, J. Siffert (Lotus 49B-Cosworth), 1 hour 51 min 28.3 sec,
- 5th, B. McLaren (McLaren M7A-Cosworth), 1 lap in arrears,
- 6th, J-P. Beltoise (Matra MS10-Cosworth) 2 laps in arrears,
- 7th, J. Oliver (BRM P133), 3 laps in arrears,
- 8th, S. Tingle (Brabham BT24-Repco), 7 laps in arrears,
- (Unclassified) P. de Klerk (Brabham BT20-Repco), 13 laps in arrears.

Fastest lap: J. Stewart, 1 min 21.6 sec (112.50 mph – record).

Previous lap record: J. Clark (Lotus 49-Cosworth), 1 min 23.7 sec (109.68 mph).

Retirements: Lap 12: van Rooyen (McLaren), brakes; lap 20: Ickx (Brabham), car failed to start after pit stop caused by broken aerofoil; lap 31: Andretti (Lotus), transmission; Love (Lotus), ignition; lap 32: Brabham (Brabham), lost aerofoil; lap 34: Amon (Ferrari), engine; lap 38: Rodriguez (BRM), engine; lap 40: Surtees (BRM), engine; lap 44: Rindt (Lotus), fuel pump.

Spanish Grand Prix

A chequered career has been the fate of the Spanish race. After the last Grand Prix on the Pedralbes street circuit through Barcelona in 1954 the race had disappeared from the calendar for thirteen years. It was revived in 1967 as a non-Championship race on the Jarama circuit near Madrid and achieved Championship status the following season. Jarama was not, however, a popular venue and so for 1969 the race was transferred to the Montjuich Park circuit situated on a hillside close to the centre of Barcelona. The park forms a major tourist attraction with an immense amusement park and the circuit was used for the Penya Rhin Grand Prix between 1933 and 1936. The outbreak of the Civil War brought a halt to racing and the Montjuich circuit was not revived until 1966. Formula Two races were held there each year from 1966 to 1968 and in time for the 1969 Grand Prix the winding, ascending and steeply descending circuit had been partially resurfaced and both sides of the road had been lined throughout with Armco barriers.

In all only six works teams and three private owners supported the Spanish race and there were only 14 starters. Technical innovations were few, as Matra, McLaren and Lotus were all hard at work getting their as yet unseen four-wheel-drive cars into a race-worthy state. Gold Leaf Team Lotus ran two of their usual 49Bs for Hill and Rindt, both fitted with the larger aerofoils and, as at Silverstone, with the 1969 higher-revving 9-series engines. Having proved the MS80 in the Race of the Champions, Ken Tyrrell's Matra International Team fielded two of these cars, largely unchanged apart from flatter nose sections, for Jackie Stewart and Jean-Pierre Beltoise, but the *Daily Express* Trophy third-place MS10 was present as a spare. On the Matras the aerofoils were in a fixed position and both cars had 1969 engines. Another team with nothing new was Bruce McLaren Motor Racing, who fielded the

interim M7C Formula 5000-based monocoque that had been raced at Silverstone for Bruce himself and the M7A for Denis Hulme. This team was also using 1969 engines.

From Jack Brabham's Motor Racing Developments team came the usual BT26 cars for himself and Jacky Ickx, but Ron Tauranac had made a large number of minor modifications so that the cars would be more suitable for the Spanish race and Monaco. The Hewland FG gearboxes had been replaced by the tougher DG type and the arrangements for cooling the water and oil had been revised. The combined radiator had been replaced by a full-width water radiator and there was now a gearbox-mounted oil radiator with a glass-fibre duct. The car driven by Ickx had modified front suspension as first used by Brabham at Silverstone and both cars had their usual yellow front and rear wings.

Again Ferrari fielded only a single car for Chris Amon and this had been much improved in detail. There were no surprises from BRM despite the shake-up promised at the beginning of the season. Both cars were 1968 models, a P138 with extended monocoque, BRM gearbox and four-valve engine for John Surtees and an older P133 with two-valve engine for Jackie Oliver. The three private entries were Jo Siffert with the usual Walker/Durlacher Lotus 49B, Piers Courage with Frank Williams' beautifully prepared Brabham BT26 and Pedro Rodriguez with Tim Parnell's underpowered two-valve P126 BRM.

There were no real excitements in practice apart from Rindt hitting a dog during the first of the three sessions and bending the front suspension. Amon's Ferrari possessed a tremendous turn of speed on this circuit and the New Zealander was fastest in the first session with a time of 1 min 27.6 sec and achieved the same time on the Friday when his speed was equalled by only Graham Hill. On the Saturday Rindt, the Formula Two record-holder, went round in a sizzling 1 min 25.7 sec – a time that no one could match, although Amon, his car fitted with a new engine overnight, reduced his time to 1 min 26.2 sec. Throughout practice Stewart had been complaining about poor pick-up on his Matra and so both cars were fitted with the less powerful 8-series engines for the race.

THE GRID

J. Rindt
(Lotus)
1 min 25.7 sec

C. Amon
(Ferrari)
1 min 26.2 sec

G. Hill
(Lotus)
1 min 26.6 sec

J. Stewart (Matra) 1 min 26.9 sec	J. Brabham (Brabham) 1 min 27.8 sec	
J. Siffert (Lotus) 1 min 28.2 sec	J. Ickx (Brabham) 1 min 28.4 sec	D. Hulme (McLaren) 1 min 28.6 sec
J. Surtees (BRM) 1 min 28.9 sec	J. Oliver (BRM) 1 min 29.2 sec	
P. Courage (Brabham) 1 min 29.3 sec	J-P. Beltoise (Matra) 1 min 29.5 sec	B. McLaren (McLaren) 1 min 29.7 sec
P. Rodriguez (BRM) 1 min 34.1 sec		

Only twelve runners went off at the fall of the flag, for just as the cars lined up on the dummy grid before the warming-up lap a mechanic noticed a pool of oil under Oliver's car – the cause was a broken pipe from the scavenge pump – and as a typically officious Spanish policeman prevented a mechanic from telling Oliver, he went off spraying oil all over the track. Oliver's car never made the starting grid and Courage's Brabham did not leave it because the starter jammed. Courage lost nearly a lap before he was push-started because of a scuffle between the police and Frank William's mechanics. Oliver started shortly afterwards, but completed only a lap before retiring.

Straight into the lead went the aggressive Rindt followed by Amon, Siffert, Hill, Brabham and Stewart, who had made a poor start. While Rindt built up his lead, Hill stormed past Siffert on lap eight. A lap later, as Hill zoomed over the two bumps before the hairpin bend, the aerofoil started to break up, the Lotus went into a spin, struck the guard-rails on the left-hand side of the road and thudded into the rails on the right-hand side where it came to rest, a shattered wreck. Surtees came into the pits for adjustments to be made to the fuel metering unit, restarted and then made another pit stop, and Piers Courage – who in any case was likely to be disqualified for receiving a push-start – retired his Brabham with a suspected broken valve spring.

On lap 20 the whole face of the race changed and at exactly the same spot where Hill had crashed, Rindt lost control in exactly the same way; while travelling at around 140 mph, Rindt had the

aerofoil break and the Lotus smashed into the guard-rails, bounced off into the wreckage of Hill's car and overturned in a pool of petrol from the ruptured tanks, trapping the driver. Rindt was taken to hospital with facial cuts and abrasions. Amon now had a 25-second lead over Siffert with Stewart in third place. Next came Brabham, Ickx, McLaren and Hulme. Stewart did not succeed in catching the Lotus before it blew up its engine as a result of oil pump failure on lap 30. Denis Hulme had dropped back after a pit stop to investigate the handling of his car and on lap 52 Brabham fell out when a broken conrod holed the cylinder block. Young Chris Amon had a 40-second lead on lap 56, but as he crossed the finishing line, the Ferrari blew out a great cloud of smoke and he coasted to a halt with a seized engine, caused, probably, by damaged bearings.

Stewart then went into an unchallenged lead and despite an engine that was down on power was able to drive with 1,000 rpm in hand. In second place was Jacky Ickx, but not for long, for as he passed the pits the glass-fibre wing section disintegrated; next time round he came into the pits where a new wing was fitted, but he lost time through having to be push-started and rejoined the race in third spot behind McLaren. But Ickx was still not out of trouble and six laps from the finish he crept into the pits, where it was discovered that on one side at the rear the lower wishbone had broken around the weld and that on the other side the upright was breaking up.

Jackie Stewart reeled off the remaining laps to score his second successive Championship victory. It was significant – and typical of the meticulous preparation and organisation of both teams – that the first four of the five finishers should be the Matra International and McLaren teams which had finished the race intact. Two lessons to be learnt from this race were the value of the Armco barriers – but for these the Lotus crashes might have cost the lives of many spectators – and that a broken aerofoil could turn a superbly handling racing car into a lethal missile.

SPANISH GRAND PRIX

Montjuich Park, Barcelona

4th May, 1969

Circuit length: 2.35 miles. 90 laps (211.98 miles). Weather: Warm and sunny.

1st, J. Stewart (Matra MS80-Cowsorth), 2 hours 16 min 53.99 sec (93.89 mph),

- 2nd, B. McLaren (McLaren M7C-Cosworth), 2 laps in arrears,
3rd, J-P. Beltoise (Matra MS80-Cosworth), 3 laps in arrears,
4th, D. Hulme (McLaren M7A-Cosworth), 3 laps in arrears.
5th, J. Surtees (BRM P138), 6 laps in arrears.
6th, J. Ickx (Brabham BT26-Cosworth), 7 laps in arrears, not
running at finish.
7th, P. Rodriguez (BRM P126), 17 laps in arrears, not running at
finish.

Fastest lap: J. Rindt, 1 min 28.3 sec (96.03 mph – record).

Previous lap record: J. Rindt (Brabham F2), 1 min 33.3 sec
(90.88 mph).

Retirements: Lap 1: J. Oliver (BRM), split oil pipe; lap 9: Hill
(Lotus), accident; lap 19: Courage (Brabham), valve spring; lap
20: Rindt (Lotus), accident following broken aerofoil; lap 31:
Siffert (Lotus), loss of oil, engine; lap 52: Brabham (Brabham),
connecting rod; lap 57: Amon (Ferrari), engine; lap 74: Rodriguez
(BRM), piston; lap 84: Ickx (Brabham), rear wishbone.

Monaco Grand Prix

Like the Belgian race, the Monaco Grand Prix has only ever known one home, and with the 1969 Spa race cancelled and with the knowledge that this circuit will never again be used for Grand Prix racing, it can now be described as the only Championship race to survive from pre-war days that has never changed its venue. Before the 1969 race Graham Hill had won at Monaco four times, in 1963, 1964 and 1965 with BRM cars and in 1968 with a Lotus; this was already a record and his nearest rival was Stirling Moss with three victories. The Monte Carlo street circuit since the first Grand Prix there in 1929 has enjoyed a second to none reputation as a car-breaker and it throws a strain on suspension and brakes in a way not met elsewhere.

With Jochen Rindt not yet recovered from his crash in the Spanish Grand Prix, Gold Leaf Team Lotus had a shortage of cars and a vacancy for a driver. The two cars that had crashed at Barcelona were almost complete write-offs – even the cylinder blocks were damaged beyond repair – and the team produced two Tasman cars powered by 1968 engines. Graham Hill had his 1968 Monaco-winning 49B with Hewland gearbox, while Dickie Attwood, brought into the team for the one race, had an even earlier 49 with the rear suspension bolted directly on to the engine and no 49B-type cross-

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member. Hill's car had the oil tank mounted over the gearbox and Attwood's followed the very early system of having it in the nose. These cars ran in practice with full-width rear aerofoils and wide nose fins.

In the Matra International camp Ken Tyrrell as usual had everything very much under control and there was nothing new, no excitement and no panic or flurry, but two beautifully prepared MS80s with a new engine in Stewart's car and the old MS10 in reserve. Equally pristine and immaculate were the McLarens – the same cars as at Barcelona – with both front and rear aerofoils and nose fins. The Brabham team also ran their usual two cars, but the rear wishbones of Ickx's car had been strengthened and both cars had much larger rear aerofoils. Before the start of practice the Brabhams were fitted with plastic deflectors at each end of the aerofoils, but they did not run with these.

Since Bandini's fatal accident in the 1967 Monaco event, Enzo Ferrari has developed a strong dislike for the race; he had not entered in 1968 and the entrant of Amon's car this year was left blank in the list. That it was a proper works entry (unlike the cars in the Tasman series) was made clear by the presence of a full staff from Maranello. In the race Amon used the same car as at Barcelona with hydraulically-operated aerofoil, but he also had a spare car. The BRM team brought along three cars for their regular drivers; John Surtees had a P138 with 48-valve engine and BRM gearbox built up from the remains of the car he had crashed at Brands Hatch in practice for the Race of the Champions, while Jackie Oliver had a P133 with similar engine and a Hewland gearbox. The spare car was a P126/133 with Hewland gearbox. The BRMs had front and rear aerofoils.

To complete the entry there was Siffert with the Walker/Durlacher Lotus 49B, Piers Courage with Frank Williams' Brabham, Silvio Moser with the Brabham BT24 that Courage had raced in the Tasman series, Rodriguez with Parnell's BRM and Vic Elford with Colin Crabbe's 1967 Cooper-Maserati appropriately entered in the name of Antique Automobiles.

Stewart was scintillating in practice on the first day and having found his own car down on power, took over Beltoise's to record 1 min 24.9 sec compared with the 1 min 25.6 sec of Hill and the 1 min 26.0 sec of Ickx. But immediately after this practice session the CSI called a meeting with all entrants timed for 6.30 pm. It was after 7 pm before anything happened and then Maurice Baumgartner, president of the CSI, announced that they had decided to make an immediate decision over the problem of wings as it would be too dangerous to wait until the Dutch race. It had

been decided to ban rear aerofoils altogether, except where they were fixed and part of the body, and only to permit front ones that were no higher than the body and did not exceed the width of the inside of the tyres. Protests came immediately from Jack Brabham and Ken Tyrrell, and the objections would probably have been more vociferous and more effective if Colin Chapman had been present. Tyrrell pointed out that the MS80 had been designed around aerofoils and to remove them might make it dangerous. But the CSI was adamant and the cars had to run at Friday practice 'naked.' Both McLaren's own car and Amon's Ferrari ran with deflectors on the engine covers and by raceday Hill's car had sprouted a similar deflector. While Stewart, Amon and Hill fought it out for fastest lap, Pedro Rodriguez with the 'heap' BRM, Vic Elford and Silvio Moser reconciled themselves to just keeping out of the way of the fast boys. By the final practice session on Saturday most of the drivers seemed to have forgotten that there was ever such a thing as aerofoils and with suspension settings properly sorted out, the driving was fast and furious. Stewart's fastest lap of 1 min 24.6 sec compared with the record of 1 min 28.1 sec was staggering. But practice had taken its mechanical toll and most of the teams had a lot of work to do before the race the following day.

THE GRID

J. Stewart
(Matra)
1 min 24.6 sec

J-P. Beltoise
(Matra)
1 min 25.4 sec

J. Siffert
(Lotus)
1 min 26.0 sec

J. Ickx
(Brabham)
1 min 26.3 sec

P. Courage
(Brabham)
1 min 24.6 sec

B. McLaren
(McLaren)
1 min 26.7 sec

C. Amon
(Ferrari)
1 min 25.0 sec

J. Surtees
(BRM)
1 min 26.0 sec

R. Attwood
(Lotus)
1 min 26.5 sec

G. Hill
(Lotus)
1 min 25.8 sec

J. Brabham
(Brabham)
1 min 26.4 sec

D. Hulme
(McLaren)
1 min 26.8 sec

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J. Oliver

(BRM)

1 min 28.4 sec

P. Rodriguez

(BRM)

1 min 30.5 sec

S. Moser

(Brabham)

1 min 30.5 sec

V. Elford

(Cooper-Maserati)

1 min 32.8 sec

When Paul Frère, who had replaced Louis Chiron as race director, dropped the flag at the start of the race, Jackie Stewart went straight into a short lead over Chris Amon, but there was the usual bumping and boring at the first corner and Oliver ran his BRM up the back of Attwood's Lotus, damaging his front suspension - Jackie does not get on at all well at Monaco, for in 1968 he crashed on the first lap! In third place was Beltoise, but Hill soon pushed his way past, and then came Siffert, whose rather flat-sounding Lotus down on power by some 600 rpm was soon passed by the Brabhams of Ickx and Courage. In eighth and ninth places were Surtees and Brabham, but on lap ten as the Australian was following the BRM driver along the sea-front and about to pass as they approached the tunnel - with Surtees weaving all over the road and Brabham furiously waving his fist - the BRM suffered gearbox failure, abruptly decelerated and the two cars collided. The BRM slid to a halt close to the sea wall, and while the Brabham shot through the tunnel on three wheels and stopped about 100 yards past the exit, its left rear wheel and hub carrier came to rest at the entrance to the tunnel.

Stewart now led by nine seconds, which at Monaco was enough to make him unassailable and he became quite uncatchable when Amon's Ferrari retired on lap 17 with differential failure. Tyrrell signalled the Scottish driver to restrict his engine revs to 8,500 rpm (a comfortable 1,000 rpm in hand) and then sat back to watch another Matra victory. Ickx and Courage were having a tremendous dice for fourth place and but for their wheel-to-wheel fight there would have been no excitement left in the race. Then on lap 21, as Beltoise passed the pits in third place, the Matra gave a bang and coasted to a halt with drive-shaft failure. On the very next lap Stewart too suffered a broken drive-shaft - despite driving well within the car's limits and being able to pick out the less bumpier parts of the course as he toured round. The Scot immediately sprinted back to the Matra International pit hoping to take over Beltoise's car - quite unaware that the Frenchman had already retired. Graham Hill led and the battle between Ickx and Courage had added importance and zest now that they were fighting for

second place. By half-distance Denis Hulme, suffering from a virus infection, had been lapped and Vic Elford was two laps behind. There were no further dramas until lap 49 and then as Ickx led Courage by inches along the sea-front, the Brabham's left-hand rear suspension upright broke and the young Belgian swerved across the front of Courage and came to rest on the footpath.

Out in front Graham Hill, head encased in his new Bell Star helmet, lapped steadily at 1 min 27 sec to 1 min 28 sec to score his fifth successive victory at Monaco – a victory that led to the suggestion that in future Hill should be presented with the winner's plaque before the race so as to save everyone a great deal of time and trouble! In second place was Courage, having put up a magnificent performance and with prospects of a really good year after his disappointments in 1968 with the underpowered, uncompetitive Parnell BRM. In 1968 Attwood had been brought into the BRM team at the last moment and taken second place – in 1969 it was the same story with Lotus and his fourth place with the ancient 49 was very creditable, especially as after ten laps the gear lever knob had come off in his hand and he had constantly to replace it as he drove.

MONACO GRAND PRIX

Monte Carlo

18th May, 1969

Circuit length: 1.95 miles. 80 laps (156.33 miles). Weather: Warm and cloudy.

- 1st, G. Hill (Lotus 49T/B-Cosworth), 1 hour 56 min 59.4 sec (80.18 mph),
2nd, P. Courage (Brabham BT26-Cosworth), 1 hour 57 min 16.7 sec,
3rd, J. Siffert (Lotus 49B-Cosworth), 1 hour 57 min 34.0 sec,
4th, R. Attwood (Lotus 49T/B-Cosworth), 1 hour 57 min 52.3 sec,
5th, B. McLaren (McLaren M7C-Cosworth), 1 lap in arrears,
6th, D. Hulme (McLaren M7A-Cosworth), 2 laps in arrears,
7th, V. Elford (Cooper T86-Maserati), 6 laps in arrears.

Fastest lap (official): P. Courage, 1 min 25.8 sec (81.99 mph – record).
(actual): J. Stewart, 1 min 25.1 sec (82.67 mph).*

Previous lap record: R. Attwood (BRM P126), 1 min 28.1 sec (79.85 mph).

* A driver, by a local rule, is only credited with fastest lap if he finishes within two laps of the winner.

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Retirements: Lap 1: Oliver (BRM), accident; lap 10: Surtees (BRM), gearbox/accident; Brabham (Brabham), accident; lap 16: Rodriguez (BRM), engine; Moser (Brabham), universal joint; lap 17: Amon (Ferrari), differential; lap 22: J-P. Beltoise (Matra), drive-shaft; lap 23: Stewart (Matra), drive-shaft; lap 49: Ickx (Brabham), rear hub-carrier.

Dutch Grand Prix

Zandvoort has been the scene of the Dutch Grand Prix since 1950 (there was no race in pre-war days) and although it is a most carefully designed and safe circuit that has needed few alterations since it was opened, like all artificial circuits it lacks atmosphere; it also has two serious snags – it is set among the sand dunes and the constant coating of sand on the road surface tends to affect the handling of the cars; furthermore, as the circuit is composed almost entirely of fast, sweeping curves, overtaking is virtually impossible except along the finishing straight or under braking for the hairpin bend at the end of it. It is also an interesting characteristic of the circuit that the fastest laps are achieved when the wind is blowing in from the North Sea and directly along the finishing straight. This was the case when Rindt set the fastest lap on the Friday morning and when the wind changed direction, there was little hope of it being bettered during the afternoon. At the 1969 race the organisers were faced with the problem of being the first to interpret the CSI's new rules relating to aerofoils.

Although Gold Leaf Team Lotus turned up with the same 49s as the team had used at Monaco, they also had two of the brand-new 63 four-wheel-drive cars for practice only. These are described on pages 30–31. The car driven by Attwood at Monaco and by Rindt at Zandvoort now had 49B suspension mountings and both cars were fitted with Chapman's interpretation of the new aerofoil rules – which meant struts either side of the oil cooler and a small aerofoil running across. One of the 63s should have been driven by Mario Andretti, whose experience with four-wheel-drive cars at Indianapolis and whose enthusiasm for this layout made him the ideal *pilote*. Having asked for £4,000 starting money for Andretti and a Type 63, Chapman settled for £1,500 and then found that Andretti could not run because of a USAC race commitment! Matra International also brought along their four-wheel-drive car, the MS84 described on pages 31–32, but once again the team was relying on the usual MS80 cars. This team had the best idea in aerofoils, consisting of a complete engine cowling that swept up to form an

aerofoil running across the oil cooler – the whole assembly was extremely neat and beautifully made in glass-fibre.

Bruce McLaren Racing failed to have their four-wheel-drive car ready in time for Zandvoort and Bruce and Denny had their normal cars, unchanged apart from 11-in instead of 9-in wheel rims and a wide tray extending round and behind the engine and with turned-up edges so that it looked rather like a vast shovel. A conventional-type aerofoil, mounted on struts and very close to the engine was tried on Hulme's car, but this was rejected by the scrutineers. On the Brabhams – again no mechanical changes had been made – the engine side-covers swept up and were bridged by a small aluminium aerofoil on a tubular frame and to these the scrutineers raised no objections. Ferrari had originally entered two cars, but that intended for Pedro Rodriguez was withdrawn so as to permit a concentration of effort on Amon's cars; the New Zealander had the same two as at Monaco and the aerofoil problem had been overcome by fitting a large flat cover with a turned-up tail over the oil cooler and exhaust pipes.

Completing the works teams was BRM. After their years of consistent success during the 1½-litre Formula in 1962–65 the team has gradually sunk back into a state of disorganisation – half the team-members look frustrated, the remainder seem to have assumed a couldn't care less attitude. At Zandvoort BRM produced the new P139 model described on page 25, but Surtees drove the P138 in the race (the same car as at Barcelona) and Oliver had the older P133, both cars being fitted with curved sheets of aluminium across the tail and close to the works with the four exhausts protruding through a gap. In practice the BRMs were slower than the fastest of the private entries (Courage and Siffert) and only managed to beat Silvio Moser by a small margin.

It was good to see the ranks of the private owners strengthened by serious, well-prepared and fast entries. Rob Walker has been running Grand Prix cars since his Connaughts of 1953–57, but it was with the emergence of Cooper as a power in the Grand Prix World that his now almost traditional blue and white colours became a regular feature of the Formula One circus. That means twelve years in Formula One – longer than most works teams survive – and now he had been joined by the superbly prepared cars of Frank Williams (Racing) Ltd and Antique Automobiles Ltd. The Frank Williams Brabham driven by Piers Courage was largely unchanged, but Vic Elford was driving a new mount for Colin Crabbe. This was the long-awaited M7A McLaren with side tanks driven by Bruce McLaren in the South African race, and now finished in Antique Automobiles' maroon and white scheme. The

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ranks of the private owners were completed by Silvio Moser with his ex-Frank Williams Tasman Brabham powered by an engine bought from Ken Tyrrell. One of the most experienced of private entrants, Tim Parnell, was left insufficient time to prepare his BRM with the new four-valve engine once he knew that Pedro Rodriguez was available and so he was an absentee.

Stewart was easily fastest on Thursday practice with a car that seemed ideally suited to the circuit – his time of 1 min 21.5 sec was a half-second faster than Hill, and Rindt was out of the picture because of an engine that was down on power. Rindt set the pace on Friday morning with a time of 1 min 20.85 sec, while Stewart spent most of his time with the new MS84, and the change in wind direction meant that when he returned to the MS80, he had no real chance to improve.

THE GRID

G. Hill (Lotus) 1 min 22.01 sec	J. Stewart (Matra) 1 min 21.14 sec	J. Rindt (Lotus) 1 min 20.85 sec
J. Ickx (Brabham) 1 min 22.85 sec	C. Amon (Ferrari) 1 min 22.69 sec	
J. Brabham (Brabham) 1 min 23.10 sec	D. Hulme (McLaren) 1 min 23.07 sec	B. McLaren (McLaren) 1 min 22.87 sec
J. Siffert (Lotus) 1 min 23.94 sec	P. Courage (Brabham) 1 min 23.36 sec	
J. Oliver (BRM) 1 min 25.11 sec	J. Surtees (BRM) 1 min 25.07 sec	J-P. Beltoise (Matra) 1 min 24.44 sec
V. Elfrod (McLaren) 1 min 28.47 sec	S. Moser (Brabham) 1 min 26.50 sec	

With Stewart sandwiched on the grid between the two Lotus drivers, *if* Hill and Rindt had been prepared to work together as a team they would have had the race and the Scot completely sewn up. But, apparently, Hill was anxious to prove that he was still the team's number one driver and Rindt wanted to demonstrate that really he was number one, and while the Gold Leaf Team Lotus

drivers battled furiously with each other as though they were deadly rivals, Stewart sat back in third place and watched with incredulity as the two red and white cars bumped and bored their way round the circuit. Initially Hill had taken the lead by cutting across and into the right-hand corner, skilfully and neatly blocking off both Rindt and Stewart. Rindt held second place until lap three when by dint of using the grass and sand he elbowed his way past his teammate. The Austrian then seared off into the distance at a wild pace, opening up a ten-second gap very, very quickly and Stewart contented himself with passing Hill and waiting for the leader's car to break. Break it did, for as Rindt passed the pits at the end of lap sixteen a drive-shaft universal joint gave out and Stewart, sufficiently far ahead of the pack to be untroubled, then calmly reeled off the laps with both consistency and speed.

On lap 14 Hill had lost his second place to Siffert, who had got ahead by the hazardous move of passing the works Lotus on the outside of the Tarzan hairpin at the end of the straight with *his* Lotus just, but only just, under control. The World Champion was now hounded by Hulme, Amon, McLaren, Ickx and Brabham, following closely in-line, and when Hill went into the pits at the end of lap 27 because he thought that there was something loose in the front suspension, a tremendous fight started for third place. Hill rejoined the race, a long way in arrears, and already Courage had been eliminated by a burnt clutch, Oliver had suffered a broken gear selector and McLaren had fallen out of the procession when a front hub retaining bolt broke. As the race progressed, Hulme drew away from the others in his group and then Amon closed up again, leaving team-mates Brabham and Ickx in dispute. Ickx managed to get by Brabham and moved up to tag along with Amon, while Brabham fell further back. A fall-off in oil pressure on Hulme's McLaren permitted Amon to slip past his fellow New Zealander, but he was too far behind Siffert to challenge for second place. Final incident in an interesting race was when Surtees, three laps in arrears, came in for more fuel only a couple of laps before the chequered flag. The pundits were saying that they could not see Surtees tolerating BRM unreliability and inefficiency much longer, but, as events were to prove, it was not Surtees who moved on. Zandvoort was Stewart's third Grand Prix victory of the year and he easily led the Championship with 27 points, 12 more than his nearest challenger, Graham Hill.

DUTCH GRAND PRIX

Zandvoort

21st June, 1969

Circuit length: 2.61 miles. 90 laps (234.9 miles). Weather: Warm and dry.

- 1st, J. Stewart (Matra MS80-Cosworth), 2 hours 6 min 42.08 sec
(111.04 mph),
2nd, J. Siffert (Lotus 49B-Cosworth), 2 hours 7 min 6.60 sec,
3rd, C. Amon (Ferrari), 2 hours 7 min 12.59 sec,
4th, D. Hulme (McLaren M7A-Cosworth), 2 hours 7 min 19.24 sec,
5th, J. Ickx (Brabham BT26-Cosworth), 2 hours 7 min 19.75 sec,
6th, J. Brabham (Brabham BT26-Cosworth), 2 hours 7 min
52.89 sec,
7th, G. Hill (Lotus 49T/B-Cosworth), 2 laps in arrears,
8th, J-P. Beltoise (Matra MS80-Cosworth), 3 laps in arrears,
9th, J. Surtees (BRM P138), 3 laps in arrears,
10th, V. Elford (McLaren M7A/B-Cosworth), 6 laps in arrears.

Fastest lap: J. Stewart, 1 min 22.94 sec (113.08 mph – record).

Previous lap record: J. Ickx (Matra F2), 1 min 27.90 sec (106.70 mph).

Previous race lap record: J. Clark (Lotus 49-Cosworth), 1 min 28.08 sec
(106.52 mph).

Retirements: Lap 9: Oliver (BRM), gearbox; lap 12: Courage (Brabham), clutch; lap 17: Rindt (Lotus), drive-shaft joint; lap 25: McLaren (McLaren), front stub axle; lap 55: Moser (Brabham), steering and electrics.

French Grand Prix

Twisting, plunging and ascending through the Auvergne mountains for five miles of public roads, the Clermont-Ferrand circuit shows up the best drivers at their best and the lesser drivers at the worst. The race had been the scene of the French Grand Prix on one previous occasion, in 1965, when Clark dominated the race with his Lotus 33 and second was new boy to the BRM team Jackie Stewart. The 1969 race was just as great a test of cornering ability for driver and car, but the entry was decidedly sparse. There were no BRMs entered because the Bourne team had decided to concentrate on getting their claimed 450 bhp to the wheels with reliability for the Silverstone race and this decision affected the

Parnell car. Another absentee was Jack Brabham, who had broken his ankle in a practice session crash at Silverstone. This had happened during tyre testing when the car went straight on at Club Corner and Brabham spent half-an-hour trapped in the wreckage and soaked with fuel before he was cut out.

On June 22nd, the day after the Dutch race, the CSI and the constructors had met in Amsterdam to reconsider the aerofoil situation. It was agreed that the aerofoil need no longer form part of the body and the ban on the gap between the aerofoil and the body was abandoned. The rear wing must not be more than 80 cm above the base of the hull of the car and the span must not be greater than 110 cm. Front wings were permitted to correspond with the track of the cars. All wings must be permanently mounted on the body of the car and not on the suspension. These decisions were ratified at a full meeting of the CSI at Rheims on June 30th.

The two Lotus 49s of Hill and Rindt were unchanged apart from aerofoils to comply with the new regulations. The team had also entered a third car, the second of the 63 four-wheel-drive cars to be built, for young John Miles, son of actor Bernard Miles. The idea was that Miles should quietly get on with testing the car and familiarising himself with four-wheel-drive and handling 430 bhp, while the regular members of the team did the serious racing. The 63 was fitted with an aerofoil mounted on struts running rearwards and extending well beyond the rear of the body.

Neither the Matra International or Bruce McLaren Racing teams had anything new, but it is interesting to relate that Hulme's M7A had covered 2,277 racing miles in 1968 alone, as well as another 2,000 in race practice. Although Jacky Ickx drove his usual car, there was a brand-new BT26 on stand-by. Ferrari had sent along for Chris Amon the usual two cars and it was good to see Mauro Forghieri in charge of operations once again. Although principally an engineer, Forghieri performs the dual role of racing manager far more competently than anyone else that Ferrari can find. The only change of significance to the Maranello cars was the mounting of the oil cooler in a duct immediately below the aerofoil. Obviously the chances of a lone V-12 Ferrari beating twelve Cosworth-powered cars were virtually nil, but a Grand Prix without a Ferrari is never quite the same. To complete the field were the private entries of Siffert, Elford, Courage and Moser with their usual mounts. Since Zandvoort a lot of work had been put in on the Frank Williams Brabham and this now featured a split nose to permit work on the front of the car without detaching the entire front body section and a two-into-one exhaust system for more

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torque. The Antique Automobiles McLaren had now sprouted a rear 'coal-shovel' like that of the works cars.

There was too little time for practice at Clermont and the first session started an hour late on the Friday. Stewart was seconds ahead of everyone else in this with a time of 3 min 2.4 sec – shades of Jim Clark in 1965 – and Denny Hulme who had Formula Two experience at the circuit and for that reason had been included in the Brabham team in the 1965 race led the rest with 3 min 4.7 sec. In this session Hulme ran his McLaren on 16-in rear wheels, but although it was faster, its handling deteriorated and it was oversteering rather violently. Third fastest on the Friday was Jean-Pierre Beltoise in 3 min 5.0 sec and it was nice to see him going so well after mediocre performances earlier in the season. The little Frenchman has a distinct liking for the circuit and anyone who saw him zooming through the field with his Group 6 Matra to make up time lost through mechanical trouble in the 1967 Trophée d'Auvergne would not doubt his intimate knowledge of its swoops and swerves. During the first session Amon suffered rear brake fade and went straight on into the bank, crumpling the nose and bending the front suspension. As a result he had to use the older, spare car in the race. Rindt felt very sick in both of the first two sessions and was right out of the picture, while Graham Hill was lapping even slower and putting up a performance that was unworthy of a World Champion. The third and final session on the Saturday afternoon was again dominated by Stewart who, resorting to the grass but still very much under control, recorded a shattering 3 min 0.6 sec. Hulme improved his time and by borrowing Piers Courage's spare helmet, which was not of the fully enclosed type, Rindt felt sufficiently fit to find some real speed and succeeded in recording third fastest time. Overnight the Austrian's car was fitted with the latest 9-series engine.

THE GRID

J. Stewart
(Matra)
3 min 00.6 sec

D. Hulme
(McLaren)
3 min 02.4 sec

J. Rindt
(Lotus)
3 min 02.5 sec

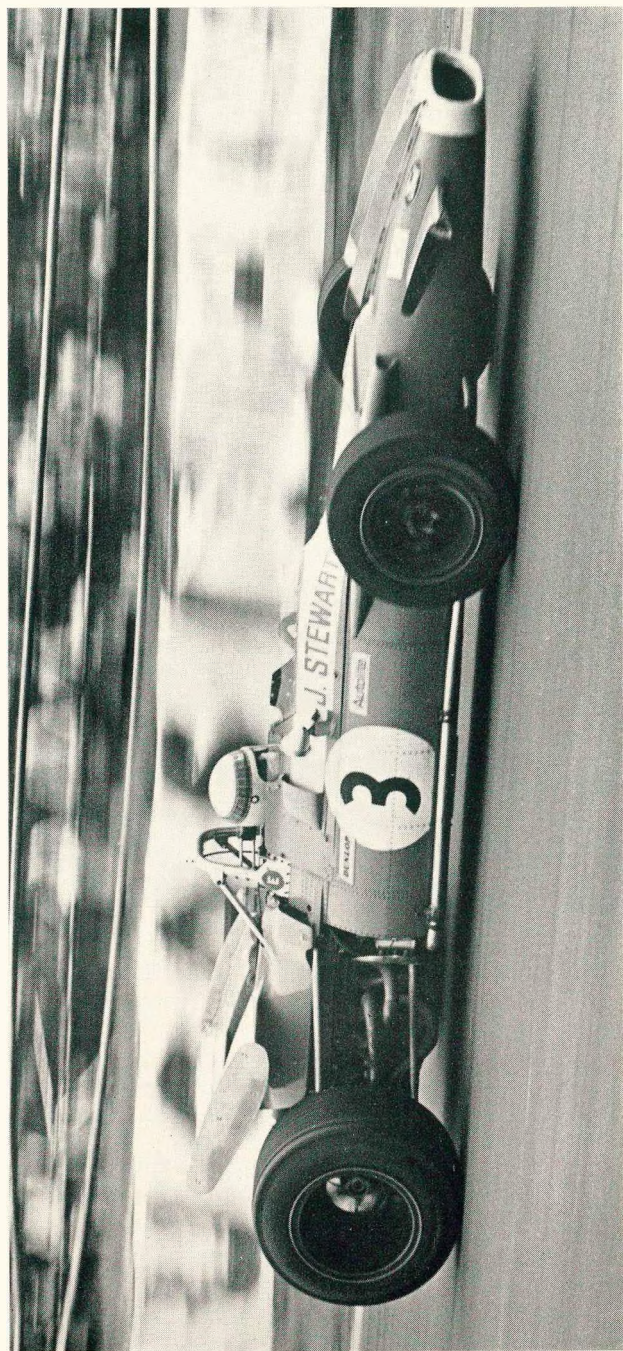
J. Ickx
(Brabham)
3 min 02.6 sec

J-P. Beltoise
(Matra)
3 min 02.9 sec

C. Amon
(Ferrari)
3 min 04.2 sec



In 1950 was held the first Drivers' World Championship and victory in this and the British Grand Prix went to Nino Farina at the wheel of Alfa Romeo 158 cars. (Guy Griffiths)



Nineteen years later victor in both the British Grand Prix and the Championship was Jackie Stewart. About the only thing in common between Stewart's Matra and Farina's Alfa is that both feature 8-cylinder engines. (Guy Griffiths)

B. McLaren (McLaren) 3 min 05.5 sec	G. Hill (Lotus) 3 min 05.9 sec
J. Siffert (Lotus) 3 min 06.3 sec	V. Elford (McLaren) 3 min 08.0 sec
P. Courage (Brabham) 3 min 09.9 sec	J. Miles (Lotus) 3 min 12.8 sec
S. Moser (Brabham) 3 min 14.6 sec	

When the cars were being pushed out on to the grid, Miles' Lotus 63 was suffering from a fall-off in fuel pressure, but the fault was apparently cured and the car reached the start in plenty of time. Punctually by French standards (only nine minutes late) former racing driver Jean Lucas dropped the *tricolor* and from pole position Stewart made the best start and by the end of the first lap he led by over 25 yards from Hulme with Ickx close behind and Rindt trying to force his way past. Amon was in fifth place and after a considerable gap came Graham Hill pursued by Beltoise, Siffert, McLaren and Courage. First retirement was John Miles, who only managed to complete a slow lap before coming into the pits. The mechanics worked for over an hour on the fuel system, but the fault was eventually traced to failure of the belt inside the mechanical pump and the engine would have had to be removed to cure this. While Stewart drew away from Hulme, so Hulme drew away from the rest of the field. Rindt was endeavouring to pass Ickx to take third place and Beltoise pushed the sleek blue Matra past Graham Hill to occupy sixth spot.

Hill was still not performing in the manner expected of a World Champion and was showing up as badly on this circuit as he had in the 1965 race when Stewart, then his young team-mate, had run rings round him. On the fourth lap Hill was passed by Siffert, but at the sharp right-hand bend before the pits the Swiss Lotus driver went straight on into the straw bales, damaging the car's nose and front fin. Beltoise had closed up on Amon, passed him on lap five and although Amon was driving right on the limit, the Ferrari had neither the power nor the roadholding to match the faster of the Cosworth-powered cars. The little Frenchman then closed up on the duel between Ickx and Rindt. The damage to Siffert's car had

affected the handling and on lap seven he came into the pits for the nose to be taped up and he rejoined the race, a lap in arrears. Piers Courage had to make a similar stop with his Brabham, but in his case the nose had worked loose and grounded heavily as he was braking; the bodywork was patched and Courage rejoined the race in last place, but the nose again worked loose, allowing the cockpit bodywork to move up and impede the selection of fourth and fifth gears, and this caused his eventual retirement.

Ickx began to draw away from Jochen Rindt, who was feeling unwell again, and Beltoise closed the gap between himself and the Austrian. Then on lap eleven, Denis Hulme, who seemed so securely ensconced in second place, went past the pits pointing frantically at the right-hand front of the car and next time round shot into the pits where it was discovered that the bolt holding the front anti-roll bar to the bulkhead had sheared. The pit-staff started to remove the bar, but Hulme said that he would not drive it in that state; so the remains of the bolt were drilled out, the bar was replaced and Hulme was over three laps in arrears by the time he had rejoined the race. Stewart now led the race by just under half-a-minute and Ickx seemed secure in second place. All was far from happy in the Lotus team, for McLaren had now overtaken Hill and Beltoise had got ahead of Rindt – and Hill was even having difficulty in holding off Elford's McLaren; the Porsche driver succeeded in passing the World Champion by half-distance. Rindt, now suffering from double vision, gave up the unequal struggle with his sickness and retired on lap 23.

In contrast, the Matra International Team could hardly have had a better race; Stewart was dominating the field with ease and Beltoise had got the bit between the teeth, closed right up on Ickx and was battling for second place. The Frenchman was enthusiastically cheered all round the circuit by the crowd, but patriotism went too far when Jean Lucas started to wave the blue flag at Ickx every time he passed the pits and on one occasion shook his fist at the young Belgian. On lap 23 Beltoise endeavoured to outbrake Ickx into the bend before the start; the Matra locked up its wheels, shot past the Brabham enveloped in rubber smoke, slid sideways and Ickx went back into second place. Ten laps from the finish Stewart set a new lap record of 3 min 2.7 sec and two laps later Amon's uncompetitive but over-driven Ferrari laid a thick smoke trail before expiring with engine failure. Ickx retained second place until the last lap when he ran wide on one of the slower corners and in a flash Beltoise was through and ahead; the struggle went on all the way round that last lap and the two cars crossed the line, almost abreast, but with Beltoise fractionally ahead.

Nothing could have pleased the French crowd more than to see the blue Matras take first and second places. Superb driving, superb preparation and superb organisation had once again paid the dividends they deserved. It was sad, however, to see Ferrari make such half-hearted efforts and it was clear that Maranello would never feature to the fore unless poor Chris Amon's efforts were backed by at least one other driver. Ferrari's first tentative steps towards remedying this state of affairs were seen at Silverstone a fortnight later.

FRENCH GRAND PRIX

Clermont-Ferrand

6th July, 1969

Circuit length: 5.005 miles. 38 laps (190.19 miles). Weather: Hot and sunny.

- 1st, J. Stewart (Matra MS80-Cosworth), 1 hour 56 min 47.4 sec (97.71 mph),
2nd, J-P. Beltoise (Matra MS80-Cosworth), 1 hour 57 min 44.5 sec,
3rd, J. Ickx (Brabham BT26-Cosworth), 1 hour 57 min 44.7 sec,
4th, B. McLaren (McLaren M7C-Cosworth), 1 lap in arrears,
5th, V. Elford (McLaren 7MA/B-Cosworth), 1 lap in arrears,
6th, G. Hill (Lotus 49B-Cosworth), 1 lap in arrears,
7th, S. Moser (Brabham BT24-Cosworth), 2 laps in arrears,
8th, D. Hulme (McLaren M7A-Cosworth), 3 laps in arrears,
9th, J. Siffert (Lotus 49B-Cosworth), 4 laps in arrears,
10th, C. Amon (Ferrari), 8 laps in arrears, not running at finish.

Fastest lap: J. Stewart, 3 min 2.7 sec (98.62 mph – record).

Previous lap record: J. Clark (Lotus 33), 3 min 18.9 sec (90.59 mph).

Retirements: Lap 2: Miles (Lotus FWD), fuel pump; lap 22: Courage (Brabham), bodywork; lap 23: Rindt (Lotus), unwell; lap 31: Amon (Ferrari), engine.

British Grand Prix

The first British Grand Prix was held at Silverstone in 1948. In those days Silverstone *looked* like a converted airfield and it was lined with straw bales and oil drums, it had a length of 3.67 miles and the start line was situated between Abbey Curve and Woodcote (the

start was not transferred to its present position just after Woodcote until 1952). The 1948 race was won by Luigi Villorosi with a 'San Remo' Maserati at 72.28 mph and he also set fastest lap at 77.73 mph – it is a sobering thought that 21 years later Stewart set fastest lap in practice at a speed of 130.73 mph (1 min 20.6 sec). The present circuit was first used in 1952 and Silverstone remained the home of the British Grand Prix until 1955 when Aintree was used. The race then alternated between the two circuits until 1962 when it was held at Aintree for the second successive year. Since 1963 the race has alternated between Silverstone and Brands Hatch and the 1969 race was the fourteenth to be held on the Northamptonshire circuit.

Silverstone had six more entries than the French race, but, alas, two of the most interesting non-started. The long-awaited Cosworth four-wheel-drive car was due to make its race debut, but while one-time Team Lotus driver Trevor Taylor was testing on the Tuesday before the race, the heat generated by the front differential and transmission joints was sufficiently great for the front-mounted oil tanks to overheat and so much heat was transmitted up the steering column that the spokes of the steering wheel were too hot to touch. The Cosworth was withdrawn from the race and taken back to the works at Northampton for extensive modifications. The other absentee was Dan Gurney, who had been invited to handle the second Brabham in place of the still not fit Jack, but a USAC engagement prevented him from appearing.

Confidence and efficiency reigned in the Matra International camp and the team had brought along the two usual MS80 cars together with the four-wheel-drive MS84. In contrast Gold Leaf Team Lotus was in a state of complete chaos. Colin Chapman, with perhaps rather too much confidence in the Mk 63 four-wheel-drive cars, had sold off two of the remaining 49Bs and this left the works team with one only. Jochen Rindt had flatly refused to drive the as yet unproven 63 and although not quite so adamant, Graham Hill was none too keen either. At Thursday practice Rindt had the 49B, while Hill and John Miles drove 63s. Rindt had practised unofficially at the circuit on the Tuesday, getting the 49B sorted out to his liking, and then Chapman had made detail changes to the car on the Wednesday without consulting the Austrian; the result was that when Rindt drove the car, he was thoroughly unhappy with the handling. Miles was plagued by trouble with the oil scavenging system on the gearbox of his 63 and Hill was slower with his 63 than the rival four-wheel-drive cars from Matra and McLaren. To keep the World Champion happy, Chapman held on to the 49B that had been sold to Joakim Bonnier and let the Swedish driver

collect his starting money with a 63. The fifth Lotus in the race was the usual Walker/Durlacher 49B driven by Siffert.

Although McLaren and Hulme drove their usual cars, there was a third works entry in the shape of the new MgA car (described on pages 32-33) and this was entrusted to the steady, but unspectacular, Derek Bell who had been released by Ferrari. The private Antique Automobiles McLaren of Vic Elford was unchanged apart from having its rear 'shovel' or spoiler at a different angle. Although Jack Brabham was not able to drive, he was able to steer his way round the paddock quite speedily on a pair of crutches and his grin was much broader than when he is driving! Ickx had the choice of his usual car or a new one, both with the mounting points for the aerofoil moved back over the gearbox, perspex sidepieces on the aerofoil and 11-in front and 16-in rear rims. The Belgian was not grinning as broadly as his boss on the Thursday morning, because Graham Hill, waiting for his Lotus to be got ready, had taken out one of the Brabhams and recorded a time of 1 min 24.1 sec, a faster time than Ickx could achieve all that day! There were no changes to the immaculate Frank Williams Brabham driven by Piers Courage.

Ferrari made a more serious effort in this race than he had all season. Cars were entered for both Chris Amon and Pedro Rodriguez; the New Zealander had the choice of his usual two cars, while the Mexican was given an updated 1968 model. All the Ferraris had revised lubrication systems and on both of Amon's cars the oil cooler was mounted high at the back between the split wing. In an effort to take advantage of the fact that Silverstone has almost all right-hand corners, Amon's car was altered on the Friday so that the two sides of the split aerofoil were at different angles - the right-hand side was at a steeper angle. But it was odd to see the Ferrari mechanics planing down the aerofoils and then touching them up with red paint from an aerosol!

BRM or Lotus - which team was a greater shambles was difficult to tell, but at least one knew that Lotus would be sorted out by race-day. While Jackie Oliver sat back and let the BRM mechanics and technicians sort out their own muddle, poor John Surtees, his face grey and lined from worry, tried to direct BRM affairs. Despite missing the French race, the cars were still not right. Surtees had the new P139 car which had been extensively modified (see page 25) and Oliver drove the older P133. One important modification to the BRMs was that ringing the changes with the inlet and exhaust pipe lengths had resulted in 25 bhp less at the top end compensated for by a torque curve with the power coming in strongly at about 1,000 rpm lower. According to Surtees the cars were now much more drivable.

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At the beginning of Thursday practice Stewart went straight out, got himself nicely in the groove and then recorded a superbly fast lap of 1 min 21.5 sec. He came back in with a 'beat that if you can' expression on his face, took the MS84 out and worked this down to 1 min 24.1 sec. In the afternoon Stewart improved on his morning performance with the MS80 by turning in a lap in 1 min 21.3 sec, while Rindt managed 1 min 22.4 sec. Friday practice was a really serious affair, for after an untimed session at midday, the afternoon was divided into four continuous half-hours with £100 offered for the fastest lap during each. It soon became clear that there were only two drivers in the contest, Stewart and Rindt, and after Stewart had set a lap of 1 min 21.1 sec, Rindt flung his Lotus round in vain and gallant pursuit. Stewart also won the second £100 with a shattering lap in 1 min 20.6 sec, but during the third session near-disaster struck; Rindt had set a time of 1 min 21.4 sec, and Stewart, who had been out with the MS84, immediately switched cars and went out to better the Lotus driver's time.

The Scot hurled the two-wheel-drive Matra round Silverstone right on the limit and then, as he entered Woodcote, he saw that a piece of the inside kerb at the entrance to the corner had been dislodged; it was too late for him to change his line, the rear wheel struck the kerb, the tyre burst and the Matra went into a spin at about 135 mph. Although there was little that Stewart could do about the situation, tyre scrub rapidly reduced his speed and he did manage to get the car going backwards before it hit the bank opposite the start of the pits – to hit the bank forwards at Woodcote is lethal. The monocoque of the Matra was distorted and the rear suspension was damaged, but Stewart was unhurt and almost immediately went out again in Beltoise's car. After this incident a line of cones was placed round this section of kerb for the remainder of Friday practice – this made a slightly wider line through Woodcote necessary and Jochen Rindt reckoned that it cost about 200 rpm. Rindt took the £100 in both this and the final session when he turned in a brilliant 1 min 20.8 sec. There was no question of getting Stewart's own car repaired in time for the race, so he took over Beltoise's car with the pedals and seating changed overnight to suit him.

THE GRID

D. Hulme
(McLaren)
1 min 21.5 sec

J. Stewart
(Matra)
1 min 21.2 sec

J. Rindt
(Lotus)
1 min 20.8 sec

C. Amon (Ferrari) 1 min 21.9 sec	J. Ickx (Brabham) 1 min 21.6 sec	
P. Rodriguez (Ferrari) 1 min 22.6 sec	B. McLaren (McLaren) 1 min 22.6 sec.	J. Surtees (BRM) 1 min 22.1 sec
P. Courage (Brabham) 1 min 22.9 sec	J. Siffert (Lotus) 1 min 22.7 sec	
J. Oliver (BRM) 1 min 23.7 sec	G. Hill (Lotus) 1 min 23.6 sec	V. Elford (McLaren) 1 min 23.3 sec
D. Bell (McLaren) 1 min 26.1 sec	J. Miles (Lotus) 1 min 25.1 sec	
	J.-P. Beltoise (Matra) 1 min 31.2 sec	J. Bonnier (Lotus) 1 min 28.2 sec

(Grid positions were decided by car times, not driver times, and that is why Stewart forfeited pole position by taking over Beltoise's car. Likewise Beltoise, who had recorded 1 min 22.1 sec with the MS80, had to take a place on the back row with the MS84.)

The 1969 British Grand Prix was not a race in the true sense of the word, but a private duel between Stewart and Rindt – and the real issue at stake was not victory in the British Grand Prix or to gain Championship points, but to establish who was the fastest Grand Prix driver today. Rindt just beat Stewart into the first corner and that was the order at the end of lap one with Hulme in third spot and then came Rodriguez, McLaren, Amon, Courage, Hill, Siffert and Ickx. Already poor John Surtees was out of the race; he had made a brilliant start from the third row and was in third place coming out of Stowe corner when the front suspension collapsed in a cloud of smoke and Surtees (no one calls him 'Big John' any more) limped round to the pits to retire. For six laps Rindt led Stewart by a matter of inches and then the Matra went by the Lotus under braking for Stowe, but the blue then led the red by only the same narrow margin.

Hulme was still in a comfortable, but lonely, third place and McLaren was fourth. By lap ten Ickx had moved up after a poor start and was in fifth place ahead of Siffert, Hill, Courage, Amon and Rodriguez. World Champion Hill was as much out of the picture

in the race as he had been in practice, and although the Ferraris were running smoothly and consistently, Maranello once again lacked the bhp to stay with the faster Cosworth-powered cars. None of the four-wheel-drive cars were displaying much speed – the fastest was the Lotus of John Miles, which was leading the pathetically slow BRM of Oliver and keeping up with Elford's McLaren. After only five laps Bell's McLaren had its rear suspension break, spun at Becketts and crept round to the pits to retire; a lap later Bonnier was out with a broken engine. Oliver retired his BRM on lap 19 with transmission failure.

When the two leading cars lapped Beltoise on lap 16, Rindt went ahead again – the Austrian was motoring right on the limit and there was nothing that Stewart could do to pass him. On lap 27 Denis Hulme who had been steadily losing ground came into the pits to retire with ignition trouble. By half-distance Ickx had passed McLaren and the leading pair had lapped the entire field but these two. Of the pack still battling for fifth to ninth places, both Ferraris dropped out and Siffert began to trail because he could no longer engage fourth gear, falling further and further behind Hill and Courage. Stewart took the lead again on lap 62, but Rindt was in trouble, for his rear aerofoil had come adrift; he shot into the pits, where it was torn off by the mechanics at the expense of lacerated hands and Rindt rejoined the race 30 seconds in arrears and with all hopes of victory dashed. Still the Austrian's troubles were not over, for on lap 76 he started to run out of petrol because the pumps were not picking up the last few gallons in the tanks and on the next lap he came in for extra fuel. He rejoined the race to finish fourth, and both Hill and Siffert had to make stops for the same reason. Ickx was luckier, for although he too ran out of fuel, he was able to coast his Brabham across the finishing line with a dead engine to take second place.

The 1969 British Grand Prix had been one of the most exciting in the series, but it failed to satisfy the motor racing world that Rindt was as fast, let alone faster, than Stewart. It did, however, make clear beyond any doubt that there was little chance of Rindt winning a full-length Grand Prix until Lotus standards of race preparation were much improved.

BRITISH GRAND PRIX

Silverstone

19th July, 1969

Circuit length: 2.927 miles. 84 laps (245.96 miles). Weather: Warm and dry.

- 1st, J. Stewart (Matra MS80-Cosworth), 1 hour 55 min 55.6 sec (127.25 mph),
2nd, J. Ickx (Brabham BT26-Cosworth), 1 lap in arrears,
3rd, B. McLaren (McLaren M7C-Cosworth), 1 lap in arrears,
4th, J. Rindt (Lotus 49B-Cosworth), 1 lap in arrears,
5th, P. Courage (Brabham BT26-Cosworth), 1 lap in arrears,
6th, V. Elford (McLaren M7A/B-Cosworth), 2 laps in arrears,
7th, G. Hill (Lotus 49B-Cosworth), 2 laps in arrears,
8th, J. Siffert (Lotus 49B-Cosworth), 3 laps in arrears,
9th, J-P. Beltoise (Matra MS84-Cosworth), 6 laps in arrears,
10th, J. Miles (Lotus 63-Cosworth), 9 laps in arrears.

Fastest lap: J. Stewart, 1 min 21.3 sec (129.61 mph – record).

Previous lap record: C. Amon (Ferrari), 1 min 25.1 sec (123.82 mph).

Retirements: Lap 1: Surtees (BRM), front suspension; lap 5: Bell (McLaren), rear suspension; lap 6: Bonnier (Lotus), engine; lap 19: Oliver (BRM), transmission; lap 27: Hulme (McLaren), ignition; lap 45: Amon (Ferrari), gearbox; lap 61: Rodriguez (Ferrari), engine.

German Grand Prix

The 14.2-mile North Nürburgring is one of the most exciting motor racing circuits in Europe and one of the most testing. Many times teams have found that suspension settings that have given no problems at all the other European circuits are almost useless at the Nürburgring – the classic example is the Vanwall team, victorious in the 1957 European Grand Prix at Aintree, who found themselves completely outclassed in the German race a fortnight later – the cars handled so badly and the suspension gave the drivers such a rough ride that Moss, Brooks and Lewis-Evans all felt ill. The circuit's 173 corners divide the men from the boys in no uncertain fashion and the Nürburgring shares with Monaco the distinction of being a circuit on which a driver of an inferior car can beat much

more powerful opposition through driving ability – as did Nuvolari in the 1935 race with his outdated Alfa Romeo and Moss in 1961 with his Lotus. The steep descents on the circuit bring out a driver's bravery and the many corners test his skill. Like the Isle of Man motor-cycle circuit and the Targa Florio sports car circuit, the atmosphere of the Nürburgring is such that any Grand Prix driver worth the name cannot resist its challenge and have a real go.

Jack Brabham was still not fit enough to drive and the works Ferraris were withdrawn from the race. Ferrari's official reason for the team's failure to appear was that he was still awaiting the race-worthiness of his new 12-cylinder engines and did not want to run uncompetitive cars. It was much more likely, however, that the Commendatore and the Automobilclub von Deutschland had failed to agree over starting money! So there were only eleven Formula One cars entered in the race and because even a full complement of Grand Prix cars looks rather thin when spread out over the Nürburgring, it is the organisers' frequent practice to accept a good field of Formula Two cars and there were twelve entered in the 1969 race.

Since Silverstone Stewart's crashed Matra had been flown to France and back for the twisted sections of the monocoque to be replaced and both Stewart and Beltoise had their usual cars with the MS84 in reserve. After the unhappy display in practice at Silverstone, Team Lotus was better organised and while Graham Hill had a rebuilt 49, Jochen Rindt had the same car as at Silverstone. Both cars were fitted with new-type rocking arms to prevent the front suspension from bottoming and the wheels from lifting and the fuel pick-up system had been revised in order to prevent a recurrence of the Silverstone trouble. A four-wheel-drive 63 was entered for Mario Andretti, who was running in his first Grand Prix in Europe; unlike the regular team-members he was all in favour of four-wheel-drive and was anxious to get the 63 sorted out as quickly as possible. With Siffert in his usual car and Bonnier having taken delivery of his ex-works car, there were a total of five Lotuses in the race.

Although the four-wheel-drive McLaren was entered, it did not appear and so there were just the usual two cars for Bruce and Denny. McLaren's own car had been modified to take 13-in front wheels with 12-in rims and both cars now had aerofoils proper mounted on short struts. Vic Elford's McLaren was unchanged apart from a strengthened rear 'shovel,' while the Brabhams of both Ickx and Courage had detail suspension modifications to cope with the humps and bumps of the 'Ring. BRM did not bring a spare car (confidence or despair?), Surtees had the P139 and Oliver the interim P138. Since Silverstone the P139 had been fitted with new

rocking arms for the front suspension and front aluminium brake ducts.

This is how the Formula Two entries were made up:

- Kurt Ahrens (Brabham BT30 entered by Ahrens Racing Team).
- Hans Herrmann and Rolf Stommelen (Lotus 59Bs entered by Roy Winkelmann Racing Ltd).
- Hubert Hahne, Gerhard Mitter and Dieter Quester (BMW 269s entered by BMW AG).
- Henri Pescarolo (Matra MS7 entered by Matra Sports).
- Johnnie Servoz-Gavin (Matra MS7 entered by Matra International).
- Francois Cevert (Tecno entered by Tecno Racing Team).
- Dickie Attwood (Brabham BT30 entered by Frank Williams Racing Ltd).
- Xavier Perrot (Brabham BT23C entered by Squadra Tartaruga).
- Peter Westbury (Brabham BT30 entered by Felday Engineering Ltd).

With the exception of the BMWs, all the cars in the Formula Two class had Cosworth FVA engines.

There was considerable speculation as to just how fast Stewart and Rindt would go in practice, for the Formula One lap record stood to the credit of Dan Gurney (Eagle) at 8 min 15.1 sec (103.15 mph) and had been set during the 1967 race. The 1968 race had been run in atrociously wet and misty conditions and the fastest lap set by Stewart (Matra) in 9 min 36.0 sec (88.67 mph) was totally unrealistic of the car/driver combination's true potential. But as Siffert with a Porsche 908 had recorded 8 min 00.2 sec in practice for the 1969 1,000 Kilometres race and Amon with a 312P Ferrari had set a new outright lap record of 8 min 00.3 sec in that race, only lap times under 8 minutes could be regarded as respectable.

Friday morning practice saw Stewart record 7 min 55.6 sec, Rindt not far behind with 7 min 58.0 sec, the BRM drivers struggling to beat 9 minutes with cars that were all over the road (they were slower than most of the Formula Two cars) and Siffert arrive too late to manage a flying lap; he had thought that practice did not start until the afternoon! Now that there is a guard-rail down the pits lane, it is not possible for drivers to be timed on a standing start lap and they have to cover a full lap before they are timed. After fuel trouble in the morning, *Ringmeister* Ickx was magnificent in the afternoon, proving that there was another driver besides Stewart who was both exceedingly fast *and* very controlled – the young Belgian recorded the fastest time of the session with a shattering

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7 min 44.2 sec. While Ickx was convincing everyone that he was the driver most likely to beat Stewart and while Rindt was lapping rather erratically and unhappily, tragedy struck. Gerhard Mitter left the road on the very fast downhill section after the *Flugplatz* because, it seems, his BMW lost a wheel; the car plunged into the ditch and smashed down a hundred yards of safety fencing before coming to rest. Poor Mitter was killed and BMW team manager Steinmetz decided to withdraw the other two entries. Hans Herrmann, a close friend of Mitter, also felt too upset to run.

Stewart had been complaining that his Matra had been cutting out on the bumps and as it seemed to be a chassis fault, the Matra mechanics transferred the engine and pedals from Stewart's car to that of his team-mate in time for Saturday practice. The Scot, now with his Silverstone-winning chassis, recorded 7 min 45.9 sec – Ickx responded with 7 min 42.1 sec and when Stewart went out again he could get no closer than within 0.3 sec of the Belgian's time. In the first practice session Mario Andretti had only covered about four miles when a camshaft broke and wrecked the engine. For Saturday his car was fitted with an engine borrowed from McLaren and Andretti had only covered a couple of laps when a camshaft again broke with similar extensive engine damage. Andretti had recorded 8 min 15.4 sec in the best of the two laps he did complete and for a driver new to the circuit this was incredibly fast. Another Cosworth unit was found for the 63 and Andretti's enthusiasm is so great and he is so popular with the Lotus mechanics that they tackled yet another engine change without the slightest complaint. The unhappiest man at the Nürburgring was John Surtees, whose car was plagued by an oil leak caused by failure of the sump gasket to seal properly – this had been distorted by the car bottoming during the first practice session – and it was decided to withdraw the P139. Surtees' fastest lap was 8 min 12.1 sec.

THE FORMULA ONE GRID

J. Rindt (Lotus) 7 min 48.0 sec	J. Stewart (Matra) 7 min 42.4 sec	J. Ickx (Brabham) 7 min 42.1 sec
	D. Hulme (McLaren) 7 min 52.8 sec	J. Siffert (Lotus) 7 min 50.3 sec
B. McLaren (McLaren) 7 min 56.5 sec	P. Courage (Brabham) 7 min 56.1 sec	V. Elford (McLaren) 7 min 54.8 sec

J-P. Beltoise (Matra) 8 min 00.3 sec	G. Hill (Lotus) 7 min 57.0 sec
J. Oliver (BRM) 8 min 16.2 sec	M. Andretti (Lotus) 8 min 15.4 sec
	J. Bonnier (Lotus) 8 min 35.0 sec

THE FORMULA TWO GRID

H. Pescarolo (Matra) 8 min 14.8 sec	F. Cevert (Tecno) 8 min 13.9 sec	J. Servoz-Gavin (Matra) 8 min 11.1 sec
K. Ahrens (Brabham) 8 min 23.2 sec	P. Westbury (Brabham) 8 min 20.0 sec	
X. Perrot (Brabham) 8 min 35.4 sec	R. Stommelen (Lotus) 8 min 28.1 sec	R. Attwood (Brabham) 8 min 24.6 sec

Although Ickx made a far better start than he usually does, it was not good enough and he was engulfed by the first three ranks of the grid. In the North curve Courage and Beltoise locked their wheels, Beltoise's car rode up into the air and Oliver took to the grass in a cloud of dust to avoid them. Stewart soon pulled out a hundred-yard lead over the Lotuses of Siffert and Rindt and Ickx was fighting his way through the pack to get to grips with the leaders. Two-thirds of the way round that first lap, Andretti, coming out of the sweep after the *Wipperman* corner, hit a bump, the Lotus bottomed and went off the road, tearing off the two left-hand wheels, thumped into a wooden post and came to rest with the driver shaken, but unhurt. The front wheel of the Lotus flew back along the road and Vic Elford's McLaren crashed into it. The McLaren shot into the air and crashed down the embankment on the right-hand side of the road, overturned and trapped Elford. Quick Vic was taken to hospital with his arm broken in three places and the McLaren was a write-off.

At the end of lap one Stewart had a comfortable lead over Siffert and Rindt and Ickx had risen to fourth place. Then came Hulme, Hill, McLaren, Beltoise and Courage. Half-way round the second

lap Courage hit a bump, grounding the fuel tanks and spun off into a ditch, severely crumpling the Brabham. Ickx screamed past Rindt on that lap, set his sights on Siffert and on his third lap went round in 7 min 45.9 sec, overtaking the Swiss driver in the process. On the following lap Ickx turned in another record of 7 min 44.5 sec and he was now right on Stewart's tail. For two laps the green and yellow Brabham harried the blue Matra and Jacky was right alongside Jackie as they started their seventh lap, passing him as they went into the South Turn. Now that he had an open road ahead of him, Ickx really stoked the Brabham, reducing the lap record yet again (to 7 min 43.8 sec) and pulling out a two-second lead over Stewart. Rindt's engine had turned rough and he dropped back to eighth place. In the Formula Two class Pescarolo led after Servoz-Gavin had retired with a blown-up engine.

Until lap ten Stewart maintained station behind Ickx waiting for the young Belgian to make a mistake; during this lap the Matra slowly fell back, for because of gear-change trouble Stewart was not always able to select the ratio he wanted. At the end of lap nine Rindt went into the pits to complain about his very rough engine, but there was nothing that the mechanics could do and he was sent out again – after the next lap he decided to give up, mainly because he found it too embarrassing to be even lower down the field than Oliver's BRM! Ickx had out-driven the maestro and now that Stewart was slowed by mechanical trouble, he was able to relax and his lap times dropped by around ten seconds. During the last four laps the field was depleted by the retirement of Oliver with a cracked sump, Hulme with transmission failure and Beltoise with a seized front hub. The final casualty was poor Jo Siffert, who was in a safe third place when half-way round lap thirteen the left-hand front wheel decided to part company with the rest of the car and the Lotus ended up in the ditch. Although both Siffert and Beltoise were classified as finishers, there were in fact only four Formula One cars running at the chequered flag.

Pescarolo finished well ahead of the others in the Formula Two category, but a particularly fine drive was that of Rolf Stommelen with the Winkelmann Lotus. He had managed the transition from Porsche Prototype to Formula Two racing exceedingly well and was in second place in the class when on the final lap fuel leaking on to the undertray started a fire. With remarkable coolness Stommelen motored on gently to the finish where he stopped alongside a fire marshall, but this unpleasant incident lost him his second place to Attwood's Brabham.

For too many races the season had been dominated by one driver and car and it was good for the sport that Stewart should at last

have met his match. It was also the sort of win that Ickx' performances with Ferrari in 1968 had led enthusiasts to expect of him in the future; perhaps even more important was the boost that this victory gave to Brabham morale and it may well have made Black Jack's mind up to continue Grand Prix racing in 1970.

GERMAN GRAND PRIX

Nürburging

3rd August, 1969

Circuit length: 14.19 miles. 14 laps (198.64 miles). Weather: Warm and dry.

- 1st, J. Ickx (Brabham BT26-Cosworth), 1 hour 49 min 55.4 sec (108.43 mph),
2nd, J. Stewart (Matra MS80-Cosworth), 1 hour 50 min 53.1 sec,
3rd, B. McLaren (McLaren M7C-Cosworth), 1 hour 53 min 17.0 sec,
4th, G. Hill (Lotus 49B-Cosworth), 1 hour 53 min 54.2 sec,
5th, H. Pescarolo (Matra MS7-Cosworth F2), 1 hour 58 min 06.4 sec (100.91 mph),
6th, R. Attwood (Brabham BT30-Cosworth F2), 1 lap in arrears,
7th, K. Ahrens (Brabham BT30-Cosworth F2), 1 lap in arrears,
8th, R. Stommelen (Lotus 59-Cosworth F2), 1 lap in arrears,
9th, P. Westbury (Brabham BT30-Cosworth), 1 lap in arrears,
10th, X. Perrot (Brabham BT23C-Cosworth), 1 lap in arrears,
5th in F1 category, J. Siffert (Lotus 49B-Cosworth), 2 laps in arrears, not running at finish,
6th in F1 category, J-P. Beltoise (Matra MS80-Cosworth), 2 laps in arrears, not running at finish.

Fastest lap: J. Ickx, 7 min 43.8 sec (110.13 mph - record).

Previous lap record: C. Amon (Ferrari 312P), 8 min 3.3 sec (105.7 mph).

Previous race lap record: D. Gurney (Eagle-Weslake), 8 min 15.1 sec (103.15 mph).

Retirements: Lap 1: Andretti (Lotus 4WD), accident; Elford (McLaren), accident; lap 2: Courage (Brabham), accident; lap 5: Bonnier (Lotus), leaking fuel tank; lap 7: Servoz-Gavin (Matra F2), engine; lap 10: Cevert (Tecno F2), crown-wheel-and-pinion; lap 11: Rindt (Lotus), ignition; lap 12: Hulme (McLaren), transmission; Oliver (BRM), damaged sump; lap 13: Beltoise (Matra), front hub; Siffert (Lotus), accident.

Italian Grand Prix

Motor racing at Monza is a mixed blessing. On the one hand it provides an exciting, flat-out cut and thrust blind, closely fought and thrilling to watch, but the other side of the coin is seen in the poor spectator facilities and the behaviour of the police. Unless a spectator buys an expensive Grandstand seat, he is not likely to see much of the circuit – wire fencing all round the circuit obscures his view, his vision is usually sharply cut off to left and right so that the cars conglomerate into a high-speed blur as they pass his eyes and as spectators are allowed to park cars, vans, coaches, lorries right up against the fence, if one does not arrive early, it is quite likely that one will see nothing. The professionals do little better; photographers are permitted vantage points at few places round the circuit and they, together with journalists, mechanics, trade representatives and even sometimes drivers, often get roughly handled by the *carabinieri*.

Monza is the race of the year in which Ferrari usually makes his most determined effort and he has been known to enter as many as six cars. How the mighty are fallen! Originally Ferrari entered but one brand-new car in 1969 and eventually there came to the starting line one outdated model. Chris Amon had been entered with the new flat-12 Ferrari, but this was ready late and eventually appeared in unofficial practice late on the Friday; after running well, a piston failed and the car was withdrawn. Ferrari had, rather late in the day, entered a second car for his Formula Two man, Monza-born Tino Brambilla, a 1969 chassis with the latest block having 1968 cylinder heads with the exhausts in the centre of the vee. Brambilla was pathetically slow in practice and so on the Saturday Pedro Rodriguez took the car over, he was much faster and drove the car in the race.

Matra International had entered three cars, with Servoz-Gavin down to drive the MS84, but he was there simply to qualify the car and there was no intention that he should actually race. Stewart and Beltoise had their usual cars, as did McLaren drivers Bruce and Denis. Despite a limp, Jack Brabham was back at the wheel and the Brabhams revealed no changes apart from strengthened top wishbones. Since the Nürburgring Courage's Brabham had been completely rebuilt. Another car to have had a rebuild was Siffert's Rob Walker Lotus and this now had flat top wishbones as on the works cars. Of the works Lotus entries, Hill and Rindt, as usual, drove 49Bs, while John Miles was at the wheel of the surviving 63 four-wheel-drive car. The BRM team, now managed by the good-humoured Tim Parnell (if any humour is needed, it is at BRM),

produced P139s for both Surtees and Oliver and also had a P138 on hand as a spare. Surtees' car was fitted with a special nose similar to that of his Formula 5000 cars. The exhaust systems had been changed again, this time to give plenty of power at the top end. To make up the rather sparse field of fifteen starters was Silvio Moser with his Brabham BT24; in order to overcome the constant problems with fuel leaks on this car, new tanks had been fitted.

Practice was fast and furious, but largely uneventful. This is a circuit at which Rindt is completely at home and he revels in the fast curves; he was easily fastest in practice and Denis Hulme, too, put up an excellent performance in practice and pushed Stewart off the front row of the grid. Unhappiest man in practice was Jacky Ickx; in unofficial practice on the Thursday he had come round a corner to find a wooden barricade in the way and collided with it, damaging the nose, and on the Friday he had the engine seize up after three laps. Apart from these troubles, he was suffering from influenza and on the following day, Saturday, Ickx had another engine blow-up. To crown Brabham misfortunes, there was an aura of gloom about the team because it was strongly suspected that in 1970 Ickx would drive for Ferrari. Both Hill and Siffert thought that their engines were down on power and neither recorded as good times as they would have liked. In any case Hill had been hindered by having a camshaft break on the Saturday and there was no time to change the engine before practice was over. Ickx' car, which ran with Frank Williams' spare engine, was only ready just before the start because the clutch would not free and there was also desperate last-minute work on Surtees' BRM.

THE GRID

J. Rindt (Lotus) 1 min 25.48 sec	D. Hulme (McLaren) 1 min 25.69 sec
J. Stewart (Matra) 1 min 25.82 sec	P. Courage (Brabham) 1 min 26.48 sec
B. McLaren (McLaren) 1 min 26.4 sec	J-P. Beltoise (Matra) 1 min 26.72 sec
J. Brabham (Brabham) 1 min 26.90 sec	J. Siffert (Lotus) 1 min 27.04 sec

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G. Hill (Lotus) 1 min 27.31 sec	J. Surtees (BRM) 1 min 27.40 sec
J. Oliver (BRM) 1 min 28.40 sec	P. Rodriguez (Ferrari) 1 min 28.47 sec
S. Moser (Brabham) 1 min 28.51 sec	J. Miles (Lotus) 1 min 30.56 sec
J. Ickx (Brabham) 1 min 37.96 sec	

Neither Rindt nor Hulme made a good start and in trying to find a way between them, Stewart clouted and bent one of Hulme's front wings. At the end of that first lap Stewart led by 25 yards from Rindt, McLaren, Siffert and Courage, all in a tight bunch, then Hulme, Brabham, Hill and Ickx. It was the same on lap two except that Rindt was right on Stewart's tail and Siffert had passed McLaren. Already Jacky Ickx was in trouble and he came into the pits with an oil leak; by the time this had been cured he had lost two laps. All the way round the circuit Rindt and Stewart passed and repassed and behind them was a garish swarm composed of Hulme, McLaren, Siffert, Courage, Beltoise and Hill. A long way behind came the BRMs, Rodriguez and Moser and on lap seven Brabham stopped out on the circuit because the fuel pipe to the metering unit had come adrift. All the cars were constantly diving out of each other's slipstream and overtaking and the order was different at different points on the circuit. Stewart snatched the lead on lap nine and held it for seven laps, but bad luck was still plaguing the BRM team. An exhaust pipe fell off Hill's Lotus, Surtees hit this and after damaging the BRM's nose and front suspension it bounced up and struck him on the head. Moser was still in trouble with fuel leaks and brought in his Brabham to retire.

Stewart stayed out in front, but lap after lap Rindt strived to get to grips with him, although he was handicapped by the fact that his car was undergeared and in fifth along the straight the electronic rev limiter was coming into action. For a while Hill's Lotus had dropped behind the leading group and it seemed that he was going to turn in another uncompetitive performance; but at Monza he was determined to be in at the finish and fought his way back to mix it with the leaders. Courage now took the bit between his teeth and on lap eighteen grabbed the lead and held it for two circuits.

Surtees was still not happy with his car and came into the pits again; the coil was changed and he rejoined the race, having lost another four laps.

With a third of the race over the order was Stewart – Courage – Hulme – Rindt – Siffert – McLaren – Hill – Beltoise. Now Hulme made his bid for the lead, but at *Lesmo* he found the brakes almost non-existent and within a few laps he had none at all – a faulty master cylinder was the cause. It was Rindt who took the lead on lap 25, with Courage still in second place and holding off Stewart. On lap 29 Hill set a new lap record of 1 min 26.4 sec and at the tail of the field Oliver was black-flagged because the fire extinguisher on his BRM had worked loose. The hot pace continued unabated and there remained a tight, close, fighting bunch at the head of the field; it was a pace, however, that began to take its toll and Siffert dropped back with a very rough engine. Hill had now screamed up into third place, Rindt again took the lead on lap 37 and Stewart's Matra was the meat in a red and gold sandwich. Courage was fourth, holding off Beltoise, and now McLaren made his bid coming through from sixth place, he lowered the lap record to catch the main group and sit expectantly behind Beltoise. Oliver retired his BRM with complete loss of oil pressure.

When Stewart went ahead again, Rindt was unable to do anything about it, so Hill, the reigning World Champion (just), decided to see what he could do and Jochen eased back to fourth place behind Courage, obviously playing a waiting game. As the race drew to a close, the mechanical casualties mounted up. Hulme, minus brakes, was now behind Rodriguez who was driving a consistent, albeit uncompetitive, race. With 13 laps to go Courage slipped out of the picture with fuel pump trouble and his Brabham popped and banged its way round the circuit to finish fifth. Ickx lost his oil pressure and after a race at the tail of the field came into the pits to retire, while Siffert's ailing Lotus burnt a valve and expired in a cloud of smoke. Unluckiest of all was Hill, who retired with a broken drive-shaft after one of his best drives of the season.

So there were now four cars in the battle, Stewart, Rindt, Beltoise and McLaren and they were closely grouped as ever; as they started on their last lap, Rindt sneaked ahead, then Beltoise tried to outbrake both Rindt and Stewart at *Parabolica*, the last corner, but went wide and Stewart slipped ahead, while Rindt was blocked by Beltoise. As the cars approached the finishing line, Rindt made a final and desperate bid to gain the lead, but Stewart took the flag by less than the length of the Matra's nose. The 1969 Italian Grand Prix lasted only a little over an hour-and-a-half, but it was one of the most exciting and hard-fought races of the season and

one not seen in a Grand Prix at Monza since 1953. In that year Ascari, Fangio and Farina were fighting it out on the last lap when Ascari spun at the very last corner, was rammed by Marimon's Maserati and Fangio slipped through to victory

ITALIAN GRAND PRIX

Monza

7th September, 1969

Circuit length: 3.57 miles. 68 laps (242.95 miles). Weather: Warm and dry.

- 1st, J. Stewart (Matra MS80-Cosworth), 1 hour 39 min 11.26 sec (146.96 mph),
- 2nd, J. Rindt (Lotus 49B-Cosworth), 1 hour 39 min 11.34 sec,
- 3rd, J.-P. Beltoise (Matra MS80-Cosworth), 1 hour 39 min 11.43 sec,
- 4th, B. McLaren (McLaren M7C-Cosworth), 1 hour 39 min 11.45 sec,
- 5th, P. Courage (Brabham BT26-Cosworth), 1 hour 39 min 44.7 sec,
- 6th, P. Rodriguez (Ferrari 312), 2 laps in arrears,
- 7th, D. Hulme (McLaren M7A-Cosworth), 2 laps in arrears,
- 8th, J. Siffert (Lotus 49B-Cosworth), 4 laps in arrears, not running at finish,
- 9th, G. Hill (Lotus 49B-Cosworth), 5 laps in arrears, not running at finish,
- 10th, J. Ickx (Brabham BT26-Cosworth), 7 laps in arrears, not running at finish,
- 11th, J. Surtees (BRM P139), 8 laps in arrears.

Fastest lap: J.-P. Beltoise, 1 min 25.2 sec (150.96 mph - record).

Existing lap record: J. Oliver (Lotus 49B-Cosworth), 1 min 26.5 sec (148.69 mph).

Retirements: Lap 4: J. Miles (Lotus 63-Cosworth), engine failure; lap 7: J. Brabham (Brabham BT26-Cosworth), loose fuel pipe; lap 10: S. Moser (Brabham BT24-Cosworth), fuel leak; lap 49: J. Oliver (BRM P139), oil pressure; lap 62: J. Ickx (Brabham BT26-Cosworth), oil pressure; lap 64: G. Hill (Lotus 49B-Cosworth), drive-shaft failure; lap 65: J. Siffert (Lotus 49B-Cosworth), piston failure.

Canadian Grand Prix

When it was initiated in 1950 the so-called Drivers' World Championship was in reality a European Championship, with all the races in Europe and the drivers – Argentinians apart – European. Grand Prix racing has broadened its outlook a great deal since then and there are now the three Championship rounds in the New World. The Canadian, the first on the calendar, was first included in the series in 1967 and was held at Mosport. The following season the race shifted to the Mont Tremblant circuit at St Jovite, but it reverted to Mosport in 1969. Mosport is a difficult road circuit (albeit artificial) with a succession of fast curves, two tight corners and only one straight.

For the first time in 1969 Matra International fielded three cars, the usual MS80s for Stewart and Beltoise and the MS84 driven by Johnny Servoz-Gavin. The Gold Leaf Team Lotus 49Bs for Hill and Rindt were running on the same engines as at Monza and John Miles had the four-wheel-drive 63 crashed by Andretti at the Nürburgring. Denny Hulme and Bruce McLaren had their usual McLarens unchanged apart from larger wings and there were no changes to the Brabhams of Ickx and *le patron* other than the fitting of separate side-pieces on the rear aerofoils. There were no works Ferraris proper, but Pedro Rodriguez drove a normal V-12 entered in the name of the North American Racing Team. BRM fielded three cars, P139s for Surtees and Oliver and the spare P138 for Canadian Bill Brack. Heading the private owners were Siffert with the Rob Walker Lotus, Courage with the Frank Williams Brabham and Silvio Moser with his old Brabham BT24. Pete Lovely ran his Lotus 49B. In addition the organisers had been foolish enough to accept entries from Al Pease with the original 1966 Eagle powered by a 2.7-litre Climax engine and John Cordts with a Brabham BT23B powered by a similar unit. These two cars were uncompetitive and, as events were to prove, Pease possessed the most lethal car in the race!

In Thursday's practice both Stewart and Oliver suffered gearbox trouble and the following day Beltoise damaged his Matra when he spun off into a wire mesh fence. Damage was limited to a broken front wing and a punctured fuel tank. More serious was Siffert's accident with his Lotus; his foot jammed under the brake pedal, he spun off and the resultant crash tore off the two left-hand wheels and damaged the monocoque. By dint of hard work the car was ready for the race.

THE GRID

J. Rindt (Lotus) 1 min 17.9 sec	J-P. Beltoise (Matra) 1 min 17.9 sec	J. Ickx (Brabham) 1 min 17.4 sec
D. Hulme (McLaren) 1 min 18.0 sec	J. Stewart (Matra) 1 min 17.9 sec	
J. Siffert (Lotus) 1 min 18.5 sec	G. Hill (Lotus) 1 min 18.3 sec	J. Brabham (Brabham) 1 min 18.0 sec
P. Courage (Brabham) 1 min 19.5 sec	B. McLaren (McLaren) 1 min 18.5 sec	
P. Rodriguez (Ferrari) 1 min 20.5 sec	J. Oliver (BRM) 1 min 20.2 sec	J. Miles (Lotus) 1 min 20.0 sec
J. Servoz-Gavin (Matra) 1 min 21.4 sec	J. Surtees (BRM) 1 min 20.6 sec	
W. Brack (BRM) 1 min 28.7 sec	A. Pease (Eagle) 1 min 28.5 sec	P. Lovely (Lotus) 1 min 22.9 sec
S. Moser (Brabham) 1 min 41.4 sec	J. Cordts (Brabham) 1 min 29.7 sec	

Rindt went straight into the lead at the fall of the flag and still led at the end of the first lap from Ickx, Beltoise, Stewart, Courage, Rodriguez, Oliver, McLaren, Miles, Surtees (who was suffering from influenza) and Servoz-Gavin. Already poor Moser was out of the race – pushed out, that is, as he happened to be in the way of Pease's path of destruction – and two laps later Oliver's BRM put a rod through the side, just when it was going very nicely, too. On lap five Stewart moved up into second place ahead of Ickx. A lap later Stewart passed Rindt, soon Ickx had done likewise and this pair began to draw away from the rest of the field. Hulme, very much in the fight that was going on for fourth place, retired with a broken rotor arm. Soon the leaders were lapping the tail-enders and when Stewart came on Pease meandering his way through a corner, the two cars nearly collided. A collision did take place when

Beltoise lapped the Eagle and the Matra, with a rear wheel out of alignment, dropped back to seventh place. Next time round, lap 14, Courage, suffering from a painfully fuel-soaked body, retired his Brabham with a split fuel tank. The order was now Stewart and Ickx neck and neck, Rindt a lonely third, and then Hill, Brabham and Siffert grouped together; behind came Beltoise, McLaren and Rodriguez.

Every time Ickx tried to pass Stewart, the Matra drew away again and on lap 23 Brabham passed Hill to take fourth place. Rodriguez' Ferrari was not running at all well and he stopped at the pits on lap 30 with fuel feed trouble. The major drama in the race came three laps later when Stewart and Ickx lapped Brack's BRM on the exit of the first corner. As the two cars reached the next corner, they were still in the middle of the road and Ickx tried to squeeze through on the inside of Stewart; the young Belgian dropped two wheels on to the gravel and hit the left-hand rear wheel of the Matra. Stewart spun, avoiding the guard-rail, but came to rest with a broken wheel-rim; he was hoping to limp back to the pits for a wheel-change, but the engine refused to fire and the new World Champion was out of the race.

Ickx was now completely alone, out in front and unchallenged, but battles were still being waged lower down the field. Brabham had been steadily closing the gap between himself and second-placeman Rindt. On lap 41 Siffert retired his Lotus with a broken drive-shaft and Miles pulled out of the race with a broken gearbox; soon afterwards Rodriguez retired his Ferrari with loss of oil pressure. Now there were only nine cars left in the race and these were reduced to eight when Graham Hill was eliminated by a broken camshaft on lap 43. And it was eight at the finish, for there were no further retirements. On lap 60 Brabham succeeded in passing Rindt's Lotus and before the chequered flag Ickx set a new lap record of 1 min 18.1 sec, which *le patron* subsequently equalled. Stewart had atrocious luck in being pushed out of the race, but it was the sort of incident from which both he and Ickx will have learnt a salutary lesson.

CANADIAN GRAND PRIX

Mosport

20th September, 1969

Circuit length: 2.46 miles. 90 laps (221.31 miles). Weather: Warm and dry.

1st, J. Ickx (Brabham BT26-Cosworth), 1 hour 59 min 25.7 sec (112.76 mph),

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2nd, J. Brabham (Brabham BT26-Cosworth), 2 hours, 00 min
11.9 sec,
3rd, J. Rindt (Lotus 49B-Cosworth), 2 hours 00 min 17.7 sec,
4th, J-P. Beltoise (Matra MS80-Cosworth), 1 lap in arrears,
5th, B. McLaren (McLaren M7C-Cosworth), 3 laps in arrears,
6th, J. Servoz-Gavin (Matra MS84-Cosworth), 6 laps in arrears,
7th, P. Lovely (Lotus 49B-Cosworth), 9 laps in arrears,
(Unclassified) W. Brack (BRM P138), 10 laps in arrears.

Fastest lap: J. Ickx, 1 min 18.1 sec (114.78 mph – record).

Existing lap record: J. Clark (Lotus 49-Cosworth), 1 min 23.1 sec
(106.53 mph).

Retirements: Lap 1: S. Moser (Brabham BT24-Cosworth), accident;
lap 3: J. Oliver (BRM P139), engine; lap 10: D. Hulme (McLaren
M7A-Cosworth), distributor; lap 11: J. Cordts (Brabham BT23B-
Climax), oil leak; lap 14: P. Courage (Brabham BT26-Cosworth),
fuel leak; lap 16: J. Surtees (BRM P139), engine; lap 23: A. Pease
(Eagle-Climax), black-flagged because of insufficient speed; lap
33: J. Stewart (Matra MS80-Cosworth), accident; lap 38: P.
Rodriguez (Ferrari 312), loss of oil pressure; lap 41: J. Miles (Lotus
63-Cosworth), gearbox; J. Siffert (Lotus 49B-Cosworth), drive-
shaft; lap 43: G. Hill (Lotus 49B-Cosworth), camshaft.

United States Grand Prix

The United States race was the first Transatlantic event to be added to the present World Championship series and after an inaugural sports car race in 1958, joined the Championship series the following year. The 1959 race was at Sebring, in 1960 the event moved on to Riverside Raceway, California, and a year later the new Watkins Glen circuit in New York State became the established home of the race. Watkins Glen is an exciting mixture of straights and fast curves with a single slow corner immediately before the pits. The result is that, although maximum speeds attained by the cars do not go much over 170 mph, the race average is well over 120 mph.

Entries in 1969 were very much as at Mosport and the only changes were that Mario Andretti was at the wheel of a Lotus 63 four-wheel-drive car and in the spare BRM there was George Eaton instead of Bill Brack. Happily, the slow cars of Pease and Cordts that had clogged the Canadian race were absent. BRM had flown over a new P139 and all the team's cars had modified lubrication systems to prevent the Mosport failures.

The first practice session on the Friday was wet, and this *should*

have shown up to advantage the four-wheel-drive cars, but they proved miserably uncompetitive. Fastest were Brabham in 1 min 13.84 sec and Beltoise (MS80) in 1 min 14.18 sec, while the best 4wd times were 1 min 16.94 sec (Stewart with the MS84) and 1 min 19.93 sec (Andretti with the 63). That the latest and smaller wings are still dangerous was revealed when Ickx had his wing collapse as he came through a fast curve, the car spun viciously three times and came to rest with a bent rear radius arm and damaged exhaust pipes. In the closing minutes of practice Rindt and Hulme pipped Stewart for best practice time, the Austrian gaining a thousand dollar prize.

THE GRID

D. Hulme (McLaren) 1 min 3.65 sec	J. Rindt (Lotus) 1 min 3.62 sec
G. Hill (Lotus) 1 min 4.05 sec	J. Stewart (Matra) 1 min 3.77 sec
B. McLaren* (McLaren) 1 min 4.2 sec	J. Siffert (Lotus) 1 min 4.06 sec
J. Ickx (Brabham) 1 min 4.32 sec	J-P. Beltoise (Matra) 1 min 4.29 sec
J. Brabham (Brabham) 1 min 4.80 sec	P. Courage (Brabham) 1 min 4.58 sec
P. Rodriguez (Ferrari) 1 min 5.94 sec	J. Surtees (BRM) 1 min 5.06 sec
J. Oliver (BRM) 1 min 6.55 sec	M. Andretti (Lotus) 1 min 6.52 sec
P. Lovely (Lotus) 1 min 7.55 sec	J. Servoz-Gavin (Matra) 1 min 7.13 sec
G. Eaton (BRM) 1 min 11.27 sec	S. Moser (Brabham) 1 min 8.20 sec

* Non-starter.

During the warming-up laps McLaren's car blew up its engine and he became a non-starter, while team-mate Hulme's gear-change linkage went wrong and the mechanics were unable to sort this out before the race started – this was very unfortunate because the McLarens are superbly prepared, and the last cars on which troubles would be expected before the race started. The starting procedure at Watkins Glen is peculiarly American. The starter walks away from the cars, turns, and then jumps in the air as he waves the green flag.

At the end of the first lap Rindt led by a narrow margin from Stewart and then there was a gap before Hill, Siffert, Beltoise, Courage, Ickx, Surtees and Hulme, who was waving the other cars past and went into the pits very early in the race.

On lap three Siffert moved up to third place ahead of Graham Hill, but his race was destined to be short, and next time round he stopped out on the circuit with a broken fuel-metering drive belt. Andretti retired on the same lap with damaged rear suspension, caused on the first lap when he was rammed by another competitor.

Rindt and Stewart pulled well clear of the rest of the field by lap six, but there was a terrific scrap going on for third place with Piers Courage heading a tight group of cars. Next came Beltoise and then Hill, but on lap eight he was passed by Ickx. After only ten laps, Beltoise came into the pits with a jammed gearbox, but there was not much that could be done about it and he rejoined the race minus fourth gear. All the while, Graham Hill was dropping back; on lap eleven he was passed by Brabham and not long afterwards Surtees also got past.

Stewart snatched the lead from Rindt on lap twelve and third place was now a Brabham scrap with Courage, Ickx and Brabham himself all having a go. Hulme was still struggling with his gear linkage problems and rejoined the race after two long stops. Among others in trouble was Pete Lovely, who had similar gear linkage problems, and Servoz-Gavin, who stopped twice to sort out wheel bearing trouble. On lap 21 Rindt regained the lead from Stewart and, although at first the Austrian led the Scot by a matter of a few feet, the gap gradually widened and widened until lap 35 when Stewart pulled into the pits to retire with an oil leak from the rear main bearing.

For a short while Ickx had got his Brabham ahead of Courage, but then the positions were reversed and the three Brabhams were still hounding each other round the circuit nose-to-tail. Although many laps behind, Hulme's McLaren was now running well – but it finally expired before the end of the race – and Rodriguez lost a lot of time by stopping to change all four wheels.

When Rindt lapped Surtees on lap 38, he was almost 40 seconds ahead of the second-place man and, unless something broke, a Gold Leaf victory was certain. Rodriguez was going very well after his stop and had soon moved up from tenth place to eighth by passing Beltoise and Eaton. The fight for second place lasted until lap 78, when Ickx rolled off the track with engine failure, and after another fifteen laps Courage was unchallenged for second place – Brabham was forced to pit to take on extra fuel.

Graham Hill's Lotus had disappeared out on the circuit when he spun because of a deflating tyre. The car would not fire on the starter and so Hill had pushed it and bump-started it. His seat belts were not done up and he only intended to do a couple of laps before bringing the car in to be checked over. After two laps, however, he spun again, the car hit the bank and overturned, while the unbelted Hill was thrown out. Hill suffered two broken legs and was lucky that the accident was not even more serious.

In the closing laps Rindt eased right off to conserve fuel and drove round in Brabham's slipstream. At the end of the 108 laps he took the chequered flag for his first-ever Grand Prix victory – a very pleasing victory for Rindt and Colin Chapman, but one that was marred by Hill's accident. Courage took his second place, 47 seconds behind, and for his drive in holding off the works Brabhams he won the BOAC 'Man of the Race' award. Hardly were the crowds dispersed before the mechanics were loading up the cars and spares on trucks ready to leave for Mexico City the following day.

UNITED STATES GRAND PRIX

Watkins Glen

5th October, 1969

Circuit length: 2.3 miles. 108 laps (248.4 miles). Weather: Dry and sunny.

1st, J. Rindt (Lotus 49B-Cosworth), 1 hour 57 min 56.84 sec (126.36 mph),

2nd, P. Courage (Brabham BT26-Cosworth), 1 hour 58 min 43.83 sec,

3rd, J. Surtees (BRM P139), 2 laps in arrears,

4th, J. Brabham (Brabham BT26-Cosworth), 2 laps in arrears,

5th, P. Rodriguez (Ferrari 312), 7 laps in arrears,

6th, S. Moser (Brabham BT24-Cosworth), 10 laps in arrears,

7th, J. Servoz-Gavin (Matra MS84-Cosworth), 16 laps in arrears.

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Fastest lap: J. Rindt, 1 min 4.34 sec (128.69 mph – race record).

Existing lap record: D. Hulme (McLaren M8B-Chevrolet 7-litre G7),
1 min 2.6 sec (132.27 mph).

Previous race lap record: J. Stewart (Matra MS10-Cosworth), 1 min
5.22 sec (126.96 mph).

Retirements: Lap 4: Siffert (Lotus), fuel injection system; Andretti (Lotus), rear suspension; lap 24: Oliver (BRM), engine; lap 26: Lovely (Lotus), universal joint; lap 36: Stewart (Matra), engine; lap 53: Hulme (McLaren), gear selector; lap 73: Beltoise (Matra), engine; lap 77: Eaton (BRM), engine; lap 78: Ickx (Brabham), engine; lap 91: Hill (Lotus), accident.

Mexican Grand Prix

There are few more popular circuits than the Magdalena Mixhuca course at Mexico City with a length of 3.107 miles and at a height of 7,300 feet above sea level. The first Grand Prix was held there in 1962. The following year it became a Championship round, and the only change made to the circuit since the 1968 race was that concrete ribs had been built into the verges to discourage drivers from mounting the low kerbs and cutting corners.

The entry was much the same as at Mosport and Watkins Glen, but John Miles had replaced Mario Andretti at the wheel of the Lotus 63 and several of the teams had flown their Ford engines back to Northampton for servicing by Cosworth. The engine of John Surtees' BRM was rebuilt in Mexico. There were no mechanical changes to any of the cars apart from the fitting of high altitude metering unit cams. Practice was divided into two sessions on the Friday and Saturday. The Brabhams seemed ideally suited to this circuit and Jack himself turned in a magnificent 1 min 42.9 sec, which was convincingly fastest of the first session. Ickx was second fastest in 1 min 43.6 sec, but he was out of action for much of the session. His Brabham stopped out on the circuit, a mechanic went out to the car and diagnosed transistor box trouble – John Surtees was flagged down, asked to report back to Brabham's pit and Hulme obliged by bringing out a spare box to the stricken BT26! Times were generally slower on Saturday, but Surtees blew up his engine during tyre tests and this meant an overnight engine change. Another to suffer a blow-up was Hulme, but the McLaren's engine was changed in time for him to re-appear during the practice session. Just before practice finished, Moser's only engine put a rod

through the side, but he managed to borrow a spare engine from the McLaren team. McLaren's car also needed a change because it was discovered to have two broken main bearing studs.

THE GRID

J. Ickx (Brabham) 1 min 43.6 sec	J. Brabham (Brabham) 1 min 42.9 sec
D. Hulme (McLaren) 1 min 43.7 sec	J. Stewart (Matra) 1 min 43.67 sec
J. Rindt (Lotus) 1 min 43.94 sec	J. Siffert (Lotus) 1 min 43.81 sec
J-P. Beltoise (Matra) 1 min 45.58 sec	B. McLaren* (McLaren) 1 min 44.75 sec
J. Surtees (BRM) 1 min 47.29 sec	P. Courage (Brabham) 1 min 47.23 sec
J. Oliver (BRM) 1 min 48.01 sec	J. Miles (Lotus) 1 min 47.76 sec
J. Servoz-Gavin (Matra) 1 min 48.74 sec	S. Moser (Brabham) 1 min 48.25 sec
P. Lovely (Lotus) 1 min 50.34 sec	P. Rodriguez (Ferrari) 1 min 49.46 sec
	G. Eaton (BRM) 1 min 52.3 sec

* Non-starter

Unfortunately, the field was depleted even before the race had started for, on the warming-up lap, McLaren's engine cut out and it was not until after the race had started that it was found that there was a piece of metal in the pressure relief valve – and this was the second race in succession that McLaren had failed to make the start

through sheer bad luck. Miles' Lotus 63 was misfiring badly, Moser's Brabham had developed its inevitable fuel leak – the tanks were topped up and there was nothing else that could be done at this late stage – and it was clear that these two cars had little chance of making it to the finish.

The start was very untidy. Brabham's engine would not pick up cleanly, Hulme had difficulty in engaging first gear and Stewart came through to take the lead from Ickx; at the end of the first lap these two led from Brabham, Rindt and Hulme and then there was a small gap before the next runners, Beltoise, Courage, Surtees and Rodriguez. Hulme passed Rindt to take fourth place on the next lap, while Miles came slowly into the pits. The 63 was suffering from fuel pump trouble, there was nothing that could be done about it and Miles did one more slow lap before retiring.

Siffert, who had been well back on the first lap, took ninth place from Rodriguez on lap two, took Surtees next time round and then started to fight it out with Courage. On lap four, Siffert out-braked Courage into the hairpin bend, but ran wide and was repossessed by the Brabham driver; he tried again at the next corner, but misjudged things and collided with Courage. Although Courage was able to continue, albeit at the tail of the field, Siffert had to retire his Lotus with damaged suspension and bodywork.

Ickx had now taken the lead from Stewart, and Hulme went ahead of Brabham and then passed Stewart to take second place. On lap seven, Eaton retired his BRM with gearbox trouble, and on this lap Hulme closed right up on the leader, while Stewart was having to struggle to stay ahead of Brabham and was passed on lap nine. Hulme took the lead on lap ten and Moser, whose Brabham was running well for once, went ahead of Surtees' BRM. The McLaren driver now began to draw clear of Ickx, and by lap 20 had a 3-second lead. Third, fourth and fifth were Brabham, Stewart and Rindt, but then at 22 laps the Austrian crawled into the pits to retire with a broken top front wishbone. Beltoise now held fifth place ahead of Moser, Oliver and Surtees.

At half-distance, Hulme led by six seconds, while Ickx, who was still struggling hard to stay with the McLaren, cut the corners time and time again and went all over the concrete ridges. Surtees was dropping further and further back and on lap 35 he was passed by both the Ferrari of Rodriguez and the four-wheel-drive Matra of Servoz-Gavin. It was not until lap 44 that Oliver was able to get past Moser. Poor John Surtees; after a completely unhappy race, his BRM finally succumbed to gearbox trouble on lap 54, while Moser, who had had one of his best drives of the season so far, was forced to stop for extra fuel only five laps before the finish. The fuel

leak was now so bad that the Brabham BT24 expired altogether after another two laps.

As the race drew to a close, Ickx still struggled to get to grips with Hulme, but Denny was in magnificent form and the young Belgian had to settle for second place, less than three seconds in arrears. With Hulme's domination of the race and the Brabhams second and third, the cars that had dominated racing for most of the season, the sleek blue Matras, were never really in the picture.

It can be argued that the best car of the season is that which wins the last race. Certainly Hulme's McLaren was not the fastest car of the year, but the cars from Colnbrook were among the best prepared and among the most consistent performers.

MEXICAN GRAND PRIX

Magdalena Mixhuca

19th October, 1969

Circuit length: 3.107 miles. 65 laps (201.94 miles). Weather: Warm and dry.

- 1st, D. Hulme (McLaren M7A-Cosworth), 1 hour 54 min 8.8 sec (106.15 mph),
- 2nd, J. Ickx (Brabham BT26-Cosworth), 1 hour 54 min 11.36 sec,
- 3rd, J. Brabham (Brabham BT26-Cosworth), 1 hour 54 min 47.28 sec,
- 4th, J. Stewart (Matra MS80-Cosworth), 1 hour 54 min 55.84 sec,
- 5th, J.-P. Beltoise (Matra MS80-Cosworth), 1 hour 55 min 47.32 sec,
- 6th, J. Oliver (BRM P139), 2 laps in arrears,
- 7th, P. Rodriguez (Ferrari 312), 2 laps in arrears,
- 8th, J. Servoz-Gavin (Matra MS84-Cosworth), 2 laps in arrears,
- 9th, P. Lovely (Lotus 49-Cosworth), 3 laps in arrears,
- 10th, P. Courage (Brabham BT26-Cosworth), 4 laps in arrears,
- 11th, S. Moser (Brabham BT24-Cosworth), 60 laps, not running at finish.

Fastest lap: J. Ickx, 1 min 43.05 sec (108.53 mph – record).

Existing lap record: J. Siffert (Lotus 49B-Cosworth), 1 min 44.23 sec (107.26 mph).

Retirements: Lap 4: Miles (Lotus), fuel pump; lap 5: Siffert (Lotus), accident; lap 7: Eaton (BRM), gearbox; lap 22: Rindt (Lotus), broken front wishbone; lap 54: Surtees (BRM), gearbox; lap 61: Moser (Brabham), fuel leak.

GRAND PRIX CHAMPIONSHIPS

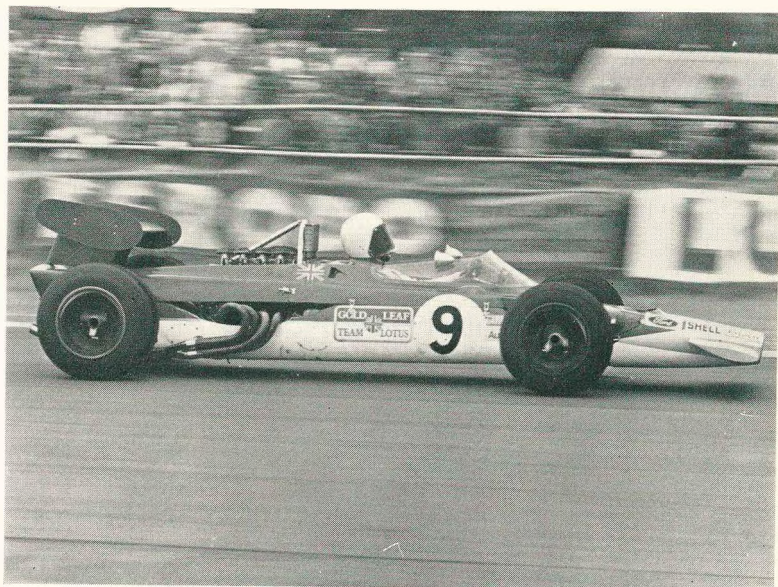
The Racing Formula

The present Grand Prix Formula is for cars of up to 3 litres un-supercharged and 1.5 litre supercharged. Minimum weight, without ballast, must be 500 kilogrammes. Commercial fuel is compulsory and cars must be fitted with self-starters. Except by special waiver of the CSI race distances must be not less than 300 kilometres and not more than 400 kilometres.

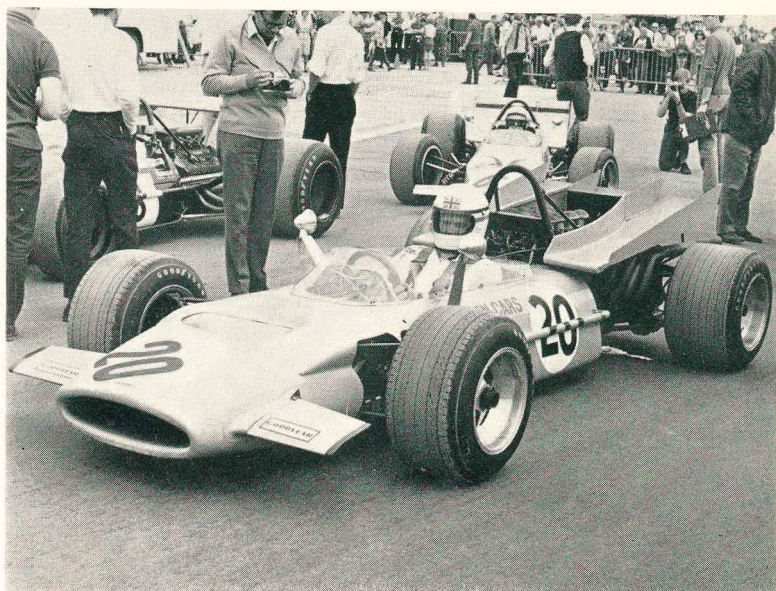
Drivers' World Championship

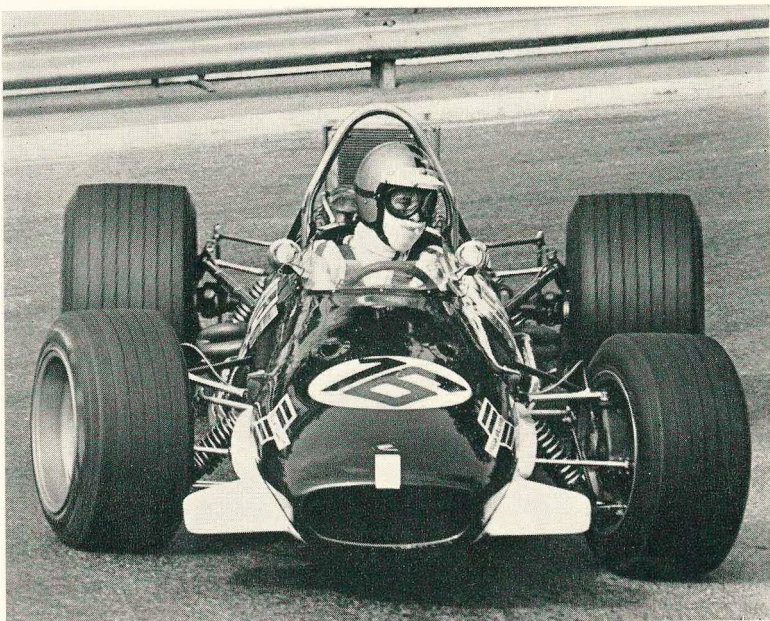
Championship points are awarded on the basis of first, 9 points; second, 6; third, 4; fourth, 3; fifth, 2; and sixth, 1 point. The season is divided into two equal sections. If there is an uneven number of qualifying events, the first section will contain one more event than the second section. Drivers may count the points obtained from all but one of the races in each section towards their total.

	<i>Points</i>
1st, J. Stewart (Matra) . . .	63
2nd, J. Ickx (Brabham) . . .	37
3rd, B. McLaren (McLaren) . . .	26
4th, J. Rindt (Lotus) . . .	22
5th, J-P. Beltoise (Matra) . . .	21
6th, D. Hulme (McLaren) . . .	20
7th, G. Hill (Lotus) . . .	19
8th, P. Courage (Brabham) . . .	16
9th, J. Siffert (Lotus) . . .	15
10th, J. Brabham (Brabham) . . .	14
11th, J. Surtees (BRM) . . .	6
12th, C. Amon (Ferrari) . . .	4
13th, { R. Attwood (Lotus) V. Elford (McLaren) P. Rodriguez (Ferrari) }	. 3
16th, { J. Servoz-Gavin (Matra) S. Moser (Brabham) J. Oliver BRM }	. 1

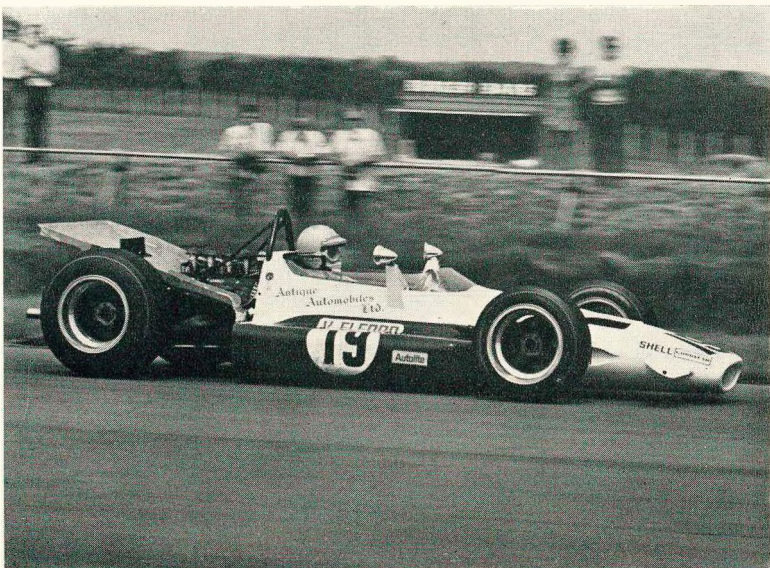


Above: Probably the most promising of the new four-wheel-drive Grand Prix cars is the Lotus 63, seen here with John Miles at the wheel. (Guy Griffiths). *Below:* At the British Grand Prix Derek Bell drove the new McLaren M9A four-wheel-drive car on its racing debut. (Guy Griffiths)





Above: Frank Williams' enterprising and risky plunge into Grand Prix racing with a BT26 Brabham has been more than justified by the fine driving of Piers Courage. Here Courage is seen in the Monaco race in which he took second place (Diana Burnett). *Below:* Until his serious crash in the German Grand Prix Vic Elford put up some fine performances with the McLaren belonging to Antique Automobiles. Here he is seen at Silverstone. (Guy Griffiths)



Manufacturers' World Championship

Points are awarded on the same basis as for the Drivers' Championship, the highest-placed car only of each make being eligible.

	<i>Points</i>
1st, Matra-Ford	66
2nd, Brabham-Ford	51
3rd, Lotus-Ford	44
4th, McLaren-Ford	47
5th, BRM	7
6th, Ferrari	7

5 The Non-Championship Races

Race of The Champions, Brands Hatch

Bleak, bitterly cold weather and a sparse entry characterised the 50-lap race at the Kent circuit and, mainly because of lack of time, the cars that had run in the South African race were unchanged. Stewart had the choice of the Kyalami-winning MS10 Matra and the new MS80 and decided to run the latter. The Lotus, Brabham and McLaren teams had the same cars as at Kyalami and BRM brought three of their V-12s – Surtees had the 48-valve P138 he had practised with at Kyalami, Oliver drove Surtees' South African race P138 and there was a P133 as a spare.

New runners were Piers Courage with the beautifully prepared Frank Williams' Brabham (superbly finished with a dark blue body and white aerofoils, the rear one split as on the works cars in certain 1968 races), American Pete Lovely with his ex-works Lotus 49 and Roy Pike with the ex-Racing Preparations Brabham BT23B with Climax 2.7-litre engine. Non-starters were the Ferrari team and the ancient ex-Bernard White V-12 BRM which was to have been driven by Peter Gethin.

Friday morning practice was marred by Surtees' crash with the BRM – the left-hand rear tyre punctured and the car slid off the road at around 80 mph. Although the car was severely damaged, Surtees escaped with a shaking, but was a non-starter. In the afternoon was the Indianapolis-style individual qualifying, but this was ruined by rain showers and a free-for-all sorting out session was allowed. Hill was fastest in 1 min 28.8 sec, thereby winning a hundred bottles of champagne presented by the *Evening News*. Fog ruined practice on the Saturday and a couple of drivers had failed to record any timed lap.

THE GRID

J. Siffert
(Lotus)
1 min 29.3 sec

J. Stewart
(Matra)
1 min 28.3 sec

G. Hill
(Lotus)
1 min 28.2 sec

J. Brabham (Brabham) 1 min 29.5 sec	J. Rindt (Lotus) 1 min 29.4 sec	
J. Oliver (BRM) 1 min 33.8 sec	D. Hulme (McLaren) 1 min 32.5 sec	B. McLaren (McLaren) 1 min 30.4 sec
J. Ickx (Brabham) 1 min 39.1 sec	P. Lovely (Lotus) 1 min 36.4 sec	
R. Pike (Brabham) No time	P. Courage (Brabham) No time	P. Rodriguez (BRM) No time

Roy Pike failed to make the grid because a replacement fuel pump could not be fitted in time. Stewart made a brilliant start, went straight into the lead and was never headed. On the first lap he was pursued hard by Hill and Rindt and then came Siffert, McLaren and Brabham, Oliver, Hulme and Rodriguez. At the end of that first lap Courage came into the pits for attention to his gear linkage. Next time round Hulme was ahead of Oliver and on lap three he was passed by Ickx. Out in front Stewart started to open up his lead, reducing the lap record to 1 min 28.0 sec and then 1 min 27.5 sec.

Already in trouble was Rodriguez, whose aerofoil had collapsed, necessitating a pit stop for it to be removed, Siffert whose car was down on power and handling badly and McLaren who stopped at the pits because his engine would not rev – after a further lap the transistor box was changed. When the leader was on lap 13, McLaren retired because the engine would still not rev and Ickx stopped at the pits with fuel pressure trouble. Team-mate Brabham's car was running fine and he had now closed right up on the two Lotus drivers, but then on lap 16 he dropped out with ignition trouble and a fuel leak. Next to go was Courage, who also had a fuel leak and whose Brabham was bottoming badly and Ickx' Brabham survived little longer. Hulme passed Siffert on lap 32 and then started to pull away from him rapidly, moving up into third place on the following lap when Rindt coasted out of the race with loss of oil pressure. Now there were only six cars left. Although Stewart eased off in the closing laps, letting Hill close up within seven seconds, and although the Matra suffered a broken exhaust pipe and change of exhaust note which falsely raised Lotus hopes, the Scot took the chequered flag for his second comfortable victory in three weeks.

RACE OF THE CHAMPIONS

Brands Hatch

16th March, 1969

Circuit length: 2.65 miles. 50 laps (132.5 miles). Weather: Dry and cloudy.

- 1st, J. Stewart (Matra MS80-Cosworth), 1 hour 13 min 10.4 sec (108.65 mph),
2nd, G. Hill (Lotus 49B-Cosworth), 1 hour 13 min 17.4 sec,
3rd, D. Hulme (McLaren M7A-Cosworth), 1 hour 14 min 8.3 sec,
4th, J. Siffert (Lotus 49B-Cosworth), 1 hour 14 min 26.7 sec,
5th, J. Oliver (BRM P138), 2 laps in arrears,
6th, P. Lovely (Lotus 49B-Cosworth), 4 laps in arrears.

Fastest lap: J. Rindt (Lotus 49B-Cosworth), 1 min 26.8 sec (109.91 mph – record).

Existing lap record: J. Siffert (Lotus 49B-Cosworth), 1 min 29.7 sec (106.35 mph).

Existing race record: B. McLaren (McLaren M7A-Cosworth), 1 min 31.6 sec (104.14 mph).

Retirements: Lap 11: B. McLaren (McLaren M7A-Cosworth), ignition; lap 17: P. Courage (Brabham BT26-Cosworth), fuel leak; lap 18: J. Brabham (Brabham BT26-Cosworth), fuel tank; lap 22: J. Ickx (Brabham BT26-Cosworth), sticking throttle; lap 31: P. Rodriguez (BRM P126), misfiring; lap 38: J. Rindt (Lotus 49B-Cosworth), oil pressure.

Daily Express Trophy, Silverstone

Between the Brands Hatch and Silverstone races there was sufficient time for the constructors to carry out modifications and a number of interesting developments were seen at the season's third Formula One race. Matra International again had the choice of MS80 and MS10 twin-winged cars for Jackie Stewart to drive and it was good to see Maranello present with two outside exhaust cars, both still with chassis-mounted rear acrofoils, for Chris Amon and Derek Bell; but, unfortunately, it seemed as though the great days of Ferrari were over, for the whole set-up was so slipshod and untidy that it looked like a second-rate amateur team running a couple of specials.

Bruce McLaren Motor Racing was the only team with a com-

pletely new car and *le patron* drove a rather hastily built car based on a modified M10A Formula 5000 monocoque with the usual M7A suspension, fuel tanks, wheels, etc. Suspension modifications were featured on the works Brabhams; Ickx' car had slightly changed geometry to make the steering lighter and Brabham's own car was fitted with longer wishbones and had a lower roll-centre. Since Brands Hatch Frank Williams' car for Piers Courage had been properly sorted and was now running very well. The Gold Leaf Team Lotus cars were unchanged, as were the private 49Bs of Rob Walker and Pete Lovely. The works BRMs non-started because of engine problems, but the old Tim Parnell P126 was driven by Rodriguez and to make up the field was Vic Elford with the Cooper-Maserati of Antique Automobiles. In practice Stewart with the MS80 was shatteringly fast and the Scot's best lap of 1 min 20.9 sec (over 130 mph) was too fast to be included in the speed table in the programme! But Jack Brabham, clearly benefiting by having Cosworth instead of Repco power, turned in a 1 min 21.0 sec that was equally startling and far faster than one could reasonably expect from this 42-year-old driver whose first European Grand Prix was the 1955 British event at Aintree! Appearances can be deceiving, although in motor racing they are usually not, and despite the deficiencies of the Ferrari set-up, Amon recorded a very good 1 min 21.1 sec.

THE GRID

J. Ickx (Brabham)	C. Amon (Ferrari)	J. Brabham (Brabham)	J. Stewart* (Matra)
1 min 22.5 sec	1 min. 21.1 sec	1 min 21.0 sec	1 min 20.9 sec
B. McLaren (McLaren)	J. Siffert (Lotus)	P. Courage (Brabham)	
1 min 23.2 sec	1 min 22.9 sec	1 min 22.9 sec	
P. Rodriguez (BRM)	G. Hill (Lotus)	D. Bell (Ferrari)	J. Rindt (Lotus)
1 min 26.8 sec	1 min 26.2 sec	1 min 24.1 sec	1 min 23.9 sec
D. Hulme (McLaren)	V. Elford (Cooper)	P. Lovely (Lotus)	
1 min 31.2 sec	1 min 30.8 sec	1 min 30.0 sec	
			J. Stewart (Matra)
			No time

* Non-starter.

Race day had dawned wet and as the team had no experience with the MS80 in a wet race, Stewart decided to drive his old MS10 car. As a result pole position on the grid was vacant, and the Scot occupied a lonely position on the back row. When the flag fell, the three Brabhams splashed their way straight into the lead and held it at the end of lap one from Siffert, Amon, Rindt, Bell, Hill, Hulme, Stewart and McLaren. Courage was trying to take second place from Ickx, but not having much success, and already Rindt and Amon were in trouble. The Austrian's car was misfiring badly and Amon's car was handling atrociously in the wet. While Hulme had come through on lap two to hold fourth place, Stewart had fought his way up to sixth, then passing without difficulty Siffert, who was another victim of handling problems. Rodriguez then got ahead of Siffert, and McLaren passed Bell's Ferrari. Both of the Maranello drivers were having a miserable time and Amon had fallen to the back of the field, where he was being harried by Elford's venerable Cooper-Maserati. On lap nine Amon came into the pits to complain of too much downthrust from his aerofoil; this was adjusted and he rejoined the race, but the Ferrari did not seem to be going any better.

Rindt's misfire cleared and the Lotus started to run really well at last; he galloped through the field in pursuit of Stewart, who in turn was chasing Hulme, the McLaren driver holding fourth place behind the three Brabhams. As Stewart overtook Hulme on the run-in into Woodcote on lap 16, the McLaren retired in a cloud of smoke with a con-rod through the side. Now that the track was drying out, Stewart, running on narrow rims, was unable to hold Rindt, who passed him on lap 20 and the Austrian then set off after the Brabhams. He caught the duelling Courage and Ickx on lap 25 when they were in the process of lapping another duelling pair, Hill and Rodriguez, and swept clean through the whole pack into second place.

Eleven laps later Stewart caught and passed Courage, whose feet were being burnt by the radiator, and after another two laps was ahead of Ickx. As he reeled the laps off, Rindt drew closer and closer to Brabham and on the very last lap the green and yellow car almost ran out of fuel, coughing and spluttering its way round Silverstone and Brabham coasted across the line to win by the narrow margin of 2.2 seconds. Although ruined by the weather as a motor race, the *Daily Express* Trophy gave the Brabham team a great deal of much needed encouragement and it was in fact Black Jack's first win since the 1967 Oulton Park Gold Cup.

'DAILY EXPRESS' INTERNATIONAL TROPHY RACE

Silverstone

30th March, 1969

Circuit length: 2.927 miles. 52 laps (152.10 miles). Weather: Wet.

- 1st, J. Brabham (Brabham BT26A-Cosworth), 1 hour 25 min 20.8 sec (107.0 mph).
- 2nd, J. Rindt (Lotus 49B-Cosworth), 1 hour 25 min 23.0 sec.
- 3rd, J. Stewart (Matra MS10-Cosworth), 1 hour 26 min 31.7 sec.
- 4th, J. Ickx (Brabham BT26-Cosworth), 1 hour 26 min 34.3 sec.
- 5th, P. Courage (Brabham BT26-Cosworth), 1 lap in arrears.
- 6th, B. McLaren (McLaren M7C-Cosworth), 1 lap in arrears.
- 7th, G. Hill (Lotus 49B-Cosworth), 2 laps in arrears.
- 8th, P. Rodriguez (BRM P126), 2 laps in arrears.
- 9th, D. Bell (Ferrari 312), 3 laps in arrears.
- 10th, C. Amon (Ferrari 312), 5 laps in arrears.
- 11th, J. Siffert (Lotus 49B-Cosworth), 5 laps in arrears.
- 12th, V. Elford (Cooper T86-Maserati), 5 laps in arrears.

Fastest lap: J. Rindt, 1 min 30.6 sec (116.3 mph).

Existing lap and race record: C. Amon (Ferrari 312), 1 min 25.1 sec (123.83 mph).

Retirements: Lap 2: P. Lovely (Lotus 49B-Cosworth), accident; lap 17: D. Hulme (McLaren M7A-Cosworth), engine failure.

Madrid Grand Prix, Jarama

Plans to run a full-scale Grand Prix on the Jarama circuit fell through because of a clash with other meetings the same weekend and so the entry list was extended to include Formula 5000 cars. The hoped-for entries from Lotus and Matra were not forthcoming, none of the more serious private teams were interested and in the end a grand total of eight cars appeared for practice. Even so, it proved a most enjoyable race for drivers and spectators alike and very reminiscent of the small Formula One races – such as the Bordeaux, Caen, Nice and Les Sables d'Olonne Grands Prix – that were once a characteristic feature of the French motor racing scene and ideal events for private owners.

The eight entries were:

Formula One: Tony Dean with the old ex-Bernard White V-12 3-litre BRM; Neil Corner with Colin Crabbe's Antique Automobiles' Cooper-Maserati.

The Motor Racing Year

Formula 5000: Peter Gethin with the Church Farm Racing McLaren M10A-Chevrolet 5-litre on fuel injection; Keith Holland with the Alan Fraser Racing Lola T142-Chevrolet; Robin Lamplough and Jock Russell with Lotus 43s (the type raced in 1966 with BRM H-16 engines) powered by 4.7-litre Ford V-8 engines; Max Mosley with his Lotus 59B-Cosworth FVA Formula Two car; W. Stone with a Brabham-Ford twin-cam bored out to 1850 cc.

When the cars moved off at the start, Dean slid sideways with spinning wheels, never having before made a racing start with this car, and went on to spin wildly at the first corner. It then took a little while for the field to sort itself out and the order became Holland leading from Gethin, who played at passing and repassing each other to amuse the crowd, Mosley and Dean fighting it out until the Formula Two car broke, Russell, and Corner, who was slowed by his Hewland gearbox jumping out of second. As the race drew to a close, Gethin forged ahead and looked all set for an easy victory when on the last lap the engine of the McLaren broke a con-rod. On this last lap Holland, who had been trying rather too hard to stay with the McLaren, spun off, but restarted to take the chequered flag a lap ahead of Dean's BRM.

MADRID GRAND PRIX (Formula 1 and Formula 5000)

Jarama 13th April, 1969

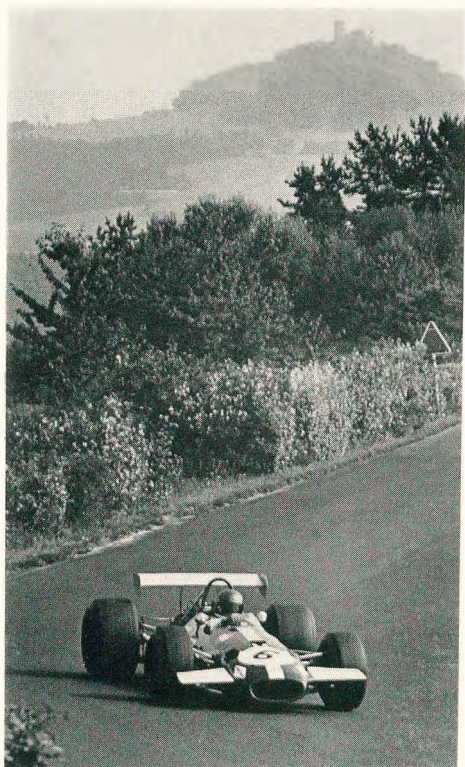
Circuit length: 2.13 miles. 40 laps (84.63 miles). Weather: Warm and sunny.

- 1st, K. Holland (Lola T142-Chevrolet 5-litre), 1 hour 3 min 29.8 sec (79.99 mph),
2nd, A. Dean (BRM 3-litre), 1 lap in arrears,
3rd, J. Russell (Lotus 43-Cosworth 4.7-litre), 2 laps in arrears,
4th, N. Corner (Cooper T86-Maserati 3-litre), 2 laps in arrears,
5th, W. Stone (Brabham-Ford 1.8-litre), 4 laps in arrears.

Fastest lap: P. Gethin (McLaren M10A-Chevrolet 5-litre), 1 min 30.9 sec (83.78 mph).

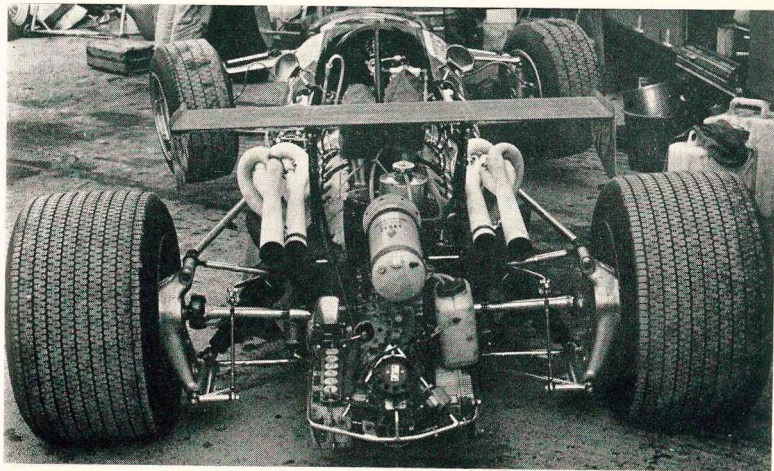
Existing lap record: J-P. Beltoise (Matra MS7-Cosworth F2), 1 min 28.2 sec (86.34 mph).

Retirements: Lap 1: R. Lamplough (Lotus), engine; lap 16: M. Mosley (Lotus), broken injector nozzle; lap 40: P. Gethin (McLaren), engine.



One of the most outstanding drivers of 1969 was Jacky Ickx who displayed the skill of a Moss or a Clark. Here he is in the German Grand Prix in which he scored a brilliant victory. (Nigel Snowdon)

Pugnacious – a rear end view of the V-12 Ferrari driven by Pedro Rodriguez in the British Grand Prix





The Matra International mechanics confer—a view of Stewart's MS80 and the MS84 four-wheel-drive car at Silverstone during practice for the British Grand Prix

Gold Cup Race, Oulton Park

The Mid-Cheshire MC's Gold Cup race at Oulton Park started in 1954 as a brave and worthwhile attempt to bring Grand Prix racing to the North of England. It probably attained its zenith the following year when the race attracted works entries from Maserati, Ferrari (with the beautiful V-8 Lancias), Connaught, Vanwall and BRM. Since then the race has been held as a Formula Two event on a couple of occasions and in 1969 a Formula 5000 class was included to make up the entry.

Jackie Stewart started to practice with the Matra MS84 four-wheel-drive car for the team had intended to use this race as a try-out for the new car, but he had only done a few laps when the engine broke; as it would have taken twelve hours to change the MS84's engine and Tyrrell had only a couple of mechanics on hand, Jackie immediately switched to an MS80 and with this he was fastest in practice with a time of 1 min 27.2 sec. Ickx had the choice of the two works Brabhams and was second fastest in 1 min 27.8 sec. The three Lotus Formula One entries had been reduced to one by the start. Gold Leaf Team Lotus had entered the two 63s for Hill and Rindt (the latter having apparently overcome his prejudice against four-wheel-drive cars), but after Andretti's crash at the Nürburgring only one could be fielded and this Rindt drove. He recorded 1 min 30.4 sec, while poor Graham Hill, having to make do with a Winkelmann Racing Lotus 59B Formula Two car, could do no better than 1 min 32.2 sec. Joakim Bonnier ran quite well in practice with his 49B Lotus, but something in the front suspension broke and he had another lurid crash, writing the car off, but not suffering himself. The two BRMs non-started and so the only other Formula One cars in the race were the ex-Bernard White BRM driven by Charles Lucas and the Brabham BT24 of Silvio Moser. One other Formula Two car ran, the Brabham of Alan Rollinson.

The Formula 5000 cars fell simply into two categories, the works TS5s of Andrea de Adamich and Trevor Taylor and the Lola-Chevrolets of Jackie Oliver (entered by Ulf Norinder), Mike Hailwood (Epstein/Cuthbert car), Mike Walker (Alan McKechnie car), Keith Holland (Alan Fraser Racing) and W. Forbes. Among the 5000s the fastest were de Adamich and Oliver, both of whom recorded 1 min 31.0 sec.

While all the other runners were moving down from the dummy grid to the starting grid proper, Jochen Rindt was still motoring round the circuit from the paddock to the start-line, and when he motored along the grass verge to take his place in the second row he found that Oliver had already edged forward from the third row to

take it. Ickx forged straight into the lead with Stewart in second place and then Rindt, de Adamich and Oliver. On lap two Stewart took the lead, Ickx was unable to stay with the Scot and already Rindt and the 63 were lagging behind. Forbes had crashed his Lola on the first lap and three laps later Oliver had a dramatic spin at Old Hall Corner, rejoining the race in last place, only to retire with an overheated engine. Stewart's Ford engine developed a misfire on lap 19 and while he went into the pits, Ickx went into the lead. The fault on the Matra was traced to a broken battery lead and he rejoined the race two laps adrift and, although he was right out of the picture, he put up a good display for the benefit of the crowd. Another casualty was Hill, who worked his way up to fifth place ahead of Hailwood's Lola, only to retire with a blown-up engine. Ickx took the chequered flag to win a rather dull race that had, if nothing else, demonstrated that Formula 5000 cars were vastly inferior to Formula One machinery in both speed and roadholding.

GOLD CUP RACE
(Formula 1 and Formula 5000)

Oulton Park

16th August, 1969

Circuit length: 2.761 miles. 40 laps (110.44 miles). Weather: Warm and dry.

- 1st, J. Ickx (Brabham BT26-Cosworth 3-litre), 1 hour 0 min 28.6 sec (109.57 mph),
- 2nd, J. Rindt (Lotus 63-Cosworth 3-litre), 1 hour 1 min 50.8 sec,
- 3rd, A. de Adamich (TS5-Chevrolet 5-litre), 1 lap in arrears,
- 4th, T. Taylor (TS5-Chevrolet 5-litre), 1 lap in arrears,
- 5th, M. Hailwood (Lola T142-Chevrolet 5-litre), 1 lap in arrears,
- 6th, A. Rollinson (Brabham BT30-Cosworth 1.6-litre), 2 laps in arrears,
- 7th, M. Walker (Lola T142-Chevrolet 5-litre), 2 laps in arrears,
- 8th, K. Holland (Lola T142-Chevrolet 5-litre), 2 laps in arrears,
- 9th, J. Stewart (Matra MS80-Cosworth 3-litre), 2 laps in arrears,
- 10th S. Moser (Brabham BT24-Cosworth 3-litre), 10 laps in arrears.

Fastest lap: J. Stewart, 1 min 28.6 sec (112.19 mph - record).

Existing lap record: C. Amon (Ferrari 312) and J. Stewart (Matra MS10-Cosworth), 1 min 30.0 sec (110.44 mph).

Retirements: Lap 1: W. Forbes (Lola), accident; lap 5: C. Lucas (BRM), electrics; lap 13: J. Oliver (Lola), overheating; lap 35: G. Hill (Lotus), engine.

Reliability of Grand Prix Cars

	Brabham		BRM		Ferrari		Lotus		Matra		McLaren	
	S	F	S	F	S	F	S	F	S	F	S	F
South African	2	+	2	+	1	-	3	+	2	2	+	2
Spanish	2	+	1	+	1	+	2	+	1	2	+	2
Monaco	2	+	2	+	1	-	2	+	1	2	+	2
Dutch	2	+	2	+	1	1	2	+	1	2	+	2
French	1	+	2	+	1	1	2	+	1	2	+	1
British	1	+	1	+	1	2	3	+	1	2	+	1
German	1	+	1	+	1	-	3	+	2	3	+	1
Italian	2	+	2	+	1	1	3	+	2	2	+	1
Canadian	2	+	2	+	1	2	3	+	1	2	+	2
United States	2	+	2	+	1	3	3	+	2	2	+	1
Mexican	2	+	2	+	1	2	2	+	2	3	+	1
Finishers (%)	50%		28%		45%		44%		76%		62%	

S Starters.

* Classified, but not running at the finish.

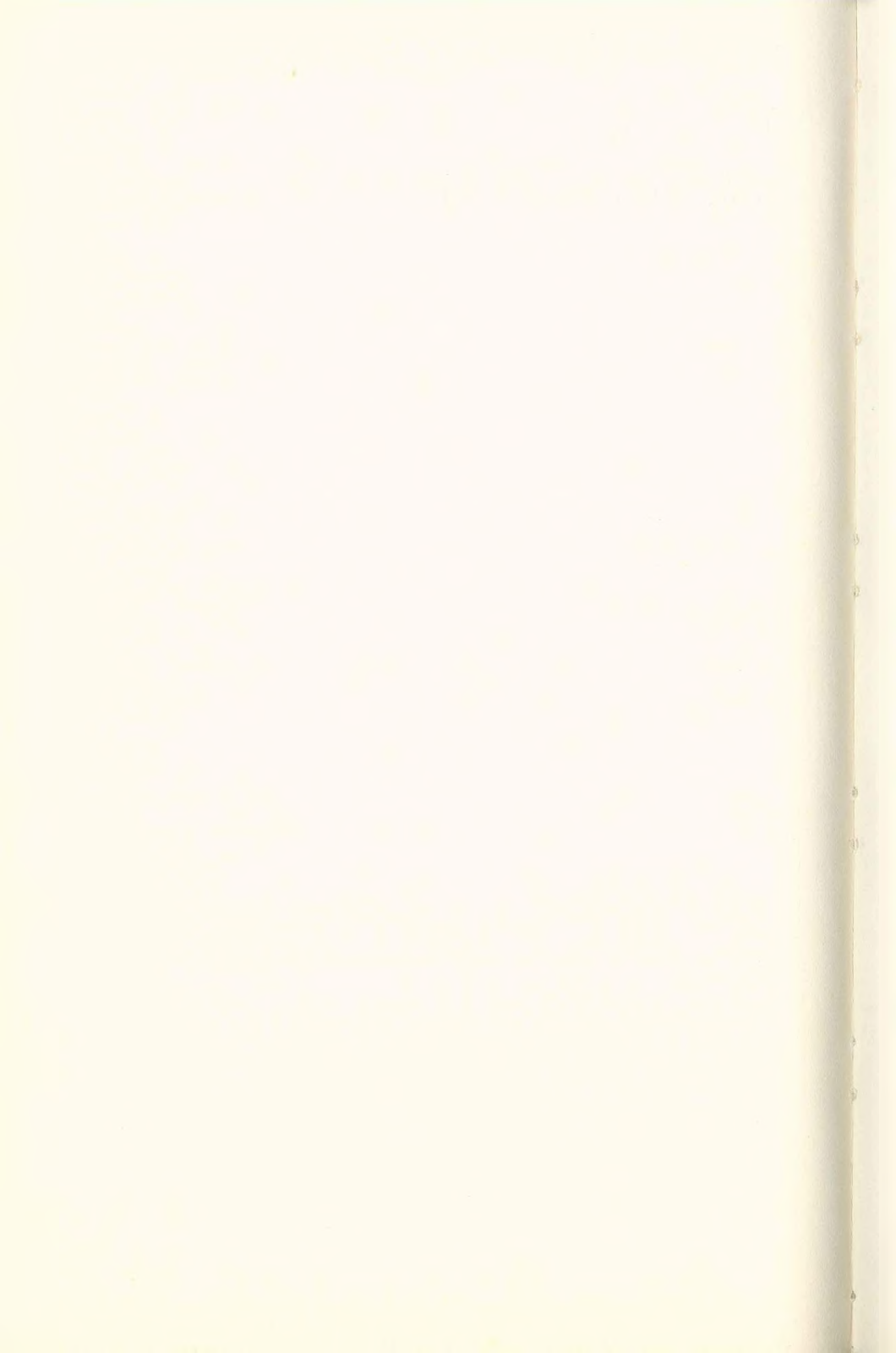
F Finishers.

† One of the cars classified as above.

2 + 2 Works cars + private cars. ‡ Running at the finish, but unclassified.

Part Two

The Sports Car Year



6 The Cars and Teams

If one may in a motor racing book use the term in its imbibing sense, 1969 was a Vintage Sports Car Year. The favourite almost always won, but had to fight hard for victory and then at the climax of the season stumbled and fell. In terms of results Porsche was all-dominant, but the Ferraris – and several times just a solitary car was entered by Maranello – put up a magnificent fight and if Porsche had not the services of Jo Siffert, the new 312P would have won at least one race. The vast Porsche onslaught failed at Le Mans and the outdated, but superbly prepared, Ford GT40 scored a surprise and magnificent victory after a neck-and-neck duel in the closing laps. And to add spice to these ingredients there were the excitable French Matras, the new and unpredictable J.W. Automotive Mirages, the plodding Alpines and the fragile Alfa Romeo 33s. In historical perspective 1969 will prove to have been as great a sports car year as 1953 when Jaguar won at Le Mans and Ferrari almost everywhere else.

Porsche

The Stuttgart concern's expenditure on their Sports Car Programme was enormous and their budget may well have been the highest in the history of motor racing. During 1968 Porsche team management was on occasions rather chaotic in the absence of Huschke von Hanstein and to remedy this situation Rico Steinemann, editor of the Swiss magazine *Powerslide* and a very experienced driver of privately entered Porsches, was appointed team manager. In January, 1969, at Hockenheim he and von Hanstein – the latter was deputising for Ferry Porsche – revealed, with one major omission, the cars to be raced by Porsche System Engineering in 1969.

Heading the team's attack was the 908 8-cylinder car which had first raced in the 1968 Monza 1000 kilometres event. The engine was, like all Porsches, an air-cooled horizontally opposed unit with

a capacity of 2,996 cc (85 × 66 mm). Twin overhead camshafts per bank of cylinders were featured. This design had been produced to take advantage of the new Group 6 Prototype regulations that came into force for 1968 and limited capacity to 3 litres. Earlier Porsches, including the 6-cylinder 2-litre 906 and 910 and 8-cylinder 2.2-litre 907 had scored outright victories in the slower, difficult races such as the Targa Florio and Nürburgring 1000 Km events, but the new car was the first to give Porsche a good chance of victory anywhere, any time. As it happened, it proved to be very evenly matched with the Group 4 GT40s of the J.W. Automotive organisation which, under the new regulations, it raced against.

The 1968 version of the 908 developed 310 bhp at 8,000 rpm and the car had been raced only in coupé forms. For the present season output had been boosted to 350 bhp at 8,400 rpm on a compression ratio of 10.4 : 1 and there were now three versions. The *Normal* coupé with a length of 13 ft 1.48 in and weighing 12 cwt 108 lb was generally similar to the 1968 cars and had a maximum speed of 185 mph. For the very fast circuits there was the *Lang* coupé with a length of 15 ft 10 in and weighing 13 cwt 40 lb – this was claimed to be capable of 200 mph. Finally there was the new *Spyder*, a short, compact, manx-tail open car made possible by changes in the Regulations for 1969 which dispensed with minimum windscreen heights and ground clearances. This version, intended for the more tortuous courses, had a length of 13 ft 2.7 in, a weight of 12 cwt 42 lb and a claimed maximum speed of 175 mph. All 908s have a wheelbase of 7 ft 6.55 in, the coupés a 5-speed gearbox and the *Spyder* a 6-speed. In addition, now that the minimum production for Group 4 Competition Sports Cars had been reduced to 25, the old 910 6-cylinder car with twin overhead camshafts per bank of cylinders was homologated and these cars were run by a large number of private owners.

The car not revealed at Hockenheim was the monster 917 which appeared at the Geneva Show in March. It was this car – together with Ferrari's 1970 Tipo 512S 5-litre model – that have upset the apple cart in Sports Car racing. When the CSI imposed a 3-litre Prototype limit for 1968, they permitted Group 4 sports cars up to 5 litres on the basis of a minimum production of 50, thereby letting all the people who owned Ford GT40s go on racing them and making life tolerable for such manufacturers as Lola. For 1969 the minimum production figure was reduced to 25 and, although no one expected it, made it possible for a manufacturer of vast financial resources to go ahead and build a batch of 25 5-litre cars which he could then race against 3-litre cars that were no more technically advanced. If Ferrari had done this in 1969, sports car racing would

have become a Maranello procession, but, happily, Porsche are somewhat less skilful in road-holding matters (they borrow most of their suspension designs from British Grand Prix constructors) and the 917 handled like an elephant on a skid-pan when it was first raced.

Basis of this gargantuan car is a flat-12 4495 cc engine developing in its original form 520 bhp (DIN) at 8,000 rpm – by Le Mans this had been increased to about 585 bhp. Transmission was by a 5-speed gearbox, the car was only 3 ft high and it could be raced with long or short tails. Porsche blithely quoted an ex-factory price of £14,000 and built a batch of twenty-five for inspection by the F.I.A.'s representatives. After they had been homologated, the cars were pulled apart and rebuilt. In the early days the handling was really atrocious and it was only on the billiard-table surfaces of Le Mans that the 917s got into their stride. Quite what speed they were achieving is arguable, but it seems that it was in excess of 230 mph. During the Championship year the only 917 to pass into private hands was that which John Woolfe crashed at Le Mans and it was not until the Austrian Grand Prix that the 917 scored a victory. Only Jo Siffert could really tame the beast (shades of Mike Hawthorn and the Ferrari Monza) and the Gulf-Porsche team of 917s in 1970 may well prove an over-rated menace.

Clearly the Porsche team's best card was the 908 *Spyder*, which was a superbly handling, highly accelerative beast and it is significant that at Le Mans where the ability to reach a high cruising speed quickly is all-important Jo Siffert elected to drive a *Spyder* rather than a 917. Without doubt Siffert is the consistently fastest sports car driver in the world at the present time. 'Sepi' was the star of a fine team of drivers. Brian Redman has a great future ahead of him in single-seater racing. Dickie Attwood is quick, but under-rated, Vic Elford has shown brilliance in both sports car racing and rallies and considerable skill at the wheel of a single-seater, while Hans Herrmann is a great fighter. When he battled so gallantly with Ickx's Ford in the final laps of Le Mans, did he perhaps recall the days, back in 1954, when he too was an up-and-coming Formula One driver and set fastest lap in the French Grand Prix on the debut of the Mercedes-Benz W196?

After Le Mans Porsche pretended to cut down on their racing activities and cars were entered in the name of their Porsche subsidiary and private owners, but they did not fool anybody, even themselves.

Ferrari

After withdrawing from Prototype racing when the FIA changed the rules at short notice and made his beautiful P4 4-litre cars redundant, Ferrari returned to the scene in 1969 with the new 312P which was based on a combination of his Grand Prix experience and the car he had raced in the 1968 Can-Am series. The heart of the new car was the usual 3-litre V-12 Grand Prix engine claimed to develop 420 bhp at 9,800 rpm – which despite being set up for 24 hour reliability, was 18 bhp more than the 1968 Grand Prix variant. The reasons for this increased output were the 1969 improved camshaft design and revised exhaust layout. As with the Grand Prix cars, the chassis was a combined monocoque and tubular structure and the superb-looking wedge-shaped body, the work of aerodynamicist Ing. Caliri, was originally constructed in aluminium, but later cars had glass-fibre bodywork. Suspension was similar to that of the 1968 Can-Am car with, at the front, upper and lower A-brackets, coil spring/damper units and anti-roll bar and, at the rear, single upper arms, reversed lower A-brackets, coil spring/damper units and anti-roll bar. Transmission was by a 5-speed gearbox in unit with the final drive and the wheels were Ferrari 15-in alloy.

The principal dimensions of the 312P were: Wheelbase: 7 ft 9.3 in; front track: 4 ft 10.4 in; rear track: 4 ft 11 in; length: 13 ft 10.5 in; width: 6 ft 5.9 in; height (to roll bar): 2 ft 11 in; weight: 1,500 lb.

In Sports Car racing in 1969 Ferrari made exactly the same mistake as he had in Grand Prix racing – in hoping to beat the full might of the Porsche team with one or two cars. The 312P did not run until Sebring, only appeared in a total of six races and in only two of these did Ferrari field two cars. Certainly the 312P had the legs of the 908 Porsche on both slow and fast circuits and, but for the presence of Jo Siffert, could have defeated the German cars in both the Monza and Spa races. At Monza the Ferraris were overdriven in their efforts to stay with Siffert and at Spa neither Rodriguez nor Piper could match his lap times. For Le Mans Ferrari produced beautiful coupé tops for the 312Ps and these were the prettiest cars to grace the sports car scene since Maranello's own P4 model of 1967. After Le Mans Rodriguez drove one of the cars in the Can-Am series.

Although none was raced by the works and they failed to feature to the fore, the 2-litre Dino was homologated in Group 4 as a Competition Sports car for 1969.

In 1970 Ferrari will be racing the Group 4 5-litre 512S and now

that the organisation is a full member of the Fiat set-up, Maranello's racing efforts are likely to be much more determined. It is also firmly asserted in Italy that Ferrari has a new 2-litre Group 5 car – in 1970 the old Group 4 is known as Group 5 – on the stocks.

J.W. Automotive

In the face of what were apparently overwhelming odds, John Wyer and the J.W. Automotive Engineering team which he runs jointly with John Willment have achieved phenomenal success during the years 1968–69. As with Ken Tyrrell's Matra International team the keynote of J.W. success is efficiency. Efficiency in carefully developing, modifying and preparing the cars, efficient race organisation and the careful choice of drivers. John Wyer is a man of vast experience who commands respect at all levels of motor racing.

John Wyer was born at Kidderminster in 1908 and his pre-war experience included an apprenticeship with the Sunbeam company and the Solex carburettor company, with whom he stayed until after the war. In 1947 he joined the Monaco Engineering Company at Watford, Herts, a concern deeply involved in motor racing, and there he developed the lightweight racing version of the HRG – a car that looked rather like a motorised beer barrel.

When Monaco was taken over by a Vauxhall-Bedford dealer, Wyer had to move on and in 1950 he was appointed by David Brown on a temporary basis as a development engineer at Aston Martin. Within three months the appointment became permanent and he stayed for thirteen years, rising to become Technical Director and General Manager of Astons. During his time at Astons he was closely associated with many of the then leading drivers, including Reg Parnell, Stirling Moss, Peter Collins, Roy Salvadori, Stuart Lewis-Evans, Tony Brooks and Carroll Shelby. The basis of all Aston Martins from 1949 was the 2.6-litre twin-cam engine which had been designed by W. O. Bentley and basically it was a touring unit, never intended for racing or for enlargement. From the original DB1 of 1949–50 was developed the elegant 3-litre DB3S, which was a superb handler, but very fragile – even so it was second at Le Mans in 1955, 1956 and 1958.

In 1954 came the V-12 4½-litre Lagonda – a doubled-up version of the DB3S that was a ghastly failure – and in 1956 appeared the revamped DBR1. It was this model that won the Nürburgring 1,000 Km race three years in succession (1957–59), at Le Mans in 1959 and the Sports Car Championship the same year. Aston Martin had designed and built a Grand Prix car in 1957, but this was not

raced until 1959, by when conventional front-engined cars had already been outdated by the Cooper-Climax. Aston Martin withdrew from the Grand Prix scene in mid-1960. Thereafter Aston racing activities were limited to racing the DB4GT production model and the 212 and 215 GT Prototypes that appeared at Le Mans in 1962 and 1963.

In 1963 Ford decided to enter Prototype racing and Wyer was offered the job of Project Manager with the new set-up. He accepted and set up a new factory at Slough, where technical chief was Eric Broadley of Lola and many of the mechanical staff were ex-Aston men. In late 1964 Broadley left, but Wyer continued to run Ford Advanced Vehicles until the end of 1966. FAV built the fifty GT40s required for homologation and after the racing side was moved back to the States, survived until October, 1966.

At this time the two Johns, Wyer and Willment, founded J.W. Automotive, an organisation that was intended to continue full customer facilities for the GT40. Anxious to stay in racing, Wyer persuaded the Gulf Oil company to back a new project and this was quite an achievement for Gulf had not been involved in racing since sponsoring Indianapolis cars in the 'thirties. The new car was called the Mirage, a name that was chosen because it sounded right in almost any language. The Mirage, designed by Len Bailey, who left to work with Alan Mann Racing, was GT40 based, but with 5 and 5.7 litre engines and a new and lighter body with a very distinctive 'greenhouse.' In 1967 these cars were victorious at Spa, Montlhéry and Kyalami.

When the FIA introduced the new Group 4 and 6 regulations for 1968, Gulf continued to back J.W. Automotive and the team's distinctive blue and orange GT40s, raced later in the season with 5-litre Gurney-Westlake engines, won at Monza, Spa, Watkins Glen and Le Mans and won the Sports Car Manufacturers' Championship - which was more than Ford achieved themselves during any one season of racing. John Wyer would be the first to admit that racing manager David Yorke, of Vanwall fame, contributed much to these successes.

During 1968 work had been progressing steadily on a new Group 6 Mirage Prototype designed by Len Terry, the free-lance designer whose efforts have included the original Group 6 Alpine chassis, the P126 BRM and John Surtees' TS5 Formula 5000 cars. A testing crash at Snetterton with Robin Widdows at the wheel prevented the Mirage appearing during 1968 and it eventually made its race debut at the 1969 BOAC '500' event.

Basically, the Mirage M2 (so-called to distinguish it from the 1967 car) is a conventional monocoque structure with Grand Prix-style

suspension front and rear. It was designed to comply with 1968 Group 6 regulations which, because of the minimum windscreen height, made coupés the most practical proposition. Even before the car was raced Wyer knew that the power unit, the V-12 BRM, was uncompetitive. Furthermore, the car has never handled very well and during the season various attempts were made to improve the roadholding – at Watkins Glen the Mirage appeared with the anti-dive eliminated. Systems to improve handling by preventing nose-dive under braking were incorporated in the 917 Porsche, the 312 Ferrari and the Mirage, but all had these removed during the season. Clearly, a snag with ‘anti-dive’ is a loss of driver’s reaction to what is happening at the front end.

To counteract the deficiencies of the BRM unit, Mirage built a car with the Cosworth DFV Grand Prix engine. Whereas the BRM 24-valve engine is very much a sports car unit in conception and was originally intended for general sale, the DFV is essentially a Grand Prix engine and by long-distance sports car standards has only ‘sprint’ reliability. At the Nürburgring Wyer had the use of a 48-valve BRM unit, but this did not help matters much and for Le Mans he relied on the Ford GT40s. These superbly prepared, fantastically reliable cars have now covered an enormous racing mileage and the car that defeated the might of Porsche at the Sarthe circuit had already won the race in 1968. By Watkins Glen the Mirage had been rebuilt as an open car and it eventually scored its first victory at Imola with Jacky Ickx at the wheel.

One of Wyer’s strongest cards was his team of drivers, for Ickx is brilliantly fast and can jump into anything and drive it quickly with confidence, while Oliver, Hobbs and Hailwood are a steady, consistent and completely reliable trio. Wyer intends retaining the Mirages for 1970 to race from time to time instead of the 917 Porsches with which the team has been entrusted by the works. It may well be that he will find himself with serious problems with both. The principal dimensions of the Mirage are: *Wheelbase*: 7 ft 10 $\frac{3}{4}$ in. *Front track*: 5 ft 11 $\frac{1}{4}$ in. *Rear track*: 6 ft 4 $\frac{1}{2}$ in. *Weight*: 1,650 lb (open). *Overall Length*: 13 ft 9 $\frac{1}{2}$ in. *Overall height* (open): 2 ft 8 in.

Matra Sports

Matra’s career in Prototype racing has been very chequered. The team entered this category in 1966 with the 620 cars that had a chassis inspired by their Formula Three experience, odd angular, but aerodynamically efficient bodywork (the style is incorporated in Matra’s production, road-going 530 model) and BRM V-8 2-litre engines that were looked after by BRM mechanics. For 1967 the team produced the 630, a car of even more aerodynamic lines and

powered by the central-exhaust 245 bhp BRM engines. These cars were fantastically quick, but again unreliable. Another development in 1967 was the Ford 4.7-litre powered car. A 1966 type 620 car ran at the 1967 Le Mans Test Weekend with the Ford engine and in that year's Paris 1,000 Km race appeared a new 630 car with the 4.7 litre engine. It took the lead only to retire with gearbox failure. During 1968 Matra efforts were largely concentrated on the development of the V-12 Grand Prix cars, but Johnny Servoz-Gavin drove the Ford-powered car in a number of minor French races. At a rather late stage Matra decided to field a V-12 powered car at Le Mans – and this came very close to winning the race.

1969 saw a complete reversal of Matra policy, for with Grand Prix racing entrusted solely to Ken Tyrrell, the team from Vélizy concentrated on Prototype racing with a view especially to doing well at Le Mans. Although the team is a member of a very large industrial complex, it works well in a friendly and closely-knit atmosphere. The Prototype section is headed by Gerard Ducarouge, a dynamic young man, with a delightful personality. He is on excellent terms with everyone from the mechanics to the drivers and he is exceedingly capable. This side of Matra affairs could not be in better hands.

All the 1969 Matra Prototypes were powered by the team's V-12 engine, which is a 60-degree 2,999 cc (79.7×50 mm) design with twin overhead camshafts per bank of cylinders, single-plug ignition, Lucas indirect fuel injection and a claimed power output of 420 bhp. Transmission is by a ZF 5-speed gearbox.

There have been several different variations on the Matra Prototype theme:

- 630: This is the original 1967 coupé powered by the 3-litre engine and as raced at Le Mans in 1968 with a longer tail. It features a multi-tubular frame similar to that of the original 620 and classic Grand Prix suspension of a type similar to that of the MS7 Formula Two cars. The main dimensions of the 630 are: *Wheelbase*: 8 ft 0.6 in. *Front track*: 4 ft 7.12 in. *Rear track*: 4 ft 7.51 in. *Length*: 15 ft 7.87 in. *Width*: 5 ft 8.90 in. *Weight*: 1,742 lb.
- 640: The new coupé for 1969 with a body designed by Matra's aerodynamicists in the space development section. This car crashed during a testing session at Le Mans with Henri Pescarolo at the wheel and was never raced.
- 650: A brand new car for 1969 with a new Spyder body and a new multi-tubular chassis with suspension similar to that of the MS80 Grand Prix car. Only one of these cars was built.

630/650: An interim car for 1969 which combined an existing 630 chassis with the 650 Spyder body.

The 1970 car is the new 660 monocoque Spyder with the improved V-12 engine.

Matra's racing efforts in 1969 were largely frustrated because the cars were insufficiently fast to match Ferrari and Porsche lap times. At Le Mans, three of the four cars entered survived and could well have been in the hunt at the finish if they had not been delayed by minor mechanical troubles. The team was also very upset that Servoz-Gavin should have crashed whilst leading the Austrian race. Although Matra are continuing their efforts in 1970, they feel aggrieved by the present sports car rules which mean that they have to race against 5-litre cars.

Apart from these four, all the teams engaged in Sports Car racing were also rans, but their efforts – especially those of the small Chevron concern – are worth considering, albeit briefly.

Autodelta

The Alfa Romeo-sponsored Autodelta team had a very unhappy season in 1969. Autodelta, which has ex-Ferrari man Carlo Chiti as General Manager and ex-racing driver Roberto Bussinello as Racing Manager, was set up in December, 1964, to put Alfa Romeo's name back on the motor racing map. In 1967 the team produced the V-8 2-litre Alfa Romeo 33 model, which was raced without success and was succeeded the following year by a new coupé version known as the 33-2. This performed well at Daytona, in the Targa Florio and at Le Mans. For 1969 the 33-2 was homologated as a Group 4 Competition Sports Car and this 260 bhp model has continued to be raced by both the works and the Belgian Racing Team VDS. Both teams have also raced 2.5-litre versions.

The main dimensions of the 33-2 are: *Wheelbase*: 7 ft 4.58 in. *Front track*: 4 ft 5.15 in. *Rear track*: 4 ft 10.89 in. *Length*: 15 ft 1.1 in. *Width*: 5 ft 7.32 in. *Weight*: 1,731 lb. The chassis of the 33-2 is a unique structure based on large-section tubular members which also form the fuel tanks and transmission is by a 6-speed gearbox.

For 1969 Autodelta produced the new 3-litre (86 × 64 mm) Tipo 33-3 Prototype with open bodywork constructed in glass-fibre and a conventional monocoque chassis. The engine had been completely redesigned and developed 408 bhp at 8,500 rpm. These cars failed because of a technical fault on their debut at Sebring, Lucien Bianchi was killed driving one at the Le Mans Test Weekend, they ran mainly in minor events and were both hopelessly

The Motor Racing Year

unreliable and not particularly competitive. Nevertheless, Autodelta continue to race these cars in 1970 after valiant efforts to make them both faster and more reliable.

Alpine

This Renault-financed concern based on Dieppe and headed by Jean Rédélé, one-time rally driver, has been competing in Prototype racing since 1963 and has always used Amédée Gordini-designed twin overhead camshaft engines. The basic design was the A-210, with a multi-tubular chassis by Len Terry and in sizes ranging from 992 to 1,470 cc achieved a brilliant reputation at Le Mans. The cars were exceedingly fast for their size and were regular winners of their class and the Index of Performance.

At the 1967 Paris 1,000 Kilometres race appeared the first of the 3-litre cars, a strengthened A-210 with a new 90-degree engine designed by Gordini and typed the A-211. This prototype was followed in 1968 by the A-220, an outwardly similar, but generally improved car and this model is still raced by Société des Automobiles Alpine. The V-8 Gordini engine has a capacity of 2,996 cc (85 × 66 mm) and develops 320 bhp at 8,000 rpm. Its prime merit lies in its very compact dimensions and it is insufficiently powerful for the Alpine to present a serious challenge in International racing.

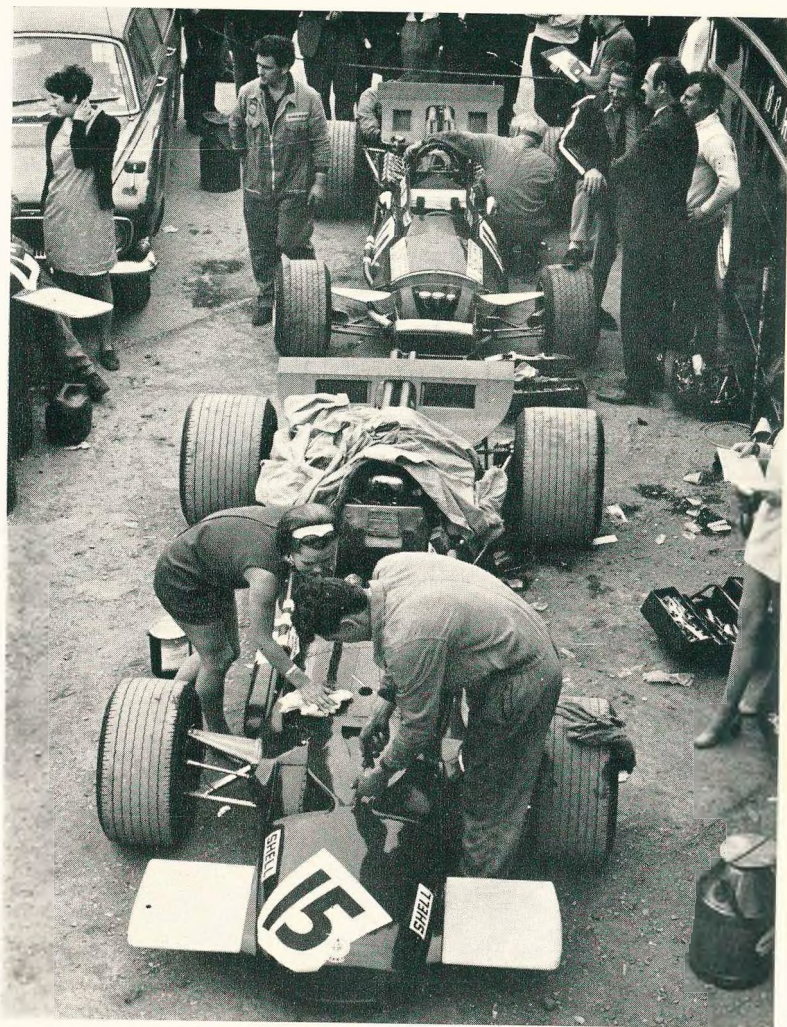
The main dimensions of the A-220 are: *Wheelbase*: 7 ft 6.55 in. *Front and rear track*: 4 ft 4.76 in. *Length*: 15 ft 2.68 in. *Width*: 5 ft 6.54 in. *Weight*: 1,786 lb.

Abarth

This Italian concern had produced a very satisfactory 2-litre Prototype which for 1969 was homologated in Group 4. In addition during 1969 there was raced an 180 mph rather fragile, wedge-shaped 2,968 cc (88 × 61 mm) Group 6 car with a power output of 350 bhp at 8,200 rpm. It features a tubular chassis and a 5-speed gearbox. The main dimensions are: *Wheelbase*: 7 ft 4.98 in. *Front track*: 4 ft 7.31 in. *Rear track*: 4 ft 7.24 in. *Length*: 13 ft 2.7 in. *Width*: 5 ft 10.08 in. *Weight*: 1,296 lb.

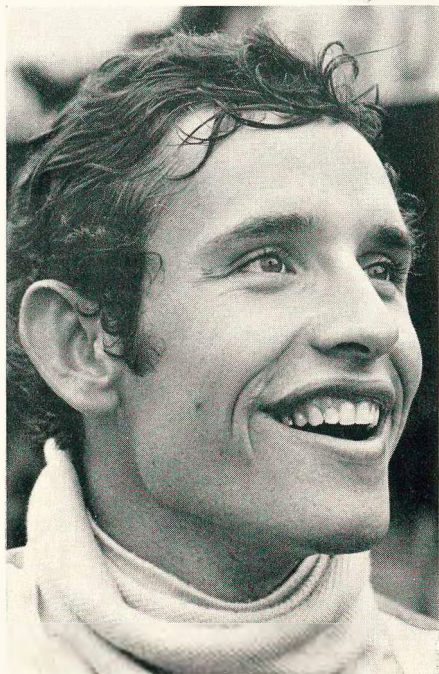
Lola

Eric Broadley's Lola T70 coupés have been racing since 1967 when John Surtees was struggling to make the V-8 Aston Martin-powered



Despite missing the French race to concentrate on development work and despite the presence of the 'dollies', the British race provided yet another disappointment for the disorganised and disheartened BRM team

Long hair and corduroy cap make portraits of Stewart difficult but this is a good effort by Nigel Snowdon



Jackie Ickx – if the flat-12 Ferrari goes well – is likely to provide a strong challenge to Ford power in 1970.
(Nigel Snowdon)

cars raceworthy and most of the cars raced in 1969 were no more reliable. Early in 1969 Sid Taylor, one of the leading entrants of these cars, told the writer that the latest T70 Mk 3B was now reliable enough to survive a twelve-hours' race, but, unfortunately, this was not the case. These sleek mid-engined monocoque coupés, which like the GT40 were homologated in Group 4 for 1968, suffered from two serious weaknesses. Firstly, the power unit, the 5-litre V-8 push-rod Chevrolet, is hopelessly unreliable, be it tuned by Traco, Bartz or anybody else and whenever this is pointed out to General Motors their answer is, in effect, 'it's nothing to do with us, we don't enter motor racing.' Secondly, the cars have suffered from disturbing suspension failures – cracked wishbones plagued the cars in the BOAC '500' race and all the entries at Le Mans except the strengthened Scuderia Filipinetti car were withdrawn. Except for British short-distance races, the days of the Lola T70 are over. The model's only major victory, at Daytona, was by default and the winning car spent $1\frac{3}{4}$ hours in the pits!

Chevron

Derek Bennett of Bolton produced a real winner when he built his first Chevron GT in 1966. During 1967–68 these sleek coupés scored innumerable successes in British races and 1969 saw the B8 BMW-powered cars perform creditably in major International races. Basis of the Chevron is a multi-tubular frame with steel sheet boxed-in centre-section and Grand Prix-style wishbone and coil spring front and rear suspension. The body is a superbly-styled glass-fibre fixed head coupé, transmission is by Hewland and the power unit is the much modified BMW 4-cylinder 2-litre push-rod developing 190 bhp. Clearly this unit was not powerful enough to beat the Alfa 33s and Porsche 910s that Chevron faced in the 2-litre Group 4 class, but this was a situation that the team remedied in later-season. At an ex-works price of around £3,150 the Chevron was incredibly cheap, but the Cosworth FVA Formula Two-engined cars raced by John Bridges and others were a much more expensive proposition.

At the Nürburgring 500 Kilometres race Chevron introduced the new and much improved B16 model with lower and sleeker bodywork, stiffer chassis and the Cosworth FVA twin-cam 1,600 cc engine (pending the new Cosworth FVC 1,800 cc unit being made ready). In the hands of Brian Redman this scored an easy victory – in the words of Bussinello of Autodelta the B16 is a Formula Two

car with a sports body! The main dimensions of the B16 are: *Wheelbase*: 7 ft 9 in. *Front track*: 4 ft 2 in. *Rear track*: 4 ft 2 in.

Sports Car Rules

Since the beginning of the 1968 season Prototypes and Competition Sports Cars have competed together for the World Manufacturers' Sports Car Championship and in 1969 there were eleven rounds from Daytona in February to the Osterreichring in August. Points are awarded on the basis of first, 9; second, 6; third, 4; fourth, 3; fifth, 2; sixth, 1. A manufacturer may only count his best five performances towards his total and the leading car of each make only gains points.

The cars eligible for Championship races are Group 6 cars, that is Prototype Sports Cars of up to 3 litres and Group 4 cars, that is Competition Sports Cars, of which not less than 25 have been built, of up to 5 litres. For 1970 Group 4 cars are known as Group 5.

In addition there is a Group 3 Championship for Grand Touring cars, of which not less than 500 have been built, with no capacity limits, based on the same eleven races. This category is completely dominated by the 2-litre Porsche 911.

For details of the construction regulations relating to these cars, see the *FIA Year Book* published by Patrick Stephens Ltd. It should, however, be mentioned here that an important change in the Group 6 Regulations for 1969 was the abolition of minimum ground clearance and windscreen heights and the necessity to carry a spare wheel. This brought Group 6 closer to Group 7 (Can-Am cars, etc.) and made cars such as the out-and-out racing Ferrari 312 and Porsche 908 *Spyder* a possible and practical proposition.

7 The Championship Races

Daytona 24 Hours Race

Run on a 3.8-mile circuit with two banked curves, the Daytona race should be one of the fastest in the series counting towards the Sports Car Championship, but in both 1968 and 1969 it has received a poor entry – by February few teams are fully prepared for the coming season – and it has been won by cars averaging speeds far below their true potential. In 1968 the works team of Porsche 907s was able to cruise to an easy victory after the retirement of the J.W. Automotive Fords and in this year's race both the Porsche and J.W. Automotive teams failed, allowing a car that had lost well over an hour in the pits to come through to win.

One serious entry was out before the race started; this was the Matra 630 coupé entered for Johnny Servoz-Gavin and Henri Pescarolo. During night practice before the official qualifying day Pescarolo lost control on the very fast, shallow banked turn before the pits, crashed and the car spun along the track on its roof for two hundred yards before righting itself and colliding with a Porsche 911. The driver was unhurt, but the car was too badly damaged to run in the race.

Below is how the serious part of the entry list was made up (many of the entries were Trans-Am cars and some of the Group 3 GT entries would not have done credit to a British Club meeting):

Prototypes, 2 to 3 litres:

Porsche 908 long-tail coupés driven by Jo Siffert/Hans Herrmann, Richard Attwood/Jo Buzzetta, Vic Elford/Brian Redman, Gerhard Mitter/Udo Schütz and Rolf Stommelen/Kurt Ahrens.

Porsche 907 driven by Alex Soler-Roig (entrant)/Rudi Lins.

Sports Cars:

Ford GT40 coupés entered by J.W. Automotive for Jacky Ickx/Jackie Oliver and David Hobbs/Mike Hailwood. (Both cars had the usual 5-litre engines with Gurney cylinder heads. The week before the race the team carried out extensive tests at Daytona with the new 3-litre BRM-powered Mirage, but it was still far from ready to race.)

There were Lola T70 coupés entered by Roger Penske Racing for Mark Donohue/Ronnie Bucknum. (This was a brand-new 3B delivered by Lola a month before the race and fitted with the latest Traco-Chevrolet 5-litre dry sump engine running on fuel injection. Since delivery the team had spent an average of eighteen hours a day preparing it for the race. In practice Bucknum was in pain from a finger which he had broken in a motor-cycling accident and at the last moment veteran Californian driver Chuck Parsons took his place.)

Sportscars Unlimited for Joakim Bonnier/Ulf Norinder (another new 3B with a Traco engine running on carburetters).

James Garner's American International Racing Team for Scooter Patric/Dave Jordan and Ed Leslie/Lothar Motschenbacher. (These cars had not raced since Sebring in 1968 and both had Traco 5-litre wet sump engines running on carburetters. One of the cars had been used by Surtees at Le Mans in 1967 with an Aston Martin engine, converted for road use and then converted back again!)

There were no competitive Prototypes in the under-2-litre class and in the 2-litre Group 4 class the fastest cars were the second entry from Sportscars Unlimited – a 910 Porsche for Masten Gregory and Richard Brostrom – and a privately entered Chevron-BMW which designer Derek Bennett had come over from Bolton to supervise for three local drivers. This was a particularly 'hot' Chevron with a Westlake-tuned engine developing 197 bhp instead of the usual 180 bhp or so.

Among the Group 3 Grand Touring cars the main battle was between the two 7-litre Chevrolet Corvette Stingrays driven by Tony DeLorenzo/Dick Lang and Gerry Thompson/Jim Harrell and entered by Owens-Corning Fibreglass and the Ferrari 275GTB/4 entered by the North American Racing Team and with Sam Posey/Ricardo Rodriguez (no relation to Pedro or his late brother) as drivers. The over 2-litre class of the Trans-Am category was dominated by Chevrolet Camaros (a dozen were entered) and the under 2-litre by Porsche 911s.

Practice lasted from Wednesday until Friday and at first the 908 Porsches were snaking about badly on the bankings, but tyre

pressure, roll bar and suspension rate adjustments soon cured this. It was apparent that the J.W. Ford Automotive Fords were no longer competitive in terms of performance (although reliability might well be a deciding factor) and had little hope of staying with the Porsches, while Mark Donohue and his Lola were faster than all but one of the 908s and likely to provide serious opposition to the German cars in the race.

The best practice times were:

1st, Elford/Redman (Porsche 908)	. . .	1 min 52.2 sec	
			(122.25 mph)
2nd, Donohue/Parsons (Lola T70)	. . .	1 min 52.7 sec	
3rd, Siffert/Herrmann (Porsche 908)	. . .	1 min 53.4 sec	
4th, Stommelen/Ahrens (Porsche 908)	. . .	1 min 53.9 sec	
5th, Bonnier/Norinder (Lola T70)	. . .	1 min 54.0 sec	
6th, Attwood/Buzzetta (Porsche 908)	. . .	1 min 54.4 sec	
7th, Mitter/Schütz (Porsche 908)	. . .	1 min 54.4 sec	
8th, Ickx/Oliver (Ford GT40)	. . .	1 min 54.5 sec	
9th, Hobbs/Hailwood (Ford GT40)	. . .	1 min 55.3 sec	
10th, Jordan/Patrick (Lola T70)	. . .	1 min 57.3 sec	

Before the start, scheduled for 3 pm on the Saturday, the 62 starters were lined up two-by-two in front of the pits, prayers were said for the drivers and, just a few minutes late, the pace car led the field round for $1\frac{1}{2}$ laps; the second time round, along the back straight, the pace car accelerated down the slip road and the race was under way.

Vic Elford took the lead initially, with Siffert hot on his heels and the Lolas of Donohue and Bonnier not far behind. On the next lap Siffert, riding high on the banking, went by into the lead and by the end of that lap the fastest cars were already lapping the slowest. Lapping slower cars at Daytona is always a problem because of the poor standard of driving among the more amateur elements. Time and time again a fast-moving 908 or Lola would zoom round the banking to find its path blocked by a couple of MGBs or a Porsche and an E-type fighting a wheel-to-wheel duel, and was forced to take to the grass or bump its way through. By lap 20 the order was Elford, Bonnier, Siffert, Donohue, Attwood, Schütz, Stommelen and then the two J.W. Automotive Fords which were steadily losing ground. Porsche domination had, however, asserted itself after an hour's racing – the Stuttgart cars were in first five places and both of the leading Lolas had fallen back. Donohue had crawled into the pits, the engine cutting out, because the fuel pick-up system would not take up the last gallons and after the first of many

pit stops he rejoined the race in seventh spot. Bonnier, who had held the lead for a short while, got sandwiched between two slower cars that he was lapping and with the bodywork damaged on both sides came in for the car to be checked over. He rejoined the race with the nose taped up, but not long after Norinder had taken over at the first refuelling stop, another accident happened. The Swedish driver swerved on the banking to avoid a slower car, side-swiped the retaining wall and brought the Lola into the pits with crumpled bodywork and, rather more serious, the suspension upright and drive-shaft badly bent. This car was the first of the possible winners to retire.

Positions remained unchanged during the second hour, but as the end of the third hour came up, Redman drove into the pits, over-shot, and after some difficulty in making him understand that he must push the car back himself, it was realised that he had been overcome by exhaust fumes. Inspection of his 908 revealed that the exhaust pipes had cracked and it took twenty minutes to change them; just as the mechanics finished, in came Ahrens with the same trouble. As it seemed likely that this trouble would affect the whole of the team and there was not an inexhaustible supply, Steinemann set the mechanics to work welding up the cracked pipes.

Siffert now led from Buzzetta, Donohue (who had been motoring tremendously well after his pit-stop), the Ickx/Oliver Ford which had made up a lot of ground and had passed the Schütz/Mitter Porsche, the Hobbs/Hailwood Ford and the 907 Porsche of Soler-Roig/Lins. Already out of the race were the sole Carrera Six Porsche (with a serious oil leak) and an Ecuadorian-entered 275LM Ferrari with gearbox trouble when veteran Italian Umberto Maglioli was at the wheel. The next Porsche to suffer exhaust pipe failure was that of Siffert and his 908 spent twenty-one minutes in the pits. Mitter was badly overcome by fumes and his car rejoined the race with an air vent cut in the rear screen to improve ventilation. Later in the race Mitter had to be taken to hospital for treatment, so seriously had he been affected.

As darkness enveloped the circuit there occurred the only serious accident during the race; a Jaguar E-type blew up its engine (you have to drive a Jaguar *very* badly for this to happen) and trailed smoke and oil all round the circuit. In the fog Alfa Romeo Tipo 33 driver Mario Calabattisti from Peru braked hard, Porsche 911 driver Peter Gregg drove right over the top of the Alfa and Lins hit it up the back with his 907; all three cars were eliminated and from the overturned Alfa the Peruvian driver was retrieved suffering only from cuts, abrasions and a sprained wrist.

After five hours' racing Attwood led from Hailwood, Mitter, the

Ickx/Oliver Ford and the Donohue/Parsons Lola. Porsche did not have a monopoly on exhaust failures for at 10.30 pm Donohue came into the pits, the Lola shooting out flames; the exhaust system had cracked badly and as it was special manifolding for which there were no spares, it was patched with stainless steel and welded. The Lola rejoined the race, having spent 1 hour 19 minutes in the pits.

It was just after midnight when Porsche troubles started in earnest. The Attwood/Buzzetta car, then leading the race, came into the pits with what was at first diagnosed as a broken alternator belt; the belt was replaced, but the car would not fire and it was then discovered that the intermediate gear between the crankshaft and the camshaft had broken; the 908 was retired and only a very short while afterwards Elford walked into the pits to report that, having vibrated badly for three laps, his car had expired out on the circuit with the engine covered in oil. The cause was the same – a broken intermediate gear – even if the effect had resulted in greater damage and as the long night drew on the three Porsches in third, fourth and fifth places behind the now leading Fords all fell out one by one with the same trouble. First to go was the Stommelen/Ahrens car, then that of Siffert/Herrmann. Already the Ford of Hobbs/Hailwood had retired with overheating and suspected cracked cylinder heads and the surviving Porsche, shared by Attwood, who had relieved the sick Mitter, and Schütz, regained the lead only to follow its team-mates into retirement. The surviving Ford retained the lead until dawn, but it too was over-heating and had suspected cracked cylinder heads and John Wyer did not expect it to last out until the finish. It came as no real disappointment when Ickx lost control coming off the fast banking, scraped against the retaining wall and the car caught fire; the fire was quickly extinguished and the young Belgian was unhurt apart from singed eyebrows.

Now leading the race was the Lola of Donohue/Parsons, which had at one stage fallen as low as eleventh, but an hour-and-a-half elapsed before it had covered as many laps as the crashed Ford. Despite anxiety in the Penske pit as to whether it could survive until 3 pm, it did so by dint of cruising well within its limits – for second, third and fourth places were now occupied by two Porsche 911s and a Pontiac Firebird and the Lola was completely unchallenged. Two hours from the finish the Lola of Motschenbacher/Leslie, which had also spent a considerable time in the pits, moved up into second place. The winner of the Group 6 class was the diminutive Lancia Fulvia Zagato of Rafaele Pinto/Claudio Maglioli in eleventh

place – and this car had spent much of the race keeping out of the way of the faster machinery! The Lola victory, although a victory by default, was significant in that it was the first occasion in three seasons' racing that a T70 had won a Prototype or Sports Car Championship race or had managed to survive a race of twelve hours or longer. 1969 was also the second occasion in the short history of the race that the most powerful team had been eliminated by the failure of a small, but vital component – in 1967 all six works Fords had trouble with a broken shaft in the gearbox. At Stuttgart work started at once to overcome the trouble with the 8-cylinder engines before the Sebring race in March.

DAYTONA CONTINENTAL 24 HOURS RACE

Daytona Speedway 1st/2nd February, 1969

Circuit length: 3.81 miles. Weather: Fine throughout the race.

- 1st, M. Donohue/C. Parsons (Lola T70 Mk 3B-Chevrolet 5-litre), 626 laps, 2,385.06 miles (99.27 mph),*
- 2nd, L. Motschenbacher/E. Leslie (Lola T70 Mk 3-Chevrolet 5-litre), 596 laps,
- 3rd, J. Ward/J. Titus (Pontiac Firebird 5-litre), 591 laps,*
- 4th, B. Jennings/H. Wetson/A. Adamowicz (Porsche 911T 2-litre), 583 laps,*
- 5th, A. Everett/A. Johnson (Porsche 911 2-litre), 581 laps,*
- 6th, H. Kleinpeter/J. Gunn/R. Beatty (Chevron B8-BMW 2-litre), 579 laps,*
- 7th, S. Patrick/D. Jordan (Lola T70 Mk 3-Chevrolet 5-litre), 578 laps.
- 8th, H. Williamson/G. Drolson (Porsche 911 2-litre), 577 laps,
- 9th, J. Duval/G. Nicholas/A. Sampson (Porsche 911T 2-litre), 571 laps.
- 10th, A. Wicky/S. Garant (Porsche 911T 2-litre), 569 laps,
- 11th, C. Maglioli/R. Pinto (Lancia Fulvia HF Zagato 1.6-litre), 566 laps.*
- 12th, R. Grossman/R. Dini (Chevrolet Camaro 5-litre), 564 laps,
- 13th, J. Corwin/M. Manner/C. Baird (Chevrolet Camaro 5-litre), 549 laps,
- 14th, J. Ryan/P. Harrison/J. Carter (Porsche 911 2-litre), 548 laps,
- 15th, M. Gregory/R. Brostrom (Porsche 910 2-litre), 544 laps.

* Class winner.



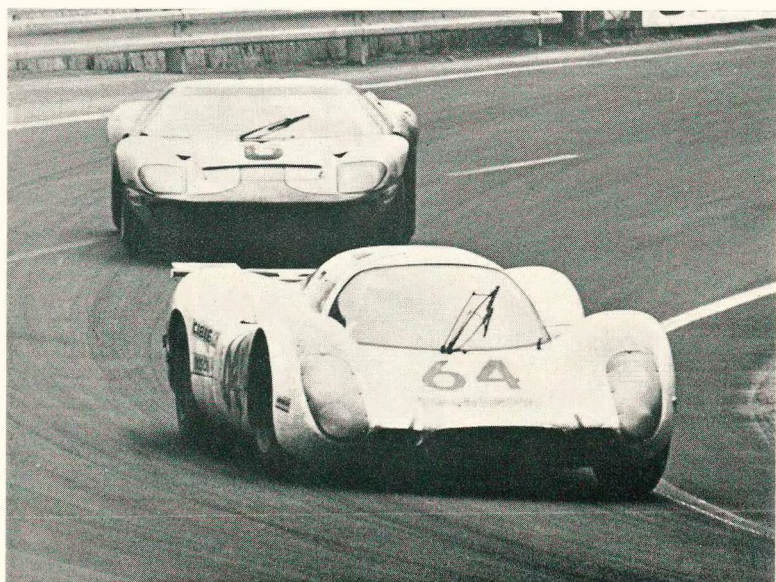
Jochen Rindt, fast and furious, but not often a race finisher. (Nigel Snowden)



Poor Jackie Oliver – rarely during 1969 did he get near a BRM that was either fast or reliable



Above: New Porsche model for 1969 was the 908 *Spyder*. These cars were immensely successful and dominated the BOAC '500', Targa Florio, Nürburgring and Watkins Glen races. This is the car shared by Elford and Attwood at Brands Hatch. (Guy Griffiths). *Below*: The closing laps at Le Mans in 1969 provided one of the most exciting finishes in the history of the race. Here the second-place Porsche of Herrmann holds a narrow lead through the Esses over the winning Ford with Jackie Ickx at the wheel. (Guy Griffiths)



Fastest lap: J. Siffert (Porsche 908 3-litre), 1 min 54.0 sec (120.315 mph).

Previous race lap record: P. Hill (Chaparral 2F-Chevrolet), 1 min 55.7 sec (118.04 mph).

Principal retirements: Bonnier/Norinder (Lola), accident, suspension damage; Calabattisti/Dibos (Alfa Romeo), accident; Soler-Roig/Lins (Porsche), accident; Attwood/Buzzetta (Porsche), camshaft drive; Elford/Redman (Porsche), camshaft drive; Stommelen/Ahrens (Porsche), camshaft drive; Hobbs/Hailwood (Ford GT40), engine; Siffert/Herrmann (Porsche), camshaft drive; Ickx/Oliver (Ford GT40), accident; Mitter/Schütz/Attwood (Porsche), camshaft drive.

Sebring 12 Hours Race

Second race in the Sports Car Championship and the second of the year in Florida, the Sebring race was held as usual on an ex-military airfield which has been gradually improved over the years, in much the same way as Silverstone has, so that it is now quite a respectable circuit on which to motor race. Although the Florida coast – Palm Beach and Miami, for example – has an aura of glamour, the inland areas are dull, flat and contain vast stretches of swampland. Sebring itself is very small, contains an inordinate number of motels in relation to its size to accommodate passing traffic on its way to the coast and to the south of it are mile upon mile of monotonous swampy tracts, including areas of land reserved for the Seminole Indians.

But every dog has its day and once a year, usually in March, Sebring reverberates to the exhausts of the Sports Car Championship contenders. The first race was in 1952 and was a rather parochial affair won by a Frazer Nash, while the following year an American Cunningham was the victor. 1953 was the first year in which the race counted towards the Sports Car Championship and both then and the following year the works Aston Martins competed. The Lancia team was also present in force in 1954, a works Jaguar D-type (entered in the name of Briggs Cunningham) was the victor in 1955 and the year after the works Ferraris with a team of drivers that included Fangio, Castellotti and Musso came and won. Since then the race has never diminished in importance and the 1969 event attracted a very strong entry.

Heading the list of Group 6 cars were five of the new Porsche 908 *Spyders*, driven by Siffert/Redman, Buzzetta/Stommelen, Ahrens/

Herrmann, Mitter/Schütz and Elford/Attwood. Since Daytona Porsche had overcome the exhaust and camshaft drive failures by changing the firing order of the engine to achieve smoother running and substituting steel intermediate idler shafts in the drive train for the original alloy components. At Sebring two of the cars were fitted with thermocouples permanently mounted on the brakes and hubs with individual temperature gauges in the cockpit. All the cars originally had suspension-connected, roll-compensating twin flaps at the rear, but these were abandoned after the drivers reported that in practice they could not tell whether they were disconnected or operative.

Facing the Porsches were two new contenders. From Ferrari came a single new 312P 3-litre car driven by Chris Amon and Mario Andretti. The team had indicated that although it would have been possible to send two cars, it was felt more important to run one car that was completely *au point*. Right from the start of practice the Ferrari was shatteringly fast and needed a minimum of adjustment. The second Ferrari was to have run in the name of the North American Racing Team, but when this failed to turn up, the best that Luigi Chinetti could find to enter was an ancient 1966 P3 Ferrari with the engine sleeved down to 3 litres. Autodelta arrived at the circuit with two lorry-loads of spare parts and more than three dozen personnel to look after their new 3-litre Tipo 33-3 cars. Unfortunately, two of the cars were completely untested and there was a shortage of spare engines. John Surtees should have driven for the team, but he was contracted to Firestone tyres for sports car racing and Autodelta were running on Dunlops; a telegram was received from Firestone objecting to Surtees running on the British tyres and he withdrew from the team. This was, however, a situation that Autodelta manager Bussinello had foreseen and he had Mario Casoni on hand as spare driver. The pairings for the Tipo 33s were, therefore, de Adamich/Casoni, Vaccarella/Bianchi and 'Nanni' Galli/Giunti.

The Mirage was still not raceworthy and so J.W. Automotive again relied on the Ford GT40s. Ickx/Oliver had the older car raced by Hobbs/Hailwood at Daytona and this had been fitted with a new engine prepared by Dan Gurney's All-American Racers Team and claimed to develop over 460 bhp. The 'new' car prepared for 1969 was driven by Hobbs/Hailwood and to prevent a recurrence of overheating the partially blanked-off cylinder heads were unplugged to allow the water to flow through the whole of the head. The Lolas were much the same as at Daytona – the Penske car was driven by Donohue/Bucknum, but was now running on Weber carburettors, as it developed its 460 bhp more reliably with these

than with fuel injection; Bonnier again shared Norinder's car entered in the name of Sportscars Unlimited and there were the two James Garner entries for Patrick/Jordan and Motschenbacher/Leslie.

A fortnight before the race there was a practice weekend, but neither Ferrari nor J.W. Automotive took advantage of this and Autodelta went out only for a couple of hours – they tried to make up for this by doing a lot of early morning and after dark testing, dashing up and down a deserted runway. Practice was relatively uneventful and fastest were:

1st, Amon/Andretti (Ferrari 312P)	. . .	2 min 40.14 sec (116.39 mph)
2nd, Donohue/Bucknum (Lola T70)	. . .	2 min 40.92 sec
3rd, Mitter/Schütz (Porsche 908)	. . .	2 min 42.77 sec
4th, Siffert/Redman (Porsche 908)	. . .	2 min 42.90 sec
5th, Patrick/Jordan (Lola T70)	. . .	2 min 43.44 sec
6th, Leslie/Motschenbacher (Lola T70)	. . .	2 min 44.05 sec
7th, Norinder/Bonnier (Lola T70)	. . .	2 min 44.37 sec
8th, Elford/Attwood (Porsche 908)	. . .	2 min 44.38 sec
9th, Herrmann/Ahrens (Porsche 908)	. . .	2 min 44.51 sec
10th, Casoni/de Adamich (Alfa Romeo Tip 33-3)	. . .	2 min 45.64 sec
11th, Buzzetta/Stommelen (Porsche 908)	. . .	2 min 45.67 sec
12th, Ickx/Oliver (Ford GT40)	. . .	2 min 47.43 sec
13th, Hobbs/Hailwood (Ford GT40)	. . .	2 min 47.74 sec
14th, Vaccarella/Bianchi (Alfa Romeo Tipo 33-3)	. . .	2 min 47.95 sec
15th, Giunti/Galli (Alfa Romeo Tipo 33-3)	. . .	2 min 51.36 sec

The first fourteen were all inside the lap record and faster than the best 1968 practice lap (Siffert with a 907 2.2-litre Porsche in 2 min 49.42 sec).

The Le Mans start was at 11 am on the Saturday morning and first away – as in most sports car races – was Jo Siffert, while poor Chris Amon was delayed waiting for the fuel pressure to build up. At the end of the first lap the order was Siffert–Mitter–Elford–Herrmann–Donohue–Stommelen–Amon and alongside the latter Galli, whose Alfa was in the process of shedding a wheel! The Alfa ran off the course and was then rammed up the back by its own wheel. It rejoined the race, but within an hour-and-a-half all three Tipo 33s had retired with failure of the glue-assembled radiators – a bitter blow for Chiti, but one that thorough pre-race testing would have revealed. Other early retirements were Patrick's Lola, which went out after fifteen laps with engine failure, and the similar car of

Bonnier/Norinder, which was retired because a radius rod was pulling away from the monocoque.

At the end of the first hour Porsches held the first three places and the Ferrari was fourth, but then Elford came into the pits, where forty minutes was spent repairing a damaged wing. Amon was suffering from gear-change trouble, but he stopped out on the circuit, banged the gear-lever firmly into reverse and this cleared the trouble. Siffert still led from Herrmann and during the routine pit stops Donohue with the Lola took the lead for ten laps; then Redman took his Porsche back into the lead ahead of Bucknum and the Ferrari.

Redman lost the lead when he stopped for a steering link to be attended to and Bucknum then led from Amon, Ahrens, Mitter, Buzzetta and Ickx. But it was a short-lived lead, for Amon soon got by and then he in turn was passed by the Mitter/Schütz Porsche when he spun in the esses, avoiding a rubber cone thrown up by another competitor. Herrmann/Ahrens retired their Porsche with a large crack in the chassis underneath the gearbox and not long afterwards the very competitive Donohue/Bucknum Lola went out with exactly the same trouble as the Norinder entry. The Hobbs/Hailwood Ford went into the pits for a broken suspension ball-joint spindle to be replaced and at the same time cockpit overheating was remedied by the removal of a window; the J.W. car rejoined the race only to retire out on the circuit when the suspension failed again and the wheel came off.

At half-distance the Porsche of Mitter/Schütz still led from the Ferrari, its team-mates driven by Siffert/Redman and Buzzetta/Stommelen and the Ford of Ickx/Oliver – and there were still 55 cars left in the race out of 70 starters. Schütz brought the leading Porsche in for a bent steering arm to be straightened – this took only a few moments – and then started the Ferrari's troubles which were to cost it the race. A Chevron had lost its tail-section down the back straight, this disintegrated and the Ferrari sucked a chunk of glass-fibre into its air intake duct. By the time the car reached the pits, it was over-heating and it was still boiling after the duct had been repaired. The radiator was topped up, but this caused air-locks which during the rest of the race the mechanics tried without success to cure.

While Andretti lapped at reduced speed, with the Ferrari belching out clouds of white smoke on the over-run, and the Ferrari pit were struggling to keep their one car in the race, car after car of the Porsche team was running into trouble. The Siffert/Redman car fell out with a cracked chassis, Ickx brought the J.W. Ford into the pits with a battered nose after the throttles had stuck

open, causing him to run into the marker cones, and the Stommelen/Buzzetta Porsche came in with the same trouble as the rest of the team. Steinemann decided to repair this 908 and it rejoined the race with steel bars bolted to the chassis after a 35-minute halt. Next Porsche in trouble was the Elford/Attwood car with a split oil tank and it rejoined the race after this had been replaced.

As the surviving cars lapped the circuit, their brake discs glowing in the dark and their exhausts spitting out flames, the Ferrari, with three hours' racing left, was back in the lead. But again it started to overheat and with an hour-and-a-half to the finish it pitted, letting the J.W. Ford of Ickx/Oliver get ahead. The blood-red Ferrari rejoined the race and screamed round in pursuit of its blue and orange rival, but it had shot its bolt and in the closing stages of the race was losing three seconds a lap to the Anglo-American car. Despite a last-minute panic when Ickx came into the pits for the suspension to be checked, the John Wyer 'tortoise' defeated the Porsche 'hares' as had happened so frequently in 1968. With two failures in succession the season had started badly for Porsche, but the Commendatore at Maranello had every reason to be pleased with his new and previously unraced Prototype.

SEBRING 12 HOURS RACE

Sebring

22nd March, 1969

Circuit length: 5.2 miles. Weather: Fine throughout the race.

- 1st, J. Ickx/J. Oliver (Ford GT40 5-litre), 239 laps, 1,242.8 miles (103.343 mph),*
- 2nd, C. Amon/M. Andretti (Ferrari 312P 3-litre), 238 laps,*
- 3rd, R. Stommelen/J. Buzzetta (Porsche 908 3-litre), 235 laps,
- 4th, A. Soler-Roig/R. Lins (Porsche 907 2-litre), 233 laps,*
- 5th, G. Mitter/U. Schütz (Porsche 908 3-litre), 232 laps,
- 6th, E. Leslie/L. Motschenbacher (Lola T70 Mk 3-Chevrolet 5-litre), 229 laps,
- 7th, V. Elford/R. Attwood (Porsche 908 3-litre), 228 laps,
- 8th, R. Smothers/F. Baker (Porsche Carrera 6 2-litre), 215 laps,*
- 9th, R. Rodriguez/C. Kolb (Ferrari Dino 2-litre), 215 laps,
- 10th, D. Yenko/R. Guldstrand (Chevrolet Camaro 7-litre), 209 laps,*
- 11th, A. Capriles/A. Atencio (Porsche Carrera 6 2-litre), 203 laps,
- 12th, A. Wicky (Porsche 911T 2-litre), 201 laps,*

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- 13th, R. Bailey/J. Locke/B. Jennings (Porsche 911T 2-litre),
199 laps,
14th, R. Lang/G. Hufstaeder (Chevrolet Corvette Stingray 7-litre),
196 laps,
15th, P. Hopkirk/A. Hedges (MG 'C' 3-litre), 195 laps.

* Class winner.

Fastest lap: V. Elford, 2 min 43.19 sec (114.712 mph).

Previous race lap record: M. Spence (Chaparral 2F-Chevrolet),
2 min 48.6 sec (111.032 mph).

Principal retirements: Patrick/Jordan (Lola), engine; Giunti/Galli (Alfa Romeo), radiator failure; Vaccarella/Bianchi (Alfa Romeo), radiator failure; Casoni/de Adamich (Alfa Romeo), radiator failure; Norinder/Bonnier (Lola), suspension; Herrmann/Ahrens (Porsche), chassis damage; Donohue/Bucknum (Lola), suspension; Siffert/Redman (Porsche), chassis damage; Hobbs/Hailwood (Ford), lost wheel.

BOAC '500' Race, Brands Hatch

Unashamedly the writer is a Brands-hater with strong memories of the days when the 500s used to go round and round in monotonous circles like a swarm of rather tired wasps. Brands Hatch is, of course, a much improved circuit since those days and it has been further improved in lots of little ways since the extension increasing the length to 2.65 miles was opened in 1960. And – Silverstone apart – Brands Hatch is the only British circuit suitable for a long-distance sports car race, for Oulton Park, although very much a driver's circuit, is too tortuous and narrow to take a large field of sports cars and constantly lapping slower machinery there can be something of a nightmare. Thanks to the sponsorship of the British Overseas Airways Corporation (what a delightful way spread the message of VC-tenderness), Brands Hatch has reverberated to the exhausts of three exciting Groups 4 and 6 races, the like of which could previously be seen only on the Continent. 1967 saw an epic race in which the lone Chaparral of Mike Spence and Phil Hill defeated the might of Maranello and Zuffenhausen. It was very much a Porsche *versus* Ford duel in 1968 when the Ford GT40 of Ickx and Redman came home the winner and in 1969 it was to be Porsche against the rest.

There was a large field of serious and worthwhile entries and set out below are details of the more interesting of these:

Group 6, 2 to 3 litres:

Porsche System Engineering entered 908 *Spyders* for Siffert/Redman, Elford/Attwood, Mitter/Schütz, Herrmann/Stommelen. (As usual, these wore differently coloured 'Dayglow'-painted noses and tails for recognition purposes.)

Ferrari S.p.a. SEFAC entered a 312P for Amon/Rodriguez (concentration on Monza prevented a second car from being ready in time).

J.W. Automotive entered a Mirage-BRM for Ickx/Oliver.

Alan Mann Racing Ltd entered the brand-new open Ford P69 3-litre Cosworth-powered car for Jack Brabham/Frank Gardner and the 1968 P68 coupé for Denis Hulme/Masten Gregory. (When the P69 broke its engine, the coupé, which was fitted with an enormous aerofoil, was driven by Gardner and Hulme.)

BG Racing Team (a German *équipe*) entered Porsche 907 2.2-litre coupés for H-D. Dechent/G. Koch and W. Kauhsen/ R. Lins.

Group 6, up to 2 litres:

Gold Leaf Team Lotus entered a brand-new Lotus 62 with their own Vauxhall-block 16-valve 2-litre engine for John Miles/Brian Muir.

Ben Sherman Originals Ltd entered a Chevron B8 with Cosworth FVA Formula Two engine for John Blades/Jim Morley and John Bridges entered his own car for himself and John Lepp.

Group 4, 2 to 5 litres:

Although only one J.W. Automotive Ford was entered (for Hobbs/Hailwood), there was strong opposition to the Porsches in the shape of eight Lola T70-Chevrolests:

The latest Mk 3B cars with the usual Traco engines were entered by Ulf Norinder for himself and Robin Widdows, Paul Hawkins for himself and Jonathan Williams, David Piper for himself and Roy Pierpoint, Scuderia Filipinetti for Joakim Bonnier/Herbert Müller, Sid Taylor for Peter Revson/Sten Axelsson and Team Elite for Trevor Taylor/Hugh Dibley. Older Mk 3 cars were entered by Tech-Speed Racing for Chris Craft/Eric Liddell (this car had a Bartz engine) and David Prophet for himself and Ed Nelson.

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Group 4, up to 2 litres:

Racing Team VDS entered Alfa Romeo Tipo 33 'Daytonas' for Teddy Pilette/Rob Slotemaker and Taf Gosselin/Claude Bourgoignie.

Chevron Cars entered a B8-BMW for Reiné Wisell/John Hine and other B8 entries came from JCB (drivers Peter Brown/Roger Enever) and Paul Vestey (drivers Tim Schenken/John Fenning).

Alain de Cadenet entered his Dino 206S for himself and Tony Beeson (this car was transferred to the Group 6 class because it lacked homologation papers).

SRT Holland entered an Abarth 2000S for Toine Hezemans/Gijs van Lennep (this odd, angular, but very effective car with the engine mounted *behind* the rear axle, was transferred to Group 6 after its enormous glass windscreen broke in practice and was replaced by a plastic one).

Practice was largely uneventful except that on the Friday a steering track rod came unscrewed on Tim Schenken's Chevron as he was accelerating out of Clearways and the car hit the bank and turned over, happily without injury to the driver. In the BOAC race the cars are formed up on the grid as if in a Grand Prix. Fastest in practice were:

1st, Siffert/Redman (Porsche 908)	. . .	1 min 28.8 sec
2nd, Amon/Rodriguez (Ferrari 312P)	. . .	1 min 30.0 sec
3rd, Bonnier/Müller (Lola T70-Chevrolet)	. . .	1 min 31.6 sec
4th, Elford/Attwood (Porsche 908)	. . .	1 min 32.0 sec
5th, Mitter/Schütz (Porsche 908)	. . .	1 min 32.2 sec
6th, Herrmann/Stommelen (Porsche 908)	. . .	1 min 33.2 sec
7th, Hulme/Gardner (Ford P68)	. . .	1 min 33.2 sec
8th, Taylor/Dibley (Lola T70-Chevrolet)	. . .	1 min 33.6 sec
9th, Hawkins/Williams (Lola T70-Chevrolet)	. . .	1 min 34.2 sec
10th, Revson/Axelsson (Lola T70-Chevrolet)	. . .	1 min 34.4 sec

As the starter prepared to drop the flag, the Porsche mechanics were still huddled round the Siffert Porsche in pole position; there was trouble with the transistor ignition and no time to rectify it – so the car started the race on one set of plugs with a deficiency of some twenty bhp and 600 revs, but this appeared not to affect its performance. To watch a field of thirty-four sports cars roar off round the tight Brands Hatch circuit is awe-inspiring; Amon seared away into the lead with his Ferrari and at the end of the first lap he and Siffert were well ahead of the rest of the field.

Despite lacking half his sparks, Siffert went into the lead on the fifth lap and stayed there for the whole race. Bonnier was leading the Group 4 class when a water pump drive-belt broke and his Lola spent ten minutes in the pits – the first of many stops – while this was replaced. In fifth place was Hulme with the Ford, closing up on Mitter's Porsche, but his aerofoil was flapping about and with less than half-an-hour's racing under its camshafts, the Cosworth engine started to lose its oil pressure and so the P68 was retired.

Amon was another driver in trouble early in the race and after only thirty-eight minutes he came into the pits with a puncture and restarted in seventh place. But the Porsches lapped smoothly and swiftly, free from the punctures that were plaguing so many other cars in the race, and at the end of the first hour the order was Siffert, eighty seconds ahead of Elford, Mitter in third place a lap in arrears and then the Ferrari which had started to work its way back through the field. Next came Herrmann, Hawkins and Ickx with the Mirage, making up for his usual bad start by leaps and bounds and cornering with great élan. Bonnier went into the pits again, this time with a puncture, and then the routine refuelling stops began, but without changes in the race order. The next casualty was Rudi Lins, who was rushing down from Druids in pursuit of Craft's Lola when his 907 Porsche turned right at the bottom instead of left and crashed over the bank – resulting in a severely damaged car and a driver unhurt apart from his embarrassment. The Chevron of Bridges and Lepp was running very badly and after the mechanics had run right through the car, trying without success to locate the fault, it was retired. Next to go was the Mirage, which broke a drive-shaft and crawled into the pits to retire.

While the Porsches were making their second routine pit stops, a gentle shower of rain turned the rubber-coated, oil-stained circuit into a skating rink – the shower did not last long, few drivers changed to wet weather tyres and among those to skate were several members of the Porsche team. The first four places remained unchanged until after the third hour when the Ferrari passed the Schütz/Mitter Porsche and a second spin by Elford enabled it to temporarily snatch another place. Hulme, as reserve driver for the Sid Taylor team, took over the Lola for a while, but it then started to overheat and Denny came in to complain that the front end was juddering badly under braking; this car eventually lost its water pump belt and was retired. In the 2-litre Group 6 class the Abarth was leading the Dino, but the 'baby' Ferrari jammed in top gear at Druids, spun, dented its nose and caught fire; the fire was speedily extinguished, the Dino limped back to the pits and later rejoined the

race. When the Abarth, which had been going magnificently, blew up its engine, the works Lotus 62, slowed by points trouble, took the lead in the class.

With an hour to the finish, the Porsches were first and second, three laps and one lap ahead of the Ferrari, the Maranello car was beginning to lose ground because of a stretched throttle cable and the result was a foregone conclusion. The day's dramas were not, however, over, for the President of the Grand Prix Drivers' Association, Joakim Bonnier, was now back at the wheel of the Filipinetti Lola; this car was at long last running properly and although it was at the tail of the field, Bonnier started to hurl it round the circuit right on the ragged edge, at one point smacking into the Hobbs/Hailwood Ford. As he came through Bottom Bend, he ran wide travelling at too high a speed and had the mother and father of a crash. Perhaps anxious to test the Armco barriers for himself, he hit these at about 100 mph and the Lola cart-wheeled along the track, destroying itself on the way; the Swedish driver stepped from the wreckage completely unhurt apart from cuts and bruises. Already the Lolas of Paul Hawkins and Ulf Norinder had suffered broken wishbones (on the latter's car the component had been changed and the car had rejoined the race) and as a precaution Eric Broadley asked the team managers for the three remaining Lolas to call their cars in for inspection. Norinder decided to press on to the finish, but Trevor Taylor and David Piper withdrew their cars when hairline cracks were found in the rear wishbones.

Stommelen's Porsche punctured a tyre and fuel tank on debris from Bonnier's car and spent twenty-two minutes in the pits, which dropped it to sixth place behind the Hobbs/Hailwood Ford. In the closing laps of the race the Porsche of Mitter/Schütz took third place from the Ferrari and Zuffenhausen took the chequered flag in first three places. This was a day of rejoicing for Porsche, as it was their first victory since the 1968 Austrian Grand Prix and the team now led the Sports Car Championship with 17 points to the 11 of Ford.

BOAC '500' (SIX HOURS) RACE

Brands Hatch

13th April, 1969

Circuit length: 2.65 miles. Weather: Mainly dry and windy.

1st, J. Siffert/B. Redman (Porsche 908 3-litre), 227 laps, 601.55 miles (100.22 mph),*

2nd, V. Elford/R. Attwood (Porsche 908 3-litre), 225 laps.

- 3rd, G. Mitter/U. Schütz (Porsche 908 3-litre), 223 laps,
4th, C. Amon/P. Rodriguez (Ferrari 312P 3-litre), 223 laps,
5th, D. Hobbs/M. Hailwood (Ford GT40 5-litre), 207 laps,*
6th, H. Herrmann/R. Stommelen (Porsche 908 3-litre), 205 laps,
7th, R. Wisell/J. Hine (Chevron B8-BMW 2-litre), 205 laps,*
8th, C. Craft/E. Liddell (Lola T70 Mk 3B-Chevrolet 5-litre),
205 laps,
9th, R. Slotemaker/T. Pilette (Alfa Romeo T33 2-litre), 203 laps,
10th, G. Koch/H-D. Dechent (Porsche 907 2.2-litre), 201 laps,
11th, P. Sadler/P. Vestey (Ford GT40 4.7-litre) 199 laps,
12th, D. Martland/R. Brostrom (Porsche 910 2-litre), 199 laps,
13th, J. Miles/B. Muir (Lotus Europa 62 2-litre), 190 laps,*
14th, R. Enever/P. Brown (Chevron B8-BMW 2-litre), 187 laps,
15th, A. Beeson/A. de Cadenet (Ferrari Dino 2-litre), 187 laps.

* Class winner.

Fastest lap: Not issued by organisers.

Principal retirements: Hulme/Gardner (Ford P68), low oil pressure; Ickx/Oliver (Mirage-BRM), drive-shaft; Gosselin/Bourgoignie (Alfa Romeo), low oil pressure; Revson/Axelsson/Hulme (Lola), overheating and brakes; Hawkins/Williams (Lola), broken rear wishbone; Bonnier/Müller (Lola), accident; Taylor/Dibley (Lola), withdrawn; Piper/Pierpoint (Lola), withdrawn; Kelleners/Jöst (Ford GT40), gearbox.

Monza 1000 Kilometres Race

Although the banked circuit at Monza was rebuilt only in 1955 and was first used for that year's Italian Grand Prix, it now looks very tatty and the surface is far from good. It is because of the poor surface that when the combined road and banked track circuit is used for the 1000 Kilometers race, chicanes are inserted before each banking to reduce the speed of the cars – even so, the fastest cars come off the banking at around 150 mph and attain about 170 mph as they sweep past the pits on the outer lane of the two at this point. The race is held on the day of the National holiday celebrating the liberation of Italy in 1945 and despite the very crowded calendar during April and May usually attracts an excellent entry.

Absentees in 1969 were the J.W. Automotive team who had intended to field two Mirage-BRMs, but lack of serviceable engines made this impossible. Heading the list of Prototype entries were:

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Ferrari 312Ps driven by Amon/Andretti and Rodriguez/Schetty (the latter a former Abarth driver signed up principally to handle the flat-12 2-litre car in the European Hill Climb Championship). Porsche 908 long-tail coupés fitted with full-width aerofoils having adjustable trim tabs at each end and operated by the suspension were driven by Siffert/Redman, Mitter/Schütz, Elford/Attwood and Herrmann/Ahrens.

Matra Sports entered a single 630/650 open car for Servoz-Gavin/Guichet.

Alpine fielded three A-220 3-litre cars for Depailler/Jabouille (a 1968 model), Andruet/Grandsire (a 1968 model) and de Cortanze/Vinatier (the latest 1969 car with the radiators across the tail, ventilated brake discs and new alloy wheels). Andruet/Grandsire non-started because of engine failure during the second practice session.

Porsche had now sold their 907s off to private owners and normal 2.2-litre versions were driven by Stommelen/Lang, Soler-Roig/Baturone (this car was a last-minute non-starter because of fuel injection pump trouble) and Koch/Dechent, while Nicodemi/Facetti and Manfredini/V. Brambilla had versions with 1981 cc engines.

Racing Team VDS fielded one of the Tipo 33s with a 2.5-litre engine for Pilette/Slotemaker.

In the Group 4 class there was the usual horde of Lola T70s, but no reason to suppose that they would prove any more reliable than usual:

<i>Entrant</i>	<i>Drivers</i>	<i>Model</i>
Scuderia Filipinetti	Bonnier/Müller	3B (Bonnier's own 'sprint' car)
Sid Taylor Racing	Gardner/de Adamich	3B
Sportscars Unlimited	Norinder/Widdows	3B
David Piper	Piper/Hawkins	3B
Tech-Speed Racing	Craft/Liddell	3

There were the usual Porsche 910s, Chevron-BMWs and Alfa Tipo 33s in the Group 4 2-litre class.

Although there were 80 entries, only 52 qualifiers were permitted to start, qualification being on the basis of allowing a certain number from each class to start and as a result the struggle to qualify in some classes was quite hectic. The cars were lined up two-by-two at the start, but there were in fact only 49 because the two non-starters referred to above and a French Ford GT40 which

blew up its engine were not replaced by reserves. Fastest in practice were:

1st, Andretti/Amon (Ferrari 312P)	2 min 48.2 sec
2nd, Siffert/Redman (Porsche 908)	2 min 48.7 sec
3rd, Rodriguez/Schetty (Ferrari 312P)	2 min 50.6 sec
4th, Herrmann/Ahrens (Porsche 908)	2 min 51.9 sec
5th, Servoz-Gavin/Guichet (Matra 630/650)	2 min 53.0 sec
6th, Elford/Attwood (Porsche 908)	2 min 53.2 sec
7th, Schütz/Mitter (Porsche 908)	2 min 53.6 sec
8th, Bonnier/Müller (Lola T70-Chevrolet)	2 min 56.0 sec
9th, Widdows/Norinder (Lola T70-Chevrolet)	2 min 58.9 sec
10th, Gardner/de Adamich (Lola T70-Chevrolet)	2 min 59.5 sec

Clearly the Ferraris were ideally suited to Monza where much of their development testing had been carried out and only Siffert amongst the Porsche seemed capable of challenging them. The cars were set out on a dummy grid and then moved forward to the actual starting grid. When the flag fell, the red Ferraris, their V-12 engines screaming at full pitch, pulled out ahead of the pack of white, deeper and harsher-sounding Porsches. It is sometimes said that Siffert is the finest sports car driver of all time, but, be that as it may, he is certainly the finest at the present time. All round that first lap he battled with the 312Ps of Rodriguez and Andretti and he crossed the line as the meat in a Ferrari sandwich; and so the battle went on lap after lap, with the three cars slip-streaming each other, coming off the banking nose to tail, weaving through groups of slower cars and constantly swapping places. Behind these three – and a long way behind – came Elford, Schütz, Servoz-Gavin and Herrmann, while much of the rest of the field acted simply as moving chicanes. Already Lolos were in trouble, for Bonnier had blown up his engine on the first lap, Gardner had stopped for the rear bodywork to be examined after he had been rammed up the back and Widdows stopped to have the nose of his car patched after mixing it with an Alpine.

With a tenth of the race gone, Schütz brought his 908 in with the gearbox jammed in second – after it had been worked on, this 908 resumed the race with Mitter at the wheel. Siffert had settled down to keeping station behind Rodriguez – unable to get ahead and stay ahead, and hopeful that something on the Ferrari would break. By now the pace had proved too hot for Andretti's Ferrari which had made an unscheduled pit stop for rear tyres – the 312Ps had been throwing treads in practice as well – and he took the opportunity to refuel. When the Italo-American rejoined the race he had

dropped to fifth behind Elford and Herrmann. The Matra, when in fifth place, had stopped at the pits with fuel starvation.

At just over quarter-distance both Rodriguez and Siffert stopped for fuel and the Ferrari, now with Schetty at the wheel, resumed the race without losing its lead. And Schetty, much to the crowd's delight, was lapping faster than Redman, who had taken over from Siffert, so the Ferrari lead increased, and Andretti, making up ground after his unscheduled pit stop, had passed Elford by 300 kilometres to hold third place. Now the retirements started to mount up; the Matra, with Guichet at the wheel, was still suffering from fuel-feed trouble and when overheating caused a cylinder head gasket to fail, the car was withdrawn. Another casualty was the Schütz/Mitter Porsche which continued to be plagued by gear-selector trouble and a missed gear eventually caused the engine to over-rev and break. Among the Lolas there had been as much trouble as usual, for Hawkins had suffered a seized front-wheel bearing and after a few anxious moments in the *Lesmo* curves before limping back to the pits to retire; the Craft/Liddell car was withdrawn with expensive noises in the transmission and it was much the same with the Widdows/Norinder entry, except that the noises came from the engine.

So Schetty/Rodriguez still led from Siffert/Redman, Amon/Andretti, Elford/Attwood and Herrmann/Ahrens, but then Ferrari troubles started. On lap 37 Schetty came into the pits with a punctured tyre, but after the wheel had been changed the engine refused to fire. Mike Parkes and the mechanics push-started it and then, in accordance with the race regulations, the engine was switched off and the car was then re-started on the starter motor – but by the time the Ferrari had rejoined the race, over a lap and the lead had been lost. Although Andretti closed right up on Redman and passed him, the Ferrari was due to stop for fuel and Amon to take over. When Amon re-started, the order was Redman, Attwood, Schetty and himself and he had completed less than a lap when the Ferrari's engine blew up in a big way. Then Attwood came in for a cooling fan drive-belt to be replaced and spent a long time in the pits. Now only Redman and Schetty were on the same lap, but nearly the whole lap separated them.

Although Schetty was slowly gaining on the leading Ferrari, all his efforts came to nothing when the Ferrari suffered another tyre failure. Rodriguez took over and after trouble in starting the car, the Mexican shot back into the race, over a lap behind the leader and bent on making up the deficit. Unfortunately, Rodriguez was trying rather too hard, spun avoiding a slower car and smacked the nose and tail of the car against the guard-rails. The right-hand front

and left-hand rear of the Ferrari's bodywork were shattered, as was the left-hand rear wheel, and in a cloud of smoke he drove back to the pits for a new wheel to be fitted. Rodriguez rushed off again in third place without explaining what had happened and had soon closed up again on the Porsche of Herrmann/Ahrens; but before he could pass the 908 the entire tail-section disintegrated as the car passed the grandstands at around 175 mph. The Ferrari lashed round in a terrifying high-speed spin, crashed backwards into the nearside guard-rail – which smashed the rear suspension – and spun on for a further hundred yards before coming to rest on the grass on the right-hand side of the circuit. Rodriguez was completely uninjured, but felt as shattered as the car was!

The race as such was over and Porsche were in complete control with Siffert/Redman, Herrmann/Ahrens and Elford/Attwood in the first three places, but the dramas were not yet over. With three-quarters of the race run, Elford had a tyre deflate as he took the flat-out Vialone curve and his 908 spun and wrote itself off against the guard-rails. This allowed the 907 Porsche of Koch and Dechent to move up to third place, while fourth place was fought between the Ford GT40 of Kelleners/Jöst, the Alpine of Depailler/Jabouille and the Lola of Gardner/de Adamich, which had been at it hammer and tongs ever since the start. As the winning Porsche started its final lap, the fourth-place fight was still being waged, but all three combatants got crossed up coming out of the *Lesmo* curves; Gardner rammed the Alpine which shot off the road, up a grass bank and overturned and the GT40 sailed through to the finish. While Depailler was being taken to hospital with minor injuries, the Lola took the chequered flag and fifth place.

The Monza race provided Porsche with a great deal of satisfaction and it seemed that at long last they had recovered the reliable and consistent form displayed in 1967 when they were racing the 907 cars. As for Ferrari, the sleek red cars had speed enough and more it seemed only a matter of time before a Prototype victory again came Maranello's way.

MONZA 1000 KILOMETRES RACE

Monza

25th April, 1969

Circuit length: 6.214 miles. Weather: Fine throughout the race.

1st, J. Siffert/B. Redman (Porsche 908 3-litre), 100 laps, 621.4 miles (128.39 mph),*

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- 2nd, H. Herrmann/K. Ahrens (Porsche 908 3-litre), 99 laps,
3rd, G. Koch/H.-D. Dechent (Porsche 907 2.2-litre), 92 laps,
4th, H. Kelleners/R. Jöst (Ford GT40 4.7-litre), 92 laps,*
5th, F. Gardner/A. de Adamich (Lola T70 Mk 3B-Chevrolet
5-litre), 92 laps,
6th, P. Depailler/J. P. Jabouille (Alpine-Renault A220 3-litre),
91 laps,†
7th, E. Pinto/G. Alberti (Alfa Romeo T33 2-litre), 88 laps,*
8th, T. Pilette/R. Slotemaker (Alfa Romeo T33 2.5-litre), 87 laps,
9th, J. Neuhaus/D. Froelich (Porsche 911T 2-litre), 82 laps,*
10th, A. Zadra/G. Dalla Torre (Alfa Romeo T33 2-litre), 82 laps,*
11th, G. Larousse/D. Spoerry (Porsche 911T 2-litre), 82 laps,
12th, O. Stuppacher/K. Rieder (Porsche 906 2-litre), 79 laps,
13th, H. D. Blatzheim/W. Zanders (Porsche 911T 2-litre), 78 laps,
14th, U. Locatelli/M. Zanetti (Fiat-Abarth 1-litre), 78 laps,
15th, J. P. Hanrioud/D. Martin (Ford GT40 4.7-litre), 76 laps.

* Class winner.

† Not running at finish.

Fastest lap: P. Rodriguez (Ferrari 312P 3-litre), 2 min 48.1 sec.
(134.41 mph).

Race lap record: J. Surtees (Ferrari 330/P2 4-litre), 2 min 47.2 sec -
1965.

Principal retirements: Amon/Andretti (Ferrari), engine; Rodriguez/
Schetty (Ferrari), accident; Servoz-Gavin/Guichet (Matra), engine;
Mitter/Schütz (Porsche), engine; Elford/Attwood (Porsche), engine;
de Cortanze/Vinatier (Alpine), engine; Depailler/Jabouille (Al-
pine), accident; Bourgoignie/Gosselin (Alfa Romeo), fuel feed;
Craft/Liddell (Lola), transmission; Bonnier/Müller (Lola), engine;
Piper/Hawkins (Lola), wheel bearing; Norinder/Widdows (Lola),
transmission.

Targa Florio

The Sicilian race is one of the oldest in the history of motor racing and the 1969 event was the fifty-second in the series. With the Circuit of Mugello it shares the distinction of being held on one of the only two surviving true road courses - the 44.7 mile Little Madonie circuit formed by the normal twisting, winding, bumpy, Sicilian roads edged by mountain sides, stone walls and sheer drops, taking in narrow village streets and the main highway, dusty when it is dry and a mud-bath when it is wet. Porsche and Alfa Romeo had each won the race on eight occasions, Ferrari's score of victories stood at six, Bugatti's at five, while Lancia and Maserati had each won the race on four occasions. The German company had won the

race three years in succession and were all set for their fourth successive victory. In 1966 and 1967 they had faced stiff opposition from Ferrari and in 1968 from Autodelta, but this year it looked as if the Porsche team were going to have a walk-over.

Although drivers usually spend several days practising before the official session – in the view of Roberto Bussinello of Autodelta it takes three weeks' solid practice to learn the circuit – the practice proper is on the Friday and this leaves the whole of Saturday for preparing the cars.

Porsche System Engineering fielded a grand total of six 908 *Spyders* driven by Vic Elford/Umberto Maglioli (the veteran Italian who had won the race in 1953, 1956 and 1968), Brian Redman/Richard Attwood, Gerard Larrousse/Rudi Lins, Gerhard Mitter/Udo Schütz, Karl von Wendt/Willi Kauhsen and Stommelen/Herrmann. Jo Siffert was not in the team because the race clashed with the Spanish Grand Prix. In addition Porsche entered a 911R (the Group 6 version of the 911 with lightweight glass-fibre panels and the four-cam 910 engine) for Dieter Spoerry and Pauli Toivonen. Other Porsches in the race were the 907s of Manfredini/Selva (2.2-litre), Koch/Dechent (2.2-litre) and Nicodemi/Jonathan Williams (2-litre).

As for the opposition, there was very little. From Autodelta there was a 2.5-litre Alfa Romeo Tipo 33 for Nino Vaccarella/Andrea de Adamich and similar 2-litre Group 4 cars for Mario Casoni/Spartaco Dini and Ignazio Giunti/'Nanni' Galli. A private 2-litre Tipo 33 ran in the Group 6 class (Giorgio Alberti/Enrico Pinto) and another belonging to Zadra in the Group 4 over 1600 cc class. The German IGFA team fielded a 2-litre Abarth for Bitter/Kelleners and there was a brand-new and much strengthened (especially the suspension) Lola T70 3B – Traco-Chevrolet entered by Scuderia Filipinetti for Joakim Bonnier and Herbert Müller. Two British Group 4 Chevrons were entered, Mark and Gabriel König were giving the Nomad Mk 2 – BRM 2-litre car its first outing and in the 2000 cc Group 6 class there were two entries from Squadra Lancia; these were cheeky-looking little Fulvias hotted up and with the tops cut off for Claudio Maglioli/Rafaele Pinto and Sandro Munari/Rauno Aaltonen. Ferrari did not enter because of the proximity of the Monza and Spa races.

Practice saw the entries reduced by crashes and Dini pranged his Alfa 33 so badly that it could not run – co-driver Casoni was given a drive in Zadra's similar, but private car, and 'Nomex' spun his 910 Porsche backwards into a bridge parapet, putting it out of the race. He was, however, able to get a drive in a 911. Fastest in practice were:

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1st, Stommelen/Herrmann (Porsche)	. . .	36 min 22.2 sec
2nd, Mitter/Schütz (Porsche)	. . .	36 min 25.1 sec
3rd, Maglioli/Elford (Porsche)	. . .	36 min 33.5 sec
4th, Müller/Bonnier (Lola)	. . .	37 min 8.7 sec
5th, Vaccarella/de Adamich (Alfa Romeo)	. . .	37 min 16.0 sec
6th, Giunti/Galli (Alfa Romeo)	. . .	37 min 21.0 sec
7th, Attwood/Redman (Porsche)	. . .	37 min 46.0 sec
8th, Larrousse/Lins (Porsche)	. . .	38 min 55.0 sec

The start was scheduled for 8 am on the Sunday, but was delayed twenty-five minutes. When the cars did go off, it was not in the orderly manner prescribed by the organisers and it took only six minutes for the seventy-nine starters to go off in huge gaggles, which meant plenty of shoving and pushing all the way round the first lap. For obscure reasons the Alfa of Vaccarella was the first away, but by the town of Cerda, about eight kilometres from the start, the Porsche of Elford was heading the field, followed by Mitter, Stommelen, Vaccarella, Attwood, Koch, Kauhsen and Giunti. *The* fantastic first-lap drive, however, was put up by Herbert Müller; the Lola had been delayed at the start by ignition trouble and had left two minutes after the last starter – on that first lap he overtook 60 cars, whereas the works Porsches had a comparatively clear run, and worked his way up to third place.

At the end of lap two Elford lost the lead to Mitter by having to stop for the alternator belt to be replaced, while Lins stopped to hand over to Kauhsen, but the car was delayed a long time in the pits with gear-selection problems. All Müller's efforts with the Lola came to nothing when he suffered a puncture and crawled round to the pits on the rim; the wheel was changed, Bonnier took over, but there was something seriously wrong with the handling and the Swedish driver only completed a single lap before retiring. Elford had been making up time after his pit stop and fed up with sitting behind 'Nanni' Galli's second-place Alfa which he had followed for five kilometres, he tried to force his way past on a hairpin bend; the Porsche hit the Alfa, pushing it into a wall and deflating the two left-hand tyres; the Italian limped on to a service point where the wheels were changed, but the suspension had been damaged and this caused the car's retirement on the next lap.

Another casualty was the Alfa Romeo Tipo 33 of Casoni, which had glanced off a tree, hit the bank and burst into flames, but, happily, the driver was only slightly hurt. On lap five the Porsche 907 of Nicodemi, then leading its class, had caught up the Nomad of Gabriel Konig which was limping back to the pits with a puncture: because of a misunderstanding as to which side he was going

to overtake on, Nicodemi went off the road after hitting the British car and bent the Porsche's chassis. The Nomad failed to make it back to the pits and retired when the suspension collapsed. Nicodemi arrived at the pits in a spectator's car, complaining bitterly about the English woman who had pushed him off the road and lost him his class victory.

By half-distance the order was: 1st, Mitter/Schütz; 2nd, Redman/Attwood; 3rd, Stommelen/Herrmann; 4th, Elford/Maglioli; 5th, Vaccarella/de Adamich (the only non-Porsche car in the first six, but slowed by a rough engine); 6th, Kauhsen/von Wendt.

At the end of five of the ten laps, Herrmann came into the pits with a steering fault that took some while to sort out and cost him a place. The Prototype Lancia of Aaltonen was running really well and this driver put in five hard, fast laps, working the car up to eighth place before handing over to his team-mate. Schütz retained his lead on lap six, but Maglioli had moved up to second place ahead of Attwood, Herrmann and von Wendt. In sixth place was the Alfa of de Adamich, but this blew up its sick engine on lap six, allowing the 2-litre Tipo 33 of Alberti to move up a place.

Next time round Schütz stopped to hand over to Mitter, but on that lap Attwood retired out on the circuit with drive-shaft failure. There were now only six cars on the same lap and as the leaders started their final circuit, Mitter led from Elford by just under four-and-a-half minutes. In 1968 Elford and Maglioli had won after delays caused by wheel trouble, but there were no prospects of that in 1969 and at the finish Elford was 2 min 40 sec behind Mitter, who had enjoyed an absolutely trouble-free race. Porsche had now won the Targa Florio more times than any other manufacturer and had consolidated an already formidable lead in the Sports Car Championship. But after the disappearance of the three fastest Tipo 33 Alfa Romeos it had been a landslide and not a race. Throughout, the Bonomelli/Guzzi and Ostini/'Nomex' 911T Porsches had been engaged in conflict and the former pair had finished tenth and won the GT category. They had, however, made the mistake of passing the Ostini/'Nomex' car flat out along the bumpy straight and their speed was such that it was obvious that the car had been modified. The Porsche was inspected, it was found that the valve gear was non-standard and the car was disqualified!

TARGA FLORIO

Little Madonie

4th May, 1969

Circuit length: 44.7 miles. 10 laps (447 miles). Weather: Hot and windy.

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- 1st, G. Mitter/U. Schütz (Porsche 908 3-litre), 6 hours 7 min 45.3 sec (72.99 mph),*
- 2nd, V. Elford/U. Maglioli (Porsche 908 3-litre), 6 hours 10 min 34.0 sec,
- 3rd, H. Herrmann/R. Stommelen (Porsche 908 3-litre), 6 hours 21 min 26.7 sec,
- 4th, K. von Wendt/W. Kauhsen (Porsche 908 3-litre), 6 hours 35 min 33.5 sec,
- 5th, E. Pinto/G. Alberti (Alfa Romeo T33 2-litre), 6 hours 46 min 35.3 sec,*
- 6th, G. Koch/H-D. Dechent (Porsche 907 2.2-litre), 9 laps,
- 7th, C. Manfredini/L. Selva (Porsche 907 2.2-litre), 9 laps,
- 8th, E. Bitter/H. Kelleners (Abarth 2000S 2-litre), 9 laps,*
- 9th, R. Aaltonen/S. Munari (Lancia Fulvia HF 1.6-litre), 9 laps,*
- 10th, E. Bonomelli/C. Guzzi (Porsche 911T 2-litre), 9 laps - but later disqualified,
- 11th, E. Ostini/'Nomex' (Porsche 911T 2-litre), 9 laps,*
- 12th, S. Calascibetta/V. Ferlito (Fiat-Abarth 1-litre), 9 laps,*
- 13th, G. Banetto/D. Moras (Porsche 911T 2-litre), 9 laps,
- 14th, E. Sindel/D. Benz (Porsche 911 2-litre), 9 laps,
- 15th, P. Brown/R. Enever (Chevron B8-BMW 2-litre), 8 laps.

* Class winner.

Fastest lap: V. Elford, 35 min 8.2 sec (76.40 mph - record).

Previous race lap record: V. Elford (Porsche 907 2.2-litre), 36 min 2.3 sec (74.48 mph).

Principal retirements: Müller/Bonnier (Lola), suspension; Giunti/Galli (Alfa Romeo), accident; Nicodemi/Williams (Porsche), accident; Vaccarella/de Adamich (Alfa Romeo), engine; Redman/Attwood (Porsche), drive-shaft failure; Casoni/Zadra (Alfa Romeo), fire after crash.

Spa 1000 Kilometres Race

Only a week after the Targa Florio was the Spa 1000 Kilometres race. It seemed odd that this sports car race should take place at Spa, while the Grand Prix should be cancelled on safety grounds, but the simple answer was that the Belgian Grand Prix was organised by the Royal Automobile Club of Belgium and the 1000 Kilometres race by the Royal Automobile Club of Spa. The latter did not care tuppence for the views of either the Grand Prix Drivers' Association or the constructors and in the event there appeared for

the race seven Grand Prix drivers and one Formula One constructor. The first Spa 1000 Kilometres race was held in 1966 (there was a 500-Kilometre Group Four race there in 1964 and 1965) and was a direct descendant of that great classic, the Belgian 24 Hours Touring Car Grand Prix, which started in 1924 and survived until 1953. This is now held as a race for Touring cars proper, i.e. saloons. Spa has changed a great deal over the years and it is now the world's fastest road circuit. The speed of the winning Bignan in 1924 was only 48.70 mph, while in 1953 the winning Ferrari of Farina and Hawthorn averaged 94.84 mph and in 1968 the speed of the winning Ford in the wet was 122.11 mph. The furore over the safety of Spa had reflected itself in the increased insurance premium required from the organisers; as a result they were able to pay less starting money than usual and this in turn reflected itself in the low entry of forty-six cars; of these only thirty-seven appeared at the circuit and thirty-one started. Matra had entered two cars, but withdrew them after a fire in the engine testing shop.

The main contenders were:

Porsche:

- 917: Two of the new 4.5-litre cars were entered by the works; only that of Schütz/Mitter ran, as Siffert/Redman preferred to drive a 908.
- 908: Two of the long-tailed coupés were entered for Stommelen/Herrmann and Elford/Ahrens; the team also brought along two spare cars and one of these Siffert/Redman drove.
- 907: The German BG team entered two 2.2-litre cars for von Wendt/Kauhsen and Dechent/Koch.
- 910: Bill Bradley entered his car for himself and Tony Dean.

Ferrari:

- 312P: Maranello had hoped to field two cars, but Rodriguez' accident at Monza had made this impossible. Chris Amon was ill and so Pedro Rodriguez was partnered by David Piper.

Mirage:

J.W. Automotive entered two of the V-12 BRM-powered Mirages for Ickx and Oliver (this car had a two-pipe system with megaphones

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exhaust devised by Gulf Engineers) and Hobbs/Hailwood (this car had a four-pipe system with very large megaphones developed by Weslake Engineering).

Alpine:

A-220: Three were entered by the works for Jabouille/Grandsine, de Cortanze/Vinatier (both with radiators mounted across the tail) and Andruet/van Lennep (older car with side radiators and foot-operated rear spoiler).

Alfa Romeo:

Tipò 33-2: Two of the coupés with 2.5-litre engines were entered by the VDS team for Pilette/Slotemaker and Bourgoignie/Gosselin.

Lola:

T70 Mk3B-Chevrolet: Three were driven by Paul Hawkins/David Prophet, Joakim Bonnier/Herbert Müller and Picko Troberg/Bjorn Rothstein.

Chevron:

B8-Cosworth: Entered by John Bridges for himself and John Lepp.
B8-Ford twin-cam: Entered by Andrew Mylius for himself and Alan Harvey.
B8-BMW: Entered for Edwards/Franey, Burton/Ridgeway, Clydesdale/Hunter, Taggart/Goodwin and Brown/Enever.

There was rain on every day of practice and most of the Porsche drivers were reluctant to handle the 917 in these conditions – only Siffert was brave enough to have a real go; with the car twitching about and using every inch of road, he managed to record fastest lap in 3 min 41.9 sec but the car was such a brute that it was almost frightening to watch. When Siffert and Redman elected to drive a 908, pole position went to the Lola of Paul Hawkins which was beautifully turned out and running magnificently. At Spa the cars lined up for the start in an alternative three and two arrangement and the fastest in practice were:

1st	Hawkins/Prophet (Lola T70)	. . .	3 min 42.5 sec
2nd	Ickx/Oliver (Mirage - BRM)	. . .	3 min 46.6 sec
3rd	Siffert/Redman (Porsche 908)	. . .	3 min 48.6 sec
4th	Rodriguez/Piper (Ferrari 312P)	. . .	3 min 56.3 sec
5th	Bonnier/Müller (Lola T70-Chevrolet)	. . .	3 min 57.4 sec
6th	Elford/Ahrens (Porsche 908)	. . .	3 min 59.1 sec
7th	Herrmann/Stommelen (Porsche 908)	. . .	4 min 1.7 sec
8th	Mitter/Schütz (Porsche 917)	. . .	4 min 6.1 sec

Hawkins' garish red Lola went straight into the lead at the fall of the flag, heading Ickx, Rodriguez and Siffert, but by the end of that first lap the order was Hawkins, Siffert, Rodriguez Ickx, Bonnier, Elford and Herrmann. Jo Siffert was not content to sit in second place and on lap three took the lead, with Rodriguez nipping through in his slipstream. After only one lap the 917 Porsche crawled into the pits to retire with a broken engine and four laps later Herrmann stopped to change a punctured rear tyre. The leaders had started to lap the slowest cars after only three laps and on lap eight they caught von Wendt's 907 Porsche which was motoring down the middle of the road. As the BG Team car headed for the Eau Rouge bridge, Siffert squeezed his 908 through, but there was not enough room for Rodriguez as well and the Ferrari hit the 907, causing it to spin off over a bank, destroying itself and the advertisement hoarding that it hit. The Ferrari stayed on the road, but Rodriguez lost his second place to Hawkins and, possibly, the race by a pit stop to have the bodywork checked. A mere ten laps had elapsed when Ickx brought the Mirage in with fuel feed trouble, a new pump was fitted, but he only managed a lap-and-a-half before retiring out at Stavelot corner.

The Ferrari stopped for fuel after just over an hour's racing and the Porsches and the Lolas came in one by one to refuel. By the time everyone had made a pit stop and sorted themselves out the order was Redman - Rodriguez - Hawkins - Ahrens - Pilette (Alfa Romeo) - Kelleners (Ford GT40), with the last two a lap in arrears. Rodriguez still remained at the wheel after his second stop at around the half-distance mark and maintained station behind Siffert even if he could not catch him, but when Piper took over, the Ferrari lost ground, although succeeding in staying ahead of third-placeman Elford. When Siffert lapped Elford, the British driver tucked in behind the Swiss and as he swept round the circuit, lapping in Siffert's slip-stream quicker than he could on his own, he began to get dangerously close to the Ferrari. At the next fuel stop Piper was replaced by Rodriguez, the Ferrari still had to make another pit stop and all the time the Porsche of Elford was getting closer. One-

and-a-half laps before the finish of this race, which was over far sooner than one expects of a Championship round, the engine of the fourth-place Lola of Hawkins and Prophet lost its oil pressure and was abandoned out on the circuit. Although Elford closed within 11 sec of Rodriguez, he was baulked when overtaking a pack of slower cars and by the time Siffert took the chequered flag at the end of the 71 laps, he had not been able to make up the ground. The 1969 Spa race must go down in the records as a duel between Siffert and Rodriguez. Where would Porsche be without the exceptionally quick Swiss driver?

SPA 1000 KILOMETRES RACE

Spa-Francorchamps

11th May, 1969

Circuit length: 8.76 miles. 71 laps. Weather: Fine throughout the race.

- 1st, J. Siffert/B. Redman (Porsche 908 3-litre), 4 hours 24 min 19.6 sec (141.20 mph),*
- 2nd, P. Rodriguez/D. Piper (Ferrari 312P 3-litre), 4 hours 27 min 52.1 sec,
- 3rd, V. Elford/K. Ahrens (Porsche 908 3-litre), 70 laps,
- 4th, R. Stommelen/H. Herrmann (Porsche 908 3-litre), 67 laps,
- 5th, J. Bonnier/H. Müller (Lola T70 Mk 3-Chevrolet 5-litre), 67 laps,*
- 6th, T. Pilette/R. Slotemaker (Alfa Romeo T33 2.5-litre), 65 laps,
- 7th, D. Hobbs/M. Hailwood (Mirage-BRM 3-litre), 65 laps,
- 8th, P. Hawkins/D. Prophet (Lola T70 Mk 3B-Chevrolet 5-litre), 64 laps,†
- 9th, P. Sadler/P. Vestey (Ford GT40 4.7-litre), 64 laps,
- 10th, H. Kelleners/R. Jöst (Ford GT40 4.7-litre), 64 laps,
- 11th, P. Troberg/R. Rothstein (Lola T70 Mk 3B-Chevrolet 5-litre), 63 laps,
- 12th, W. Bradley/A. Dean (Porsche 910 2-litre), 61 laps,*
- 13th, G. Larrousse/R. Lins (Porsche 911 2-litre), 58 laps,*
- 14th, J. Rey/E. Berney (Ferrari 275 GTB2 3.3-litre), 58 laps,
- 15th, G. Edwards/M. Franey (Chevron B8-BMW 2-litre), 58 laps.

* Class winner.

† Not running at finish.

Fastest lap: B. Redman, 3 min 37.1 sec (145.28 mph – record).

Previous race lap record: M. Parkes (Ferrari P4 4-litre, 3 min 46.4 sec (139.19 mph).

Principal retirements: Ickx/Oliver (Mirage), fuel system; Grandsire/Jabouille (Alpine), oil leak; von Wendt/Kauhsen (Porsche), accident; Dechent/Koch (Porsche), fuel pump; Mitter/Schütz (Porsche), engine; Hawkins/Prophet (Lola), engine.

Nürburgring 1000 Kilometres Race

In terms of prestige and fame the Nürburgring race ranks only after Le Mans and the Targa Florio. It was first held in 1953 when a lone 4½-litre Ferrari scored an easy victory over the Ecurie Ecosse C-type Jaguar of Stewart and Salvadori. The race then lapsed until 1956 when a Maserati was the victor and Aston Martin scored a hat-trick in 1957-59. As Porsche power increased in Prototype racing, this difficult circuit was one on which the superbly handling Stuttgart cars showed up well. The make took first three places in 1967 and were first and second in 1968. This year they were all set for the hat-trick and the only serious opponent was likely to be the single Ferrari.

Porsche entered a grand total of six 908 *Spyders*. Of these three were new cars with redesigned and much smoother bodies with small fixed spoilers on the tail, a slightly raised glass-fibre panel round the cockpit instead of a windscreen and a cockpit fairing and these were to be driven by Siffert/Redman, Elford/Ahrens, Stommelen/Herrmann, while two of the older cars were entered for Mitter/Schütz and Kauhsen/von Wendt. In addition, Porsche Konstruktionen Salzburg fielded a 908 for Lins/Attwood. When Siffert crashed in unofficial practice on the South circuit the spare Austrian car was substituted, and when Elford crashed on the Friday the Stuttgart team's own spare car was used. The new bodies were proving unstable and no one was too keen to handle the remaining example. The same was true of the sole 917 that had been brought along. BMW team manager Steinmetz gave permission for his Formula Two drivers Hahne and Quester to drive it, but when the BMW directors heard about this, they were horrified that their drivers should handle such an unproven brute and immediately vetoed it. After telephone calls to London, David Piper and Frank Gardner were flown over to drive the 917 and their initiation was in the wet Saturday practice.

Serious opposition to the Porsche team was limited to the 312P Ferrari of Amon and Rodriguez. In addition there were two Mirages from J.W. Automotive. The team was never really in the picture because the Mirages had not run at the Nürburgring before and the team had the problem of coping with two new engines and a new

chassis layout. The car driven by Ickx/Oliver was a brand-new one powered by the Cosworth V-8 Grand Prix engine and fitting this had necessitated strengthening the main monocoque structure behind the cockpit with riveted box-sections and adding a tubular frame extending rearwards instead of the normal rear monocoque extensions which were not far enough apart to take the new power unit. Hobbs/Hailwood had one of the existing cars fitted with latest 48-valve BRM engines.

Autodelta had entered two of their 3-litre cars, but turned up at the circuit with a trio of 2-litre Group 4 cars which ran in the name of Alfa Romeo Deutschland and were driven by de Adamich/Vaccarella, 'Nanni' Galli/Giunti and Schultze/Facetti. The VDS Team, however, ran their 2.5-litre Group 6 car for Pilette/Slotemaker, as well as one in 2-litre Group 4 trim for Bourgoignie/Gosselin. From Abarth came three 2-litre cars, two in Group 4 which were crashed in practice and a Group 6 car for Ortner/van Lennep. Backing up the works cars were three private 907 Porsches, the 2.2-litre car of Koch/Dechent and the 2-litre versions of Manfredini/Biscaldi and Nicodemi/Moser. An interesting entry was the McKechnie Racing Lola T70 with an open T160 body and BRM 24-valve V-12 engine driven by Wilson/Walker. As at the Targa Florio, Lancia entered their cut-down Fulvias for Maglioli/Pinto and Munari/Aaltonen. Only three Lola T70s ran in the Group 4 class, those of Bonnier/Müller, Prophet/Nelson and Troberg/Rothstein. There was a bevy of Chevron-BMWs, including a works car for Hahne/Hine, but when the former was offered the Porsche drive, Reiné Wisell was given his first go at the Nürburgring.

Apart from the two Porsches and two Abarths, practice eliminated Rothstein's Lola, which was crashed and Granville-Smith's Cobra, which broke its engine, and with the failure of a number of entrants to turn up the total number of starters was 65.

Fastest in practice were:

1st, Siffert/Redman (Porsche 908)	8 min 0.2 sec
2nd, Amon/Rodriguez (Ferrari 312P)	8 min 0.3 sec
3rd, Mitter/Schütz (Porsche 908)	8 min 1.3 sec
4th, Stommelen/Herrmann (Porsche 908)	8 min 4.2 sec
5th, Elford/Ahrens (Porsche 908)	8 min 11.0 sec
6th, Attwood/Lins (Porsche 908)	8 min 11.1 sec
7th, von Wendt/Kauhsen (Porsche 908)	8 min 15.7 sec

Of these the first three were all below the outright circuit held by Stewart's Formula Two Matra.

In previous years there has always been a Le Mans start in the

1000 Km race, but since 1968 a guard-rail had been erected along the front of the pits and this had rather restricted the road space. It was decided therefore to have a two-by-two rolling start, the official reason being that with a Le Mans start the drivers did not have time to fasten their safety belts properly. The entry lined up behind a Mercedes-Benz 280SL in which Fangio was riding, streamed down to the South turn, back along the return road and then round the North turn loop road so that they came back to the pits area. At this point the pace car dived down the pit road, nobody saw Fangio drop the flag and the field was none too sure what to do, and with the front rows crowded by those behind. Finally, Mitter got away first, Amon was boxed in by all the Porsches, and Siffert swooped through to take the lead.

On that first lap several cars fell by the wayside; Lepp with the Red Rose Motors' Chevron-FVA struck the Porsche 906 of Axelsson when it slid sideways – the Porsche went on, but the Chevron didn't – and Wilson went off the road with the Lola-BRM. And on this first lap Siffert set a new sports car record of 8 min 29.4 sec, leading, as they came past the pits, from Mitter, Amon, Elford, Attwood, Stommelen, Ickx, Kauhsen and Kelleners (the latter with the Ford GT40 of the *Deutsche Auto Zeitung* team). Other early retirements were the Tipo 33 of Giunti/Galli, which blew up its engine, the Belgian 2½-litre Alfa which Pilette crashed, and Prophet's Lola, which stopped out on the circuit, while Bonnier brought his Lola into the pits at the end of the first lap. By lap four Amon had squeezed the Ferrari past Mitter and the race settled down into the usual test of endurance seen at the Nürburgring. Back in fourteenth place Goliath, the unwieldy 917 Porsche, rumbled round hounded by David, the diminutive works Chevron of John Hine.

Lap after lap the leading two cars reduced the sports car record and by quarter-distance – after the first refuelling stops – Redman (having taken over from Siffert) led by 38 seconds from Rodriguez (who had taken over from Amon) and the experts who thought that the Ferrari would now be able to close the gap were proved wrong. Ahrens was fourth ahead of Herrmann. Mechanical troubles started to afflict the leading cars; Schütz brought the third-place 908 in with seized left-hand front wheel bearings and it rejoined the race after 40 minutes, while Oliver, unhappy with the steering of the Mirage, brought it in the pits where the nut holding the wishbone to the bottom of the upright was tightened. Hail had started to fall round part of the circuit, but most people drove sensibly and the only casualty was the works Chevron with which Wisell ran out of road. Oliver had rejoined the race just ahead of Hailwood and the two Mirages ran in company for a short while; then Oliver's car

stopped out at *Karusel* with broken rear suspension, while Hailwood lost the fuel pressure on the BRM-powered car and did not know how to open the bonnet to investigate.

Just before half-distance and the second bout of refuelling stops the order was Redman, who had increased his lead to nearly two minutes, Rodriguez, Herrmann and Ahrens fighting it out for third place, Lins, von Wendt, the German GT40 and Bonnier with his Lola. When refuelling started, Amon lost over a minute because of the need to change a front and rear tyre and rejoined the race in fourth place. The New Zealander pressed on to make up lost ground, caught and passed Elford, but then was forced to come back into the pits again because of a front end vibration. The other front wheel was changed and he rejoined the race. Driving brilliantly, he started to make up ground again, setting on lap 28 a new circuit record of 8 min 03.3 sec, but it was all in vain, for the Ferrari stopped out at Wippermann on the next lap with electrical trouble. Amon tried with pliers and wire to get the car going again and, although it restarted, he had to abandon it altogether after a short distance. The race was now a complete Porsche benefit and even the battle in the Group 4 class between the German GT40 and the Lola of Bonnier had come to an end when the British car retired with a broken drive-shaft.

The first three positions, all occupied by Porsche 908s, remained unchanged until the chequered flag, although Redman stopped two laps from the finish to hand over to Siffert. Porsche had now won the Sports Car Championship and were delighted with the results after their practice troubles. The Stuttgart concern also won the 2-litre Group 6 class, for the Abarth had retired with final drive trouble and victory in this category went to the 907 of Nicodemi and Moser. In seventh place, having covered only 40 of the 44 laps, was the 917 - Porsche might well have built 25 of these and be willing to sell them at £14,000, but the model was still a very long way from being a race-winning proposition. Victory in the smallest Group 6 class went to the Lancia Fulvia of Munari and Aaltonen, which finished 27th.

NÜRBURGRING 1000 KILOMETRES RACE

Nürburgring

1st June, 1969

Circuit length: 14.17 miles. 44 laps. Weather: Mainly dry with some showers.

- 1st, J. Siffert/B. Redman (Porsche 908 3-litre), 6 hours 11 min 2.3 sec (100.97 mph),*
- 2nd, R. Stommelen/H. Herrmann (Porsche 908 3-litre), 6 hours 15 min 4.2 sec,
- 3rd, V. Elford/K. Ahrens (Porsche 908 3-litre), 6 hours 16 min 9.8 sec,
- 4th, R. Attwood/R. Lins (Porsche 908 3-litre), 43 laps,
- 5th, W. Kauhsen/K. von Wendt (Porsche 908 3-litre), 42 laps,
- 6th, H. Kelleners/R. Jöst (Ford GT40 4.7-litre), 41 laps,*
- 7th, C. Facetti/H. Schültze (Alfa Romeo T33 2-litre), 40 laps,*
- 8th, F. Gardner/D. Piper (Porsche 917 4½-litre), 40 laps,
- 9th, G. Werlich/R. Ising (Porsche Carrera 6 2-litre), 39 laps,
- 10th, G. Koch/H.-D. Dechent (Porsche 907 2.2-litre), 39 laps,
- 11th, C. Bourgoignie/T. Gosselin (Alfa Romeo T33 2-litre), 39 laps,
- 12th, A. Dean/W. Bradley (Porsche 910 2-litre), 38 laps,
- 13th, S. Axelsson/H. Laine (Porsche Carrera 6 2-litre), 38 laps,
- 14th, S. Moser/A. Nicodemi (Porsche 907 2-litre), 38 laps,*
- 15th, A. de Adamich/N. Vaccarella (Alfa Romeo T33 2-litre), 38 laps.

Fastest lap: C. Amon (Ferrari 312P 3-litre), 8 min 3.3 sec (106.70 mph - record).

Previous race lap record: J. Siffert (Porsche 908 3-litre), 8 min 33.0 sec (99.54 mph).

Principal retirements: Giunti/Galli (Alfa Romeo), engine; Prophet/Nelson (Lola), oil pressure; Pilette/Slotemaker (Alfa Romeo), accident; Ickx/Oliver (Mirage), suspension; Hobbs/Hailwood (Mirage), fuel feed; Amon/Rodriguez (Ferrari), electrics; Bonnier/Müller (Lola), drive-shaft.

* Class winner.

Le Mans 24 Hours Race

The Le Mans race is hated by drivers, team managers and journalists - it lasts too long, the dust and sand get everywhere and coat cars and people alike with a filthy yellow layer and the circuit is dangerous. At many points the spectators are far too close to the track, the speed differential between the slowest and fastest cars is now close to 100 mph and at several of the more dangerous spots there is no room for a driver to take evasive action and no escape road - lining the track with Armco barriers as was done for the 1969

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race was no more than a token safety gesture. It can only be a matter of a few years before Le Mans as we know it comes to an end or there will be another appalling accident of the sort that happened in 1955. For those interested in the serious business of racing the entertainment side of Le Mans – the village and the fairground – have nothing but nuisance value, and the all-pervading smell from the fried foods stands can be quite nauseating after a sleepless Sunday night. But Le Mans still has a magic not possessed by any other race – it has the greatest popular following, and of the winning car, very often not the fastest or best handling, there is demanded a very high standard of reliability at considerable cruising speed. It is a test of braking and transmission reliability and good handling qualities are not of crucial importance.

Before the 1969 race the winning scores stood at:

Ferrari	9	Ford	3
Bentley	5	Bugatti	2
Jaguar	5	Lorraine-Dietrich	2
Alfa Romeo	4		

Chenard-Walcker, Lagonda, Delahaye, Talbot, Mercedes-Benz and Aston Martin had each won the race on one occasion.

The full list of starters in 1969 was as follows:

<i>No. Car and Practice Time</i>	<i>Drivers and Entrant</i>
1. Chevrolet Corvette, 6996 cc (4 min 5.3 sec)	H. Greder/R. Wissel (Scuderia Filipinetti).
2. Lola T70 Mk 3B- Chevrolet, 4995 cc (3 min 36.2 sec)	J. Bonnier/M. Gregory (Scuderia Filipinetti).
5. Ford GT40, 4942 cc (3 min 37.5 sec)	J. Ickx/J. Oliver (J.W. Automotive).
7. Ford GT40, 4942 cc (3 min 39.5 sec)	D. Hobbs/M. Hailwood (J.W. Automotive).
8. Ford GT40, 4728 cc (3 min 57.7 sec)	P. Sadler (entrant)/P. Vestey.
9. Ford GT40, 4942 cc (3 min 42.7 sec)	F. Gardner/M. Guthrie (Alan Mann Racing) – this was a specially built car based on a chassis bought from Holman and Moody, who had never used it. Many suspension parts from the 7-litre Mk 2 Ford were incorporated.
10. Porsche 917, 4494 cc (3 min 35.8 sec,	H. Linge/J. Woolfe (Woolfe Racing Team) – this was

No. Car and Practice Time
time set by Ahrens)

Drivers and Entrant

- the first 917 in private hands; it should have been co-driven by Digby Martland, who had the good sense to back down after a slight practice incident.
- | | |
|---|--|
| 12. Porsche 917,
4494 cc (3 min 26.7 sec) | V. Elford/R. Attwood
(Porsche System Engineering). |
| 14. Porsche 917,
4494 cc (3 min 22.9 sec) | R. Stommelen/K. Ahrens
(Porsche System Engineering). |
| 17. Ferrari 275LM,
3286 cc (3 min 53.1 sec) | T. Zeccoli/R. Rodriguez
(North American Racing Team). |
| 18. Ferrari 312P,
2997 cc (3 min 35.5 sec) | P. Rodriguez/D. Piper
(SEFAC Ferrari) – both Ferrari
works cars were fitted with hand-
some and aerodynamically effective
hard tops. |
| 19. Ferrari 312P,
2997 cc (3 min 35.6 sec) | C. Amon/P. Schetty
(SEFAC Ferrari). |
| 20. Porsche 908 <i>Spyder</i> ,
2996 cc (3 min 29.9 sec) | J. Siffert/B. Redman
(Porsche System Engineering) –
this car was fitted with vertical tail-
fins at the rear. |
| 22. Porsche 908 <i>Lang coupé</i> ,
2996 cc (3 min 32.6 sec,
time set by Siffert) | R. Lins/W. Kauhsen
(Porsche System Engineering). |
| 23. Porsche 908 <i>Lang coupé</i> ,
2996 cc (3 min 35.6 sec) | U. Schütz/G. Mitter
(Porsche System Engineering). |
| 28. Alpine A-220,
2996 cc (3 min 44.9 sec) | A. de Cortanze/J. Vinatier
(Société des Automobiles Alpine) –
1969 rear radiator car. |
| 29. Alpine A-220,
2996 cc (3 min 45.6 sec) | P. Depailler/J.-P. Jabouille
(Ecurie Savin Calberson) – 1969
rear radiator car. |
| 30. Alpine A-220,
2996 cc (3 min 47.2 sec) | H. Grandsire/J.-C. Andruet
(Société des Automobiles Alpine) –
1969 rear radiator car. |
| 31. Alpine A-220,
2996 cc (3 min 45.0 sec) | J.-P. Nicolas/J.-L. Therier
(Société des Automobiles Alpines)
– 1968 car. |
| 32. Matra 630,
2993 cc (3 min 44.6 sec) | J. Guichet/N. Vaccarella
(Equipe Matra Elf). |
| 33. Matra 650,
2993 cc (3 min 37.5 sec) | J.-P. Beltoise/P. Courage
(Equipe Matra Elf). |

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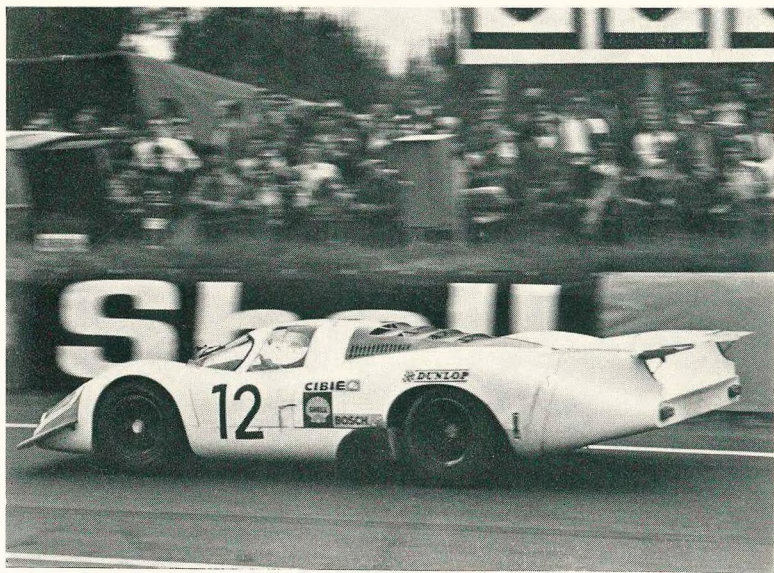
No. Car and Practice Time

34. Matra 630/650,
2993 cc (3 min 36.4 sec)
35. Matra 630/650,
2993 cc (3 min 43.8 sec)
36. Alfa Romeo Tipo 33-2,
2497 cc (3 min 53.7 sec)
37. Healey SR,
1998 cc (4 min 13.7 sec)

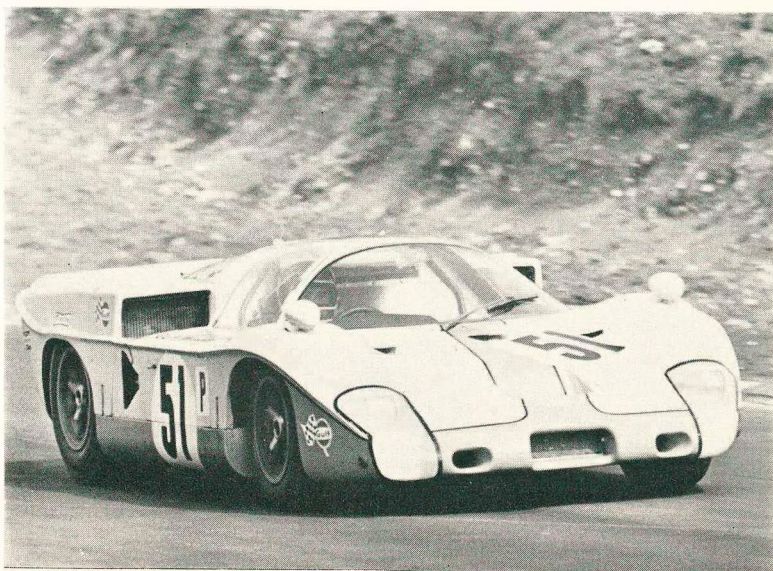
38. Alfa Romeo Tipo 33-2,
1995 cc (4 min 9.8 sec)
39. Porsche 910,
1991 cc (4 min 12.8 sec)
40. Porsche 911T,
1991 cc (4 min 30.5 sec)
41. Porsche 911S,
1991 cc (4 min 29.8 sec)
42. Porsche 911T,
1991 cc (4 min 34.3 sec)
43. Chevron B8,
1991 cc (4 min 16.9 sec)
44. Porsche 911T,
1991 cc (4 min 48.2 sec)
45. Alpine A-210,
1470 cc (4 min 22.4 sec)
46. Alpine A-210,
1470 cc
49. Alpine A-210,
1296 cc (4 min 25.8 sec)
50. Alpine A-210,
1095 cc (4 min 40.2 sec)
51. Abart 1000 SP,
1001 cc (4 min 37.6 sec)
59. Ferrari 275GTB,
3286 cc (4 min 25.8 sec)
60. Porsche 910,
1991 cc (4 min 15.6 sec)
62. Nomad Mk 2,
1998 cc (4 min 18.7 sec)
63. Porsche 911T,
1991 cc (4 min 40.3 sec)

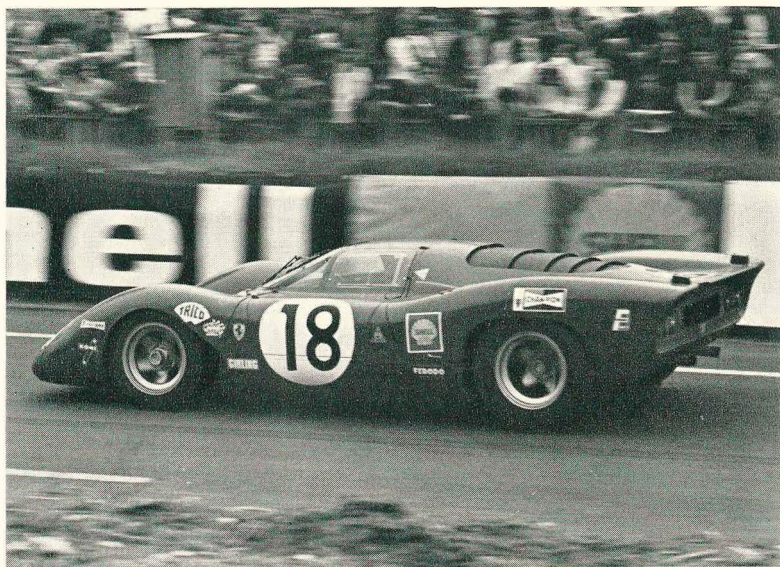
Drivers and Entrant

- J. Servoz-Gavin/H. Müller
(Equipe Matra Elf).
- 'Nanni' Galli/R. Widdows
(Equipe Matra Elf)
- T. Pilette/R. Slotemaker
(Racing Team VDS).
- C. Baker/J. Harris
(Donald Healey Motor Co. Ltd) –
the V-8 Climax-powered car that
had performed so abysmally in the
1968 race.
- G. Gosselin/C. Bourgoignie
(Racing Team VDS).
- C. Poirot (entrant)/P. Maublanc.
-
- C. Ballot-Lena/G. Chasseuil
(A. Veuillet).
- J.-P. Gaban (entrant)/Y. Deprez.
-
- A. Wicky/E. Bernet
(Wicky Racing Team).
- P. Brown/R. Enever
(J. C. Bamford Excavators Ltd)
- C. Laurent (entrant)/J. Marche.
-
- J.-C. Killy/R. Wollek
(Société des Automobiles Alpine).
- A. Leguellec/B. Tramont
(Ecurie Savin Calberson).
- J. Foucteau/P. Compain
(Trophée Le Mans Alpine).
- A. Serpaggi/C. Ethuin
(Société des Automobiles Alpine).
- M. Zanetti/U. Locatelli
(Ecurie Fiat-Abarth France).
- J. Rey/C. Haldi
(Scuderia Filipinetti).
- J. de Mortemart/J. Sage
(Robert Buchet).
- M. König (entrant)/T. Lanfranchi.
-
- R. Mazzia/J. Mesange (M.
Martin).

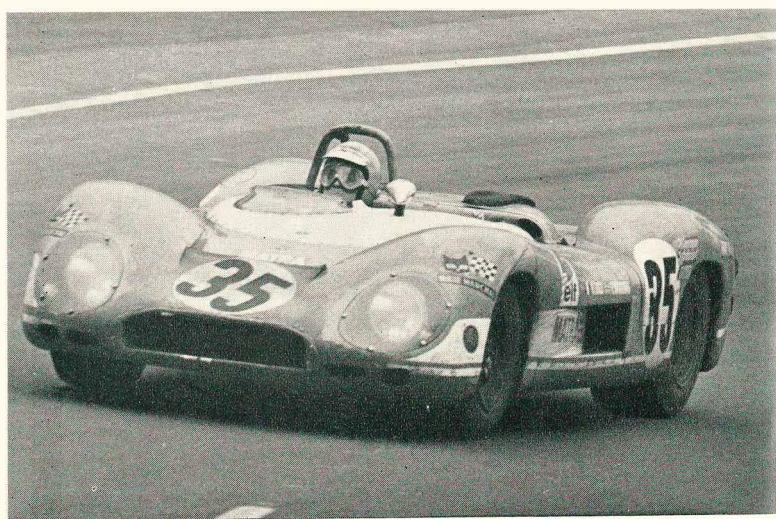


Above: At Le Mans the new 4.5-litre Porsche 917s were achieving close to 240 mph on the Mulsanne Straight, but they lacked the stamina to stay the distance. The car driven by Elford and Attwood which led the race for many hours is seen braking for the Esses. (Guy Griffiths). *Below:* Another new Prototype contender in 1969 was the Mirage raced with both BRM and Cosworth engines. Here the BRM-powered version is seen on its debut in the BOAC '500' race with Jacky Ickx at the wheel. (Guy Griffiths)





Above: At Le Mans in 1969 Ferrari raced his Tipo 312P cars with very pretty hard tops. This car driven by Rodriguez and Piper succumbed to transmission trouble. (Guy Griffiths).
Below: Dirt-streaked, but still in fine fettle – the 3-litre Matra of 'Nanni' Galli and Robin Widdows which finished seventh at Le Mans. (Guy Griffiths)



<i>No. Car and Practice Time</i>	<i>Drivers and Entrant</i>
64. Porsche 908 <i>Lang coupé</i> , 2996 cc (3 min 35.6 sec)	H. Herrmann/G. Larrousse (Porsche System Engineering).
66. Porsche 911T, 1991 cc (4 min 28.2 sec)	J. Egretaud (entrant)/R. Lopez.
67. Porsche 911T, 1991 cc (4 min 40.2 sec)	P. Farjon (entrant)/J. Dechaumer.
68. Ford GT40, 4736 cc (3 min 51.1 sec)	H. Kelleners/R. Jöst (Deutsche Auto Zeitung).

A cloud that hung over practice was caused by Rico Steinemann of Porsche threatening to withdraw the works cars on safety grounds if they were not permitted to run with their movable flaps, for, under the latest CSI ruling about aerofoils, these were no longer permitted. Matra then threatened to withdraw their cars if the Porsche request was acceded to, for the team from Vélizy had removed the wide, moving spoilers fitted to their cars at the Practice Weekend. Porsche's argument was that the cars were designed round the flippers, the 917 had been homologated with them and would be dangerous without. To prove their point, Porsche sent Stommelen out with the flippers in a fixed position to demonstrate just how dangerous the 917 was in this form; he snaked his way round the circuit, putting up a very hair-raising performance – which is not difficult with an unwieldy brute developing 550 bhp plus – and the organisers decided to let the 917s practice with the flaps movable while the matter was sorted out. The next Porsche manoeuvre was to send round a petition which they asked all competitors to sign saying that they did not object to the movable flaps being retained. Among those who refused to sign were Ferrari team manager Franco Gozzi and Joakim Bonnier. Eventually the compromise was reached that the 917s could run with their flippers fully movable, but the 908s had to race with their flippers fixed.

Because of the French presidential elections, the start was brought forward to 2 pm on the Saturday instead of the usual 4 pm, and the weather was overcast, but dry. At the start Ickx deliberately strolled across the track to his car and leisurely did up his safety belt as a protest against what he regarded as the needless dangers of a Le Mans start. Although the first car to move was Hobbs' GT40, he was soon engulfed by the Porsches. On that first lap occurred the only serious accident in the race. Poor John Woolfe, who had been so determined to drive the 917 in the face of a great deal of sound advice and without the experience to handle such a tricky piece of machinery, put two wheels on the grass in the curves before White House, hit the guard rail and the car careered down the track on its

roof before breaking in two and catching fire. Woolfe was thrown out of the wreck and died in the helicopter on the way to hospital. Amon's Ferrari, which was immediately behind, hit the 917's fuel tank, which wedged under the Ferrari's nose; the 312P caught fire, Amon pulled off the road, pushed the button to activate the built-in fire extinguisher-system and jumped clear. Debris from the crashed Porsche completely blocked the road and the rest of the field had to queue up and wait while it was cleared.

At the end of lap one the order was Stommelen, Elford, Siffert, Schütz, Herrmann, Bonnier, Lins, Hobbs, Pilette, Servoz-Gavin, Galli, Depailler. It took some laps for the field to sort itself because of poor starts and the delay on the first lap and by lap ten the order had settled down as Stommelen, Elford, Siffert (one of the few sports car races in 1969 that the Swiss driver did not lead right from the start!), Schütz, Herrmann, Bonnier, Lins, Servoz-Gavin, Galli, Courage, Vaccarella, Pilette, Hobbs, Ickx and Rodriguez. As anticipated, the race was being completely dominated by the vast armada of Porsches and the only hopes of the Matras, J.W. Automotive Fords or surviving Ferrari lay in the complete failure of the Stuttgart team.

An early retirement was the 910 Porsche of de Mortemart/Mesange which lost all its oil as a result of cracking its sump on wreckage from the 917. With only an hour's racing up, the thirstiest cars, the 917s, started the refuelling stops. Stommelen's, after this brief spell of racing, needed front tyres as well as fuel, but after only a very short time this car was in mechanical trouble – it developed a crankcase oil leak, several pit stops dropped it right down the field, it got oil in the clutch, developed an appetite for exhaust systems and was eventually retired on the Sunday morning. The 908 *Spyder* of Siffert/Redman made a particularly rapid pit stop and rejoined the race in the lead.

The 2.5-litre car of the VDS Team had been going well and was holding fourteenth place, but shortly after Pilette had handed over to Slotemaker, the rear body section was torn off by a thrown tyre tread, an oil pipe was damaged and as the car was in any case losing its oil pressure, it was retired. Another early casualty was the Nomad, which was retired with oil in the clutch. Müller crawled into the pits with collapsed front suspension on his Matra and it took two long pit stops before the trouble had been completely cured. With just under four hours of the race gone Siffert retired the leading Porsche with gearbox trouble and then Piper brought the Ferrari in with the gearbox jumping out of fifth – it lost eighteen minutes while the trouble was being sorted out. The order was now Elford/Attwood, Schütz/Mitter, Herrmann/Larrousse, Beltoise/Courage,

Lins/Kauhsen, Galli/Widdows, Ickx/Oliver and Hobbs/Hailwood.

The next casualties were the Matra of Widdows which he spun at the Esses when he selected first gear instead of third, damaging the tail and necessitating a pit stop for it to be patched and the 2-litre Alfa which ran out of road and the race. Soon two more of the seemingly invincible Porsche team were in trouble. The Lins/Kauhsen 908 lost third gear and two pit stops failed to cure the trouble, while the similar car of Herrmann/Larrousse suffered a seized front wheel bearing and spent half-an-hour in the pits while this was repaired. All the Matras were still in the race after eight hours, but all had spent quite a long time in the pits to replace brake discs and this prevented them from challenging the 908s, although for a very short while Beltoise had held second place. The Ferrari was using too much oil and came in every 25 laps for replenishment, usually taking on two gallons! At 1 pm the first Matra fell out when Müller stopped out at Arnage and the Galli/Widdows car spent nearly an hour in the pits with fuel pump trouble. Courage was also in trouble, for he collided with a 911 Porsche that crossed his path and had to stop for the bodywork to be taped up. And the Lola rejoined the race after nearly three hours spent in the pits changing the cylinder heads, only to retire almost immediately with a blown-up engine!

At half-distance Porsche were still very much in command of the race and the order was: 1st, Elford/Attwood (917); 2nd, Schütz/Mitter (908); 3rd, Lins/Kauhsen (908); 4th, Ickx/Oliver (Ford); 5th, Hobbs/Hailwood (Ford); 6th, Guichet/Vaccarella (Matra). Only 45 minutes later Schütz was out of the race through needlessly trying to catch the leading 917. He endeavoured to lap team-mate Larrousse at the kink in the Mulsanne straight, collided with him, and while Larrousse continued on with slight body damage, Schütz' 908 rolled and caught fire. The German driver was lucky to escape with very slight injuries. The leading car now had a four-lap lead and was motoring gently round at the 3 min 50 sec mark.

Few changes took place during the rest of the night, but a little after five the lone Ferrari, one of the most popular cars with the crowd, finally succumbed to its transmission and oil consumption problems. The nineteen surviving cars lapped in the early morning mist in the order Elford/Attwood, Lins/Kauhsen, Ickx/Oliver, Herrmann/Larrousse, Hobbs/Hailwood and Guichet/Vaccarella. As the morning drew on, the leading 917 sounded flatter and flatter and began to lay a considerable oil trail. It came in for a long pit stop while the mechanics worked on the transmission; the gearbox housing had split and oil was leaking on the clutch. Eventually the 917 rejoined the race and lapped at around 4 min 35 sec, a minute

slower than its times on the Saturday! The Lins/Kauhsen 908 left the pits with the clutch audibly slipping and was abandoned out on the circuit and then the leading 917 came into the pits again. After a quick inspection the car was wheeled away.

The impossible appeared to have happened and the Ford of Ickx/Oliver was in the lead with the Herrmann/Larrousse Porsche in second place, but on the same lap. There was still two-and-a-half hours of racing left – longer than a Grand Prix – and the Porsche 908 started to put on the pressure. When Oliver brought the Ford in for its routine pit stop, the Porsche went into the lead and Ickx regained it when the Porsche stopped. Larrousse was breathing right down the Ford's exhausts when Ickx stopped at 12.30 and then the 908 made its routine stop. The Porsche stop took six seconds longer and the Ford rushed past in the lead as it rejoined the race. The Porsche was now tired mechanically and very off tune, but Ickx was driving a car that had been conserved mechanically and was much fitter for the ensuing duel. Throughout that last hour the two cars passed and repassed and at one stage Ickx slipped past Hailwood, who then did a good job of baulking Herrmann – but this nearly ended in disaster when the third-place Ford coughed as it drained its main tank and Herrmann almost rammed it at 190 mph.

Ickx had discovered that if he led on the Mulsanne straight, Herrmann would dive out of his slipstream and overtake, he would then get a tow from the Porsche and could pass it again before Mulsanne corner, thereafter retaining the lead until the finishing line. And this ploy worked on the last lap when Ickx took the chequered flag a mere hundred yards ahead of the Porsche.

The Ford victory was brilliant and a fine tribute to J.W. Automotive's standards of preparation and team tactics. Fords had now won the race four years in succession and in 1968 and 1969 the J.W. team had on a limited budget achieved more success than the might of Ford themselves during the years 1964–67. It has been estimated that Porsche spent £300,000 on their Le Mans effort and to fail when they were favourites for the second year in succession was a bitter pill to swallow. Victory in the Index of Performance went to the twelfth-place Alpine of Ethuin/Serpaggi, while the winning Ford also won the Index of Thermal Efficiency based on fuel consumption and weight. The 1969 Le Mans race will go down in history as the long-distance classic that was as exciting as a Grand Prix!

LE MANS 24 HOURS RACE

La Sarthe

14th/15th June, 1969

Circuit length: 8.34 miles. Weather: Dry and dull.

- 1st, J. Ickx/J. Oliver (Ford GT40 4.9-litre), 372 laps, 3005.46 miles (125.44 mph),*
- 2nd, H. Herrmann/G. Larrousse (Porsche 908 3-litre), 372 laps,*
- 3rd, D. Hobbs/M. Hailwood (Ford GT40 4.9-litre), 368 laps,
- 4th, J-P. Beltoise/P. Courage (Matra 650 3-litre), 368 laps,
- 5th, J. Guichet/N. Vaccarella (Matra 630 3-litre), 359 laps,
- 6th, H. Kelleners/R. Jöst (Ford GT40 4.7-litre), 341 laps,
- 7th, R. Widdows/N. Galli (Matra 630/650 3-litre), 330 laps,
- 8th, T. Zeccoli/S. Posey (Ferrari 275LM 3.3-litre), 329 laps,
- 9th, C. Poirot/P. Maublanc (Porsche 910 2-litre), 312 laps,
- 10th, J-P. Gaban/Y. Deprez (Porsche 911S 2-litre), 306 laps,*
- 11th, C. Ballot-Lena/G. Chasseuil (Porsche 911S 2-litre), 301 laps,
- 12th, C. Ethuin/A. Serpaggi (Alpine-Renault A210 1-litre), 292 laps,
- 13th, C. Laurent/J. Marche (Porsche 911T 2-litre), 287 laps,
- 14th, P. Farjon/J. Dechaumel (Porsche 911S 2-litre), 286 laps.

* Class winner.

Fastest lap: V. Elford (Porsche 917 4½-litre), 3 min 27.2 sec (145.42 mph).

Previous race lap record: (With Ford chicane) R. Stommelen (Porsche 908 3-litre), 3 min 38.1 sec (138.14 mph).

(Without chicane) D. Hulme/M. Andretti (Ford GT40 Mk IV), 3 min 23.6 sec (147.89 mph).

Retirements: Woolfe/Linge (Porsche), accident; Amon/Schetty (Ferrari), accident; de Mortemart/Sage (Porsche), run bearings; le Guellec/Tramont (Alpine), head gasket; Baker/Harris (Healey), radiator; Konig/Lanfranchi (Nomad), gearbox leak/oiled clutch; Wicky/Berney (Porsche), engine; Zanetti/Locatelli (Abarth), distributor; Pilette/Slotemaker (Alfa Romeo), body damage/low oil pressure; Gardner/Guthrie (Ford GT40), drive-shaft; Siffert/Redman (Porsche), gearbox; Rey/Haldi (Ferrari), disqualified for taking on too much oil; Grandsire/Andruet (Alpine), head gasket/oil leak; Gosselin/Bourgoignie (Alfa Romeo), accident; Enever/Brown (Chevron), broken piston; Foucteau/Compain (Alpine), broken wishbone; Sadler/Vestey (Ford GT40), electrics; Vinatier/de Cortanze (Alpine), broken oil pipe; Servoz-Gavin/Müller (Matra),

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electrics; Nicolas/Therier (Alpine), head gasket; Bonnier/Gregory (Lola), engine; Schütz/Mitter (Porsche), accident; Stommelen/Ahrens (Porsche), oil leak; Mazzia/Mesange (Porsche), engine; Rodriguez/Piper (Ferrari), gearbox; Greder/Wisell (Chevrolet Corvette), gearbox; Depailler/Jabouille (Alpine), engine; Egretaud/Lopez (Porsche), accident; Killy/Wollek (Alpine), shock absorber mounting; Lins/Kauhsen (Porsche), clutch; Elford/Attwood (Porsche), broken gearbox/oiled clutch.

Watkins Glen Grand Prix

With Le Mans over, most of the Sports Car teams had relaxed a little and they adopted a rather less serious attitude to the Watkins Glen race than they had to earlier events in the season. Porsche had said that they would not be entering any more works cars after Le Mans, which meant in effect that they fielded no more than three or four cars and these appeared either in the name of Porsche Konstruktionen Salzburg or private owners. At Watkins Glen there were three of the 908 *Spyders* that had run in the Nürburgring 1000 Km race, those of Siffert/Redman (the later, smoother type) and Lins/Buzzetta being finished in red and white and entered by Porsche Austria, and the car that had been sold to Tony Dean entered in his name and driven by Elford/Attwood.

From Matra came two *Spyders*, the fourth-place Le Mans 650 with small rear aerofoil in the hands of Servoz-Gavin/Rodriguez and the 630/650 seventh-place car driven by Widdows/Guichet. Only one other Group 6 car could be regarded as competitive, the Mirage driven by Ickx/Oliver. From this car, powered by the Cosworth 3-litre engine, John Wyer had removed the top and integral tail, and although it looked decidedly odd, it was both lighter and had a smaller frontal area than the coupé. Another modification was the use of wider-base wishbones to do away with the anti-dive geometry, but in practice the mounting components of the new suspension began to crack and the old layout was replaced in a hurry; there was no time to check it properly and in the race the handling was atrocious.

There were only two competitive Group 4 cars, the Scuderia Filipinetti Lola-Chevrolet of Bonnier/Müller and the surprisingly successful *Deutsche Auto Zeitung* Ford GT40 of Kelleners/Jöst.

Fastest in practice were:

1st, Siffert/Redman (Porsche 908)	1 min 8.47 sec
2nd, Servoz-Gavin/Rodriguez (Matra 650)	1 min 9.23 sec
3rd, Elford/Attwood (Porsche 908)	1 min 10.26 sec

4th, Bonnier/Müller (Lola T70-Chevrolet)	. 1 min 11.10 sec
5th, Ickx/Oliver (Mirage-Cosworth)	. 1 min 11.18 sec
6th, Lins/Buzzetta (Porsche 908)	. 1 min 11.62 sec
7th, Guichet/Widdows (Matra 630/650)	. 1 min 11.86 sec
8th, Kelleners/Jöst (Ford GT40)	. 1 min 14.35 sec

At Watkins Glen there is a rolling start after a lap behind the pace car and Siffert went straight into the lead chased by Servoz-Gavin, Elford and Bonnier. This was the order at the end of the first lap and then after an interval came Ickx, Buzzetta, Guichet and Kelleners. After only nine laps rain started to fall – the Porsches, running on Dunlop all-weather tyres, motored on happily, but the Matras and the Mirage were badly affected. Ickx came in to change to wet-weather tyres after twelve laps and the stop cost him two laps. Elford moved up into second place ahead of Servoz-Gavin, who was having difficulty controlling the Matra on the wet road, and Buzzetta went into fourth place ahead of Bonnier when the Swedish driver stopped on lap 30 to change his dry-weather tyres for wet. Three laps later Servoz-Gavin was in the pits with a sheared fuel pump drive. This cost the French driver 27½ minutes and Rodriguez rejoined the race with the 650 in twentieth place. Not long afterwards the other Matra was in trouble and Widdows brought it into the pits with wet electrics.

The first car to stop for fuel was the Mirage and this rejoined the race with Oliver at the wheel. Because Porsche were none too sure of their fuel requirements on this circuit, they brought Buzzetta in first and then did some quick calculations before the other two cars stopped. During these refuelling stops Bonnier held third place for a short while, but the Lola dropped back to fourth when he handed over to Müller – the little Swiss driver went out wearing an aluminised fire-suit. The Mirage was now back in fifth place and the Matras were galloping their way back through the field.

The Mirage had been handling badly ever since the start of the race and both Ickx and Oliver were having a miserable race; the J.W. Automotive car now developed a weaving tendency and Oliver brought it in for the front suspension to be checked; nothing amiss was found, Oliver went out again and then came back after a lap. A front coil spring/damper unit was changed and after a ten minute stop Ickx resumed the race with the Mirage. No doubt he was more than a little relieved when the oil pressure suddenly failed and the car was retired. Next casualty was the Guichet/Widdows Matra, which succumbed to clutch failure and when the Filipinetti Lola suffered a broken con-rod, the German Ford GT40 inherited fourth place. The Porsches were still lapping serenely in

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first three places and all the time the Servoz-Gavin/Rodriguez Matra was closing up on the Ford GT40. Rodriguez moved up into fourth place just before he brought the French car in for its last refuelling stop, while the Matra was stopped the Ford regained the place and then it took only another fifteen minutes for Servoz-Gavin to get back ahead again.

In the closing laps Rico Steinemann shuffled his 908s into line-ahead formation and the Ford GT40 tucked in behind them so that four white German cars took the flag in a neat row. Porsche won the race, but the moral victors were Servoz-Gavin and Rodriguez, who drove magnificently to bring their Matra through from the tail of the field to finish fourth. For his share of the drive Servoz-Gavin won a 1,000 dollars and the BOAC VC10 Trophy as the 'Man of the Race.'

WATKINS GLEN 6 HOURS RACE

Watkins Glen

7th July, 1969

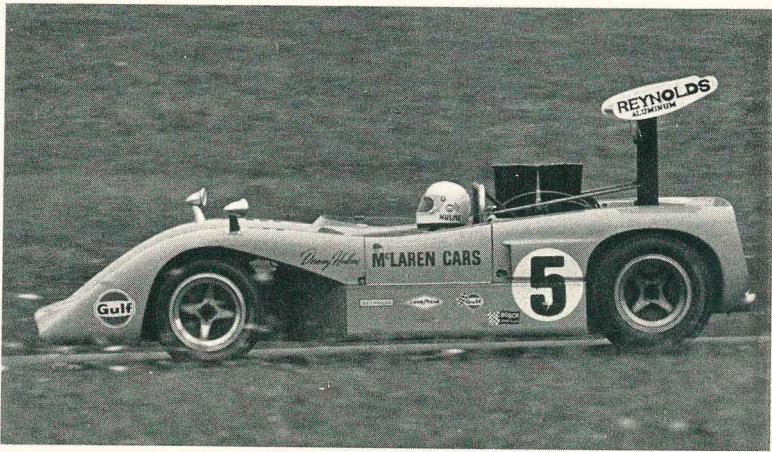
Circuit length: 2.35 miles. Weather: Mainly wet; dry towards the end.

- 1st, J. Siffert/B. Redman (Porsche 908 3-litre), 291 laps, 683.85 miles (111.19 mph),*
- 2nd, V. Elford/R. Attwood (Porsche 908 3-litre), 291 laps,
- 3rd, R. Lins/J. Buzzetta (Porsche 908 3-litre), 282 laps,
- 4th, J. Servoz Gavin/P. Rodriguez (Matra 650 3-litre), 266 laps,
- 5th, H. Kelleners/R. Jöst (Ford GT40 4.9-litre), 265 laps,*
- 6th, R. Smothers/F. Baker/L. Sell (Porsche 906E 2-litre), 257 laps,
- 7th, A. de Lorenzo/D. Lang (Chevrolet Corvette 7-litre), 240 laps,*
- 8th, P. Gregg/H. Haywood (Porsche 911S 2-litre), 235 laps,
- 9th, R. Esseys/J. Paul (Chevrolet Corvette 7-litre), 233 laps,
- 10th, R. Braezinka/H. Peterman/M. Beimler (Porsche Carrera 6 2-litre), 229 laps,
- 11th, B. Jennings/M. Downs (Porsche 911 2-litre), 222 laps,
- 12th, M. Rahal/H. Wise/T. Terrell (Porsche Carrera 6 2-litre), 220 laps,
- 13th, J. McDaniel/S. Peiper (Zink VSR 2-litre), 218 laps,
- 14th, J. Netterstrom/J. Kelly (Porsche 911 2-litre), 210 laps.

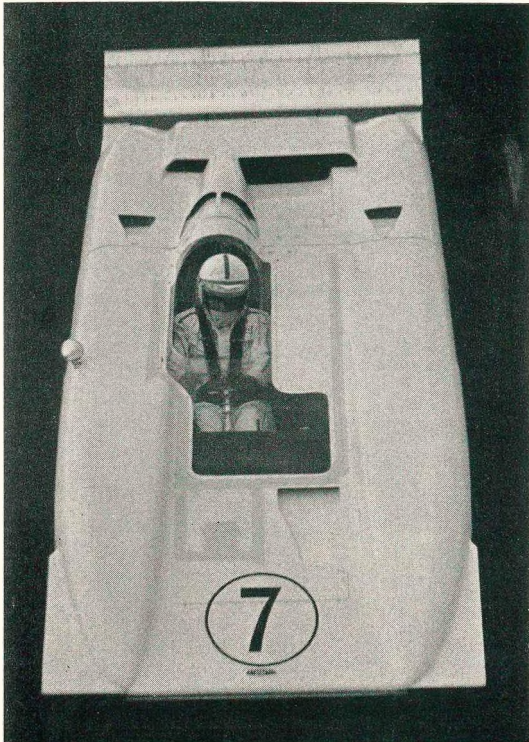
* Class winner.

Fastest lap: V. Elford, 1 min 9.13 sec (119.77 mph - record).

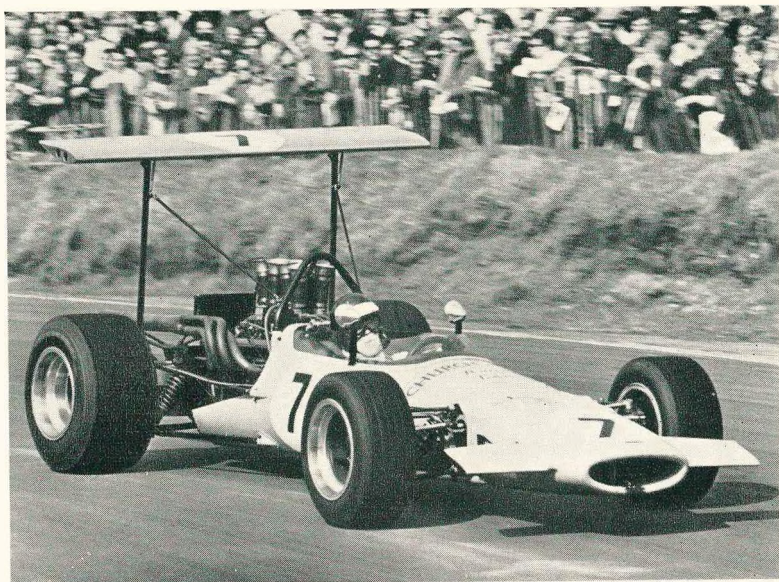
Previous race lap record: J. Ickx (Ford GT40 4.9-litre), 1 min 11.1 sec (116.48 mph).



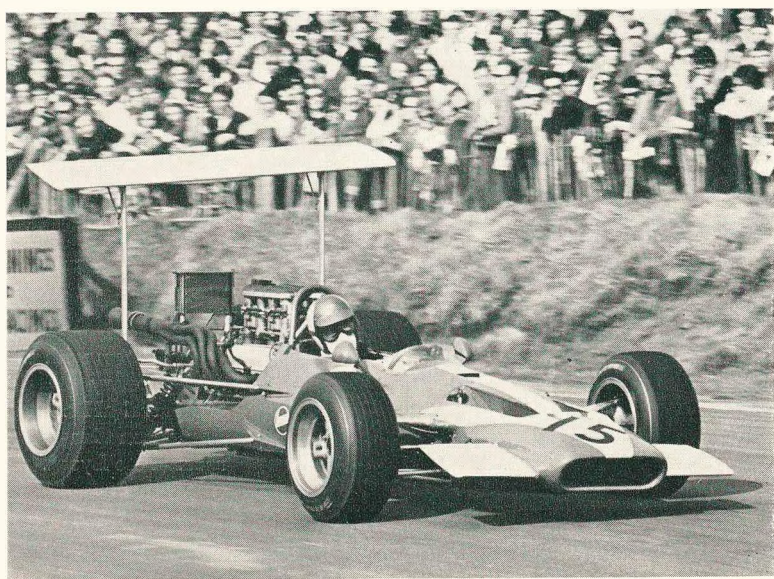
Denis Hulme with his M8B McLaren in the Can-Am Mid-Ohio race. Team-mates Hulme and McLaren once again completely dominated the series. (Pete Lyons, Autosport)



John Surtees with the revolutionary Chaparral 2H at the Edmonton Can-Am race. (Pete Lyons, Autosport)



Above: Gethin's McLaren M10A, which dominated the early races in the Formula 5000 Championship, is seen at the Easter Oulton Park meeting. (Guy Griffiths). *Below:* David Hobbs in the same race with his TS5, a model that improved in both speed and reliability as the season progressed. (Guy Griffiths)



Principal retirements: Grant/Heppenstall/Brown (Ford GT40), valve gear; Ickx/Oliver (Mirage), broken camshaft; Guichet/Widdows (Matra), clutch; Bonnier/Müller (Lola), engine.

Austrian Grand Prix

The bumpy, unattractive Zeltweg airfield circuit was replaced for 1969 by the new 6-kilometre Osterreichring overlooking the old circuit. Zeltweg, set amidst pine forests and mountains, is about a hundred miles south-west of Vienna and the new circuit, which had been built in under twelve months, is wonderfully safe, very fast and very smooth. It is also very well equipped with large concrete pits, concreted paddock area and plenty of service roads. The only real snag with the circuit is that there are so many fast corners that overtaking is difficult.

Once again, there were no official works Porsches, but a total of four cars, looked after by Steinemann and all the usual racing staff, was entered in the name of nominees. Heading the Porsche entries were two short-tail 917s, running in the names of David Piper and Karl von Wendt, potential 917 customers, and these had wider 15-in rear rims, larger, better ventilated brakes and front suspension with the anti-dive eliminated. The 917s were driven by Siffert/Ahrens and Attwood/Redman, while two 908 *Spyders* ran in the name of Porsche Salzburg for Kauhsen/von Wendt (long-tail car with fins) and Larrousse/Lins (short tail car). Private 908 *Spyders* with the older body style were fielded by the German BG Racing team for Dechent/Koch, Racing Team Gesipa for Neuhaus/Fröhlich and Richard Brostrom for himself and Masten Gregory. Brostrom's car had been written off when the trailer became detached from the car on the Autobahn near Stuttgart and so he had bought a new body/chassis unit into which he fitted the engine and gearbox from the wrecked car.

Facing this powerful array were five 3-litre Group 6 cars. There were three of the Alfa Romeo Tipo 33-3 cars shared by Giunti/Galli, de Adamich/Vaccarella and Casoni/Zeccoli; the Alfas were now running on 15-in rear rims. From J.W. Automotive came a single Mirage open car with Cosworth engine, lowered rear body section, different exhaust pipes and driven by Ickx/Oliver. Matra fielded the 650 that had run at Watkins Glen for Servoz-Gavin and Rodriguez. In the Group 4 class there were three Lola T70 Mk 3Bs: the Filipinetti car for Bonnier/Müller, David Piper's car for himself and Dieter Quester and a car entered by Motor Racing Morand for Louis Morand and Gerard Pillon.

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Although the Mirage normally suffered from indifferent handling characteristics, it was at its best on the beautifully smooth Osterreichring and with the Cosworth DFV engine it is as fast in a straight line as any of its Group 6 rivals. Ickx startled the Porsche opposition during the first day's practice by taking the rather lumpy looking blue and orange Prototype round in 1 min 47.6 sec. He drove the car for most of that practice session and Oliver only took it out during the last twenty minutes or so at the end. On a slightly damp track the BRM driver spun the Mirage at the slow left-hand bend behind the pits and was struck by Ahrens' 917 Porsche, which was unable to take evasive action. The side of the Porsche and the back of the Mirage were badly damaged, but both cars were repaired in time for the race. Grid positions were somewhat misleading, as Siffert had been out in almost every Porsche, but these were the six official fastest times among the 35 starters:

1st, Ickx/Oliver (Mirage-Ford)	. 1 min 46.7 sec (124.04 mph)
2nd, Bonnier/Müller (Lola T70-Chevrolet)	. 1 min 48.2 sec
3rd, Servoz-Gavin/Rodriguez (Matra 650)	. 1 min 48.4 sec
4th, Siffert/Ahrens (Porsche 917)	. . . 1 min 48.6 sec
5th, Galli/Giunti (Alfa Romeo 33-3)	. . . 1 min 48.8 sec
6th, Redman/Attwood (Porsche 917)	. . . 1 min 49.2 sec

Since the early part of the season Ickx had improved his starting technique and when Fangio dropped the Austrian flag, he was first away with Siffert in the 100 bhp more powerful 917 Porsche thundering behind. At the end of the first lap these two led from Bonnier, Attwood, Servoz-Gavin, Giunti, Gregory, de Adamich and Koch. On lap four Siffert lumbered the 917 into the lead and Gregory overtook Bonnier, but Attwood was succeeding in holding off Giunti and Servoz-Gavin. On the fast right-hand curve on the back straight Casoni's Alfa collided with a 906 Porsche; the Tipo 33 was wrecked and the 906 limped back to the pits to retire. Enever's Chevron was right behind at the time, braked to avoid the debris and Edwards' similar car sailed into the back of it. Both cars continued, but the frontal damage caused the eventual retirement of the Tor Lines' car of Edwards and Franey.

Out in front Siffert and Ickx were still battling for the lead, but they now had the problem of lapping slower cars while continuing their duel. Gregory was now clear of Bonnier, who was being pressured by Giunti, Servoz-Gavin and Koch. Then came Attwood, who was far from happy with his 917, de Adamich, Lins and Piper. When Giunti made a slight mistake, both the Matra and Koch's Porsche nipped by. On lap 14 Servoz-Gavin screamed past Bonnier,

but the Swedish driver fought back and four laps later was ahead of the Matra once again. Attwood, now having trouble with the Porsche's brakes, was passed by Piper and it was not long before he was lapped by Siffert. Ickx was driving the Mirage magnificently and on lap 24 he took the lead from Siffert. Gregory, troubled by out-of-balance wheels, went into the pits, where all four wheels were changed and the car refuelled before it rejoined the race at the tail of the field. Koch passed the fourth-place Matra, but loss of oil pressure caused his retirement.

Then the routine refuelling stops began and these were a lengthy, messy business because they had to be done with churns and open funnels. Attwood stopped after only 35 laps, while Siffert and the 3-litre Alfa of Giunti came in three laps later. Ickx stopped to refuel and to hand over to Oliver on lap 41, the first of the 908s refuelled a lap later and both the Matra and Lola were sufficiently economical to cover 43 laps before stopping. When the field had sorted itself out after refuelling stops the order was Oliver – Rodriguez (Matra) – Müller (Lola) – Ahrens (907) – Galli (Alfa) – Larrousse (908) – Vaccarella (Alfa) – Redman (917). Ahrens was handling the 917 very confidently and regained second place on lap 73. Five laps later Ahrens came back in for fuel and when Siffert took over the leading 917 it was in fourth place and over a lap behind the Mirage and the Matra which had still to refuel.

At just over the half-way mark the Mirage made its fuel stop, letting the Matra into the lead, but it stopped on the following lap, and Ickx went straight back into the lead with the J.W. Automotive car. Just when it seemed as though the Mirage had the Austrian Grand Prix in the bag, the whole face of the race changed. On lap 91 de Adamich crashed his Tipo 33 Alfa as the result of brake failure and nine laps later Ickx made an unscheduled pit stop – the bracket which locates the steering column on the Mirage had broken and the car was retired. The Matra was now in the lead, but five laps later Servoz-Gavin missed a gear change, and while fumbling with the lever inadvertently switched off the ignition; without thinking what he was doing he switched the ignition back on in the middle of a corner and the sudden inrush of power caused the Matra to spin off into the guard-rails. Although Servoz-Gavin was unhurt, the car was badly damaged and wreckage was strewn all over the road.

The order was now Siffert – Bonnier – Gregory, who had been coming through the field while the others were making their pit stops – the Giunti/Galli Alfa – Attwood – Lins/Larrousse (908). It was not long before the Alfa blew up its engine, spreading oil all round the track. The leading 917 was reluctant to restart after its

next pit stop, but when the Lola stopped, Ahrens regained the lead. With 40 laps left to the finish, the 917 led the remarkably reliable Lola by 50 seconds, but the Porsche had to make another pit stop, while the Lola could now run straight through to the finish. In response to a signal from the pits, Ahrens speeded up and increased his lead to 100 seconds, whereupon he was shown a 'hold it' signal. Redman's consistently fast driving had brought the second 917 through to hold third place ahead of Gregory and there was great tension in the Porsche pit when Ahrens came into the pits to refuel and hand over to Siffert - if there was a repetition of the earlier starting trouble the lead would be lost. Happily for Porsche the 917 fired instantly and Siffert shot back into the race to win by 1 min 7 sec from the Lola.

This race was the 917's first victory and Porsche were well pleased with the win. After the retirement of the Mirage and Matra, the Stuttgart team would have been hard put to scratch up an excuse for losing, but they were very close to being beaten by the Lola of Bonnier and Müller. After some rather unhappy performances early in the season, the Filipinetti Lola had been driven with a rare steadiness to match its customary speed and its second place was well merited. The other outstanding performance at the Osterreichring was that of Gregory and Brostrom, who had come from the back of the field magnificently after trouble early in the race caused by the tyres creeping on the rims. Unless the 917 is much improved for 1970, it is not, except on the fastest circuits, likely to prove a match for the new Ferrari and the improved Matras.

AUSTRIAN GRAND PRIX

Osterreichring

10th August, 1969

Circuit length: 3.65 miles. 170 laps. Weather: Fine throughout the race.

- 1st, J. Siffert/K. Ahrens (Porsche 917 4.5-litre), 5 hours 23 min 36.98 sec,
- 2nd, J. Bonnier/H. Müller (Lola T70 Mk 3B-Chevrolet), 170 laps,
- 3rd, R. Attwood/B. Redman (Porsche 917 4.5-litre), 169 laps,
- 4th, M. Gregory/R. Brostrom (Porsche 908 3-litre), 168 laps,*
- 5th, R. Lins/G. Larrousse (Porsche 908 3-litre), 168 laps,
- 6th, K. von Wendt/W. Kauhsen (Porsche 908 3-litre), 166 laps,
- 7th, J. Neuhaus/D. Frölich (Porsche 908 3-litre), 163 laps,
- 8th, H. Marko/R. Gerin (Porsche 910 2-litre), 157 laps,*

- 9th, E. Kraus/D. Basche (Porsche Carrera 6 2-litre), 156 laps,
10th, H. Krause/H-D. Weigel (Porsche 907 2.2-litre), 156 laps,
11th, W. Bradley/D. Spoerry (Porsche 910 2-litre), 155 laps,
12th, A. Blank/W. Ditzler (Porsche 910 2-litre), 152 laps,
13th, R. Enever/P. Brown (Chevron B8-BMW 2-litre), 151 laps,
14th, H-D. Blatzheim/Prince von Hohenzollern (Porsche 910
2-litre), 148 laps,
15th, B. Brodner/P. Peter (Porsche 910 2-litre), 148 laps.

* Class winner.

Fastest lap: J. Ickx (Mirage M2-Cosworth 3-litre), 1 min 46.6 sec.
(124.25 mph). No previous race record for this circuit.

No previous race record for this circuit.

Principal retirements: Casoni/Zeccoli (Alfa Romeo), accident;
Koch/Dechent (Porsche), low oil pressure; Pilette/Slotemaker
(Alfa Romeo), head gasket; Gosselin/Bourgoignie (Alfa Romeo),
low oil pressure; Piper/Quester (Lola), overheating; de Adamich/
Vaccarella (Alfa Romeo), accident; Giunti/Galli (Alfa Romeo),
engine; Ickx/Oliver (Mirage), steering; Rodriguez/Servoz-Gavin
(Matra), accident.

SPORTS CAR WORLD CHAMPIONSHIP

- 1st, Porsche, 45 points (best five performances).
2nd, Ford, 25 points (best five performances).
3rd, Lola-Chevrolet, 20 points.
4th, Ferrari, 15 points.
5th, Matra, 6 points.
6th, Alfa Romeo, 3 points.
7th, { Chevron-BMW } 1 point.
 { Alpine-Renault }

	Alfa 33-3	Alpine A-220	Ferrari 312P	Ford GT40	Lola T70	Matra 630, etc	Mirage	Porsche
	S F	S F	S F	S F	S F	S F	S F	S F
Daytona	-	-	-	2	4	-	-	5
Sebring	3	-	1	2	4	-	-	3
BOAC '500'	-	-	1	1	8	-	1	4
Monza	-	1*	2	-	5	1	-	4
Targa Florio	-	-	-	-	1	-	-	2
Spa	-	3	1	-	3	-	2	4
Nürburgring	-	-	1	-	2	-	1	3
Le Mans	-	4	1	2	1	4	-	7
Watkins Glen	-	-	2	2	1	3	1	1
Austrian GP	3	-	-	-	3	1	1	4
Finishers	0%	33 $\frac{1}{3}$ %	37%	55%	33 $\frac{1}{3}$ %	50%	14%	66 $\frac{2}{3}$ %

* One of these not running at the finish.

† Three of these not running at the finish.

‡ Two of these not running at the finish.

Sports Car Championship - Reliability Table

This, with exception of Lola, relates to works cars only. J.W. Automotive Fords, together with Porsche Austria and certain works-supervised but nominally privately entered Porsches, are treated as works cars.

8 The RAC Sports Car Championship

Round 1 SILVERSTONE 30th March, 1969

20 laps (58.6 miles)

- 1st, D. Hulme (Lola T70 Mk 3-Chevrolet 5-litre), 34 min 15.5 sec
(102.53 mph),
- 2nd, B. Redman (Lola T70 Mk 3B-Chevrolet 5-litre), 34 min
21.3 sec,
- 3rd, P. Hawkins (Lola T70 Mk 3B-Chevrolet 5-litre), 34 min
44.8 sec,
- 4th, C. Craft (Lola T70 Mk 3-Chevrolet 5-litre), 35 min 11.3 sec,
- 5th, D. Piper (Lola T70 Mk 3B-Chevrolet 5-litre), 36 min 6.3 sec,
- 6th, C. Lucas (Porsche 910 2-litre), 1 lap in arrears.

Fastest lap: D. Hulme, 1 min 40.0 sec (105.37 mph).

Round 2 GUARDS INTERNATIONAL TROPHY 4th April, 1969
(SNETTERTON)

50 laps (135.5 miles)

- 1st, P. Hawkins (Lola T70 Mk 3B-Chevrolet 5-litre), 1 hour 14 min
37.2 sec (108.96 mph),
- 2nd, J. Bonnier (Lola T70 Mk 3B-Chevrolet 5-litre), 1 hour 14 min
57.0 sec,
- 3rd, C. Lucas (Porsche 910 2-litre), 2 laps in arrears,
- 4th, J. Burton (Chevron B8-BMW 2-litre), 3 laps in arrears,
- 5th, N. Gold (Porsche Carrera 6 2-litre), 3 laps in arrears,
- 6th, R. Brostrom (Porsche 910 2-litre), 3 laps in arrears.

Fastest lap: B. Redman (Lola T70 Mk 3B-Chevrolet 5-litre), 1 min
26.2 sec (113.18 mph – circuit record).

Round 3

THRUXTON

7th April, 1969

25 laps (59 miles)

- 1st, B. Redman (Lola T70 Mk 3B-Chevrolet 5-litre), 32 min 55.4 sec
(107.34 mph),
2nd, J. Bonnier (Lola T70 Mk 3B-Chevrolet 5-litre), 32 min. 56.8 sec,
3rd, P. Hawkins (Lola T70 Mk 3B-Chevrolet 5-litre), 1 lap in
arrears,
4th, D. Piper (Lola T70 Mk 3B-Chevrolet 5-litre), 1 lap in arrears,
5th, T. Schenken (Chevron B8-BMW 2-litre), 1 lap in arrears,
6th, J. Burton (Chevron B8-BMW 2-litre), 1 lap in arrears.

Fastest lap: B. Redman, 1 min 17.4 sec (109.58 mph – class record).

Round 4 – See BOAC ‘500’ RACE

Round 5

MARTINI INTERNATIONAL 300 17th May, 1969
TROPHY (SILVERSTONE)

65 laps (190 miles)

- 1st, C. Craft (Lola T70 Mk 3-Chevrolet 5-litre, 2 hours 13 min
43.2 sec (85.28 mph),
2nd, B. Redman (Lola T70 Mk 3B-Chevrolet 5-litre), 1 lap in
arrears,
3rd, D. Piper (Lola T70 Mk 3B-Chevrolet 5-litre), 2 laps in arrears,
4th, P. Hawkins (Lola T70 Mk 3B-Chevrolet 5-litre), 4 laps in
arrears,
5th, C. Skeaping (Chevron B8-BMW 2-litre), 4 laps in arrears,
6th, J. Lepp (Chevron B8-BMW 2-litre), 5 laps in arrears.

Fastest lap: B. Redman, 1 min 43.0 sec (102.3 mph).

Round 6

TOURIST TROPHY (OULTON PARK) 26th May, 1969

74 laps (204.314 miles – scheduled length 110 laps, 303.6 miles).

- 1st, T. Taylor (Lola T70 Mk 3B-Chevrolet 5-litre), 2 hours 6 min
38.0 sec (96.80 mph),

- 2nd, D. Piper (Lola T70 Mk 3B-Chevrolet 5-litre), 2 hours 6 min
55.4 sec,
3rd, J. Miles (Lotus 62 2-litre), 2 laps in arrears,
4th, J. Lepp (Chevron B8-BMW 2-litre), 3 laps in arrears,
5th, C. Lucas (Porsche 910 2-litre), 3 laps in arrears,
6th, J. Bridges (Chevron B8-Cosworth 1.6-litre), 5 laps in arrears.

Fastest lap: H. Müller (Lola T70 Mk 3B-Chevrolet 5-litre), 1 min
34.4 sec (105.29 mph – record).

The race was stopped at 74 laps as a result of Paul Hawkins' fatal
accident.

Round 7 W. D. & H. O. WILLS 12th/13th July, 1969
INTERNATIONAL TROPHY (CROFT)

59 laps (aggregate of 2 heats – 87.5 miles)

- 1st, C. Craft (Lola T70 Mk 3-Chevrolet 5-litre), 58 min 15.8 sec
(90.11 mph),
2nd, T. Taylor (Lola T70 Mk 3B-Chevrolet 5-litre), 49 laps,
3rd, J. Lepp (Chevron B8-BMW 2-litre), 48 laps,
4th, T. Croker (Chevron B8-BMW 2-litre), 48 laps,
5th, G. Edwards (Chevron B8-BMW 2-litre), 48 laps,
6th, T. Twaites (Chevron B8-BMW 2-litre), 48 laps.

Fastest lap: F. Gardner (Lola T70 Mk 3B-Chevrolet 5-litre), 1 min
7.6 sec (93.19 mph – circuit record).

Round 8 KODAK SUPER 8 TROPHY 10th August, 1969
(THRUXTON)

50 laps (aggregate of 2 heats – 118 miles)

- 1st, D. Hulme (Lola T70 Mk 3B-Chevrolet 5-litre), 1 hour 7 min
20.2 sec (104.97 mph),
2nd, F. Gardner (Lola T70 Mk 3B-Chevrolet 5-litre), 1 hour 7 min
38.2 sec,
3rd, J. Lepp (Chevron B8-BMW 2-litre), 48 laps,
4th, W. Green (Chevron B8-BMW 2-litre), 47 laps,
5th, C. Skeaping (Chevron B6-BMW 2-litre), 46 laps,
6th, J. Bamford (Chevron B6-BMW 2-litre), 46 laps.

Fastest lap: F. Gardner, 1 min 18.0 sec (108.74 mph).

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Results:

(The Championship is open only to Group 4 cars and points are awarded on the basis of 8, 6, 4 and 2 points to the first four finishers above and below 2,000 cc.)

- 1st, J. Lepp (Chevron), 38 points
- 2nd, C. Lucas (Porsche), 32 points
- 3rd, C. Craft (Lola), 30 points

9 Other Sports Car Races

NUREMBERG 200 (NORISRING) 29th June, 1969

82 laps (aggregate of 2 heats – 200.75 miles)

Held on a circuit dominated by the old Nazi Nuremberg Rally rostrum, this flat circuit combines two straights, each over a mile in length and one incorporating a chicane, linked by two hairpin bends. Because there are no refuelling facilities, the race is run in two heats and the results decided on the aggregate. As well as Group 4 and 6 cars, Group 7 entries were accepted and there was a fine field which included two Porsche 908 *Spyders*, two Alfa Romeo Tipo 33-3s, the Lolas of Jo Bonnier, Brian Redman (with Sid Taylor's car) and Dickie Attwood (at the wheel of David Piper's car) and Piper with his 4.2-litre Ferrari.

- 1st, B. Redman (Lola T70 Mk 3B-Chevrolet 6.2 litre), 1 hour 48 min 31.7 sec (110.99 mph),
- 2nd, V. Elford (Porsche 908 3-litre), 1 hour 48 min 51.8 sec,
- 3rd, R. Stommelen (Porsche 908 3-litre), 1 hour 49 min 36.1 sec,
- 4th, R. Attwood (Lola T70 Mk 3B-Chevrolet 5-litre), 80 laps,
- 5th, A. Soler-Roig (Porsche 908 3-litre), 79 laps,
- 6th, H. Schultze (Alfa Romeo T33 2-litre), 73 laps.

Fastest lap: B. Redman, 1 min 17.3 sec (114.01 mph).

VILA REAL SIX HOURS RACE 6th July, 1969

- 1st, C. Craft/D. Piper (Porsche 908 3-litre), 138 laps, 593.81 miles (98.67 mph),
- 2nd, M. de Udy/F. Gardner (Lola T70 Mk 3B-Chevrolet 5-litre), 2 laps in arrears,
- 3rd, W. Bradley/A. Dean (Porsche 910 2-litre), 11 laps in arrears,
- 4th, C. Manfredini/'Nomex' (Porsche 907 2.2-litre), 11 laps in arrears,

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- 5th, P. Brown/C. Baker (Chevron B8-BMW 2-litre), 13 laps in arrears,
6th, A. de Cadenet/M. Walton (Ferrari Dino 206S 2-litre), 14 laps in arrears.

Fastest lap: F. Gardner, 2 min 28.9 sec (104.04 mph – record).

CIRCUIT OF MUGELLO

25th July, 1969

8 laps (328 miles)

A lot of interest went out of this difficult road race when someone sent a fake telegram withdrawing the Filipinetti entries which had included a Matra 650 for Guichet/Bernay. The field was further depleted by the withdrawal of the 3-litre Abarth and Serenissima cars and, in the absence of Autodelta, the 2-litre Group 4 Abarths had an easy victory.

- 1st, A. Merzario (Fiat-Abarth 2-litre), 4 hours 15 min 55.8 sec (77.65 mph),
2nd, G. van Lennep/J. Ortner (Fiat-Abarth 2-litre), 4 hours 18 min 54.7 sec,
3rd, A. de Adamich/N. Vaccarella (Lola T70 Mk 3B-Chevrolet 5-litre), 4 hours 27 min 8.0 sec,
4th, D. Werlich (Porsche Carrera 6 2-litre), 4 hours 43 min 2.1 sec,
5th, S. Munari (Lancia HF Prototype 1.6-litre), 4 hours 46 min 2.6 sec,
6th, P. Brown/C. Baker (Chevron B8-BMW 2-litre), 1 lap in arrears.

Fastest lap: Merzario, 31 min 2.7 sec (74.50 mph – record).

NÜRBURGRING 500
KILOMETRES RACE

7th September, 1969

22 laps (310.7 miles)

This race, which is run over the 14.2-mile North Nürburgring and is limited to 2-litre cars, was dominated by the new Chevron B-16 driven by Brian Redman – despite the fact that the Bolton-built car had only a 1,600 cc engine as the new 1,800 cc Cosworth 1800 FVC was not yet ready.

- 1st, B. Redman (Chevron B16-Cosworth 1.6-litre), 3 hours 13 min 1.6 sec (97.1 mph),

- 2nd, T. Hezemans (Fiat-Abarth 2000S 2-litre), 3 hours 14 min 59.8 sec,
3rd, G. van Lennep (Fiat-Abarth 2000S 2-litre), 3 hours 16 min 38.8 sec,
4th, J. Ortner (Fiat-Abarth 2000SP 2-litre), 3 hours 19 min 5.1 sec,
5th, H. Schultze (Alfa Romeo T33 2-litre), 3 hours 20 min 52.3 sec,
6th, H-D. Blatzheim (Porsche 910 2-litre), 1 lap in arrears.

Fastest lap: B. Redman, 8 min 39.8 sec. (98.24 mph – class record).

IMOLA 500 14th September, 1969
KILOMETRES RACE

71 laps (221.2 miles)

Although it was not a Championship race, there was a very strong entry at this 5-kilometre circuit, which consists partly of public and partly of private roads. J.W. Automotive sent a Mirage-Cosworth for Jacky Ickx to drive, there were three Alfa Romeo T33-3s, three Porsche Salzburg-entered 908 *Spyders*, two Chevron B16s and two 3-litre Abarths (but only one started after tyre trouble in practice). In the latter part of the race, heavy rain started to fall and the circuit was completely inundated. After the 908 Porsches in second, third and fourth places had spun off, the race was stopped at 356 km.

- 1st, J. Ickx (Mirage-Cosworth 3-litre), 2 hours 20 min 18.8 sec (94.74 mph),
2nd, I. Giunti (Alfa Romeo T33-3 3-litre), 3 laps in arrears,
3rd, G. van Lennep (Fiat-Abarth 2000 2-litre), 4 laps in arrears,
4th, T. Hezemans/A. Merzario (Fiat-Abarth 2000 2-litre), 5 laps in arrears,
5th, C. Manfredini/'Nomex' (Porsche 907 2-litre), 6 laps in arrears,
6th, 'Gi/Bi' (Porsche Carrera 6 2-litre), 8 laps in arrears.

Fastest lap: Ickx, 1 min 36.8 sec (115.94 mph).

BARCELONA 12 HOURS RACE 5th October, 1969

- 1st, F. Godia-Sales/J. Fernandez (Porsche 908 3-litre) 957.13 miles (79.72 mph),
2nd, D. Piper/C. Craft (Porsche 908 3-litre),
3rd, E. Baturone/J. Palomo (Porsche 907 2.2-litre),
4th, G. Edwards/M. Franey (Chevron B8-BMW 2-litre),

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5th, W. Bradley/D. Spoerry (Porsche 910 2-litre),
6th, N. Gold/C. Lucas (Porsche 910 2-litre).

PARIS 1,000 KILOMETRES 12th October, 1969
RACE

(Race stopped at 586.5 km because of heavy mist.)

1st, J-P. Beltoise/H. Pescarolo (Matra 650 3-litre), 105.45 mph,
2nd, P. Rodriguez/B. Redman (Matra 630/650 3-litre),
3rd, D. Piper/C. Craft (Porsche 908 3-litre),
4th, G. van Lennep/T. Hezemans (Porsche 908 3-litre),
5th, M. Martin/J-F. Piot (Ford GT40 5-litre),
6th, W. Green/C. Baker (Ford GT40 5-litre).

Fastest lap: Beltoise/Pescarolo, 2 min 40.1 sec (109.28 mph).

JARAMA 6 HOURS RACE 26th October, 1969

1st, J. Rindt/A. Soler-Roig (Porsche 908 3-litre), 446 miles (78.59 mph),
2nd, J. Fernandez/F. Godia (Porsche 908 3-litre),
3rd, G. Spice/J. Juncadella (Ford GT40 4.7-litre),
4th, M. Paturone/J. Palomo (Porsche 907 2.2-litre),
5th, M. Konig/T. Lanfranchi (Nomad-BRM 2-litre),
6th, M. Wilson/M. Daghorn (Lola T70-BRM 3-litre),

Fastest lap: Rindt/Soler-Roig.

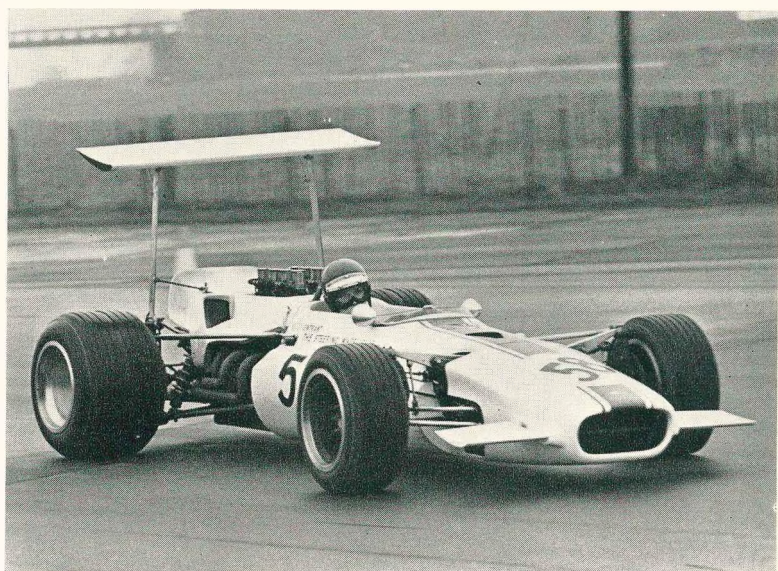
KYALAMI 9 HOURS RACE 8th November, 1969

1st, D. Piper/R. Attwood (Porsche 917 4.5-litre), 831 miles (92.37 mph),
2nd, M. de Udy/F. Gardner (Lola T70 Mk 3B-Chevrolet 5-litre),
3rd, H-D. Dechent/G. Koch (Porsche 908 3-litre),
4th, S. Porter/G. Mortimer (Renault R8 Gordini 1.3-litre),
5th, J. Holme/J. Rowe (Chevron B8-BMW 2-litre),
6th, D. Martland/C. Lucas (Chevron B16-Cosworth 1.8-litre).

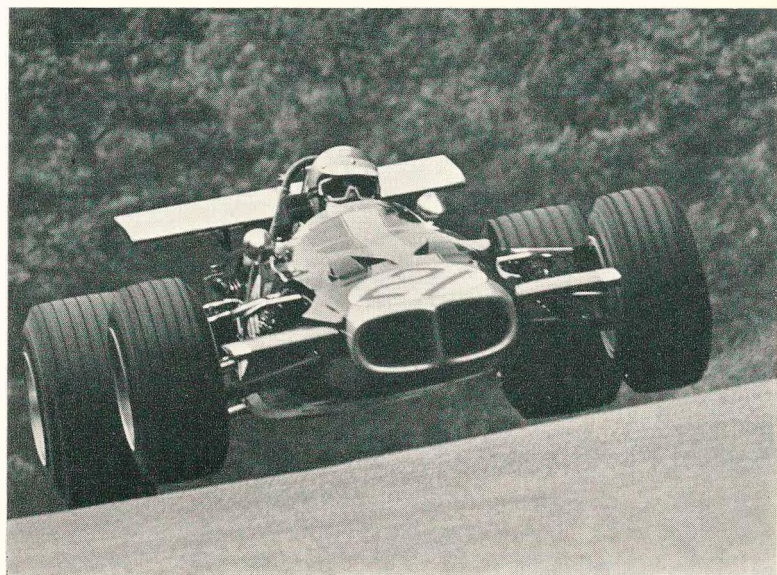
Fastest lap: B. Redman (Lola T70 Mk 3B - Chevrolet 6.2-litre, 1 min 25.8 sec (106.99 mph).

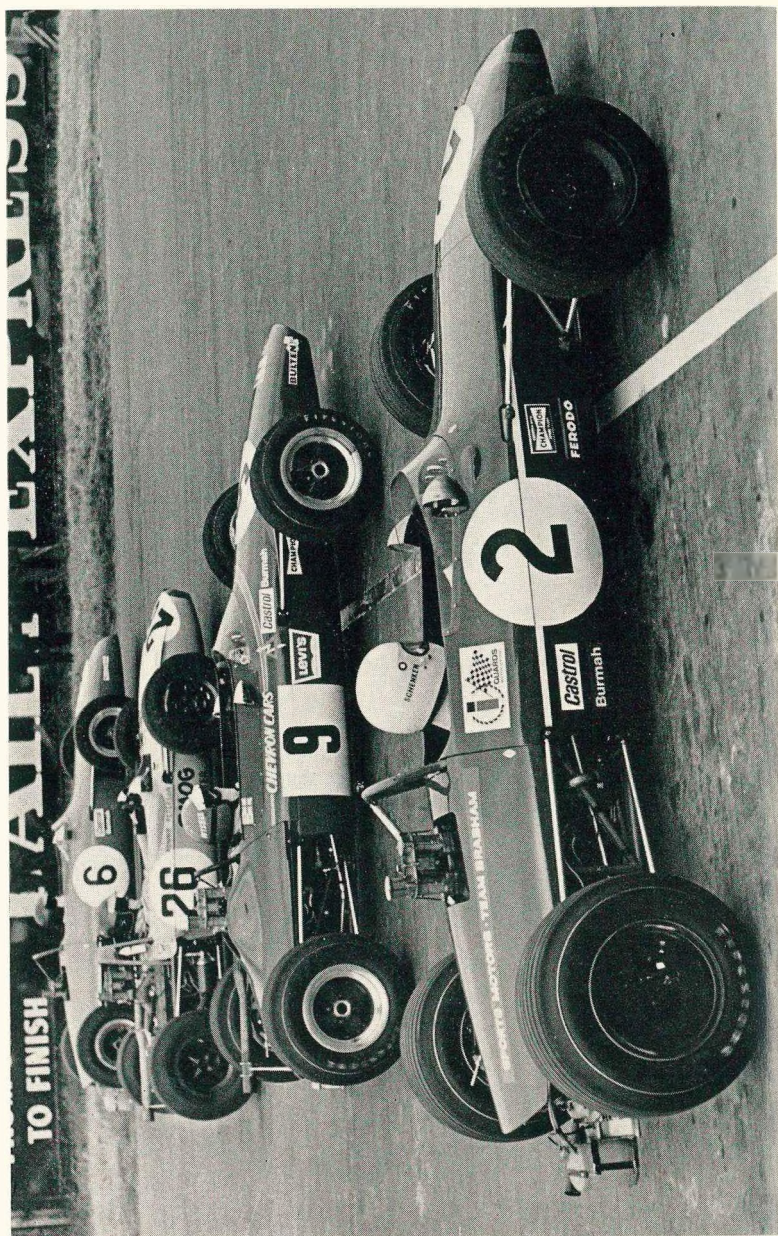
Part Three

Racing Round The World



Above: On test at Silverstone before the Formula 5000 season started is Sid Taylor's Lola T142. Here Robin Widdows is at the wheel. (Guy Griffiths). *Below:* The Winkelmann Team was a strong force in Formula Two in 1969 with their Lotus Mk 59 cars. In the German Grand Prix Rolf Stommelen was given a drive and finished fourth in the Formula Two class. (Nigel Snowdon)





Line-up of the leading contenders in Formula Three at the British Grand Prix meeting – Tim Schenken and his Sports Motors-entered Brabham, Reine Wisell and the works Chevron and Ronnie Peterson and his Tecno. (Nigel Snowdon)

10 The Indianapolis 500 Miles Race

A great American motor racing function since 1911, the banked Indianapolis track has only been a focal-point of European interest since Jack Brabham raced a special 2.7-litre Cooper-Climax there in 1961. Since then the race has been subjected to considerable European influence resulting in technical changes that have transformed the traditional 'Indy' roadster to a modern rear-engine layout and have made four-wheel-drive an accepted feature. Despite promises of steam-powered cars, none ran in 1969 and because of new and more restrictive regulations, there were no gas-turbines entered apart from Jack Adams' Allison-powered car which failed to qualify. Instead there were supercharged piston engines in profusion. After Andretti had crashed in practice, the works Lotus 64s with 2.65-litre turbocharged four-cam Ford engines were withdrawn, but there was still plenty of interest left in the race. At the start there were 33 cars, nineteen with Offenhauser engines, eleven with four-cam Ford, two Repcos and one stock-block Ford. A total of thirty had superchargers (all exhaust-driven) and there were only four four-wheel-drive cars in the race.

The latter included the T152 Lolas driven by Bobby Unser and Mark Donohue and other interesting entries included the two Brabham BT25 monocoques with Repco 4.2-litre engines driven by Jack himself and Peter Revson and an Armada of Eagles, including Dan Gurney's own car with push-rod Ford stock-block engine. Fastest to qualify were A. J. Foyt with his 2wd Coyote-Ford (170.568 mph), Mario Andretti who had transferred to a 2wd Brawner-Ford (169.851 mph) and Bobby Unser with the Lola (169.683 mph).

After two paced laps the field was released and the fight for the lead immediately became a duel between Foyt, Andretti and McCluskey, with Andretti leading at the end of the first lap, while on the second lap poor Jack Brabham was already in the pits with ignition trouble. After five laps Foyt took the lead and another five laps later McCluskey went past Andretti into second place. In

fourth place was Gary Bettenhausen and fifth was Bobby Unser's Lola – but after 23 laps Unser came into the pits for a tyre change and suspension adjustments. Next of the leaders to go was Gary Bettenhausen's Gerhardt-Offenhauser, which broke a piston on lap 34.

Still the lead was hotly disputed between Foyt, Andretti and McCluskey, but it was always Foyt who managed to maintain a slight edge and thereby win \$150 each time round as lap leader. First in the pits to refuel was Peter Revson's Brabham, which was consuming fuel at a prodigious rate. Soon the leaders were in the pits with Foyt only taking 28 seconds to refuel and Andretti a rather drawn-out 43 seconds. This gave Foyt a clear lead, but soon his car was in trouble and he began to lose a second a lap to second-place man Andretti, who was now being hounded by Lloyd Ruby's Mongoose-Offenhauser.

Ruby went by into the lead on lap 79, while Foyt went slower and slower, eventually stopping at his pit on lap 83. At first the car was thought to have turbocharger trouble; this was worked on and he rejoined the race; but the car was still not right and a further stop revealed that there was a hole in the intake manifold, and this had to be welded. Andretti took the lead from Ruby on lap 86 and the next four places were occupied by the Eagles of Joe Leonard, Dallenbach, Denis Hulme and Dan Gurney.

By half-distance Andretti and Ruby were still nose-to-tail at the front and Gurney had moved up to take fourth place ahead of Hulme. Then started the second pit-stops. Ruby made his stop on lap 105 and a silly accident brought his race to an end. He accelerated away from the pits too soon, while the hose was still in the tank; instead of the hose just pulling out it pulled the filler with it and the car was retired pouring fuel.

Now only Leonard was on the same lap as Andretti, and the 'Superwop,' as the Americans call him, had a 23-second lead. Behind Leonard the order after refuelling stops was Gurney, Hulme, McCluskey and Foyt had rejoined the race 24 laps in arrears. Now that he had got his Coyote-Offy really wound up, McCluskey was making up ground and overtook both Hulme and Gurney to gain third place. Then the order changed dramatically on lap 128 when Leonard's Eagle was black-flagged for dropping water. A piece of Jubilee clip from another car had punctured the radiator and he lost fifteen laps while this was being changed.

Hulme had moved up to second place by when the final refuelling stops were beginning. When he accelerated to rejoin the race the clutch could not be slipped – necessary to get the turbo-charged Ford off the line – because for laps the master cylinder had been

leaking away its vital fluid, and the car had to be retired. Andretti led after his refuelling stop by a comfortable margin. McCluskey, now in fourth place behind Mosley's Watson, found that his car was gradually losing power; on lap 157 the Coyote-Offy stopped with a broken inlet manifold and not long afterwards Mike Mosley's car stopped in a cloud of smoke when a piston broke. Mark Donohue was now in third place, but was forced to stop for a magneto change as a result of which he finished seventh. The order was now Andretti, who sailed on to an untroubled win, from Gurney, whose engine was starting to smoke badly, and Bobby Unser. This was the finishing order, for Unser was unable to make any impression on the ailing Eagle.

For Andy Granatelli, Andretti's entrant, it was a well-deserved victory after many years of failure, and Andretti's awards included \$206,727, together with the Chevrolet Camaro pace car, various trophies, wardrobes of clothes and tool kits!

INDIANAPOLIS 500 MILES RACE

Indianapolis Speedway

30th May, 1969

Circuit length: 2.5 miles. 200 laps (500 miles). Weather: Hot and sunny.

- 1st, M. Andretti (Hawk-Ford t/c), 3 hours 11 min 14.71 sec
(156.867 mph),
- 2nd, D. Gurney (Eagle-Ford), 3 hours 13 min 7.74 sec,
- 3rd, R. Unser (Lola-Offenhauser t/c), 3 hours 14 min 41.45 sec,
- 4th, M. Kenyon (Gerhardt-Offenhauser t/c), 3 hours 17 min
8.32 sec,
- 5th, P. Revson (Brabham BT25-Repco), 3 laps in arrears,
- 6th, J. Leonard (Eagle-Ford t/c), 7 laps in arrears,
- 7th, M. Donohue (Lola-Offenhauser t/c), 10 laps in arrears,
- 8th, A. J. Foyt (Coyote-Ford t/c), 19 laps in arrears,
- 9th, L. Dickson (Vollstedt-Ford t/c), 20 laps in arrears,
- 10th, R. Johns (Laycock-Offenhauser t/c), 29 laps in arrears,
- 11th, J. Malloy (Vollstedt-Offenhauser t/c), 35 laps in arrears,
- 12th, S. Sessions (Finley-Offenhauser t/c), 37 laps in arrears,
- 13th, M. Mosley (Watson-Offenhauser t/c), 38 laps in arrears
(broken piston),*
- 14th, R. McCluskey (Coyote-Offenhauser t/c), 43 laps in arrears
(broken manifold),*

The Motor Racing Year

15th, B. Tingelstad (Lola-Offenhauser t/c), 45 laps in arrears (engine failure),*

16th, G. Snider (Coyote-Ford t/c), 48 laps in arrears.

* Not running at finish for reason stated.

Among others classified but not running at the finish were: D. Hulme (Eagle-Ford t/c), 145 laps, clutch; L. Ruby (Mongoose-Offenhauser), 105 laps, broken fuel cap; W. Dallenbach (Eagle-Offenhauser t/c), 82 laps, clutch failure; J. Brabham (Brabham BT25-Repco), 58 laps, ignition failure; G. Bettenhausen (Gerhardt-Offenhauser t/c), 35 laps, broken piston; R. Bucknum (Eagle-Offenhauser t/c), 16 laps, broken piston; A. Pollard (Gerhardt-Offenhauser t/c), 7 laps, transmission failure; W. Vukovich (Shrike-Offenhauser t/c), 1 lap, con rod.

Fastest lap: R. McCluskey, 166.51 mph.

Existing lap record: L. Ruby (Gene White Company Special), 168.67 mph (1968).

11 Formula 5000 Year

Formula 5000

This new Formula devised for the 1969 season should have been the real sensation of the year, but it largely failed to live up to its hopes. The Formula was inspired by the Sports Car Club of America Formula A and devised by the British Racing and Sports Car Club. The Formula is limited to cars using mass-produced V-8 engines with push-rod-operated valve mechanisms with freedom of modifications, subject to: (1) a maximum capacity of 5,000 cc; (2) no substitution of cylinder head or blocks; (3) no change in the location of the camshaft; (4) no change in the number of bearings; (5) superchargers banned. To increase the size of the fields, the Formula also admitted unrestricted racing engines of over 1,500 cc and under 2000 cc, but in practice few such cars appeared. For the main class there was a minimum weight limit of 1,250 lb and for the 2-litre cars a minimum weight of 950 lb. Later in the season with the agreement of the various entrants, carburation was restricted to the use of Weber 48 IDA instruments with no inter-connection between the ports as from December 31st, 1969. In point of fact, only Gethin's McLaren and one of the TS5s raced by the works used fuel injection.

Although there were a number of different also-rans with Ford-Cobra 4.7-litre power units, only three makes featured consistently in the money in 1969 and all used Chevrolet engines developed by one or another specialist.

Winner of the Guards Championship was Peter Gethin with a McLaren M10A, which was the only example of this model to be raced and which received a degree of works support. This model is based on the very successful McLaren M7A Formula One car and is, of course, a monocoque. Generally it is beefier and bigger with a wheelbase of 8 ft 1½ in, front track of 5 ft 0 in and rear track of 4 ft 10 in. It has wheels of 15 in both ways – rims and width. The price of the car was £4,480 without engine. Both car and driver were head and shoulders above the opposition in the early part of the season, but a spell by Gethin competing in the States in Formula A races and the ever-increasing power of the TS5 cars nearly cost him the Championship. In the final and deciding race of the series

both Gethin and his closest rival, TS5 driver Trevor Taylor, were eliminated when they collided with a back-marker.

The TS5 is the product of the John Surtees Racing Organisation and was designed by Len Terry. It is one of the smallest and cleanest-looking of the Formula 5000 cars. It is a full monocoque structure with a wheelbase of 8 ft 0 in and front and rear track of 5 ft 0 in. Cars were handled during the season by Andreas de Adamich and David Hobbs (works entries), while Trevor Taylor drove a works car from time to time, and this was subsequently entered in the name of his Team Elite. Now that it has been properly sorted, the TS5 may well prove the car to beat in 1970.

From Eric Broadley's Lola concern came the T142, and this was the real work-horse of Formula 5000. The design originated at the end of 1967 as the T140, intended for sale in the U.S.A. The Lola has a multi-tubular space-frame with typical Grand Prix-style suspension. Generally speaking, it was a heavier and simpler car than those already mentioned and complete with a 435 bhp Chevrolet engine the price tag was £5,500. These cars were rarely race-winners, but they dominated the entry lists and always filled the lower places. As a complete TS5 would have set you back some £7,000-£8,000, the Lola was easily the cheapest of the cars that could be bought.

Formula 5000 may yet succeed as the proving ground for young drivers whose next mount will be a Grand Prix car, but it has a long way to go before it can be said to be as successful as a spectacle or as a technical exercise. Fields have been small and lacking in variety, the cost of entering has been fantastically high and not justified by the financial rewards; the cars, with their heavy cast-iron engines at the rear and, above them, the enormous induction systems, handled badly. Rarely did one see these cars being motored on the delicate knife-edge between perfect control and the ditch, but a more common sight was these hairy brutes thundering along the straights in great squirts and pussy-footing through the corners. New cars on the way and such models as Len Terry's Leda, which will sell for £3,650 without engine, may give the Formula the spice and variety that it badly needs.

GUARDS FORMULA 5000 CHAMPIONSHIP

Round 1 OULTON PARK 4th April, 1969

37 laps (102.16 miles). Weather: Warm and sunny.

1st, P. Gethin (McLaren M10A-Bartz-Chevrolet), 57 min 28.0 sec
(106.66 mph),

2nd, D. Hobbs (TS5-Traco-Chevrolet), 58 min 49.6 sec,

3rd, K. Holland (Lola T142-Traco-Chevrolet), 4 laps in arrears,

4th, D. Hardwick (Lola T142-Traco-Chevrolet), 5 laps in arrears,

5th, U. Norinder (Lola T142-Traco-Chevrolet), 8 laps in arrears,*

6th, H. Kroll (Lola T142-Traco-Chevrolet), 15 laps in arrears.

* Not running at finish.

Fastest lap: P. Gethin, 1 min 31.2 sec (108.99 mph).

Round 2 BRANDS HATCH 7th April, 1969

40 laps (106 miles). Weather: Warm and sunny.

1st, P. Gethin (McLaren M10A-Bartz-Chevrolet), 1 hour 3 min
0.6 sec (100.94 mph),

2nd, K. Holland (Lola T142-Traco-Chevrolet), 1 hour 4 min
32.4 sec,

3rd, W. Forbes (Lola T142-Traco-Chevrolet), 2 laps in arrears,

4th, R. Lamplough (Lotus 43-Shelby-Ford), 4 laps in arrears,

5th, D. Hardwick (Lola T142-Traco-Chevrolet), 5 laps in arrears,

6th, C. Summers (Lotus 24-Chevrolet), 5 laps in arrears.

Fastest lap: P. Gethin, 1 min 31.6 sec (104.15 mph).

Round 3 BRANDS HATCH (CLUB CIRCUIT) 11th May, 1969

82 laps (aggregate of 2 heats - 101.68 miles). Weather: Fair.

1st, P. Gethin (McLaren M10A-Bartz-Chevrolet), 1 hour 7 min
13 sec (90.76 mph),

2nd, F. Gardner (Lola T142-Bartz-Chevrolet), 1 hour 7 min 45.4 sec,

3rd, K. Holland (Lola T142-Traco-Chevrolet), 81 laps,

4th, U. Norinder (Lola T142-Traco-Chevrolet), 81 laps,

The Motor Racing Year

- 1st, T. Taylor (TS5-Bartz-Chevrolet), 57 min 42.6 sec (112.70 mph),
2nd, M. Hailwood (Lola T142-Traco-Chevrolet), 57 min 48.6 sec,
3rd, M. Walker (Lola T142-Bartz-Chevrolet), 58 min 58.8 sec,
4th, A. Rollinson (Lola T142-Bartz-Chevrolet), 1 hour 0 min
13.0 sec,
5th, U. Norinder (Lola T142-Traco-Chevrolet), 1 lap in arrears,
6th, W. Forbes (Lola T142-Traco-Chevrolet), 2 laps in arrears.

Fastest lap: T. Taylor, 1 min 24.6 sec (115.32 mph).

Round 10

PREIS DER NATIONEN 13th September, 1969
(HOCKENHEIM)

30 laps (126.2 miles). Weather: Overcast.

- 1st, T. Taylor (TS5-Bartz-Chevrolet), 58 min 34.3 sec (129.28 mph),
2nd, M. Hailwood (Lola T142-Chevrolet), 59 min 11.7 sec,
3rd, U. Norinder (Lola T142-Traco-Chevrolet), 1 hour 0 min
19.4 sec,
4th, P. Gethin (McLaren M10A-Bartz-Chevrolet), 1 hour 1 min
23.3 sec,
5th, K. Holland (Lola T142-Traco-Chevrolet), 1 lap in arrears,
6th, D. Williams (Lola T142-Traco-Chevrolet), 2 laps in arrears.

Fastest lap: P. Gethin, 1 min 55 sec (131.67 mph).

Round 11

OULTON PARK 20th September, 1969

40 laps (aggregate of 2 heats - 110 miles). Weather: Warm and sunny.

- 1st, M. Walker (Lola T142-Bartz-Chevrolet), 1 hour 3 min 10.0 sec
(104.90 mph),
2nd, A. Rollinson (Lola T142-Traco-Chevrolet), 1 hour 3 min
57.4 sec,
3rd, K. Holland (Lola T142-Traco-Chevrolet), 1 hour 3 min
58.2 sec,
4th, U. Norinder (Lola T142-Traco-Chevrolet), 1 hour 5 min
35.6 sec,
5th, D. Williams (Lola T142-Traco-Chevrolet), 38 laps,
6th, S. Thompson (Lola T60-Cosworth F2), 38 laps.

Fastest lap: M. Walker/P. Gethin, 1 min 33.4 sec (106.42 mph).

Round 12

BRANDS HATCH

5th September, 1969

40 laps (aggregate of 2 heats - 106 miles). Weather: Dry and warm.

1st, M. Hailwood (Lola T142-Chevrolet), 1 hour 2 min 1.6 sec
(102.54 mph).

2nd, A. Rollinson (Lola T142-Vegantunc-Chevrolet), 1 hour
2 min 39.8 sec.

3rd, K. Holland (Lola T142-Traco-Chevrolet), 1 hour 3 min
50.8 sec.

4th, D. Williams (Lola T142-Traco-Chevrolet), 38 laps.

5th, T. Sanger (BRM P83-Ford), 37 laps.

6th, I. Ashley (K3-Ford), 37 laps.

Fastest lap: T. Taylor/P. Gethin/M. Hailwood, 1 min 30.2 sec
(105.76 mph, first two named set this record in first heat and
Hailwood equalled it in the second).

GUARDS FORMULA 5000 CHAMPIONSHIP

1st, P. Gethin, 2,365 points.

2nd, T. Taylor, 2,170 points.

3rd, M. Hailwood, 2,045 points.

4th, K. Holland, 2,000 points.

5th, A. Rollinson, 1,920 points.

6th, M. Walker, 1,845 points.

12 Formula Two Year

This Formula should provide the ideal stepping-stone for would-be Grand Prix drivers, but over the years it has tended to degenerate into just another class of racing. It is very much a professional Formula, supported by works drivers and works cars. The Championship is for ungraded drivers, but the race results are usually dominated by the elite of the Grand Prix and Sports car world. By the time a driver has made the grade in Formula Two and is figuring regularly in the money, he will already be a member of at least one other works team.

Where Formula Two scores decisively over the new Formula 5000 is in that cars are pure racing machinery with all the balance and superb handling associated with single-seaters. The present Formula Two is for cars having engines with a maximum capacity of 1,600 cc and a minimum of 1,300 cc, unsupercharged, and with not more than six cylinders; they must be derived from a series production car, of which not less than 500 have been made in twelve months. There is a minimum weight limit of 420 kg. 1970 is the last year of this Formula. Almost any modifications are permitted, but there is a limit of two camshafts per line of cylinders and the system of bearings for the crankshaft and rods must not be changed.

Throughout the Formula, which came into being in 1967, the dominant power unit has been the Cosworth FVA, financed by the Ford Motor Co., and based on the Cortina block. This 1594 cc, engine with alloy cylinder head, four valves per cylinder, twin overhead camshafts driven by a train of straight-cut gears from the nose of the crankshaft and Lucas fuel injection, develops over 200 bhp and costs approximately £2,500.

It was this power unit that powered the Lotus, Matra and Tecno entries. After rather half-hearted efforts in the past with their Mk 48 cars, Lotus produced for 1969 the 59B – basically similar to the equivalent Formula Three version. A team of works-supported cars finished in green with a silver stripe was run by the Roy Winkleman Racing Team for Jochen Rindt and Graham Hill. Previously this team had run Brabhams, and although it enjoyed a

successful season, racing was closely fought throughout the year with no make having a definite edge. The Lotus features square-tube construction for ease of manufacture, is generally of conventional design, but is distinguished by handsome divided-nose bodywork that is reminiscent of Grand Prix Ferraris of 1961-62. Like all users of the Cosworth engine, the Lotus has a Hewland gearbox.

The really old campaigners on the Formula Two scene were the Matra MS7s, which have been racing since 1967. Their blunt, rather angular bodywork is far more aerodynamically efficient than it looks; the alloy monocoque chassis is immensely strong and the suspension, incorporating rocker arms and inboard springs at the front, is still a match for any of its rivals. With cars entered both by the works and Matra International (in this side of racing Ken Tyrrell combines forces with John Coombs) the MS7s had another very successful season. The credit for this is due as much to an excellent bunch of drivers that includes Stewart, Servoz-Gavin and Beltoise as to the cars, and 1969 was in fact the final fling of the MS7. In 1970 bag fuel tanks are compulsory on Formula Two cars; it was not a practical proposition to alter the Matras and the factory is too deeply involved in other projects to design and build a new team of cars.

Brabham did not run an official team of works cars in 1969, but produced a new model, the BT30. This still has a tubular chassis and has much in common with earlier designs; the rear suspension is the same, but the frame is very much stiffer, at the front the chassis is very much narrower (but with the same track as previously), the body has high cockpit sides, a faired-in engine compartment and bulging fuel tanks on either side. Private owners Kurt Ahrens and Peter Westbury enjoyed consistently successful but not spectacular seasons with these cars, and Piers Courage scored a fine victory with Frank Williams' car in the Mediterranean Grand Prix. In addition, there were several of the older BT23 and BT23C cars of 1967-68 being raced and that entered for Courage by Williams did particularly well in the early part of the season.

Other Cosworth-powered cars were raced by the French Pygmée team, who were under-financed and largely unsuccessful, and the Italian Tecno team from Bologna. This concern, founded by the Pederzoni brothers, but now run by Gianfranco only, fielded works cars for Francois Cevert, 'Nanni' Galli and Clay Reggazoni, and despite internal factory problems the team is a rising power in the Formula Two world.

The two teams to use their own power units were Ferrari and BMW. Ferrari's Dino 166 with the V-6 1,592 cc (77 × 57 mm) engine featuring four valves per cylinder got nicely into its stride

Round 2

DEUTSCHLAND TROPHY

Hockenheim

13th April, 1969

Aggregate of 2 20-lap heats (841 miles). Weather: Damp, drying out.

- 1st, J-P. Beltoise (Matra MS7-Cosworth), 1 hour 21 min 39.6 sec (123.52 mph),*
2nd, H. Hahne (BMW T102), 1 hour 21 min 40.2 sec,
3rd, P. Courage (Brabham BT23C-Cosworth), 1 hour 21 min 43.8 sec,*
4th, K. Ahrens (Brabham BT30-Cosworth), 1 hour 22 min 1.1 sec,
5th, H. Pescarolo (Matra MS7-Cosworth), 1 hour 22 min 20.3 sec,
6th, J. Servoz-Gavin (Matra MS7-Cosworth), 1 hour 22 min 1.4 sec.
(Results decided on aggregate of placings.)

Fastest lap: J-P. Beltoise, 1 min 59.1 sec (126.82 mph).

Formula 2 record: E. Brambilla (Ferrari Dino 166), 1 min 59.0 sec (127.23 mph).

Round 3

EIFELRENNEN

Nürburgring, North Circuit

27th April, 1969

10 laps (142 miles). Weather: Cloudy and warm.

- 1st, J. Stewart (Matra MS7-Cosworth), 1 hour 21 min 40.4 sec (104.20 mph),*
2nd, J. Siffert (BMW T102), 1 hour 22 min 56.4 sec,*
3rd, J-P. Beltoise (Matra MS7-Cosworth), 1 hour 23 min 11.7 sec,*
4th, H. Hahne (BMW T102), 1 hour 23 min 52.4 sec,
5th, D. Bell (Ferrari Dino 166), 1 hour 23 min 55.7 sec,
6th, J. Servoz-Gavin (Matra MS7-Cosworth), 1 hour 24 min 5.3 sec.

Fastest lap: J. Stewart, 8 min 5.3 sec (105.26 mph – outright circuit record).

Existing Formula 2 record: B. Redman (Ferrari Dino 166), 2 min 47.0 sec (103.77 mph – South Circuit).

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Round 4

MADRID GRAND PRIX

Jarama, Madrid

11th May, 1969

60 laps (128 miles). Weather: Hot and sunny.

1st, J. Stewart (Matra MS7-Cosworth), 1 hour 29 min 36.7 sec
(84.98 mph),*

2nd, J-P. Beltoise (Matra MS7-Cosworth), 1 hour 29 min 37.2 sec,*

3rd, P. Courage (Brabham BT23C-Cosworth), 1 hour 29 min
57.2sec,*

4th, J. Servoz-Gavin (Matra MS7-Cosworth), 1 lap in arrears,

5th, H. Hahne (BMW T102), 1 lap in arrears,

6th, E. Brambilla (Ferrari Dino 166), 1 lap in arrears.

Fastest lap: J. Stewart/J-P. Beltoise, 1 min 28.4 sec (85.25 mph).

Formula 2 record: J-P. Beltoise (Matra MS7-Cosworth), 1 min
28.2 sec (86.34 mph).

Round 5

FLUGPLATZRENNEN

Tulln-Langenlebarn, Austria

13th July, 1969

Aggregate of 2 35-lap heats (124 miles). Weather: Dry and windy.

1st, J. Rindt (Lotus 59B-Cosworth), 1 hour 13 min 22.02 sec
(101.87 mph),*

2nd, J. Stewart (Matra MS7-Cosworth), 1 hour 13 min 24.64 sec,*

3rd, G. Hill (Lotus 59B-Cosworth), 1 hour 13 min 42.12 sec,*

4th, J-P. Beltoise (Matra MS7-Cosworth), 1 hour 13 min 59.74 sec,*

5th, F. Cevert (Tecno-Cosworth), 1 hour 14 min 33.4 sec,

6th, N. Galli (Tecno-Cosworth), 1 hour 14 min 45.39 sec.

Fastest lap: J. Rindt/J. Stewart, 1 min 2.0 sec (103.18 mph – record).

Existing Formula 2 record: J. Rindt (Brabham BT23C), 1 min 3.2 sec
(101.23 mph).

Round 6

MEDITERRANEAN GRAND PRIX

Enna

24th August, 1969

Aggregate of 2 31-lap heats (185 miles). Weather: Hot and windy.

1st, P. Courage (Brabham BT30-Cosworth), 1 hour 17 min 58.0 sec
(142.23 mph),*

- 2nd, J. Servoz-Gavin (Matra MS7-Cosworth), 1 hour 17 min 58.7 sec,
3rd, F. Cevert (Tecno-Cosworth), 1 hour 17 min 59.3 sec,
4th, C. Regazzoni (Tecno-Cosworth), 1 hour 18 min 0.3 sec,
5th, R. Widdows (Brabham BT23C-Cosworth), 1 hour 18 min 28.5 sec,*
6th, G. Hill (Lotus 59B-Cosworth), 1 hour 18 min 57.1 sec.

Fastest lap: G. Hill, 1 min 12.9 sec (147.21 mph).

Formula 2 record: J. Rindt (Brabham BT23C), 1 min 12.8 sec (147.41 mph).

Round 7

ROME GRAND PRIX

Vallelunga

12th October, 1969

Aggregate of 2 40-lap heats (155.1 miles). Weather: Fine and warm.

- 1st, J. Servoz-Gavin (Matra MS7-Cosworth), 1 hour 42 min 43 sec (90.58 mph),
2nd, P. Westbury (Brabham BT30-Cosworth), 79 laps,
3rd, J. Miles (Lotus 59-Cosworth), 79 laps,
4th, D. Bell (Brabham BT30-Cosworth), 78 laps,
5th, F. Bernabei (Brabham BT23C-Cosworth), 77 laps,
6th, J. Pollock (Lotus 48-Cosworth), 76 laps.

Fastest lap: J. Servoz-Gavin, 1 min 15.7 sec (92.19 mph – record).

Existing Formula 2 record: T. Brambilla (Ferrari Dino 166), 1 min 16.2 sec (91.59 mph).

EUROPEAN FORMULA TWO CHAMPIONSHIP

Points are awarded to the first six non-graded drivers as follows
1st, 9 points; 2nd, 6; 3rd, 4; 4th, 3; 5th, 2; 6th, 1. Points are only awarded to drivers who have covered at least nine-tenths of the number of laps completed by the highest-placed non-graded driver.

1st, J. Servoz-Gavin, 37 points.

2nd, H. Hahne, 28 points.

3rd, F. Cevert, 21 points.

4th, H. Pescarolo, 13 points.

5th { D. Bell
P. Westbury } 11 points.

TROPHÉE DE FRANCE RACES

Round 1

PAU GRAND PRIX

Pau

20th April, 1969

70 laps (120 miles). Weather: Dry and sunny.

- 1st, J. Rindt (Lotus 59B-Cosworth), 1 hour 34 min 9.7 sec
(76.47 mph),
2nd, J-P. Beltoise (Matra MS7-Cosworth), 1 hour 35 min 11.1 sec,
3rd, P. Courage (Brabham BT23C-Cosworth), 1 hour 35 min
19.0 sec,
4th, J. Servoz-Gavin (Matra MS7-Cosworth), 1 lap in arrears,
5th, F. Cevert (Tecno-Cosworth), 2 laps in arrears,
6th, E. Corti (Brabham BT23-Cosworth), 5 laps in arrears.

Fastest lap: J. Rindt, 1 min 18.9 sec (78.24 mph – record).

Existing Formula 2 record: J. Stewart (Matra MS7-Cosworth), 1 min
20.1 sec (77.08 mph).

Round 2

TROPHÉES DE FRANCE

Rheims

29th June, 1969

35 laps (181 miles). Weather: Hot and sunny.

- 1st, F. Cevert (Tecno-Cosworth), 1 hour 19 min 21.3 sec (136.51
mph),
2nd, R. Widdows (Brabham BT23C-Cosworth), 1 hour 19 min
21.4 sec,
3rd, P. Courage (Brabham BT30-Cosworth), 1 hour 19 min 21.5 sec,
4th, J. Stewart (Matra MS7-Cosworth), 1 hour 19 min 21.7 sec,
5th, N. Galli (Tecno-Cosworth), 1 hour 19 min 21.8 sec,
6th, A. Rollinson (Brabham BT30-Cosworth), 1 hour 19 min
22.0 sec.

Fastest lap: P. Courage, 2 min 12.6 sec (140.05 mph – record).

Existing Formula 2 record: J. Clark (Lotus 48-Cosworth), 2 min
16.1 sec (136.45 mph).

Round 3

ALBI GRAND PRIX

Albi

14th September, 1969

75 laps (169 miles). Weather: Dry and mainly sunny.

1st, G. Hill (Lotus 59B-Cosworth), 1 hour 32 min 46.0 sec (109.6 mph),

2nd, J. Servoz-Gavin (Matra MS7-Cosworth), 1 hour 32 min 49.4 sec,

3rd, J. Rindt (Lotus 59B-Cosworth), 1 hour 32 min 49.8 sec,

4th, H. Pescarolo (Matra MS7-Cosworth), 1 hour 33 min 37.1 sec,

5th, R. Peterson (Lotus 59B-Cosworth), 1 hour 33 min 37.4 sec,

6th, R. Widdows (Brabham BT23C-Cosworth), 1 lap in arrears.

Fastest lap: J. Rindt, 1 min 12.9 sec (111.57 mph).

Formula 2 record: J. Rindt (Brabham BT23C-Cosworth), 1 min 12.8 sec (111.73 mph).

OTHER FORMULA TWO RACES

LIMBOURG GRAND PRIX

Zolder (Belgium)

8th June, 1969

Aggregate of 2 24-lap heats (125 miles). Weather: Warm and sunny.

1st, J. Rindt (Lotus 59B-Cosworth), 1 hour 10 min 59.8 sec,

2nd, J. Ickx (Brabham BT23C-Cosworth), 1 hour 11 min 16.1 sec,

3rd, P. Courage (Brabham BT30-Cosworth), 1 hour 11 min 31.3 sec,

4th, G. McRae (Brabham BT23C-Cosworth), 1 hour 12 min 42.3 sec,

5th, W. Ivy (Brabham BT23C-Cosworth), 1 hour 12 min 44.7 sec,

6th, G. Birrell (Brabham BT23C-Cosworth), 1 hour 13 min 15.5 sec.

(Results decided on aggregate of placings.)

Fastest lap: J. Ickx, 1 min 27.3 sec (107.21 mph - record).

Existing Formula 2 record: J. Rindt (Brabham BT23C-Cosworth), 1 min 27.4 sec (106.96 mph).

RHINE CUP RACE

Hockenheim

15th June, 1969

30 laps (126 miles). Weather: Dry and sunny.

1st, B. Hart (Brabham BT23C-Cosworth), 1 hour 2 min 2.5 sec (121.97 mph),

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2nd, H. Hahne (BMW T102), 1 hour 2 min 2.8 sec,
3rd, P. Westbury (Brabham BT30-Cosworth), 1 hour 2 min 3.4 sec,
4th, X. Perrot (Brabham BT23C-Cosworth), 1 hour 2 min 3.7 sec,
5th, J. Miles (Lotus 59B-Cosworth), 1 hour 2 min 52.4 sec,
6th, G. Birrell (Brabham BT23C-Cosworth), 1 hour 2 min 53.1 sec.

Fastest lap: B. Hart, 2 min 1.3 sec (124.77 mph).

Previous race record: J. Rindt (Brabham BT23C-Cosworth), 1 min 59.8 sec (128.64 mph).

Formula 2 record: E. Brambilla (Ferrari Dino 166), 1 min 59.0 sec (127.23 mph).

LOTTERY GRAND PRIX

Monza

22nd June, 1969

45 laps (161 miles). Weather: Dry and sunny.

1st, R. Widdows (Brabham BT23C-Cosworth), 1 hour 12 min 3.5 sec (133.86 mph),

2nd, P. Westbury (Brabham BT30-Cosworth), 1 hour 12 min 5.8 sec,

3rd, F. Cevert (Tecno-Cosworth), 1 hour 12 min 6.2 sec,

4th, M. Guthrie (Brabham BT30-Cosworth), 1 hour 12 min 6.4 sec,

5th, D. Bell (Ferrari Dino 166), 1 hour 12 min 11.2 sec,

6th, G. Birrell (Brabham BT23C-Cosworth), 1 hour 12 min 11.9 sec.

Fastest lap: R. Widdows, 1 min 33.1 sec (138.16 mph - record).

Previous Formula 2 record: J-P. Jaussaud (Tecno-Cosworth), 1 min 35.0 sec (135.38 mph).

13 The Formula Three Year

As a subsidiary Formula, this class of racing is a great success both as a spectacle and in helping promising young drivers to further their careers. With the cars so closely matched, it is a class of racing in which skill shows through and the 1969 season was particularly exciting and close, with Tim Schenken (Brabham), Reine Wisell (Chevron), Ronnie Peterson (Techo) and Emerson Fittipaldi (Lotus) all vying for honours. Whether any of these drivers will make the grade in Formula One is a different matter, but all four have proved themselves worthy candidates for a works drive either in Formula Two or 'big-banger' sports car racing.

Formula Three is for single-seater cars of not more than 1,000 cc unsupercharged. The engine must have been derived from a production unit having not more than four cylinders and only one carburetter is permitted. Four-speed gearboxes are compulsory and there is a minimum weight limit of 400 kg. All the successful cars have engines that are Ford-based, but there are a good half-dozen different companies producing successful units including the Cosworth, Holbay, Lucas, Felday and Novamotor. The only car not powered by a Ford-based engine is the French Alpine, which naturally enough uses a Renault engine made by the company's sponsors. It cannot, however, be regarded as competitive.

LOMBANK CHAMPIONSHIP

MALLORY PARK

9th March, 1969

15 laps (20.25 miles).

1st, A. Rollinson (Brabham BT21B-Holbay), 96.15 mph,
2nd, T. Schenken (Brabham BT28-Lucas MAE),
3rd, R. Keele (EMC-Ehrlich).

Fastest lap: T. Schenken, 49.0 sec (99.18 mph).

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OULTON PARK

15th March, 1969

10 laps (27.61 miles).

1st, T. Schenken (Brabham BT28-Lucas MAE), 96.16 mph,

2nd, C. Williams (Brabham BT21B-Lucas),

3rd, B. Maskell (Chevron B9-Holbay).

Fastest lap: T. Schenken, 1 min 42.0 sec (97.45 mph).

SNETTERTON

23rd March, 1969

12 laps (32 miles).

1st, A. Rollinson (Brabham BT21B-Holbay), 98.61 mph,

2nd, T. Schenken (Brabham BT28-Lucas MAE),

3rd, D. Cole (Alexis Mk 12-Lucas).

Fastest lap: A. Rollinson, 1 min 36.4 sec (101.20 mph).

SNETTERTON

4th April, 1969

15 laps (40 miles).

1st, R. Wisell (Chevron B15-Felday), 101.87 mph,

2nd, T. Schenken (Brabham BT28-Lucas MAE),

3rd, A. Rollinson (Brabham BT21B-Holbay).

Fastest lap: A. Rollinson, 1 min 34.2 sec (103.57 mph).

MALLORY PARK

7th April, 1969

25 laps (33.75 miles).

1st, A. Rollinson (Brabham BT21B-Holbay), 97.95 mph,

2nd, B. Maskell (Chevron B9-Holbay),

3rd, M. Beuttler (Brabham BT21B-Holbay).

Fastest lap: A. Rollinson and B. Maskell, 48.4 sec (100.41 mph)

Racing Round the World

OULTON PARK

3rd May, 1969

15 laps (41.41 miles).

1st, A. Rollinson (Brabham BT21B-Holbay), 96.88 mph,
2nd, R. Pike (Lotus 59-Holbay),
3rd, B. Bond (Brabham BT21B-Holbay).

Fastest lap: A. Rollinson, 1 min 40.8 sec (98.61 mph).

MALLORY PARK

4th May, 1969

15 laps (20.25 miles).

1st, A. Rollinson (Brabham BT21B-Holbay), 98.49 mph,
2nd, R. Pike (Lotus 59-Holbay),
3rd, B. Bond (Brabham BT21B-Holbay).

Fastest lap: R. Pike, 48.0 sec (101.25 mph).

BRANDS HATCH

15th June, 1969

20 laps (24.8 miles).

1st, R. Scott (Brabham BT21-Holbay), 86.0 mph,
2nd, K. Jupp (Brabham BT28-Holbay),
3rd, B. Maskell (Chevron B9-Holbay).

Fastest lap: K. Jupp and B. Maskell, 50.8 sec (87.87 mph).

MALLORY PARK

13th July, 1969

15 laps (20.25 miles).

1st, R. Pike (Lotus 59-Holbay), 97.93 mph,
2nd, M. Nunn (Lotus 59-Holbay),
3rd, R. Scott (Brabham BT21-Holbay).

Fastest lap: R. Pike and M. Nunn, 48.8 sec (99.59 mph).

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BRANDS HATCH

3rd August, 1969

10 laps (12.4 miles).

1st, B. Bond (Brabham BT28-Holbay), 85.65 mph,

2nd, E. Fittipaldi (Lotus 59-Holbay),

3rd, R. Pike (Lotus 59-Holbay).

Fastest lap: B. Bond and E. Fittipaldi, 50.6 sec (88.22 mph).

MALLORY PARK

10th August, 1969

20 laps (27.0 miles).

1st, E. Fittipaldi (Lotus 59-Holbay), 99.10 mph,

2nd, B. Bond (Brabham BT28-Holbay),

3rd, B. Hawthorne (Brabham BT21B-Holbay).

Fastest lap: E. Fittipaldi, 48.0 sec (101.25 mph).

BRANDS HATCH

17th August, 1969

10 laps (12.4 miles).

1st, E. Fittipaldi (Lotus 59-Holbay), 86.24 mph,

2nd, R. Pike (Lotus 59-Holbay),

3rd, J. Hunt (Brabham BT21B).

Fastest lap: R. Pike and E. Fittipaldi, 50.0 sec (89.28 mph – record).

BRANDS HATCH

13th September, 1969

15 laps (18.6 miles).

1st, E. Fittipaldi (Lotus 59-Holbay), 87.51 mph,

2nd, B. Bond (Lotus 59-Holbay),

3rd, R. Pike (Lotus 59-Holbay).

Fastest lap: B. Bond and H. Ganley (Chevron B15-Lucas), 49.8 sec
(89.64 mph – record).

MALLORY PARK

28th September, 1969

10 laps (13.5 miles).

1st, E. Fittipaldi (Lotus 59-Holbay), 97.16 mph,

2nd, D. Walker (Lotus 59-Holbay),

3rd, T. McGrath (Chevron B15-Holbay).

Fastest lap: E. Fittipaldi, 49.0 sec (99.78 mph).

BRANDS HATCH

19th October, 1969

Final of 20 laps (53 miles) with 2 10-lap qualifying heats.

1st, R. Wisell (Chevron B15-Novamotor), 98.37 mph,

2nd, M. Nunn (Lotus 59-Holbay),

3rd, B. Bond (Lotus 59-Holbay).

Fastest lap: H. Ganley (Chevron B15-Lucas), 1 min 35.4 sec
(100.00 mph).

BRANDS HATCH

9th November, 1969

15 laps (18.6 miles).

1st, E. Fittipaldi (Lotus 59-Holbay), 70.32 mph,

2nd, B. Bond (Lotus 59-Holbay),

3rd, D. Walker (Lotus 59-Holbay).

Fastest lap: D. Walker, 61.6 sec (72.47 mph).

LOMBANK FORMULA THREE CHAMPIONSHIP

1st, E. Fittipaldi (Lotus 59-Holbay), 57 points,

2nd, A. Rollinson (Brabham BT21B-Holbay), 49 points,

3rd, B. Bond (Brabham BT21B, BT28 and Lotus 59-Holbay), 39
points,

4th, R. Pike (Lotus 59-Holbay), 38 points,

5th, R. Scott (Brabham BT21-Holbay and Chevron B15-Lucas), 36
points,

6th, T. Schenken (Brabham BT28-Lucas), 33 points.

OTHER FORMULA THREE RACES

COUPE DE VITESSE (PAU)

20th April, 1969

35 laps (60 miles).

1st, R. Wisell (Chevron B15-Felday), 70.84 mph,
2nd, T. Schenken (Brabham BT28-Lucas MAE),
3rd, M. Beuttler (Brabham BT28-Lucas).

Fastest lap: R. Wisell, 1 min 25.3 sec (72.38 mph).

VIGORELLI GRAND PRIX (MONZA)

20th April, 1969

60 laps (88.92 miles).

1st, J. Dubler (Tecno-Cosworth), 94.34 mph,
2nd, G-L. Picchi (Tecno-Cosworth),
3rd, C. Francisci (Brabham BT21B-Holbay).

Fastest lap: G-L. Picchi and G. Salvati (Tecno-Cosworth), 55.1 sec
(96.82 mph - record).

BARCELONA

4th May, 1969

40 laps (96 miles).

1st, T. Schenken (Brabham BT28-Lucas MAE), 85.4 mph,
2nd, R. Wisell (Chevron B15-Felday),
3rd, M. Beckwith (Lotus 59-Holbay).

Fastest lap: R. Wisell, 1 min 37.9 sec (86.42 mph - record).

MONACO

16th May, 1969

23 laps (44.74 miles).

1st, R. Peterson (Tecno 69-Novamotor), 74.72 mph,
2nd, R. Wisell (Chevron B15-Felday),
3rd, J-P. Jabouille (Alpine A-360),

Fastest lap: R. Wisell, 1 min 32.3 sec (76.05 mph - record).

SILVERSTONE

16th May, 1969

15 laps (45 miles).

1st, C. Lucas (Titan Mk 3A-Lucas), 88.52 mph,
2nd, T. Ikuzawa (Lotus 59-Holbay),
3rd, A. Rollinson (Brabham BT21B-Holbay).

Fastest lap: T. Ikuzawa, 1 min 56.8 sec (90.22 mph).

GRAND PRIX DES FRONTIERES (CHIMAY)

24th May, 1969

15 laps (96.93 miles).

1st, J. Blanc (Tecno-Novamotor 69), 113.43 mph,
2nd, C. Williams (Brabham BT21B-Lucas),
3rd, P. Gaydon (Tecno 69-EMC).

Fastest lap: J. Blanc, 3 min 24.1 sec (114.43 mph).

GREATER LONDON TROPHY (CRYSTAL PALACE)

26th May, 1969

25 laps (34.75 miles).

1st, T. Schenken (Brabham BT28-Lucas MAE), 89.74 mph,
2nd, R. Peterson (Tecno 69-Novamotor),
3rd, A. Rollinson (Brabham BT21B-Holbay).

Fastest lap: A. Rollinson, 54.4 sec (91.99 mph).

LA CHATRE GRAND PRIX

1st June, 1969

40 laps (37.53 miles).

1st, F. Mazet (Tecno 69-Novamotor), 74.56 mph,
2nd, J-P. Jabouille (Alpine A-360),
3rd, W. Mitchell (Brabham BT21-Lucas MAE).

Fastest lap: P. Depailler (Alpine A-330), 36.9 sec (76.81 mph).

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GRANPREMIO DELLA REPUBBLICA (VALLELUNGA)

1st June, 1969

25 laps (48.46 miles).

1st, V. Brambilla (Birel - Brabham copy), 70.57 mph,
2nd, C. Francisci (Brabham BT21B-Holbay),
3rd, G. Gagliardi (Brabham).

Fastest lap: G-L. Picchi (Tecno-Cosworth), 1 min 34.3 sec
(74.01 mph).

PARIS GRAND PRIX (MONTLHERY)

8th June, 1969

20 laps (41.88 miles).

1st, T. Schenken (Brabham BT28-Lucas MAE) and R. Wisell
(Chevron B15-Novamotor) - dead heat, 81.08 mph,
3rd, J-P. Jabouille (Alpine A-360).

Fastest lap: R. Wisell, 1 min 31.3 sec (82.32 mph).

COUPE DE VITESSE (ROUEN)

22nd June, 1969

18 laps (77.14 miles).

1st, J-P. Jaussaud (Tecno 69-Novamotor), 102.88 mph,
2nd, T. Schenken (Brabham BT28-Lucas MAE),
3rd, F. Mazet (Tecno 69-Novamotor).

Fastest lap: B. Bond (Brabham BT21B-Holbay), 2 min 18.3 sec
(105.81 mph).

COUPE INTERNATIONALE DE VITESSE (RHEIMS)

30th June, 1969

20 laps (103.15 miles).

1st, P. de Merritt (Tecno 67/68-Novamotor), 115.37 mph,
2nd, J-P. Cassegrain (Brabham BT28-Holbay),
3rd, J-P. Jabouille (Alpine A-360).

Fastest lap: P. Depailler (Alpine A-330), 1 min 38.5 sec (117.16 mph).

GUARDS 4,000 GUINEAS RACE (MALLORY PARK)

29th June, 1969

50 laps (67.5 miles).

1st, T. Ikuzawa (Lotus 59-Holbay), 98.18 mph,

2nd, R. Pike (Lotus 59-Holbay),

3rd, B. Maskell (Chevron B9-Holbay).

Fastest lap: B. Maskell and R. Pike, 48 sec (101.25 mph).

PR TROPHY RACE (ANDERSTORP)

29th June, 1969

24 laps (59.53 miles).

1st, R. Peterson (Tecno 69-Novamotor), 89.35 mph,

2nd, R. Wisell (Chevron B15-Novamotor),

3rd, T. Palm (Brabham BT21B-Lucas).

Fastest lap: R. Peterson and R. Wisell, 1 min 39.4 sec (90.41 mph).

HOCKENHEIM

13th July, 1969

30 laps (aggregate of 2 heats - 126 miles).

1st, P. Hanson (Chevron B15-Novamotor),

2nd, T. Schenken (Brabham BT28-Lucas MAE),

3rd, J. Dubler (Tecno-Novamotor 69).

Fastest lap: P. Hanson, 2 min 15.6 sec (111.66 mph).

PLESSEY TROPHY (SILVERSTONE)

20th July, 1969

20 laps (38.54 miles).

1st, A. Rollinson (Chevron B15-Holbay), 107.72 mph,

2nd, T. Ikuzawa (Lotus 59-Holbay),

3rd, R. Peterson (Tecno 69-Novamotor).

Fastest lap: A. Rollinson, 1 min 36.0 sec (109.76 mph - record).

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DAILY EXPRESS FORMULA THREE TROPHY RACE (CRYSTAL PALACE)
2nd August, 1969
20 laps (27.8 miles).

1st, R. Wisell (Chevron B15-Novamotor), 89.90 mph,
2nd, T. Schenken (Brabham BT28-Lucas MAE),
3rd, R. Pike (Lotus 59-Holbay).

Fastest lap: T. Schenken, 54.6 sec (91.65 mph).

SWEDISH GRAND PRIX (KARLSKOGA)

17th August, 1969

32 laps (59.7 miles with 2 16-lap qualifying heats).

1st, R. Peterson (Tecno 69-Novamotor), 83.05 mph,
2nd, T. Schenken (Brabham BT28),
3rd, H. Ganley (Chevron B15-Lucas).

Fastest lap: Schenken, 1 min 20.8 sec (83.05 mph).

REG PARNELL TROPHY RACE (CRYSTAL PALACE)

12th September, 1969

15 laps (20.85 miles).

1st, E. Fittipaldi (Lotus 59-Holbay), 89.87 mph,
2nd, C. Lucas (Titan Mk 3A-Lucas),
3rd, R. Pike (Lotus 59-Holbay).

Fastest lap: E. Fittipaldi, R. Pike, M. Nunn (Lotus 59-Holbay) and
H. Ganley (Chevron B15-Lucas), 54.8 sec (91.31 mph).

COUPE INTERNATIONAL DE VITESSE (ALBI)

13th September, 1969

30 laps (67.78 miles).

1st, T. Schenken (Brabham BT28-Lucas MAE), 98.7 mph,
2nd, R. Wisell (Chevron B15-Novamotor),
3rd, T. Ikuzawa (Lotus 59-Holbay).

Fastest lap: T. Ikuzawa, P. Vidal (Tecno 69-Novamotor) and F.
Mazet (Tecno 69-Novamotor), 1 min 20.1 sec (101.55 mph -
record).

Racing Round the World

COPPA AUTODROMO (MONZA)

21st September, 1969

50 laps (71 miles with 2 35-lap qualifying heats over short 1.482-mile circuit).

1st, R. Peterson (Tecno 69-Novamotor), 94.76 mph,
2nd, V. Brambilla (Birel-Brambilla),
3rd, J. Dubler (Tecno 69-Novamotor).

Fastest lap: V. Brambilla, J. Dubler, 55.2 sec (96.65 mph).

TROFEO STRANIERI (MONZA)

21st September, 1969

25 laps (35 miles over short 1.482-mile circuit).

1st, U. Svensson (Brabham BT28-Lucas), 93.13 mph,
2nd, P. Gaydon (Tecno 69-EMC),
3rd, F. Link (Tecno 68-Novamotor).

Fastest lap: U. Svensson, P. Gaydon and R. Keele (Brabham BT21B-EMC), 56.2 sec (94.93 mph).

LINCOLNSHIRE INTERNATIONAL TROPHY (CADWELL PARK)

28th September, 1969

25 laps (56 miles with 2 qualifying heats, each of 10 laps).

1st, T. Schenken (Brabham BT28-Lucas), 85.75 mph,
2nd, H. Ganley (Chevron B15-Lucas),
3rd, R. Peterson (March-Novamotor).

Fastest lap: T. Schenken, J. Hunt (Brabham BT21-Lucas) and R. Wisell (Chevron B15-Novamotor), 1 min 33.2 sec (86.91 mph - circuit record).

COUPE DU SALON (MONTLHERY)

5th October, 1969

18 laps (38 miles).

1st, E. Fittipaldi (Lotus 59-Holbay), 81.30 mph,
2nd, F. Mazet (Tecno 69-Novamotor),
3rd, J-P. Jaussaud (Tecno 69-Novamotor).

Fastest lap: E. Fittipaldi, 1 min 30.9 sec (82.93 mph).

EUROPEAN CUP FOR FORMULA THREE DRIVERS BY NATIONAL TEAMS

This award was introduced in 1966 and is for members of a National team authorised by the National Sporting Authority. In each year there is a single qualifying event organised by the country whose team won the Cup the previous year. The Federation Internationale de l'Automobile advise, but do not insist that the qualifying race is run in two heats and a final. The Cup was won by Sweden in 1968 and so the qualifying race in 1969 was the Swedish Grand Prix.

Results

- 1st, Sweden (Ronnie Peterson, Freddy Kottulinsky and Torsten Palm)
- 2nd, England (Cyd Williams, Bev Bond and Peter Gaydon)
- 3rd, Sweden (Ulf Svensson, Ingvar Pettersson and Gustav Dieden)
- 4th, England (Mike Beuttler, Peter Hanson and Keith Jupp)
- 5th, Switzerland (Jürg Dubler, Bernhard Baur and Jean Blanc)

14 Tasman Racing

During the first couple of months of each year there is a series of races in Australia and New Zealand which usually attract a couple of leading Grand Prix teams, together with some of the privateers. These races have been held to a Formula that was originally free, but later became the old 2,500 cc Grand Prix Formula of the years 1954-60. The reason for this was the difficulty and expense that local drivers faced if they wished to obtain the latest machinery. The net result is that the European constructors needed to build special versions of Grand Prix engines in order to compete! In 1970 this was overcome by adopting Formula 5000, but the 2,500 cc Formula was still retained as an alternative, and this in fact proved superior.

The main contenders in the series came from Ferrari and Lotus. Although Maranello fielded no works cars as such, Chris Amon took a team of two cars with the Commendatore's blessing for himself and Derek Bell. These used the four-valve Dino V-6 2.4-litre engine developing some 300 bhp; they were fitted with small chassis-mounted aerofoils and were substantially lighter than the Lotus opposition.

Gold Leaf Team Lotus fielded the 49T, the Tasman version of their usual Grand Prix 49B with the $2\frac{1}{2}$ -litre (85.67×54.1 mm) DFW variant of the Cosworth engine. These were developing about 350 bhp, but their power advantage was negated by the fact that they were substantially heavier than the Formula Two-based Ferraris. The 49Ts ran with high-mounted aerofoils. Rindt crashed his car badly at Levin and a replacement 49B had to be hastily air-freighted out. The Lotus entries were also plagued by more than their fair share of mechanical troubles.

Another Ford-powered contender was Frank Williams' Brabham BT24 1968 Grand Prix chassis fitted with the Cosworth DFW engine. This car was driven with great success by Piers Courage. In fitting the Cosworth engine, Williams was one step ahead of the works, and the Brabham's success resulted in Williams' decision to enter Grand Prix racing. The most interesting of the local cars was

Round 3 LADY WIGRAM TROPHY

Christchurch 18th January, 1969

44 laps (101.2 miles).

- 1st, J. Rindt (Lotus 49T-Cosworth), 58 min 53.6 sec (103.11 mph),
2nd, G. Hill (Lotus 49T-Cosworth),
3rd, C. Amon (Ferrari Dino 246),
4th, P. Courage (Brabham BT24-Cosworth),
5th, D. Bell (Ferrari Dino 246),
6th, R. Levis (Brabham BT23C-Cosworth).

Fastest lap: J. Rindt and C. Amon, 1 min 18.8 sec (105.08 mph – record).

Round 4 TERETONGA PARK RACE

Invercargill 25th January, 1969

62 laps (99.23 miles).

- 1st, P. Courage (Brabham BT24-Cosworth), 1 hour 1 min 14.4 sec
(97.38 mph),
2nd, G. Hill (Lotus 49T-Cosworth),
3rd, C. Amon (Ferrari Dino 246),
4th, F. Gardner (Mildren-Alfa Romeo),
5th, D. Bell (Ferrari Dino 246),
6th, R. Levis (Brabham BT23C-Cosworth).

Fastest lap: J. Rindt (Lotus 49T-Cosworth), 57.9 sec (99.56 mph) – record).

Round 5 AUSTRALIAN GRAND PRIX

Lakeside 2nd February, 1969

67 laps (100.25 miles).

- 1st, C. Amon (Ferrari Dino 246), 1 hour 0 min 12.8 sec (100.18 mph),
2nd, D. Bell (Ferrari Dino 246),
3rd, L. Geoghegan (Lotus 39-Repco),
4th, G. Hill (Lotus 49T-Cosworth),

15 The Canadian- American Challenge Cup

This series of races for Group 7 cars, which are defined by the FIA as 2-seater racing cars and have no capacity limit, is the most remunerative in the motor racing year. The series is held during the summer months into the autumn and points are accumulated on a basis similar to that of Grand Prix racing.

In 1967 and 1968 the series was completely dominated by the Chevrolet-powered McLarens of Denis Hulme and Bruce McLaren and this pattern repeated itself in 1969. The 1969 works McLarens, the M8Bs, were last year's cars revamped in a number of important ways. Basis of the car is a two-bulkhead monocoque using the engine as a stressed member, with glass-fibre body panels. Auxiliary tubular members reinforce the engine and transmission. The suspension follows Grand Prix practice with wishbones, coil spring/damper units and a hefty anti-roll torsion bar at the front and lower reversed wishbones and short upper tubular members at the rear with long twin radius arms, coil spring/damper units and a lighter torsion bar. The brakes are 12-in Lockheed discs. The body panels, which give the cars their pronounced wedge-shape, are strengthened by carbon filaments. The cars were raced with high-mounted rear aerofoils, as these continued to be permitted in the Can-Am series. Power unit of the McLaren is the light alloy 7-litre Chevrolet and these units are built up in the McLaren works. The Chevrolet will go safely up to 7,500 rpm and develops 635 bhp at 7,000 rpm. The gearbox is the hefty Hewland LG500 4-speed and with typical gearing maximum speed is 185 mph, although, of course, the cars could be geared to go much faster. To private purchasers McLaren offered the M12, this being in essence the old production M6B with the latest M8A suspension and body styling.

What of the opposition to the McLarens? The Lolas, the T162s and T163s based on the T70 of 1965 with simpler, lighter and very much stronger monocoque chassis, were incapable of providing a serious challenge. Although they were unable to battle for the lead,

cars from two constructors on the European mainland had the speed and reliability to finish in the money consistently.

From Ferrari came the Tipo 612, essentially the same car that appeared in the last of the 1968 races. Powered by an enormous four overhead camshaft 6.2-litre V-12 engine based on that used in the 1967 P4 4-litre Prototype and developing 620 bhp at 8,000 rpm; this is the largest Ferrari ever built. The monocoque chassis is also derived from that of the P4 and the 612 is nearly 7 ft wide. In appearance and suspension design it closely resembles the 312P Prototype. As racing experience is gained with this car, it will become increasingly competitive and could prove the car to beat in the 1970 series. A 7-litre engine was used later in the series.

Porsche evolved the 917PA (the PA stands for Prototype America) and this open car of wedge-shape was financed by the Audi division of VW and driven by Jo Siffert. It has a power output of 590 bhp and although unable to match the speed of the McLarens has performed exceedingly well. Other European cars to compete in the series included the Matra 650s, which were driven into eighth and tenth places at Watkins Glen by Servoz-Gavin and Rodriguez, the Porsche 908 *Spyder* of Tony Dean and the surviving Le Mans 312P Ferrari coupé which appeared at Round 7 entered by NART and driven by Rodriguez.

The most intriguing car to appear in the 1969 Can-Am series was the long-awaited Chaparral 2H which was to be campaigned by John Surtees. Although this car was conventional enough in some respects, such as normal rear-wheel drive, it had a number of distinct innovations. The body/chassis unit was a monocoque with exceptionally good aerodynamics and constructed in glass-fibre with the outer surface forming the body shape. On the tail there was a flipper operated as with previous Chaparrals by the left foot and there was a 3-speed clutchless transmission. The car's prime novelty lay in the rear suspension, which was of the de Dion type, located by Watts linkages, but with the axle beam divided in the middle and hinged by a massive pivot in a vertical axis. The effect of this was that the wheels could change their toe angle. The body was an attempt to produce what might be described as an 'open coupé.' By inserting windows in the sides of the car and the nose, but with the driver's head poking out of the top, Jim Hall was able to build a car that obviated the necessity for an open passenger seat – required by the FIA on open cars as tonneaus are forbidden – and thereby further improve the aerodynamics. Unfortunately, the Chaparral still needed a great deal of technical sorting and had to be withdrawn from the series. It reappeared later in the series with an enormous wing mounted centrally.

CANADIAN-AMERICAN CHALLENGE CUP

Round 1

LABATT'S BLUE TROPHY

Mosport Park

1st June, 1969

80 laps (197 miles).

- 1st, B. McLaren (McLaren M8B-Chevrolet), 1 hour 51 min.
27.3 sec (105.901 mph),
2nd, D. Hulme (McLaren M8B-Chevrolet),
3rd, J. Surtees (McLaren M12-Chevrolet),
4th, J. Cordts (McLaren M1C-Chevrolet),
5th, C. Parsons (Lola T163-Chevrolet),
6th, J. Couture (McLaren M1C-Chevrolet).

Fastest lap: B. McLaren, 1 min 19.5 sec (111.25 mph - record).

Round 2

LABATT TROPHY

St. Jovite

15th June, 1969

60 laps (159 miles).

- 1st, D. Hulme (McLaren M8B-Chevrolet), 1 hour 37 min 52.0 sec
(97.55 mph),
2nd, B. McLaren (McLaren M8B-Chevrolet),
3rd, C. Parsons (Lola T163-Chevrolet),
4th, L. Motschenbacher (McLaren M12-Chevrolet),
5th, J. Cordts (McLaren M6B-Chevrolet),
6th, F. Baker (McLaren M6B-Chevrolet).

Fastest lap: D. Hulme and B. McLaren, 1 min 33.8 sec (101.72 mph
- record).

Round 3

WATKINS GLEN CAN-AM

Watkins Glen

13th July, 1969

87 laps (203 miles).

- 1st, B. McLaren (McLaren M8B-Chevrolet), 1 hour 35 min 17.6 sec
(125.99 mph),

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- 2nd, D. Hulme (McLaren M8B-Chevrolet),
- 3rd, C. Amon (Ferrari 612),
- 4th, G. Eaton (McLaren M12-Chevrolet),
- 5th, C. Parsons (Lola T163-Chevrolet),
- 6th, J. Siffert (Porsche 908).

Fastest lap: D. Hulme, 1 min 2.6 sec (132.27 mph – record).

Round 4

KLONDIKE 200 RACE

Edmonton

27th July, 1969

80 laps (201 miles).

- 1st, D. Hulme (McLaren M8B-Chevrolet), 1 hour 56 min 34.8 sec
(104.35 mph),
- 2nd, C. Amon (Ferrari 612),
- 3rd, G. Eaton (McLaren M12-Chevrolet),
- 4th, J. Surtees (Chaparral 2H),
- 5th, T. Dutton (Lola T70-Chevrolet),
- 6th, K. Harrison (McLaren M1C-Chevrolet).

Fastest lap: D. Hulme, 1 min 23.7 sec (108.69 mph – record).

Round 5

BUCKEYE CUP RACE

Lexington

17th August, 1969

80 laps (192 miles).

- 1st, D. Hulme (McLaren M8B-Chevrolet), 2 hours 2 min 16.6 sec
(94.212 mph),
- 2nd, B. McLaren (McLaren M8B-Chevrolet),
- 3rd, C. Amon (Ferrari 612),
- 4th, J. Siffert (Porsche 917),
- 5th, J. Surtees (Chaparral 2H),
- 6th, G. Eaton (McLaren M12-Chevrolet).

Fastest lap: C. Amon, 1 min 26.4 sec (100.00 mph – record).

Round 6

ROAD AMERICA RACE

Elkhart Lake

31st August, 1969

50 laps (200 miles).

- 1st, B. McLaren (McLaren M8B-Chevrolet), 1 hour 51 min 39.0 sec
(107.479 mph),
- 2nd, D. Hulme (McLaren M8B-Chevrolet),
- 3rd, C. Parsons (Lola T163-Chevrolet),
- 4th, P. Revson (Lola T162-Chevrolet),
- 5th, A. Dean (Porsche 908),
- 6th, L. Motschenbacher (McLaren M12-Chevrolet).

Fastest lap: D. Hulme, 2 min 8.4 sec (112.15 mph – record).

Round 7

INVER HOUSE SCOTCH CAN-AM

Bridgehampton

14th September, 1969

70 laps (199.5 miles).

- 1st, D. Hulme (McLaren M8B-Chevrolet), 1 hour 45 min 40.58 sec
(113.723 mph),
- 2nd, B. McLaren (McLaren M8B-Chevrolet),
- 3rd, J. Siffert (Porsche 917),
- 4th, L. Motschenbacher (McLaren M12-Chevrolet),
- 5th, P. Rodriguez (Ferrari 312P),
- 6th, A. Dean (Porsche 908).

Fastest lap: D. Hulme, 1 min 26.64 sec (118.949 mph – record).

Round 8

MICHIGAN INTERNATIONAL CAN-AM

Michigan International Speedway

20th September, 1969

65 laps (195 miles).

- 1st, B. McLaren (McLaren M8B-Chevrolet), 1 hour 48 min
14.09 sec (108.10 mph),
- 2nd, D. Hulme (McLaren M8B-Chevrolet),
- 3rd, D. Gurney (McLaren M8B-Chevrolet),
- 4th, J. Siffert (Porsche 917PA),

- 2nd, G. Eaton (McLaren M12-Chevrolet),
- 3rd, J. Brabham (AMR-CA-1001-Ford),
- 4th, J. Siffert (Porsche 917PA),
- 5th, C. Parsons (Lola T163-Chevrolet),
- 6th, L. Motshenbacher (McLaren M12-Chevrolet).

Fastest lap: D. Hulme (McLaren M8B-Chevrolet), 1 min 33.9 sec
(115.02 mph).

CANADIAN-AMERICAN CHALLENGE UP

Points are awarded on a basis similar to that of the Drivers' World Championship.

- 1st, B. McLaren, 165 points, \$158,750 earnings.
- 2nd, D. Hulme, 160 points, \$146,000 earnings.
- 3rd, C. Parsons, 85 points, \$77,000 earnings.
- 4th, J. Siffert, 56 points, \$50,200 earnings.
- 5th, G. Eaton, 52 points, \$51,300 earnings.
- 6th, C. Amon, 39 points, \$47,200 earnings.

16 The European Challenge Cup for Touring Cars

This Championship for saloon cars is truly European in concept with rounds all over the Continent, including two behind the Iron Curtain and one in the United Kingdom. In Switzerland, where motor racing is banned, the round in the Championship is a hill climb. The Championship is one for drivers and manufacturers and the cars eligible are those in Groups 1 and 2 of the Appendix J to the Sporting Code with the modifications permitted in Group 5; this means Series-production touring cars, of which not less than 5,000 have been built in twelve consecutive months, and Touring cars, of which not less than 1,000 have been built in a like period. Group 5 means Special, ie modified, touring cars. The range of modifications permitted is enormous and includes supercharging, special cylinder heads, fuel injection instead of carburettors and special gearboxes and suspension. Fundamentally the general design of the car must remain the same and correspond with that of the series production model; the number and location of camshafts, the valve-operating mechanism and the shape and original materials of the standard coachwork must remain unchanged.

The Championship is broken down into classes in this way:

0- 850 cc	Sub-division I	} Division I
850-1,000 cc	Sub-division II	
1,000-1,300 cc	Sub-division III	} Division II
1,300-1,600 cc	Sub-division IV	
1,600-2,500 cc	Sub-division V	} Division III
Over 2,500 cc	Sub-division VI	

At one time, when the Championship was held to Group 2 rules, the Autodelta team of Alfa Romeo GTAs had the upper hand, but although they are still raced and despite the 185 bhp at 7,800 rpm of the Lucas fuel injection cars and the 220 bhp of the supercharged model, they are no longer potential race-winners. The 911 Porsche, too - despite the use of the full Carrera 911 twin-plug

engine – is no longer able to match the very highly developed turbo-charged BMW 2002s. Division I is fought out between the N.S.U.s, the 'S'-type Coopers and the Fiat-Abarths. This is one field of racing that is truly International and it is perhaps a pity that many British teams are rather more interested in the RAC Saloon Car Championship.

EUROPEAN TOURING CAR CHALLENGE

* Class winners.

Round 1 MONZA FOUR HOURS 23rd March, 1969

1st, G. Huber/J. Neuhaus (BMW 2002TI Alpina 2-litre), 406.19 miles (101.55 mph),

2nd, C. Guzzi (Porsche 911 2-litre),

3rd, S. Dini/'Riccardoni' (Alfa Romeo GTA 1.6-litre).*

Fastest lap: T. Hezemans (Porsche 911 2-litre), 3 min 28.5 sec (108.36 mph).

Division 1 (separate race): 1st, E. Swart (Fiat-Abarth 1-litre).

Round 2 VIENNA GRAND PRIX 13th April, 1969

1st, G. Huber (BMW 2002TI Alpina 2-litre), 55 laps (93.5 miles),

2nd, J. Neuhaus (BMW 2002TI Alpina 2-litre),

3rd, H. Marko (Chevrolet Camaro 5-litre).*

Fastest lap:

Divisions 1 and 2 (separate race): 1st, S. Dini (Alfa Romeo GTA 1.6-litre).

Round 3 BELGRADE GRAND PRIX (4 Hours) 20th April, 1969

1st, D. Quester (BMW 2002TI t/c 2-litre),

2nd, D. Basche (BMW 2002TI 2-litre),

3rd, J. de Bagration (BMW 2002TI 2-litre).

Fastest lap:

Division 1 (separate race): 1st 'Pam' (Fiat-Abarth 1-litre).

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Round 4 BUDAPEST GRAND PRIX 11th May, 1969

1st, G. van Lennep (Porsche 911 2-litre),
2nd, J. de Bagration (BMW 2002TI t/c 2-litre).
3rd, T. Hezemans (Porsche 911 2-litre).

Division 1: 1st, 'Pam' (Fiat-Abarth 1-litre).

Round 5 BRNO GRAND PRIX 25th May, 1969

1st, D. Quester (BMW 2002TI t/c 2-litre),
2nd, D. Basche (BMW 2002TI t/c 2-litre),
3rd, J. Strok (BMW 2002TI t/c 2-litre).

Division 1: 1st, Bobek (Skoda).

Round 6 GUARDS 6 HOURS' RACE 21st June, 1969

1st, H. Hahne/D. Quester (BMW 2002TI t/c 2-litre), 506.15 miles
(84.36 mph),
2nd, J. Fitzpatrick/T. Taylor (Ford Escort GT 1.3-litre),*
3rd, G. Huber/P. Peter (BMW 2002TI 2-litre).

Fastest lap:

Division 1 (separate race): 1st, R. Mason (Mini-Cooper S 1-litre),
80.51 mph.

Round 7 NURBÜRGRING 6 HOURS' RACE 6th July, 1969

1st, T. Hezemans/G. van Lennep (Porsche 911 2-litre),
2nd, G. Huber/P. Peter (BMW 2002TI Alpina 2-litre),
3rd, A. de Adamich/S. Dini (Alfa Romeo GTA 1.6-litre).*

Fastest lap:

Round 8 SPA 24 HOURS' RACE 26th/27th July, 1969

1st, G. Chasseuil/C. Ballot-Lena (Porsche 911 2-litre), 2,654.64
miles (110.61 mph),
2nd, C. Haldi/J. Cheneviere (Porsche 911 2-litre),
3rd, E. Duvigneaud/E. Stalpaert (Porsche 911 2-litre).

Fastest lap: C. Tuerlinckx (Chevrolet Camaro 6.5-litre), 4 min
11.2 sec (125.56 mph).

Round 9 ZANDVOORT TROPHY RACE 31st August, 1969

1st, T. Hezemans (Porsche 911 2-litre), 35 laps (91.18 miles),
2nd, D. Basche (BMW 2002TI t/c 2-litre),
3rd, G. van Lennep (Porsche 911 2-litre).
91.01 mph.

Fastest lap: T. Hezemans, 1 min 40.6 sec (93.24 mph).

Division 1 (separate race): 1st, R. Dijkstra (Fiat-Abarth 1-litre).
Division 2 (separate race): 1st, Y. Fontaine (Ford Escort TC
1.6-litre).

Round 10 JARAMA THREE HOURS 28th September, 1969
(SWITZERLAND)

1st, D. Quester (BMW 2002 TI t/c 2-litre),
2nd, J. de Bagration (Porsche 911 2-litre),
3rd, A. Soler-Roig (Porsche 911 2-litre).

Division 1: 'Pam' (Fiat-Abarth 1-litre).

EUROPEAN TOURING CAR CHALLENGE CUP

Points are awarded on the same basis as for the Drivers' World Championship, that is: 1st, 9 points; 2nd, 6; 3rd, 4; 4th, 3; 5th, 2; 6th, 1. This applies to each *division*. For each *class* points are awarded as follows: 1st, 4 points; 2nd, 2; 3rd, 1.

For each division, the rules as to the number of events qualifying for points are the same as for the Drivers' World Championship.

Drivers

Division 1 (up to 1,000 cc):

1st, 'Pam' (Fiat-Abarth), 46 points.
2nd, E. Swart (Fiat-Abarth), 30 points.
3rd, 'Pal Joe' (Fiat Abarth), 19½ points.

Division 2 (1,001 to 1,600 cc):

1st, S. Dini (Alfa Romeo), 41 points.
2nd, I. Giunti (Alfa Romeo), 31 points.
3rd, F. von Hohenzollern (BMW), 27 points.

Division 3 (over 1,600 cc):

1st, D. Quester (BMW), 46½ points.
2nd, G. Huber (BMW), 35 points.
3rd equal, G. van Lennep and T. Hezemans (Porsche), 26 points.

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Manufacturers

Division 1:

1st, Fiat-Abarth, $85\frac{1}{2}$ points.

2nd, NSU, $23\frac{1}{2}$ points.

3rd, British Leyland, 11 points.

Division 2:

1st, Alfa Romeo, 74 points.

2nd, BMW, 36 points.

3rd, Ford, $31\frac{1}{2}$ points.

Division 3:

1st, BMW, $76\frac{1}{2}$ points.

2nd, Porsche, 52 points.

3rd, Chevrolet, $4\frac{1}{2}$ points.

Note: the Course de Cote du Marchairuz, the Swiss hill climb round in the Championship was excluded because of insufficient entries.

17 The Shell/RAC Hill Climb Championship

In 1969 the Championship received an extra boost from sponsorship by Shell and the competition was fast and furious with no obvious winner emerging, as there had in 1968 when the series was dominated throughout by Peter Lawson and his four-wheel-drive BRM.

Four-wheel-drive is now an accepted feature of the hill climb scene and in 1969 there were four likely single-seater contenders using this system. Peter Lawson had sold his T67 BRM to John Cussins and this was well to the fore throughout the year, but Cussins crashed it at Doune and then rather badly at the September Prescott meeting. The car used to win the Championship in 1967, Tony Marsh's Marsh-Buick, which uses a Hewland-based system, was driven by Geoff Rollason and he had extensively rebuilt it so that it was fully competitive against the latest machinery, and re-named it the Rollason Special. Power output of the 4.2-litre Buick V-8 was approximately 300 bhp at 7,000 rpm, a 3-speed Hewland HD₄ gearbox was used and a feature of the very ingenious transmission was that the drive to the front wheels could be cut off on corners. This car was potentially a powerful Championship contender, but Rollason was unhappy with it and abandoned it early in the season.

Among other four-wheel-drive vehicles were Peter Blankstone's Brabham BT21B Formula Three car with a 4.5-litre Traco-Oldsmobile unit which because of various minor troubles failed to make as much impression on the hill climb scene as had been hoped. The dark horse of the hill climb scene was the 4wd special of bluff David Hepworth from Brighouse. This exciting home-built and home-prepared concoction was based on a spare Ferguson transmission unit, a Brabham-style home-built chassis and a 4.5-litre Traco-Oldsmobile engine developing 360 bhp at 6,250 rpm. Despite a crash at Tholt-y-Will, Hepworth drove magnificently to win five of the rounds and finish second in four others.

Among the two-wheel-drive contingent there were several very strong contenders. Warwickshire driver Roy Lane took second place

in the Championship with his own TechCraft Buick. The chassis was basically similar to that of the Brabham BT23 Formula Two car, but longer; the power unit was a $3\frac{1}{2}$ -litre Buick V-8 developing 270 bhp at 6,500 rpm, and there was a Hewland HD4 4-speed gearbox. Top speed of this car was approximately 175 mph.

One of the best of the hill climb drivers is Sir Nicholas Williamson, who ran a BT21C Brabham with Ford twin-cam engine in the early part of the season, but later took delivery of a very special McLaren M10A Formula 5000 car with Lucas-Chevrolet engine, and this may well be the Championship winner in 1970. From Guildford, hill-climber Bob Jennings, who in 1968 entered a Formula Two Chevron for himself and one-time Cooper driver Mike MacDowel, had prepared a very special Brabham known as the BT30X. This was basically a BT30 Formula Two chassis powered by a 1,991 cc Coventry-Climax V-8 FWM engine of the type used in the 1968-69 Healey SR Le Mans car and in Formula One Lotus cars in 1966. This engine has an enormously wide power range from 5,500 to 9,000 rpm and the car scales only a little over 8 cwt. After plug trouble early in the season it ran well – but the Climax engine was a very expensive one and it is doubtful whether the results justified the expenditure.

Martin Brain, an enthusiast of long standing, raced two different cars during the season. His principal mount was his special Cooper T81 with 7.2-litre Chrysler engine – it was on this car that the prototype T90 Cooper Formula 5000 car exhibited at the 1969 Racing Car Show was based – and during the season he acquired at a bargain price one of the Cooper T86B-BRM Grand Prix cars raced by the works during 1968. It was with this car that he made second fastest time of the day at both Tholt-y-Will in the Isle of Man and Bouley Bay in Jersey.

The points system for the RAC Championship is that a driver may count his best eight performances out of the fourteen rounds. At the end of the usual class rounds that have taken place during the meeting the fastest ten entrants in the Championship each have two runs to score Championship points. The points range from ten for first place down to one for tenth, and each driver who improves on the hill record as it was before the start of the meeting gains one bonus point. Mainly single-seaters get into the top ten, but occasionally a really fast sports car, such as Phil Scragg's Lola T70 or Peter Lawson's Chevron B8, joins the list.

SHELL/RAC HILL CLIMB CHAMPIONSHIP

Round 1 LOTON PARK 27th April, 1969

1st, D. Hepworth (Hepworth-Oldsmobile 4.5-litre 4wd), 59.41 sec,
2nd, J. Cussins (BRM T670 2.1-litre 4wd), 59.91 sec,
3rd, J. Johnstone (Brabham BT14-Buick 3.5-litre), 61.04 sec.

Round 2 PRESCOTT 4th May, 1969

1st, J. Cussins (BRM T670 2.1-litre 4wd), 49.46 sec,
2nd, D. Hepworth (Hepworth-Oldsmobile 4.5-litre 4wd), 49.47 sec,
3rd, Sir N. Williamson (Brabham BT26C-Cosworth 1.6-litre),
50.30 sec.

Round 3 WISCOMBE PARK 18th May, 1969

1st, D. Hepworth (Hepworth-Oldsmobile 4.5-litre 4wd), 43.18 sec,
2nd, Sir N. Williamson (Brabham BT21C-Cosworth 1.6-litre),
44.58 sec,
3rd, R. Lane (TechCraft-Buick 3.5-litre), 44.70 sec.

Round 4 BARBON MANOR 31st May, 1969

1st, D. Hepworth (Hepworth-Oldsmobile 4.5-litre 4wd), 29.33 sec,
2nd, J. Cussins (BRM T670 2.1-litre 4wd), 31.47 sec,
3rd, (equal) Sir N. Williamson (Brabham BT21C-Cosworth 1.6-
litre) and P. Blankstone (Brabham BT21B-Oldsmobile 4.5-litre
4wd), 32.37 sec,

Championship 3rd place awarded on the toss of a coin to William-
son, as rain stopped play!

Round 5 SHELSLEY WALSH 8th June, 1969

1st, D. Hepworth (Hepworth-Oldsmobile 4.5-litre 4wd), 31.20 sec,
2nd, J. Johnstone (Brabham BT14-Buick 3.5-litre), 31.62 sec,
3rd, R. Lane (TechCraft-Buick 3.5-litre), 31.90 sec.

Round 6 DOUNE 15th June, 1969

1st, R. Lane (TechCraft-Buick 3.5-litre), 48.31 sec,
2nd, M. MacDowel (Brabham BT30X-Climax 2-litre), 48.58 sec,
3rd, D. Hepworth (Hepworth-Oldsmobile 4.5-litre 4wd), 48.64 sec.

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Round 7 THOLT-Y-WILL 22nd June, 1969

1st, Sir N. Williamson (Brabham BT21C-Cosworth 1.6-litre),
167.43 sec,

2nd, M. Brain (Cooper T86B-BRM 3-litre), 168.03 sec,

3rd, R. Lane (TechCraft-Buick 3.5-litre), 170.69 sec.

Round 8 REST AND BE THANKFUL 5th July, 1969

1st, D. Hepworth (Hepworth-Oldsmobile 4.5-litre 4wd), 53.07 sec,

2nd, M. MacDowel (Brabham BT30X-Climax 2-litre), 53.94 sec,

3rd, M. Brain (Cooper T86B-BRM 3-litre), 55.27 sec.

Round 9 BOULEY BAY 24th July, 1969

1st, M. MacDowel (Brabham BT30X-Climax 2-litre), 45.61 sec
(record),

2nd, M. Brain (Cooper T86B-BRM 3-litre), 45.70 sec,

3rd, D. Hepworth (Hepworth-Oldsmobile 4.5-litre 4wd), 45.77 sec.

Round 10 GREAT AUCLUM 2nd August, 1969

1st, R. Lane (TechCraft-Buick 3.5-litre), 18.58 sec (record),

2nd, D. Hepworth (Hepworth-Oldsmobile 4.5-litre 4wd), 19.05 sec,

3rd, M. Brain (Cooper T86B-BRM 3-litre), 19.07 sec.

Round 11 CRAIGANTLET 9th August, 1969

1st, M. Brain (Cooper T81B-Chrysler 7.2-litre), 60.78 sec,

2nd, M. MacDowel (Brabham BT30X-Climax 2-litre), 61.24 sec,

3rd, A. Griffiths (Cooper T81B-Chrysler 7.2-litre), 61.52 sec.

Round 12 SHELSLEY WALSH 16th August, 1969

1st, M. Brain (Cooper T81B-Chrysler 7.2-litre), 30.72 sec (record),

2nd, R. Lane (TechCraft-Buick 3.5-litre), 31.51 sec,

3rd, A. Griffiths (Cooper T81B-Chrysler 7.2-litre), 31.54 sec.

Round 13 PRESCOTT 7th September, 1969

1st, Sir N. Williamson (McLaren M10A-Lucas-Chevrolet 5-litre),
46.67 sec,

2nd, D. Hepworth (Hepworth-Oldsmobile 4.5-litre 4wd), 47.60 sec,

3rd, J. Johnstone (Brabham BT14-Buick 3.5-litre), 47.86 sec.

Round 14

HAREWOOD

13th September, 1969

- 1st, Sir N. Williamson (McLaren M10A-Lucas-Chevrolet 5-litre),
42.08 sec,
2nd, D. Hepworth (Hepworth-Oldsmobile 4.5-litre 4wd), 42.09 sec,
3rd, M. Brain (Cooper T81B-Chrysler 7.2-litre), 42.49 sec.

CHAMPIONSHIP RESULTS

1st, D. Hepworth, 78 points; 2nd, R. Lane, 69; 3rd, Sir N. Williamson, 69; 4th, M. Brain, 68; 5th, M. MacDowel, 61; 6th, J. Johnstone, 55.

Although Lane and Williamson tied on points for second place, Lane's better overall performance gave him priority in the Championship placings.

18 The European Hill Climb Championship

So unlike British Hill Climbs which are all over in a minute or so, the climbs in the European Championship are much longer, much more arduous and much more dangerous. The Championship is limited to 2-litre 2-seater sports cars (Group 7), but the events themselves often attract a wide range of machinery, including private owners with their Formula One cars.

In past years the Championship has been closely fought between BMW, Porsche, Abarth and Ferrari, all of whom fielded special cars, but in 1969 neither of the German teams competed and the Championship became a complete Ferrari benefit.

The winning driver was ex-Abarth man Paul Schetty and the car was the new Tipo 212E *Montagna*. The chassis was a lightened Dino 206 of the type raced by the works between 1965 and 1967 and the power unit was a 2-litre flat-12 directly developed from that used to power certain of the team's Grand Prix cars during the last year of the 1½-litre Formula. This engine, which has 48 valves and a compression ratio of 11 : 1, develops 300 bhp at 11,000 rpm. The complete car weighs 1,100 lb.

EUROPEAN HILL CLIMB CHAMPIONSHIP

Round 1 MONTSENY (SPAIN), 16.3 KM 25th May, 1969

1st, P. Schetty (Ferrari 212E 2-litre), 9 min 12.46 sec (record),
2nd, J. Ortner (Abarth 139 2-litre), 9 min 40.72 sec,
3rd, A. Soler-Roig (Porsche 907 2-litre), 9 min 51.9 sec.

Round 2 PRIX DES ALPES (ROSSFELD, 8th June, 1969
WEST GERMANY), 5.89 KM

1st, P. Schetty (Ferrari 212E 2-litre), 6 min 27.91 sec (aggregate of
2 climbs),

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Round 8

GAISBERG (AUSTRIA), 7th September, 1969
8.652 KM

- 1st, A. Merzario (Abarth 139 2-litre), 7 min 55.97 sec (aggregate of
2 climbs),
2nd, M. Weber (Alfa Romeo T33 2-litre), 8 min 6.28 sec,
3rd, G. Sepp (Porsche 910 2-litre), 8 min 11.88 sec.

Results :

- 1st, P. Schetty (Ferrari), 56 points.
2nd, A. Merzario (Abarth), 38 points.
3rd, M. Weber (Alfa Romeo), 21 points.

