

MASERATI

A RACING HISTORY

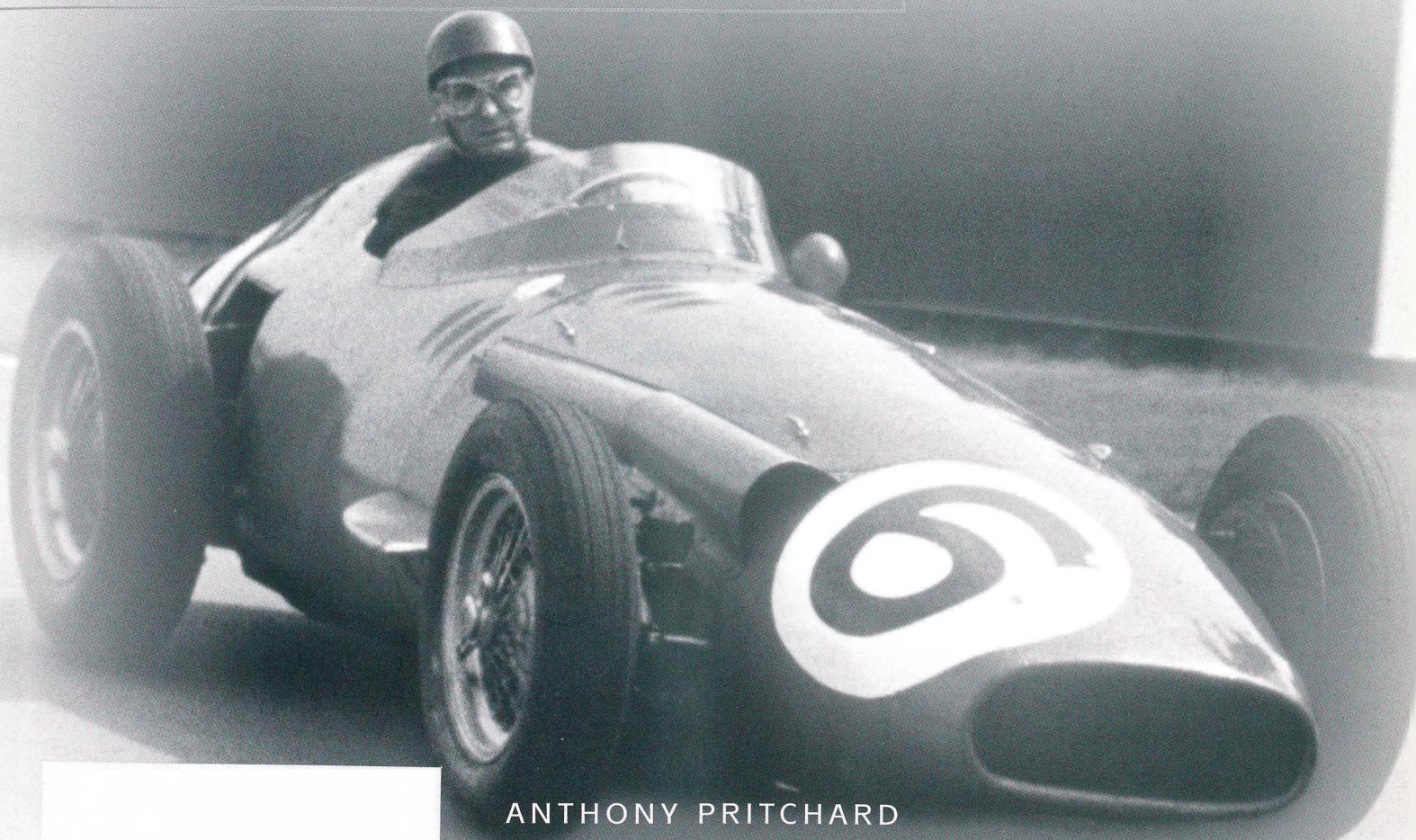


ANTHONY PRITCHARD

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ANTHONY PRITCHARD



Haynes Publishing

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Front endpaper: On 2 October 1927 Diego di Sterlich, accompanied by Carlo Tonino, was the outright winner with this 2-litre Tipo 26B in the Vermicino Rocca di Papa hill climb. (Guy Griffiths Collection)

Rear endpaper: Juan Fangio with this 'Lightweight' 250F finished second in the 1957 Italian Grand Prix held at Monza on 8 September.

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Preface

THERE IS SOMETHING very special about Italian cars of the classic years. They possess an allure, a mysticism of their own. They were built to high engineering standards. They have individualism and character. They are a delight to look at and watch in action, and an even greater delight to drive. Maserati is one of the greatest of all Italian *marques*. Until recent years they were built in only very small numbers, no two were identical and, like dogs from the same litter, each had its own personality and its own idiosyncrasies.

This is a racing history of Maserati from the time when Alfieri Maserati lined up with the Tipo 26 on the dusty road near Cefalu on 2 May 1926 for the start of the Targa Florio until the third lap of the Le Mans 24 Hours race on 19 June 1965, when Jo Siffert ended the story by clouting the bank with the hastily built Tipo 65. By way of a post-script I have also included the works Cooper-Maseratis of the years 1966–67 and I have made brief mention of certain other Maserati-powered cars for which the factory supplied the engines directly to the user. In addition I have dealt very briefly with the de Tomaso-sponsored *Barchetta* competition cars built in 1992.

This book is concerned only with the competition side of Maserati activities and Maserati competition cars. The touring cars, the first of which appeared in 1949, were originally – like their racing counterparts – built in very small numbers, but they became a major part of Maserati's income

following the introduction of the GT3500 in 1957. And after de Tomaso's take-over of the company they were built in numbers that amounted to mass production. Now, with Maserati firmly established as part of the Fiat empire, they have become what might be described as an important part of the Fiat specialist car division.

Maserati competition cars were built by racing enthusiasts for racing enthusiasts and over the years the far greater number of cars built were for sale to private owners, most of whom had an excellent relationship with the factory. The help offered by the factory in support, spares and assistance is perhaps matched only by Jaguar in their racing days when 'Lofty' England had such a fine rapport with private competitors. It is remarkable that the Maserati brothers, in their small workshops, could build such outstanding cars and that they could produce so many of the components themselves. They all had very remarkable talents.

The private Maserati entrants ranged from true independents such as Whitney Straight, 'Johnny' Wakefield and Reggie Tongue in pre-war days, to teams that included *Scuderia Subalpina* in the 1930s and *Scuderia Milano* and *Scuderia Ambrosiana* in the years following the Second World War. All these teams received considerable works support and *Scuderia Ambrosiana* during the 4CL and 4CLT years was to all intents and purposes the works team.

Once Maserati had established themselves in the early 1930s, works cars were

entered on a somewhat irregular basis. It was only between 1953 and 1957 that *Officine Alfieri Maserati* entered a works team – race after race, season after season. Even then there is confusion as to which were works cars and which were not. For example, in the 1956 *Supercortemaggiore* Grand Prix, a very popular 1,000-kilometre race for sports cars up to 2,000cc at Monza, a total of 26 Maseratis was entered. Of these, nine were entered in the name of the works, seven in the name of Mimo Dei's *Scuderia Centro-Sud* and the remainder by independents. So, when was a Maserati a proper works entry and when was it not, but just another car prepared at the works? It is, on occasion, impossible to determine.

Sometimes, especially with regard to cars raced in the early days, it is extremely difficult to identify the exact model accurately, even when a photograph is available. The reason is that the same basic cars were raced with different engines and there are no external identifying features. Likewise, Maserati designations are complex and confusing, for there were eight different typing systems during their racing history and some cars had more than one designation. For example, the 8C-2500 was also the Tipo 26M. An interesting example of another kind of confusion is the Maseratis raced by Toulo de Graffenried in pre-World War Two days.

Between 1936 and 1939 de Graffenried raced Maserati *voiturettes* in partnership with American, John du Puy. It is generally

Jonathan Sieff; Mike Taylor; Vic Thomas (Historic Lotus Register); and Kevin Pritchard (Donington Grand Prix Collection). I owe a special debt to David Venables who has so kindly read the manuscript and shown me some of the errors of my ways.

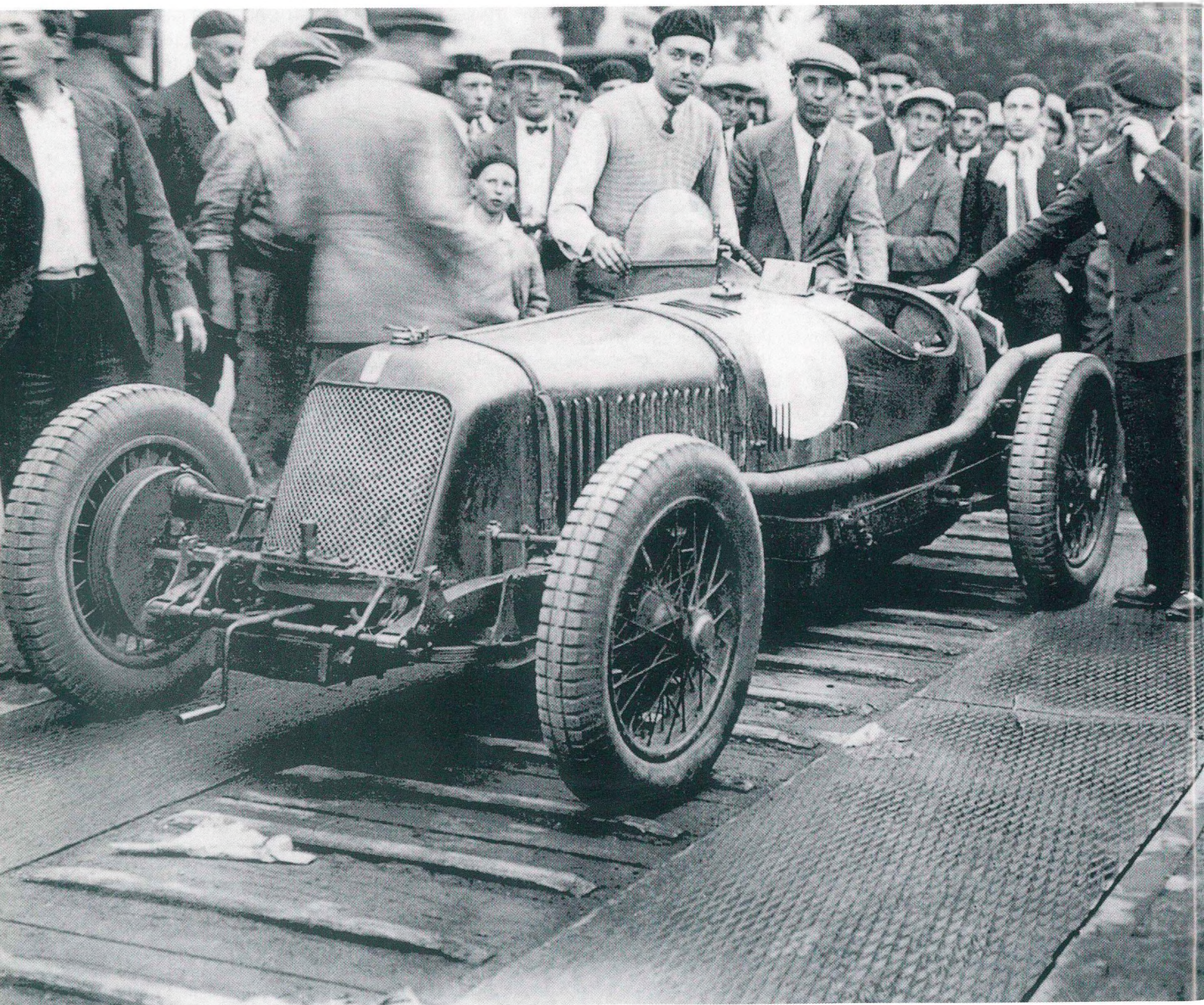
Appreciation also has to be expressed for the work of three journalists, two of whom, sadly, are now dead. Although I knew Denis Jenkinson well, we were never close friends. I was, however, closely involved in the production of two books which he wrote and he was the greatest racing enthusiast that I have ever met. He had close ties with the Maserati factory and his in-depth reports of developments published in *Motor Sport* are invaluable.

His long three-part article in *Motor Sport*, January–March 1990 was especially helpful with regard to the V8RI. Also of great value are the reports from Maserati by Hans Tanner, which were published originally in

Ioulo has provided a great deal of assistance in the preparation of this book. I appreciate his help greatly, and he has also become a good friend. Others who have helped and to whom I am greatly indebted include: Cliff Allison; Bartie Baxter; Ermanno Cozza who has given very substantial assistance; Sean Danaher; Tony Gale (in whose apartment in Tenente much of this book was written); Guy Griffiths (who has been so helpful and supportive during the years that I have been writing); the late Bruce Halford; John Maitland; Tony Merrick; Cameron Millar; *Dottor* Adolfo Orsi; *Dottor* Matteo Panni; Roy Salvadori;

A difficult aspect of any motor racing book relates to reasons for retirements from race events. Sometimes these can be pinpointed accurately from the driver's memories or written recollections. *Stirling Moss, My Cars, My Career* written with Doug Nye (Patrick Stephens, 1987) and *Roy Salvadori, Racing Driver*, which I co-wrote with Roy, (Patrick Stephens, 1985) are examples of two books which are especially helpful in that respect. Very often it is necessary to rely on magazines and the journalists often had to rely on what they were told or guessed.

Anthony Pritchard
Spring 2003



Luigi Fagioli's beautifully turned-out 8C-2500 seen in October 1930 at the Verminicino-Rocca di Papa hill climb. Fagioli won the event outright. (Guy Griffiths Collection)

Chapter 1

The Maserati brothers

SO MANY COMPANIES in many different fields have been run as a form of dictatorship where customers were treated with diffidence, sometimes indifference, and were expected to think themselves grateful that the company was prepared to deal with them. This has been especially true of motor racing and, for instance, buying a car from Enzo Ferrari could be a humiliating, rather than a pleasant, experience.

The atmosphere at Bologna – and later at Modena – was very different. Maserati was a family concern run by enthusiasts for enthusiasts, and dealing with owners who raced was for many years the basis of the business. It was only later when, under Alberto Orsi's control, vast sums were expended on development and running a works team, that it became a leading *marque*. Even then, customers were treated as friends, given credit and welcomed at the factory by employees who had worked there for many years and were totally loyal to Maserati. Under Orsi rule, administration and organisation improved, but in some respects Maserati still remained delightfully chaotic.

In its early days the company was headed by Alfieri Maserati. Ambitious and able, he was one of six brothers, four of whom were actively involved in the business. When the Maserati brothers were born, Italy was still a very young country. It had broken away from Austrian domination and the Kingdom of Italy was not proclaimed until 17 March 1861. Much of the credit for the founding

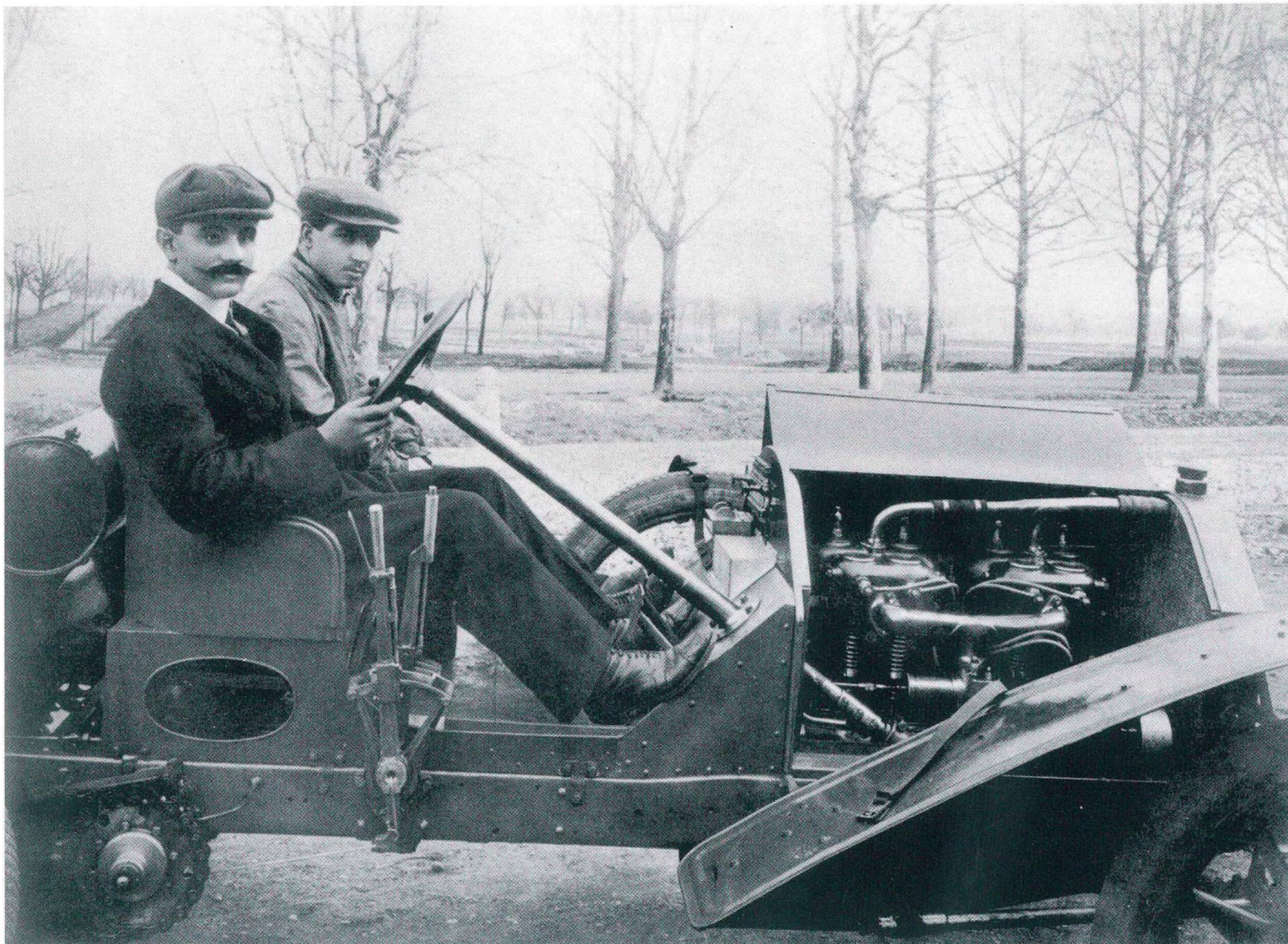
of the new Italy was due to the efforts of Giuseppe Garibaldi. At this time both Rome and Venice remained outside the new kingdom, but these papal states later joined, Venice in 1866 and Rome in 1870.

It was, however, and remained so for a considerable period of time a country of

parts trying to make a whole. Even now, travelling through Italy, north to south, resembles passing through three different countries; the industrial north, the central area steeped in Roman antiquity and Renaissance splendour and the relatively impoverished south. There is little doubt

The eldest of the Maserati brothers, Carlo, with the single-cylinder motorcycle that he built in about 1900. Later he became General Manager at the Bianchi concern, but he died in 1910. (Guy Griffiths Collection)





Vincenzo Trucco at the wheel of an Isotta Fraschini and accompanied by Alfieri Maserati. This photograph was taken shortly before the 1908 Targa Florio. (Guy Griffiths Collection)

that as a newly united country the Italian people were hungry for national prestige and success and this, later, helped promote the growth of Fascism, under Benito Mussolini. *Il Duce* promised to make Italy a great European power and his empty promises inevitably tempted and won over so many of the Italian people against their better judgment.

The Maserati brothers were brought up in

an atmosphere that encouraged a strong interest in engineering. Their father Rodolfo Maserati, a locomotive driver on Italian railways, lived in Piacenza to the south of Milan. At this time engine drivers, even if still artisans, ranked high in both income and status. In his home-town Rodolfo met and married Carolina Losi. They had seven children, all boys, Carlo (born 1881), Bindo (1883), Alfieri (1885, but he died not long

after birth and the same name was given to the fourth and most distinguished son born in 1887), Mario (1890), Ettore (1894) and Ernesto (1898).

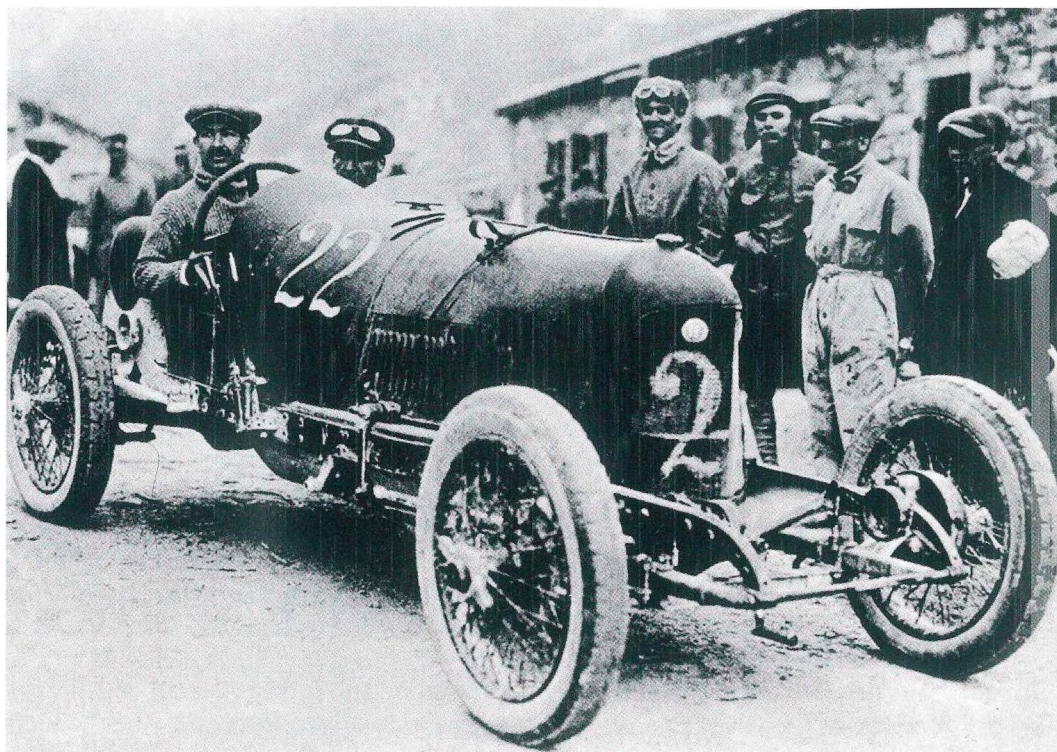
Mario became a well-established artist, but all the other boys followed mechanical pursuits. There is little doubt that Carlo possessed considerable mechanical talent. It is said that by the time he was 14, he was building working model steam engines. At the age of 17 Carlo was apprenticed to a bicycle manufacturer at Affori close to Voghera, to the west of Piacenza. Seventeen

was then quite a mature age to be apprenticed and it is likely that he had been well educated.

It was at Affori that in 1897 he built a four-stroke, single-cylinder motorcycle, using a strengthened cycle frame and with drive by belt and pulley to the rear wheel. His efforts attracted the attention of the Marchese Carcano di Anzano del Parco, who put some money into the project. Carlo raced the machine, now called the Carcano, in local events with some success. Further development work followed and Carlo won a 35-mile (56km) race from Brescia to Orzinuovi. In 1900 he and the Marchese took first and second places in the motorcycle class of the 127-mile (204km) Brescia-Mantova-Brescia race.

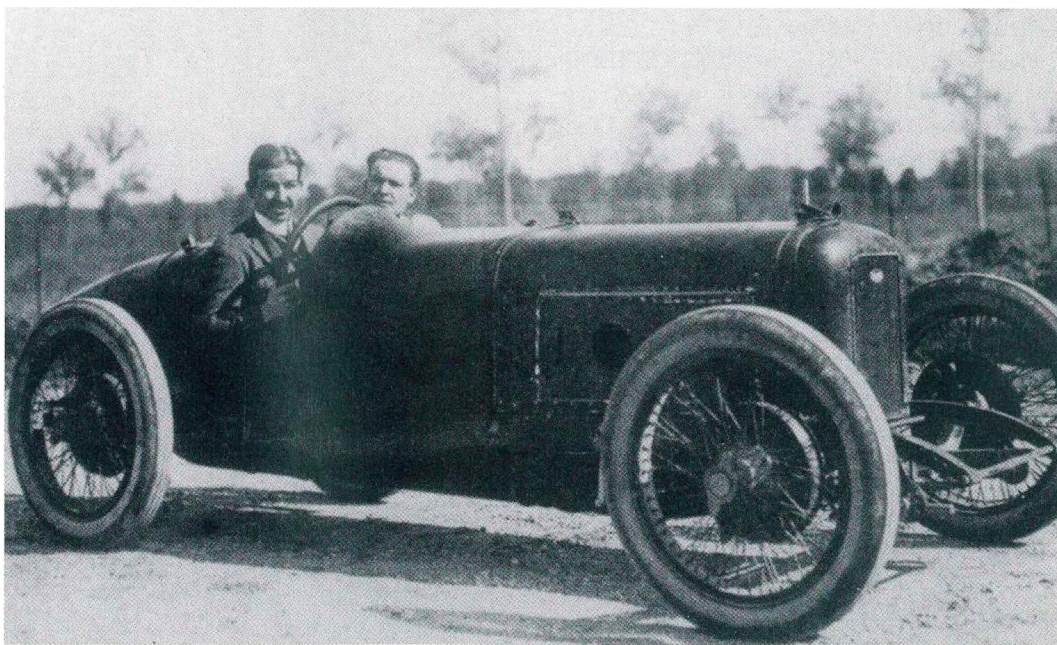
Carlo moved on to Fiat in Turin, resulting, it is believed, from a meeting with Vincenzo Lancia, then a Fiat employee. Lancia had quickly recognised Carlo's ability and urged him to join the company. After a spell at Fiat, Carlo moved to Isotta Fraschini in Milan, then a substantial car builder, as an engineer and tester. His time with Isotta Fraschini was short and he soon moved to Bianchi, which was also based in Milan, as tester and occasional racing driver. Bianchi's racing record was poor, but Carlo drove the company's cars into ninth place in the 1907 Coppa Florio held at Brescia over a distance of 302 miles (486km) and in the same year finished 17th in the Kaiserpreis qualifying race. The position was too low to qualify for the race itself. Sadly, Carlo was taken ill and died in 1910.

While he was at Isotta Fraschini, Carlo arranged for three of his brothers, Alfieri, Bindo and Ettore, to join the company. Alfieri made rapid progress and became a tester and then a service engineer. Both Alfieri and Ettore went on to work at Isotta Fraschini's depot in Buenos Aires and, while they were there, Alfieri raced in local events in what is believed to have been an FE Isotta of the type entered in the 1908 Voiturette Grand Prix at Dieppe. They spent a while in London before returning to Italy.



Alfieri Maserati at the wheel of the Isotta Fraschini-based special which he built while he was working at the Isotta Fraschini depot in Buenos Aires, Argentina. (Guy Griffiths Collection)

Alfieri Maserati at the wheel of a 2-litre Diatto complying with the then 2-litre Grand Prix formula of 1922–25. The car is seen at the 1922 Italian Grand Prix. Diattos were driven in this race by Guido Meregalli and Alfieri.



Alfieri was then based at Bologna where he looked after Isotta's service department.

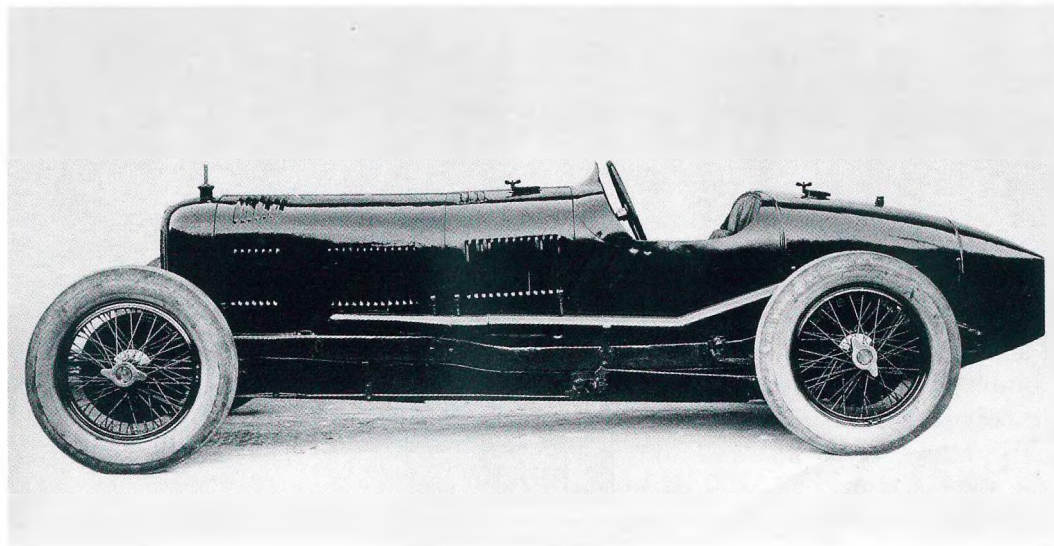
It is difficult to realise that Isotta Fraschini was such a substantial concern in the early years of the motor industry. In 1906 it is recorded (Lord Montagu's *Lost Causes of Motoring: Europe Volume 1*, Cassell & Company, 1969) that 650 cars were sold and that two years later the company had reduced its labour force to 700.

On 1 December 1914 Alfieri took small rented premises in the Via del Pepoli in Bologna and set up his own garage business, calling it *Officina Alfieri Maserati*. However, he still maintained close relations with Isotta Fraschini. Apart from offering ordinary service facilities for Isotta Fraschini cars, he race-prepared Isotta engines. Both Ettore and Ernesto worked with him in the business where they employed five mechanics.

In May 1915 Italy entered the First World War as a member of the Allies against the Central Powers, Germany, Austro-Hungary



Alfieri Maserati, the undoubted leader of the brothers. Maserati would have been a very different company if Alfieri had not died following an operation.



The 1925 straight-eight 2-litre Diatto built by the Maserati brothers. It formed the basis of the Tipo 26 Maserati that made its first racing appearance in the 1926 Targa Florio.

and Ottoman Turkey. Alfieri and Ettore returned to Isotta Fraschini where Bindo was still to work for many years. During the war years Isotta was primarily occupied with aero-engine development and construction and Alfieri worked on design development, while his brothers were engaged in production and testing. However, Ernesto continued to run the business in Bologna.

During this time Alfieri was also developing mica-insulated sparking plugs. After the armistice in November 1918, Alfieri set up premises in Milan and commenced sparking plug manufacture under the name *Trucco e Maserati*. Isotta Fraschini driver Vincenzo Trucco was a close friend of Alfieri and not only allowed the use of his name, but is believed to have put some capital into the business.

Alfieri's interest in motor racing was as enthusiastic as ever. He built an Isotta Fraschini special, originally powered by a 4-cylinder engine, although, later an 8-cylinder unit was substituted. He raced this extensively and successfully between 1921 and 1923 and his best performance was in the 1922 Circuit of Mugello at Florence. He won this 242-mile (390km) race over a very slow but difficult circuit at 41.94mph

(67.52kph) from Brilli-Peri (Fiat) and Masetti (Bugatti).

In 1921 Alfieri became consultant development engineer for *Automobili Diatto* in Turin. This company, originally a railway engineering concern, had started building cars in 1906. Alfieri developed a 3-litre car and raced it in Italian events. In 1922 Diatto had introduced their Tipo 20 with a 4-cylinder 2-litre shaft-driven overhead camshaft engine, developing around 40bhp in production form and with a 4-speed gearbox.

Alfieri extensively modified this engine and it then had an output of 70bhp. In this form it was known as the 20S. Alfieri drove it in a number of races and was holding third place in the 386-mile (621km) San Sebastian Grand Prix when he retired with engine problems. At the Rabassada hill climb in Spain in 1924 it was discovered that his 20S, supposedly a 2-litre car, was running with the 3-litre engine used in Diatto's Tipo 25 and 35 models. As a result of this blatant infringement of the regulations, he was initially banned from racing for five years. Somehow he managed to wriggle out of the situation and the ban was lifted. With a Tipo 20S, Meregalli won the Circuit of Garda in 1923–24.

For 1925 Alfieri designed for Diatto a completely new car complying with the then 2,000cc Grand Prix formula. It followed contemporary design practice and featured a supercharged, straight-eight, twin overhead camshaft 1,980cc (62 x 82mm) engine and very neat, slim body. A single car was entered in the 1925 Italian Grand Prix held over a distance of 497 miles (800km) at Monza. One report says that the car was ready so late that there was only time to apply one coat of paint. This was so thin that the Diatto looked pink rather than Italian racing red. The driver was Emilio Materassi, but the car was insufficiently developed and retired early in the race because of sheared supercharger bolts.

Diatto had been expecting rather too much on the new car's first appearance, but they were already in financial difficulties and ceased car production in 1927. In late 1925 it was agreed that Alfieri should take over the project. He now worked on the eight-cylinder car at Bologna and the following year Maserati appeared as a *marque* in its own right. The cars wore a badge designed by brother Mario, which incorporated the symbol of Bologna, Neptune's trident, and was inspired by the statue of Neptune in the Piazza Nettuno in Bologna. The firm became known as *Officine Alfieri Maserati* (note the change to workshops in the plural).

After the first racing appearance in 1926, Maserati grew rapidly in success, quickly building a strong following and received considerable financial injection. Alfieri Maserati was given the Fascist title of *Cavaliere* ('Knight') by Dictator Benito Mussolini, whose enthusiasm for motor racing was almost obsessive. Because of Maserati's racing successes, outside finance was attracted and the issued capital of the company rose to one million lire from the original 50,000 lire. In late 1931 Alfieri's health deteriorated. He had crashed badly in the 1927 Coppa Messina and lost a kidney. Now his other kidney had begun to fail. There was of course no dialysis avail-

able at this time and his doctors advised surgery. Alfieri died on 3 March 1932 while in the operating theatre.

Up until Alfieri's death, the trident badge on Maseratis had been oblong, but after that the oval shape was adopted and this has been retained ever since. Maseratis were also distinguished by cast pedals that incorporated the Trident symbol. These were used on most cars from pre-war days through to 1946-47.

Despite the success of the *Voiturettes* in the 1930s, Maserati's financial position deteriorated and the income from selling and maintaining 1,100cc and 1,500cc cars was inadequate. The company's financial situation was made worse by the cost of building and developing the dismally unsuccessful Tipo 6C/34 and V8RI Grand Prix cars of 1934-36. Despite the aspirations of

Il Duce, it was impossible for either Maserati or Alfa Romeo to challenge the might of the German Mercedes-Benz and Auto Union teams, which were then dominating Grand Prix racing. In Italy there was neither the money nor the resources available.

Financial assistance for Maserati came from Gino Rovere who became President in 1936, but unfortunately his resources were insufficient to turn the company round. Interest in a take-over was expressed in early 1936 by Count Adolfo Orsi, an industrialist based in Modena. Orsi had to negotiate with various parties, including Rovere, who held shares in Maserati and eventually an agreement was signed and this took effect on 1 January 1937. The agreement itself is not dated, but it is quite likely that a date was added when the document was notarised.

Bindo, Ettore, Ernesto and Mario Maserati outside the Maserati works at Bologna. To a certain extent the photograph can be dated by the car on the left of the photograph, which is a Lancia Augusta introduced in 1933 and built until 1937. The upper part of the premises was residential.



Chapter 2

The early years, 1926–31

THERE IS NO INFORMATION on record as to the terms on which Alfieri Maserati took over the straight-eight Diatto or the precise date when this took place. It seems likely that *Automobile Diatto* were content to rid themselves without payment of a project that they could not afford to continue and as the 1925 Italian Grand Prix was held on 6 September, that at least fixes the earliest date on which a handover could have taken place.

During 1922–25 the Grand Prix formula had been for cars with a maximum capacity

of 2,000cc and with a minimum weight of 650kg. In 1925 there were the additional requirements that a two-seater body with a minimum width of 80cm be fitted, although no mechanic was carried in races. For 1926–27 maximum capacity was reduced to 1,500cc, minimum weight to 600kg and two-seater bodies were still required. For 1927 the minimum weight requirement was increased to 700kg. It would be wrong to say that only major Grands Prix were held to these rules, but only marginally so, because so many races were held as *Formule Libre*

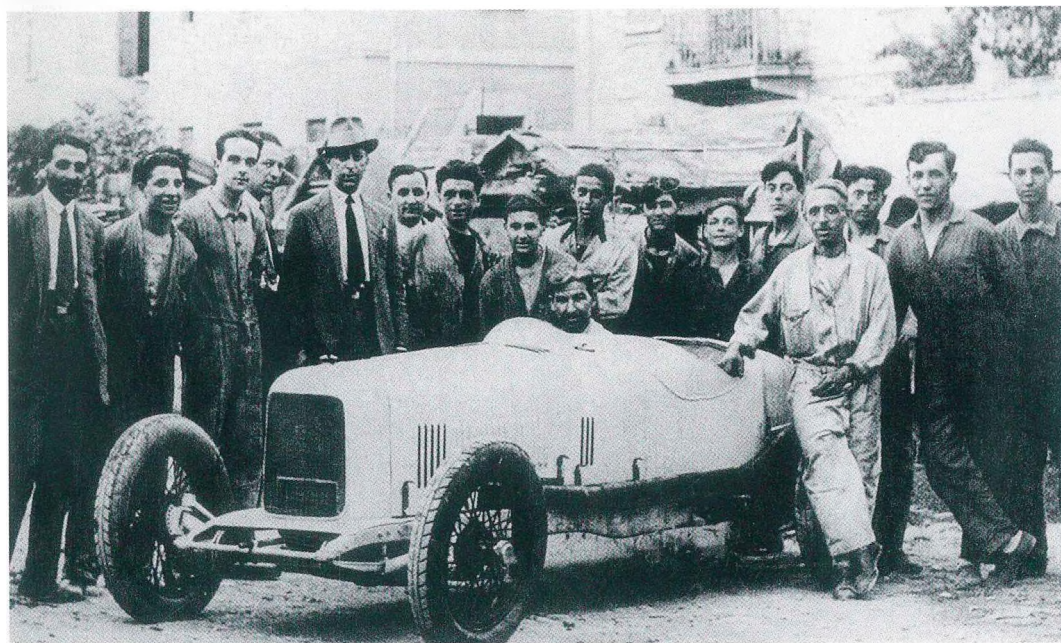
events, including the Targa Florio which along with the Italian Grand Prix were Italy's most important races.

The Grand Prix Diatto built by Alfieri Maserati had a twin overhead camshaft engine driven by a train of gears from the front of the crankshaft and a Roots-type supercharger, also driven directly from the front of the crankshaft. The 4-speed gearbox was bolted to the engine crankcase. The chassis was the usual channel-section structure of the period with rigid axles front and rear and suspension by semi-elliptic leaf springs. It is always assumed that there was only one of these cars built, which may or may not be correct, but there would certainly have been spares, including probably spare engines.

The first Maseratis were typed as the '26' and were identical to the Diatto in most respects. It is obvious that when Alfieri planned the Diatto, he had in mind the building of a 1,500cc engine to comply with the new Grand Prix formula that came into force in 1926. The merits of adopting an engine of this capacity for the first Maserati seem marginal at best, but Alfieri opted for an engine of both shorter bore and stroke than the original 1,980cc unit, 60 x 66mm, giving a capacity of 1,492cc. This engine is said to have developed 115bhp at 5,300rpm and the maximum speed is reckoned to have been around 100mph (161kph).

When the Tipo 26 appeared at the beginning of May, the Trident badge was mounted

The first Tipo 26 with Alfieri Maserati at the wheel outside the Bologna works in 1926. The figure with dark curly hair, seventh from left, is bodybuilder Menardo Fantuzzi.

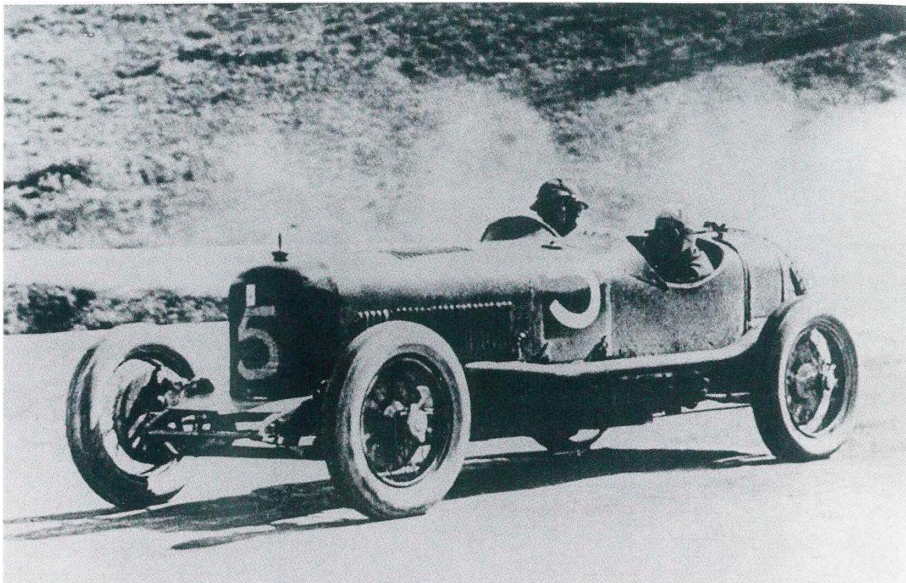


on the mesh grille of the radiator, but was later transferred to a position in the centre of the top of the radiator intake surround. The shapely tail of the Diatto had been truncated and now the tail terminated at the back of the fuel tank and two spare wheels were mounted vertically. In road racing punctures were frequent and carrying spare wheels, together with the equipment to change them, was essential. There remains one matter for speculation, whether the first Maserati was the Diatto and speculation it must remain.

Alfieri Maserati, accompanied by Guerino Bertocchi, first appeared with the Tipo 26 in the Targa Florio on 2 May. Between 1919 and 1930 the race was held over the Madonie circuit with a length of a little over 70 miles (113kph) and in 1926 it was a 5-lap event. It was a Formule Libre race and riding mechanics were carried. At this time Sicilian roads were quite appalling, badly surfaced, where there was a surface, and almost as dusty as in the early days of racing. It was expected that the Type 35 Bugattis would dominate the race and they did so, with cars driven by Constantini (who had also won in 1925), Minoia and Goux taking the first three places. There were only 12 finishers and Alfieri's ninth place and class win was creditable, if not outstanding.

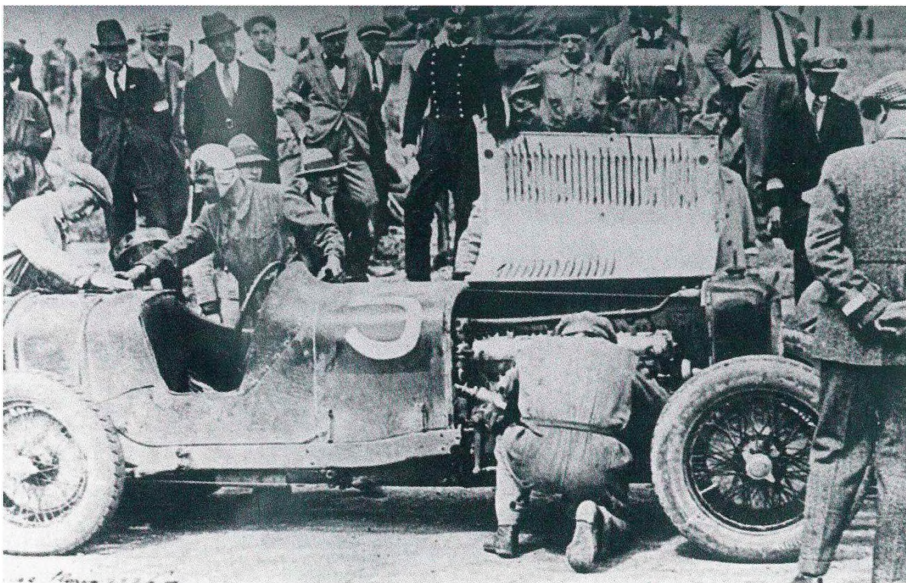
Maserati competed in a number of other Italian events that year. By the Italian Grand Prix at Monza on 5 September a second car had been completed and the two cars were driven by Alfieri and Emilio Materassi. Two Bugattis were the only finishers in this race and both Maseratis retired because of super-charger trouble. On 13 June Ernesto Maserati won outright a sprint event over a distance of a kilometre, called the Chilometro Lanciato di Bologna. In September Ernesto drove the Tipo 26 in the Coppa Collina Pistoiese hill climb and won his class.

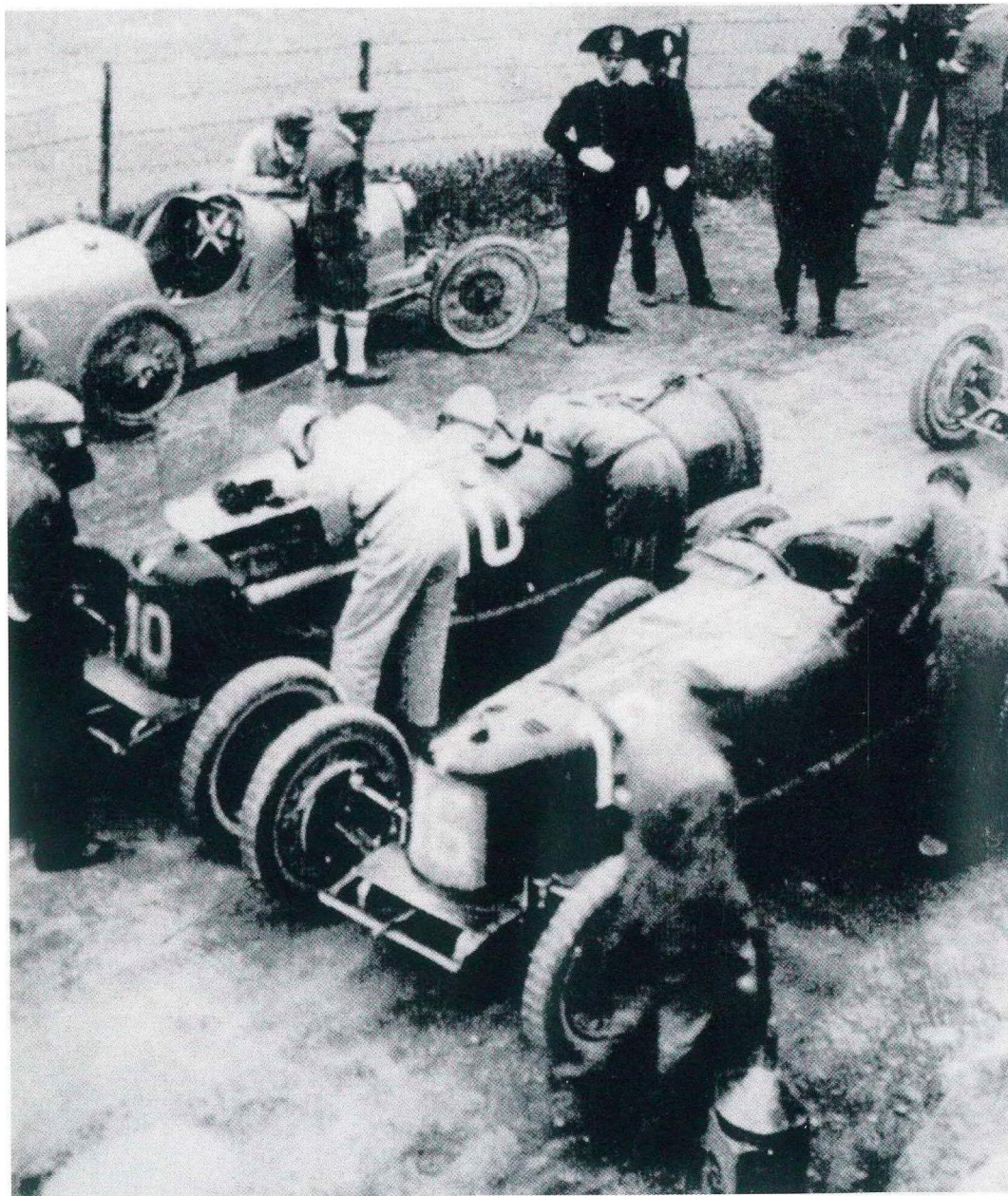
It is believed that nine Tipo 26 cars were built between 1926 and 1928 when the model was superseded by the improved 8C-1500. Some of these cars would later have been re-engined with the 2-litre unit from the otherwise identical 26B. Chassis



A very familiar photograph, but one that captures well the conditions of racing at the time. The Tipo 26 is seen in the 1926 Targa Florio. In a cloud of dust Alfieri Maserati drives to ninth place and a class win, while mechanic Bertocchi crouches low in the cockpit.

The Tipo 26 during its refuelling stop in the 1926 Targa Florio. Bertocchi in white linen helmet, very slim compared to the familiar, rather more portly figure of the 1950s, supervises operations. (Guy Griffiths Collection)





The works Maseratis at the Targa Florio. Number 10 is the 1,500cc Tipo 26 of Ernesto Maserati, nearer the camera the Tipo 26 of Count Aymo Maggi and, behind them, the 2,000cc Tipo 26B of Alfieri Maserati. Alfieri drove a good race to finish third behind the Bugattis of Materassi and Conelli. (Guy Griffiths Collection)

numbering commenced at number 10 (without a capacity prefix which was added later) and for the usual reason that the number 17 was considered unlucky in Italian sporting and gambling circles, no chassis was given that number.

1927

Maserati undertook a much more active competition programme in 1927. The team's first race was the 262-mile (422km) Formule Libre Tripoli Grand Prix held on the

Mellaha circuit on 6 March. Between 1911 and 1942 Libya was under Italian rule and racing there attracted strong Italian entries. The first two places went to Materassi and Conelli with Bugattis, but Ernesto finished third overall and won the 1,500cc class from a brace of French Salmsons. Later that month Carlo Tonini drove a Maserati to a class win in the Coppa Gallenga.

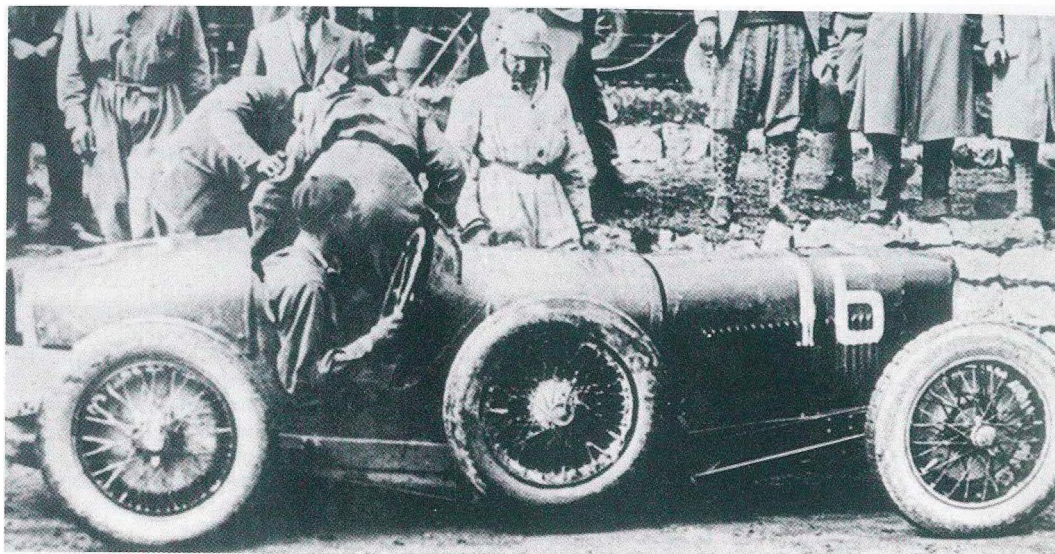
This year the Targa Florio was held on 24 April over the same distance as in 1926 and the new 2-litre car, typed the 26B, was driven by Alfieri. The engine capacity was 1,980cc (62 x 82mm) and it was claimed that power output was 150bhp at 5,500rpm. Maximum speed was well in excess of 100mph (161kph). The race was again Bugatti-dominated and Materassi and Conelli with Type 35 cars took the first two places, but Alfieri drove a good race to finish third. Ernesto and Count Aymo Maggi drove Tipo 26 Maseratis. Ernesto retired because of a broken front axle, while, embarrassingly, Maggi's car broke its chassis.

Shortly after this Alfieri competed in a race at Messina in Sicily with a 2-litre car. Following another car closely he was unsighted by the cloud of dust that it was throwing up, misjudged a corner and crashed heavily. His injuries included crushed kidneys and one had to be removed. Although he was racing again within two months, it was an accident with the most serious long-term consequences for both Alfieri and the Maserati company.

In the main the Maseratis ran in minor events during 1927, but the Tipo 26 and 26B were among the few over-the-counter racing cars available at the time and were now seen frequently in Italian events. Tonini won his class in the 204-mile (328km) Perugia Cup race at the end of May and in July the Marquis Diego de Sterlich won the Vittorio-Cansiglio hill climb outright. A week after that, on 21 July, Baconin Borzacchini competed with a Maserati for the first time and in the Coppa Collina Pistoiese hill climb he won outright, while Alfieri took the 1,500cc class.

In the 317-mile (510km) Coppa Acerbo on 6 August Campari won with a 2-litre Alfa Romeo P2, but Tonini (Maserati) drove a good race to finish second ahead of Marano (Bugatti). Later de Sterlich gained further successes; he won two hill climbs, the Trento-Monte Bondone on 18 September and the Vermicino-Rocca di Pappa on 2 October. A week later de Sterlich gained another success with his Maserati, winning his class in the Coppa Leonardi and on 16 October Borzacchini drove a Maserati again, winning the Terni-Passo della Somma event. Maserati won the 1,500cc class of the Italian Championship.

At this time Maserati was competing only inside Italy and the cars were largely unknown in the rest of Europe. It is not clear how many Tipo 26Bs were built, but it is suggested that there were as many as 11, although this sounds improbable. These were numbered in series with the Tipo 26 and, inevitably, this adds a degree of confusion.



Count Maggi retired his Tipo 26 in the 1927 Targa Florio after it had broken its chassis. In all fairness, it was as much an indictment of the poor conditions of Sicilian roads as Maserati weakness. (Guy Griffiths Collection)

The 2-litre Maserati shared by Ernesto Maserati and Count Maggi in the 1928 Mille Miglia is seen front right of this line of cars waiting to move up to the start. It proved fast, but retired early in the race, for reasons probably associated with the pool of oil that has formed under the front of the car. On the left is the OM of Bucchetti/Turner.



1928

Although it was of little import to Maserati, there was a change in the Grand Prix regulations for 1928 and the only requirement now was that cars weighed between 550 and 750kg. In addition there was a minimum race distance of 600km (373miles). There were no significant Maserati developments other than that the 8C-1500, with detail improvements, replaced the Tipo 26. It is believed that four 8C-1500s were built. During the year Maserati won two events outright and scored class wins in ten others. Of greater interest, however, are two more important events in which the Maseratis failed.

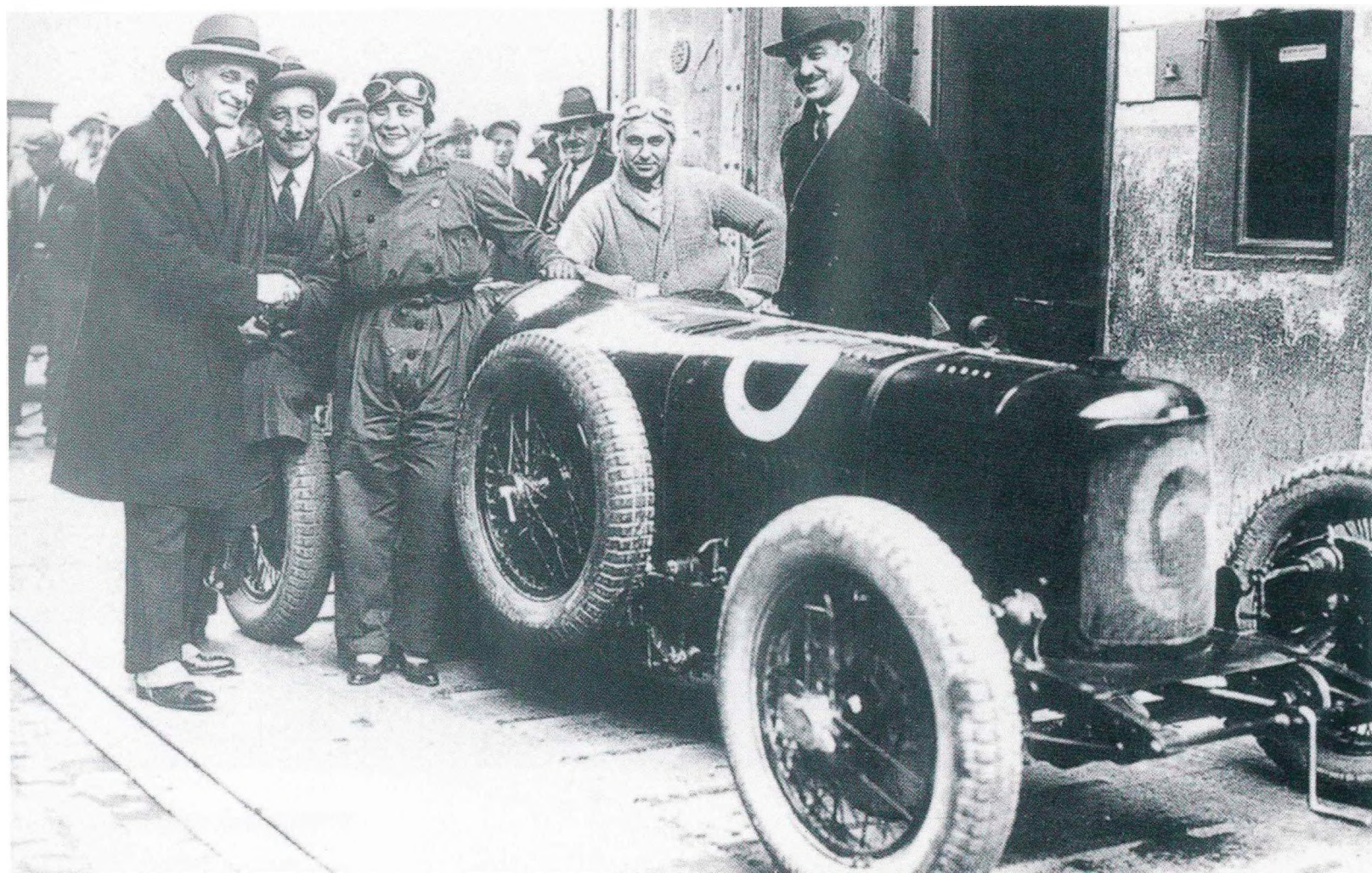
The Mille Miglia road race over a distance of 1,018 miles (1,639kph) was held on 31 March–1 April. There were strong entries from Bugatti, Alfa Romeo and OM, while

Maserati entered a single 2-litre car for Ernesto and Count Maggi. Reliability was a major Maserati problem at the time and at the line-up of cars moving off to the start of the race shown on page 17, a large pool of oil has already gathered under the Maserati. It could, of course, have been dropped by another car . . . Ernesto set a cracking pace, although never managing to lead on time, but retired early in the event because of unknown mechanical problems.

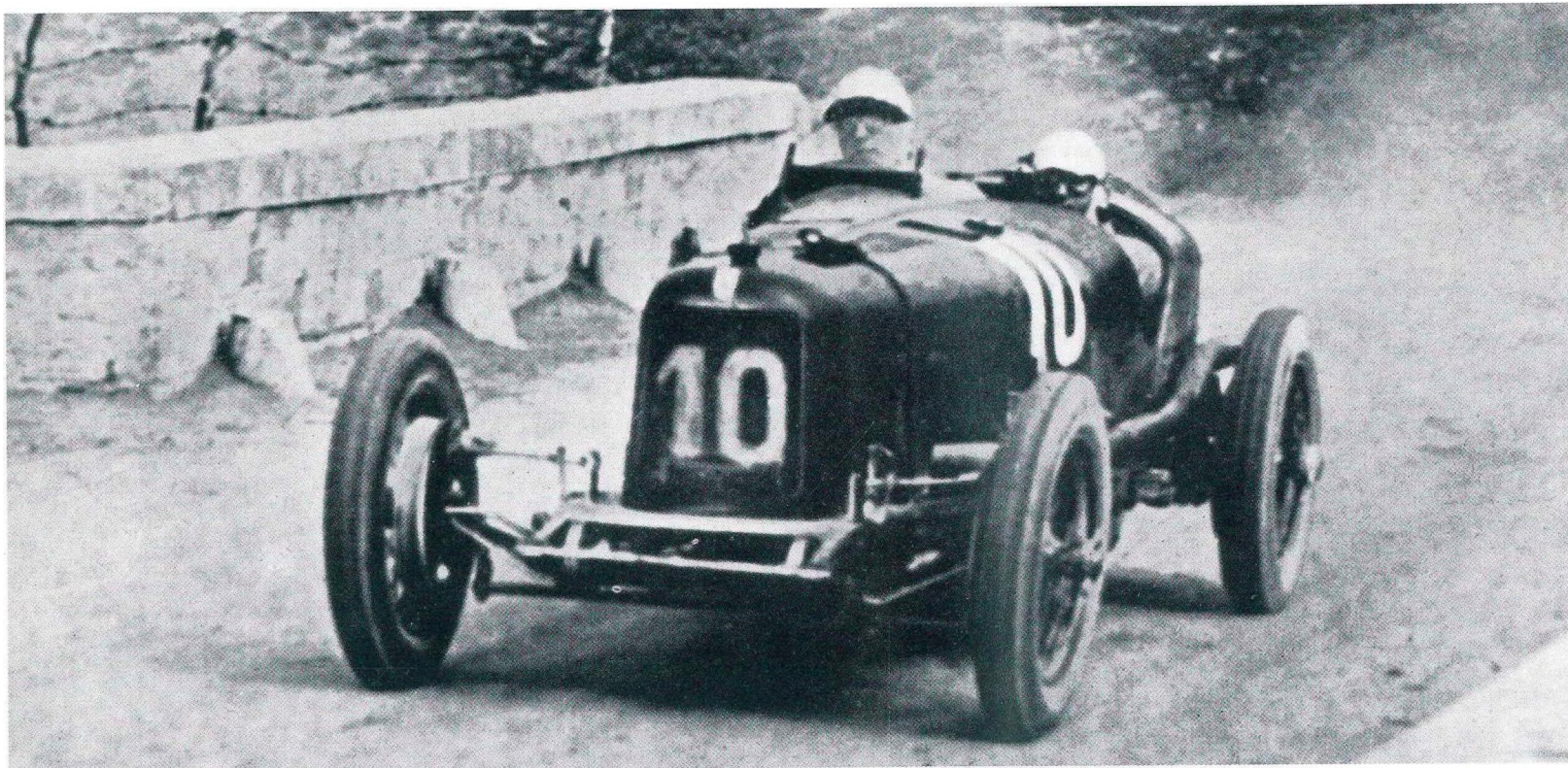
The next important event for the team was the Targa Florio on 1 May. A total of five cars were entered; 2-litre models were driven by Ernesto, Borzacchini and de Sterlich, while Fagioli and Marano handled 1.5-litre cars. The race turned into a straight fight between Alfa Romeo and Bugatti and Divo (Bugatti) won from Campari (Alfa Romeo) and Conelli (Bugatti). The sole Maserati finisher was Luigi Fagioli who took

Opposite: The start of the 1928 Targa Florio. Nearest the camera is the 1,980cc Tipo 26B Maserati of Diego di Sterlich. He retired because of supercharger problems. Behind him is the Type 35C Bugatti of Count Gaston Brilli-Perri.

An early lady driver of a Maserati, Donna Antonietta Avanzo, competed with this Tipo 8C-1500 in the third Coppa Gallenga and had Guerrino Bertocchi as riding mechanic. She finished second in her class, which was won by a male Maserati driver. (Guy Griffiths Collection)







The 1928 Targa Florio again, with Ernesto Maserati at the wheel of an 8C-1100 and, alongside him, Guerrino Bertocchi. The car was retired because of front axle problems.

seventh place. The other four Maseratis were eliminated in this race because of supercharger problems.

Two 2-litre cars for Alfieri Maserati and Count Maggi were entered in the 373-mile (600km) European Grand Prix at Monza on 9 September. The Maseratis lacked the speed of the rebuilt 2-litre Alfa Romeo P2s and the 2.3-litre Type 35B Bugattis. Chiron (Bugatti) won the race from Campari/Varzi (Alfa Romeo) and Nuvolari (Bugatti). Maggi and Alfieri finished in fifth and sixth places. The race was marred by a terrible accident that badly affected the drivers and officials, as well as the paying public. Materassi at the wheel of one of his ex-works 1,500cc Talbots swerved to avoid a collision with Foresti's Bugatti and left the road at well over 100mph (161kph). When the Talbot ploughed into a spectator enclosure, the driver and about 20 spectators were killed.

Towards the end of the racing season Maserati achieved its two outright wins. On 30 September Luigi Fagioli won the Tolentino-Colle Paterno hill climb and in the Coppa Leonardo on 21 October Borzacchini was the outright winner, while Fagioli won the 1,500cc class. At this stage in their development the Maseratis were neither fast enough nor reliable enough. The lack of reliability was not caused by inadequate preparation, but the failure of components. Alfieri was well aware of the shortcomings of his cars and the matter of speed he tackled in dramatic style in 1929.

1929

A change in Grand Prix regulations was made for 1929–30. Gone were engine capacity limits, but instead there was a fuel and oil consumption limit of 14kg per

100km, which worked out at about 14½ miles per gallon (3.19km per litre). Commercial fuel was compulsory, there was a minimum weight requirement of 900kg and two-seater bodies with a minimum width of 100cm had to be fitted. A bolster fuel tank was compulsory.

In the early part of the season some minor successes were gained. In the 260-mile (418km) Tripoli Grand Prix on 24 March Borzacchini finished second behind Brilli-Peri (Talbot), but beat Nuvolari (Bugatti) into third place. Maserati once again entered the Mille Miglia, held on 13–14 April, with a single car shared by Borzacchini and Ernesto Maserati. Various engine capacities have been attributed to this car, but it must have been a 2-litre 26B. They turned in a sterling performance, leading the race at Bologna, having set a record speed of a little under 80mph (129kph). They were still in front when they reached Rome and were four minutes ahead of Campari/Ramponi with the first of the 1,750cc Alfa Romeos. Unfortunately, the

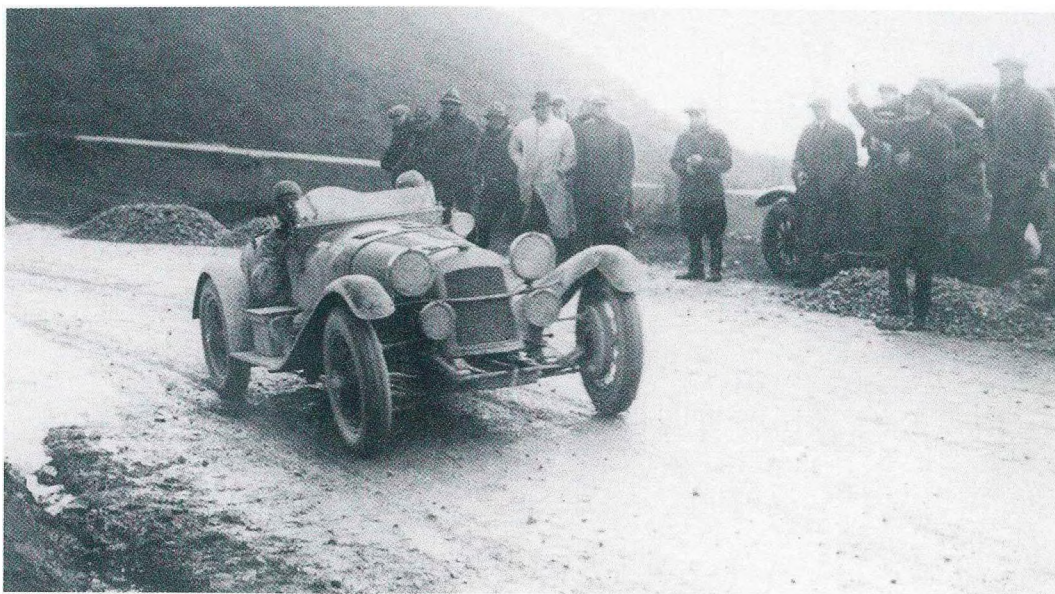
Maserati retired because of gearbox failure and Campari/Ramponi went on to win the race from Morandi/Rosa (OM).

The following weekend the 159-mile (256km) Bordino Grand Prix was held at Alessandria. Borzacchini and Ernesto Maserati took second and third places with 26Bs behind Varzi at the wheel of his ex-Campari Alfa Romeo P2. Borzacchini and Ernesto drove 26Bs in the Targa Florio on 4 May and Borzacchini broke the circuit record on his first lap. Unfortunately all the Maserati entries retired in this race, which was won by Divo (Bugatti) from Minoia (Bugatti) with Brilli-Peri (Alfa Romeo) in third place.

Maserati revealed their new Formule Libre contender at the Monza Grand Prix at Monza on 15 September. The new car was the Tipo V4, also known as the *Sedici Cilindri*, which used a 26B chassis, lengthened in wheelbase by 6.5in and strengthened, and it was powered by a V16 engine. This engine consisted of two 2-litre units mounted side-by-side at an included angle of around 25 degrees, with geared crankshafts and on a light alloy common crankcase. The left-hand cylinder block was standard, but the right-hand block had the inlet and outlet ports reversed so that the exhaust ports and manifold were on the outside of the engine. There was a Roots-type supercharger at the front of each engine and these compressed at 15lb psi (1.1bar). Maserati claimed a power output of 305bhp at 5,200rpm. The original clutch, gearbox, prop-shaft and final drive were retained.

It was a very ambitious project for a small concern like Maserati and it was to prove very fast and very successful. Nor was it a fearsome monster. Guy Griffiths drove it in later days and while it was not docile, it was tractable, manageable and handled well. Taking into account, the V4's modest origins, it was a remarkably sophisticated car.

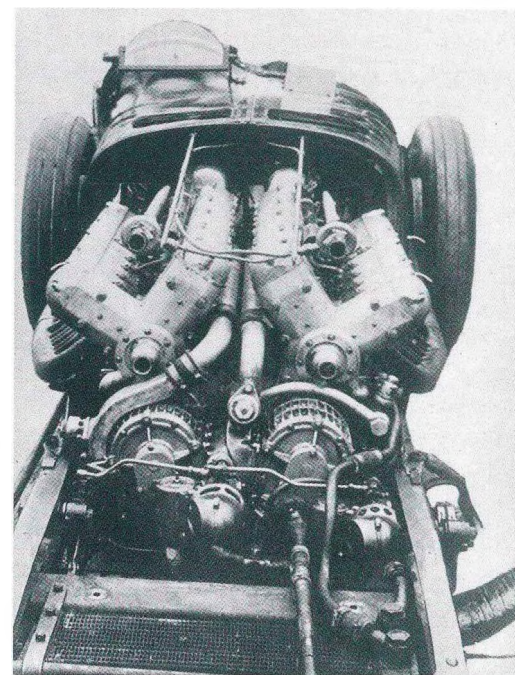
All season Maserati achieved successes in minor events, but failed to shine in impor-



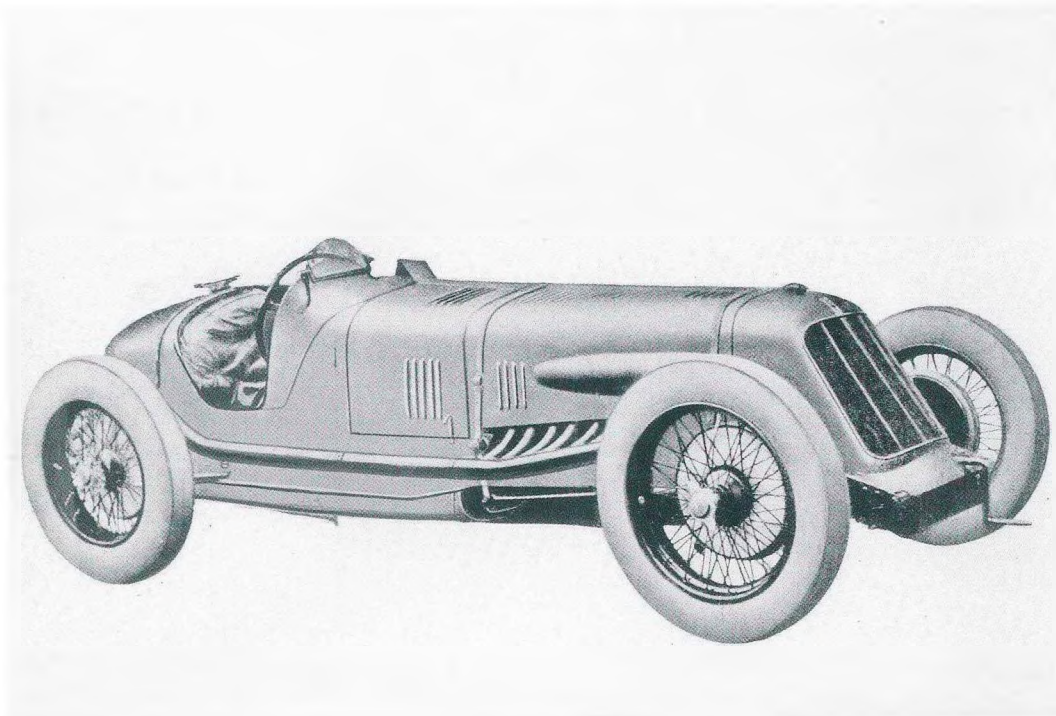
With this Maserati, said by some to have a 1,700cc engine, Baconin Borzacchini partnered by Ernesto Maserati led this year's Mille Miglia from the start at Brescia until they were through Rome and had reached Terni. There the gearbox failed. They had shown speed that the 6C 1750 Alfa Romeos could not match. They are seen on the Raticosa Pass between Bologna and Florence.

tant races. This happened again when Alfieri drove the *Sedici Cilindri* in the Monza race. That year there was no Italian Grand Prix as such. The Monza race was run in three 62-mile (100km) heats and a final on the banked 2.82-mile (4.54km) circuit. The heats were for cars up to 1,500cc, 2,000cc and unlimited capacity. In his heat Alfieri was beaten into second place by August Momberger at the wheel of a 7-litre Mercedes-Benz SSK, but the margin was only a fifth of a second and one suspects that Alfieri was saving his car for the final. In the final Alfieri retired, but set a new lap record of 124.2mph (200kph), which was never bettered because the banked circuit on its own was so rarely used.

At Cremona on 29 September the V4 was shared by Borzacchini and Alfieri Maserati, while Ernesto drove a 26B. Over this weekend Borzacchini with the V4 was timed at 152.9mph (246.17kph), a Class F World record, during a private testing session over the ten kilometre-straight of this 25-kilometre circuit. In the race Alfieri set fastest lap at 124.4mph, but the V4 was retired

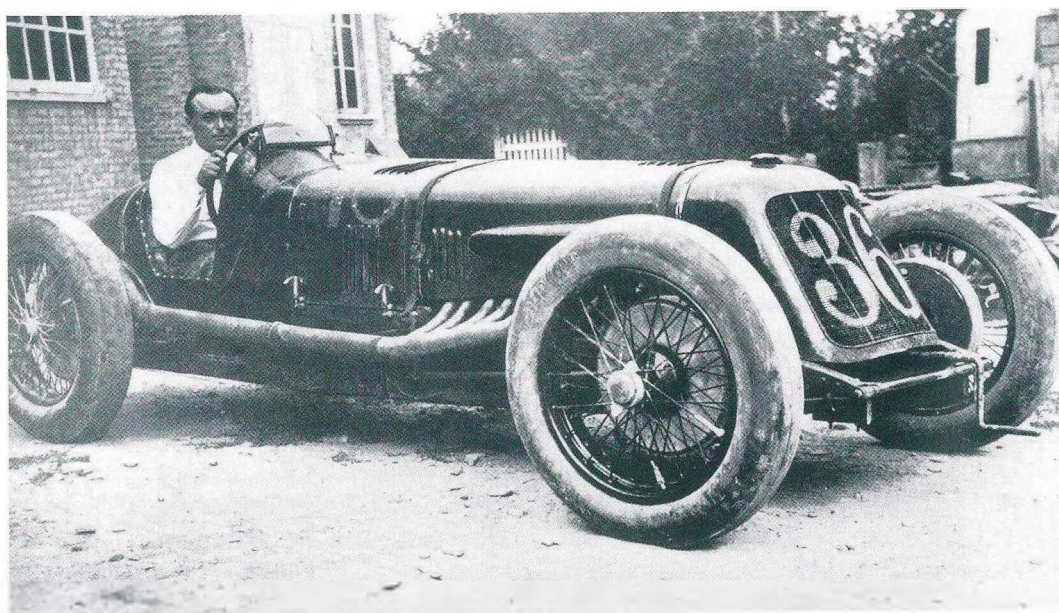


*The 16-cylinder engine based on 2-litre straight-eight units that powered the 1929 V4 *Sedici Cilindri*, a twin-engined car that proved far more successful than the twin-engined Alfa Romeo Tipo A.*



This photograph from the factory archives was, presumably, issued at the time the V4 was announced. The three vertical strips on the radiator grille – unique to this car – are clearly visible and the Seduci Cilindri also had exhaust pipes on both sides. The V4 can also be distinguished by the bulges in the sides of the bonnet to give clearance for the outside cylinder heads.

Baconin Borzacchini, one of the greatest drivers of his era, at the wheel of the Tipo V4 Seduci Cilindri. This photograph was taken at the works shortly before Borzacchini achieved 152.9mph over the timed ten kilometres of the 25-mile (40km) Germana circuit at Cremona to the east of Milan.



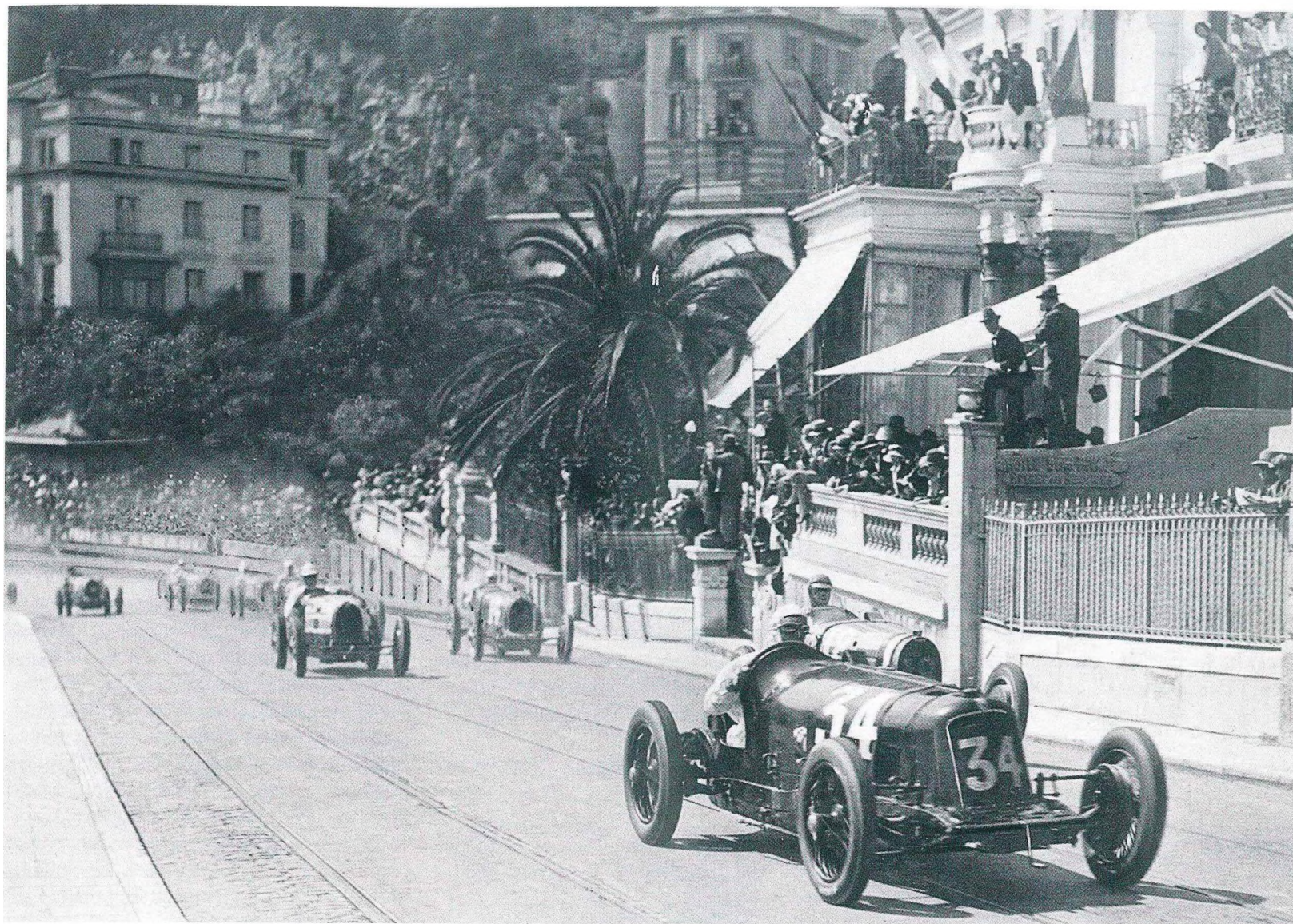
because of tyre problems, not surprising in view of the speeds that the car was attaining. The race was won by Brilli-Peri (Alfa Romeo) from Varzi (Alfa Romeo), but Ernesto brought the 26B across the line in third place.

The new Tipo 8C-1100 first appeared at the Cremona meeting. It was almost identical to the 8C-1500, but with the engine lined down to 51mm and retaining the existing stroke of 66mm to give a capacity of 1,077cc. Power output was said to be 100bhp at 5,500rpm. The fuel tank was slightly smaller, but even the tyre size was the same as that of the 8C-1500. Maximum speed was around 100mph (161kph). The 8C-1100 was no match for the 8-cylinder Salmson which had appeared in 1927. The French cars had a similar power output, but were substantially lighter.

1930

During the 1920s there had been strong support for Grand Prix Racing from substantial manufacturers including Delage in France, the Sunbeam-Talbot-Darracq Group based in both France and Britain, and Fiat and Alfa Romeo in Italy. Mainly because of worsening economic conditions, most of them had quit racing and so Grand Prix racing temporarily degenerated, the age of the independent entrant began and many races were held to Formule Libre rules. It only began to stabilise in 1930 when Maserati introduced their Tipo 26M, also known as the 8C-2500, and when other manufacturers began to re-enter racing on a serious basis, and through the 1930s Grand Prix racing grew again both in technical interest and national and public support.

There was also a small change in the racing regulations and 30% benzole/70% commercial fuel was now allowed. The fuel consumption formula was of interest to almost no one and even the 1930 French Grand Prix was held as a Formule Libre race. The year was to be the turning point



in Maserati fortunes and for a short while the Bologna company became the dominant force in Grand Prix racing.

Maserati's principal rivals remained Bugatti in France and Alfa Romeo in Italy. Bugatti was still building the straight-eight, single overhead camshaft supercharged 2,262cc Type 35B introduced in late 1926. Bugatti did not publish power figures, but output was believed to be around 135bhp. Alfa Romeo was racing the Jano-designed 1924-25 P2 straight-eight Grand Prix cars, which had been rebuilt at the factory. The engine capacity of the P2s had now been

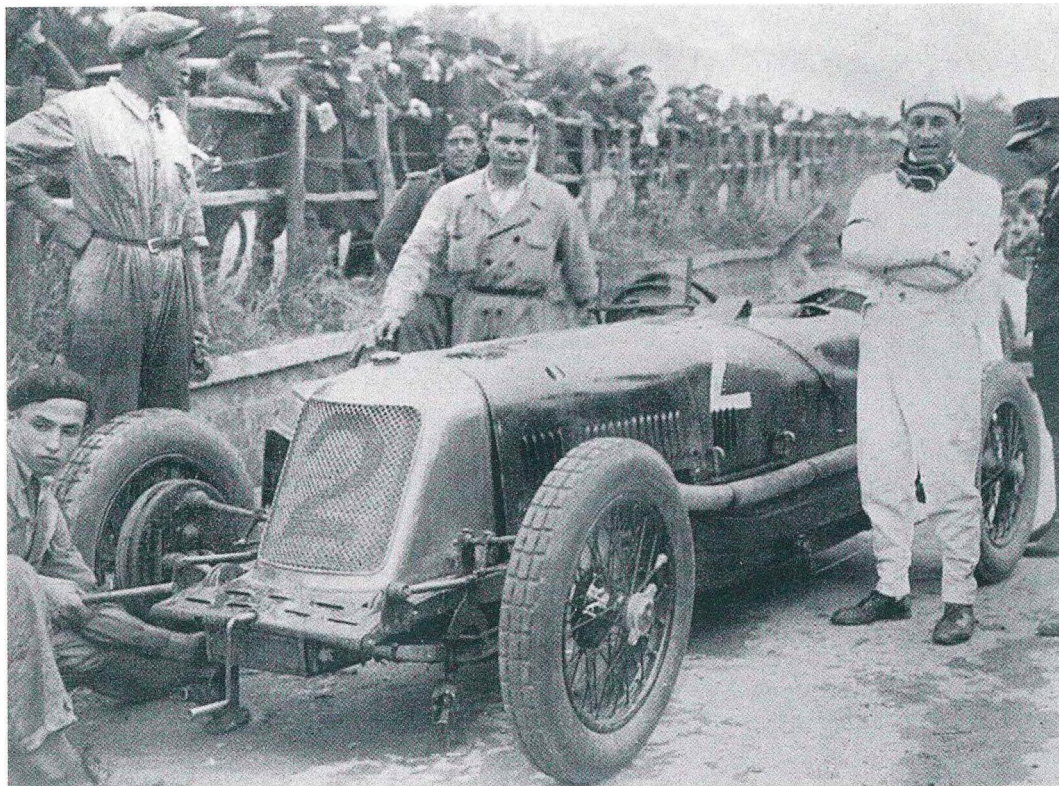
At Monaco on 6 April 1930 Arcangeli with a 2-litre Maserati leads a group of Bugattis up the hill from Ste Devote. Note the tramlines. Both Arcangeli and Borzacchini, also with a 26B, retired and Bugattis took the first three places.

slightly increased to 2,006cc. In effect Maserati was the only company racing up-to-date cars.

The 8C-2500 first appeared in the Targa Florio in May. It represented a development of the existing straight-eight 2-litre model, with similar chassis and retaining two-seater bodywork. The 8C-2500 was produced in greater numbers than its predecessors and it was a settled design, with a specification

that was common to all examples of its type. Although it was an improved car, many of the features described below were the same on earlier cars.

Engine capacity of the new car had been increased to 2,495cc (65 x 94mm). The twin overhead camshafts were driven from the front of the crankshaft by a train of gears. The detachable aluminium-alloy cylinder head featured hemispherical



The 8C-2500, still fitted with a two-seater body, was new for 1930. Luigi Arcangeli stands alongside his 8C-2500 before the Naples Grand Prix which he won. During 1930 the new cars won four important races.

combustion chambers and there were two valves per cylinder at an angle of 90°. A single magneto fired the plugs mounted in the centre of the cylinder head. Alloy pistons were used and the connecting rods were tubular. The compression ratio varied from 7:1 to 8:1 – a high figure for the period.

The crankshaft ran in five bearings, with a centre roller bearing, plain outers. It was carefully balanced to keep vibration to a minimum and no crankshaft damper was fitted. Because it was short, it was very rigid and this helped to keep the overall length of the engine to a minimum. Lubrication was by dry-sump, with two pumps, one feeding the oil to the bearings and the other, a scavenger pump, drawing oil back to the tank. There was a single Weber carburettor and the Roots-type supercharger was driven directly from the front of the crankshaft.

Power output was 175bhp at 5,300rpm, which gave it a comfortable margin over its rivals.

As on previous Maseratis, there was a dry multiple-plate clutch and this fed the power to the 4-speed gearbox, which was bolted to the engine crankcase and had an Elektron alloy casing made for Maserati by Isotta Fraschini – relations between the two companies were still good. From the gearbox the drive was taken by a torque-tube enclosed prop-shaft to the final drive, which incorporated an Elektron central casing also made by Isotta Fraschini. Other items made for Maserati by Isotta included the brake shoes and drums, which had a diameter of 15.68in (400mm) and a width of 1.96in (50mm).

In most respects the chassis was similar to those of the earlier Maseratis. It was of channel-section construction, with dropped

centre-section and a three-point mounting for the engine. Front and rear suspension was by rigid axles and semi-elliptic leaf springs. Like the *Sedici Cilindri* the 8C-2500 had a sloping radiator, but without the three vertical strips that identified the 16-cylinder car, and a shapely tail incorporated the fuel tank. Technically, the 8C-2500 was a simple, straightforward design, but it was the most powerful single-engined racing car of the period.

It is believed that Maserati built eight of these cars in 1930–31 and, in addition, two earlier cars were also fitted with the engine. During the 8C-2500's first racing year the works pursued a very active racing programme. Although Grand Prix races were increasing in number, they were held mainly in France and Italy, but that year French events continued to be dominated by Bugatti, although on Italian soil Maserati emerged as the most successful *marque*. In all the new 8C-2500s won six races.

Maserati's season started on 23 March with the Tripoli Grand Prix, run over four laps of the long 16-mile (25.7km) Mellaha circuit. In the absence of serious opposition Bozacchini with the *Sedici Cilindri* scored an easy win from Arcangeli with a 2-litre car. The same drivers ran in the Monaco Grand Prix on 6 April. The race was again Bugatti-dominated and although Borzacchini with a two-litre car held fourth place for a while, both Bologna entries retired. Arcangeli, partnered by Pastore, led the Mille Miglia on 12–13 April with a 2-litre Maserati in sports trim, but just past Bologna, quite early in the race, he retired because of a broken piston. A Maserati in the 1,100cc class driven by Tamburi also retired. Alfa Romeo drivers, headed by Nuvolari/Guidotti, took the first four places in general classification.

Four 8C-2500s were entered in the 336-mile (541km) Targa Florio on 6 May, driven by Arcangeli, Borzacchini, Fagioli and Ernesto Maserati. On the tough Sicilian roads the Bologna cars had no serious prospects of success. The race was fought

out between Bugatti and Alfa Romeo and the only Maserati drivers to finish were Ernesto and Borzacchini in eighth and 11th places. Alfa Romeos took first and second places. Pastore drove an 8C-2500 in the 189-mile (304km) Circuit of Caserta on 18 May, but he fell out of contention with mechanical problems. Luigi Fagioli finished fourth with a 2-litre car.

There was a strong six-car Maserati entry in the 162-mile (260km) Rome Grand Prix held on the Tre Fontana circuit on 13 May. This ranged from an 8C-2500 driven by Arcangeli to an 8C-1100 with Alfieri at the wheel. Arcangeli battled with Chiron (Bugatti) throughout the race and passed him on the finishing straight on the last lap to win at 83.60mph (134.6kph). Alfieri also won the 1,100cc class from two Salmsons.

Two Maseratis had been dispatched to compete in the Indianapolis 500 Miles race on 30 May. The race at this time had a 6-litre capacity limit, but superchargers were banned. Borzacchini drove the *Sedici Cilindri*, but with the blowers removed it was emasculated, and after a slow drive he retired early in the race because of engine problems. The second Maserati was a 2-litre car with local driver Lettorio Piccolo Cucinotta (known to the crowds as 'Piccolo Pete') at the wheel. He finished 12th out of 14. The race was won by Harry Hartz in a Miller.

On 29 June Fagioli with an 8C-2500 finished second to Nuvolari (Alfa Romeo P2) in the difficult, 40-mile (64km) Cuneo-Colle della Magdalena hill climb, a round in the Championship of the Mountains, which had been inaugurated that year. On 3 August the 139-mile (224km) Coppa Ciano was held at Livorno and Fagioli scored the 8C-2500's second win of the year at 54.47mph (87.69kph) from Campari (P2). By the time of the 159-mile (256km) Coppa Acerbo at Pescara on 17 August, Achille Varzi had left *Scuderia Ferrari* to drive the 8C-2500 and Borzacchini had been lured into joining the Alfa Romeo team. This was a situation prompted by

the rivalry between Varzi and Nuvolari. Varzi scored a convincing win with his 8C-2500 at Pescara, while Ernesto Maserati brought another 8C-2500 across the line in second place and Borzacchini finished an unhappy third with his P2. A week later Fagioli, with an 8C-2500, won the 186-mile (300km) Circuit of Avellino from Arcangeli (Alfa Romeo).

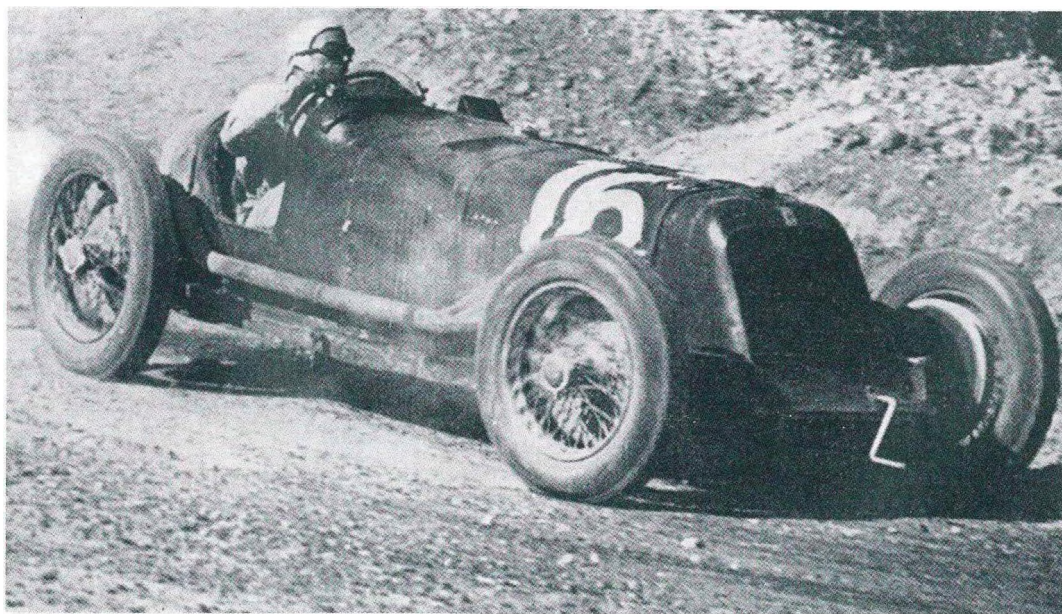
For Maserati the most important race of the year was the Monza Grand Prix on 7 September. The race was held in capacity heats on the 4.263-mile (6.86km) Florio combined road and banked track circuit in the Royal Park, with a 149-mile (240km) final regardless of engine capacity. The first four from each of the heats, which included an extra heat for those who had not qualified, were eligible to run in the final. There were two Maseratis in the heat for cars of up to 2,000cc and Pedrazzini finished third with his Bologna entry behind two Bugattis. In the heat for cars between 2,000 and 3,000cc Maserati dominated, despite strong Alfa Romeo and Bugatti entries.

Arcangeli with his 8C-2500 won from Borzacchini (Alfa Romeo P2), Fagioli and

Varzi (both at the wheel of 8C-2500s). Despite an off-course excursion and outside help to get him back on the track Ernesto Maserati with the *Sedici Cilindri*, won the heat for cars between 3,000 and 8,000cc from Rudolf Caracciola (Mercedes-Benz). Then came the non-qualifiers heat in which P2s took the first two places and, finally, the 1,100cc heat in which Klinger and Chilean Juan Zanelli finished third and fourth with Maseratis behind a brace of Salmsons. Arcangeli with his Maserati moved into the lead on the first lap of the final, the P2s were forced to stop early in the race for new tyres and Varzi, Arcangeli and Ernesto Maserati took the first three places.

Two 8C-2500s for Varzi and Count Maggi were entered in the 323-mile (520km) Spanish Grand Prix at San Sebastian on 5 October. The opposition came only from Bugattis, as the P2s had been withdrawn from racing. Varzi and Maggi led until Varzi stopped to refuel, both Etancelin and Dreyfus overturned their Bugattis, and the Maserati drivers came through to take the first two places ahead of Stoffel and Ferrand with elderly 4-litre Peugeots.

Ernesto Maserati drove this 8C-2500 into second place in the 1930 Coppa Acerbo at Pescara behind Varzi with another 8C-2500.



1931

For 1931 the governing body of motor sport, the *Alliance Internationale de Automobile Clubs Reconnus* had to all intents and purposes thrown in its hand and for that year and during the following two years, Grand Prix racing was held on a *Formule Libre* basis. Minimum race distance was now ten hours. Although both the Italian and French Grands Prix were of this duration, many organisers of other races ignored the ruling and ran their races to whatever distance they chose. In the meantime, the AIACR considered the future of Grand Prix racing and the formula that was eventually to be announced proved spectacularly successful. Maserati's domination of racing was challenged in 1931 by both Alfa Romeo and Bugatti.

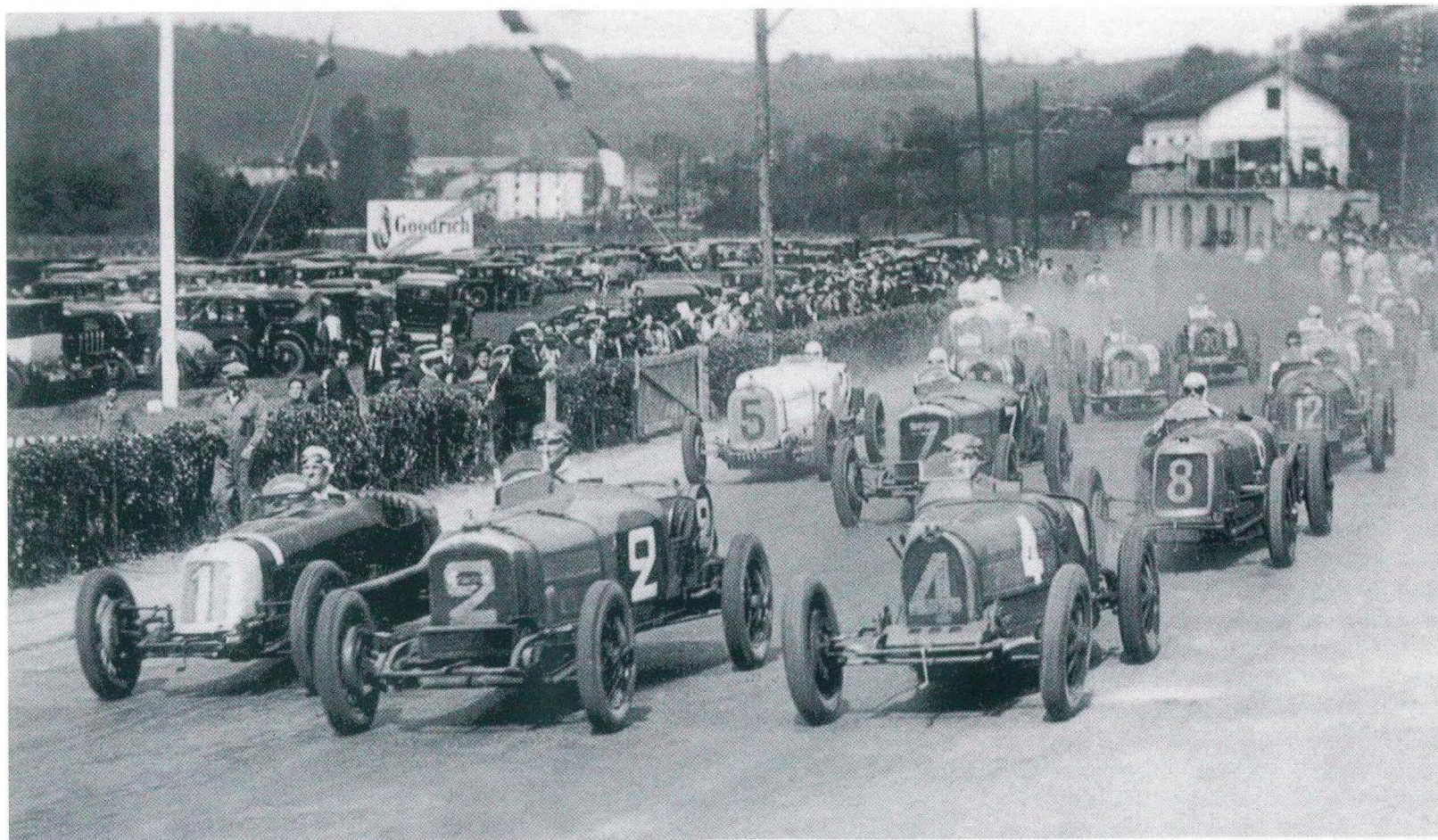
Molsheim produced two new models, the Type 51, which was in simple terms a twin overhead camshaft version of the long-established Type 35, and the Type 54, which combined a Type 50 4.9-litre twin overhead camshaft engine with a lengthened Grand Prix chassis. Alfa Romeo introduced a new twin overhead camshaft, straight-eight 2.3-litre design by Vittorio Jano built in three forms, the fastest of which, the short-wheel-base model that became known as the *Monza*, was phenomenally successful in the hands of *Scuderia Ferrari*.

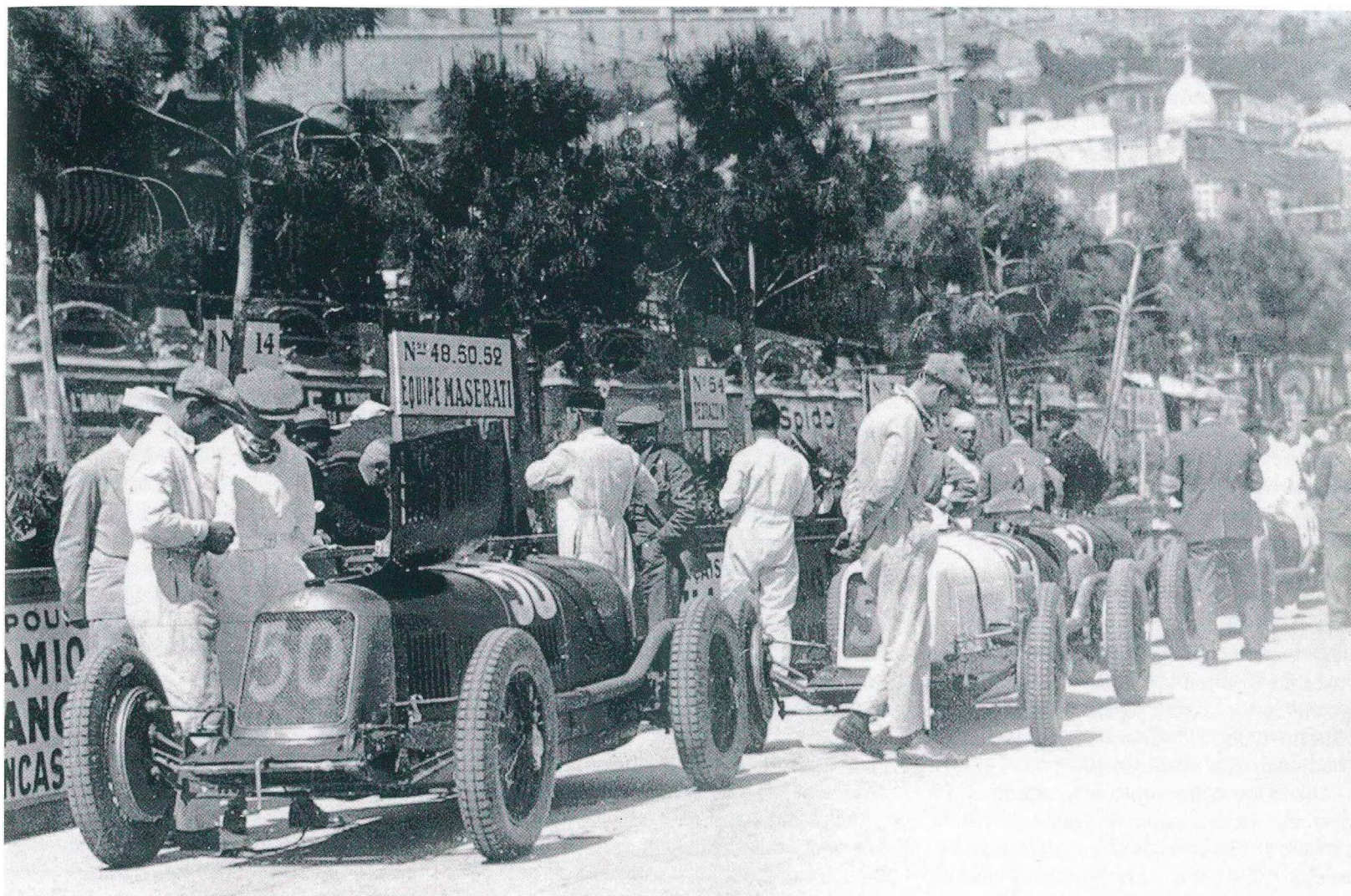
For 1931 the Maserati team was joined by Frenchman René Dreyfus who had been

working in Friderich's Bugatti agency at Nice and raced a Bugatti as an amateur. Of the Maserati brothers Dreyfus wrote (*My Two Lives*), 'How unlike each other they appeared, not like brothers at all. Alfieri was the most Italian in looks, a very pleasant but strong and simple face; Ernesto was considerably taller, and with a face more like an Englishman; Bindo was the oldest . . . and he was a little more refined, white hair, always well dressed. They were all very kind to me.'

What had in effect happened was that Italian driver Achille Varzi had left Maserati to drive for Bugatti, so Maserati had signed

The start of the 1930 Spanish Grand Prix at San Sebastian. The front row of the grid, left to right, consists of Arrigio Sartorio (Tipo 26B), Stoffel (Peugeot) and David (Bugatti Type 35B). The 8C-2500 cars of Varzi (number 8) and Maggi (number 12) took the first two places in this 323-mile (520km) race. (Guy Griffiths Collection)





up a Frenchman. Dreyfus was very familiar with the substantial and busy factory at Molsheim and in contrast he described the Maserati factory as '... small, more reminiscent of a racing shop in Nice ... Maserati was a comparative newcomer, building a few race cars ... a year.' The other members of the works Maserati team at this time were Ernesto Maserati, Fagioli, Maggi and Biondetti. As part of the deal with Dreyfus he was set up with small garage premises in Nice from which he operated the first and only French Maserati agency. He recalled that he sold two or three cars.

The first Grand Prix of the year was the

The Maserati team of 8C-2500s at the 1931 Monaco Grand Prix. In the order that the cars are lined up, the drivers were René Dreyfus, Carlo Pedrazzini and Luigi Fagioli. Young Fagioli, who was still racing twenty years later, finished second, sandwiched between Louis Chiron and Achille Varzi, both of whom were driving Bugattis. (Guy Griffiths Collection)

292-mile (470km) Tunis Grand Prix on 29 March, but the previous day a six-hour sports car race was held on the same circuit. Dreyfus/Castelbarco won this with an 8C-2500 in sports trim. In the Grand Prix, Dreyfus (8C-2500) battled with Varzi until he was forced to stop in the pits for a loose oil line to be tightened. He rejoined the race and pursued Varzi until he crashed through an error of judgement. As Dreyfus put it, 'My car resemble[d] an accordion

rather than a Maserati.' He was shaken, but otherwise unhurt. Varzi with his Bugatti won from Fagioli with another 8C-2500 Maserati. Clemente Biondetti finished fourth with the V4 behind Lehoux (Bugatti Type 35B).

On 11–12 April Tuffanelli partnered by Bertocchi, drove an 1,100cc Maserati in the Miglia Miglia. They won their class, averaging 51.6mph (83.1kph) and broke the class record by the margin of 1 hour 40 minutes.

Alfieri must have been working hard on achieving reliability, for the little Maserati had raced for nearly 20 hours and it was the first time that an example of the *marque* had completed the course. Second and third places in the class went to an Austin Seven (Goodacre/Trevisan) and a Rally (Carnevali/Concony).

The third Monaco Grand Prix was held as a 195-mile (314km) Formule Libre race on 19 April. The positions on the starting grid were settled by ballot and Dreyfus led away at the start, staying in front for the first three laps. He dropped back to fourth because of fuel pump trouble and retired shortly before the finish because the ignition points had broken off in the magneto. Chiron won with his Type 51 Bugatti from Fagioli (8C-2500) and Varzi (Type 51). Next came the Bordino race run over a distance of 174 miles (280km) at Alessandria on 26 April. None of the leading Maserati drivers took part, but Count Luigi Castelbarco, who was the orchestra conductor Arturo Toscanini's son-in-law, finished fourth with a 8C-2500, once again behind Varzi (Bugatti Type 51), Minozzi and von Morgen (both with Type 35 Bugattis).

The following month Toscanini refused to play the Fascist anthem, *Giovinezza*, at a concert in Bologna and insisted that he would play only the Italian National Anthem. The concert was stopped, Toscanini was beaten up by Fascists, imprisoned in his house in Milan and his passport was confiscated. He refused to give up his anti-Fascist views and in June, after his passport was returned, he went into exile. This may have little to do with motor racing, but it indicates the atmosphere in which all artists and sportsmen operated in Italy during the 1930s.

The JCC Double Twelve race was held on a special circuit at Brooklands on 8–9 May. Because of the ban on night-time racing it was held over two days in two stages of 12 hours and was a sports car handicap. An interesting contender was Captain George Eyston partnered by Giulio Ramponi with an

8C-2500 in stark fabric-bodied sports form. It was probably the first time that a Maserati was seen in the UK. After a delayed start, it began lapping at over 100mph (161kph), but it was retired because of axle problems just before the end of the first day's racing.

Three works Maseratis ran in the Targa Florio held on 10 May. The race was held over four laps of the 92.5-mile (149km) Long Madonie circuit, which had last been used in 1911. The reason for this was that storms in March had resulted in a section of the usual Madonie circuit collapsing in a landslide. Dreyfus was driving his 8C-2500 solo, with an oil tank where the mechanic would have otherwise sat. He survived only two laps before retiring with sparking plug problems. The other two Maseratis went off the road, turned into a slippery, slimy mud-bath after heavy rain had started to fall. Nuvolari (Alfa Romeo) won from Varzi (Type 51). For reasons that are not known Maserati withdrew from the Italian Grand Prix (also that year given the title of European Grand Prix) held at Monza as a ten-hour race on 24 May.

The last Irish Grand Prix meeting in Phoenix Park, Dublin was held on 5–6 June and two 8C-2500s in sports trim competed. Eyston appeared again with the car that he had driven at Brooklands and Campari drove a four-seater with Ramponi as co-driver. The rules were rather complex as the final results were decided on the results of the handicap Saorstat Cup for sports cars up to 1,500cc held on the first day and the handicap Eireann Cup for unlimited capacity sports cars on the second day, both over a distance of 300 miles (484km).

Despite heavy rain Campari pulled out a good lead in the Eireann Cup, but stopped at the pits after a stone had smashed his goggles and a piece of glass entered his eye. While he was receiving medical attention, Ramponi took the wheel, but dropped back steadily. Campari rejoined the race despite blurred vision and tried desperately to catch up with Birkin who was now leading with

his Bentley. Birkin won from Campari, and the Hon. Brian Lewis (Talbot 105) and Eyston, whose car had been misfiring for much of the race and who lost a place in a late stop for fuel. In the final results based on the two races Campari was fourth.

The Maserati team was out in force for the 149-mile (240km) Rome Grand Prix held on 7 June in a series of heats and a final on the Littorio circuit. Ernesto drove the *Sedici Cilindri*, René Dreyfus and Luigi Fagioli were at the wheel of 8C-2500s and Clemente Biondetti appeared with a 2-litre car. The only Maserati driver to win his heat was Ernesto, but his opposition in the over 3,000cc class was limited to di Vecchio with an ancient Hispano-Suiza-engined Itala. The Maserati drivers had been saving their cars for the final. Varzi with his Bugatti led initially, but a tyre failed and while he was stopped at the pits, Ernesto went ahead with the *Sedici Cilindri*. Varzi was soon back in the race, only to retire because of engine problems. Ernesto averaged 94.65mph (152.39kph) to win from Dreyfus, Biondetti, Ruggeri (Talbot) and Cerami with a private 8C-2500.

Three works-entered 8C-2500s driven by Ernesto Maserati/Fagioli, Dreyfus/Gherzi and Biondetti/Parenti ran in the French Grand Prix, another ten-hour race held at Montlhéry on 21 June. Birkin/Eyston drove a private 8C-2500. Both Bugatti and *Scuderia Ferrari* entered strong teams. These long Grands Prix became endurance races, hard on all components, especially brakes. Fagioli set a searing pace and turned in a new lap record of 85.50mph (137.65kph), but Chiron (Bugatti) was battling with him all the way. It was just like a Le Mans race in which drivers from two teams were sent out to set the pace and break the opposition during the first couple of hours.

Chiron was the winner of this duel, as Fagioli and Ernesto could not maintain the pace and eventually they withdrew because of brake problems. Louis Chiron and Achille Varzi, an incredibly formidable pairing, won from Campari/Borzacchini

(*Scuderia Ferrari* Alfa Romeo Monza), Biondetti/Parenti and Birkin/Eyston. After delays caused by mechanical problems, Dreyfus/Gherssi finished eighth.

René Dreyfus with an 8C-2500 was the only Maserati driver entered in the 248-mile (400km) Marne Grand Prix at Reims on 5 July. Dreyfus battled with a strong Bugatti entry and finished second, two minutes behind Lehoux at the wheel of a Type 51. There were no Maseratis entered in the Belgian Grand Prix on 12 July and the *Officine* next ran in the 255-mile (410km) German Grand Prix at the Nürburgring a week later. Fagioli and Dreyfus drove works 8C-2500s and Birkin was at the wheel of the private entry belonging to Eyston.

The race was run in torrential rain. Fagioli made a superb start and led the field away, but was passed on the first lap by Caracciola (7-litre Mercedes-Benz SSKL). Chiron (Bugatti) also passed Fagioli on lap eight and the Maserati driver went off the course a few laps later. Dreyfus also retired his 8C-2500. As the race neared its end, the circuit began to dry out and Caracciola won the race for the third time, with Chiron in second place. Birkin had been delayed by plug trouble and was well down the list of finishers in tenth place.

Maserati's domination of racing with the 8C-2500 had been short-lived and another defeat followed in the 135-mile (217km) Coppa Ciano at Livorno on 2 August. Nuvolari won with an Alfa Romeo Monza entered by *Scuderia Ferrari*, Chiron (Bugatti) was second and Fagioli was beaten into third place. The following day was August Bank Holiday Monday in Britain and Birkin drove the Eyston 8C-2500 at Brooklands. There were hopes that he might beat the Outer Circuit lap record, which at this time stood to the credit of Kaye Don (Sunbeam Tiger 4-litre) at 137.58mph (221.5kph). Conditions were too windy for record-breaking, but Birkin lapped at 135.45mph (218.07kph) and the same day also set a new lap record for the Mountain circuit at 75.21mph (121.1kph).

In the handicap Tourist Trophy at Ards on 22 August two 8C-2500s in sports trim were entered by M.C. Morris for Eyston and Luis Fronteras. On scratch the race was completely dominated by the *Scuderia Ferrari* 2.3-litre Alfa Romeos in long-chassis *Le Mans* form, but Black (MG) won on handicap and the Alfas of Borzacchini and Campari were classified fourth and sixth. Fronteras retired early in the race, while Eyston was classified eighth.

Maserati fought back at the Monza Grand Prix on 6 September. Bologna had produced an enlarged version of the straight-eight engine with a capacity of 2,795cc (68 x 94mm) said to develop 198bhp at 6,000rpm. When this engine was fitted, the 26M was known as the 8C-2800 and it was claimed to have a maximum speed of 145mph (233kph). The power output figure of 198bhp is suspect, for some authorities give the power output of the 8C-2500 as 175bhp (quoted earlier) and some as 195bhp. An extra 300cc would not increase power by 23bhp and 3bhp represents nothing more than a typical variation of outputs between two engines of the same type.

The Monza race was run on the same circuit as in 1930 and there was again a series of heats. Fagioli and Dreyfus with the 8C-2800s took the first two places in the up to 3,000cc heat, but Ernesto was a poor fifth with the *Sedici Cilindri* in the heat for cars over 3,000cc and failed to qualify for the final. The biggest threat to the Maseratis in the final came from Chiron and Varzi with the 4.9-litre Bugatti Type 54s, but they were plagued by tyre failure and dropped out of the battle for the lead. Despite a tyre problem of his own, which meant a pit stop for a wheel-change, Fagioli won from Borzacchini (Alfa Romeo Monza), Varzi and Nuvolari (who had taken over Minoia's Monza). Dreyfus retired because of a burnt piston.

The Maserati team's last race of the season was the 308-mile (496km) Czechoslovakian Grand Prix at Brno on 27

September. Fagioli was leading when he lost control and collided with the stanchion of a bridge over the circuit, and the bridge promptly collapsed. The second and third-place runners, Varzi (Bugatti) and Nuvolari (Alfa Romeo) hit the debris and were eliminated. Chiron (Bugatti) won the race. Some minor successes by private owners followed before the end of the season and these included a win by Birkin in the BARC Mountain Championship at Brooklands on 17 October. Sir Malcom Campbell (Mercedes-Benz) and Clifton Penn-Hughes (Bugatti) took second and third places.

Maserati won the Italian Championship for the second time in 1931 and *Il Duce* expressed his appreciation of Maserati racing efforts by granting Alfieri the Fascist title of *Cavaliere*, the equivalent of a knighthood. Although the 8C-2500s were to be raced for many years, none was made after late 1931. Eight were built, together with one road car, and the chassis numbers ran from 2510 to 2518. The road car was a saloon by Castagna and although it was the only example built, others were planned, including a cabriolet by Castagna and both open and closed bodies by Zagato.

The decline in Alfieri's health was marked in 1931 by his absence from the wheel of his cars and, sometimes, by his absence from races. He produced his last new design in the latter part of the year, the first 4-cylinder Maserati, intended for sale to private owners and much easier to maintain than the straight-eight cars. This was the two-seater 4CTR-1100, with a supercharged 1,088cc (65 x 82mm) engine. A power output of 125bhp at 6,600rpm is quoted in factory data, but that figure is improbably high and around 100bhp is more likely. All 4-cylinder Maseratis had a 4-speed gearbox based on that of the Fiat 522. The chassis was lighter and more compact and it had a shorter wheelbase. The 4CTR-1100 was first raced by Klinger in the 1931 Monza Grand Prix.

Chapter 3

The death of Alfieri Maserati and afterwards, 1932–34

ALFIERI FOLLOWED THE MEDICAL advice that he had been receiving and agreed to a kidney operation. This took place on 3 March 1932 but, sadly, he died during surgery. He was only aged 44. He had years of greatness ahead of him, and if he had lived a full life, Maserati would have been a different company. It is almost certain that it would have remained independent, but the extent to which Alfieri could have produced new and competitive designs to keep abreast of technical developments is a matter for speculation. Following Alfieri's death, Ernesto became president and Bindo left Isotta Fraschini to join the surviving brothers at Bologna.

Prior to his death, Alfieri had been working on the development of a front-wheel-drive car, thereby following in the tyre-tracks of Alvis, Miller and Tracta, whose fwd cars had all attracted great interest and indeed, achieved a measure of success. The prototype fwd Maserati, designated the TA-2800, was powered by a 2.8-litre engine. Some time after Alfieri's death, Ernesto tested the TA on the Via Emilia, lost control and ploughed through the boundary wall of the San Lazzaro di Savena cemetery. Although there were expectations that the TA would run in a couple of races, this never happened and the fwd project was quietly forgotten.

During 1932 a number of new Maserati models were seen. The first of these was a sports version of the 4CM known as the 4CS-1100, with a less powerful engine said

to develop 90bhp at 5,300rpm and with a lengthened wheelbase. It is believed six of these cars were built. Tuffanelli partnered by Bertocchi again won the 1,100cc class of the Mille Miglia held on 9–10 April. They averaged 55.1mph (88.71kph) and their time of 18hr 35min 2.2sec was more than an hour quicker than the class winner in 1931. The car was one of the older 8-cylinder models.

Maserati also developed the 4CM-1100 with *monoposto* body and the Tipo 4CM-1500 with a four-cylinder 1,496cc (69 x 100mm) engine in the same chassis. Power output was claimed to be 150bhp at 6,100rpm. These 1,500cc cars, of which about 12 were built, were allotted various chassis numbers between 1514 and 1559. The model had a claimed maximum speed of 132mph (212.5kph). The last 4CM of this type was delivered in 1935.

In Grand Prix racing it was to be a poor season for Maserati and very few successes were gained. The Bugatti Type 51s were a match for the 8C-2800s and these were completely outpaced by the new Vittorio Jano-designed straight-eight 2.6-litre Alfa Romeo Tipo B *Monoposti* (which were entered by the works team, *Alfa Corse*). The 8C-2800 driven by Fagioli in the Tunis Grand Prix on 3 April was plagued by plug and supercharger problems that caused its retirement. He took over Dreyfus's car to finish seventh. Alfa Romeo did not enter this race and Bugattis took the first two places. There was a 1,500cc class which a

local driver, Joly, won with an old Tipo 26 car.

In the 195-mile (314km) Monaco Grand Prix on 17 April Maserati entered three cars. Amadeo Ruggeri retired one of the 8C-2000 because of mechanical problems and Fagioli with the other finished an uncompetitive third behind Nuvolari and Caracciola (both driving Alfa Romeo *Monzas*). Dreyfus retired when his car shed a wheel. On 24 April Joly and Pierre Veyron, both with Tipo 26 cars, finished in first and second places in the 1,500cc class of the three-hour race held at Oran in Algeria. Veyron's car was owned and entered by André Vagniez.

Maserati had been developing a second *Sedici Cilindri*, typed the V5 and much more powerful than the V4. The design approach was unchanged, but this car had two straight-eight 2.5-litre engines giving a capacity of 4,905cc mounted on a common crankcase in the same way as the V4. Again, various power outputs have been quoted, but a figure of 360bhp at 5,500rpm seems accurate, as does a maximum speed of 156mph (251kph). The real problem with both V16 cars was that they were suitable only for relatively short races on fast circuits, because of their handling limitations and high level of tyre wear.

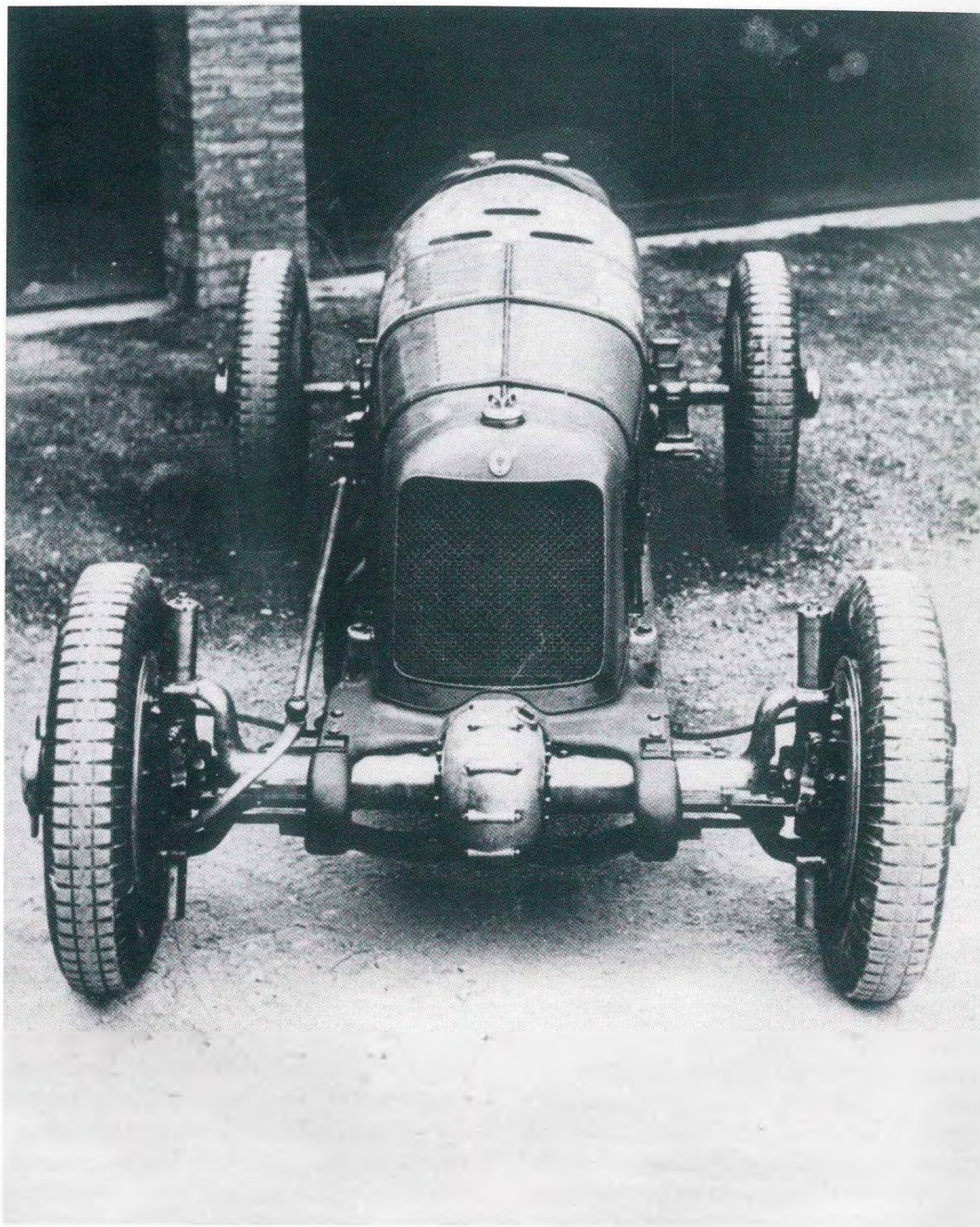
One such race was the Rome Grand Prix on 24 April and held in four 62-mile (100km) qualifying heats and a 149-mile (240km) final. With the V5 Fagioli won both his heat and the final, when he aver-

aged 98.59mph (158.73kph) and was followed across the line by an Alfa Romeo and three Bugattis. In this race the 4CM-1100 made its debut in the hands of Tuffanelli. The only Maserati in the Targa Florio, run over eight laps of the new and shortened 44.7-mile (72km) Little Madonie circuit on 8 May, was an 8C-2800 driven by Ruggeri. He finished fifth behind the *Scuderia Ferrari*-entered Alfa Romeos of Nuvolari and Borzacchini, the Bugatti of Chiron/Varzi and an Alfa 6C 1750 driven by Ghersi.

A new event on the racing calendar was the 126-mile (203km) Nimes Grand Prix on 16 May. This race was held on a street circuit through the town and Dreyfus with an 8C-2800 finished second behind Falchetto (Bugatti). The Casablanca Grand Prix held over a distance of 258 miles (415km) incorporated a 1,500cc class and Veyron won this with his Tipo 26 from Durand (Bugatti Type 37A).

At Avus on 22 May Dreyfus was entered with the V5 *Sedici Cilindri* and like all the other runners was plagued by tyre problems. He vied for the lead and set fastest lap, but the Maserati developed a sticking throttle and the carburettor butterfly broke off. Ernesto Maserati was most anxious that he should complete the race, for otherwise the fastest lap would not count. So repairs were bodged and Dreyfus rejoined the race to finish last. Lehoux won with his Type 54 Bugatti. Fagioli with a works 8C-2800 also retired. After this race Dreyfus, feeling that he was jinxed by bad luck at Bologna, left the Maserati team to drive a Type 51 Bugatti belonging to Louis Chiron.

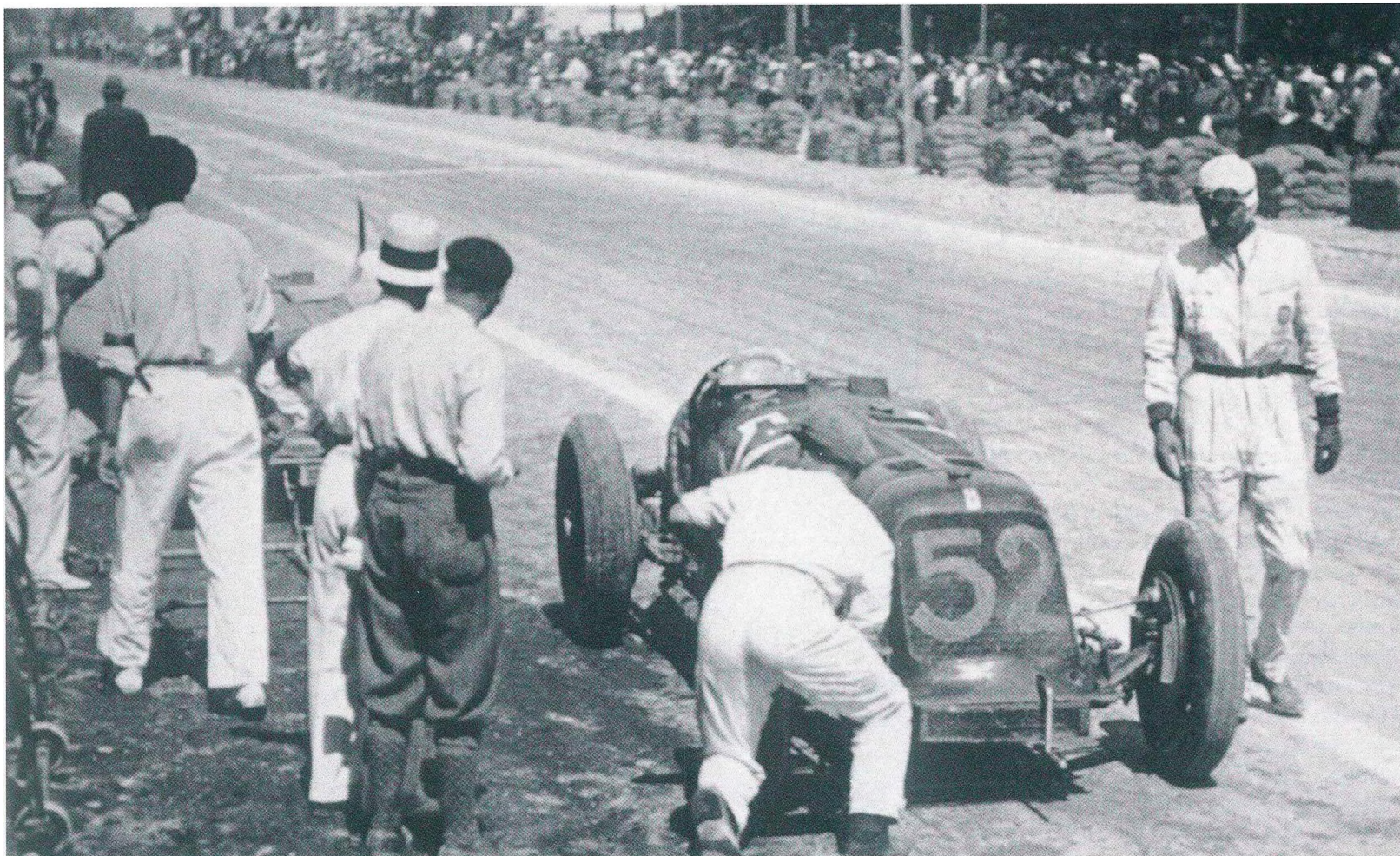
The Italian Grand Prix at Monza on 5 June was a five-hour race, half the distance specified in Grand Prix regulations, and was held over the full 6.214-mile (10km) road circuit and banked track. Maserati entered the V5 *Sedici Cilindri* for Fagioli and an 8C-2800 for Ruggeri. Castelbarco and Premoli drove private 8C-2500s. The opposition included two of the new *Monoposto* Alfa



Maserati was one of several companies to experiment with front-wheel-drive in the period covering the late 1920s to the early 1930s. The front-wheel-drive Maserati had a 2,800cc 8-cylinder engine and was built in 1932. It was typed the TA-2800 (TA for *Trazione Anteriore*).

Romeos making their race debut in the hands of Nuvolari and Campari. The race was fought out between Fagioli and Nuvolari and lost for Maserati by their inefficient pit work when, on the two occasions

that he pitted Fagioli was stationary for twice as long as Nuvolari. Despite his furious driving and a new lap record of 112.2mph (180.6kph), Fagioli was about 2½ minutes behind Nuvolari at the finish.



The V5 Sedici Cilindri driven by Luigi Fagioli is seen at the Rome Grand Prix on 24 April. Fagioli waits while the mechanics work on the car. He won the race from Taruffi (Alfa Romeo) and von Morgen (Bugatti). (Guy Griffiths Collection)

Ruggeri and Premoli finished eighth and ninth.

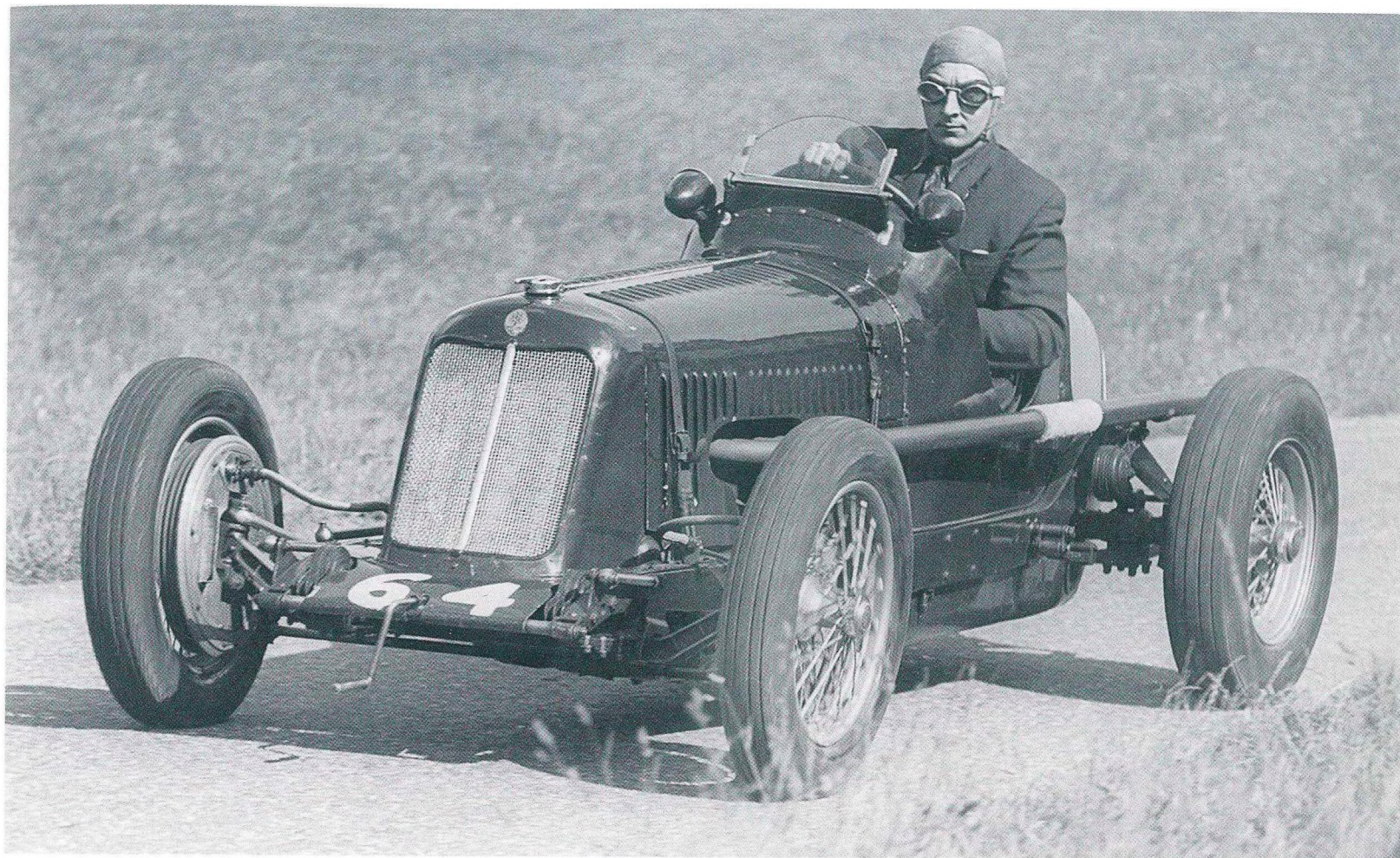
Veyron scored another success with his elderly Maserati in the Lorraine Grand Prix at Nancy on 26 June and won this 79-mile (127km) race with another Maserati driven by Valette in fourth place. Maserati missed the French Grand Prix at Reims on 3 July, won by Nuvolari, and Ruggeri drove the sole Maserati entered in the German Grand Prix on 17 July, but retired. Ruggeri did however take over the works 1,100cc Maserati with which Ernesto Maserati, running in the 1,500cc category, had started the race. In the German race

Caracciola with a *Monoposto* won from Nuvolari with a similar car. Alfa Romeo *Monoposti* driven by Nuvolari won the next three races. Ernesto Maserati/Ruggeri finished third in the 1,500cc class behind Tauber (6C 1500 Alfa Romeo) and Hartmann (Bugatti Type 37A).

A week later Veyron with his Tipo 26 finished second in the very short, 20-mile (32km) race at Nice for 1,500cc cars. Fagioli with an 8C-2800 finished a humiliating third in the 155-mile (250km) Circuit of Avellino on 24 July, beaten by Nuvolari (*Monoposto*) and D'Ippolito with an Alfa Romeo *Monza*. In the 124-mile (200km)

Coppa Ciano on the Montenero circuit at Livorno on 31 July, there were no works Maseratis entered and the highest placed Bologna entry was the 8C-2500 driven into tenth place by Castelbarco. Some consolation came from the fact that Cerami and Ruggeri finished first and third with 1,100cc Maseratis in the 99-mile (160km) *Voiturette* race at the same circuit. Cerami was to become that year's Italian 1,100cc Champion. The same day the Comminges Grand Prix was held on the St. Gaudens circuit. There were separate races for 1,100 and 1,500cc cars and Veyron won the 196-mile (315km) 1,500cc race.

At Pescara on 14 August the highest placed Maserati in the Coppa Acerbo was an 8C-2800. Fagioli was at the wheel, but a front tyre threw a tread, the flailing rubber



hit his arm, injuring him quite badly, and so Ruggeri took the Maserati over to finish fifth. In the 63-mile (101km) *Voiturette* race Scaron (Amilcar) and Chambost (Salmson) beat Matrullo with his Maserati into third place.

Maserati fared rather better in the 308-mile (495km) Czechoslovakian Grand Prix at Brno on 4 September. Nuvolari was plagued by ignition problems on his *Monoposto*, Borzacchini retired his new Alfa Romeo and Chiron won the race with his Type 51 Bugatti. In this race, run in heavy rain, Fagioli took second place, while a struggling Nuvolari finished third, half an hour behind the winner. In the 1,500cc class Ernesto Maserati led initially, but his car caught fire. Burgaller (Bugatti) won the class from Veyron and

The 1,496cc Tipo 4CM appeared in late 1932 and achieved reasonable success in Voiturette racing. This photograph shows a very youthful Roy Salvadori competing with an early 4CM-1500 at Stanmer Park hill climb near Brighton in June 1948. (Guy Griffiths)

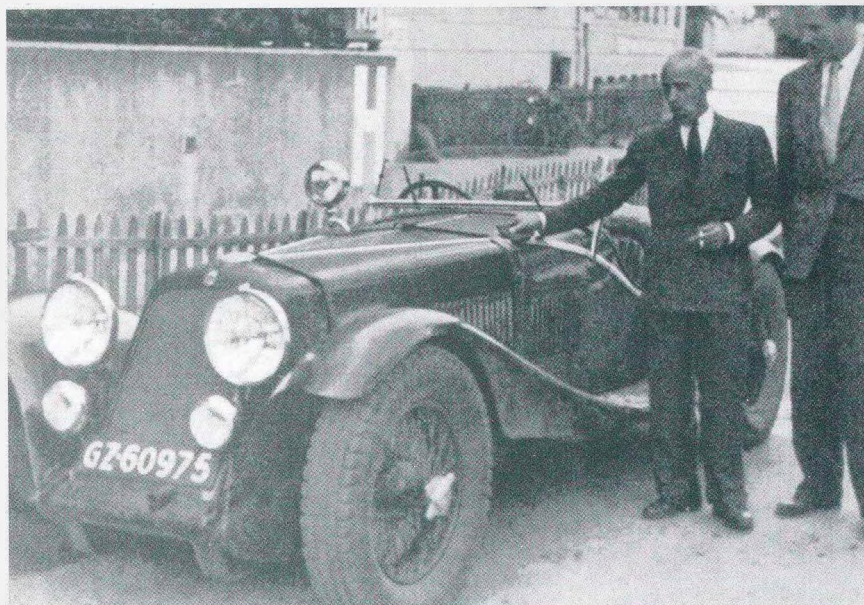
Ernesto was able to carry on to finish fifth.

Fagioli drove the V5 *Sedici Cilindri* again in the Monza Grand Prix held on the full 6.214-mile (10km) circuit on 11 September. In his heat Fagioli battled wheel-to-wheel with Nuvolari, until the *Monoposto* driver went off on lap six and rejoined to finish second after a pit stop to change a wheel. Alfa Corse entered a protest that Fagioli had forced Nuvolari off the road and said that if Fagioli were not disqualified, they would withdraw their cars from the final. The chief race commissioner, the Marchese Pietro Parisio, said that he was not minded to support the protest.

When the *Monoposti* failed to appear in the parade before the start, the spectators protested noisily. At this point Roberto Farinacci, Secretary of the Italian Fascist party intervened and, it would seem, pointed out the wisdom of Alfa Corse competing – which they did. Fagioli finished second behind Caracciola (*Monoposto*) and Nuvolari, who was forced to make a pit stop, took third place. Ruggeri finished ninth with his 8C-2800.

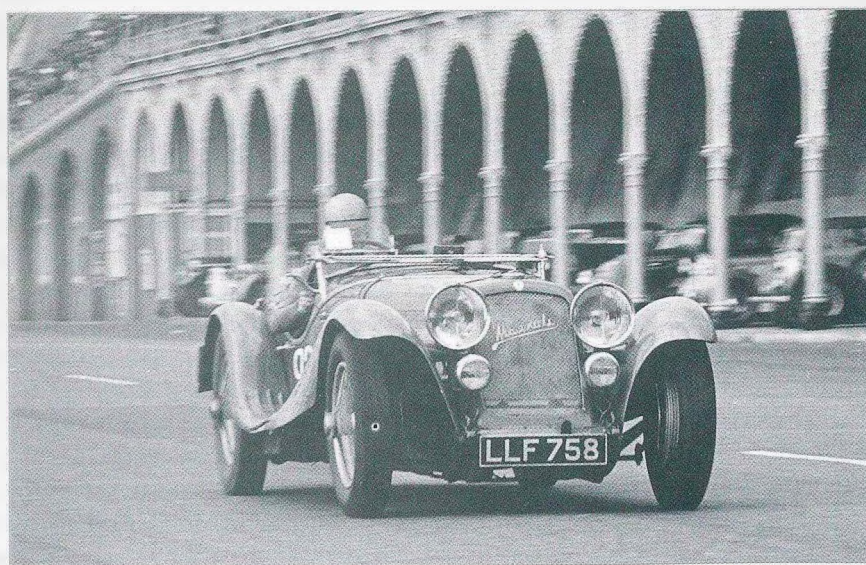
The final race of the European season was the 250-mile (402km) Marseille Grand Prix held on the Miramas circuit. Fagioli was entered with the V5 and Ruggeri drove an

THE V4 *SEDICI CILINDRI* IN LATER DAYS



The V4 was fitted with a Zagato sports body in 1932 and sold to an Italian buyer. Shortly before the Second World War Tazio Nuvolari delivered it to Eric Verkade in Brussels. Nuvolari, cigarette in hand, explains the details of the car. (Guy Griffiths Collection)

The V4 Maserati in sports form with Charles Lewis at the wheel in the 1952 Brighton Speed Trials. It was a formidable, but controllable car to drive on the road, even under busy traffic conditions. (Guy Griffiths)



One of the problems facing the Maserati brothers in late 1932 was what to do with the V4. They decided that as an old racing car it was unsaleable and, as many others did afterwards (including Whitney Straight), decided to have it converted into a touring car. Zagato was commissioned to build the body and the result was an exceptionally handsome and formidable two-seater sports car. In this form it was sold to *Professore* Riccardo Galliazi who lived at Civitavecchia, on the coast not far north of Rome. Galliazi entered the car in the 1932 Tripoli Grand Prix for Carlo Grazzabini to drive, but he retired after five laps for reasons unknown.

After this nothing was heard of the V4 until just before the Second World War, when 'a well known racing driver' drove it to Brussels for delivery to Eric Verkade. The driver was Tazio Nuvolari, but apparently he failed to impress the authorities, as he was allegedly imprisoned for having no papers with the car. Verkade is reported to have stripped the car, packed the components and had them transported to Holland. He is said to have reassembled the car towards the end of the war, possibly with the help of Dutch trader and vintage car expert Bert Loyens, and in 1946 Verkade used the V4 to drive to events in which he was competing.

By 1947 the car was in England, apparently for repair, but according to a letter that Loyens wrote on 21 October 1947 it should have been returned to Holland, as it had only a *carnet de passage* issued by the Royal Dutch Automobile Club. At this time V4 was in the custody of Charles and David Lewis and on 6 September 1952 Charles drove it from London to Brighton to compete in the Speed Trials. His best time was 35.37sec compared with the 32.50sec achieved by Ronnie Symondson with his highly tuned sprint Bugatti Type 57SC. It was an impressive performance for such a heavy car, which probably retained its 165mph-plus (265kph plus) gearing.

In around 1955–56 Charles Lewis entered into an arrangement with John Howell for him to race the car and be responsible for expenses and maintenance. In a race at Snetterton in 1956 the engine blew up and was extensively damaged. The Lewis brothers were unable to recover the car from Howell and always felt bitter about it. Eventually legal proceedings were issued and in 1968, it was settled that Howell would make a payment of £800 to Charles Lewis and retain the car. Early in 1999 the car was sold for £1½ million, restored by Maserati expert Sean Danaher in his workshop at Newmarket and then shipped to the United States for the body to be restored.

(This information about the V4 was kindly supplied by Guy Griffiths)

8C-2800. There was another closely fought battle between Fagioli and Nuvolari, which ended when the *Sedici Cilindri* dropped back because of mechanical trouble. The *Scuderia Ferrari* pit staff, however, were a little too confident that Nuvolari would win. Their pit work was too leisurely and Sommer with his private *Monza* built up a good lead. When Nuvolari's *Monoposto* punctured a tyre any hope of him winning was lost. Fagioli finished a poor sixth.

In December Maserati took the V5 to Montlhéry for an attempt on the one-hour record with Ruggeri at the wheel. As his performances during the year had shown, Ruggeri was no ace and he probably paid for his drives in the Maserati team. Ruggeri lost control of the V5 and was killed. Amadeo Ruggeri was the father of the Ruggeri brothers who ran *Scuderia Milano* in early post-war days.

1933

It has been estimated that during the period 1926–33 Maserati built only 61 cars or thereabouts, a relatively small number indeed, but the brothers were not concerned because the sparking plug business was still very successful. Then – despite the death of Alfieri – production was increased, and in 1933 the Maserati brothers introduced both the Tipo 8C-3000 and the Tipo 8C-3000M (*Monoposto*) with single-seater body.

Only two examples of the 8C were built, using the Type 26M chassis, with the 2,992cc (69 x 100mm) engine that according to factory data developed 230bhp at 5,500 rpm. This engine differed from earlier straight-eight engines in having a narrower crankcase. A maximum speed of 144mph (232kph) is quoted. There were only two examples of this model, chassis number 3001, which was a works car driven by Campari and Fagioli, and 3002, which was bought by Bernard Rubin for Tim Birkin to race.

The Tipo 8CM-3000 was, with certain reservations, to prove a great racing car, and



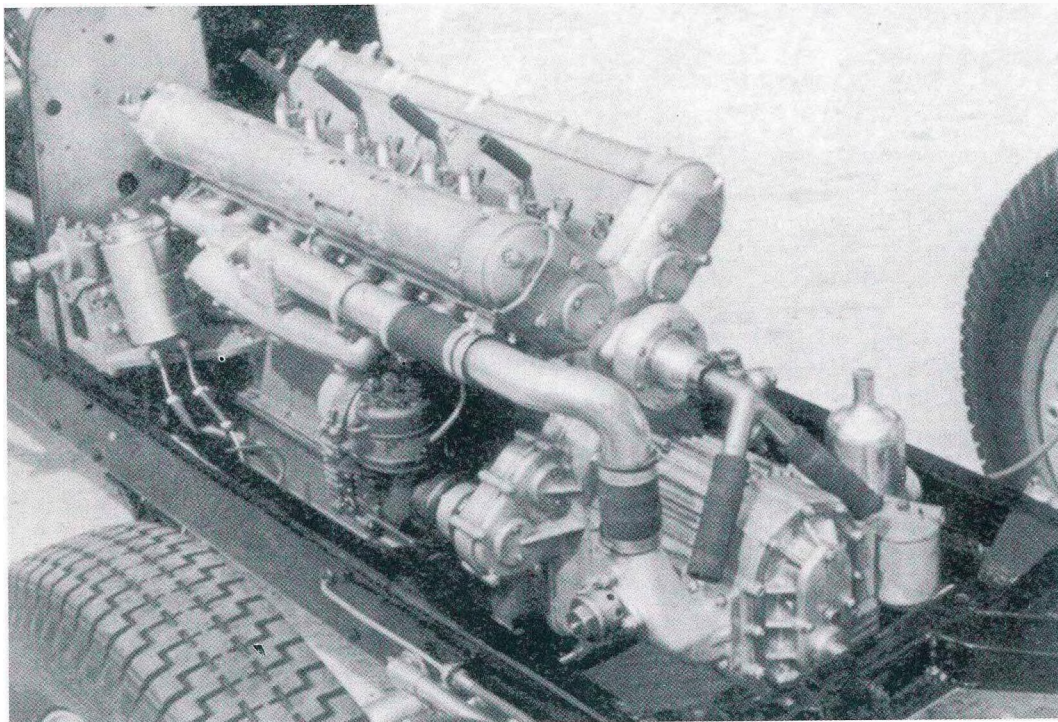
John Crampton with 8C-3000, engine number 3002, at Goodwood on 17 September 1949. It was the ex-Rubin car, which Birkin drove into third place in the 1933 Tripoli Grand Prix. This car was always kept in immaculate condition and driven both quickly and sympathetically. (Guy Griffiths)

although the brothers were quite happy for car production to jog along, the new car increased production by a good measure. The 8CM with *Monoposto* body had a chassis based on that of the 4CM-1100, a model that had about half the power of the 8CM. The chassis frame, which used the seven leaf-spring suspension of the smaller car, was only 24.40in (620mm) wide. The height to the top of the aero-screen was a mere 37.79in (960mm) and the width of the very narrow aluminium-alloy body was 20.98in. (533mm).

Although the 4-speed gearbox with 'change between the driver's legs was claimed to be Maserati's own, it incorporated Fiat Tipo 522 components. Maserati were to use Fiat gearbox components for many years. The steering column was in the centre of the car with the clutch pedal to its left and the accelerator and brake pedal to its right. The steering box was also of Fiat manufacture. The first cars retained mechanical brakes, but hydraulic brakes were soon adopted, re-introducing these into Grand Prix racing for the first time since Duesenberg had used them in 1921. These cars had enormous Elektron brake drums with Elektron shoes.

Giuseppe Campari at the wheel of his Tipo 8C-3000, with engine number 3001, at the Parma-Poggia di Bercetto hill climb on 21 March, 1933. In May he drove this car in the Tripoli Grand Prix, but retired because of a loose oil tank. The following month he won the French Grand Prix at Montlhéry. The car has the older, square badge, because both 8C-3000s were earlier 26M chassis in which the latest engines had been installed. (Guy Griffiths Collection)





The Tipo 8CM engine, but fitted, apparently, with an SU carburettor in place of the usual Memini. The engines of these cars were so reliable that they were rarely seen at race meetings with the bonnet open. (Guy Griffiths Collection)

The 8CM's biggest weakness was lack of chassis rigidity and the cars were inferior, so far as roadholding was concerned, to the Alfa Romeo Tipo Bs. In 1933 Maserati also introduced the Type 4CS-1500 sports model with engine said to develop 90bhp at 5,500rpm. Only about half-a-dozen of these cars were built and they were completed with both stark cycle-wing and fairly sleek aerodynamic bodies.

When the two models eventually raced against each other, the 8CM-3000 and the original 2.6-litre Alfa Romeo Tipo B were closely matched, but at the beginning of 1933 Alfa Romeo announced that they were withdrawing the Tipo B *Monoposti* from racing. It was a decision that saved Alfa Romeo a great deal of expenditure at a time when the company was running at a loss, but it strongly enhanced Maserati prospects of success. Enzo Ferrari had hoped that *Scuderia Ferrari* would be allowed to race the *Monoposti*, but instead

they were put into store at the company's Portello, Milan headquarters and he had to make do with the 2.3-litre *Monza* bored out to just under 2.6 litres.

Maserati's first Grand Prix of the season on 26 March was the 292-mile (470km) Tunis Grand Prix on the Carthage circuit, largely consisting of fast bends that could be taken almost flat-out. Campari drove the works 8C-3000, while Raymond Sommer and Goffredo Zehender drove the two 8CMs that Sommer had ordered following his appointment as Maserati agent in France. Both Campari and Sommer retired because of sheared magneto drives, while Zehender drove a slow race to finish third behind the *Scuderia Ferrari Monzas* of Nuvolari and Borzacchini.

Another disappointing performance followed on 23 April in the 195-mile (314km) Monaco Grand Prix. Sommer retired his 8CM early in the race with a holed crankcase and showed his displea-

sure by ordering an Alfa Romeo *Monza*. Fagioli enjoyed a wild race with the works 8CM, often mounting the pavement and causing officials and photographers to run for their lives. He retired because of magneto trouble. Zehender's feet were badly blistered by heat from the engine and after stopping at the pits, he resumed with thicker-soled shoes to take sixth place. Varzi (Type 51 Bugatti) won from Borzacchini (*Monza*) and Dreyfus (Type 51).

Undergraduate Whitney Straight sat an examination at Cambridge on Saturday, 6 May and then flew to Brooklands where he drove his black, ex-Birkin 8C-2500 in the JCC International Trophy. The race was a Formule Libre event over a distance of 263 miles run on a special circuit. Straight soon pulled away into the lead and set fastest lap at 92.07mph (148.23kph), lapped the field and then retired because of final drive failure. The Hon Brian Lewis (*Monza*) won the race from Eddie Hall (MG K3 Magnette).

The following day the Tunis Grand Prix was held over a distance of 244 miles (393km) on the new and very fast, much shorter 8-mile (13km) Mellaha circuit. The main Maserati contenders were Campari and Birkin with the two 8C-3000s. This was the notorious occasion when, or so it is alleged, Nuvolari, Varzi and Borzacchini, together probably also with Campari, and in league with ticket-holders, struck a deal whereby they shared a national sweepstake based on the results of the race. Campari retired because of a loose oil tank, but Birkin drove a brilliant race, leading initially and then chasing Campari hard before his retirement. He had arranged for a Maserati mechanic to help in his pit, but when he came in to refuel, mechanic was there none and Birkin had to refuel the car himself.

By the time he was back in the race, he was too far behind to catch the leaders. As he was not a member of the 'cartel', it would have been unfortunate if he had won the race and it seems that the absence of the mechanic was 'arranged'. Birkin

finished third behind Varzi (Bugatti) and Nuvolari (*Monza*). It was during this race that Birkin burnt his arm on the Maserati's exhaust pipe and contracted blood poisoning. It was, however, possible that the blood poisoning was the result of mosquito bites to which he was allergic after contracting malaria during the 1914–18 War. Financial worries had been affecting him badly and may have caused a lack of will to fight for recovery. Birkin, who was one of Britain's greatest drivers of the inter-war years, died on 22 June.

Both the Avusrennen and the Picardie Grand Prix were held on 21 May and both races incorporated a *Voiturette* class. There were no Maseratis in Berlin, but André Vagniez and Devaud took second and third places in the 90-mile (145km) Picardie *Voiturette* race. The winner was Madame Rose Itier with a recently delivered Type 51A Bugatti. On 4 June the 64-mile (103km) Circuit of Nîmes incorporated 1,100cc and 1,500cc classes in the race for cars up to 2,000cc. There were only five 1,100cc starters and nine in the 1,500cc class and although Vagniez with the old Tipo 26 won the 1,500cc class, he was substantially slower than Chambost (Salmson) who won the 1,100cc class.

On 11 June the French Grand Prix was held over a distance of 311 miles (500km) on the full 7.7-mile (12.4km) Montlhéry road and banked track near Paris. Campari drove the works 8C-3000 and Zehender was at the wheel of his 8CM. The Bugatti team had withdrawn because they had been planning to run the new Type 59 cars, but these were not ready, and they had not prepared the Type 51s. So serious opposition came only from *Scuderia Ferrari* with *Monzas* for Nuvolari, Taruffi and Chiron. Nuvolari led initially, but both he and Chiron were eliminated by broken differentials. Both the Maseratis looked dangerously unstable, but Campari led until a stop for tyres and then Taruffi went ahead. Campari passed Taruffi and took the lead again when the Alfa driver stopped for tyres.

Campari built up a two-minute lead over Etancelin (private *Monza*), but had to stop for tyres again – and stopped once more for tyres when it started to rain. Etancelin seemed all set to win and would have won, if his gearbox had not jammed and he had to stop out on the circuit for some energetic porridge-stirring. Campari went on to score a lucky win for Maserati, 42sec ahead of Etancelin. What made it even luckier was that Campari had received an illegal push-start after his third pit stop, but instead of disqualifying him, the organisers fined him 1000fr. Zehender retired because of mechanical problems.

Whitney Straight made his first appearance in a Grand Prix when he entered the Marne race held over a distance of 248 miles (400km) at Reims on 2 July. Campari again drove the works 8C-3000, while both Zehender and Biondetti were at the wheel of 8CMs. Campari battled with Etancelin for second place, just managing to keep the well-driven *Monza* at bay, but he was forced to retire after he was struck in the eye by a stone. Biondetti pulled out of the race for the same reason. Etancelin, Wimille and Sommer took the first three places, while Straight brought his 8C-2500, now painted green to comply with International race regulations, across the line in fourth place.

Nuvolari retired his *Monza* at Reims because of differential failure for the second race in succession. There had been secret negotiations between Nuvolari and the Maserati brothers, for the great Italian disliked the regimen imposed at *Scuderia Ferrari* by egoist Enzo and also thought that he should get a bigger slice of the financial cake. Tazio set up his own team with Borzacchini, which they called *Gruppo San Giorgio*, bought the Sommer 8CM-3000 and became a works-supported Maserati driver. It was only later that he became an official works driver. Bologna fortunes were transformed so long as he drove one of their cars. Fagioli was more than a little miffed that Nuvolari had usurped his role as the

number one Maserati driver and stormed off to join *Scuderia Ferrari*.

Nuvolari first appeared with the 8CM at the 370-mile (595km) Belgian Grand Prix at Spa-Francorchamps on 9 July. For what were almost certainly contractual reasons, his entrant was *Scuderia Ferrari*. During practice he was horrified by the chassis whip of the 8CM and he concluded that the chassis was not strong enough to withstand the stresses of really high-speed cornering. He took the Maserati off to the Imperia car factory at Nessonvaux where he had additional stiffening members welded into position. The starting grid was arranged by a draw and Nuvolari started from the back row. He soon worked his way into the lead and won by a margin of three minutes from Varzi (Bugatti Type 51) with Dreyfus (Type 51) in third place. The highest placed *Monza* was fifth.

On the following Sunday the 149-mile (240km) Coppa Ciano was held on the Montenero circuit and Nuvolari scored an easy victory, eight minutes ahead of Brivio (*Scuderia Ferrari Monza*) and with Campari at the wheel of a 4CM-2000 in third place. Ferdinando Barbieri, Guido Landi and Giuseppe Furmanik took the first three places with their Maseratis in the 1,100cc *Voiturette* race. Barbieri was at the wheel of a 4CM entered by *Scuderia Capredoni* which was based in Genoa. Furmanik's main interest was record-breaking and with Maseratis he was a very successful exponent of this during the 1930s. There is little doubt that Furmanik's efforts inspired the later and very successful record-breaking attempts of 'Goldie' Gardner with MG cars. Furmanik was employed as principal tester of parachutes for the *Reggia Aeronautica* (the Italian Air Force).

Nuvolari's third successive win with the 8CM came in the 199-mile (320km) Nice Grand Prix on 6 August. After a battle with Etancelin, Nuvolari had forged ahead in the lead, but a pit stop for brake adjustment dropped him to third place. Once he had rejoined the race, he soon regained second place from Lehoux (Bugatti) and moved

back into the lead when Etancelin stopped out on the circuit because of brake problems. After the race sailors from the Italian fleet, which was visiting Golfe Juan, carried Nuvolari shoulder-high along the *Promenade des Anglais*, the sea-front road. In this race Campari drove a 4-cylinder car with 1,969cc (80 x 98mm) engine said to develop 155bhp at 5,500 rpm. After a slow, troubled race, he finished eighth and last. Zehender also ran his 8CM, but it was plagued by a multitude of problems, including driver *ennui*, and was retired because of overheating.

Borzacchini now joined Maserati, and Campari who considered that he had been given a real 'dog' of a car for Nice, shifted his rather vast bulk to *Scuderia Ferrari*. It was a timely move, for during the first week in August Alfa Romeo, in the face of what was becoming Nuvolari/Maserati domination – and with the new Type 59 Bugatti soon to be raced – did an about-turn and made six P3 *Monoposti*, together with spares, available to *Scuderia Ferrari*.

In the 190-mile (305km) Coppa Acerbo on 13 August, four 8CMs driven by Nuvolari, Borzacchini, Taruffi and Zehender, faced two Tipo Bs entrusted to Fagioli and Campari. From the moment that the Duke of Aosta dropped the flag, there was a furious battle between Nuvolari and Campari. Campari had accelerated away first, but Nuvolari took the lead on the first 15.27-mile (24.6km) lap. The battle lasted until the *Monoposto* broke on lap 8 and Nuvolari came past the pits with a comfortable lead over Fagioli.

At the end of lap 11 Nuvolari brought the 8CM into the pits with blue smoke pouring from an overheated universal joint in the transmission. The Maserati mechanics did the only thing possible in the circumstances and poured a bucket of water over it. Nuvolari screeched back on to the circuit, but Fagioli had passed him while he was in the pits and the Maserati driver was still 2min 26sec behind at the flag. Taruffi took third place and Varzi finished fourth with

his Type 51 Bugatti. Borzacchini and Zehender retired.

There was also a 63-mile (101km) *Voiturette* race for 1,100cc cars at Pescara. It was expected that this would prove a Maserati benefit. Whitney Straight, however, entered his MG Magnette K3, which had been tuned by Thomson & Taylor and fitted by them with a Lightweight racing body. There were only eight starters and the Italians were shocked by the speed of the MG and Straight's win at 75.91mph (122.22kph), just under 20sec ahead of Barbieri (Maserati), with other Maserati drivers in third and fourth places. After the race there was a protest that Straight was running an oversize engine, but measurement of the MG engine dimensions resulted in this being speedily rejected. As David Venables has pointed out, this was the first-ever victory by a British racing car on an Italian road circuit.

The works Maseratis had been entered in the 239-mile (385km) Comminges Grand Prix held on 20 August, but telegraphed to say that they could not arrive in time for the race. So the only Maserati drivers were Zehender with his 8CM and Whitney Straight with his 8C-2500, which had been extensively modified. Because of the considerable effort needed to change gear on the standard gearbox, a Wilson self-change gearbox had been installed and gear selection was by a vertical cranked lever. Supercharger pressure had been increased and power output was said to be close to 200bhp. Straight retired and Zehender was disqualified for receiving a push-start after he had spun off. Luigi Fagioli scored an easy win with his *Monoposto*, from Wimille and Guy Moll with *Monzas*.

Nuvolari reappeared with his 8CM in the 311-mile (500km) Marseille Grand Prix at Miramas on 27 August. Borzacchini and Zehender also drove 8CMs. There was a prize for the leader at the end of every fifth lap and the canny Nuvolari, who was battling for the lead with Chiron (*Monoposto*) and Dreyfus (Type 54 Bugatti),

ensured that he was in front at the appropriate times. As the race progressed, Nuvolari pulled out a fairly comfortable lead, but he retired when the rear axle broke, 20 laps from the finish. Borzacchini retired because of a broken hub. Chiron and Fagioli with their Tipo Bs took the first two places. Zehender, exhausted by the effort of controlling the skittish 8CM through the circuit's succession of curves, handed over to Parenti and they took fifth place.

At Monza on 10 September the Italian Grand Prix was staged over 50 laps, a distance of 311 miles (500km) in the morning, but during the afternoon the Monza Grand Prix was also held with three 14-lap heats and a 14-lap final. It had the makings of a great day's racing, but it was to be marred by tragedies. In the morning Nuvolari, Taruffi and Zehender all drove 8CMs and Chiron and Fagioli were at the wheel of Tipo Bs. Straight entered his 8C-2500. It was an unpleasant, wet day, but the racing was close and exciting. Initially Nuvolari led from Fagioli, but Fagioli made a pit stop for fuel after only six laps, so presumably he had started with a half-full tank.

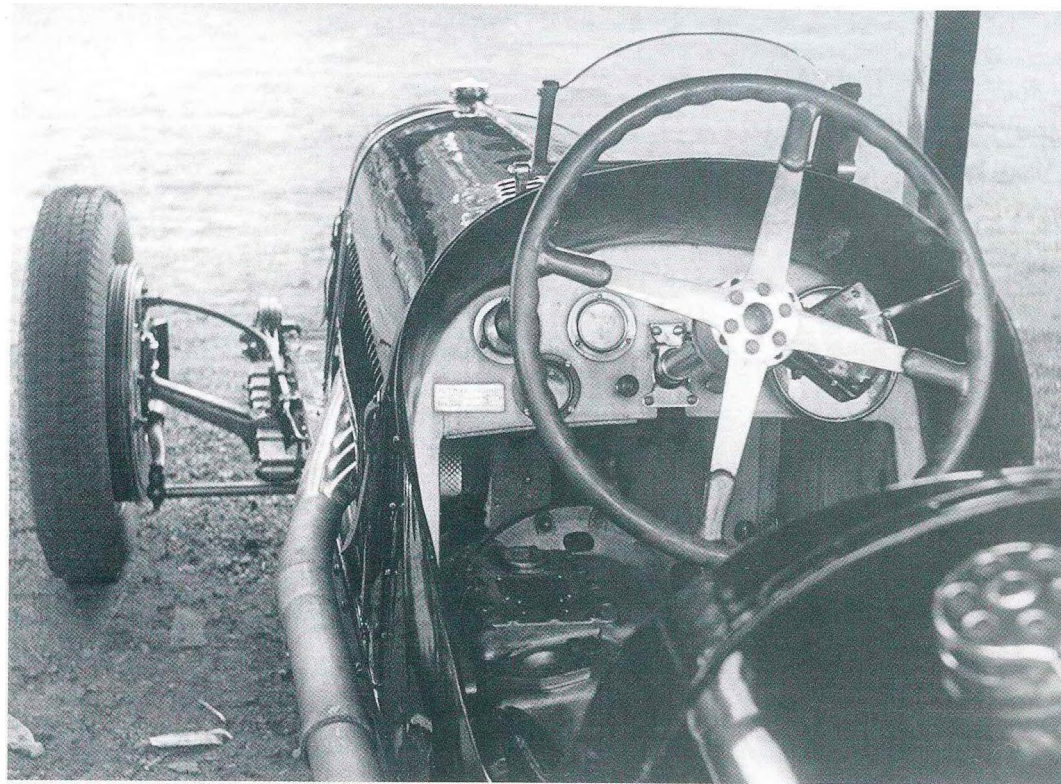
Taruffi led Nuvolari briefly, but put himself out of the race when he went off the course and broke a wheel. For the remainder of the race Nuvolari battled with Chiron and Fagioli and the lead changed as the drivers made their pit stops. Chiron spent a long while in the pits while his exhaust was repaired and Nuvolari now led Fagioli by 30 seconds and with two laps to the finish. The Maserati threw a tyre tread, Nuvolari lost the lead and resumed to finish 40sec behind Fagioli. Zehender took third place, two laps in arrears, and Straight finished 11th.

The track was still damp at the start of the Monza Grand Prix. In the first heat Count Czaikowski (Type 54 Bugatti) led Count Trossi (*Scuderia Ferrari*-entered 4.5-litre Duesenberg) until, apparently, a connecting rod broke on Trossi's car and it may have deposited a trail of oil round the South Curve. In the second heat Borzacchini drove the 8C, while Campari was at the wheel of a

Scuderia Ferrari Alfa Romeo. Campari passed Borzacchini at the South Curve, but a rear wheel mounted the top of the retaining wall, ran along the wall for 100 yards or so, then the *Monoposto* went over the top of the wall and overturned. Borzacchini braked heavily to avoid hitting the Alfa Romeo, locked a wheel and, like Campari's car, the Maserati mounted the wall and overturned.

Both drivers were killed, although Borzacchini survived for a few minutes after the crash. Campari in particular was greatly loved in Italy and it was all the more tragic that at 41 he was just about to retire from racing. There was a two-hour delay before the third heat was run and it proved almost as tragic. Count Czaikowski, a Polish émigré residing in France, lost control of his Bugatti at the same point on the circuit, it too mounted the retaining wall of the South Curve and overturned. The difference was that the car caught fire, Czaikowski was trapped in it and was burnt to death. It mattered little on such a terrible day, but Marcel Lehoux (Bugatti) won the final from Guy Moll and Felice Bonetto, both at the wheel of Monzas. Tazio Nuvolari was distraught over Campari's death, for they been close friends and team-mates for many years.

Nuvolari raced the 8CM once more in 1933, in the 323-mile (520km) Spanish Grand Prix at San Sebastian on 24 September. The race was notable for the long-awaited – and very disappointing – debut of the Type 59 Bugattis in the hands of Varzi and Dreyfus. It quickly became obvious that, in original form, they were no match for either the 8CM or the *Monoposto*. At the start of the race Nuvolari took the lead from Fagioli and he retained it through both his refuelling stop and another quick stop to have the fuel cap secured. Rain began to fall and the track became increasingly slippery. Nuvolari was driving a little harder than circumstances made necessary, he lost control, went off the road and the Maserati overturned. He was very lucky to escape with minor injuries. Chiron and Fagioli (Alfa Romeos) took the first two



A cockpit view of a Tipo 8CM with narrow chassis seen at Shelsley Walsh hill climb in October 1946. This was the ex-Howe car, which was fitted with a pre-selector gearbox, the quadrant of which, on the right-hand side of the steering column, seems to do a good job in masking the tachometer from the driver's view. At this time the car belonged to Kenneth McAlpine. (Guy Griffiths).

places, ahead of Lehoux (Type 51 Bugatti) and Varzi (Type 59 Bugatti).

During the year Whitney Straight with his 8C-2500, had finished second to Brillard (Bugatti) in the 126-mile (203km) Albi Grand Prix, and he won the Mont Ventoux hill climb near Avignon, setting a new course record. With twin-rear wheels fitted to the Maserati, Straight set FTD at the Brighton Speed Trials, and at Shelsley Walsh hill climb on 30 September he broke Hans Stuck's record with an Austro-Daimler set back in 1930.

At Montlhéry on 26 October the Swiss driver, Hans Ruesch, with his 8CM set a new world record for the standing-start kilometre with a speed of 88.33mph (142.21kph). The previous record stood to the credit of the late Parry Thomas at the wheel of *Babs* with a speed of 86.90mph

(139.9kph). 'Freddie' Zehender also went record-breaking with his 8CM at Montlhéry in late 1933 and broke records previously held by Bugatti. These ranged from 50 kilometres at 130.50mph (210.1kph) – the previous record was 129.17mph (208.97kph) – to 100 miles (161km) at 132.43mph (213.21kph) – previously 124.15mph (199.98kph).

Although the 8CM-3000 was barely a match for the Alfa Romeo *Monoposto*, it had been one of Maserati's most successful seasons, with – thanks to Nuvolari – wins in four important races. In addition, private Maserati drivers had scored a large number of successes during the year in hill climbs and minor races. Two Maserati strengths were the wide range of competition cars offered and their close relationship with private owners.

1934

The face of motor racing changed in 1934 with the introduction of a new Grand Prix formula. In November 1932 the *Commission Sportive* of the AIACR had met to decide the future of Grand Prix racing. The AIACR wanted, in effect, to maintain the *status quo* whereby racing would be contested by such cars as the Alfa Romeo *Monoposto* and the Bugatti Type 51. It wanted to outlaw the very fast, very heavy cars such as the Maserati *Sedici Cilindri* and the Bugatti Type 54, as it considered these to be dangerous. It was agreed that the best way to do this would be by imposing a weight limit.

So it was decided to introduce a maximum weight of 750kg (14.73cwt), whereas, previously, minimum weight limits had been imposed. When full details were published, it became known that the limit of 750kg was without driver, fuel, oil, water

or tyres. Secondly, the bodywork of the car should present a minimum cross-sectional area of 85 x 25cm at the driving seat. Race distances were to be over a minimum of 500km (311 miles).

The Alfa Romeo *Monoposto* complied with the requirements of the new formula and so did the 8CM-3000 Maserati, once the chassis had been widened from 620mm to 850mm to facilitate the fitting of bodywork that complied with the cross-sectional requirement. With the original narrow chassis, modifications to make the body wider were necessary to ensure compliance with the new rules. The Maserati was however marginal as far as the maximum weight limit was concerned. Because Alfa Romeo would not sell the *Monoposto* to private buyers, the *Officine* received a large number of orders for 8CMs and some of these, because chassis were already in stock, retained the original narrow frame width. The Bugatti Type 59 also complied with the

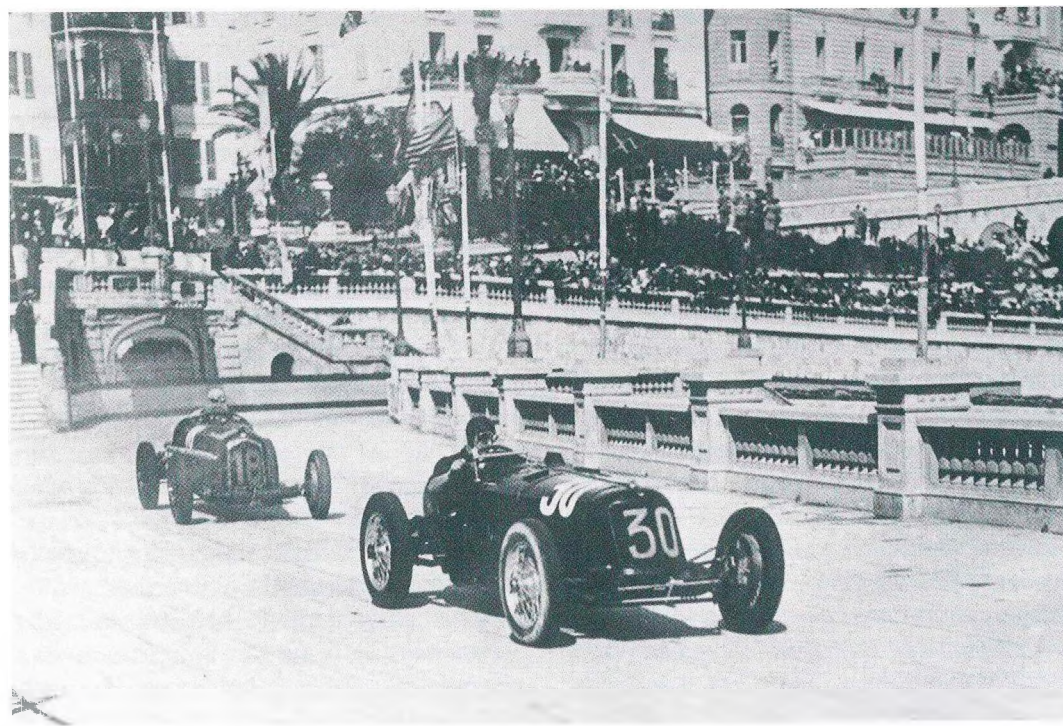
requirements of the new formula and the cars raced in 1934 had the engine capacity increased to 3,257cc from the Monaco race onwards.

So initially in Italy and France the racing car manufacturers were anticipating no real changes that would affect them. At this stage they were not aware of impending developments in Germany, where Adolf Hitler had been appointed Chancellor of Germany on 30 January 1933. Although both Germany and Italy were undertaking rearmament programmes, that in Germany was massive and the two companies that wanted to enter Grand Prix racing, Auto Union, recently formed, and Mercedes-Benz, were encouraged by receiving military contracts that incorporated a more than adequate margin to underwrite a Grand Prix programme.

Grand Prix racing had now become a political instrument in both Germany and Italy, and both Hitler and Mussolini exploited its propaganda value to the full, although Mussolini was genuinely a great racing enthusiast and the Italian racing car manufacturers, Alfa Romeo and Maserati, never possessed the financial resources to challenge the German onslaught on even terms. The period 1934–39 was to prove one of the most exciting eras in the history of the sport, but always lurking in the background and increasingly overshadowing racing were the political ambitions of the Nazi party, the creeping tentacles of the Third Reich and a growing pan-European concern about the threat of war.

There was naturally apprehension at Molsheim, Modena and Portello when information about the new Mercedes-Benz and Auto Union Grand Prix cars was received, but little that could be done in the short term and – as events were to prove – little in the longer term. Vittorio Jano at Alfa Romeo carried on with the *Monoposto* in 2,905cc form in 1934, but, hampered by financial restraints, he produced new cars for 1935 onwards that proved no match for the German opposition.

At Monaco in 1934 Eugenio Siena drove the ex-works 8C-3000. Here he leads Marcel Lehoux (Scuderia Ferrari Alfa Romeo Monoposto). He finished in seventh place. (Guy Griffiths Collection)

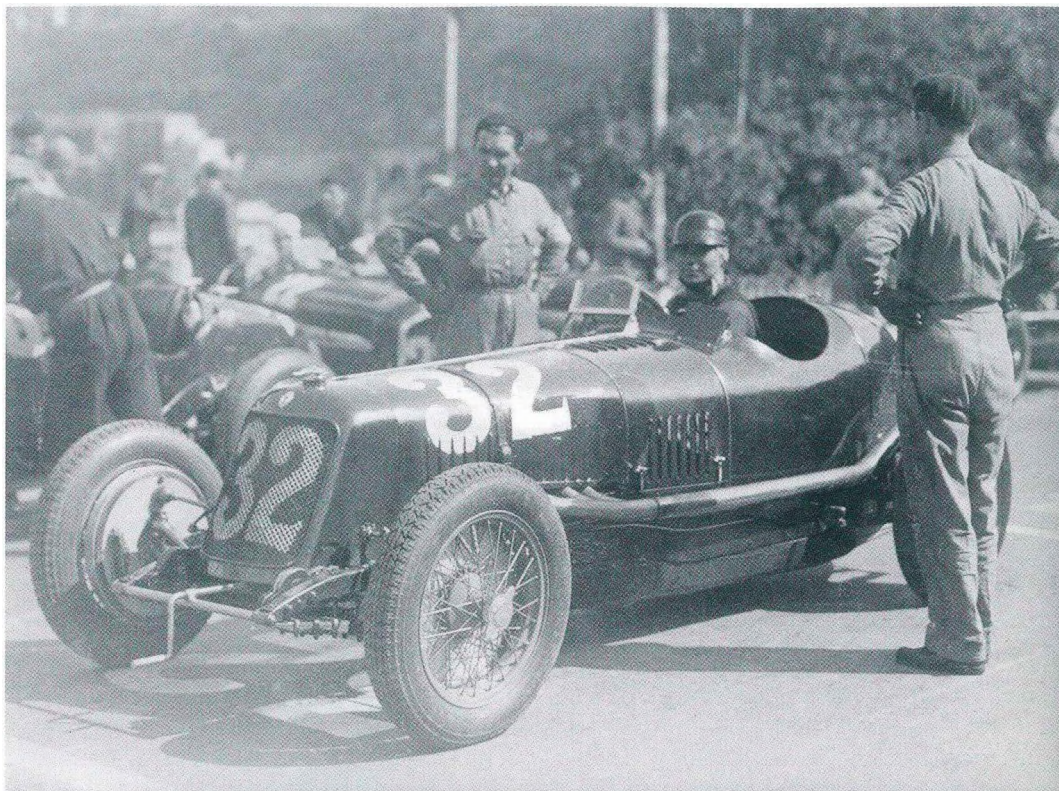


Maserati struggled on, but its new 1934–35 cars proved failures and thereafter it withdrew from Grand Prix racing until a new formula came into place for 1938, and new ownership had taken over. Bugatti to all intents and purposes also withdrew from Grand Prix racing, making only occasional appearances. The period 1934–35 marked the decline of Maserati that made it vulnerable to the Orsi takeover.

Following his very encouraging performances with his 8C-2500, Whitney Straight formed a limited company, Whitney Straight Ltd, with Reid Railton and the Earl of Brecknock (later the Marquis of Camden) as directors. Giulio Ramponi, who had apparently fallen out with both the Italian Fascist Party and Enzo Ferrari, had come to England and he now took control of the Straight racing team. Straight retained the 8C-2500 and took delivery of three 8CM-3000s. The last was delivered only after Straight started legal action against Maserati, because its arrival had been long delayed and it was destroyed in an accident before it could be modified like the other two cars.

The modifications to the first two of Straight's cars were made by Reid Railton, then with Thomson & Taylor at Brooklands. He strengthened and boxed the chassis to improve rigidity, made suspension modifications that helped eliminate the skittishness that plagued these cars, installed a Wilson pre-selector gearbox and fitted bodywork of slightly lower weight. These cars were distinguished by a shield-shaped air intake and American racing colours of white with a blue chassis. Straight preferred black as a racing colour, but had to comply with International racing colours. The 8CM-3000s were driven by Straight and Hugh Hamilton, while the existing 8C-2500 was handled by R.E.L. ('Buddy') Featherstonhaugh.

The first important race of the European season was the 195-mile (314km) Monaco Grand Prix held on Easter Monday 2 April. There were three privately entered 8CMs



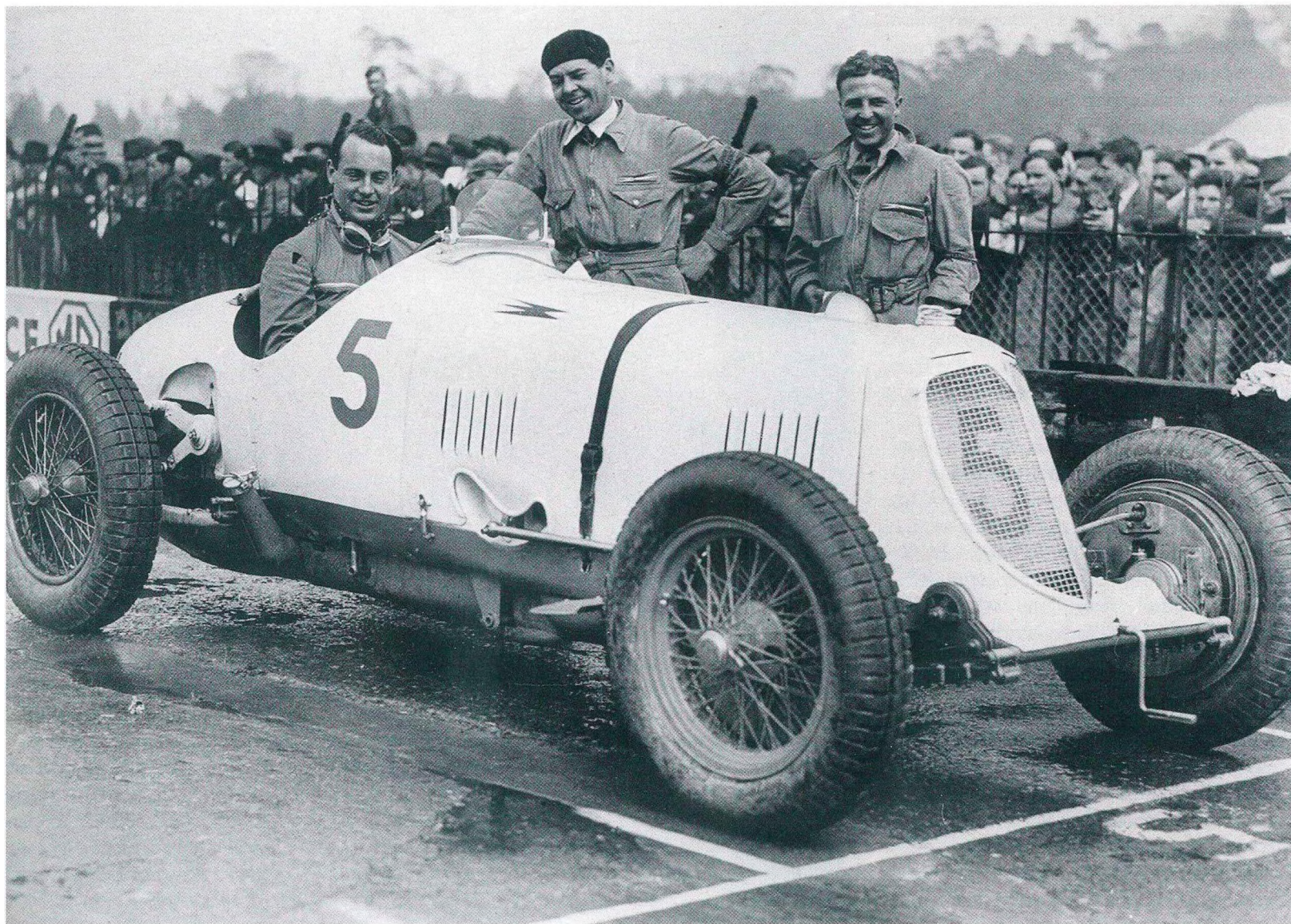
The sole works Maserati entered at Monaco in 1934 was this Tipo 4CM-2500 driven by Piero Taruffi. He was in fourth place on the last lap when he retired because of engine failure. It seems that this was the only car built with a 4-cylinder 2,483cc engine.

driven by Earl Howe, Whitney Straight and Philippe Etancelin. All these cars had the original narrow chassis. Eugenio Siena drove the ex-works 8C-3000. The sole works Maserati entry was the one-off Tipo 4C-2500 with 4-cylinder 2,482cc (84 x 112mm) engine said to develop 190bhp at 5,300rpm and driven by Piero Taruffi. In this race Nuvolari drove a Type 59 Bugatti of which he formed a very low opinion and said so vociferously.

Etancelin's car failed to pass the scrutineers until small alloy wings had been attached to the body to bring its width to the minimum requirement. None of the 8-cylinder cars complied with the minimum weight requirement, despite draining oil from even the gearboxes and back axles, but all scraped through after they had been fitted with alloy wheels. Etancelin was the only competitive Maserati driver in the race

and he fought his way through to second place, but lost control on a bad bump in the road, hit the sandbags at the Station hairpin and broke his steering. On the last lap Taruffi, in fourth place, retired with engine failure. Moll and Chiron took the first two places for *Scuderia Ferrari*. Siena, Straight and Howe finished seventh, eighth and tenth.

The following weekend, 8–9 April, Taruffi, partnered by Bertocchi, was in action again with a 1,100cc Maserati in the Mille Miglia. They faced strong opposition from a team of three MG K3 Magnettes, the model which took first two places in the class in 1933. The Maserati was fitted with Pirelli *Pneugripa* tyres with fine grooves cut across the tread which gave greater stability in the wet. The MG team was offered the chance to use these tyres, but declined and was running on narrow-section high-pressure



Whitney Straight at the wheel of one of his Tipo 8CM-3000s before the start of the handicap JCC International Trophy at Brooklands in 1934. Standing behind the car are engineer/head mechanic Giulio Ramponi and mechanic Jock Finlayson. Straight won the race from the Hon Brian Lewis (8C-3000).

tyres, ideal for high-speed racing, but known to be unstable in the wet. And the race was run for much of its distance in persistent rain.

Count 'Johnny' Lurani, one of the MG drivers, described the Maserati and its driver in these terms: 'It was light, stable, very manoeuvrable and had good brakes. Its engine had been tuned to perfection,

and even the chassis had been tested. . . . Its driver was Piero Taruffi, a great driver who knew the course well.' (*Mille Miglia, 1927-57*, Automobile Year, 1981). Between Bologna and Florence, on the Raticosa pass, Taruffi and Earl Howe battled wheel-to-wheel, but the British driver aquaplaned into a large pylon near Florence. Taruffi with the Maserati, finished fifth overall

behind four Alfa Romeos and won the 1,100cc class at 64.16mph (103.3kph). Lurani and Clifton Penn-Hughes with the other Magnette drove to finish and, although their average was higher than that of the class-winning MG in the 1933 race, they were 16th overall, second in class and over 80 minutes behind Taruffi at the finish. The third MG driven by Eddie Hall and his wife retired.

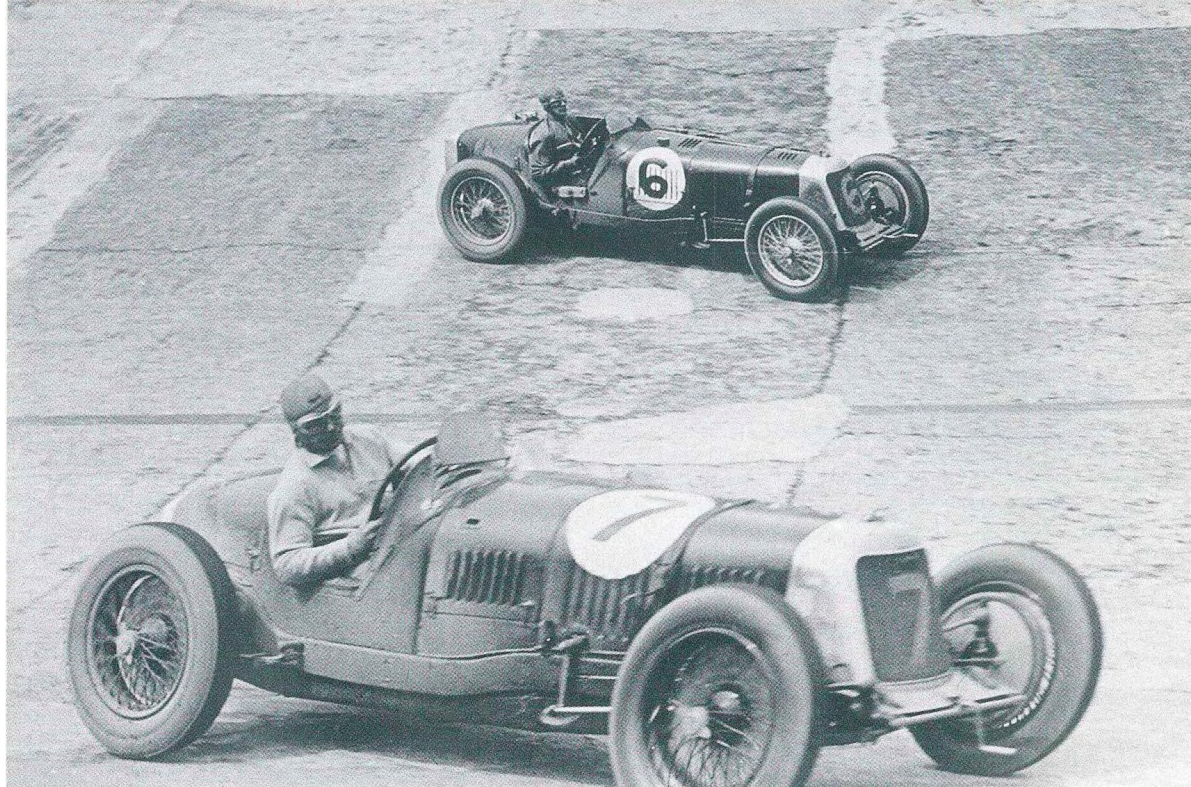
Nuvolari was back at the wheel of his 8CM-3000 in the Bordino Grand Prix run in two qualifying heats and a final at Alessandria on 22 April. The race was run in

the wet on lethally slippery roads. In the first heat Carlo Pedrazzini, in his recently delivered 8CM entered by *Scuderia Siena*, misjudged the corner before the bridge over the River Tanaro, hit the wall, was thrown out of his car and suffered fatal injuries. Nuvolari had been unable to match the speed of the Alfa Tipo Bs in his heat and, trying rather too hard in the final, he went off the road very close to where Pedrazzini had crashed, collided with a tree and suffered serious injuries, including a leg broken in two places. There were suggestions that he was being baulked by Trossi and crashed in avoiding a collision with the elegant Italian banker. Varzi, Chiron, Tadini and Comotti took the first four places with Tipo Bs.

A 'second division' event dominated by Maserati was the 262-mile (422km) JCC International Trophy held on a special circuit at Brooklands on 28 April. Whitney Straight with his 8CM led away from the start, splashing through puddles from rain that had fallen before the start and he built up a good lead over the Hon Brian Lewis with the ex-Rubin 8C-3000. Unfortunately Straight clipped a barrel at the artificial corner, damaged a tyre and had to stop at the pits for a wheel-change.

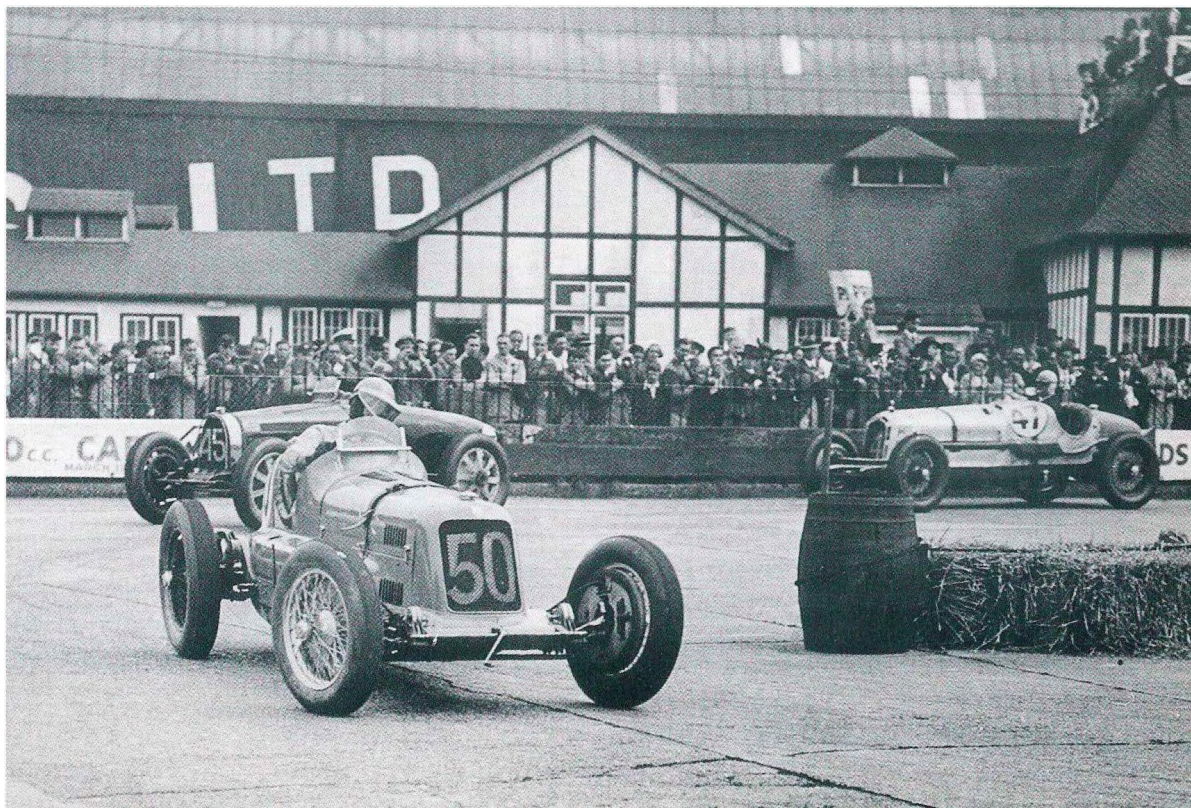
This allowed Lewis to build up a good lead and when he stopped for fuel there was blood smearing his face, the result of cuts from stones thrown up by cars that he was lapping. Straight was soon back in the lead, but he had to ease up in the closing laps of the race, as his right front tyre was down to the white breaker strip. He led Lewis across the line with four seconds in hand and almost immediately after he took the flag, the right front tyre threw a tread.

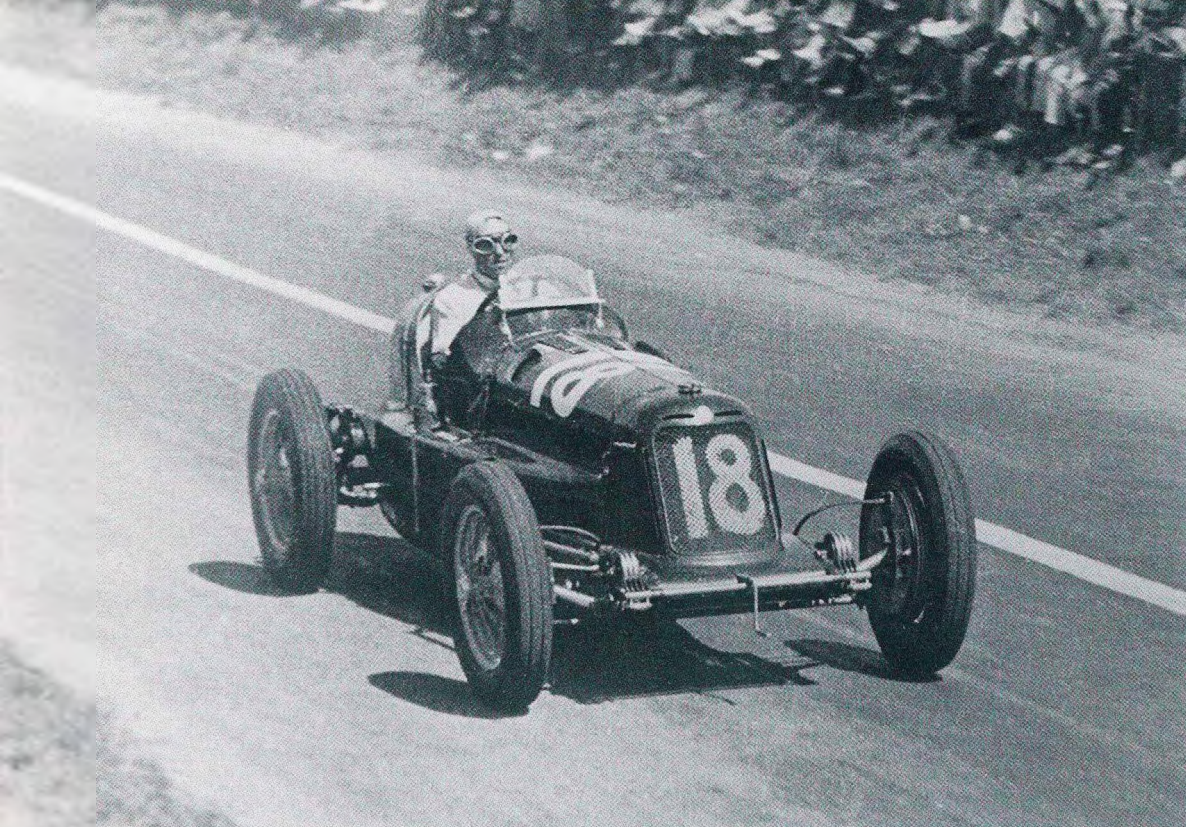
The 326-mile (525km) Tripoli Grand Prix on 6 May was held as a Formule Libre race on a new circuit at Mellaha. So Maserati wheeled out the V5 *Sedici Cilindri*, completely rebuilt since the crash at Montlhéry in 1933, for Piero Taruffi to drive. Straight, Hamilton, Etancelin, Biondetti, Siena and Zehender all drove 8CMs. *Scuderia Ferrari* entered four Tipo Bs for Chiron, Moll, Trossi



On the banking of the artificial circuit used for the 1934 JCC International race are the Hon Brian Lewis with the ex-Rubin 8C-3000 and Featherstonhaugh with Whitney Straight's black-painted 8C-2500. Lewis finished second. (Guy Griffiths Collection)

Another handicap race at Brooklands in 1934 was the British Empire Trophy held on an artificial road circuit. Earl Howe (8CM) leads Eccles (Bugatti Type 51) and John Cobb (Alfa Romeo Monza). Howe retired his car after spinning off backwards into the straw bales. (Guy Griffiths Collection)





Tazio Nuvolari at speed with his works 8CM-3000 in the 1934 Marne Grand Prix at Reims. Nuvolari was plagued by tyre trouble and was eventually forced out by rear axle problems. (Guy Griffiths Collection)

and Varzi. Taruffi seared away at the start, reportedly attaining 165mph (266kph) on the straight, but as he entered a curve on the fourth lap, the brakes locked. The tyre treads melted, Taruffi went off the track, demolished a hoarding and was flung out of the car as it overturned. He was lucky enough to escape with a broken arm, but the V5 was a write-off.

Taruffi blamed himself for not applying the brakes on and off in order to cool them. He told the full story of this incident in his book, *Works Driver* (Temple Press Books, 1964). The Alfa Romeos of Varzi, Moll and Chiron took the first three places, but Hamilton had held second place briefly and had chased the Ferrari-entered cars hard, until the needle in the Maserati's carburettor float chamber stuck. It was said that the 8CMs were achieving 160mph (258kph) on the straight.

In the 237-mile (381km) Casablanca Grand Prix on the Anfa circuit on 20 May

seven of the 15 entries were Maseratis, but none was a works car. Etancelin at the peak of his form battled with the *Scuderia Ferrari* Alfa Romeos, led at one stage and finished second behind Chiron (Tipo B). Whitney Straight had been in third place, but a tyre burst three laps from the end of the race and he dropped back to finish fourth.

The new German cars were scheduled to appear in the 182-mile (293km) Avusrennen on 27 May, but only the Auto Union team ran. Guy Moll won with a streamlined Tipo B from Varzi (Tipo B) and Momberger (Auto Union). Earl Howe took fourth place and, incredibly, Nuvolari was fifth – despite driving swathed in bandages and with the clutch pedal moved closer to the central accelerator, enabling him to operate both with his right foot. In the 122-mile (196km) *Voiturette* race held before the main race, Count Castelbarco with a 4CM finished third behind Veyron and Burggaller with Bugattis.

Nuvolari, Ruesch and Siena drove 8CMs in the Eifelrennen on 3 June. Nuvolari pulled out of the race because he felt unwell, while both Ruesch and Siena retired because of engine problems. Von Brauchitsch (Mercedes-Benz) won on the debut of the new W25 cars and Stuck finished second with his Auto Union. From this point onwards, while the Alfa Romeos battled with the German cars, the Maseratis became less and less of a force. The race included a 1,500cc class and Castelbarco with his Maserati won this from Schmidt and Burggaller with Bugattis.

In the 186-mile (300km) Montreux Grand Prix also held on 3 June, Etancelin led from Whitney Straight, but had to ease off because of braking problems. Straight also slowed because of supercharger problems and oil being sprayed on to his face. Trossi won for *Scuderia Ferrari* with the Maserati drivers in second and third places. Zehender, entered by the works with the 4C-2500, finished sixth. On 9 June Whitney Straight at the wheel of an 8CM fitted with twin rear wheels, reduced the Shelsley Walsh hill climb record to forty seconds flat. The following day Falchetto with an *Ecurie Brailard* 8CM won the poorly supported 121-mile (195km) Picardie Grand Prix from Sommer (Alfa Romeo *Monza*) and Brunet (Bugatti).

Nuvolari led the 165-mile (265km) Penya Rhin Grand Prix, held on 17 June on the Montjuich Park circuit in Barcelona, until pain forced him to ease off and he dropped back to fourth place before retiring. Alfa Romeos took the first three places. American Peter de Paolo had agreed to drive an 8CM for *Ecurie Brailard* during the remainder of the season, but he had crashed heavily in practice in Spain, fracturing his skull. On 23 June Whitney Straight, with an 8CM took second place behind Eyston's MG in the handicap 300-mile (483km) British Empire Trophy on a special circuit at Brooklands.

While *Scuderia Ferrari* battled with the German teams, the only two Maseratis entered in the 310-mile (500m) French

Grand Prix at Montlhéry on 1 July were also-rans. Etancelin with his 8CM was out after only 11 laps because of a broken oil pipe and Zehender, with a works-entered 8CM-3000, retired after his mechanics gave up their attempts to re-secure the rear axle with the U-bolts that had buckled on Montlhéry's bumps. The German cars were still not fully sorted and Alfa Romeos took the first three places.

Misfortune dogged the strong Maserati entry in the 310-mile (500km) Marne Grand Prix the following weekend. The German teams missed this race and Nuvolari's efforts to get to grips with the Alfa Romeos were frustrated by a succession of tyre failures and he retired because of a broken rear axle. The Tipo Bs finished in the first three places, Hugh Hamilton was fourth with his Whitney Straight car, but Etancelin, Sommer, Straight himself and Zehender retired.

The 354-mile (570km) German Grand Prix at the Nürburgring on 15 July turned into a war of attrition between the two German teams. Maserati was now little more than an also-ran in major races and Nuvolari's immense talents were being wasted with the 8CM. After a hard race Nuvolari took fourth place behind Stuck (Auto Union), Fagioli (Mercedes-Benz) and Chiron (Alfa Romeo). Zehender with a works-entered car was classified sixth after the disqualification of Maag (Alfa Romeo), while both Hamilton and Ruesch retired.

The Vichy Grand Prix was run in two 44-mile (71km) qualifying heats and an 88-mile (141km) final the same day and it was the only occasion on which this event was held. It was the sort of minor race in which the 8CMs should do well, but their hydraulic brakes were not all they were cracked up to be and frequently gave problems on circuits on which there was much heavy braking. The 1.46-mile (2.35km) Vichy street circuit was such and but for brake problems Etancelin would have won. Etancelin led the final until forced to ease off and was passed by both Trossi (*Scuderia Ferrari* Tipo B) and Whitney Straight.

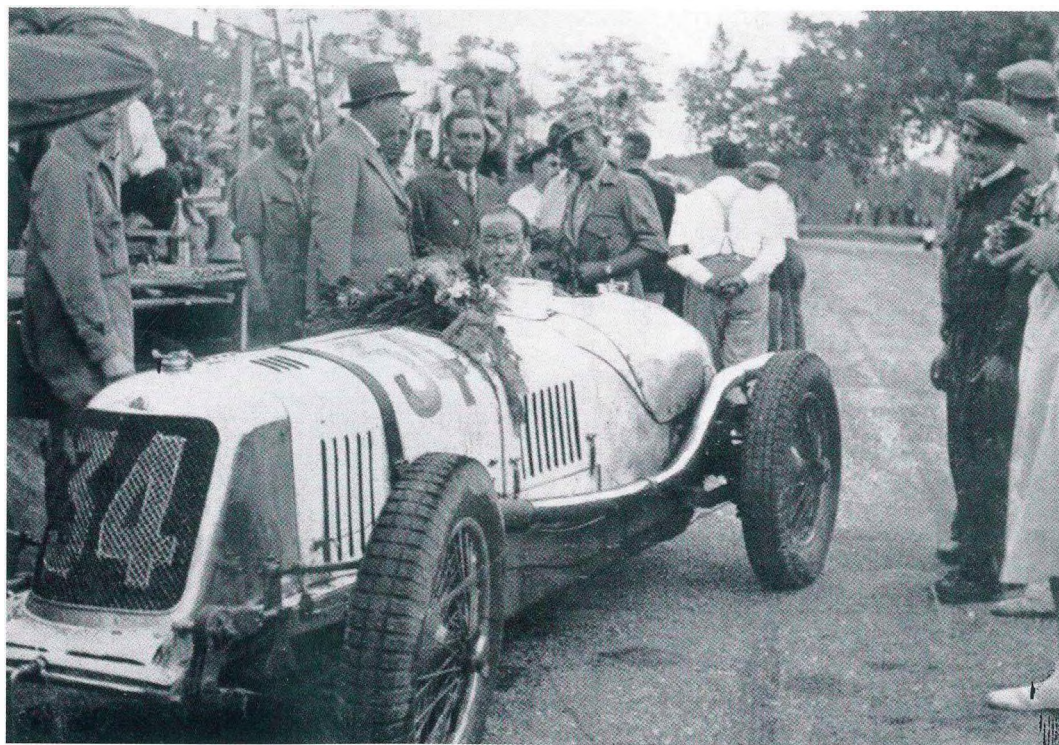
There were three relatively minor races for Grand Prix cars on 22 July. The Dieppe Grand Prix was run in two one-hour heats and a two-hour final. Etancelin was at the peak of his form, and he won his heat and the final with Lehoux (*Monoposto*) second in both. Earl Howe finished third in the final with his 8CM. In the 166-mile (267km) Albi Grand Prix the Maseratis dominated the results in the absence of *Scuderia Ferrari*. After Hamilton's Straight-entered 8CM-3000 developed an engine misfire, Featherstonhaugh won with the Straight 8C-2500, Hamilton finished second, Veyron (Bugatti) third and Sommer (Alfa Romeo) fourth. Nuvolari ran in the 149-mile (240km) Coppa Ciano that weekend and finished third behind the Alfa Romeos of Varzi and Moll. In the accompanying 99-mile (160km) *Voiturette* race Romano Malaguti and Federico Matrullo took the first two places with their Maseratis.

Neither the German teams nor Nuvolari

ran in the 370-mile (595km) Belgian Grand Prix at Spa-Francorchamps on 29 July. The Germans claimed that they wanted to give their drivers a rest, but the real reason was the Belgian authorities had demanded an outrageously high amount of duty on the special fuels, which Auto Union and Mercedes-Benz wanted to import for use in the race. The Germans gave the organisers only 48 hours' notice by telegram of their non-arrival. Nuvolari gave no explanation why he was not at the race. There were therefore only seven starters; Chiron crashed his *Scuderia Ferrari* Alfa Romeo, Varzi retired his in a cloud of blue smoke, Dreyfus and Brivio took the first two places with their Type 59 Bugattis – it was the last *Grande Epreuve* to be won by Molsheim – and Sommer finished third with his 8CM.

On 5 August Whitney Straight with one of his 8CMs fitted with twin rear wheels, made third fastest time in the Klausen hill climb held over 14 miles (22.5km) of the

At Albi on 22 July 1934 Featherstonhaugh drove Whitney Straight's old 8C-2500 to a win ahead of Pierre Veyron (Bugatti). (Guy Griffiths Collection)





Whitney Straight with his 8CM-3000 at the famous Mont Ventoux hill climb in 1934. He set second fastest time to Hans Stuck (Auto Union). (Guy Griffiths Collection)

Klausenpass close to the border with Italy. Caracciola was first for Mercedes-Benz with a record time of 15min 22.2sec, Stuck (Auto Union) was second fastest and Hans Ruesch finished fourth with his 8CM.

Ten days later the German teams ran in the 321-mile (516km) Coppa Acerbo. Ferrari entered four Tipo Bs and there were five 8CMs, one driven by Nuvolari, and Secondo Corsi drove the V5 for the works team. But the race was marred by the death of the young and brilliant Algerian driver Guy Moll who crashed his *Scuderia Ferrari* Tipo B at high speed and was fatally injured. In a race with a high level of retirements Fagioli won for Mercedes-Benz and Nuvolari finished second with his 8CM, 4min 38.2sec in arrears.

The disparity between the cars is indicated in the speeds attained over the timed kilometre of the Montesilvano straight. The fastest Mercedes-Benz of Caracciola was timed at 179.6mph (289.1kph), Nuvolari at 155.2mph (249.87kph). Corsi crashed the V5 without serious injury. Moll's death overshadowed the results of the race and on this occasion even Enzo Ferrari was deeply upset. In the *Voiturette* race the results were dominated by the MG Magnettes which took the first three places and Furmanik with his Maserati trailed across the line to finish fourth, nearly three minutes behind the winner, Hugh Hamilton.

Maserati was expected to do well in the 199-mile (320km) Nice Grand Prix on 19 August and six 8CMs, and the 8C-3000 driven by Zehender, faced three *Scuderia Ferrari* Alfa Romeos. Nuvolari was in second place, chasing the leader, Varzi (Tipo B), when a piston failed. Etancelin came through to finish second, a lap behind Varzi, after Chiron stopped at the pits for a plug change on his Tipo B, and Trossi ran out of fuel 200m short of the finish.

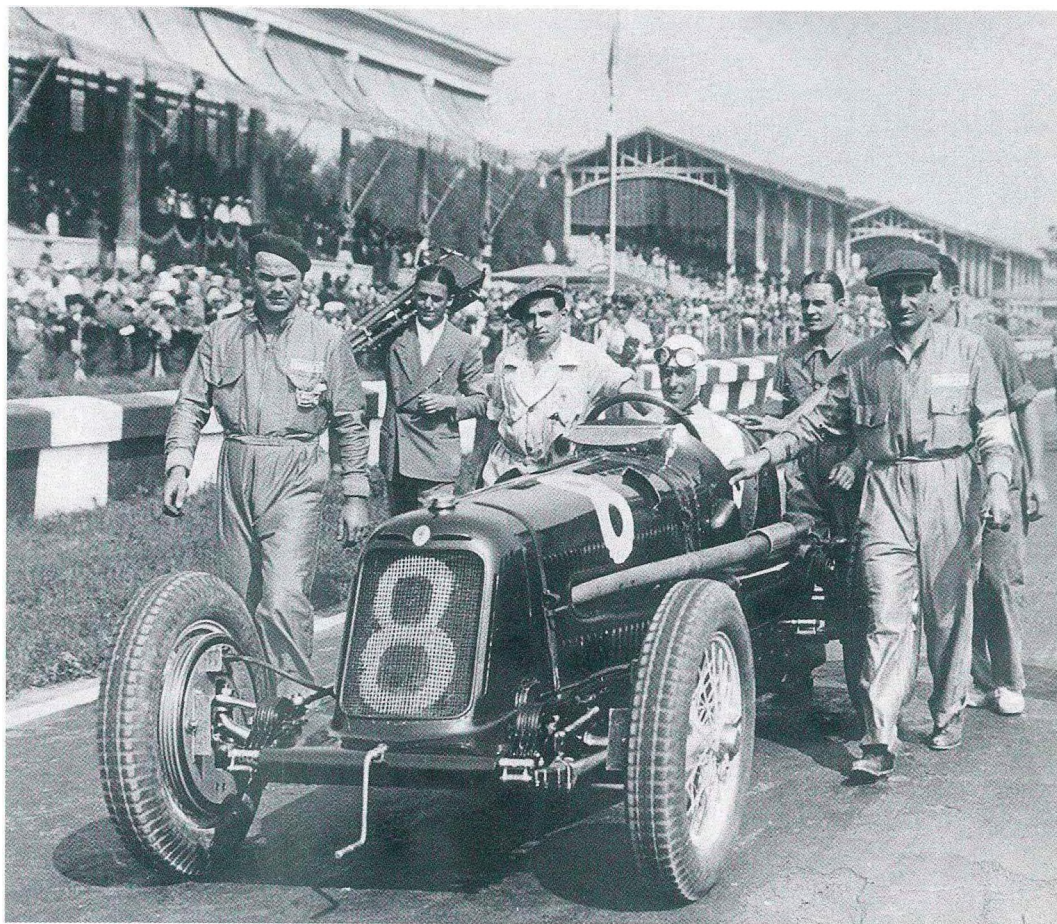
Nuvolari turned in another fine performance in the first and very wet Swiss Grand Prix held over a distance of 317 miles (510km) on 26 August. The Bremgarten circuit's fast curves suited him well, but his

8CM developed a bad misfire and forced his retirement. Stuck and Momberger took the first two places for Auto Union. The only Maserati finisher was Earl Howe in ninth place. There was another tragic death in this race. Hugh Hamilton at the wheel of Whitney Straight's latest 8CM was in seventh place on the last lap when he went off the road and was killed as his car rebounded from tree to tree.

In the 63-mile (101km) *Voiturette* Prix de Berne, run in heavy rain, the winner was Dick Seaman with his K3 Magnette. Malaguti had led initially with a 4CS (sports) Maserati, but he fell back and retired because of a misfire. The highest placed Maserati driver was Castelbarco who took sixth place. The same day Zehender and Straight with their 8CMs finished second and third behind Comotti (*Scuderia Ferrari* Tipo B) in the 239-mile (385km) Comminges Grand Prix. On 2 September the Circuit of Biella race was run in three heats and a final and incorporated a *Voiturette* category. Guiseppe Farina, with a *Scuderia Subalpina* 4CM finished third overall and won the *Voiturette* category. Count 'Johnny' Lurani finished second in the class with a 4CS and Castelbarco took third place.

The Maserati brothers had developed a new engine for the 8CM, but it was hardly an encouraging response to the domination by the German teams. Known as the Tipo 6C/34, it was a 6-cylinder 3,326cc unit that combined the 84mm bore of the 4C-2500 with the 100mm stroke of the 4CM-1500. It followed the usual Maserati design practice with gear-driven twin overhead camshafts, single Weber carburettor, Roots-type supercharger and Scintilla magneto. In this initial form power output was 260bhp at 5,000 rpm and the engine slipped straight into the 8CM chassis that Nuvolari had been racing.

Following the terrible accidents at the circuit in 1933, the organisers of the Italian Grand Prix held on 9 September had adopted a slow 2.485-mile (4km) circuit



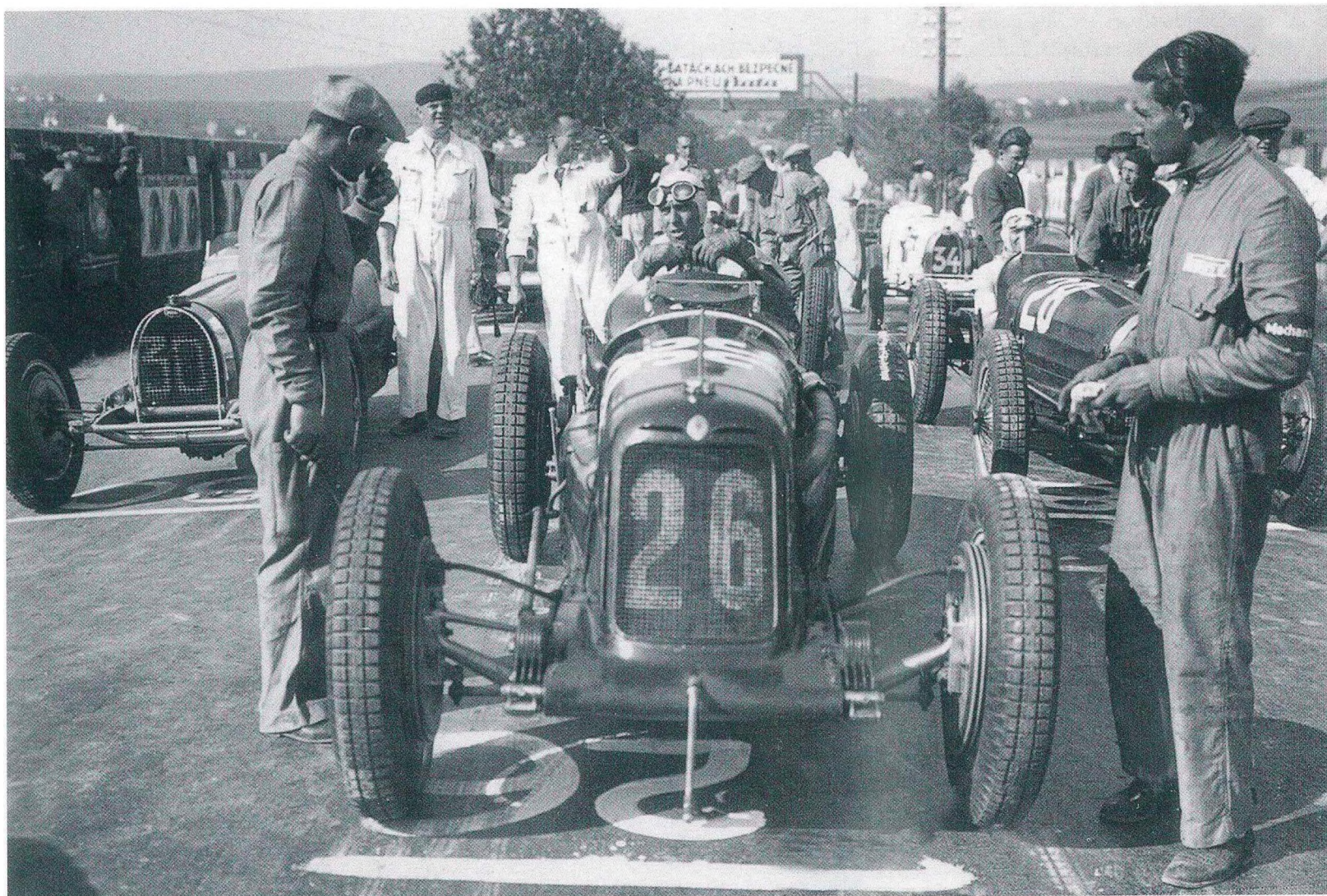
At the 1934 Italian Grand Prix Maserati produced their car for the new 750 Kilogram formula. This was the Tipo 6C/34, the 8CM initially with 3.3-litre engine. It is seen on its debut with Nuvolari at the wheel. Bertocchi, wearing a cap, is on the left of the car. Nuvolari finished a disappointing fifth.

incorporating the slightly banked south curve, with chicanes to slow the cars and an acute hairpin bend. Known as the Short Florio circuit, it did not allow the full potential of the cars to be exploited and in a 311-mile (500km) race the drivers found it very tiring. The German teams and *Scuderia Ferrari* were out in force and in addition to Nuvolari with the 6-cylinder car, Ruesch, Straight and Zehender drove 8CMs. Before the start the cars and drivers paraded past the grandstands and the drivers and mechanics raised their arms in a Fascist salute as they passed in front of the official stand.

Initially Nuvolari ran well with the new car, being up with the leaders, but it was

almost inevitable that on such a slow circuit with a great deal of braking needed, there would be problems with the Maserati's hydraulic brakes. In the later stages of the race Nuvolari was slowing the 6C/34 on the gearbox only. Drivers who had retired shared many of the cars and the finishing order was Caracciola/Fagioli (Mercedes-Benz), who had averaged 65.35mph (105.21kph), Stuck/zu Leinigen (Auto Union), Trossi/Comotti, Chiron (with *Monoposti*) and Nuvolari in fifth place. Straight and Howe finished eighth and ninth, while Zehender retired because of brake problems.

On the same day a series of races under the impressive title Grand Prix de France,



Tazio Nuvolari at the wheel of his Tipo 6C/34 on the starting grid for the 1934 Circuit of Masaryk at Brno. Number 30 is Wimille and number 28 Benoist, both at the wheel of Type 59 Bugattis. Nuvolari finished third behind Stuck (Auto Union) and Fagioli (Mercedes-Benz). (Guy Griffiths Collection)

were held on the 3.1-mile (5km) road and track circuit at Montlhéry known as the *Circuit Routier*. The day started with a match race between Falchetto (*Ecurie Brailard* 8CM) and Marcel Doret flying a Dewoitine aeroplane. The aeroplane won easily but Falchetto had the compensation of winning the 55-mile (88.5km) race for supercharged cars over 1,500cc. Both Straight and Falchetto competed in the Mont Ventoux hill climb, but despite a very slippery road Stuck (Auto Union) set FTD and a new hill

record. Straight was second fastest, with Falchetto third.

Despite his criticism of the model earlier in the year, Nuvolari drove a Type 59 Bugatti in the 323-mile (520km) Spanish Grand Prix on the Lasarte circuit at San Sebastian and finished third behind two Mercedes. He also tried an Auto Union in practice, clearly flagging his intention to drive for a team other than Maserati in 1935. There were four 8CM Maseratis entered, but none was competitive. Marcel

Lehoux with a Straight-entered car finished eighth, while Luigi Soffietti took ninth place for *Scuderia Siena*. The two *Ecurie Brailard* cars ran, but Falchetto retired his car and Brunet crashed. With one of his 8CMs painted black Straight competed at Shelsley Walsh hill climb on 29 September, but he had to settle for a class win and second FTD behind Raymond Mays (2-litre ERA) who was in sparkling form and climbed two-fifths of a second quicker in 44.00sec.

There were two Tipo 6C/34 Maseratis entered in the 308-mile (495km) Circuit of Masaryk at Brno in Czechoslovakia on 30 September. Both cars were fitted with larger 3,729cc engines that had the cylinder

dimensions of the 4C-2500. Nuvolari drove one of these cars, but the second Maserati driver would have made a suitable subject for Ripley's *Believe It or Not* strip that appeared regularly in the *Sunday Express* newspaper many years ago. The car was reported as having been bought from the factory by Josef Bradzil, a local 30-year old mechanic, without any known racing record. His manager, named Maric, had borrowed the money off his fiancée, but the engagement was broken off (whether before or after she learned about the Maserati is not recorded) and she demanded the return of her cash. For obvious reasons it could not be paid back.

She started legal proceedings against both men and this led to their arrest and imprisonment. Two leading drivers (identities unknown) pleaded that Bradzil should be released from jail for practice and the race. This was agreed but shortly after the start of practice he took a corner at an estimated 125mph (201kph), cleared a ditch, demolished a couple of trees and the car broke in two. Bradzil was killed and at the inquest a verdict of suicide was recorded. Nuvolari drove brilliantly on the very difficult 12.4-mile (20km) Brno circuit and took third place behind Stuck (Auto Union) and Caracciola (Mercedes-Benz). Giuseppe Farina, very much an up-and-coming man, won the 1,500cc class with his *Subalpina* 4CM.

There remained only minor races before the season ended. Whitney Straight was still achieving good successes with the 8CMs; he won the 20-lap Donington Park Trophy on 6 October and a week later, at Brooklands, won both the 12-mile (19km) Mountain Championship and the 6-mile (9.6km) Record Holders Mountain Handicap. Nuvolari reappeared with the 6C/34 in the 80-mile (129km) Circuit of Modena on 14 October. He won at 65.81mph (105.95kph) from Varzi and Tadini, both at the wheel of Tipo Bs and rather complacent about the potential of the Maserati. There was also an 1,100cc *Voiturette* race in which Farina and Malaguti were beaten into

second and third places by Raffaele Cecchi with an MG.

Seven days later Nuvolari drove the 6C/34 for the last time in the 124-mile (200km) Circuit of Naples and won from Brivio and Tadini with Tipo B cars. Farina took fourth place with a 4CM. There were several Maseratis entered in the 151-mile (243km) Algerian Grand Prix on 28 October, including Hans Ruesch with a newly delivered 6C/34. Wimille won the race with a Type 59 Bugatti from Chiron (*Monoposto*) and Soffietti (8CM). Ruesch drove a slow race to finish sixth.

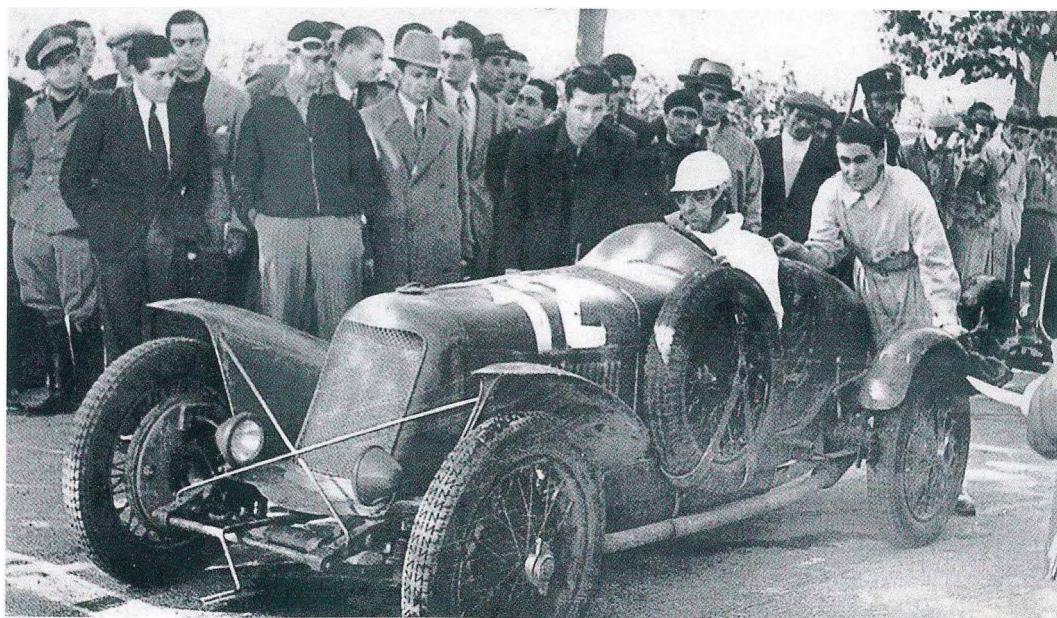
After the racing season was over, Furmanik went record-breaking with his two-year-old 4CM-1100. He removed the front brakes, attached streamlined fairings and fitted wheel discs. With the car in this form, he set International Class G records for 1,100cc cars of 138.344mph (222.734kph) for the flying kilometre and flying mile. This was a remarkable speed and the claim that for these record attempts the car had a power output of 152bhp at 6,700rpm is even more remarkable and

almost certainly untrue. The power output in standard form for the 4CM-1100 was quoted by the factory as 125bhp at 6,000rpm – and even that is difficult to credit.

In December Whitney Straight flew his own aircraft to South Africa to drive one of his 8CMs in the South African Grand Prix. It was held on 27 December as a handicap race on the 16-mile (25.7km) Marine Drive circuit at East London. He won the race with his brother Michael (allegedly The Fourth Man in the Philby saga many years later) in third place. It was the last race in Straight's very short motor racing career, as he was getting married and after this he concentrated on flying and disposed of his equipe.

Although the Maseratis had been completely overshadowed by Auto Union and Mercedes-Benz, and partially overshadowed by Alfa Romeo, the company's real strengths had been the skill and tenacity of Tazio Nuvolari and, at lower level, the enthusiasm and relatively minor successes of private owners. Not for many years did Maserati enjoy such a good season.

This is Francesco Matrullo at the wheel of his 4CM-1100 at the 12.95km Vermicio-Rocca di Papa hill climb near Frascati in 1934. Although the car was a single-seater, it was fitted with mudguards and lighting. (Guy Griffiths Collection)



Chapter 4

Radical new designs, 1935–36

DURING 1934 THE AUTO UNION and Mercedes-Benz cars had won a total of seven races, despite missing the first events of the season and early failures while they were being 'sorted'. Alfa Romeo and Maserati, together with Bugatti in France, took stock of their position. Bugatti still made occasional appearances in Grands Prix, but the company concentrated increasingly on sports car racing, a category being strongly encouraged in France. Not only Bugatti, but Delage, Delahaye and Talbot all contested sports car events. The two-seater Type 59 was evolved into a successful competition sports car and Bugatti's streamlined 'tank' cars won at Le Mans in both 1937 and 1939.

Alfa Romeo, now with government contracts, stable finances and sound management in the hands of Ubo Gobbato, who had been appointed managing director on 1 December 1933, was able to sanction Jano to produce new designs. The 8C-35 chassis with fully independent suspension and straight-eight engine enlarged to 3,822cc was raced in 1935 and the following year the company built a new 60-degree V12 4,064cc engine.

Alfa Romeo had other advantages; *Scuderia Ferrari* bore the cost of racing their cars, and was dependent on starting money and prize money for survival; as a state-owned company, Alfa Romeo was encouraged by Benito Mussolini, and to a certain extent its racing activities were subsidised by the additional margin in government

contracts, just as happened with the German teams. Although some remarkable successes were achieved by Alfa Romeo, especially when the cars were driven by Tazio Nuvolari, in overall terms the level of racing success achieved – except in minor events – was slight compared to Auto Union and Mercedes-Benz.

The situation at Bologna was very different. Maserati was a small company and although racing activities could be subsidised to an extent by sparking plug manufacture, the company badly needed major financial support if it was to continue to take part in Grand Prix racing. With the benefit of hindsight, it must also be said that the Maserati brothers lacked the technical ability to design and develop a 750kg formula Grand Prix car that could successfully challenge the might of the German teams. In late 1934 Maserati announced that during the coming year the company would be represented in Grand Prix racing by *Scuderia Subalpina*, the team run jointly by Luigi della Chiesa and the young, wealthy Torinese, Gino Rovere, a manufacturer of American cloth (cloth with a glazed coating).

Rovere wanted to race himself, but also backed the young Giuseppe Farina whom he had entered in a number of *Voiturette* races during 1934. Philippe Etancelin also drove for Rovere's team. Rovere was financing a new Grand Prix car but this was not ready to race until the middle of the 1935 season, so, until the new car was available Rovere's team entered 6C/34s. His financial

input was to lead to him becoming President of *Officine Alfieri Maserati*. Maserati had of course lost the services of the great Tazio Nuvolari, who had been pressured on all sides, and, despite a preference to drive for Auto Union, eventually signed once more with *Scuderia Ferrari*.

During the next two seasons, 1935–36, Maserati performances in Grand Prix racing were to prove abysmal. The existing 8-cylinder and 6-cylinder cars were uncompetitive, but the new V8 model was both uncompetitive and unreliable. The Pau race was held very early in 1935, on 24 February, and as the *Subalpina* 6C/34 cars were not ready, Etancelin drove his 8CM. He chased hard after Nuvolari and Dreyfus with their *Scuderia Ferrari*-entered *Monoposti*, but retired because of oil pump failure. The Alfa Romeo drivers took the first two places, ahead of Soffietti, Falchetto and Brunet, all driving 8CMs.

Although Achille Varzi had signed for the Auto Union team, he had arranged to drive a 3,729cc Maserati 6C/34 in the Mille Miglia held on 14–15 April. As was so often the case with Maserati entries in the 1,000-mile (1,610km) race, the car had been very hastily prepared and it is said that the body had only been completed on the eve of the race. That and a sports version of the 2.9-litre Alfa Romeo *Monoposto* entered by *Scuderia Ferrari* were the two fastest cars in the race.

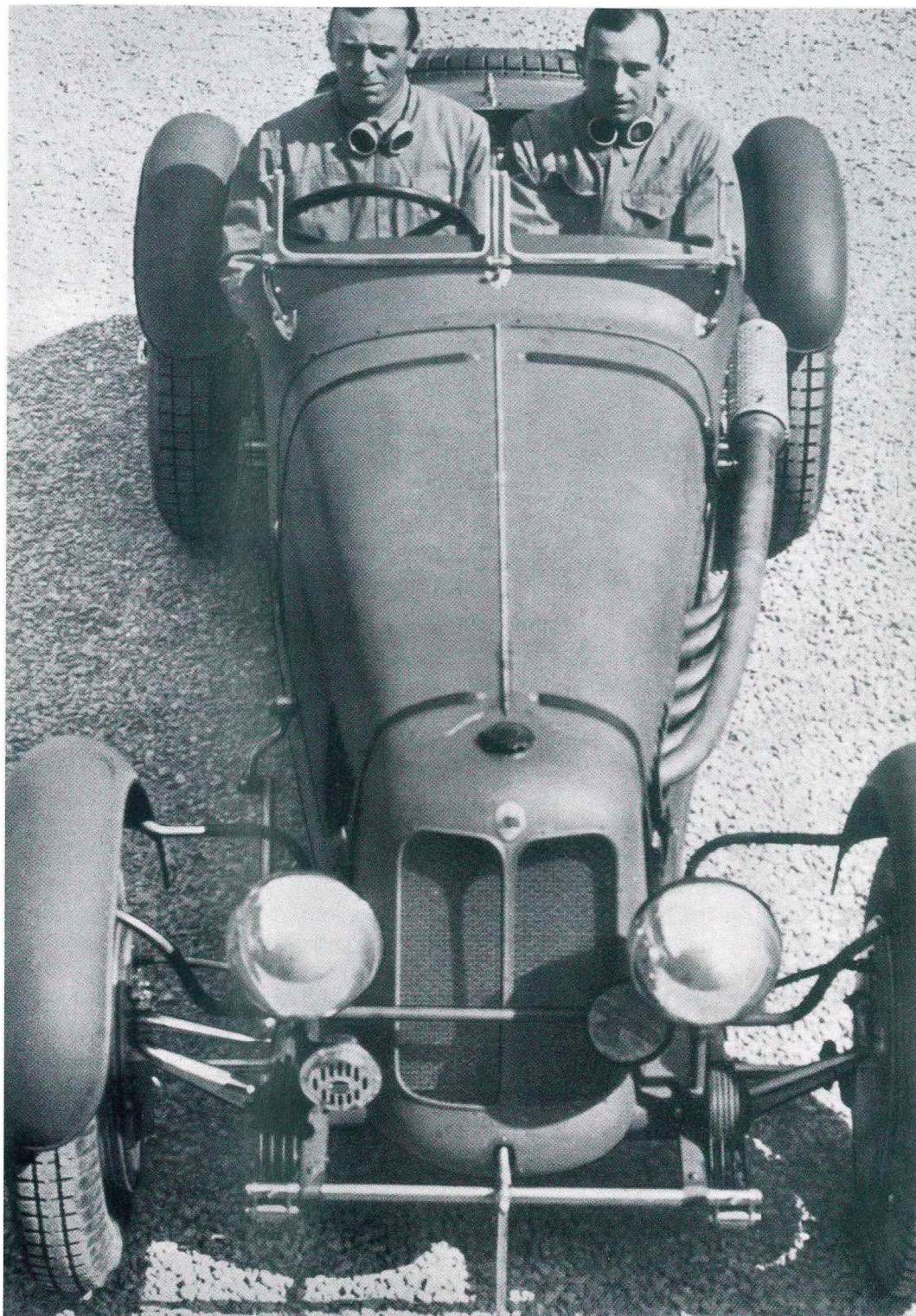
Varzi, partnered by mechanic Bignami (many years later head mechanic to *Squadra*

Achille Varzi) held second place in the early stages, but was slowed by oil scavenge pump problems and disintegrating bodywork and was forced to give up not far past Florence. Carlo Pintacuda, partnered by the Marquis della Stufa as mechanic, won the race with the *Monoposto*. The 1,100cc class was won by Ettore Bianco at the wheel of a Maserati and partnered by the indefatigable Bertocchi. Brothers Emilio and Luigi Villorresi finished second in this class with the family-owned Fiat Balilla, but they were over two hours behind the class winner.

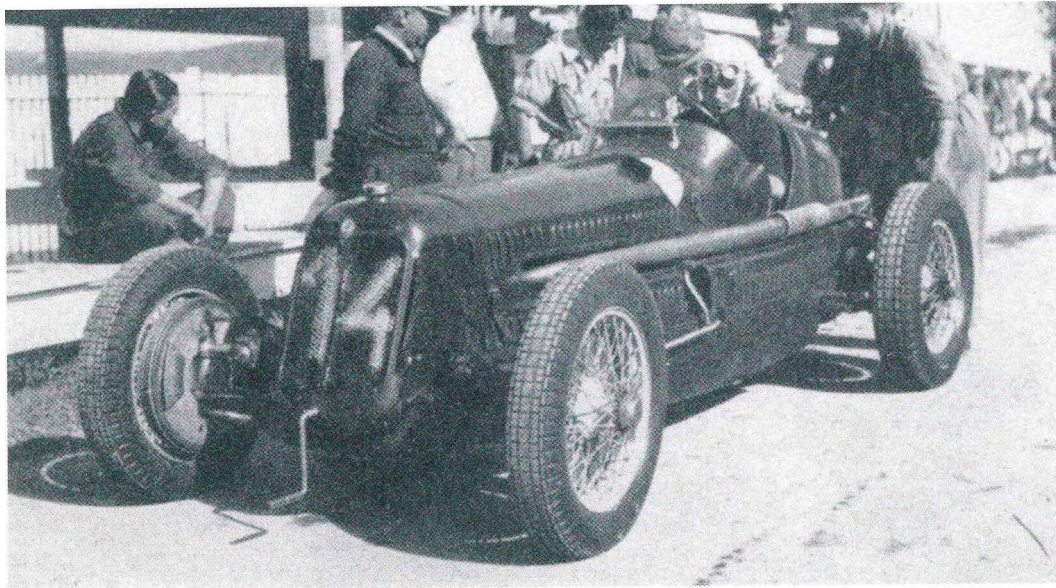
At Monaco on 22 April *Scuderia Subalpina* entered cars for Etancelin, Dusio and Zehender. Zehender was at the wheel of an 8CM said to have had its capacity increased to 3.2 litres, but what was more interesting about this car was the front suspension, which was inspired by the Porsche-designed suspension of the Auto Union and was a prototype of that to be used on the new Maserati Grand Prix contender. This had unequal-length wishbones and torsion bars running parallel with and outside the chassis frame, and right-angled arms to carry the wheel pivots. The friction-type dampers were mounted transversely and connected to the forward ends of the torsion bars.

Etancelin drove a stirring race, moving up into third place behind the Mercedes-Benz of Fagioli and Caracciola and, after passing Caracciola on the inside of the Gasworks hairpin, pulled well ahead of the German car. Caracciola repassed Etancelin, but retired the Mercedes in a cloud of steam. It was all too much, as well, for the rather fragile Maserati, which dropped back because of falling oil pressure and fading brakes. The Frenchman finished fourth behind Fagioli, Dreyfus and Brivio (both driving *Monopostos*). Zehender, another victim of Maserati brakes, took seventh place.

Six days later Barbieri drove a 1,500cc Maserati in the Targa Florio, run over a distance of 267 miles (430km) and attracting very little interest outside Italy. Brivio and Chiron took the first two places with *Scuderia Ferrari Alfa Romeos*, but Barbieri



Achille Varzi partnered by Bignami drove this Tipo 6C/34 in the 1935 Mille Miglia. It was hastily prepared and although he was well up with the leaders in the early stages of the race, he retired at San Casciano, just after Florence, because of lubrication problems. (Guy Griffiths Collection)



This Tipo 6C/34 with torsion bar front suspension and 3.7-litre engine was driven by Eugenio Siena in the 1935 Spanish Grand Prix at San Sebastian. He retired on the second lap.

drove a good race to take third place. In the 313-mile (504km) Tunis Grand Prix on 5 May, Varzi won with the sole Auto Union entered; Wimille (Bugatti Type 59) took second place and Etancelin and Farina with 6C/34s finished third and fifth.

There were only four starters, all Maseratis, in the 31-mile (50km) *Voiturette* Circuit of Biella on 9 June. Initially Rovere led with the ex-Furmanik record-breaker that had been sold to *Scuderia Subalpina* and fitted with a new 1,500cc engine. When Siena challenged him for the lead, they collided, although both rejoined the race. The finishing order was Count Lurani (with his two-seater 4CS), Castelbarco (whose 4CM had now been fitted with a new, lighter chassis and torsion bar independent front suspension), Rovere and Siena.

In the next few races for Grand Prix cars nothing was gained by Maserati; the Tripoli race and the Avusrennen were held on fast circuits on which the 6C/34s were outpaced – and also proved unreliable – and another failure followed in the Eifelrennen at the Nürburgring on 16 June. The 113-mile (182km) *Voiturette* race at the

Eifelrennen meeting was won by Raymond Mays in an ERA, but Hans Ruesch took second place with his 4CS Maserati.

One of the *Subalpina* team's better performances was in the 311-mile (500km) French Grand Prix on 23 June and held on the full 7.67-mile (12.4km) Montlhéry road and banked track circuit, but with chicanes inserted at three points on the circuit to slow the cars. The Mercedes-Benz team dominated the race, while the two *Scuderia Ferrari Monoposti* were plagued by transmission failure, as this was not strong enough to cope with the power of the 3.8-litre engines now fitted, and Auto Union also failed. Although Zehender with his *Subalpina* car had been slowed by gearbox problems, he was able to snatch third place in the closing stages of the race from the misfiring Mercedes-Benz of Luigi Fagioli.

In late June the eagerly awaited new Grand Prix Maserati made its first appearance. Philippe Etancelin tested it on public roads and on 28 June it was claimed that he had achieved 300kph (186.4mph) on the Firenze-Mare *Autostrada*. In truth, the maximum speed was only around 150mph (241.5kph). The new car was typed the

V8RI (V8 engine, *Ruote Independenti*, Independent Wheels). The type number represented a new and logical form of designation, but it was used on only this model. The specification in some respects followed traditional Maserati practice, but in others it was completely new.

The power unit of the new car was a 90-degree V8 cast in two blocks of four cylinders, a configuration not used by Maserati before, but its adoption was inspired by the success of the V4 and V5 16-cylinder models. It was probably the first ever V8 Grand Prix engine. There has been uncertainty about the capacity of the engine, but it seems that the 84mm bore and 100mm stroke of the original 6C/34 were adopted to give a capacity of 4,329cc. There was a single overhead camshaft per bank of cylinders, gear-driven from the nose of the crankshaft with the valves mounted in a single row and operated directly from above.

On their contemporary W25, Mercedes-Benz were using four valves per cylinder in pent-roof combustion chambers and twin overhead camshafts per bank of cylinders, so, in comparison, the Maserati was a very unsophisticated design and the only advantage possessed by the V8RI was some saving in weight. A single Roots-type supercharger was installed at the front of the engine and the single Weber carburettor was of the twin-choke type, probably the first of its kind to be made by Weber. The inlet manifolds were in the vee of the engine and the exhaust manifolds on the outside, feeding into separate pipes which merged into long single tail-pipes. When the V8RI appeared, there was talk in the Italian press of a power output of 400bhp, but it was only talk and the true output was an uncompetitive 300bhp or so at 5,300rpm. By comparison the 1935 Mercedes-Benz straight-eight engine 4.3-litre engine developed 455bhp.

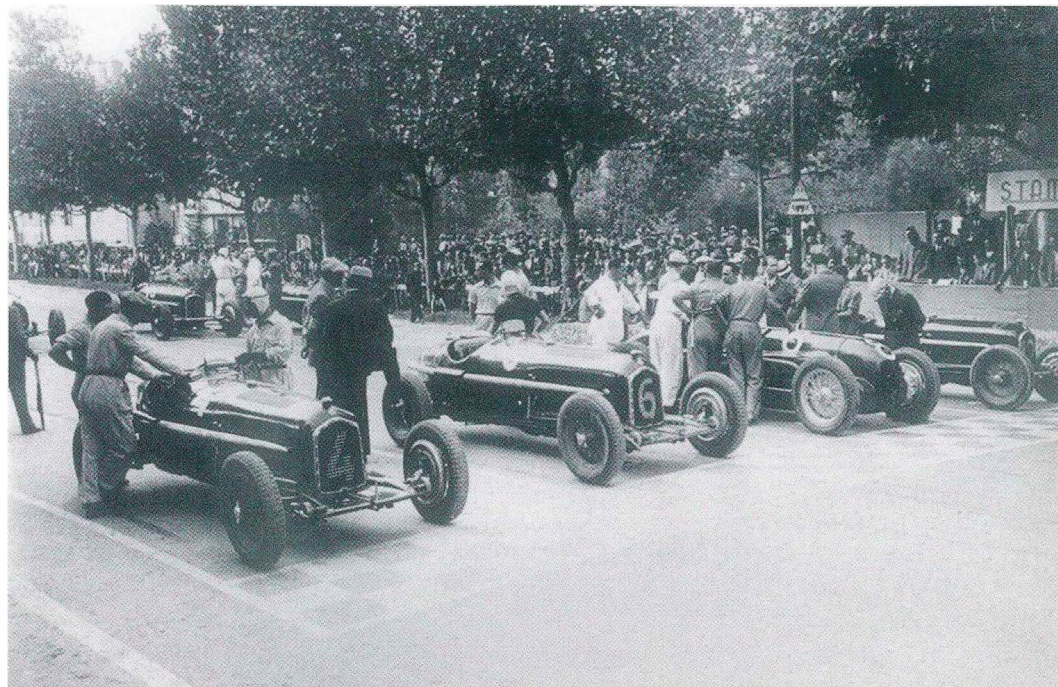
The Maserati brothers had been having a close look at the design practice of the German teams. As on the Mercedes-Benz

W25, the final drive was mounted on the chassis frame with the gearbox behind it and was mounted on a tubular cross-member at the rear. The gearbox was the work of the Maserati brothers themselves, although both the gear-cutting and casting of the casing were contracted out. The half-shafts were enclosed in tubes, which articulated on the sides of the final drive housing and at their outer ends carried the hubs and brakes. As a result of this general layout the driver sat very low in the car.

Longitudinal semi-elliptic leaf springs were attached to the swinging half-axes and the springs were pivoted on dual-direction shackles. These allowed the springs to follow wheel movement up and down and also to move sideways with the arcing of the swing-axes. The axle tube was located by a Watts linkage. As on the prototype layout seen on Zehender's car at Monaco, the front suspension was independent by double wishbones, with the upper wishbones attached to a torsion bar running back parallel to the chassis.

The steering box, mounted centrally behind the engine, was of the worm-and-peg type, whereby a double-worm gear and twin peg drives took the steering motion by cross-shafts to the outside of each main chassis member. Drag arms operated long drag links to the steering arms on each stub axle assembly. Each front wheel was steered by its own mechanism and there were no track rods. Maserati used this arrangement on later models until the 1948 4CLT/48.

Because of the independent suspension, it was vital that the chassis should be very rigid. The Maserati brothers also had in mind that the 8CM and its 6-cylinder derivative were often very uncomfortably close to the 750kg weight limit. The concept of combining lightness with extreme rigidity was not something Maserati had practised in the past, but they now practised it as best they could. The chassis was boxed channel-section steel with cross-members of similar construction. The body, clearly inspired by the Mercedes-Benz W25, had a



On the front row of the grid at the 1935 Circuit of Modena are, left to right, Pintacuda, Comotti (both with Scuderia Ferrari Alfa Romeo Monoposti), Giuseppe Farina (V8RI entered by Scuderia Subalpina) and Marinoni (Scuderia Ferrari Monoposto). Farina led the opening laps, but retired because of a split fuel tank.

smooth outline, with cowled radiator and, on the first car only in its original form, a streamlined headrest. Four of these cars were eventually built.

The V8RI was one of the least successful models in Maserati's long history. Part of this was attributable to the cars' lack of power compared to their rivals. The model was inadequately funded, it lacked a full development and testing programme and it was raced before it was ready. The racing debut of the first of the new cars, 4501 entered by the works, was in the Marne Grand Prix held in two heats and a final at Reims on 7 July. There were no German entries in this race. Etancelin was at the wheel of the V8RI, but it suffered from wheelspin and lack of adhesion and after finishing second to Dreyfus (*Monoposto*) in his heat, he retired early in the final because of what was said to be a broken piston.

The Albi Grand Prix on 14 July was held for the first time as a *Voiturette* race and

decided on the aggregate of two 110-mile (177km) heats. Barbieri (Maserati) won the first heat from Veyron (Bugatti) and he led the final until his engine blew after three laps. Veyron won on aggregate with his Type 51A. While the Maserati brothers contemplated what was to be done with the V8RI, *Scuderia Subalpina* and the other Bologna stalwarts struggled on with the 8 and 6-cylinder cars, scoring places in minor races. Etancelin with a V8RI was entered by the works in the Coppa Acerbo on 15 August, but failed to start the race because of supercharger problems. Seaman with his ERA won the 63-mile (101km) *Voiturette* race at Pescara from Ettore Bianco (4CM), while Pietro Ghersi was fourth overall with his Maserati and won the 1,100cc class.

The 90-mile (145km) *Voiturette* Prix de Berne on 25 August was another poor race for Maserati, when ERAs took the first two places and the highest Maserati finisher was

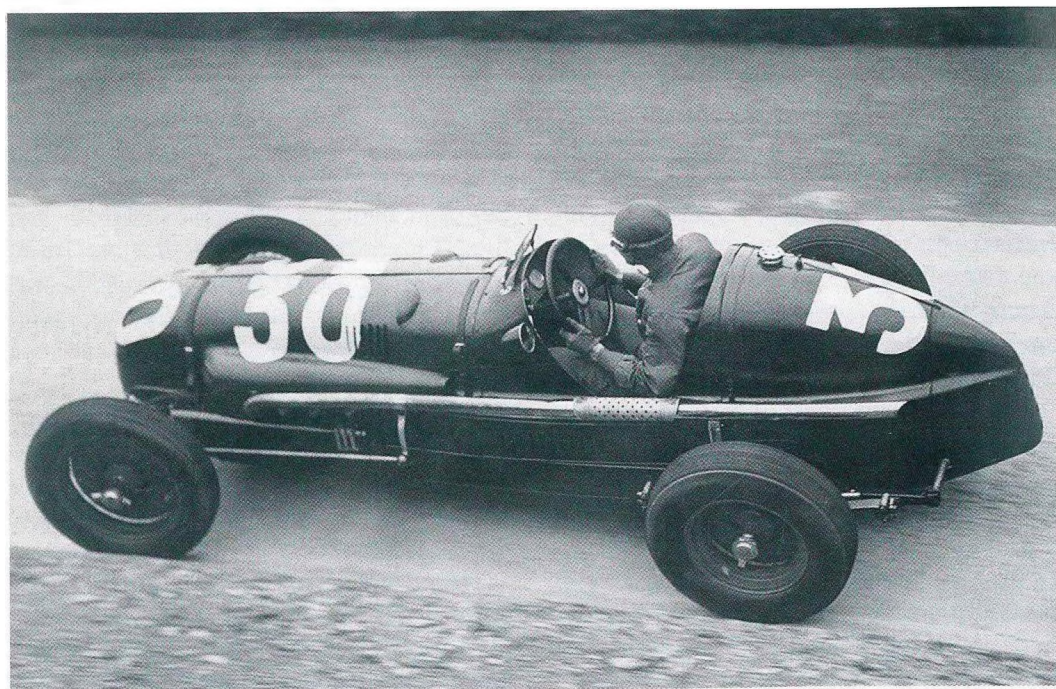
Tuffanelli, fourth with his 4CM. Etancelin appeared with the first V8RI in the Swiss Grand Prix held the same day, but crashed on the first lap. There were two V8RIs at the Italian Grand Prix held on 8 September on yet another variation of the Monza circuit. These were to be driven by Etancelin (works car) and Giuseppe Farina (the *Scuderia Subalpina* entry, chassis 4502). Farina failed to start because of engine trouble while the car was being warmed up before the start. Etancelin did start, but crashed heavily when the throttle link jammed and suffered injuries that put him out of racing for the rest of the year. The car was also very badly damaged.

On 15 September Farina appeared with the *Subalpina* V8RI in the 119-mile (191.5km) Circuit of Modena. He made a brilliant start, but Nuvolari with a *Scuderia Ferrari* Tipo B caught and passed him after six laps and very shortly afterwards Nino retired because of a split fuel tank. The Ferrari entries of Nuvolari, Tadini and Pintacuda took the first three places. There

was also a 50-mile (80.5km) *Voiturette* race and eight of the starters were Maseratis. Berrone won with his 4CM-1500 and Tuffanelli and Bergamini with 1,100cc cars took second and third places.

The V8RI was not raced again until the 306-mile (492km) Donington Grand Prix on 6 October. *Scuderia Subalpina* entered their car for the young and forceful Farina, but also brought along a 6C/34. The 6-cylinder car was shared by British driver Bill Everitt and Gino Rovere. The entry at Donington Park was weak, for the German teams gave the race a miss and the only *Monoposti* were those of Sommer and Dick Shuttleworth. In heavy rain Farina pulled steadily away from the rest of the field, the Maserati, according to *Motor Sport*, 'wuffling' away like a Ford V8. On lap 41 Farina retired the V8RI because of a broken half-shaft; Sommer dropped out for the same reason and Dick Shuttleworth won the race with his British Racing Green-painted *Monoposto*. Everitt/Rovere took fourth place.

Dick Seaman drove this works-entered V8RI in the 1936 German Grand Prix. It was not a successful outing and he retired because of brake problems.



1936

Although Mussolini was fervently supported by some Italians, many were simply not interested in politics, merely grateful for the economic improvements that had followed under Fascism and privately scornful of *Il Duce's* posing and posturing. On 2 October 1935 the Italian army had invaded Abyssinia. Most Italians were content to accept their government's explanation that it was a pre-emptive move to thwart Emperor Haile Selassie's intentions of invading the adjacent Italian colonies of Eritrea and Somalia on the Red Sea coastline of Africa. For many Italians further credence was given to the invasion when Pope Pius XI blessed the Italian army before it embarked.

World opinion, however, was strongly hostile to the Italian invasion and the League of Nations, French-influenced, voted for economic sanctions against Italy. Although these excluded an oil embargo, they did include an embargo on the importation of iron and steel and other metals. In the short term this caused major problems for car makers, and competition cars builders such as Maserati and Alfa Romeo were forced to use reconstituted alloy in cylinder blocks, etc. This accounts for small blow-holes and, as a result, poor finish in castings of the period. Italy thus became increasingly isolated; there was open hostility to Italian nationals and Mussolini was driven more firmly into the arms of Hitler.

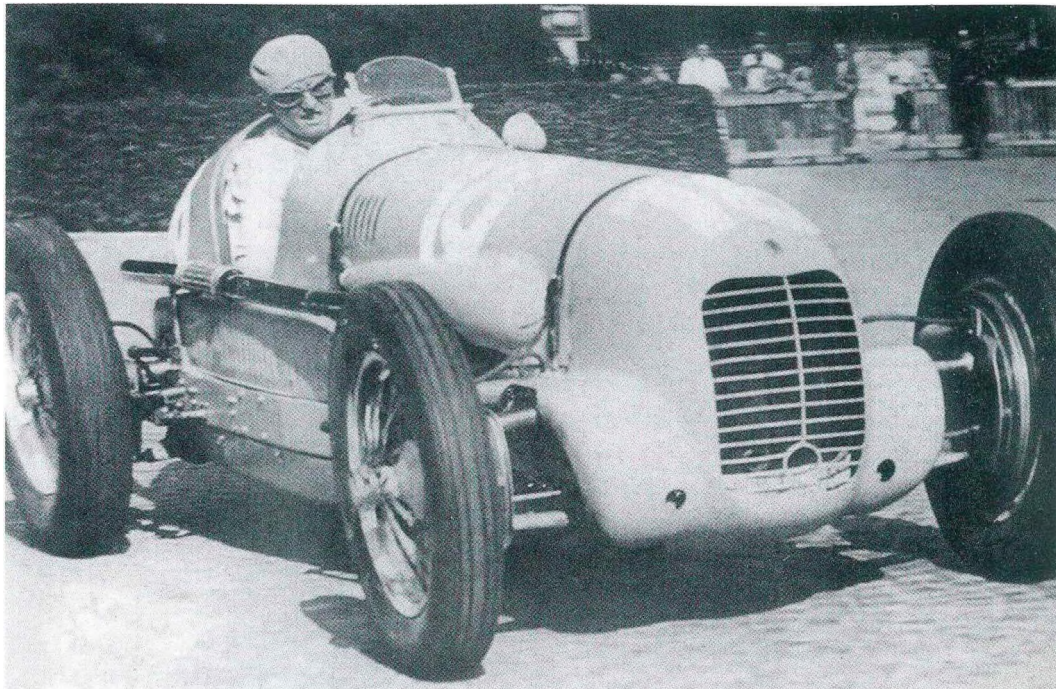
By 1936 the Maserati brothers had realised that the V8RI Grand Prix car was a lost cause, but nevertheless engine capacity was increased to 4,788cc (84 x 108mm) and power output rose slightly to 320bhp. *Scuderia Subalpina* had now been renamed *Scuderia Torino* and was run by Luigi della Chiesa. This team retained 4502, but also took over 4501 which had been completely rebuilt since the Monza accident. There was a new design of rear suspension with the hubs mounted on the end of trailing arms which pivoted on a cross-tube. There were

torsion bars on each side, each attached to the trailing link and the chassis. The half-shafts were universally jointed at each end.

A new body had been built with no head-rest but with a radiator grille composed of large vertical steel strips. On this car the exhausts now curved downwards to run under the rear axle. Count Trossi had joined *Scuderia Torino*, mainly because his own planned Grand Prix car, the Trossi-Monaco, was turning into a fiasco. At a couple of races the entry of these cars was taken over by the works. Philippe Etancelin took delivery in February 1936 of a new Tipo V8RI, chassis 4503, which was painted French racing blue and had a number of minor changes.

The first European race in 1936 was the Swedish Winter Grand Prix, but the season proper started with the 172-mile (277km) Pau race held on 1 March. The German teams missed the race and so did *Scuderia Ferrari*, as their team's transporters were stopped at the border with France by the Italian authorities. The Pau organisers, the *Automobile Club de Basco-Bearnais*, received a telegram from the Royal Italian Automobile Club stating that a 'superior authority' (presumably Italy's Foreign Affairs Minister, Count Galeazzo Ciano, who was Mussolini's son-in-law) had ordered that Italian teams were not to race in sanctioned countries until after the meeting of the League of Nations on 10 March. It should be added at that meeting it was decided that sanctions should remain in place, but this did not prevent *Scuderia Ferrari* from racing at Monaco on Easter Monday, 13 April.

Initially Wimille (Type 59 Bugatti) led at Pau from Raymond Sommer (*Monoposto*), Charles Martin (*Monoposto*) and Etancelin who had made a leisurely start. 'Fi-fi' Etancelin woke up as the race progressed and passed both Martin and Sommer, while Wimille, who had built up a good lead, retired because of brake trouble. Sommer fought back, passed Etancelin and the two French drivers scrapped and swapped the lead until the *Monoposto* broke its rear axle.



Etancelin with this V8RI was the only Maserati driver to run in the 1936 Swiss Grand Prix at Bremgarten. He retired because of throttle linkage trouble. (Guy Griffiths Collection)

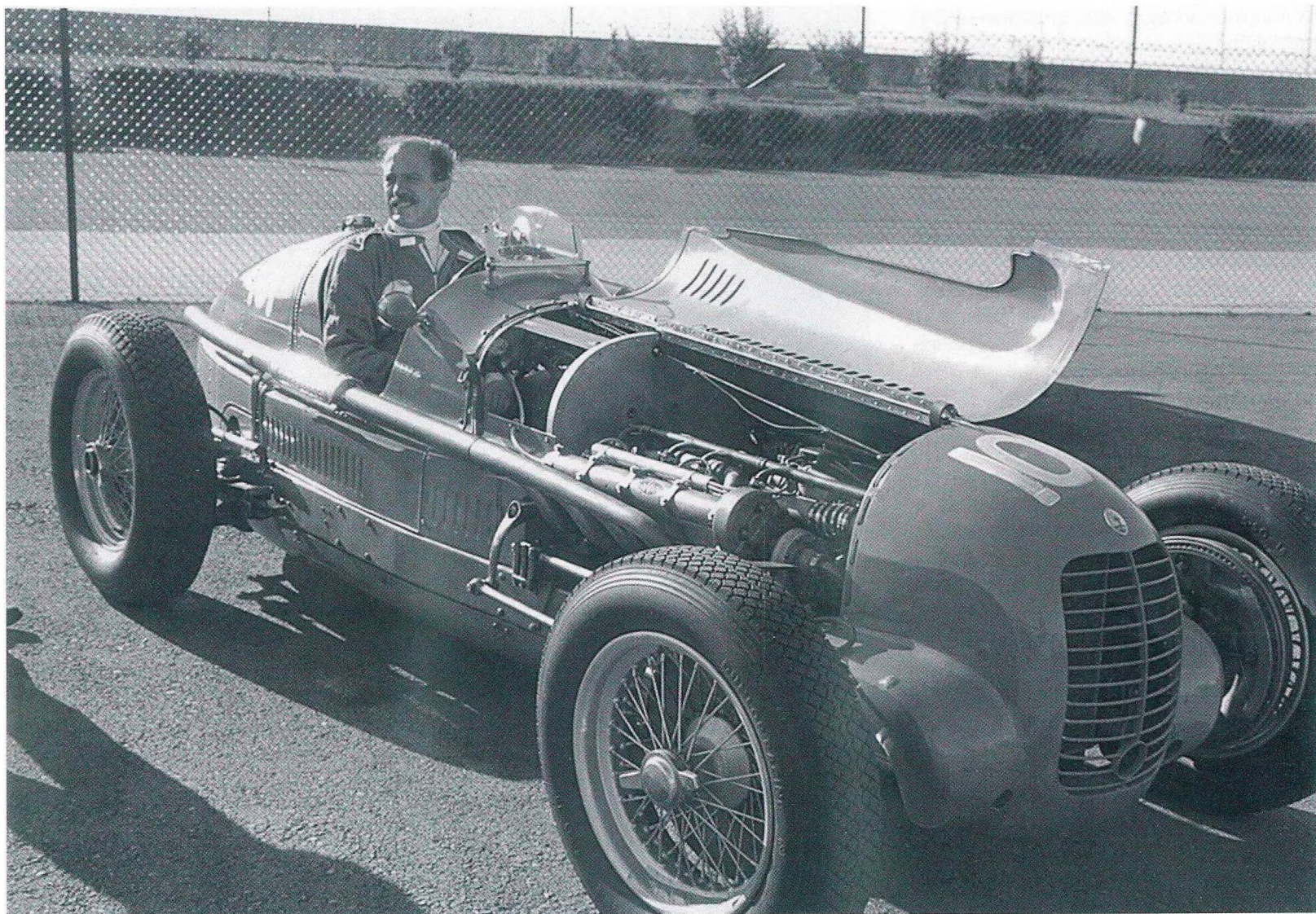
Despite a very rough-sounding engine, Etancelin carried on to win at 51.00mph (82.11kph) on this very slow street circuit from Martin and Lehoux (Bugatti Type 51). It was not much of a victory in a race limited to 12 entries and with only nine runners, but it was the sole victory gained by the V8RI in Europe.

In the Mille Miglia on 5–6 April the Maseratis performed well and won two classes. Racing motorcyclist Omobono Tenni, accompanied by Guerrino Bertocchi, was at the wheel of a 4CS-1500. Tenni's driving was hairy in the extreme, but it was also very quick. Despite a fairly minor crash Tenni finished fifth overall behind four Alfa Romeo *Monoposti*, kitted out as sports cars. He averaged 69.7mph (112.2kph) and he won the class for supercharged cars up to 2,000cc. It was the fifth time that Bertocchi had accompanied a class-winning driver. Ettore Bianco, who had won the 1,100cc class with Bertocchi in 1935, won it again in 1936 accompanied by Boccali. As can be seen from the photograph on Page 59,

Bianco certainly enjoyed his motor racing.

At Monaco Count Trossi drove *Torino* V8RI 4502 and although he was involved in the second-lap multi-car crash, caused by oil dropped on a wet track by Tadini's Alfa Romeo, he carried on until the distributor drive failed. Etancelin ran – and retired – his V8RI in the 326-mile (525km) Tripoli race on 10 May. Count Trossi and Goffredo Zehender were entered with *Torino* V8RIs, but non-started. Etancelin appeared with his V8RI at Tunis the following weekend, but again retired. Chilean Juan Zanelli drove *Scuderia Torino* 4502 into tenth and last place in the wet and foggy 142-mile (228km) Eifelrennen on 14 June. Zanelli usually drove a yellow-painted 8CM in 1936, but is best known for his drives with the Spanish Nacional Pescara, which included a shared win in the 1931 European Mountain Championship.

The works entered British driver Dick Seaman with 4502 in the 312-mile (502km) German Grand Prix at the Nürburgring on 26 July, while Trossi was



A rare survivor, the V8RI, chassis number 4503, the engine of which was rebuilt by Tony Merrick, is seen at Donington Park in September 1989. Wing-Commander Douglas Marr, seen here at the wheel, undertook a complete restoration. At the time of writing this car is in Germany. (Guy Griffiths)

relegated to the old and even less competitive 4C-2500. Seaman retired because of brake problems and took over Trossi's car, which he brought across the line in eighth place. Seaman again drove works-entered 4502 in the 257-mile (414km) Coppa Acerbo on 15 August. He retired, reportedly because of sparking plug problems – which sounds like an 'own goal'.

In the Italian Grand Prix at Monza on 13

September Trossi drove 4501, but during the race handed over to Bianco. However, the car failed to finish because of engine problems. Piero Dusio, responsible for the Cisitalia in post-war years, was at the wheel of a *Scuderia Torino* 6C/34 and finished sixth. Mercedes-Benz had scratched from this race and Rosemeyer (Auto Union) was the winner. Trossi made another appearance with a *Torino* V8RI in the 73-mile (117km)

Coppa Edda Ciano at Lucca on 16 September, but retired yet again.

Three V8RIs were then shipped out to the United States to compete in the 300-mile (483km) Vanderbilt Cup race at Roosevelt Field, Long Island, New York on 12 October. Etancelin drove his own car and a second car was entered by B. de las Casas for French driver 'Georges Raph', whose real name was Raphael Bethenod de las Casas, so this driver was obfuscating matters by entering in one name and driving in another. This car, chassis 4504, had been entered in a number of European races earlier in the year, but had failed to

show, even though it had been delivered as early as June.

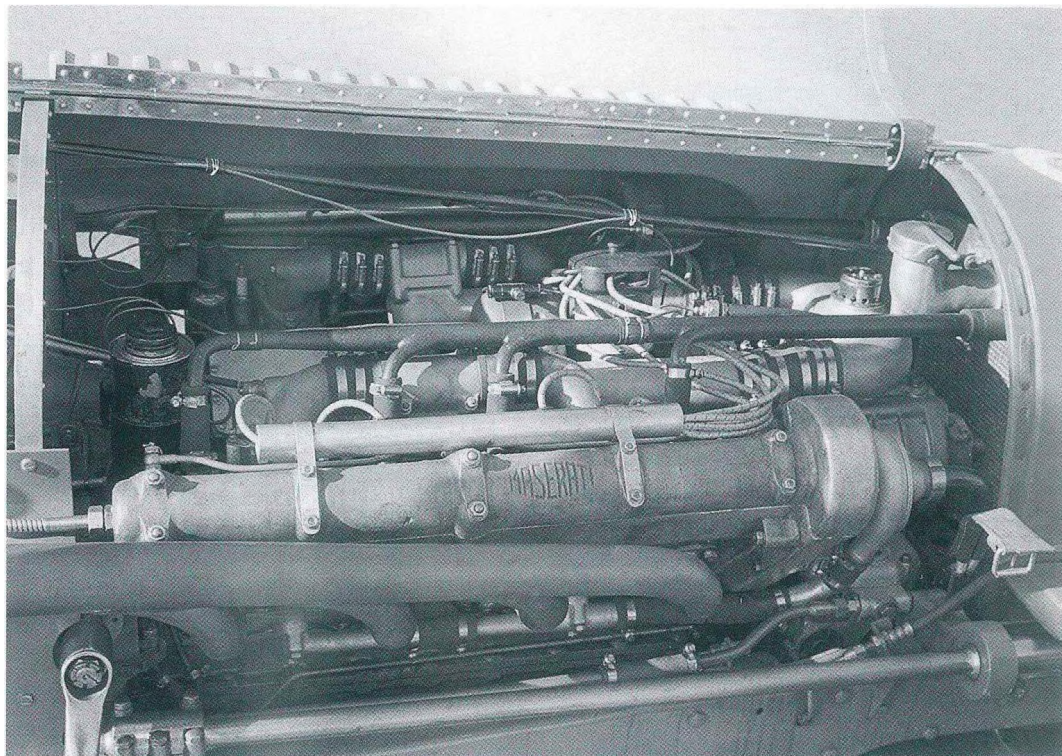
On the winding, badly surfaced Roosevelt Field course Nuvolari (Alfa Romeo) won from Wimille (Bugatti Type 59). Etancelin finished eighth and 'Georges Raph' was disqualified for receiving a push-start after a pit stop. After the race Etancelin sold his car to Henry 'Bob' Topping, Jnr, who at the time owned the New York Yankees baseball team, and Raph's car was bought by wealthy socialite Townsend Bradley Martin. Subsequently V8RIs performed reasonably well in American events, in which the competition was less intense.

Voiturette Racing

The most important Maserati development in 1936 was the appearance of the new Tipo 6CM *Voiturette*. Although *Voiturettes* – cars of smaller engine capacity than the cars of the current Grand Prix formula – had been competing since the dawn of motor racing, it was a class that had grown in importance during the 1930s, especially following the introduction of the 750kg formula. Since 1926 there had been no official capacity limit, although the class was usually for cars of up to 1,100cc and Maseratis had been very successful in these minor races.

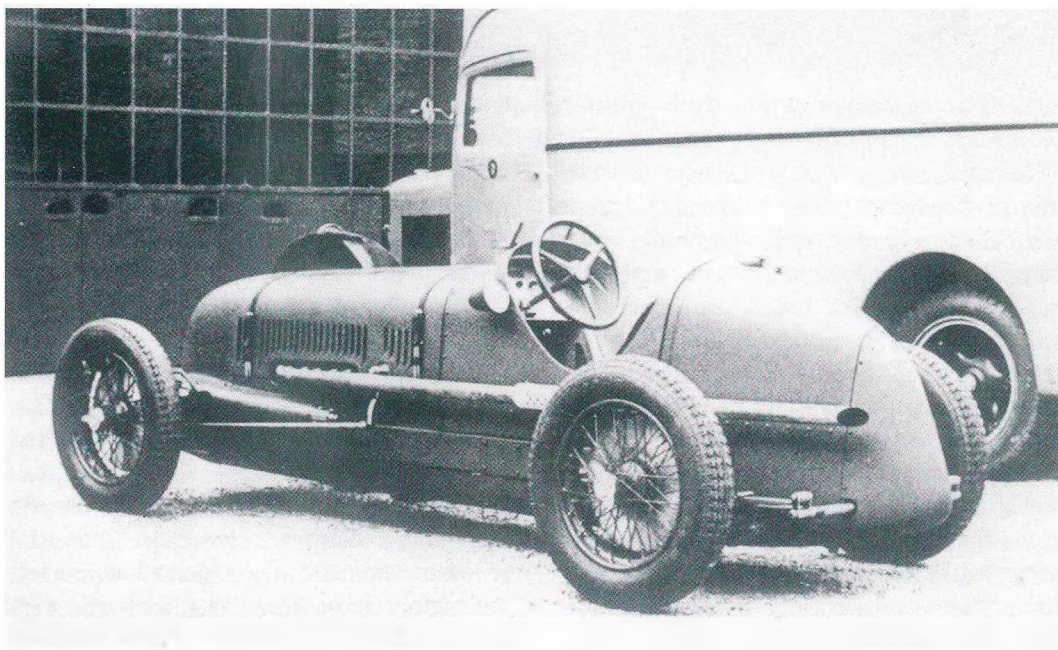
During the early 1930s the *Voiturette* category was increasingly held for 1,500cc cars, and it was especially attractive to smaller teams and private owners because it was so much less expensive than Grand Prix racing. Maserati had introduced their 4CM-1500 4-cylinder car in 1932 and in 1934 the first of the British ERAs had appeared. These cars with Riley-based engines were soon offering a serious challenge in the class and in 1936 the Maserati brothers responded with the Tipo 6CM.

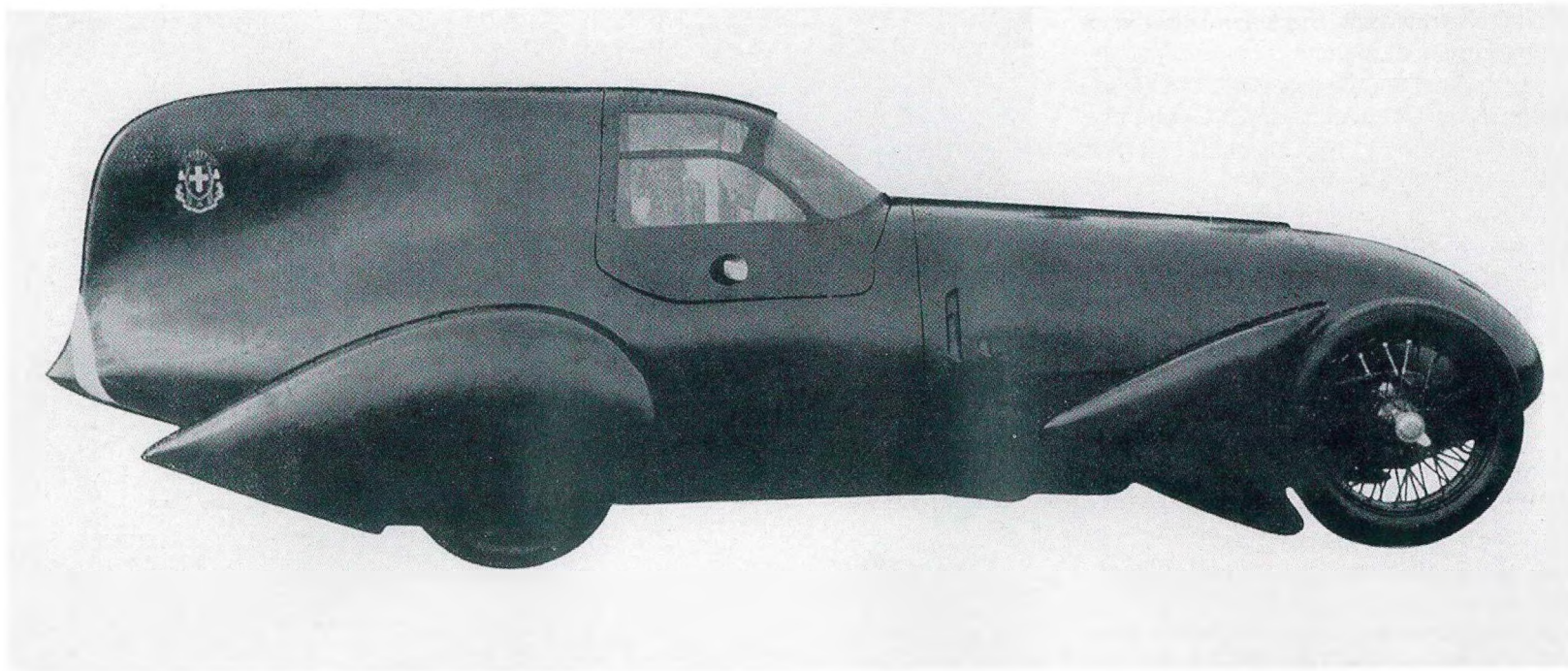
The 6-cylinder 1,493.2cc (65 x 75mm) engine had the cylinders cast in pairs and there were twin overhead camshafts driven from the nose of the crankshaft in accord-



An under bonnet view of the Tipo V8RI. The plugs are in the centre of the 'vee', carburettor and the exhausts on the outside. (Guy Griffiths)

The first of the Tipo 6CM-1500 Voiturettes appeared in March 1936. This photograph of a Tipo 6CM-1500 in front of a works transporter was taken outside the Bologna factory at the end of July that year.





This streamlined coupé was used for record-breaking by Giuseppe Furmanik. It is believed to have been built on a 4CM-1100 chassis and used for breaking class records in January 1936.

ance with usual Maserati practice. A single Weber carburettor was fitted and there was the usual Roots-type supercharger. Ignition was by a Scintilla magneto and lubrication was dry sump. Factory data indicates that power output was originally 155bhp at 6,200rpm, but was subsequently increased to what was claimed as being 175bhp at 6,600rpm. Comment on these power output figures is made later.

Transmission was by a 4-speed and reverse Fiat gearbox with central change and Maserati's own magnesium-alloy top plate. As this gearbox was designed for use in the Fiat Tipo 522 taxi and to take only 34hp, lack of transmission reliability of Maseratis until they started to manufacture their own gearboxes is hardly surprising. The rear axle was, as usual, made by Isotta Fraschini and their axles can be identified by the letters 'IF' cast into the casing.

Maserati were beginning to learn the need for rigid chassis construction, especially when independent suspension was used, and the channel-section chassis of the

6CM was well boxed. The front suspension was similar to that of the V8RI, independent by unequal-length wishbones and torsion bars and with friction dampers. At the rear a rigid axle was suspended on semi-elliptic springs. The steering box was also of Fiat manufacture. The body of the 6CM was very similar to that of the V8RI with cowled radiator and was neatly streamlined. In addition to the single-seater, a small number of cars were built as the 6CS-1500 with wider chassis and intended to take two-seater sports bodywork.

The first of the new cars was entered by *Scuderia Torino* in the 99-mile (160km) Coupe Rainier at Monaco on the eve of the Grand Prix. The driver was Rovere, while Tenni was at the wheel of a *Torino* 4CM. Tenni took the lead on lap four and headed the pack until his brakes began to fade, causing him to hit the sandbags at the Gasworks hairpin. Freddie Zehender relieved Rovere, but the 6CM succumbed to engine problems. ERAs took the first three places.

Officine Alfieri Maserati entered 6CMs for Felice Trossi and Laszlo Hartmann in the 170-mile (272km) Eifelrennen *Voiturette* race on 14 June. At the start Seaman led away with his rebuilt 1927 Delage, but he went off the road on the first lap, rejoined the race, but had lost so much time that he cruised round to the pits to retire. The combination of Ramponi's recognition of the potential of the elderly Delage and the work that he carried out on it, had resulted in a car of greater performance than either the 6CM or contemporary ERAs. It was not long before it showed its true potential. Trossi stayed in front for the rest of this race at the Nürburgring to win from Tenni (*Torino* 4CM), Prince Bira (ERA) and with Hartmann in sixth place.

A week later the works team was in action again and cars for Rovere and Trossi were entered in the Picardie Grand Prix, a race run in two 61-miler (98km) heats and a 91-mile (146km) final. During practice one of the works mechanics crashed Rovere's 6CM through a barbed wire fence and suffered serious head injuries. Rovere had to drive a spare 4CM. Trossi and Seaman won their heats, but

Seaman crashed in the final because of steering failure (possibly the result of the incident at the Nürburgring) and Trossi dropped out because of clutch failure. The ERAs of 'B. Bira', Pat Fairfield and Earl Howe took the first three places. Australian Frank McEvoy, who had just taken delivery of the first 6CM in private ownership, finished fourth.

A fortnight later Trossi with a works 6CM won the 65-mile (104km) Circuit of Milan *Voiturette* race on the Parco Sempione circuit, but the race had a purely Italian entry. Emilio Villoresi, who had just completed his compulsory military service, finished second with a 4CM, Belmondo took third place with his Maserati and other Maserati drivers occupied fourth to tenth places. Next came the Albi Grand Prix held on 12 July in two 110-mile (177km) heats. There were no works Maseratis entered, but Hungarian driver Laszlo Hartmann appeared with his new 6CM. A Swiss driver, Luciano Uboldi entered a Maserati 'special' with 6CM engine in a chassis that was claimed – somewhat improbably – to have been designed by Vittorio Jano. 'B. Bira' with his ERA won on aggregate from Veyron (Type 51A Bugatti) and Hans Rusech (rebodied 4CS Maserati).

Seaman with the Delage was expected to provide stiff opposition for the Maseratis in the 65-mile (104km) Coppa Ciano *Voiturette* race at Livorno on 2 August. The race was run on a new circuit in the suburbs of the town, instead of the usual mountain course. The British driver was plagued by carburetion problems and Trossi with a 6CM led throughout to win from Embiricos (ERA). Young Luigi Villoresi took third place with a 4CM. By the 96-mile (154km) Coppa Acerbo *Voiturette* race on 15 August, Giulio Ramponi had Seaman's Delage fully sorted and the British driver scored an easy win, finishing 39sec ahead of Trossi with the 6CM, followed by Ruesch, McEvoy and Bergamini with other Maseratis.

Maserati claimed the works 6CMs were



A really happy chappy! Ettore Bianco, partnered by Boccali, drove this 4CS-1100 into sixth place overall and a win in the class for 1,100cc supercharged cars in the 1936 Mille Miglia.

'not ready' and they were withdrawn from the Prix de Berne on 23 August. Seaman won from three ERAs and the highest placed Maserati driver was Ruesch in fifth place. Maserati finished the *Voiturette* season by competing in two Italian races and Count Trossi with a works 6CM won both. The first was the 44-mile (71km) race through the medieval city of Lucca for the Coppa Edda Ciano presented by Mussolini's daughter on 7 September. Belmondo, Barbieri and Bianco took the next three places with their Maseratis. Behind Trossi, Biondetti (6CM) took

second place in the 50-mile (80.5km) Modena event on 21 September.

Despite problems with the Delage, Seaman had shown himself to be the outstanding *Voiturette* driver of the year. The better-driven ERAs, especially that of 'B. Bira', were also more than a match for the 6CM and despite its advanced specification, the Italian car was proving something of a disappointment. As David Venables neatly expresses it, 'it seemed that by the end of the season, the works Maseratis were content to seek out those races where the opposition was less formidable.'

Chapter 5

Adolfo Orsi

ADOLFO ORSI WAS A SELF-MADE man who was largely responsible for the industrialisation of Modena. Born on 23 March 1888, he came from a very impoverished background. His father died when he was only 15. As Adolfo was the eldest son, the responsibility for keeping the family fell on his shoulders. He was apprenticed to a butcher, for whom he worked in the mornings, but he started work as a rag and bone

collector (*raccoglitore di stracci*) in the afternoons, as well as selling fruit and vegetables from his cart.

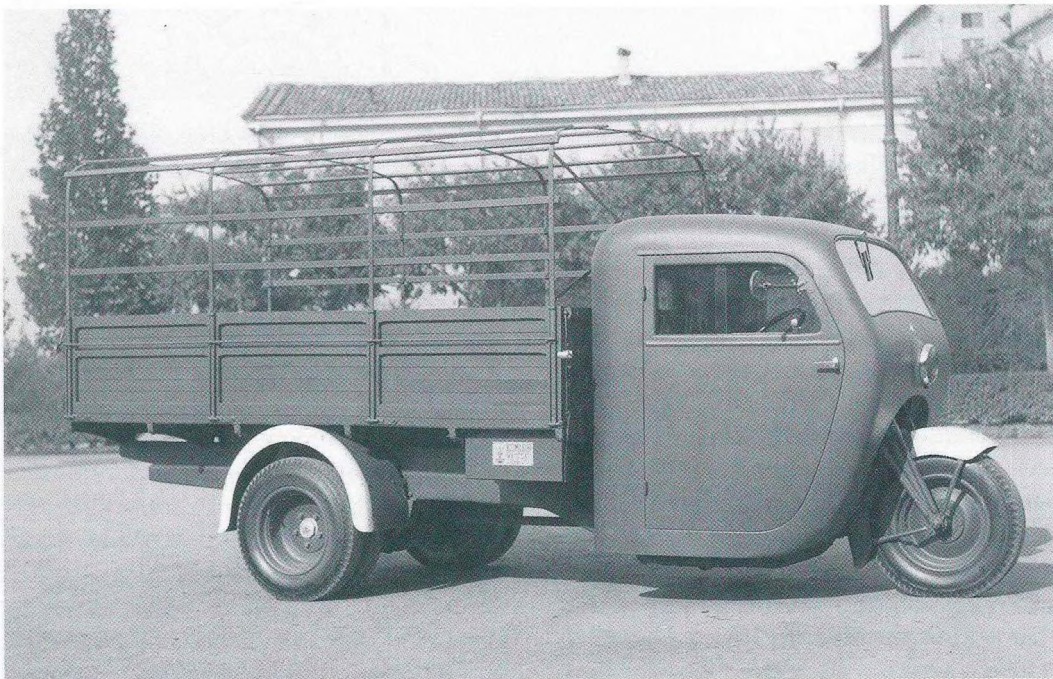
Increasingly Adolfo concentrated on scrap metal and his small business soon proved very successful. He bought a horse and a proper cart and, later, horses and carts for his brother Marcello and for his sisters, Eida and Bruna, so that they could join the business. Another brother

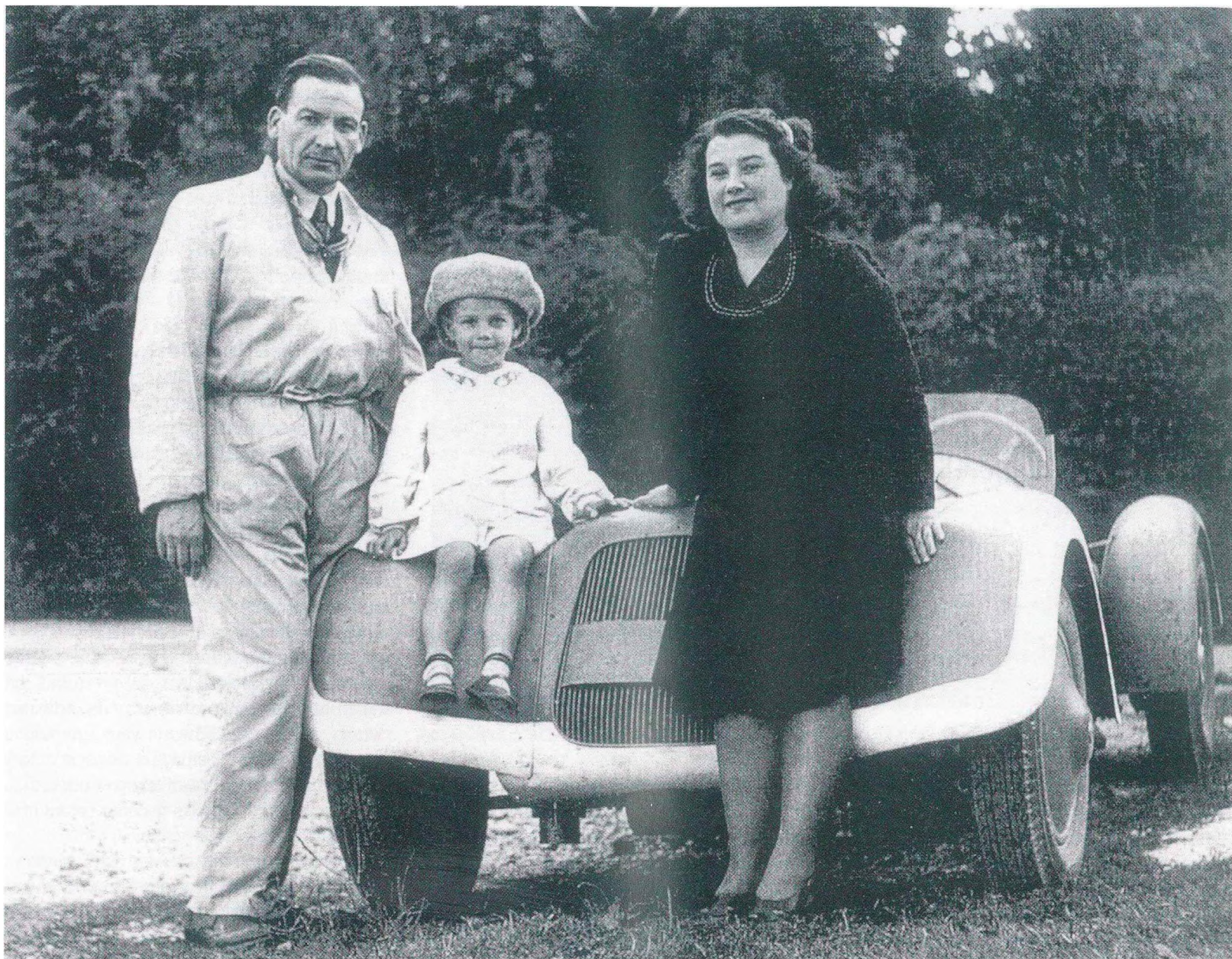
Armando, who was slightly handicapped, took no part in the business and died in 1957. Two other sisters died young, Carolina in 1912 and Ermina in 1921.

It was not long before Adolfo Orsi was the biggest dealer in scrap metal in the Emilia-Romagna province. In 1922 he set up a steel works in Modena. At that time there was none in Emilia Romagna and scrap iron and steel had to be transported many miles for reprocessing. As Italy had no natural iron ore (or coal for that matter), all iron and steel had to be imported or reprocessed. Orsi then set up his own foundry; bought tramway companies (previously Belgian-owned) in Emilia Romagna and Lombardy, and even bought a railway, turning it into a bus company and lifting the track for reprocessing in his steel works. He also owned the Fiat dealership in Modena.

At the time Orsi was completing the negotiations for the purchase of Maserati, he was establishing a new business at Tresigallo near Ferrara. This was a factory to manufacture agricultural machinery – mainly combine harvesters. As well as erecting and opening the factory, he built houses nearby for management and workers. Another successful venture in 1938 was the raising of the 8,400-ton liner *Cesare Battisti*, which had caught fire and foundered at Massawa in Eritrea blocking the harbour facilities. With specialist assistance, the ship was raised, patched and taken under tow through the Suez canal to Trieste where it was broken up.

An example of the battery-powered three-wheeler commercial vehicles built by Maserati during the war years. An unusual feature for a vehicle of this kind was that it had a mechanical gearbox. Also built in four-wheel form, they were marketed under the name Elettrocarri Maserati. (Dottor Adolfo Orsi Collection)





Seen in 1943 are Ernesto Maserati, his wife, son Alfieri and the prototype 1,500cc sports car.

The possibility of acquiring Maserati was suggested to him by well-known motor racing journalist, Corrado Filippini. At this time the Orsi organisation employed about 2,000 people, but it lacked a public image. Maserati had several attractions for Orsi. He believed that he could expand the sparking plug business by obtaining a well known name under which to market all his products, and he wanted a car product of his own, believing that Maserati racing

successes would boost the whole of the Orsi group.

When the takeover was completed, taking effect from 1 January 1937, Ernesto, Bindo and Ettore Maserati entered into ten-year contracts to act as consultants. This gave them the opportunity to concentrate on car design and development, without all the anxieties and problems of running a

business. Adolfo Orsi became President of Maserati and his brother-in-law Alceste Giacomazzi, was appointed managing director. With Orsi finance behind them the brothers produced the fast, but fickle 3-litre supercharged Tipo 8CTF Grand Prix car for 1938. This was followed a year later by the Tipo 4CL Voiturette which, together with the 4CLT/48 that succeeded it, was the



The surviving Maserati brothers photographed at the Osca works in the early 1950s. They are, left to right, Bindo, Ettore and Ernesto.

most successful racing car ever sold to private owners. As early as 1940 drawings had been prepared for the proposed A6 production GT car.

In late 1939 Orsi moved Maserati from Bologna into new and much more spacious premises in the Viale Ciro Menotti in Modena. Alberto Massimino, formerly with Alfa Romeo and Scuderia Ferrari, joined the company as chief engineer in 1940. On the opposite side of the road from the Maserati car factory was Orsi's iron and steel works,

distinguished by its two tall chimneys. This building has only recently been demolished and the site redeveloped.

Adolfo Orsi also bought a battery maker, which he merged with the Maserati sparking plug business to form *Fabbrica Candele Accumulatori Maserati SpA*. The combined business was moved into premises in the Viale Generale Paolucci, on the opposite side of the main railway line from his other works in Modena. Adolfo's sisters Eida and Bruna managed this business. Orsi had

fulfilled his ambition of establishing an organic group of businesses, with good rail connections. All three works were clearly visible to passengers on trains on the main line to Milan and this in itself helped publicise the group.

Most Italians were badly shocked when Mussolini declared war on the Axis side on 10 June 1940. It had been widely believed that Mussolini would show sympathy and moral support for the Fascist cause, but he was thought to be too wily to commit himself to hostilities and would remain neutral, as Franco did in Spain. Instead he fell victim to Hitler's flattery and coercion, allowing Italy to be manoeuvred into a war that no one wanted. Despite a rearmament programme, Italy was far too weak militarily to fight the Allied powers.

Following the outbreak of war, Orsi started production of milling machinery and machine tools under the Maserati name. The Maserati factory also serviced and overhauled military vehicles during the war years. Orsi put into production battery-powered three and four-wheel light commercial vehicles, the design rights to which he had acquired when he bought the battery company. These were marketed under the name *Eletrocarri Maserati* and what made them very different from other battery-powered vehicles was the fitting of a mechanical gearbox.

Maserati also experimented with battery-powered cars and during the war years Adolfo's son Omer drove a Fiat 500 'Mouse' powered by an enormous battery. Car development did not cease and the company built a prototype 1,500cc A6 sports car, which was running in 1943. It was intended for production once the war was over, but the A6-1500 was only ever built in very small numbers.

Chapter 6

The later thirties, 1937–41

BY THE START OF 1937 the Abyssinian war was over, sanctions against Italy had been lifted and in the words of Count 'Johnny' Lurani, 'general elation was felt in Italy.' Following Adolfo Orsi's takeover of Maserati, there were initially few changes. The V8RI had already been abandoned, although the older 8-cylinder cars continued to be raced by private owners, mainly in minor events and with some success. The Maserati brothers were working on a design for the new Grand Prix formula of 1938 onwards, but that was a little way in the future. In the meantime Maserati concentrated on *Voiturette* racing with the 6CMs and the cars were raced by both the works team and *Scuderia Ambrosiana*.

In all 27 6CMs were built with chassis numbers running from 1531 to 1565, which were not delivered until 1939. The number 1530 was an engine only supplied to Hans Ruesch in Zurich in 1936 and two other numbers in the series related to engines only. A few numbers were not used. In 1936 Maserati had built only four of these cars, including that shown at the 1936 Milan Show and subsequently sold to Austin Dobson in the UK. Two more 6CMs were delivered to Dobson in 1937 and another British buyer was 'Johnny' Wakefield. One of the Dobson cars was sold on to Mrs Hall-Smith who entered it for her nephew Robin Hanson. Mrs Hall-Smith was an exceptionally good-looking woman, only slightly older than her nephew, and they lived together. Hanson was, unfortu-

nately, a very slow driver, lacking in ability.

The 6CMs were beautifully engineered; almost like a jewelled motion in comparison to the rather crude ERAs, and gave the impression of being Grand Prix cars in miniature. There were times, however, when Maserati cut corners in the standards of assembly and in the main the British buyers were less than happy with their cars. During 1936 the 6CMs in Continental events had, on occasions, been very fast, but British owners became unhappy with the performance of their cars. Some clarification of this is needed.

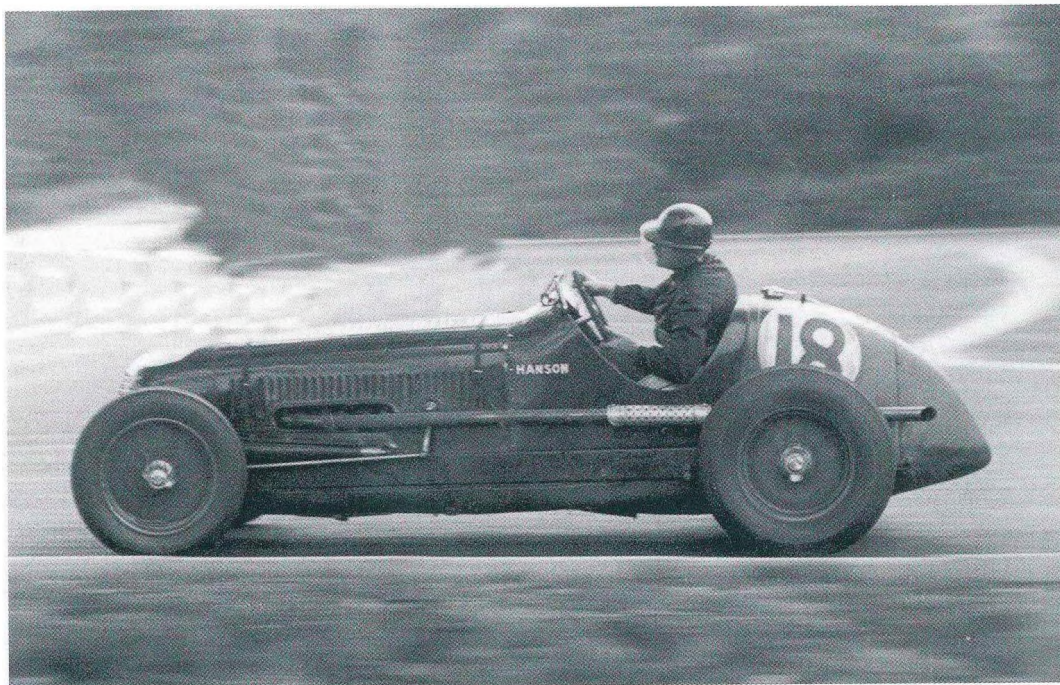
The works and works-supported 6CMs ran on a 6.75:1 compression ratio, used a 140mm blower running at a pressure of 15–16psi (1.07–1.14bar) and the true power output was 175–185bhp. In contrast the cars sold to British private entrants had a lower 6:1 compression ratio, smaller 130mm blower running at 11–12psi (0.8–0.86bar) and at best developed 165bhp. Although not in the context of the period, the comments of Sean Danaher (Trident Engineering, specialising in Bologna Maseratis) are of considerable interest: 'As usual the real power comes from attention to detail. Equalising mixture distribution is the big problem and subsequently spark plug heat range. Happily for us, plugs are now much better and our stock [6CM] engines produce 205–210bhp – which is enough to deal with the 1,500cc ERAs.'

In the 1937 Mille Miglia road race Count

'Johnny' Lurani, *patron* of the newly formed *Scuderia Ambrosiana*, and the young Luigi Villoresi shared an 1,100cc Maserati. The race was run in wet, windy weather, with the cars throwing up great clouds of spray and the roads made dangerous by liberal coatings of mud. Lurani/Villoresi were delayed by carburetion problems and retired at Terni, about halfway through the race when the engine blew. It was the first race in which *Scuderia Ambrosiana* competed. Fiats took the first three places in the 1,100cc sports class.

The first important *Voiturette* race of the year was the 73-mile (117.5km) Circuit of Turin held on the Valentino Park circuit on 18 April. Bianco and Dreyfus drove the works Maseratis and held the first two places in that order on the opening laps. Then Bira with his ERA forced his way past Dreyfus and started to hassle Bianco. Bianco used every trick in the book to baulk Bira and shut the door on him on every possible occasion. His tactics were blatant and both Trossi and Farina, who were watching the race, protested to the organisers.

Eventually Bira forced his way through to the front. All the fight had gone out of Bianco, mainly because he had lost his goggles and oil was being sprayed onto his face. The Siamese driver built up a lead of 20sec, while Bjornstadt with his ERA moved up into second place. Bira retired because of gearbox trouble and Bjornstadt went on to win the race from Dreyfus.



Robin Hanson at the wheel of his 6CM in the 91-mile (146km) Picardy Grand Prix held in June 1937. He was a slow driver and on this occasion finished fifth. (Guy Griffiths Collection)

Dreyfus had been leading comfortably by a lap-and-a-half when he made his refuelling stop, but the Maserati pit failed to notice that Bjornstadt had unlapped himself while the 6CM was stationary and having been told to ease off by Ernesto Maserati, Dreyfus let Bjornstadt sail past him!

Bianco had stopped to hand over to Rocco, so Tongue (ERA) took third place with Bianco/Rocco fourth. Of the 6CM Dreyfus wrote, 'It was as unlike the Maseratis that I had driven for the team in 1931–1932 as can be imagined. You no longer felt you were sitting on a pack of iron; the car was tight, compact and much, much easier to drive. And quite fast too.' However badly Bianco had behaved at Turin, it had been an exciting race at the start of an exciting season and showed the paying public that a good *Voiturette* race was better than a poor Grand Prix. And the 109-mile (175.5km) event for Grand Prix cars was boring, as the *Scuderia Ferrari* Alfa Romeos were unopposed and took the first four places.

There were two *Voiturette* races over the weekend of 24–25 April. The new Crystal Palace circuit in South London held its first meeting on the Saturday, the Coronation Trophy scratch race in two 40-mile (64km) heats and a 60-mile (96.5km) final. Fairfield (ERA) won the first heat from Charles Brackenbury at the wheel of the 4CM owned by E.K. Rayson. ERAs took the first three places in the second heat. In the final Fairfield and Arthur Dobson with ERAs took the first two places ahead of Robin Hanson with his 6CM.

Trossi with a works-entered 6CM won the 76-mile (122km) Circuit of Naples on 25 April after a battle with Bira (ERA) and Bjornstadt finished third. The poorly supported Naples Grand Prix took place the same day and *Scuderia Ferrari*-entered Alfa Romeos took the first five places. The 277-mile (446km) *Voiturette* Circuit of Tripoli was held as part of the Tripoli Grand Prix on the Mellaha circuit on 9 May. The starting money was not good enough for the ERA drivers to trek all the way across Europe and

then catch a ferry to North Africa, so the 1,500cc category proved a Maserati procession. Dreyfus with a works 6CM won from other Maserati drivers, Cortese, Severi (also with a works 6CM), Luigi Villorresi and Dusio. The ERA drivers also missed the Targa Florio held as a 195-mile (314km) *Voiturette* race in Favorita Park, Palermo on 25 May. Severi (6CM), Lurani (6CM chassis with 4C 1,100cc engine) and Bianco (6CM) took the first three places.

A minor and rather parochial meeting, despite its name, was the 75-mile (120km) *Voiturette* race known as the Circuit Automobile della Superba held at Genoa on 30 May. Mainly because so many would-be contestants had gone to the Avus meeting held the same day, there was a thin field. Milanese newcomer Aldo Marazza (with the obsolete ex-Lurani four-cylinder, two-seater Maserati) won from Severi (6CM) and Belmondo (4CM). In the main event for Grand Prix cars Trossi and Tadini took the first two places with *Scuderia Ferrari* Alfa Romeos.

There were both Formule Libre and *Voiturette* races at Avus circuit in Berlin with its newly built, very steeply banked, brick-surfaced North Curve. Although Teagno and Cortese led away with their Maseratis at the start of the *Voiturette* race, Charles Martin (ERA) soon took the lead in this 84-mile (135km) race and won at 119.68mph (192.68kph). Cortese held second place until the last lap when he spun off and the finishing order behind Martin was Luigi Plate (4CM) and Teagno (6CM). Alfa Romeo had withdrawn from the 96-mile (154km) Formule Libre race, which was a straight fight between Mercedes-Benz and Auto Union. Lang (Mercedes-Benz) won from Von Delius and Hasse, both with Auto Unions.

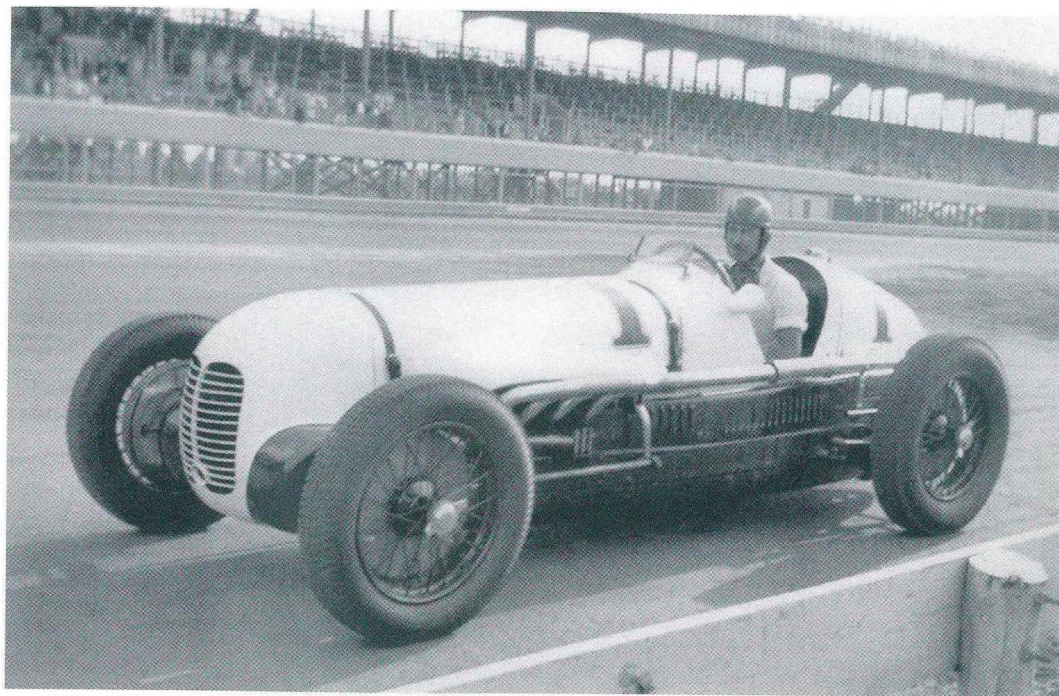
Luigi Villorresi (entered with a 6CM by *Scuderia Ambrosiana*) and de Graffenried (John du Puy-owned 4CM) competed two days later in the 195-mile (314km) RAC International Light Car race, held on the Douglas circuit on the Isle of Man. The race

was dominated by the ERAs, which took the first five places, and de Graffenried finished sixth. It was run in heavy rain and when Villoresi retired out on the circuit, apparently because of a blocked fuel line, he had a long and wet walk back to the pits. Both drivers stayed in Britain to compete in the handicap 155-mile (250km) Nuffield Trophy for cars up to 1,500cc at Donington Park on 12 June. The race was another Bourne benefit. Villoresi retired because of supercharger trouble and de Graffenried finished fifth behind Fairfield, Dobson and Mays (all with ERAs) and Maclure (Riley).

'Johnny' Wakefield with his newly delivered 6CM, which for reasons that were far from clear was painted blue, was one of 13 Maserati drivers to run in the 143-mile (230km) Circuit of Florence held on 13 June. Count Trossi drove a new Maserati variant that combined a 6CM chassis fitted with quarter-elliptic rear springs and a modified 4CM engine. Four ERAs ran in this race. Bira led initially with his ERA, but was passed by Trossi and then as his brakes began to fade, both Bianco and Dreyfus with works 6CMs overtook him.

This race was run in very hot weather that affected a number of drivers, among them Trossi who came into the pits to hand over to Rovere. Bira was forced to retire because of his braking problems. Dreyfus then led from Bianco, Bianco handed his car over to Rocco, Trossi took over again from Rovere and he was in second place at the finish behind Dreyfus, with Bianco/Rocco third. The Eifelrennen was held at the Nürburgring the same day, but in 1937 there was no race for *Voiturettes*.

There were again 13 Maseratis, together with three ERAs, in the 75-mile (120km) Circuit of Milan *Voiturette* race in the Parco Sempione on 20 June. The only ERA driver to show real form in this race was Bira, but he was forced to retire because of engine trouble. Eugenio Siena (4CM) won the race from Marazza (with his old 4CS two-seater Maserati) and Cortese (6CM) finished third



Mauri Rose is seen at the wheel of Townsend Bradley Martin's V8R1 Maserati during practice for the 1937 Vanderbilt Cup race over a course at the Roosevelt Raceway. The car failed to perform well in the race. (Guy Griffiths Collection)

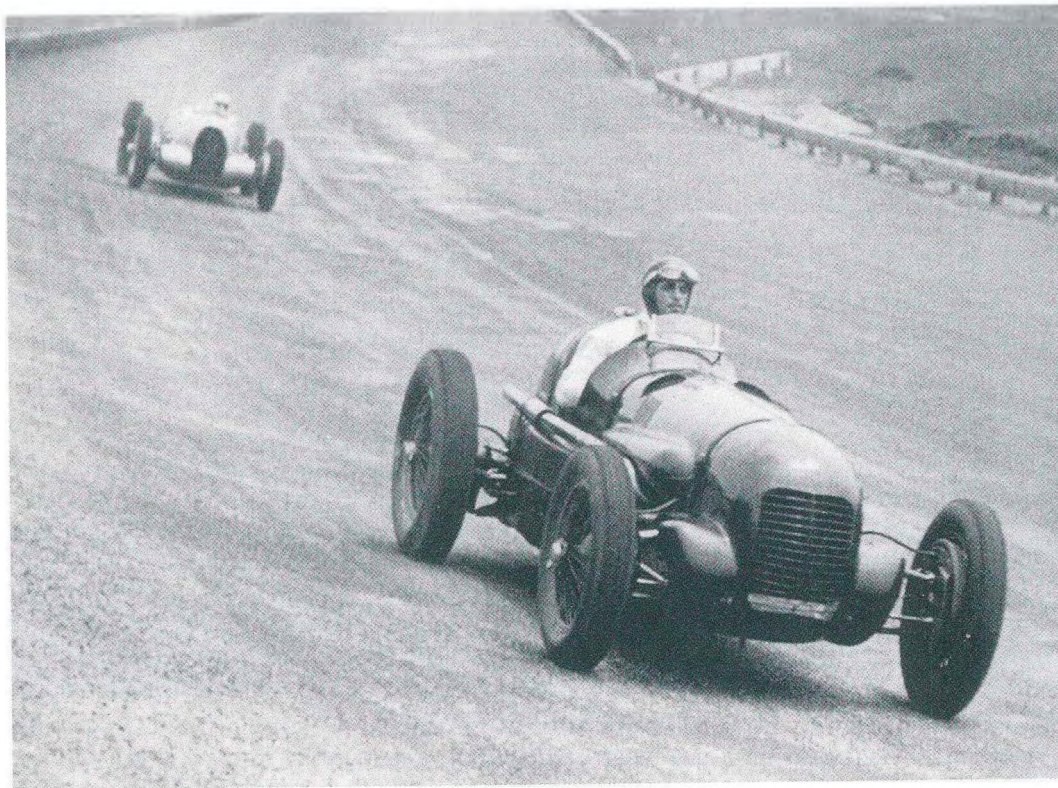
ahead of Reggie Tongue with an ERA. On this occasion the *Voiturette* race was almost as boring as the event for Grand Prix cars in which Nuvolari and Farina took the first two places ahead of the inexperienced Rudolf Hasse (Auto Union).

Another minor *Voiturette* race was the Picardie Grand Prix, which was run in two 60-mile (96km) heats and a 90-mile (145km) final on 27 June. It was another Maserati versus ERA battle and another race Bologna lost. Dreyfus (works 6CM) won the first heat from Hanson (6CM) and a remarkably sober John du Puy (newly acquired 6CM). Mays with the works ERA was the winner of the second heat, nearly a lap ahead of de Graffenried driving du Puy's old 4CM. Raymond Mays won the final from Dreyfus and Wakefield (private 6CM).

There was still a place for the V8RIs in American racing and two competed in the 300-mile (483km) Vanderbilt Cup held at Roosevelt Raceway and postponed from its original date until 1 July in the hope of

better weather conditions. Mauri Rose drove socialite Townsend Bradley Martin's car into seventh place. The other V8RI, purchased from amateur George Rand who had acquired it from *Scuderia Torino*, was to have been driven by Enzo Fiermonte. Fiermonte had been a former light-heavyweight boxer and was married to the considerably older and substantially wealthier Madeline Force Astor.

Fiermonte had never driven a racing car before and arrived at the circuit with the V8RI after practising on the roof of the premises of car dealer J.S. Inskip in Queens, New York (shades of the Fiat building in Turin) and on Long Island roads. He was dismally slow in practice, 24th fastest, and clearly it would not have been safe for him to compete in the race. At the last moment Wilbur Shaw, that year's Indianapolis winner, was persuaded to drive the car and he flew his Beech 'stagger-wing' light aircraft into the nearby Roosevelt Field. He had very little opportunity to practise and



Another V8R1 was entered by Enzo Fiermonte, seen here in practice about to be lapped by von Delius (Auto Union). He was not experienced enough and is seen cruising round with his goggles round his helmet. Wilbur Shaw drove the car in the race. (Guy Griffiths Collection)

shortly after the start the left exhaust pipe worked loose at the manifold, but despite being nearly asphyxiated by fumes, he struggled on to finish ninth. It was because of his experience with this car that Shaw persuaded Mike Boyle to buy an 8CTF to run at Indianapolis. Rosemeyer (Auto Union) won the race from Seaman (Mercedes-Benz).

At Albi on 11 July both Emilio Villoresi and Luigi Villoresi drove *Scuderia Ambrosiana* 6CMs. It was a poor day for the brothers, Emilio crashed, Luigi was fifth on the aggregate of the two heats and ERAs took the first three places ahead of Righetti's Maserati. Another parochial Italian race was the San Remo Grand Prix on 25 July and in this race, run in three heats and a short final, the great Achille Varzi made a return to racing and won with the works 4CM from Dusio (*Ambrosiana* 6CM) and Rocco (6CM).

In the 204-mile (328km) JCC International Trophy at Brooklands on 2 August, a handicap system was operated by directing the cars through different channels according to their engine capacity. Raymond Mays (ERA) led throughout, Bira was in second place with the ex-Straight 8CM (3011) until engine problems brought his run to an end, and then Wakefield moved up into second place with his 6CM.

The only opposition to Maserati in the 96-mile (154km) Coppa Acerbo *Voiturette* race on 15 August came from Tongue's ERA. Pasquino Ermini (6CM) tried to pass Ubaldi with a similar car, slid wide and Tongue collided with the Maserati. Ermini spun into the crowd, injuring himself and killing four spectators. The British driver was uninjured. While all this was going on, Villoresi and Bianco were battling for the lead. Villoresi's 6CM then developed gear-

box problems and so Bianco went ahead, but lost the lead at once when he slid wildly. Rocco (works 6CM) won from Bianco, Cortese and Severi.

Another *Voiturette* race followed on 22 August, the Prix de Berne at Bremgarten, and this was run in two 60-mile (96km) qualifying heats and a 90-mile (145km) final. In another muted admission of the superiority of the ERAs, Maserati withdrew the works cars from the race, once again claiming that they could not be made ready in time. Emilio Villoresi won his heat with an *Ambrosiana* 6CM, but it rained heavily during the final and the ERAs seemed much better suited to these conditions than the Maseratis, which were sliding and slithering badly. Although the circuit began to dry out towards the end of the race, they had lost too much ground. Arthur Dobson, Mays and Bira took the first three places with their ERAs and only then came the first of the Maserati drivers, Cortese with his *Scuderia Ambrosiana* 6CM.

'Johnny' Wakefield persisted with his now red-painted 6CM, although he had lost confidence in its potential to beat the ERAs. In the Formule Libre JCC 200-mile (322km) race at Donington Park on 28 August he drove a good race to finish fourth behind Arthur Dobson (works ERA), Bira (8CM 3011) and Peter Whitehead (ERA). Another rather parochial *quasi*-British event was the 100-mile (161km) Formule Libre race at Phoenix Park, Dublin on 11 September. Raymond Mays won with a works ERA, followed across the line by Wakefield with his 6CM (yet again repainted and now green).

On 19 September the Circuit of Lucca was held as an 88-mile (141km) *Voiturette* race. There were no ERAs entered and the race was dominated by the usual horde of Maseratis. Count Trossi won with a four-cylinder car from Luigi Villoresi and Rocco with 6CMs. Varzi had again been entered with a works 6CM, but dropped out because of engine problems. Despite the many attractions of the 6CM, it had too

frequently during the year proved no match for the British ERAs.

There were two events in which Maserati *Voiturettes* competed on 26 September. The Circuit di Campione D'Italia was run in three heats and a short 35-mile (56km) final. Trossi (works 4CM) won the final from Severi (works 6CM) and Righetti (Ambrosiana 6CM). Both the 308-mile (495km) Circuit of Masaryk and an 88-mile *Voiturette* race were held at Brno. Charles Martin with his ERA led the *Voiturette* race until his engine developed a misfire and he dropped back to finish second behind Luigi Villorelli with a 6CM entered by *Scuderia Ambrosiana*. Hungarian driver Laszlo Hartmann at the wheel of a four-cylinder Maserati took third place. In the 750kg race Caracciola and von Brauchitsch took the first two places with their Mercedes-Benz W125 cars, while the outclassed Alfa Romeos of Nuvolari and Brivio finished in fifth and sixth places.

Before the end of the season there were two British races that attracted Maserati entries. The German teams dominated the 250-mile (402km) Donington Grand Prix on 2 October and *Scuderia Ferrari* missed the race. Rosemeyer (Auto Union) won from von Brauchitsch and Caracciola (both with Mercedes-Benz W125 cars), but in sixth place, albeit many laps in arrears, came Bira with his 8CM.

The handicap Imperial Trophy at Crystal Palace later in October attracted an entry from *Scuderia Ambrosiana*, even though the two 20-mile (32km) qualifying heats and the 30-mile (48km) final amounted to little more than 'sprints'. Lurani was beaten into second place in his heat by Arthur Dobson (ERA) and Luigi Villorelli retired out on the circuit because of mechanical problems, although this did not stop him running in the final. Trossi won the second heat from Charles Martin and Bira with ERAs. In the final Bira and Dobson took the first two places ahead of Goodacre (Austin Seven). Villorelli and Lurani trailed badly to finish fourth and fifth and Trossi was

an early retirement because of mechanical problems.

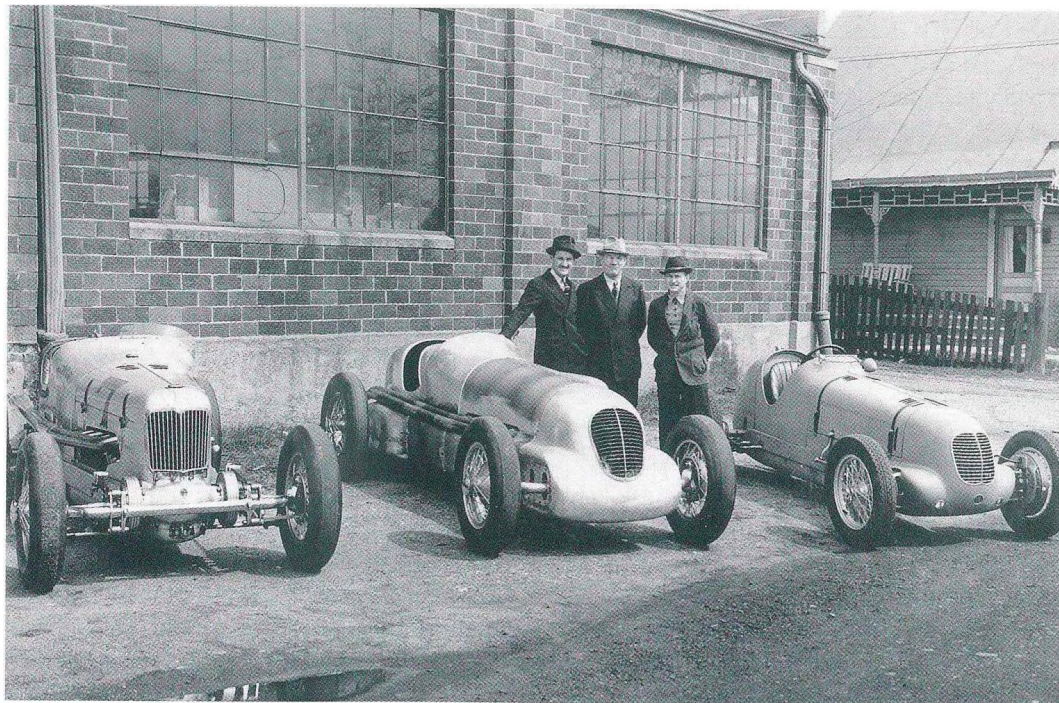
Scuderia Ambrosiana had brought their team of Maseratis to Britain in their OM transporters before they were taken to Southampton docks and shipped to South Africa for a series of races held there in December 1937 and January 1938. All the South African races were handicap events and the first of the series were two races held on the Lord Howe circuit at Johannesburg on 16 December. In the 121-mile (195km) Rand Grand Prix Lurani finished third with his 6CM. Siena finished second to Meyer (Riley) in the 199-mile (320km) South African Grand Prix at East London on 1 January 1938. The final race was the 203-mile (327km) Grosvenor Grand Prix at Capetown on 15 January. Earl Howe won with his ERA, but he was

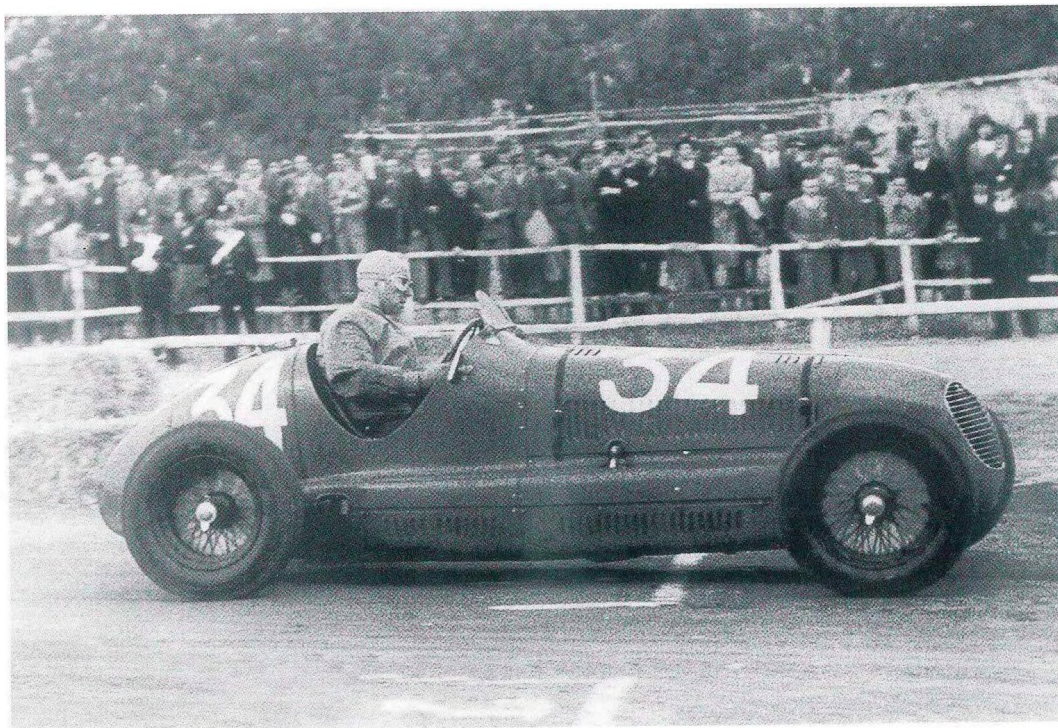
followed across the line by Maseratis driven by Taruffi, Luigi Villorelli and Bill Everitt.

1938

Under Orsi's influence the Maserati brothers had put together a well thought-out and cohesive development programme. The 6-cylinder *Voiturettes* would continue to be raced until a new and faster car was ready in 1939. In the meantime development work was proceeding on a four-valve version of the 6CM engine, partly to enhance its rather inadequate performance and partly in connection with the development of the 16-valve four-cylinder 4CL-1500 *Voiturette* that appeared in 1939. This engine, number 1558, still exists and although it was raced, details of when are not certain.

It is believed that this photograph was taken outside the Miller works in Los Angeles in 1938. On the left is the 1930 Indianapolis-winning Miller, centre the current Miller and on the right Mike Boyle's 6CM which Wilbur Shaw drove in the 1937 Vanderbilt Cup race. Left to right are Bill Cummings who won the 1934 Indianapolis race with a Boyle-entered Miller, Mike Boyle who regularly entered cars at Indianapolis in the name of his company, Boyle Products, and Wilbur Shaw. (Guy Griffiths Collection)





The 1938 Targa Florio was held as a 107-mile (172km) Voiturette race in Palermo Park. Giovanni Rocco won with this 6CM from other Maseratis driven by Georges Raph and Luigi Villorosi. There was no serious opposition to the Maseratis in this race.

On 6CM cars delivered in 1938, quarter-elliptic rear springs were fitted and these later cars also had a lower nose-line. Finally work had been progressing on a new Grand Prix contender that would appear in May.

Early in the year, on 2 April Wakefield and Hanson drove their 6CMs in the Coronation Trophy at Crystal Palace. It was another Formule Libre handicap, run in two heats and a final. Bira (ERA) largely dominated the proceedings, winning his heat and the final, but Wakefield took second place in both. In the Pau Grand Prix the Mercedes-Benz team suffered a surprise defeat. Only the one car driven by Caracciola started and because of unexpected problems and delays, it lost the lead to the unsupercharged V12 Delahaye driven by Dreyfus. Comotti finished third with his Delahaye and 'Georges Raph', with his newly delivered 6CM, took fourth place.

In the 73-mile (117km) Cork Light Car race held on 23 April at Carrigrohane on

the outskirts of Cork, Luigi Villorosi (Scuderia Ambrosiana 6CM) finished third behind Bira and Arthur Dobson with ERAs. An interesting Maserati runner in this race was Armand Hug who received works support with his 4CM. A number of modifications had been carried out to this car, including the fitting of a modified cylinder head, a new and stronger crankshaft and an experimental Memini carburettor. In the race the car developed an engine misfire and Hug finished fifth. Wakefield crashed heavily with his 6CM and wrote it off.

The new Maserati Grand Prix contender driven by Count Trossi appeared in the 326-mile (525km) Tripoli Grand Prix at Mellaha on 15 May. In 1938 a new Grand Prix formula had come into force. The aim was two-fold: to curb the speed of the very fast 750kg formula cars and to encourage the racing of unsupercharged cars, especially by French manufacturers, a number of whom had built sports cars with unblown

engines that could be adapted for Grand Prix racing. There was a scale of minimum weights according to engine and maximum permitted capacities of 3,000cc supercharged and 4,500cc unsupercharged. The minimum weight for cars of these capacities was 850kg without wheels and tyres, while another requirement was a minimum cockpit width of 85cm. The imbalance of capacities between the supercharged and the unsupercharged cars was such that, except in very rare circumstances, the unblown cars were hopelessly outclassed.

Maserati typed the new Grand Prix contender the 8CTF (8 Cilindri Testa Fissa – Fixed Head) and it was intended as an interim car until a new engine could be built based on the 4CL to be introduced in 1939. The power unit was a straight-eight based on two 1,496cc (69 x 100mm) blocks placed end to end with fixed cylinder heads and two separate Roots-type superchargers, each with a twin-choke Memini carburettor. Like the twin overhead camshafts, the superchargers were driven from the nose of the crankshaft and each supplied four cylinders. Ignition was provided by a Scintilla magneto mounted on the right-hand side of the engine. Transmission was by a 4-speed gearbox and multi-plate clutch, which were mounted in unit with the engine.

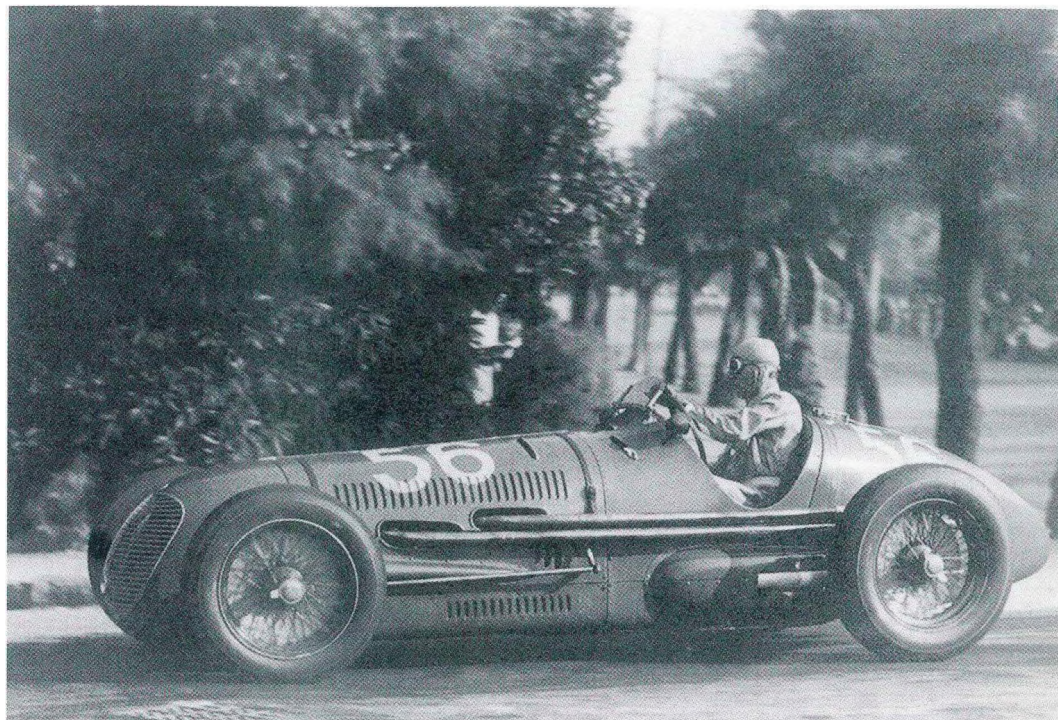
The channel-section chassis had independent front suspension by the familiar Maserati torsion bar system, but the under-slung rear axle was rigid and suspended on quarter-elliptic springs. The brakes were Lockheed hydraulic, with 16in drums at the front and 14in at the rear. In appearance, the 8CTF was a very attractive, well-balanced car and looked like a lengthened version of the 6CM. At this time Orsi lacked the funds to underwrite a full Grand Prix programme, as he was already committed to the move to Modena and the other developments mentioned earlier. So the 8CTF never enjoyed much opportunity to show its true potential. It was undoubtedly very fast, but the roadholding was some-

what primitive compared with that of Auto Union and Mercedes-Benz, both now users of de Dion rear axles. Nor was preparation of the 8CTF cars to a high standard.

Count Trossi and Zehender drove the 8CTFs at Tripoli. Auto Union's 3-litre supercharged cars were not yet ready, so the Maserati drivers faced three of the new Mercedes-Benz W154 cars, together with four Alfa Romeos. Because the field would have been so small otherwise, the organisers combined the *Voiturette* race with the Grand Prix and there were seventeen 1,500cc Maseratis to complete the entry. The speed differential was to contribute to serious accidents in the race. Both 8CTF Maseratis retired, but not before Trossi had chased hard after the leading W154s.

There were two fatal accidents. Eugenio Siena (Alfa Romeo) lost control while lapping Cortese's 6CM – possibly caught by a strong gust of crosswind – and crashed into the side of a house. He was thrown out of the car and died immediately. Shortly afterwards Farina (Alfa Romeo) collided with Hartmann's four-cylinder Maserati which he was lapping – he may have nudged the Hungarian in his impatience to overtake – and both cars crashed. Hartmann suffered injuries to which he succumbed that evening, but Farina's injuries were only superficial. Lang, von Brauchitsch and Caracciola took the first three places for Mercedes-Benz and then came Sommer (Alfa Romeo). Taruffi (*Ambrosiana* 6CM) finished fifth overall and was the winner of the *Voiturette* category.

Once again the Targa Florio on 22 May was held as a *Voiturette* race in Favorita Park, Palermo, but over the shorter distance of 106 miles (171km). It was a race dominated by Maserati and the 6CMs of Rocco, 'Georges Raph' and Luigi Villoresi took the first three places. The next *Voiturette* race was the Picardie Grand Prix on 12 June, again held in two 60-mile (96km) heats and a 90-mile (145km) final. Ettore Bianco with a works-entered 4CM was unable to match the speed of the ERAs of 'B. Bira' and Earl



Two 8CTFs were entered in the Coppa Ciano held over a distance of 146 miles (235km) on the Montenero circuit on 31 July. Count Felice Trossi drove this car and led the Mercedes-Benz entries briefly before he retired because of engine problems.

Howe in the first heat and finished third, a lap behind. Mays and Wilson with ERAs took the first two places in the second heat, with Lanza (6CM) third. In the final Mays was the winner after 'Bira's' engine blew up and Bianco took second place.

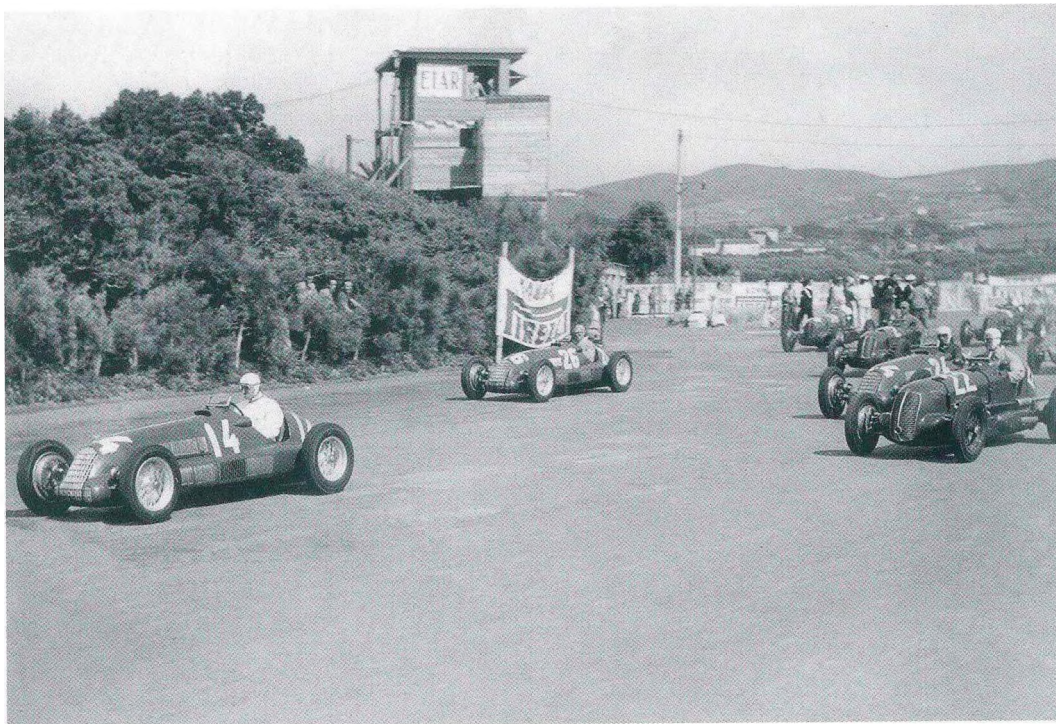
Count 'Johnny' Lurani was a great anglophile and he brought over a 4CM to compete in the London Trophy, a Formule Libre handicap race at Crystal Palace on 25 June. He crashed heavily in practice and was unfit to race, but the car was repaired and driven by Bill Everitt. Everitt finished fourth in his heat, but retired in the 32-mile (51km) final. The following day, 26 June, Marazza (works 6CM), Villoresi (*Scuderia Ambrosiana* 6CM) and Pelassa/Dusio (4CM) took the first three places in the 152-mile (245km) *Voiturette* race at Naples.

The works entered 8CTFs for both Achille Varzi and Count Felice Trossi in the French Grand Prix at Reims on 1 July, but they failed to arrive at the circuit. The Albi

Grand Prix on 10 July was run as a *Voiturette* race with the results decided on the aggregate of two 110-mile (177km) heats. Raymond Mays led the first heat until the casing of his ERA's supercharger cracked. Ettore Bianco was in third place with his 4CM, but took a corner too exuberantly, rolled the car and felled a telegraph pole. He suffered serious injuries.

Luigi Villoresi won the heat from Edoardo Teagno and Luigi Soffietti, all three at the wheel of 6CMs. Although Armand Hug had retired his Maserati in the first heat, the field was so thin (there were only six starters) that he was allowed to run in the second heat and won from Villoresi. Villoresi and Soffietti took the first two places on aggregate from Luigi Plate (the uncle of post-war entrant Enrico Plate) with his old Talbot.

Another minor *Voiturette* race in Italy was the Circuit of Varese held in the foothills of the Alps on 17 July. It was run in two heats



In the Coppa Ciano Voiturette race at the end of July the Alfa Romeo 158s made their race debut. With his Alfetta Francesco Severi (number 14) leads away from Emilio Villoresi (number 26) and Luigi Villoresi with his 6CM (number 22). Luigi took the lead, but had retired shortly after half-distance. (Guy Griffiths Collection)

of 33 miles (53km) and a 67-mile (108km) final and was Maserati-dominated. There were 21 starters, 20 of them Maseratis and the exception, Conveali's MB special, had a four-cylinder Maserati engine. On this very tortuous 2.23-mile (3.6km) circuit Marazza won the first heat and Villoresi was the winner in the second. In the final Villoresi retired because of mechanical problems and the finishing order was Cortese, Marazza, Gheri and Pietsch.

The 312-mile (502km) German Grand Prix at the Nürburgring on 24 July had a class for *Voiturettes*. Maserati had originally entered the 8CTFs, but they scratched. Dick Seaman won the race with his Mercedes-Benz from another Mercedes shared by Caracciola/Lang and Hans Stuck (Auto Union) was third. Paul Pietsch and Franco Cortese drove their 6CMs into sixth and ninth places, while Pietsch won the *Voiturette* category.

On 31 July the Coppa Ciano *Voiturette* race was held over a distance of 89 miles (143km) over a shortened 3.6-mile (5.8km) circuit. It was marked by the debut of the Alfa Romeo Tipo 158 cars with 1,489cc straight-eight engines. In their 1938 form these new cars had a power output of 195bhp and weighed 620kg. The works 6CMs developed up to 185bhp in their latest form and were somewhat heavier at 650kg. The cards were stacked against Bologna. In practice the three *Alfetta* drivers were fastest, but Luigi Villoresi took the lead on the first lap and stayed in front for the next 14. Villoresi was overdriving his 6CM, it started to run very raggedly and he came into the pits to retire.

Emilio Villoresi and Biondetti took the first two places with 158s and Aldo Marazza with his works 4CM finished third. The 158 was intended to regain Alfa Romeo – and Italy – some of the prestige that had

been lost by the continued failure of Portello's Grand Prix cars. The appearance and success of the 158 at Livorno worried Adolfo Orsi and he was all the more determined that the new 4CL should be ready by the start of the 1939 season.

Maserati entered Trossi and Zehender with 8CTFs in the main race of the day, the 146-mile (235km) event for Grand Prix cars. The Maseratis displayed an impressive turn of speed and on lap two Trossi moved up from third place into the lead, ahead of the Mercedes-Benz W154s of Caracciola and Lang. It was a moment of glory for Bologna, but it lasted only five laps before Trossi brought his car into the pits due to fading brakes and a rough-running engine and he retired soon afterwards. Engine problems also caused Zehender's retirement. Lang won for Mercedes-Benz from Farina (works Alfa Romeo 312).

A week later Maserati were in action again on the fast Pescara circuit where they competed in both the *Voiturette* race and the main race to Grand Prix regulations. The *Alfettas* were favourites to win the 96-mile (155km) *Voiturette* race, but Luigi Villoresi with his works 6CM took the lead at the start, closely pursued by brother Emilio with the first of the 158s. The carburetion of the 158s was affected by the barometric pressure difference between the long straight and the mountain sections of the circuit. Emilio retired at the pits; Francesco Severi with the other 158 spent a long time there and Luigi with the 6CM just soared on in the lead.

Villoresi won from other Maseratis driven by Paul Pietsch (4CM) and Barrieri, with Severi in fourth place. Significantly however, Luigi Villoresi was timed at 135.9mph (218.8kph) over the flying kilometre of the long Montesilvano straight, compared with a speed in excess of 140mph (225kph) by Severi's *Alfetta* when it was running well. Only a single 8CTF was entered in the 257-mile (413km) main race and Trossi drove it until he began to feel unwell. He pulled into the pits and Luigi Villoresi took over,

setting fastest lap at 87.79mph (141.5kph) before the 8CTF succumbed to the inevitable engine problems. Caracciola won the race for Mercedes-Benz with Farina (Alfa Romeo) in second place.

The Prix de Berne, held on the morning of the Swiss Grand Prix, was the season's most prestigious *Voiturette* race and spectators were expecting a three-sided battle between Alfa Romeo, ERA and Maserati, but the works team, *Alfa Corse*, withdrew their two 158 entries. While the 158s should have won the race, the Grand Prix Alfas were no-hopers and it can only be assumed that some political pressure had been brought on the company. So it was another ERA versus Maserati race. Luigi Villoreti retired in the first heat, Paul Pietsch won with his 6CM and the second heat run in the wet was dominated by the ERAs. In the final Raymond Mays led initially with his ERA, but both he and Pietsch (6CM) retired. Armand Hug with his 4CM won from Bianco (4CM), 'Johnny' Wakefield and Earl Howe both with ERAs.

On 28 August the La Baule sand-race meeting just north of St Nazaire included a race for 1,500cc cars. Armand Hug won this 74-mile (119km) race from Berg (6CM). Two *Alfettas* were entered for the 88-mile (141km) Coppa Edda Ciano at Lucca on 4 September, but they no-showed and so the race became a total Maserati landslide. In heavy rain Luigi Villoreti and Cortese took the first two places with their *Scuderia Ambrosiana* 6CMs ahead of Pietsch (4CM). With this win Villoreti clinched the Italian 1,500cc Championship.

The 109-mile (175km) Milan Grand Prix for *Voiturettes* and the 261-mile 420km) Italian Grand Prix were both held on 11 September at Monza on the 4.35-mile (7km) Florio Circuit now with chicanes. In the *Voiturette* race the works Maseratis faced four 158s driven by Attilio Marinoni, Francesco Severi, Raymond Sommer and Emilio Villoreti. With fears that the Second World War was about to break out, together with the fact that Italian currency regula-

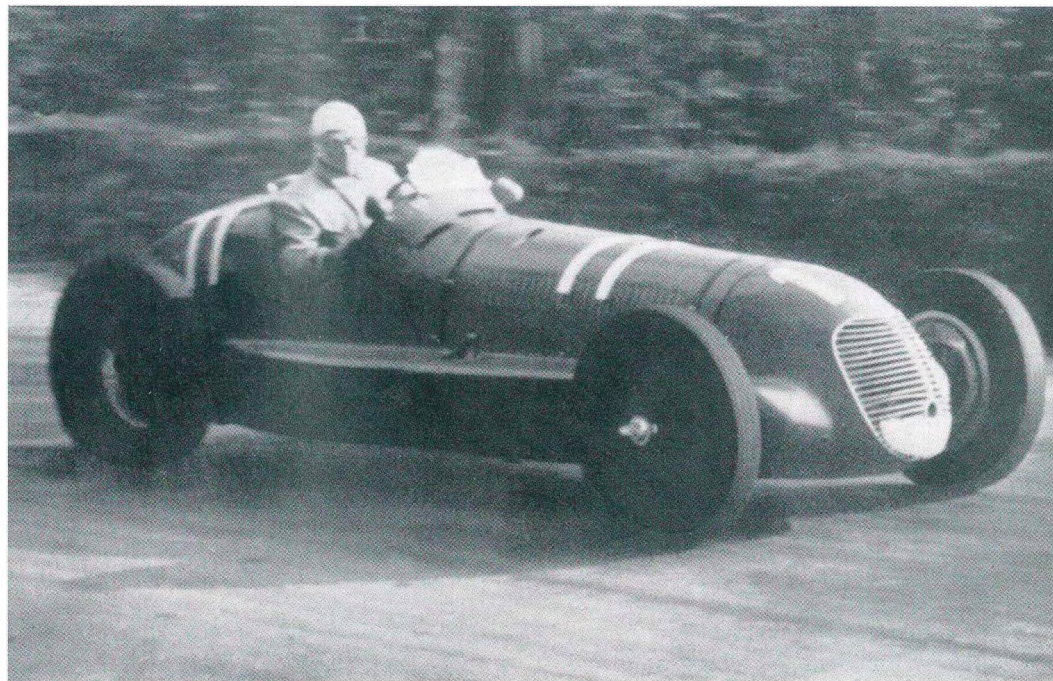
tions prevented overseas drivers taking starting and prize money out of the country, there were only two foreign entries in the race. Sommer led initially, but stopped at the pits because of plug trouble and Luigi Villoreti with his 6CM then went ahead. Once again he was over-driving his car and a piston broke after four laps. Emilio Villoreti and Severi took the first two places ahead of Hug, Cortese and Marazza, all with Maseratis.

As Sommer, in tenth place with his 158, crossed the line, a piston broke and the French driver, his car enveloped in a cloud of blue, carried on to complete his slowing-down lap. Marazza – probably unsighted by the smoke from Sommer's car – spun wildly at Lesmo, went off the road and the Maserati overturned. The young Italian was thrown out and impaled on the branch of a tree. One of his lungs was pierced and he died of his injuries in hospital some hours later. Only the one 8CTF for Luigi Villoreti was entered in the Grand

Prix. It was running badly, lacked its usual speed and after 18 laps Villoreti was out of the race because of piston failure. The race was won for Auto Union by Tazio Nuvolari from the only Mercedes-Benz to finish, shared by Caracciola and von Brauchitsch.

The 109-mile (175km) *Voiturette* Circuit of Modena on 18 September and it was another battle between Maserati and Alfa Romeo. The *Alfetta* drivers set the pace initially, but they were all plagued by falling oil pressure. Emilio Villoreti led for much of the race, but slowed because of fading brakes before the drop in his oil pressure caused his retirement. Luigi Villoreti retired his 6CM after the gear-lever broke and Cortese went on to win with his works 6CM from Hug (4CM) and Dobson (ERA). None of the Alfa Romeos finished the race. On 22 October Villoreti drove a 8CTF in the 250-mile 402km Donington Grand Prix, but retired because of piston problems.

The only Italian car entered in the 1938 Donington Grand Prix on 22 October was this 8CTF driven by Luigi Villoreti. It lacked its customary speed and retired because of the almost inevitable engine trouble.



Forming the end of the 1938 season, rather than the start of the new one, were two scratch 1,500cc *Voiturette* races held in South Africa in January 1939. The works shipped out 6CMs for Luigi Villorosi and Franco Cortese. Taruffi entered his 6CM and Hug and Pietsch drove their 4CMs. In the 199-mile (320km) South African Grand Prix held on the 11-mile (17.5km) Prince George circuit at East London on 2 January Villorosi and Cortese led throughout and in third place came Dr Massacurati, an Italian

The streamlined 4CL-1500 driven by Luigi Villorosi in the 1939 Tripoli Grand Prix. This was the race to which the new Mercedes-Benz W165 Voiturettes came, saw and conquered. Although Villorosi lapped in practice at 134mph (216kph), he retired just after the start of the race.

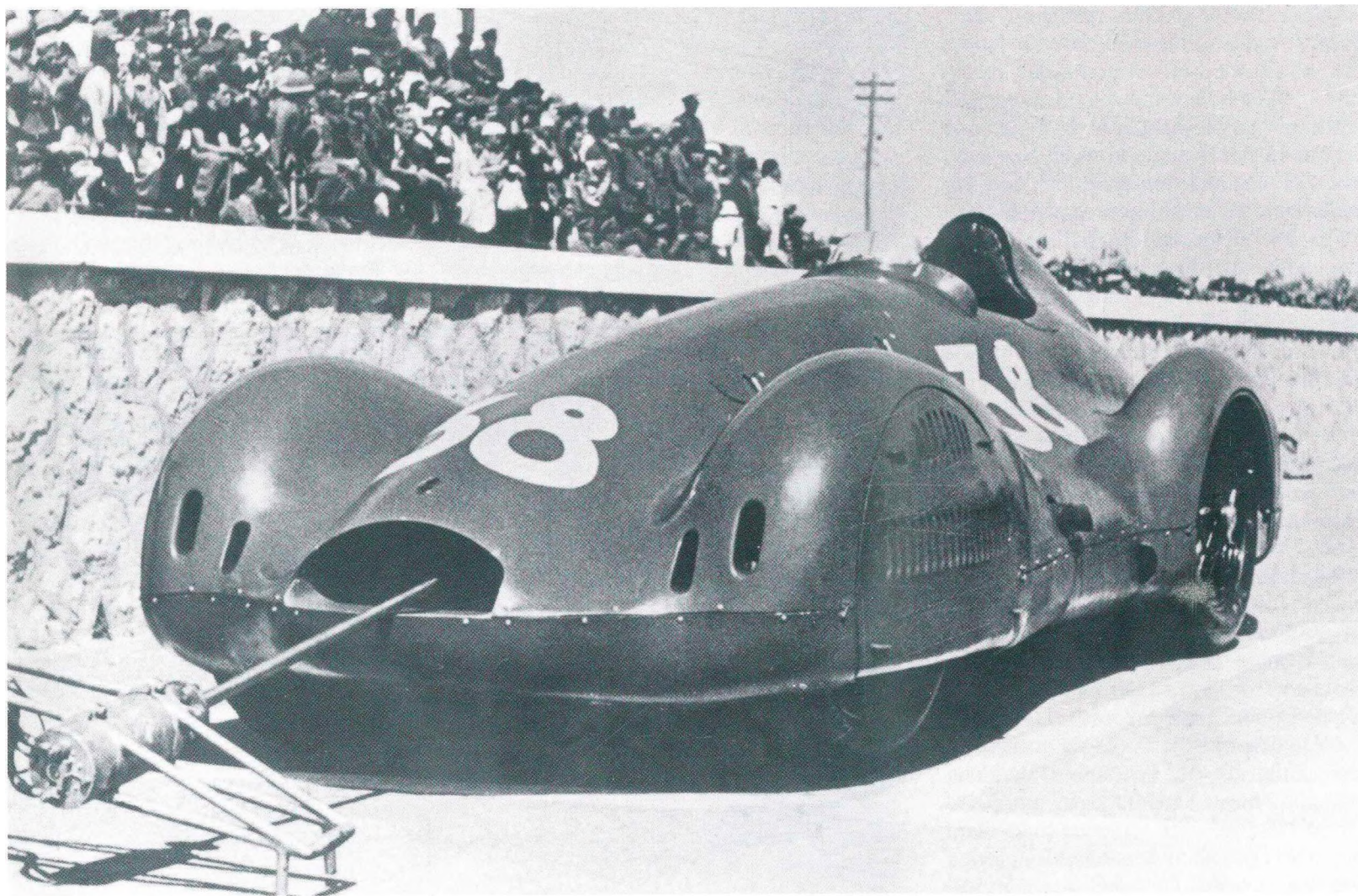
dentist resident in South Africa and a cousin of Nuvolari, with a works-supported 6CM. Cortese won the 203-mile (327km) Grosvenor Grand Prix at Cape Town on 16 January from the Hon Peter Aitken (ERA) and local driver Steve Chiappini (6CM).

1939

That Maserati were introducing their new *Voiturette* was common knowledge, largely

because they had been making approaches to 6CM owners with a view to selling them the new cars. The 4CL first appeared in Britain when Reggie Tongue drove his car in the JCC International Trophy at Brooklands on 6 May, although the model had been seen in Italy during testing. In most respects the 4CL followed existing Maserati design practice, but a notable advance was the adoption of four valves per cylinder – pioneered by Bugatti and Aston Martin in the 1920s – and as the brothers had reverted to four cylinders, the new car was frequently referred to as the ‘sixteen-valve’ Maserati.

The L in 4CL stands for *Linguetta*, which

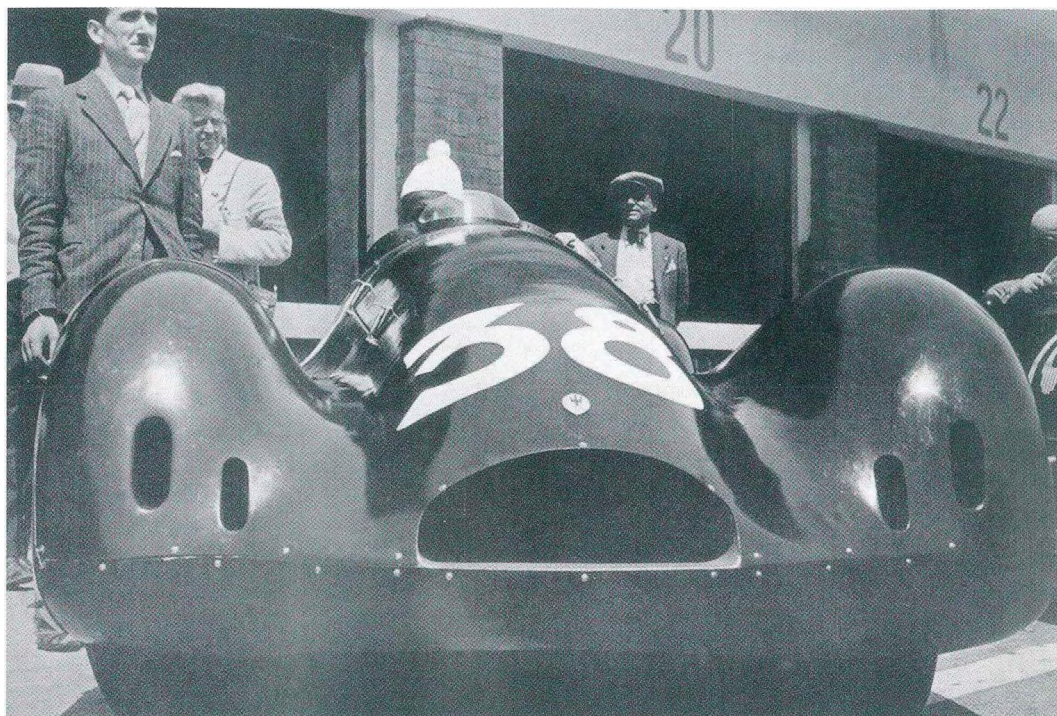


literally means 'Spline', and was used purely to distinguish the 1939 cars from their 4CM and 8CM predecessors. The 4CL had 'square' cylinder dimensions of 78 x 78mm, giving a capacity of 1,489cc, with the valves at an angle of 90°; the twin overhead camshafts driven as usual by a train of gears from the nose of the crankshaft and single-stage supercharging. The brothers had been experimenting with twin-stage supercharging, but concluded that this was better put on one side until a later date. The crankcase was formed by two magnesium-alloy castings with stiffening webs, and the cylinders were cast in two pairs of two. Tubular connecting rods were used.

The Memini carburettor and single-stage supercharger were at the front of the engine. There was a single plug per cylinder and the Scintilla magneto was driven from the front of the crankshaft. The exhaust manifold provided a take-off pipe for each exhaust valve and these fed into a single tail-pipe. The Elektron-alloy tank for the dry-sump lubrication was mounted under the driver's seat. In its original form claimed power output was 220bhp at 6,600 rpm.

Transmission was by a 4-speed Fiat-based gearbox and multi-plate clutch in unit with the engine. The chassis was similar in most respects to that of the 6CM, with a fractionally longer wheelbase, slightly wider track and unequal-length wishbones and torsion bars at the front. The rear suspension layout followed that tried on a four-cylinder car raced by Trossi in 1938 and fitted to later 6CMs; the rigid rear axle was mounted on quarter-elliptic springs, but these were splayed outwards slightly. It was an arrangement that Maserati retained until the end of the 1952 season. The body had been evolved from that of the 6CM, but was smoother and featured a much deeper air intake.

Comparison of the 4CL-1500 with the Tipo 158 Alfa Romeo is inevitable. They resulted from different philosophies. Maserati wanted to sell their cars and the design of the 4CL represented a logical progression from Maserati *Voiturettes* built



Another view of the streamliner with Luigi Villorosi – wearing his familiar bobble-hat – at the wheel.
(Guy Griffiths Collection)

earlier in the 1930s. The Tipo 158, with an engine – in simple terms – based on the V16 Tipo 316 2,958cc Grand Prix engine was intended purely as a works car and while the 158 was being raced by the works, none passed into private ownership.

If power output figures quoted by the respective constructors are accurate, then the 225bhp at 7,500rpm developed by the 158 in 1939 form was closely matched by the 220bhp of the 4CL. The 158 was said to weigh 1,364 pounds compared with the 1,390 pounds of the 4CL, not enough to make a significant difference. In 1939 the two cars were closely matched, but *Alfa Corse* already had most of a season's experience of racing the 158 and their standards of preparation were higher. Although it was not obvious at the time, the development potential of the 158 was much greater than that of the 4CL. Ten 4CLs were built in 1939.

The belligerency of the Fascist powers was becoming even more marked. Following the Czechoslovakian crisis in 1938 and

Germany's annexation of the Sudetenland, German troops occupied the remainder of the country on 15 March 1939. Mussolini, dictator of the first Fascist state in Europe, was constantly torn between admiration for Hitler, disapproval of his methods and the ambition that he, *Il Duce*, had a role to play in raising Italy to a world power with its own territorial ambitions. Despite his disapproval of Hitler's occupation of Czechoslovakia, on 7 April, after the Italian navy had bombarded Albanian ports on the Adriatic Sea, Italian troops landed. Within a week this small, helpless country had been occupied. Although motor racing continued in 1939, many of those taking part in the sport – at all levels – were deeply apprehensive about the future.

The Royal Italian Automobile Club had announced that all single-seater races on Italian soil would be held for cars of up to 1,500cc *supercharged*. As Libya was an Italian colony, this announcement included the Tripoli Grand Prix. The reason for the deci-

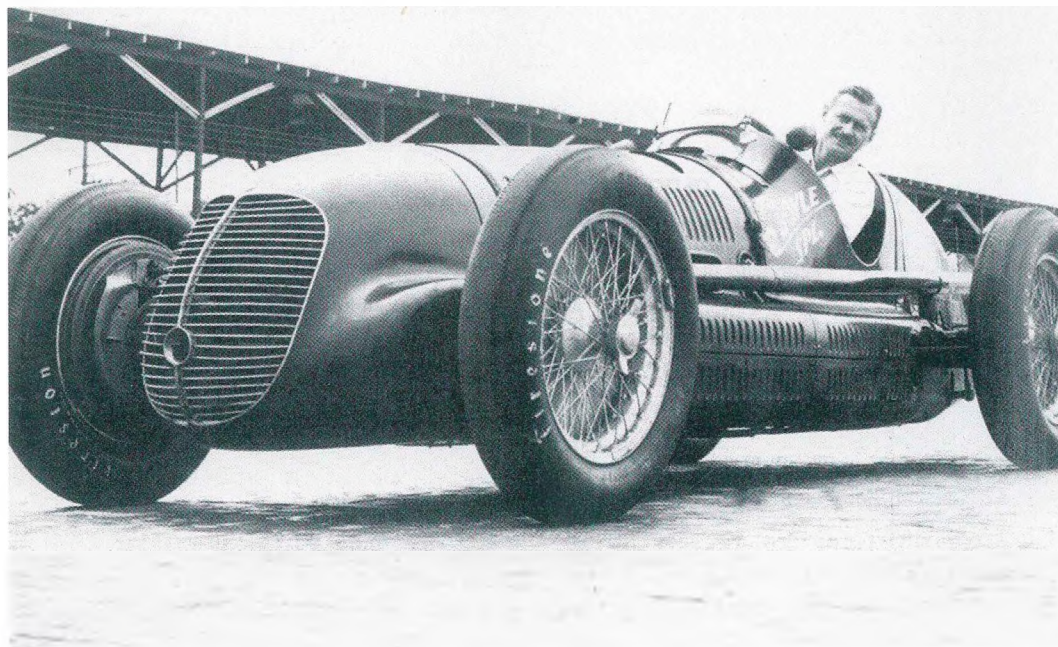
sion was mainly, but not entirely, to ensure Italian racing success. Another factor was that the disparity between 3,000cc supercharged and 4,500cc unsupercharged cars was so great that the AIACR was expected to announce a change in the Grand Prix formula to 1,500cc supercharged/4500cc unsupercharged; but for the outbreak of hostilities, this would have happened for the 1941 season. Mussolini also issued an edict that Italian teams could not compete in France in 1939. This reflected International unrest, but also the dominant role played by France at the League of Nations when sanctions had been imposed on Italy.

In April 1939, as part of Maserati's preparations for the Tripoli race, a 4CL with a German-designed streamlined body built by Stabilamente Farina was tested on the Firenze-Mare *autostrada*. Later that month Tongue took delivery of the first 4CL-1500 and 'Johnny' Wakefield travelled to Bologna to keep a watchful eye during construction of the 4CL which he had ordered. The Formule Libre handicap JCC International

Trophy was run over a distance of 202 miles (325km) at Brooklands on 6 May. Bira won the race with his ex-Whitney Straight 8CM, Leslie Brooke took second place with his Riley-powered Brooke Special and Tongue finished third. Then came Tripoli.

The day after the Brooklands race, the Tripoli Grand Prix was held over a distance of 244 miles (393km) on the Mellaha circuit. Maserati entered four 4CLs; the streamlined car for Luigi Villoresi and standard versions driven by Felice Trossi, Giovanni Rocco and Franco Cortese. From *Alfa Corse* came six Tipo 158s, but the sensation of the race were the two V8 twin-stage-supercharged 1,493cc Mercedes-Benz W165s, looking like smaller versions of the 1939 W163 Grand Prix cars and driven by Rudolf Caracciola and Hermann Lang. Although there had been rumours that Daimler-Benz was building a *Voiturette*, nothing firm was known until the entry was made at Tripoli. Auto Union did not have a 1,500cc car ready, but it later became known that they too were working on a car of this capacity.

Wilbur Shaw at Indianapolis with the Tipo 8CTF entered as the Boyle Special. Shaw scored the first of two wins with this car. He had also won the 1937 race with the Offenhauser-powered Gilmore-Shaw and finished second in 1938. (Guy Griffiths Collection)

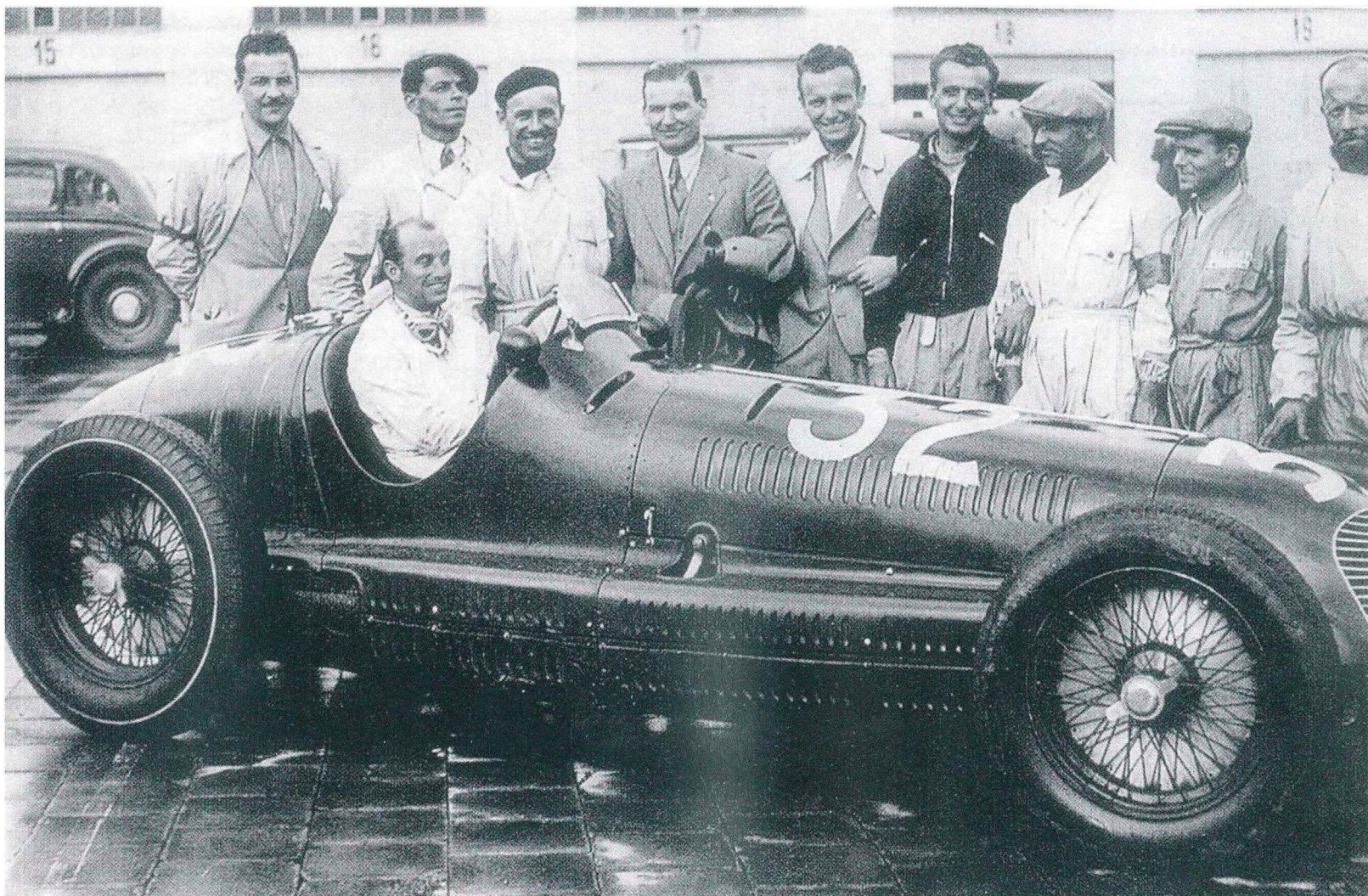


In practice Villoresi made a supreme effort with the streamlined 4CL and set fastest lap in 3min 41.80sec – about 134mph (215kph) – and this very high speed suggests that the car's claimed top speed of 170mph (274kph) was not exaggerated. It was all to no avail, for Villoresi had difficulty in selecting a gear at the start and a piston failed before he had completed the first lap. Trossi (4CL) and Cortese (6CM, presumably with the 16-valve engine) were also eliminated by piston failure.

When the Governor of Libya, Marshall Italo Balbo, dropped the flag for the start of the race, Lang and Caracciola accelerated into the lead, Lang was never headed throughout the race and they went on to take the first two places. Farina (158) had forced his way past Caracciola, but he and the Alfa drivers, Aldrighetti, Biondetti, Pintacuda and Severi all retired because of overheated engines. The surviving Alfa Romeo driver, Emilio Villoresi, finished third, two laps in arrears, and Piero Taruffi (*Scuderia Ambrosiana* 6CM) took fourth place, two laps behind him.

Despite this debacle, Maserati was to enjoy a successful year with the 4CLs – except when they raced against the Alfa Romeo 158s. In the 142-mile (228km) Targa Florio, run again as a *Voiturette* race in Favorita Park, Palermo on 14 May, Luigi Villoresi and Piero Taruffi with works 4CLs took the first two places ahead of Barbieri with a private 6CM. Wakefield first drove his new 4CL in the 153-mile (246km) Naples Grand Prix on the Posillipo circuit on 28 May and scored a fine win ahead of the works cars of Taruffi and Cortese.

A few days later, on 31 May, Maserati scored one of their greatest victories. After protracted difficulties with the Maserati factory, Wilbur Shaw drove an 8CTF in the Indianapolis 500 Miles race. A car had been ordered from the Bologna works in 1938 by Cotton Henning, chief mechanic to regular Indianapolis entrant 'Umbrella Mike' Boyle, a Chicago labour leader with other business interests. What the team had expected to be shipped out was not clear, but certainly 6CM with chassis number 1552 was not a



suitable car for the 500-mile (805km) race. This car is shown outside the Miller works on Page 67.

In any event an order was placed with Maserati for a Tipo 8CTF to be shipped out in March 1938. When it was unloaded and checked in the United States, it was discovered that Maserati had failed to drain the engine after the car had been tested at Modena, the water had frozen during shipping and cracked the blocks. Another engine was shipped out in time for the race, Shaw qualified third fastest at 128.977mph (207.65kph) and won easily from Snyder (Thorne Engineering Special) and Bergere (Offenhauser Special).

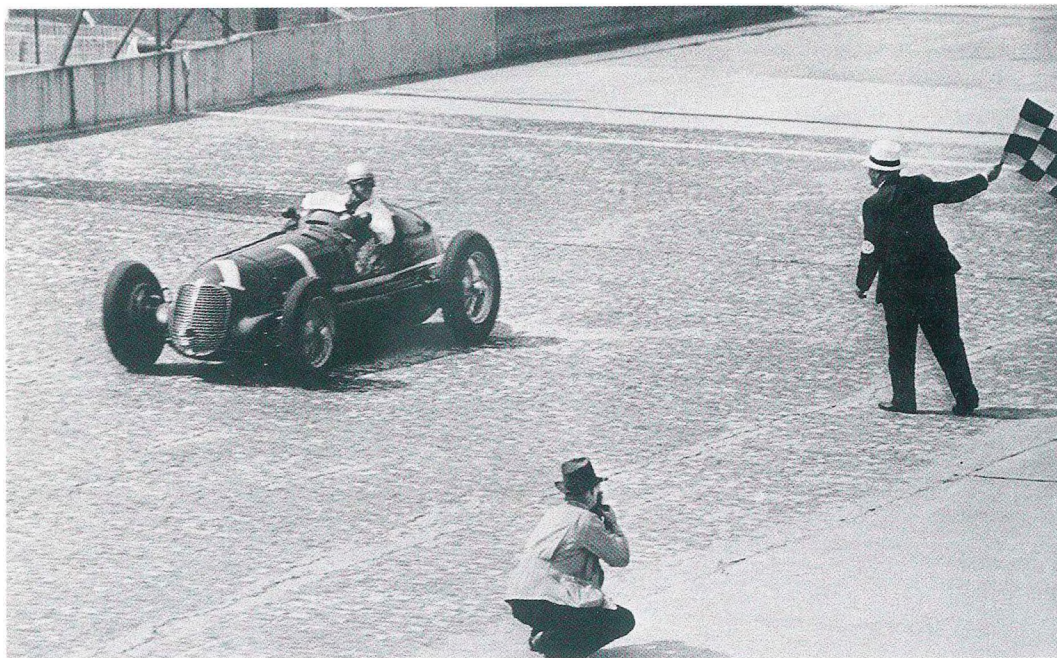
Following the signing in Berlin of the

Paul Pietsch at the wheel of the Tipo 8CTF which he drove in the 1939 German Grand Prix. He led briefly and finished third behind a Mercedes-Benz and an Auto Union. (Guy Griffiths Collection)

German-Italian Axis on 21 May, a number of races in Italy were cancelled because of anxiety that war was about to be declared. Two works Maseratis were entered in the 200-mile (322km) Nuffield Trophy race at Donington Park on 10 June, but were withdrawn, and Tongue failed to start the race because of a broken final drive. Wakefield next drove his 4CL in the Picardie Grand Prix at Peronne on 11 June. Because of the small entry, this race was run in a 60-mile (96km) heat and a 90-mile (145km) final. In the face of very weak opposition Wakefield won from other Maseratis driven

by Sommer (with the de Puy/de Graffenried 6CM) and Horvilleur (6CM).

Because of Mussolini's decree, neither Alfa Corse nor the works Maserati team could enter the French Grand Prix meeting on 9 July. The Grand Prix proved a debacle for Mercedes-Benz, as all three entries retired and Muller and Meier with Auto Unions took the first two places. Earlier in the day at Reims Wakefield had dominated the Voiturette 186-mile (300km) Coupe de Commission Sportive, but fell back because of brake trouble to finish second behind Armand Hug (4CM with 4CL engine).



Wilbur Shaw with Mike Boyle's 8CTF takes the chequered flag to win at Indianapolis in 1940 for the second successive year. (Guy Griffiths Collection)

The same day the 93-mile (150km) Circuit of Carnaria was held over a 3.7-mile (6km) circuit at Abbazia (after the Second World War it was ceded to Yugoslavia and became known as Opatija). There was no foreign opposition and it was inevitably another Maserati-dominated race. Competing for the first time since his brother's death while demonstrating an Alfa Romeo 158, Luigi Villorosi (works 4CL) won from Cortese with another works 4CL. Rocco finished fourth with a 6CM, believed to have the 24-valve engine.

On 16 July the *Voiturette* Albi Grand Prix attracted entries that included the 4CLs of Reggie Tongue and 'Johnnie' Wakefield. During practice in the wet Armand Hug overturned his 4CL-engined 4CM and suffered injuries that included a fractured skull and resulted in partial paralysis. The race was run in two 100-mile (161km) heats and the results were the same in both, Wakefield first with Tongue in second place and 'Bira' (ERA) third.

The two 8CTFs were entered by the works in the 312-mile (502km) German

Grand Prix at the Nürburgring on 23 July and were driven by Luigi Villorosi (3030) and Paul Pietsch (3031). Pietsch drove magnificently, holding second place on the second lap and then taking the lead on the third lap when Lang (Mercedes-Benz) pulled into the pits. He was closely followed by a fist-waving Nuvolari (Auto Union), who went ahead before the end of the lap. Pietsch kept going fast enough, despite two spins and four pit stops, to finish third, a lap behind Caracciola (Mercedes-Benz) and Muller (Auto Union).

Villorosi was also fast, but spun backwards into a ditch on lap eight and after the Maserati had been pushed back on to the road, he drove slowly back to the pits to retire. Adolf Hitler watched the race and presented the prizes. At the prize-giving Hitler told Pietsch in strong terms of his displeasure that a German had led the Mercedes-Benz and Auto Union entries with an Italian car. Later Pietsch commented that the last thing he wanted to do was upset Hitler, so he said nothing and afterwards kept a very low profile if he

happened to be in the vicinity of the *Führer*. This was the only race in which Maserati entered the works 8CTFs in 1939.

After the German Prix the 8CTFs were sold to the *Ecurie Lucy O'Reilly-Schell*. This was the husband and wife team of Laury Schell, who is believed to have been brought up by a French stepfather, and Lucy O'Reilly, the wealthy daughter of Irish-American entrepreneur Francis O'Reilly. Their eldest son, Harry, was born in 1921 and was to become a racing driver of considerable ability. Laury and Lucy had forged strong links with Delahaye and raced these cars under the name *Ecurie Bleue*. An 8CTF was to make one more appearance in Europe, but Laury Schell was killed in a road accident in October. His widow then shipped both cars to the United States.

The Coppa Ciano and the Coppa Acerbo were held to *Voiturette* rules, as the Italian Grand Prix would have been, had it taken place. Villorosi, Cortese and Taruffi drove works 4CLs in the 216-mile (348km) race at Livorno on 30 July. Four *Alfettas* with new and much more shapely bodies were entered. Farina led throughout with his 158, trailed by the works 4CLs. Biondetti brought his 158 through to second place, but was forced to stop at the pits. Villorosi retired his 4CL because of a broken half-shaft, but Cortese took second place and Taruffi (*Scuderia Ambrosiana* 6CM) was passed by Biondetti, fighting back after his pit stop, in the closing laps of the race.

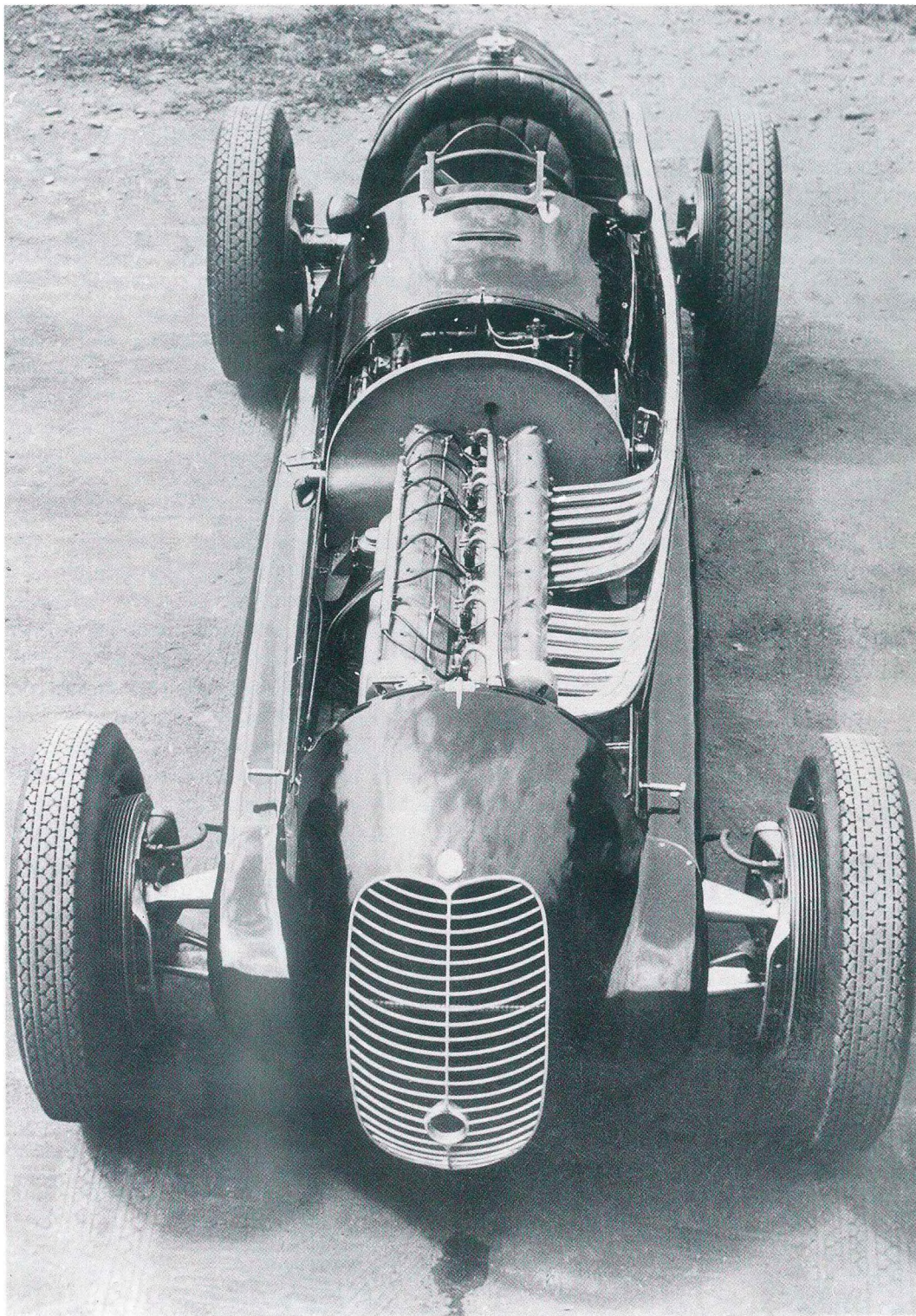
Another battle between Maserati and Alfa Romeo followed in the 224-mile (360km) Coppa Acerbo on 13 August. There was another tragedy on the first of the three practice days when Mario Aldrighetti lost control of his 158 on a winding section of the course and overturned into a ditch. The car caught fire and Aldrighetti, trapped inside it, suffered severe burns to which he succumbed the following day. Despite this, *Alfa Corse* decided to run in the race. The two 4CLs driven by Cortese and Villorosi put up a stiff fight and were in second and third places behind Farina (158) on the last lap, but, through a

stupid miscalculation of the quantity of fuel needed for the race, both ran out on the last lap and were posted as retirements.

On 20 August the Swiss Grand Prix and the Prix de Berne, which were incorporated in it, were held at Bremgarten. By now the clouds of war were looming low over Europe and the atmosphere at the circuit was gloomy and bleak. There were two 85-mile (137km) heats, one for Grand Prix cars and one for *Voiturettes* and the first six finishers in the *Voiturette* heat ran in the final. *Alfa Corse* had brought along two 158s, but the works Maseratis were not entered. *Officine Alfieri Maserati* had issued a statement that it was not prepared to race the 4CLs against Grand Prix cars. Wakefield and Rocco entered their 4CLs and Pietsch was at the wheel of his 4CM.

Farina and Biondetti took the first two places in the 1,500cc heat and Wakefield was third with his private 4CL. Pietsch and Rocco took fourth and fifth places. Rain had started to fall just before the final and in these conditions Farina with his 158 held second place for six laps, but as the track dried the bigger cars were able to pass him. He finished sixth and won the Prix de Berne from Biondetti (158) and Wakefield. René Dreyfus drove an 8CTF for the *Ecurie Lucy O'Reilly-Schell* and finished eighth.

Eleven days later, in the evening of 31 August, a dozen German convicts were dressed in Polish uniforms and ordered to attack a German radio station at Gleiwitz in Upper Silesia, just over the border from Polish territory. The following morning German radio stations broadcast the dishonest and incredible news that Poland had attacked the Third Reich. Already the German invasion of Poland had begun, Panzer divisions were rolling across the Polish countryside and attacks on Polish cities from the air had begun. In March 1939 Britain, with reluctance, had abandoned its policy of appeasement and a joint Franco-British pledge had been given to support Poland if it was threatened by armed aggression.



This is the second Tipo 8CL built by Maserati in late 1941 but not raced until 1946. With 32 valves and cylinder dimensions of 78 x 78mm, the engine was an 8-cylinder version of that used in the 4CL.

The British and French governments gave Germany an ultimatum that if it did not withdraw from Poland by 10am on 3 September, they would be at war with Germany. On that day, after the official commencement of hostilities, the last pre-war Grand Prix took place. This was the Yugoslav Grand Prix at Belgrade, held that year only, and the German teams were already at the circuit when the invasion of Poland started. They expected to receive orders to return to Germany, but instead received confirmation from Minister for Sport Hühnlein that they should run. The race was reduced in length to 86.99 miles (140km) and did not start until 5pm in the afternoon. Tazio Nuvolari (Auto Union) won from von Brauchitsch (Mercedes-Benz). Another European Grand Prix would not be held for more than five years.

1940–41

Initially Italy did not declare war on the Axis side and most Italians, whatever their political orientation, hoped that it would not. For the Italian teams it was business as usual and racing continued in Italy. By early 1940 Maserati had settled into their factory in the Via Ciro Menotti in Modena and had produced a new Grand Prix contender. This was the Tipo 8CL, similar in most respects to the 8CTF, but with a 32-valve 2,978cc (78 x 78mm) engine said to develop 430bhp at 6,400 rpm. The wheelbase had also been increased slightly. As there were no European Grands Prix, this car, 3034, was shipped out to the United States to run at Indianapolis.

The Italian government had banned the traditional Mille Miglia road race in 1938 after a Lancia Aprilia had left the road at Bologna, running into the crowd, killing ten spectators and injuring another 23. On 20 April 1940 the Mille Miglia was revived as a closed-circuit race over nine laps of a course roughly triangular in shape, with a length of 103 miles (166km) and running from

Brescia to Cremona, then to a point near Mantua and back to Brescia. Despite the state of hostilities BMW entered the race and one of their 328 cars with a coupé body by *Carrozzeria Touring* driven by von Hanstein/Baumer won the race from the Alfa Romeo of Farina/Mambelli.

While Maserati did not enter this race, both it and the Targa Florio were to play important roles in post-war Maserati history. Like the Mille Miglia, the Targa Florio had been emasculated since 1937 and run as a race for *Voiturettes* in Favorita Park, Palermo. After the war, in changed political and social circumstances, both races were to be restored to their traditional form.

In the absence of Grand Prix racing, Tazio Nuvolari contemplated driving a 4CL in the 244-mile (392km) Tripoli Grand Prix on 12 May. He tested one of these cars, but decided that it was not fast enough. Both *Alfa Corse* and Maserati entered the Tripoli race. Luigi Villoresi with his works 4CL battled for the lead with Farina (158), but then Farina went ahead and had built up a lead of 17sec by the time both stopped to refuel at the end of lap 17. Farina was stationary for only 24sec, but Villoresi's stop lasted all of 57sec while the Maserati mechanics fumbled with the fuel churns.

He had lost any prospect of winning the race and finished third behind Farina and Alfa Romeo team-mate Biondetti. Cortese retired his works Maserati and Ascari brought his outdated 6CM across the line in ninth place. On 23 May Villoresi, Cortese and Rocco – in the absence of the *Alfettas* – took the first three places with their works 4CLs in the 142-mile (228km) Targa Florio.

The Tripoli and Palermo races were held in blissful insensitivity to events in Western Europe. By the end of May the German Panzer divisions had broken through the Belgian Ardennes and in their drive to the English Channel had trapped the British Expeditionary Force at Dunkirk, where an incredible rescue operation by an armada of

ships took place. On 10 June *Il Duce*, failing totally to appreciate the consequences, declared war on France and Great Britain and invaded southern France. Within a month Marshall Balbo, Governor of Tripoli and a famous aviator, was killed when his aircraft was shot down at Tobruk. Before the end of the year British forces under General Wavell had routed the Italians at Sidi Barrani and were close to driving them out of Libya.

On 7 December 1941 the Japanese attacked Pearl Harbor, and the following day the United States and Britain declared war on Japan. Three days later Germany and Italy, just as the German forces were being repulsed in the outskirts of Moscow, declared war on the United States. The Indianapolis 500 Miles race took place in 1940 and 1941, but thereafter was not held until 1946.

Four Maseratis were entered in the 1940 Indianapolis 500 Miles race held on 31 May, but only three of them started. Wilbur Shaw drove the 1939-winning 8CTF, veteran Argentinian driver Raoul Riganti was entered with the 8CL and the two ex-works 8CTFs were to be driven by René Dreyfus and René Le Begue. Dreyfus could not lap fast enough with his car to qualify as a starter, so he went out in Le Begue's. The engine blew up, putting a connecting rod through the side, the engine from Dreyfus' car was installed in Le Begue's car and shared by both drivers in the race. Shaw won again at the slightly lower speed of 114.28mph (184kph) from Mays (Bowes Seal-Fast) and Rose (Wheeler-Miller). The *Lucy O'Reilly Schell* car finished tenth. Riganti crashed the 8CL.

In the 1941 Indianapolis race Wilbur Shaw was leading with the Boyle 8CTF and seemed likely to gain a third successive victory, but he crashed after a wheel collapsed. Apparently this had been damaged in a pre-race garage fire, but the damage had not been noticed by the mechanics. During 1941 Maserati completed a second 8CL, but this was not raced until 1946.

Chapter 7

The Maserati brothers and OSCA

THE SURVIVING MASERATI BROTHERS, Ernesto, Ettore and Bindo left the company on 1 January 1947, following the completion of their contractual consultancy period. On 1 December 1947 they set up *Officina Specializzata Costruzione Automobili* (OSCA, later more usually referred to as Osca) with small premises in Bologna and very little machinery. There they built an 1,100cc sports car, which Luigi Villorosi drove to a win on its second appearance in the 1948 Naples Grand Prix, beating the 2-litre Ferraris. The brothers went on to build a range of twin overhead camshaft 4-cylinder sports-racing cars in engine sizes from 750cc to 2,000cc.

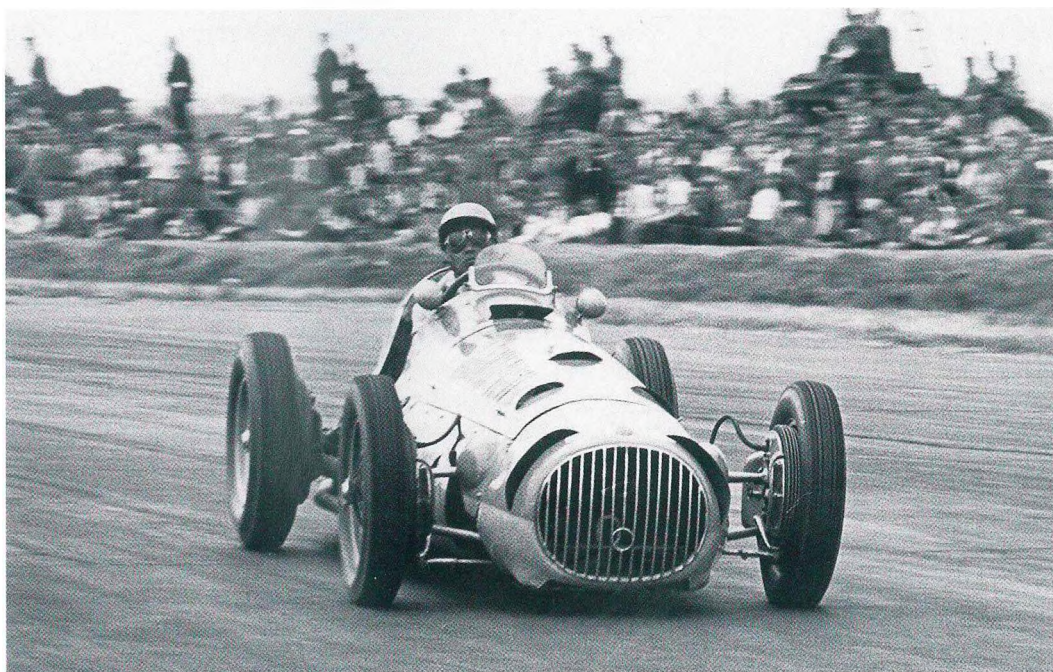
These cars won the 1,100cc sports car class in the Mille Miglia in 1950–53 and 1955–57 (there was no 1,100cc sports class in 1954). They finished second in the 1,500cc class in 1954–55 and won this class in 1956. Oscas also won the 750cc class of the Mille Miglia in 1956–57. The company's greatest success was an outright win by Stirling Moss and Bill Lloyd with a Briggs Cunningham-entered 1,500cc Osca in the 1954 Sebring 12 Hours race.

Osca also built a V12 4.5-litre single overhead cam per bank, single-plug per cylinder unsupercharged Grand Prix engine in 1951. The design was traditional Maserati and it retained the familiar 78 x 78mm bore and stroke of the 4CL and 8CL models. It was installed in a 4CLT/48 Maserati chassis and raced by 'B. Bira'. As power output was only 300bhp at a time when the unblown Grand

Prix Ferrari engine was developing 380bhp and it was also much heavier, it achieved no success except a win in a 5-lap race at Goodwood. A second car that combined this engine with the Osca's own tubular, ladder-type chassis was delivered to Franco Rol in time for him to drive it in the Italian Grand Prix in 1951, but it too, not unexpectedly, was also a failure.

The Maserati brothers had close links with Paris-based Amédée Gordini, who was an Italian by birth. The 6-cylinder 2-litre engine of the Formula 2 Oscas built for the 1953 season had much in common technically with contemporary Gordinis. These Oscas were raced by Monégasque veteran Louis Chiron and Elie Bayol and although a small measure of success was achieved,

For 1951 'B. Bira' acquired this Grand Prix OSCA, which combined the Maserati brothers' V12 4,472cc engine with a Maserati 4CLT/48 chassis. It was not powerful enough to achieve any worthwhile success. Here the Siamese driver is seen with his OSCA in the International Trophy at Silverstone. He finished third in his heat but was trailing in seventeenth place when a torrential storm and flooded circuit caused abandonment of the final after six laps. (Guy Griffiths)





The most successful OSCA was the 4-cylinder 1,453cc sports car. Veteran Monégasque driver Louis Chiron is seen at the start of the 1954 Carrera Panamericana road race in which he took a class third behind two of the new Porsche 550 Spyders.

they were once again too heavy and insufficiently powerful.

Following the recognition of Formula Junior as an International formula in October 1958, Osca built a prototype Fiat-powered car for this category of racing and it appeared late in 1959. With this car Colin Davis, son of Bentley driver and *The Autocar* sports editor 'Sammy' Davis, was virtually unbeatable in Italian Formula Junior events in 1960 and won that year's Italian-sponsored International 'World Trophy' based on the results of a series of

races on the European mainland. A couple of these cars were sold to private owners. As was so often the case with the Maserati brothers' efforts, the Formula Junior cars were too heavy and all Italian cars built for this category of racing were soon eclipsed by British rear-engined cars, particularly the Lotus 18 and its derivatives.

During 1959 Fiat put into production a 1,491cc version of the Osca twin-cam engine and this powered their 1500S open two-seater and coupé. From 1962 to 1966 when production ceased, they were

powered by a 1,598cc version of the same engine. Like the contemporary MG A Twin-Cam, these cars had a reputation as oil-burners and the bodies also corroded rapidly. The Maserati brothers used the same engines in their own limited production GT cars with bodywork by Fissore, Vignale and Zagato.

By 1963 the youngest surviving Maserati brother, Ernesto, was 65 and the brothers decided to retire. They sold OSCA to *Meccanica Verghera* based at Gallarate and makers of MV-Agusta racing and road motorcycles and, from 1964, helicopters. MV continued Osca production, however, until 1966, but then closed the company down.

Chapter 8

Industrial problems and the split-up of the Orsi Group

IN THE IMMEDIATE POST-WAR years Alberto Massimino carried out intensive design work which included development of a range of 6-cylinder cars, and the much improved 4CLT/48 version of the original 16-valve 4CL. After 1948, however, development of the cars temporarily stagnated. Throughout Italy there was widespread industrial unrest, largely promoted and supported by the Italian Communist party. In Modena their focus was on the Orsi Group, the largest employer. This led to a lock-out of the management of Maserati in February 1949.

The situation became much worse the following year. In January a Communist march on the Orsi foundry turned from potential violence to tragedy when the *Carabinieri* lost control of the situation and shot six of the protesters, none of whom was in fact an Orsi employee. By adopting the son of one of the workers shot by the police, the Secretary of the Italian Communist party made considerable political capital out of the situation. However, the workers remained in occupation of the factories and Adolfo Orsi would not come to terms with them. He was a man of principle and not expediency. His attitude was that the factories were his, it was his money that had funded the business and it would be he and not the unions who would decide how things would be run.

In contrast Enzo Ferrari was a man of expediency and not principle. Whereas Adolfo Orsi had tried in pre-war days to

remain politically neutral, Ferrari had been an active supporter of the Fascist government. Ferrari now collaborated with the Communist unions and the development and production of Ferrari cars was uninterrupted. A workers' co-operative had taken over the running of the *Fonderie di Modena*, and it was not until 1951 that Orsi reached agreement with the unions and was able to regain control of his business – on the same terms that he had offered the workers originally.

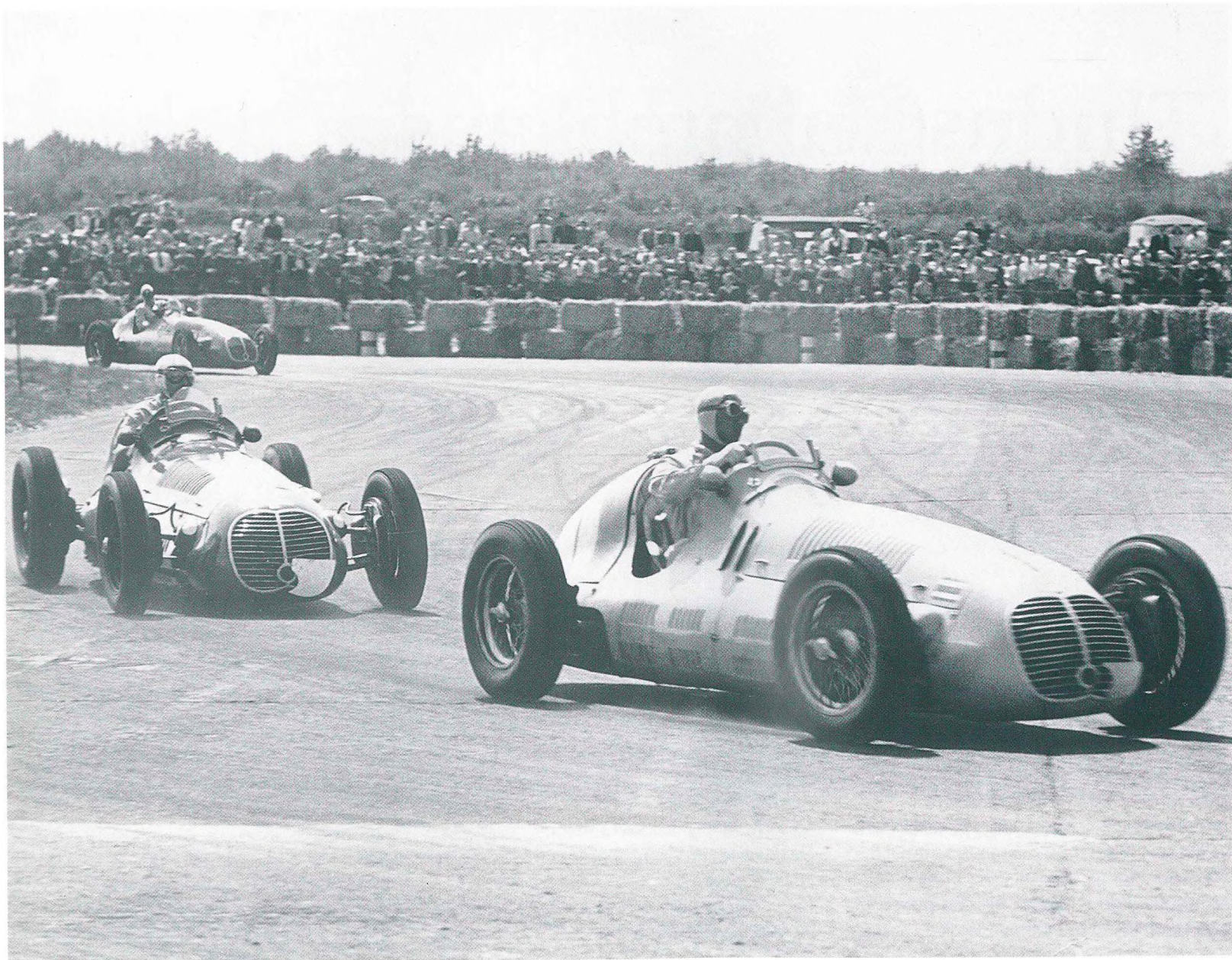
During this period development of the 6-cylinder competition cars was abandoned. A small number of A6-1500 touring cars were assembled, mainly in the Turin coach-building works of Pinin Farina who built the majority of bodies for these cars. Work on the 4CLT/48s had to be undertaken away from the factory and these cars were overhauled and rebuilt in the old Fiat dealership by workers who were loyal to Orsi. Light trucks with twin-cylinder two-stroke engines were built in the car works in the Viale Ciro Menotti from 1947 onwards and according to Georgano, production of these ceased in 1950.

Dissension had been building within the Orsi family for some while and this came to a head in 1953. The ultimate downfall of Maserati can be traced back to the split in the group and Adolfo Orsi's subsequent attempts to rebuild the business. Adolfo's sisters Bruna and Eida held substantial shareholdings in the group, but Bruna was strongly influenced by her husband Ing

Alceste Giacomazzi and they were pressing for a split-up in the group. This was partly because they wanted to control their own business operation, but another factor was that they objected to the very large sum paid to World Champion Juan Manuel Fangio to drive for Maserati in 1952. Because of Fangio's bad crash at Monza in June in 1952 – when he was lucky to survive, suffering a broken neck vertebra after being thrown from the car – and his inability to race for the rest of the year, they considered the money to have been wasted.

In February 1953 Adolfo Orsi reluctantly agreed to the break-up of the Orsi Group. He retained around 35% of the business, including *Officine Alfieri Maserati*, the milling machinery company, the iron and steel trading company and the SAIMM agricultural equipment business. Adolfo's sisters received the iron and steel factory, including the foundry, together with the sparking plug and battery business.

The same year *Fabbrica Candele Accumulatori Maserati* started to manufacture motorcycles. It was a time of high demand for motorcycles in Italy and Maserati was only one of many new manufacturers to enter the market. The Maserati products ranged from 48cc and 123cc two-strokes to single-cylinder four-strokes ranging from 123cc to 246cc. The majority of the machines built were based on the products of the Italmoto company based in Bologna and to which the production rights had been acquired.



In the 1949 British Grand Prix at Silverstone, Siamese driver Prince Bira with a Maserati 4CLT/48 leads two similar cars through the chicane. Because of Maserati's industrial problems, all factory work on the 4CLT/48s was carried out in the workshops of Adolfo Orsi's old Fiat dealership. (Guy Griffiths)

The 246cc Tipo 250-T4 with single cylinder, single overhead camshaft engine was very different and the company designed this model in its entirety. The Maserati range was very typical of the period, ranging from commuter bikes to machines

of distinctly sporting pretensions. Initially Maserati motorcycles sold well, but production ceased in 1960.

When the Orsi sisters took over the company, they had the right to use the Maserati name only for sparking plugs and

batteries. Adolfo made it clear that they had no rights to use the Maserati name for motorcycles, but he did not make an issue of it as he wished to avoid further friction within the family. It only became a matter of importance in 1964, following the financial collapse of the sparking plug and battery company, when the liquidator offered for sale the right to use the Maserati name for motorcycles and the use of the trademark was then finally resolved.

Chapter 9

The immediate post-war years, 1946–51

BRITISH AND AMERICAN TROOPS invaded Sicily in July 1943 and southern Italy two months later. Mussolini was deposed and arrested in July 1943 and the Italian government surrendered on 8 September 1943. German troops in Italy fought on stubbornly and Rome was not liberated until June 1944. Before the end of the war Italy had changed sides and its troops were fighting alongside the Allies. Mussolini was rescued from imprisonment by German paratroopers and put in control of the puppet Italian Social Republic would-be government. The Italian resistance captured Mussolini in 1945, shot him – his corpse being publicly displayed in Como and Milan.

With Russian troops only a few hundred yards away, Hitler committed suicide in his Berlin bunker by shooting himself on 30 April 1945. German forces in Italy surrendered unconditionally on 2 May and on 7 May Admiral Karl Dönitz, appointed *Führer* by Hitler on his death, unconditionally surrendered on behalf of Germany. On 6 August 1945 the Americans dropped an atomic bomb on Hiroshima and dropped another atomic bomb on Nagasaki three days later. At long last, on 8 August, Russia had declared war on Japan and invaded Manchuria. Japan surrendered on 14 August 1945. The first post-war motor race meeting was held in the Bois de Boulogne in Paris on 9 September 1945, just over three weeks after Japan's unconditional surrender.

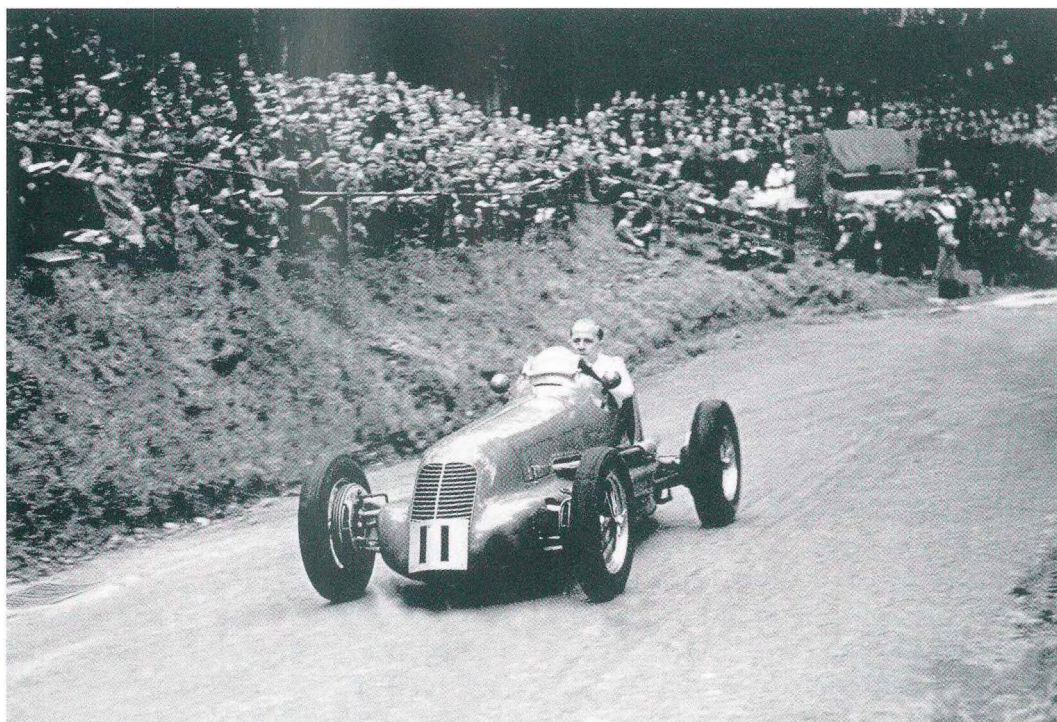
1946

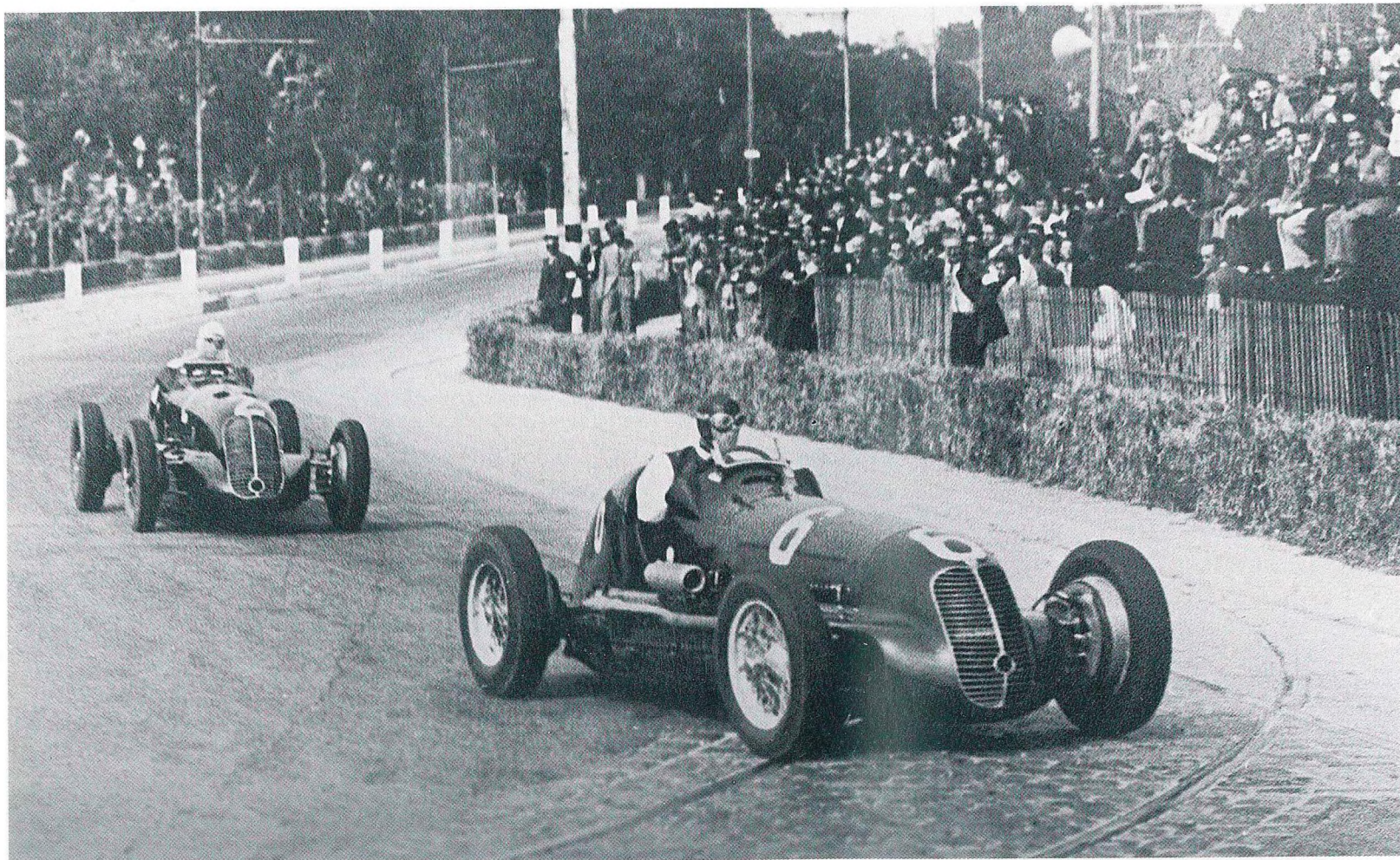
International racing resumed in 1946 and for this one year the Grand Prix formula remained, as in pre-war days, 3,000cc supercharged/4,500cc unsupercharged. The majority of cars raced however were pre-war *Voiturettes*, Maseratis and the works Tipo 158 Alfa Romeos which were entered in only four events during the year, together

with a small number of 3-litre supercharged Alfa Romeos and the unblown Talbots.

Maserati built about 14 new 4CLs to supplement those racing since pre-war days, but changes were limited to an external oil cooler, a larger carburettor air scoop and an additional scoop to cool the magneto. The strongest Maserati team was the Ruggeri brothers' *Scuderia Milano*, which raced several of the 4CLs that they

In 1946 one of the most consistent 4CL drivers was Reg Parnell with the ex-Johnny Wakefield car. Here Parnell is competing with the 4CL at Shelsley Walsh hill climb on 22 September 1946. (Guy Griffiths)





Scuderia Milano entered three 4CLs in the 1946 Marseille Grand Prix. Here Nuvolari leads Sommer and they were both at the wheel of Milano entries. Nuvolari set fastest lap before retiring and Sommer went on to win the race. (Guy Griffiths Collection)

had stored during the war years. In Britain, Reg Parnell had acquired chassis number 1569 that had been raced by 'Johnny' Wakefield and who had been killed during the war. Reggie Tongue had retired from racing and Bob Ansell bought his 4CL, chassis number 1567.

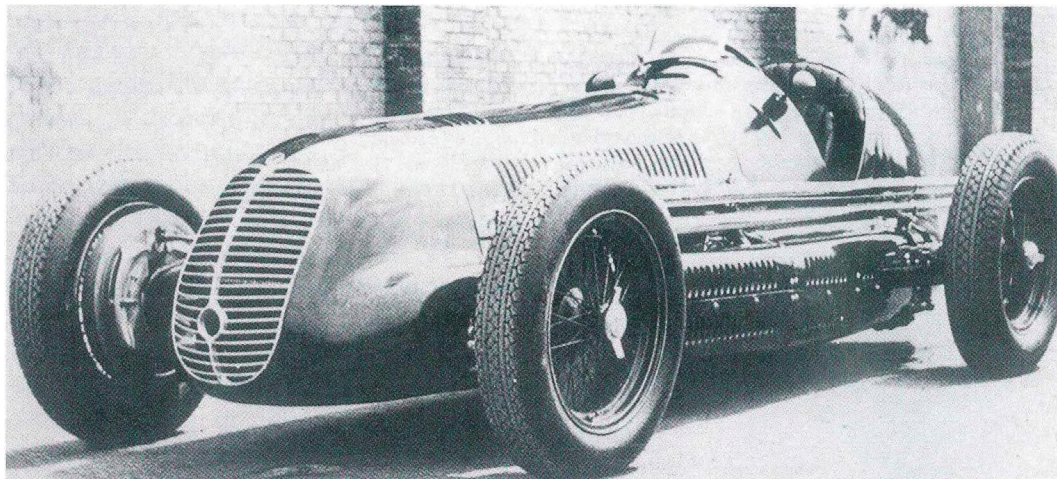
Without doubt the Alfa Romeo 158 and 159 *Alfettas* were the most successful Grand Prix cars in post-war years, the Maseratis could never beat them, but the Alfa Romeos ran only a limited number of races and in terms of the sheer number of races won, the Maseratis achieved a much higher score rate and all these successes were gained by what

were nominally, at least, private entries.

The International season started with the 123-mile (198km) Nice Grand Prix on 22 April. *Milano* entered 4CLs for Luigi Villoresi, Franco Cortese and Aialdo Ruggeri, together with a 6CM for Philippe Etancelin. The main opposition came from Raymond Sommer with a 3-litre supercharged Alfa Romeo 8C 308. Villoresi dominated the race, leading until he made a rather lengthy 3-minute pit stop, rejoining the race 90sec behind Sommer and then retaking the lead to win by a clear 1.9-mile (3km) lap. Chaboud and Grignard with 3.5-litre unsupercharged Delahayes finished in third and fourth places

and Cortese took over from Ruggeri to bring the other surviving *Milano* car across the line in fifth position.

Three weeks later on 12 May the Marseille Grand Prix was held in two 30-mile (48km) qualifying heats and a 60-mile (96km) final on the Prado street circuit. The three *Milano* 4CLs were driven by Nuvolari, Sommer and Ruggeri. The Swiss *Autosport* team entered 4CLs for de Graffenried and Basadonna and Enrico Plate was at the wheel of his own 4CL. It was at this meeting that de Graffenried and Plate first met and Toulou agreed to drive for Plate later in the year. The final was a boring procession and Sommer won from Plate. Ruggeri and de Graffenried finished fourth and fifth, while Nuvolari led his heat and set a new lap record before retiring because of valve trouble.



The second Tipo 8CL seen outside the Maserati works before being shipped to compete in the 1946 Indianapolis race with Villoresi at the wheel.

The 93-mile (150km) Paris Cup was held in the Bois de Boulogne on 30 May and was won by Jean-Pierre Wimille (3-litre super-charged Alfa Romeo) from Ruggeri. Another Paris race followed on 9 June, the 112-mile (180km) St Cloud Grand Prix on a street circuit through the suburb of that name and incorporating a reasonably well lit half-mile tunnel. This is now part of the A13 Paris-Rouen *Autoroute*. The works Alfa Romeo 158s made their first post-war appearance; the *Alfettas* led, but retired and Sommer with his *Milano* 4CL won from Louis Chiron with the still very competitive *monoplace* Talbot that had first raced in the 1939 French Grand Prix.

There was a strong Maserati entry in the Albi Grand Prix run in two 93-mile (150km) heats on 14 July. For this race *Scuderia Milano* had borrowed Plate's 4CL which was driven by Nuvolari. The great Tazio won the first heat and was second to team-mate Villoresi in the second heat. Villoresi had however non-started in the first heat, so *Il Mantovano* was the overall winner. It was the last win in Nuvolari's great racing career.

A week later the *Scuderia Milano* drivers met up with the works Alfas again in the Grand Prix des Nations run in two qualifying heats and a final on a street circuit in

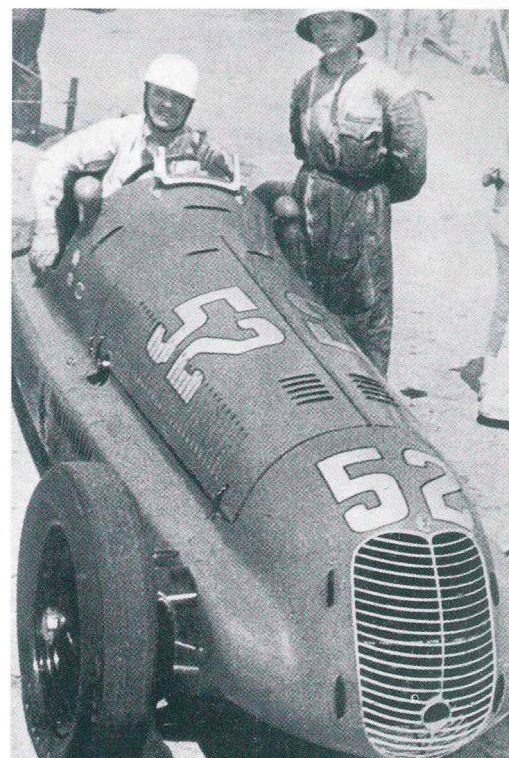
Geneva. In the final, the Alfas of Farina, Trossi and Wimille took the first three places. On the first lap of the final Villoresi tried to pass Trossi, then in third place, but a brake grabbed, he mounted the pavement and collided with a lamppost. There was obviously no love lost between Wimille and Nuvolari, for when Wimille, then leading, lapped Nuvolari, Tazio deliberately rammed him. The Frenchman spun, but he kept his engine running to rejoin the race, having dropped two places.

The racing scene now moved to Italy and on 1 September the Turin Grand Prix was held over 174 miles (280km) of the Valentino Park circuit near the River Po. Varzi and Wimille led throughout with their Alfas to take the first two places, but Sommer drove a gutsy race with his 4CL to finish third. Nuvolari had a very nasty moment when his 4CL shed a wheel while travelling flat-out along a section of the course beside the river.

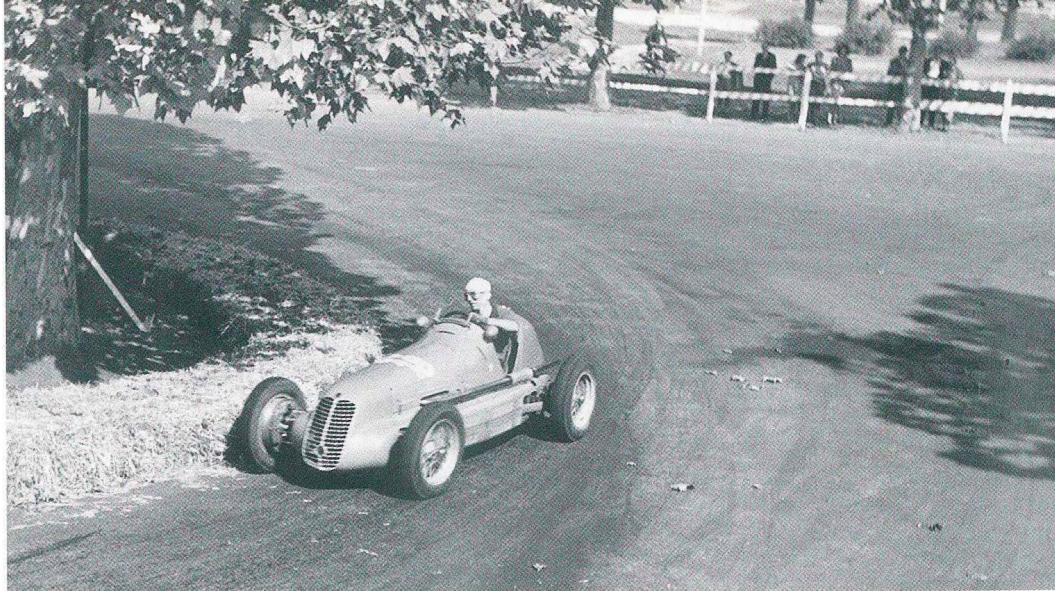
Next came the Milan Grand Prix on 28 September and staged over a tight 1.9-mile (3km) circuit in the Parco Sempione in two 34-mile (54.7km) qualifying heats and a 57-mile (92km) final. Trossi, Varzi and Sanesi took the first three places for Alfa Romeo, and Villoresi, still not fully recovered from his crash at Geneva, finished

fourth. The only other finisher was de Graffenried. Nuvolari was obviously a very sick man, for he crossed the line at the end of the first heat holding a bloodstained handkerchief to his mouth and he was forced to retire in the second heat after only three laps.

During 1946 the second 3-litre 8CL, chassis number 3035, was raced for the first time. *Scuderia Milano* entered it for Luigi Villoresi at Indianapolis on 31 May. His finish in seventh place was lower than the team expected. This Maserati was shipped back to Europe and on 25 August Sommer and Henri Louveau shared it in the 157-mile (253km) Circuit des Trois Villes at Lille. There was not much in the way of opposition and they finished a clear lap ahead of 'Levegh' with a Talbot. Villoresi

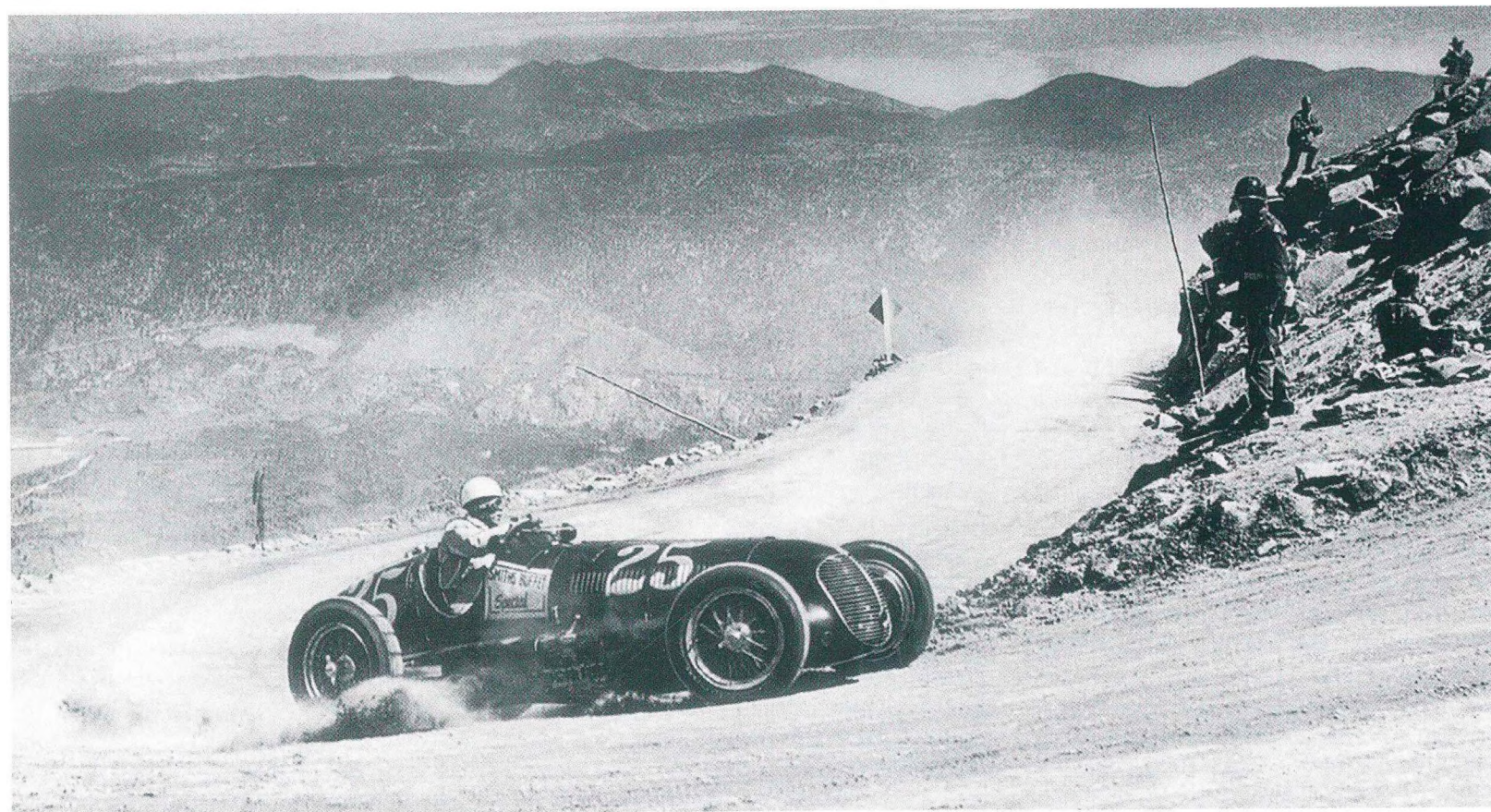


Luigi Villoresi seen at Indianapolis with the previously unraced 8CL, chassis number 3035. It was entered by *Scuderia Milano*. The 8CL did not run as well as expected and Villoresi finished seventh. (Guy Griffiths Collection)



Luigi Villorosi drove this Scuderia Milano-entered 4CL-1500 into fourth place behind three works Alfa Romeo 158s in the 1946 Milan Grand Prix. The circuit was in the Parco Sempione used for the Milan Trade Fair.

Louis Unser, uncle of Bobbie Unser, with one of the ex-Lucy O'Reilly Schell 8CTF Maseratis at Pike's Peak hill climb in the Rocky Mountains of Colorado on 8 November 1946. He won the event. (Guy Griffiths Collection)



drove the 8CL in the 194-mile (312km) *Penya Rhin* Grand Prix held on the Pedralbes street circuit at Barcelona on 27 October. He led easily before a pit stop enforced by engine problems, rejoined the race, but retired shortly afterwards. Four-cylinder Maseratis took the first three places in the order Pelassa, Basadonna and Puigpalau.

1947

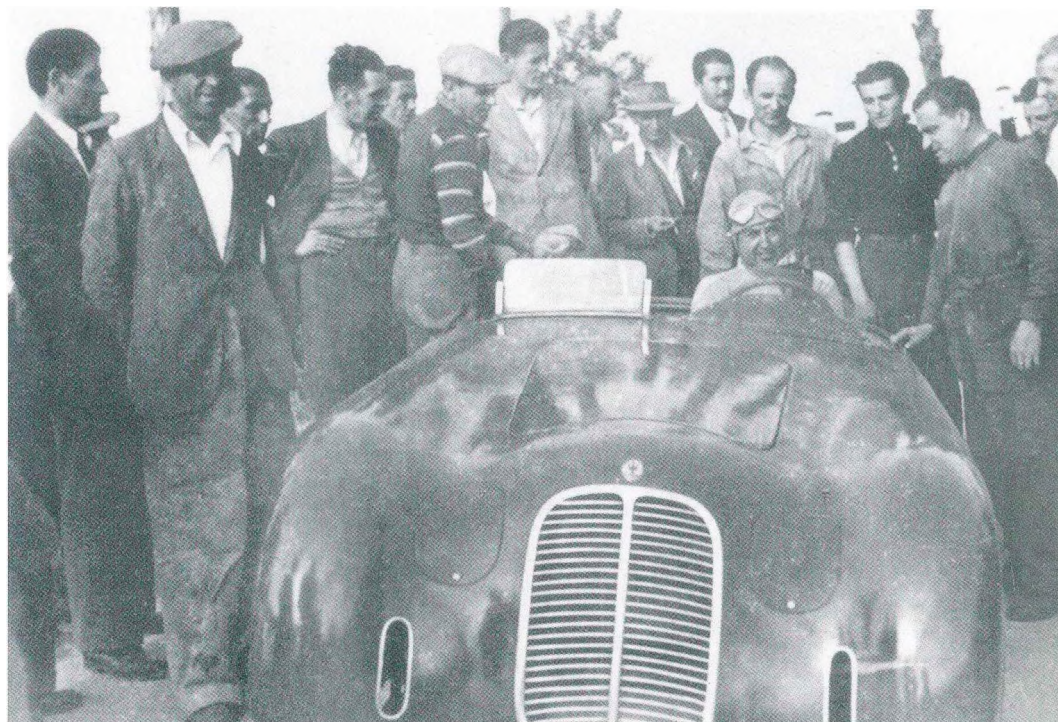
For 1947 the new Formula A with engine capacity limits of 1,500cc supercharged/4,500cc unsupercharged was introduced. Although this change banned the pre-war 3-litre supercharged Grand Prix cars from most races, it made no real difference to the pecking order – Alfa Romeo won the few races it entered and Maseratis won almost all the rest.

However, *Scuderia Milano* had dispatched two 4CLs to Argentina to compete in the first of the *Formule Libre* races which became known as the *Temporada* series, because they were held in the heat of the South American summer. Argentine President, Juan Domingo Peron, was a great motor racing enthusiast. As a soldier he had played a leading role in the military coup that had overthrown the government in 1943, and gained very wide support for the social reforms that he had introduced. He became President in 1946.

Increasingly Peron was to run the country as his own private fiefdom and it was to result in his downfall and eventual exile. Because of Peron's enthusiasm for motor sport, leading Argentinian drivers were sponsored by the government thorough the *Automovil Club Argentino* and this was to lead to Juan Fangio, Froilan Gonzalez, Onofre Marimon and others having the opportunity to compete in Europe and establish reputations that attracted works teams.

In the first of the Argentine races, the 87-mile (140km) Rosario Grand Prix held on 2 February, Villorosi with a *Milano* 4CL finished second to the great Achille Varzi at the wheel of a supercharged 3-litre Alfa Romeo 8C 308. The scene then switched to the new Palermo Park circuit in Buenos Aires where on 9 February Villorosi won the 75-mile (121km) Juan Peron Cup race from Alfa Romeos driven by Varzi and Brazilian 'Chico' Landi. Six days later the Eva Peron Cup race was held over the same distance on the same circuit and again Villorosi won from Pessatti (3-litre supercharged Alfa Romeo) and Palmieri (also with a *Milano* 4CL).

Scuderia Milano continued racing in 1947 and their technical chief, Mario Speluzzi, carried out his own development work on the 4CLT/48s, but *Milano* cars became notoriously unreliable, not because of Speluzzi's modifications, but because of sloppy preparation work. From 1947 the main Maserati entrant was *Scuderia*



Ascari with a Tipo A6-1500 in 1947. This 1,488cc 6-cylinder car was the last design for Maserati by the surviving brothers. Once again, bodybuilder Menardo Fantuzzi stands alongside Ascari and to his left, in white overalls, is Luigi Villorosi.

Ambrosiana headed by Count 'Johnny' Lurani, a well-known team and driver combination in pre-war days, and this was primarily a commercial operation. The team fielded cars for Luigi Villorosi and Alberto Ascari, which were looked after by Maserati mechanics with Guerino Bertocchi in charge of operations, thus the cars received the latest factory modifications.

Ambrosiana also made a business of leasing cars to drivers, who chose this way of going racing either because of their relatively limited finances or, in the case of British drivers, as a means of circumventing the very strict Board of Trade regulations relating to the expenditure of money overseas by British Nationals. If a car was brought into the United Kingdom on a short-term basis, import duty was not payable and, likewise, if lease payments were made within the UK, this was also legal. It was, of course, a system open to abuse and raised questions as to how the owners of these cars exported

the lease payments and about the real identity of certain cars known to have bogus chassis plates.

The leading British driver to take part in one of these schemes was Reg Parnell, who had been racing since pre-war days and he and Bob Gerard were the outstanding British drivers of the period. Parnell was a fast, brave driver, physically very strong, but he handled his cars with a marked lack of mechanical sympathy that resulted in unnecessary breakages and mechanical failures. During the war years Parnell had collected a large number of racing cars which, afterwards, he was able to sell at a profit and this helped fund the lease of an *Ambrosiana* 4CL for 1947. Ironically, Bob Gerard who had a small stable of pre-war ERAs that – in comparison – cost very little, was consistently the more successful driver.

Just as 100 years previously small fairs and circuses had travelled round Europe – and



Villoresi with the A6G streamlined saloon in the 89-mile (143km) Circuit of Varese in which he retired and Cortese won with a V12 Ferrari. For an Italian circuit the spectators are being very restrained by not encroaching beyond the park wall on to the corner.

France especially – setting up in towns and villages, so from the 1930s they were joined by the motor racing ‘circus’ and there were innumerable races of varying importance held on makeshift road and street circuits. At the more important, better-financed venues permanent facilities had been installed. Drivers were able to tour Europe making their entries as they went and paying their way from starting and prize money. This pattern resumed after the war and continued through to the mid-1950s, amid growing anxiety about the safety of racing.

Once again in 1947 the Alfa Romeo 158s ran in only four races – and won them all – and this left the field open to the 4CLs. The greatest problem faced by the Maseratis was their often inadequate preparation and the resulting lack of reliability. The first Grand Prix of the season was at Pau on 7 April and motorcycle-racing champion Nello Pagani with a 4CL won this 190-mile (306km) street race from ‘Levegh’ (3-litre unsuper-

charged Delage) and Louveau (with another 4CL). Arialdo Ruggeri crashed heavily in this race, fracturing both legs. Three weeks later Villoresi with an *Ambrosiana* 4CL built up a good lead in the Perpignan race, but retired because of mechanical problems and Eugène Chaboud won with the *monoplace* Talbot.

Unlike the United Kingdom mainland, legislation had been passed in Northern Ireland, Jersey and the Isle of Man permitting public roads to be closed so that motor racing could take place. The 160-mile (258km) Jersey Road Race was held on 8 May and attracted a strong entry that included *Scuderia Milano* cars driven by Sommer, Chiron and Pagani. Sommer’s car was fitted with two-stage supercharging, before it had appeared on the ‘works’ *Ambrosiana* cars. Sommer, ‘B. Bira’ (with another 4CL) and Pagani all retired and Parnell went on to win from Chiron. In the latter stages of the race Parnell made several stops for oil and everyone, including the

official timekeepers became confused. *Scuderia Milano* entered a protest, claiming that Chiron had won, but this was rejected.

On 18 May, Chaboud with a Talbot won the 191-mile (307km) Marseille Grand Prix from Plate with his 4CL, and a week later ‘B. Bira’ was the winner in the 81-mile (130km) Grand Prix des Frontières in Belgium from Peter Monkhouse with an elderly Bugatti Type 51. The next important race was the Swiss Grand Prix on the Bremgarten circuit at Bern on 8 June and here four Alfa Romeos faced a horde of 4CLs. At this race the *Ambrosiana* car driven by Villoresi was fitted with works-developed two-stage supercharging, while two of the *Milano* entries also now had two-stage supercharging. The race was held in two 85-mile (137km) qualifying heats and a 128-mile (206km) final. The 158s took the first three places in the final, but Sommer with a *Milano* 4CL was fourth ahead of Sanesi with another 158, and Villoresi finished fifth.

In *Motor Racing 1947* John Eason Gibson wrote, ‘... if only the *Scuderia Milano* prepared their cars a bit better they might have a chance with the two-stage cars of getting in among the Alfes. The prize giving at the Bellevue-Palace later in the evening was terrific, as following the custom at the better continental races practically everyone got some souvenir of the race. One of the better sights was watching Count “Johnny” Lurani, as director of the *Squadra Ambrosiana*, trying to lever Villoresi’s cheque out of him after the prize ceremony was finished.’

The *Alfettas* were out again three weeks later in the Belgian Grand Prix at Spa-Francorchamps where they finished in the first three places. Sommer with his *Milano* 4CL was in second place at the end of the first lap and he held on to third place until he retired because of a broken chassis on lap 12. At the 248-mile (400km) Marne Grand Prix at Reims on 6 July, Alberto Ascari, number two in the *Ambrosiana* team, drove the latest Maserati, the first of the 4CLT cars which featured a tubular chassis. Both Villoresi and Ascari retired and Christian

Kautz, pre-war Auto Union and Mercedes-Benz driver, won the race with his 4CL. Chiron finished second with the *monoplace* Talbot.

The Maseratis failed at Albi, where Rosier with his Talbot was the winner, and Villoresi and Ascari with their *Ambrosiana* cars took the first two places at Nice after Sommer's two-stage *Milano* car had caught fire. Villoresi won again at Strasbourg, but he crashed in the Comminges Grand Prix on the St Gaudens circuit. Won by Chiron with the *monoplace* Talbot, this was described by *The Autocar* as 'a shocking race.' If anything, that was an understatement, for in the motorcycle races held during the morning three riders were killed and in the Grand Prix a car ran into a spectator enclosure, killing six onlookers.

Dorino Serafini, former Gilera motorcycle team member, also had an horrendous crash. Serafini, at the wheel of one of the Swiss *Autosport* team 4CLs, was in second place ahead of Ascari and had set fastest lap, when the steering wheel complete with column came away in his hands while he was driving flat-out on the straight. The car left the road and hurtled through trees until it came to rest as a crumpled heap of metal and caught fire. Serafini suffered burns, as well as broken arms, legs and ribs, but he was very tough and made a complete recovery. Enzo Ferrari, who recognised a man when he saw one, asked him to join his company and Serafini was to become Ferrari chief tester and a works driver.

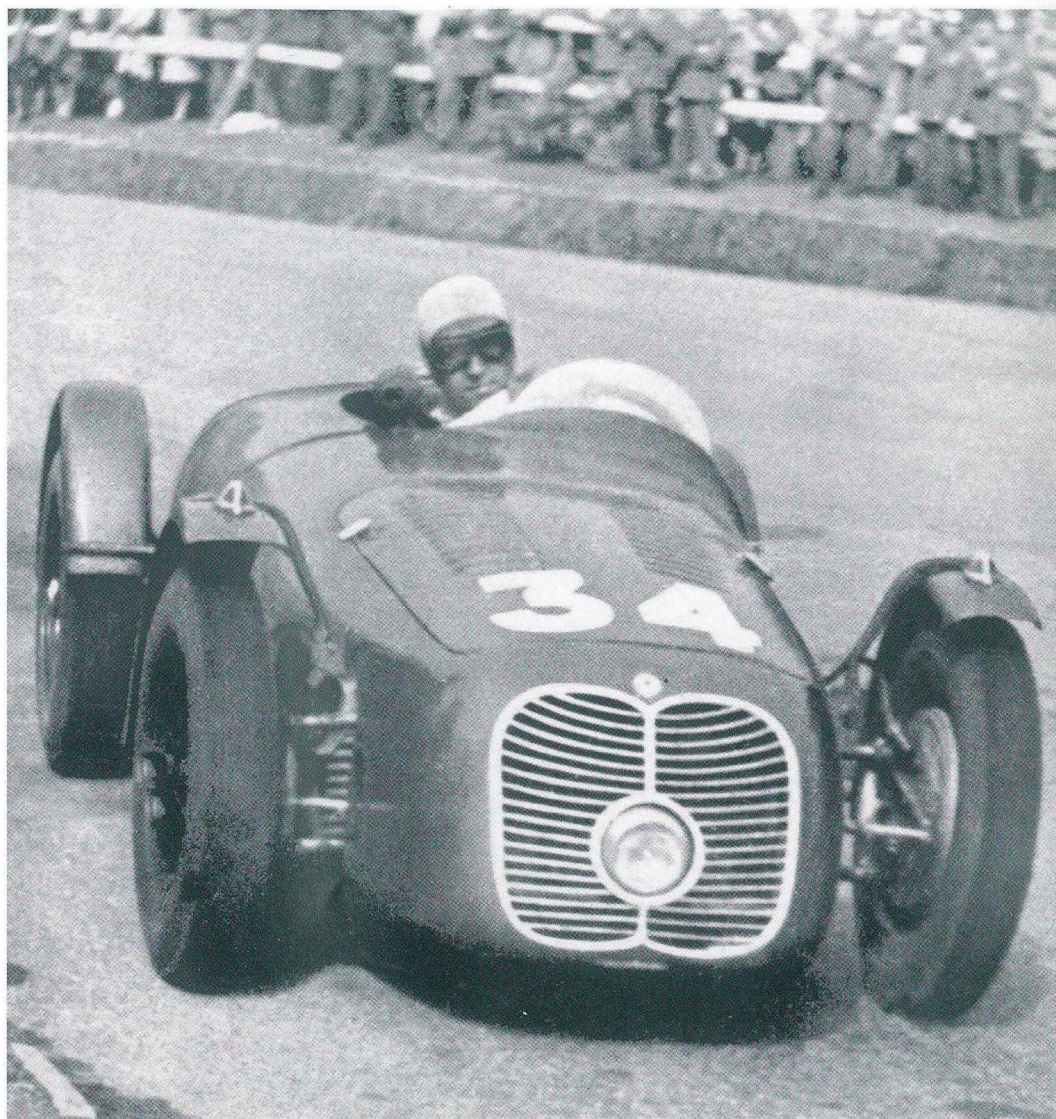
The Italian Grand Prix was held on 7 September in Milan on the site of the Milan Trade Fair in the Parco Sempione. The Alfa Romeos took the first four places. Ascari with a twin-stage supercharged *Ambrosiana* 4CL held third place for many laps, but had to make a series of pit stops for a loose fuel tank to be sorted out and eventually finished fifth. Another important 1947 race was the 314-mile (505km) French Grand Prix at Lyon on 21 September, a race that Alfa Romeo missed. It was held on a 4.49-mile (7.22km) circuit with the start on one side of

a dual carriageway, the cars then went through a hairpin bend, came back on the other side of the dual carriageway and then went off round the rest of the circuit. Chiron won with the *monoplace* Talbot from Henri Louveau (4CL). Pierre 'Levegh' with another 4CL crashed into the crowd, killing two spectators.

The last Formula A race of the year was the 181-mile (291km) Lausanne Grand Prix on 5 October and Villoresi with his

Ambrosiana car won from Wimille (Gordini-entered Simca) and de Graffenried. Reg Parnell had been invited to drive a *Scuderia Milano* car, which proved to be a 4CLT with tubular chassis, but only a single blower. It was late in arriving at the circuit, oil was leaking from the frame, which acted as the oil reservoir and cooler, and it was not fit to race. Reg did his best with this ill-prepared heap, but was forced to retire because of lack of brakes and vague steering geometry.

Alberto Ascari drove the new and very quick 2-litre A6GCS Monofaro in the Turin Grand Prix in Valentino Park in October. He ran third to Sommer (Ferrari) and team-mate Villoresi with another A6GCS. Both Maseratis retired because of broken gearboxes. (Guy Griffiths Collection)



THE DEVELOPMENT OF THE 6-CYLINDER SPORTS CAR

An integral part of Adolfo Orsi's plans for Maserati had been the production of a Grand Touring car. The first technical drawings for the A6 1500 were produced in November 1940; a prototype was built and this was tested in 1943. The design of the engine was based on that of the 6CM, but with revised cylinder dimensions of 66 x 72.5mm, giving a capacity of 1,488cc, a single overhead camshaft, a cast-iron block and there was, of course, no supercharger. In original form, with a single Weber carburettor, power output was 65bhp at 4,700rpm.

The chassis was a twin-tubular structure with unequal-length double wishbone and coil spring front suspension and at the rear, a rigid axle was suspended on semi-elliptic leaf springs. Transmission was by a Fiat-based 4-speed gearbox with synchromesh on third and top gears and a dry single-plate clutch. In the designation the 'A' stood for *Alfieri*, a tribute to the company's founder, but also symbolic of a completely new Maserati line of cars, while the '6' of course referred to the number of cylinders. This system of designation was, however, to get more complicated.

Most of the early work on the A6 was carried out by the Maserati brothers, but all later development was the responsibility of Alberto Massimino who had joined Maserati in late 1939. There were in effect two separate lines of development. The touring chassis fitted with Pinin Farina body was first exhibited at the Geneva Salon in 1947. It entered limited production and the majority of cars were bodied by Farina, although a few had coachwork by other builders. Maximum speed in this form was 85–90mph (137–145kph). Purchasers included Prince Bira who brought his car to the 1949 British Grand Prix.

There was also the competition version of which a couple of examples were built, fitted with bodies by Fantuzzi. One of these cars was tried with a supercharged Tipo 6CM engine. The next stage in development was to increase engine capacity to 1,954cc (72 x 80mm) and power output in this form was 90bhp at 4,700rpm. The model was designated the A6G ('G' for *ghisa*, the cast-iron of the cylinder block) and it was fitted with a streamlined coupé body.

Testing did not take place until April 1947, but the first post-war *Mille Miglia* road race was postponed from its usual date in April to 21 June to give opportunity for road repairs to be carried out and the works teams longer to prepare their cars. The new Maserati was driven by Luigi Villorosi, partnered by Bertocchi, but it was never a serious contender and retired early in the race. Eight days later Villorosi drove the new car at Varese, but it again retired.

The next stage in development was the A6.GCS sports-racing car ('C' for *corsa*, race, and 'S' for *sport*). The full stop was another quirk of Maserati model typing and in practice was usually omitted. Engine capacity was slightly increased to 1,978.7cc by lengthening the stroke to 81mm, triple Weber 36D04 carburettors were fitted, the compression ratio was increased from 7.5:1 to 11:1 and power output was now claimed to be 130bhp at 5,200rpm.

The wheelbase was shortened and the A6GCS was usually fitted with a very neat open, cycle-wing, two-seater body by Fantuzzi. A conspicuous feature was a single headlamp mounted in the centre of the radiator grille and this led to the model becoming known as the *Monofaro*. Another prominent feature was the deeply cut away cockpit sides. Between 1947 and 1950 Maserati built 13 of these cars (including the

car that had two different engine and chassis numbers!). An early works car was fitted with a coupé body and another two cars had the wings integral with the body. These three cars were all bodied by Carraroli.

At this time Ferrari and Maserati were following similar lines of development, both had started with 1.5-litre engines (in Ferrari's case a V12 of course), both had increased capacity to two litres and both had then stretched the capacity by a smidgen. Both factories had in mind the unsupercharged 2-litre Formula 2 that was likely to be introduced for 1948 and in sports-car racing the two models were very closely matched. Ferrari did, of course, produce a single-seater Formula 2 car for 1949, but Maserati's industrial problems prevented any such development at Modena.

Two of the new cars made their debut in the Circuit of Modena on 28 September. Initially Villorosi led from Cortese (Ferrari) and Ascari; Cortese went ahead and then stopped at the pits because of mechanical problems. Ascari took the lead from Villorosi whose engine had started to overheat and the Maserati drivers were still in these places when the race was stopped after 48 miles (77km) because of a bad accident. At Modena the pits were, foolishly, sited on a curve; Bracco lost control of his Delage when he swerved to avoid Cortese, who was pulling into the pits, and he crashed into a crowded spectator enclosure. Bracco was thrown out of the car and suffered quite bad injuries, but five spectators were killed. A fortnight later the two Maserati drivers ran in the 313-mile (504km) Circuit of Turin, but both retired because of the frailty of their Fiat gearboxes. Raymond Sommer (2-litre Ferrari) scored an easy win from Chaboud (3-litre Delahaye) and Pozzi (4-litre Talbot).

1948

In 1948 Orsi's plans for the development of Maserati were coming together well. The A6GCS had proved to be a car of considerable potential and by now Massimino had developed an improved version of the 4CL that was to appear in June.

As part of Peron's efforts to boost Argentina as a power in motor racing, in late 1947 the *Automovil Club Argentino* was induced to buy two 4CLs from the factory. These were to be driven by Juan Fangio and Oscar Galvez in the *Temporada* series of races. There were now four races in the series. The first was the Juan Peron Cup race held in two qualifying heats and a final on 17 January, over the Palermo Park circuit in Buenos Aires. The final was won by Villoresi with a *Scuderia Ambrosiana* 4CL from Brazilian Chico Landi at the wheel of a supercharged 3-litre Alfa Romeo.

The cars and drivers then travelled some 650 miles (1,046kms) to Mar del Plata on the Atlantic coast, to the south of Buenos Aires. The 92-mile (148km) race was won by Nino Farina with an 8CL Maserati (presumably the car raced at Indianapolis in 1946), followed across the line by Varzi with a pre-war supercharged 4.5-litre Alfa Romeo. Wimille (supercharged 3-litre Alfa Romeo) and Galvez (pre-war supercharged 3.8-litre Alfa Romeo) finished third and fourth and Fangio took fifth place.

Then, on 1 February, came the 87.2-mile (140km) Grand Prix at Rosario, to the north-west of Buenos Aires on the Parana river, and in this race Villoresi finished third behind Wimille (Simca) and Landi (3-litre supercharged Alfa Romeo). Finally, it was back to Buenos Aires for the Eva Peron Cup race, held in two heats and a final and here Villoresi scored another win from Galvez (Alfa Romeo) and 'Raph' (Maserati).

The Pau Grand Prix on 20 March was again the first important race of the European season and Pagani won for the second year in succession. Parnell and 'B. Bira' with their 4CLs were the leading contenders in the

Jersey Road Race on 29 April, but both made long pit stops and Bob Gerard (ERA) won the race from George Abecassis (Maserati 6CM) with Parnell, Bira and Bob Ansell (also with a 4CL) in third, fourth and fifth places. The 147-mile (237km) Grand Prix des Nations at Geneva on 2 May was won by Farina with a *Milano*-entered 4CL and de Graffenried with his *Plate*-entered car finished second. A fortnight later Farina scored another win for *Milano* in the 195-mile (314km) Monaco Grand Prix from Chiron (with a new Talbot-Lago) and de Graffenried.

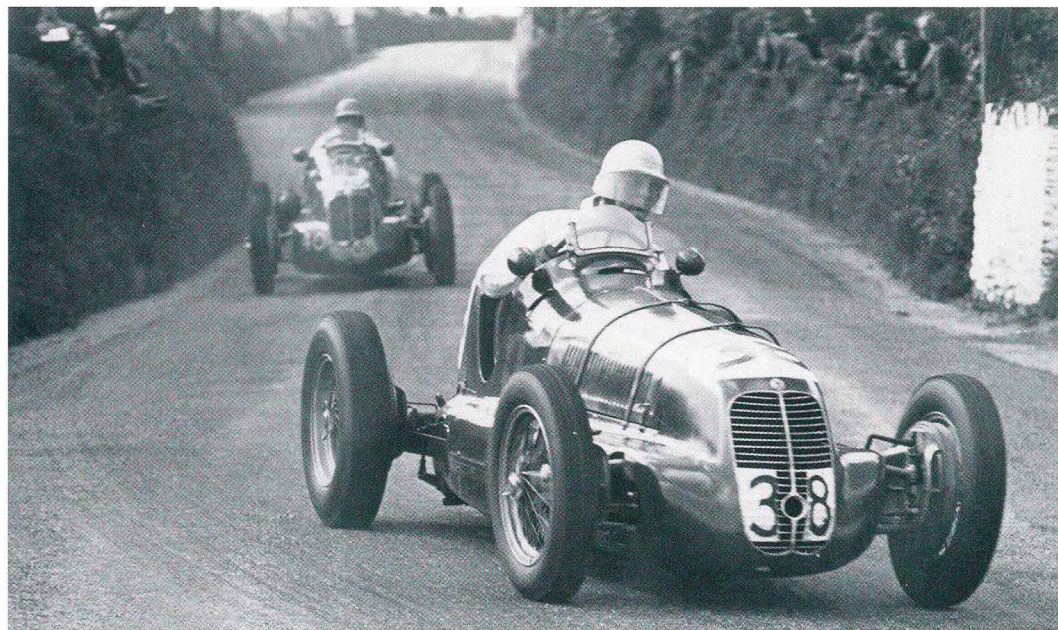
At the relatively unimportant San Remo Grand Prix run over 178 miles (287kms) of the Ospedaletti circuit on 27 June, Villoresi and Ascari drove the latest 16-valve Maseratis for *Scuderia Ambrosiana*. These improved cars were designated the 4CLT/48, but immediately became known as the *San Remo*. The engine was largely unchanged, apart from twin-stage supercharging and H-section machined connecting rods. The two blowers were mounted in front of the engine, one above the other,

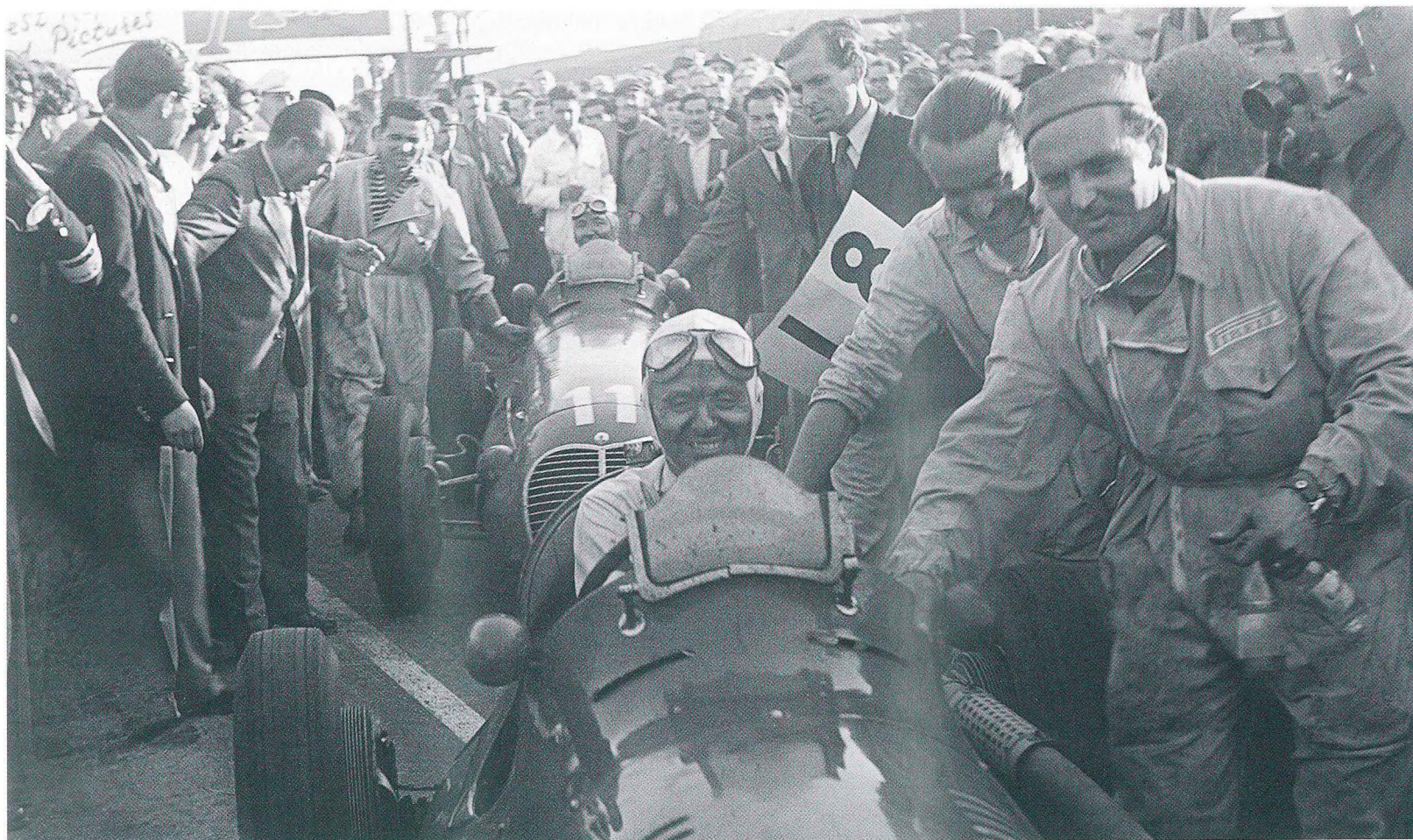
with the mixture from the single twin-choke Weber carburettor fed into the right-hand side of the lower, primary supercharger and then transferred by an external manifold on the left to the upper, secondary supercharger. It was claimed that power output was now 260bhp at 7,000rpm.

A strengthened 4-speed Fiat-based gearbox was retained, but as the whole build of the car was lower, the transmission line had to be stepped up to the height of the final drive by a train of gears mounted in front of the differential housing. The tubular chassis first seen in 1947 was used for the latest version. This had two four-inch main tubular members, which sloped upwards at the front and passed under the axle at the rear. Two large transverse tubes were located close to the rear spring mountings and other tubes in 'X' configuration provided cross-bracing. There were additional small-diameter tubes acting as cross-members ahead of and to the rear of the engine crankcase.

The new front suspension retained the existing wishbones, but had coil springs

Bob Ansell is seen with his ex-Reggie Tongue 4CL in the British Empire Trophy held on the Isle of Man in May 1948. He retired before half-distance. Following is Reg Parnell who dropped out while leading because the feed from his auxiliary fuel tank failed. (Guy Griffiths)





The 4CLT/48 Maseratis entered by Scuderia Ambrosiana in the 1948 RAC Grand Prix arrived too late for practice and started from the back row of the grid. They soon worked their way to the front and are seen here after the finish. Villorosi led Ascari across the line. (Guy Griffiths)

mounted at 45° from the vertical instead of torsion bars. The rear suspension was largely unchanged, but there were now longer quarter-elliptic springs and these were splayed out more. The body was neater and lower, with a shorter and flatter version of the familiar Maserati air intake that can be described as apple-shaped. Dry weight had risen to about 1,420lb. Although the new cars were faster and handled better than their predecessors, they were still far short of being a match for the Alfa Romeo 158s.

The Maseratis also faced new opposition in the Talbot-Lago T26 with unblown 4,482cc engine. In original form these Talbots had a power output of only 240bhp

and they were very heavy cars. Their main asset was their fuel economy and the ability to run through a race in excess of 300 miles (483kms) without making a refuelling stop or a tyre change. Farina led initially at San Remo with his *Milano* 4CL, but retired because of broken throttle linkage and so Ascari and Villorosi went ahead to take the first two places with the new cars.

Alfa Romeo again entered only four races in 1948 and the first was the 181-mile (291km) Swiss Grand Prix on 4 July. It was to prove a tragic race that cost the lives of two drivers. During practice the great Achille Varzi crashed with the latest Tipo 158/47 Alfa, the car rolled and crushed his

head. On the second lap of the race Swiss driver Christian Kautz was killed when his 4CL collided with a tree. The Alfa Romeos raced despite Varzi's death and Wimille and Trossi took the first two places. Farina had held second place with his *Milano* 4CL, but retired because of engine problems and Villorosi and Ascari with the 4CLT/48s finished third and fifth, sandwiching the third 158 driven by Sanesi.

Only one *Ambrosiana* 4CLT/48 for Villorosi ran in the 310-mile (500km) French Grand Prix at Reims, for at this race Ascari had been offered a drive by Alfa Romeo. Villorosi chased the Alfa team hard, holding on to the tail of Ascari's car for many laps, but then fell back down the field because of plug problems. Nuvolari then took the wheel of Villorosi's car, although he had not prac-

tised for the race, and he was soon lapping as fast as Villoresi. He handed the car back before the finish and Villoresi crossed the line to take seventh place. After the race Nuvolari said that the 4CLT/48 was the best Maserati that he had ever driven, but this was a compliment of rather dubious value.

A number of less important races followed. In the 205-mile (330km) Comminges Grand Prix on the St Gaudens circuit on 1 August Villoresi scored an easy win for *Scuderia Ambrosiana* from a trio of Talbot-Lagos. Six days later in Holland the Zandvoort Grand Prix was organised by the British Racing Drivers' Club in two qualifying heats and a 108-mile (174km) final. Zandvoort was an artificial circuit constructed in the sand dunes near Haarlem and at the time it was probably the safest circuit in Europe. The entry was weak, Parnell (4CL) won the first heat and 'B. Bira' (4CL) the second. In the final Tony Rolt with his 3.4-litre Alfa Romeo finished only a length behind 'B. Bira' and Parnell was a less than satisfactory third.

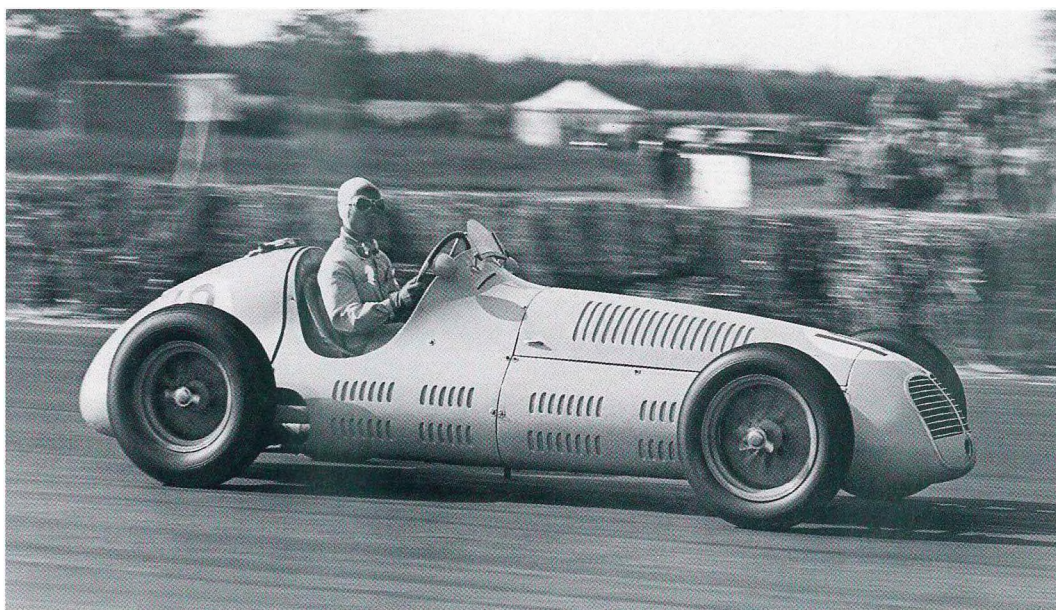
Then came the Albi Grand Prix held on 29 August on the superb Les Planques road circuit which incorporated a long and bumpy straight lined by plane trees. In this race the *Ambrosiana* 4CLT/48s were driven by Villoresi and British driver Leslie Brooke (who had obviously paid Lurani a hefty 'bung' for the privilege). The race was yet another run in qualifying heats and a final, on this occasion with a length of 189 miles (304kms). Villoresi and Brooke each won their heats, Villoresi led the final until forced to stop at the pits because of plug problems, but fought his way back to challenge Brooke who had assumed the lead. Brooke went off the road during the course of their struggle (and later retired with engine problems), so Villoresi won comfortably from a brace of Talbot-Lagos.

Minor changes to the valve timing and supercharging of the 4CLT/48s had been made by the time of the Italian Grand Prix on 5 September. This race was held over a distance of 224 miles (360kms) on the Valentino Park circuit at Turin and received

entries from both Alfa Romeo and Ferrari with a team of three of his new V12 1.5-litre supercharged cars. It was an unpleasant race run in heavy rain and Wimille led throughout to win for Portello. Villoresi (4CLT/48) drove a good race to finish second ahead of Raymond Sommer with the only surviving Ferrari, while Ascari and Parnell took fourth and fifth places with their 4CLT/48s.

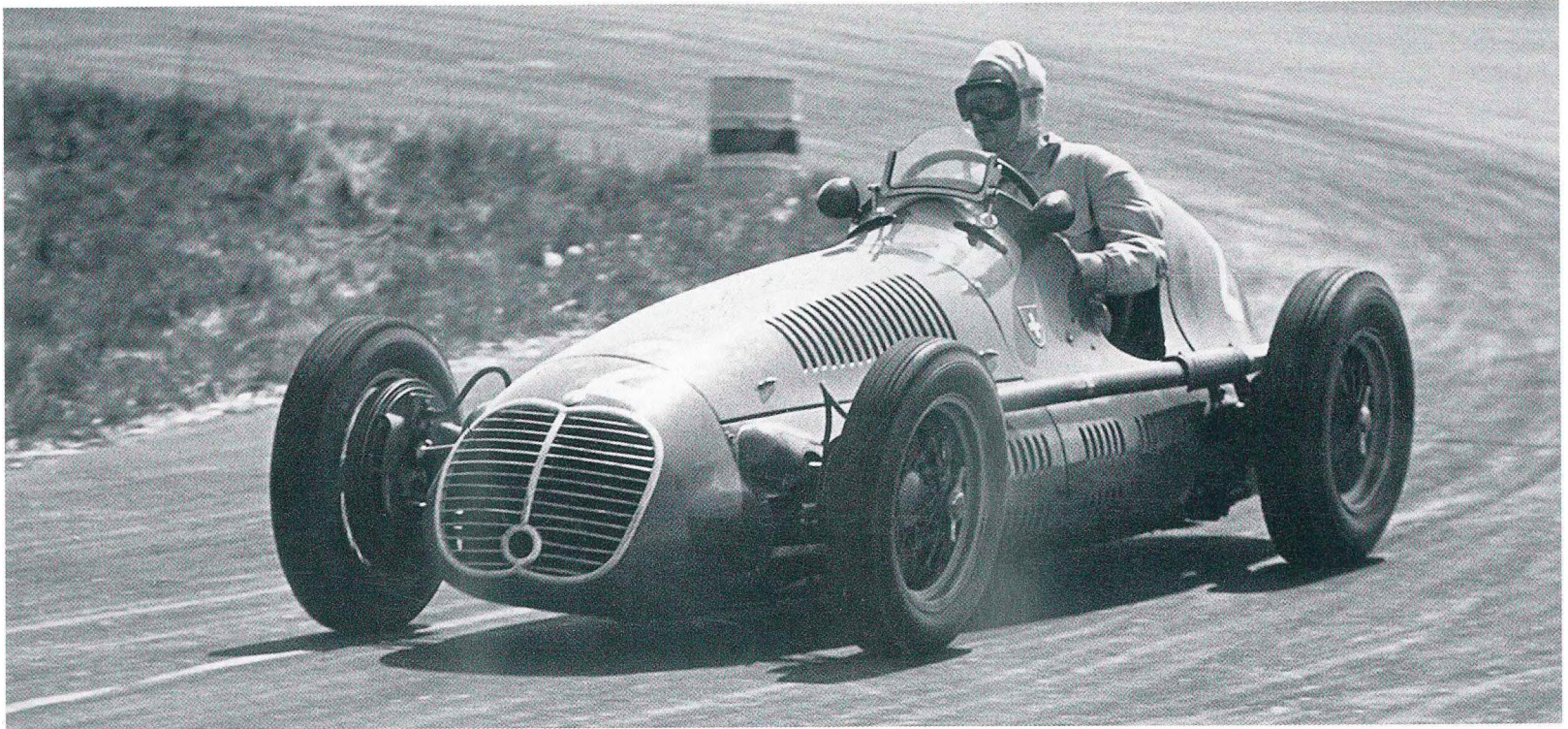
The inaugural meeting at Goodwood, the former Westhampnett RAF airfield, took place on 18 September and Reg Parnell won the 5-lap Goodwood Trophy from Bob Gerard (ERA). On 2 October the first post-war RAC Grand Prix (usually, but not strictly correctly, described as the British Grand Prix) was held over a distance of 250 miles (402kms) on the Silverstone airfield circuit in Northamptonshire. Neither Alfa Romeo nor Ferrari entered and although the *Scuderia Ambrosiana* Maseratis arrived too late for official practice and started from the back of the grid, Villoresi and Ascari soon came through to the front of the pack and finished in first and second places. Bob Gerard took third place with his pre-war ERA.

'B. Bira' drove this 4CLT/48 in the 1948 RAC Grand Prix, but it was running raggedly and he finished a poor fifth. (Guy Griffiths)



A fortnight later on 17 October the Monza Grand Prix was held on the newly reconstructed road circuit in the Royal Park. The entry in this 315-mile (507km) race included four Alfa Romeos and two Ferraris. The 158s took the first four places, both Ferraris retired and Ascari finished fifth with his 4CLT/48. The final important race of the year was the 194-mile (312km) Penya Rhin Grand Prix on the Pedralbes circuit at Barcelona. There were no Alfa Romeos entered, but three Ferraris ran and retired and Villoresi won from Parnell (also now driving a 4CLT/48). It was a good finish to a most satisfactory season.

Although the A6GCS was an established and successful model, these cars ran in comparatively few races in 1948 and for the time being Maserati took no steps to develop a single-seater Formula 2 version. Three cars were entered in the Mille Miglia on 1 May and that driven by Ascari, partnered by the long-suffering Bertocchi, was a strong contender. Initially Ascari led, but he was passed by Nuvolari (Ferrari) on time and retired with the inevitable gearbox problems at Florence. Amendola went off



Driving a smooth, restrained race Swiss driver Emmanuel de Graffenried, seen here, won the first British Grand Prix at Silverstone in 1949 with this 4CLT/48 Maserati. Bob Gerard took second place with his venerable ERA. (Guy Griffiths)

the road with his A6GCS and his co-driver was killed, while Capelli was another victim of mechanical frailty. Clemente Biondetti won the race with a 2-litre Ferrari coupe.

The works entered the A6GCS in a couple of Formula 2 races. On 18 July Villorosi drove one of these cars in the Coupe des Petites Cylindrées at Reims. Although it was a Formula 2 race, it did not follow the rules of the formula in that supercharged cars of up to 1,100cc were admitted. Villorosi never rose above sixth place and retired because of mechanical problems. Ascari was entered with an A6GCS in the 153-mile (246km) Circuit of Naples on 19 September, but he retired after setting fastest lap and the race was won by Villorosi, scoring the Maserati brothers' first win with their new 1,100cc Osca. Giovanni Bracco was the most successful A6GCS driver in 1948. He won the 189-mile (304km) Dolomite Gold Cup

race at Belluna, with Villorosi in second place. He was also campaigning the car in long Italian hill climbs and scored a number of wins, including the Aosta-Gran San Bernardo and Bolzano-Mendola events.

1949

Maserati's industrial problems and Orsi's conflicts with the unions started in 1949 and this, together with another important factor, led to a major reduction in factory racing activity. Before the end of 1948 both Ascari and Villorosi had signed up to drive for *Scuderia Ferrari* in 1949 and this caused major, but not unexpected, problems for Maserati, Lurani and *Scuderia Ambrosiana*. Both drivers appeared for the team in the Argentine *Temporada* series, but thereafter *Ambrosiana* continued its lease deals and no longer ran a front-line Grand Prix team.

In addition to *Scuderia Ambrosiana*, quite a number of other Maserati drivers competed in the four Argentine races. The first of these races was the 108-mile (290km) International Grand Prix of Juan D. Peron held on the Palermo Park circuit in Buenos Aires on 30 January. During practice the great French driver and leading member of the Alfa Romeo team, Jean-Pierre Wimille, was fatally injured at the wheel of a Gordini-entered Simca when he went off the circuit and hit a tree. Ascari and Villorosi led throughout with their *Ambrosiana* cars and Oscar Galvez (3-litre supercharged Alfa Romeo) finished third.

A week later another race of the same length was held on the same circuit, but with the title International Grand Prix of Dona Eva Duarte de Peron. The race started in heavy rain; both Ascari and Villorosi retired, Galvez won with his Alfa Romeo and Fangio with a 4CLT/48 finished second after an off-course excursion. The 87-mile (140km) Rosario race on 13 February was also run in torrential rain and was won by Farina with a 2-litre supercharged Ferrari

from Parnell, Ascari and Villoresi with Maseratis. The final race of the Argentine series was the 88-mile (142km) Mar del Plata event on 27 February and Fangio (Maserati) won this from 'B. Bira' (Maserati) and Galvez (supercharged 3-litre Alfa Romeo).

There followed two races in Brazil, the 140-mile (225km) Sao Paulo Grand Prix on the Interlagos Autodrome on 20 March and the 59-mile (95km) Rio de Janeiro Grand Prix on the Gavea circuit on 27 March. Villoresi won both these races. These events in South America were very strongly supported by European entrants during the early post-war years because the starting money was very high and it gave the opportunity to continue racing during the European winter.

The success of Maserati Grand Prix entries in Europe depended on the newly formed *Squadra Achille Varzi*, *Scuderia Milano*, which continued racing in its familiar haphazard way, and private drivers such as Baron Toulo de Graffenried. The Argentine-financed *Achille Varzi* team was named in memory of the great Italian driver and it was based in his former workshops. It gave Fangio the opportunity to display his exceptional skills at the

wheel of the team's blue and yellow 4CLT/48s before a European audience and led directly to the invitation for him to drive a works Alfa Romeo in 1950. The Argentine team did not complete a full season and returned to South America in July.

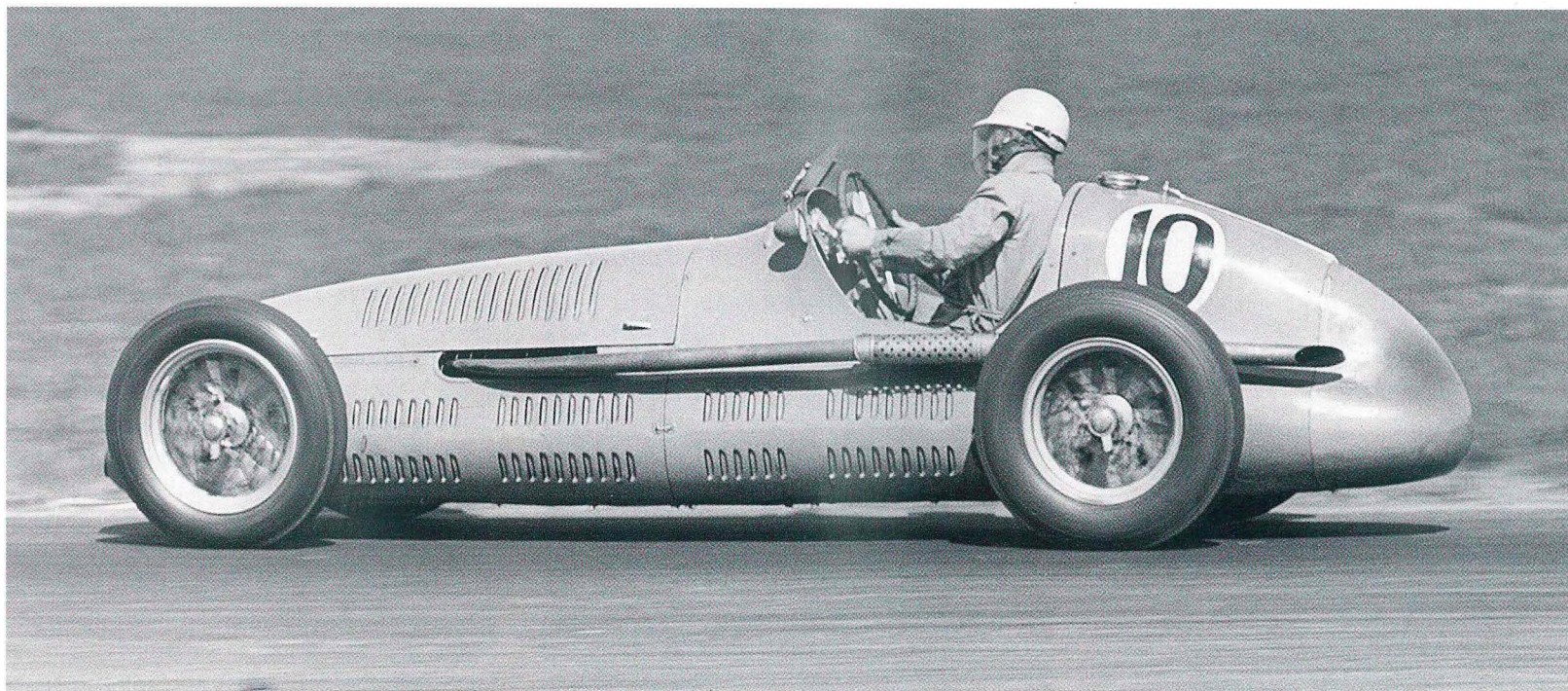
Ing Speluzzi of the *Milano* team produced developments of the 4CLT/48, but they proved interesting rather than successful. For various reasons Alfa Romeo did not compete in 1949, but the Talbot-Lago opposition, now more numerous, proved the greatest challenger to the anticipated Ferrari domination. Overall, the year proved very successful for private Maserati Grand Prix entrants.

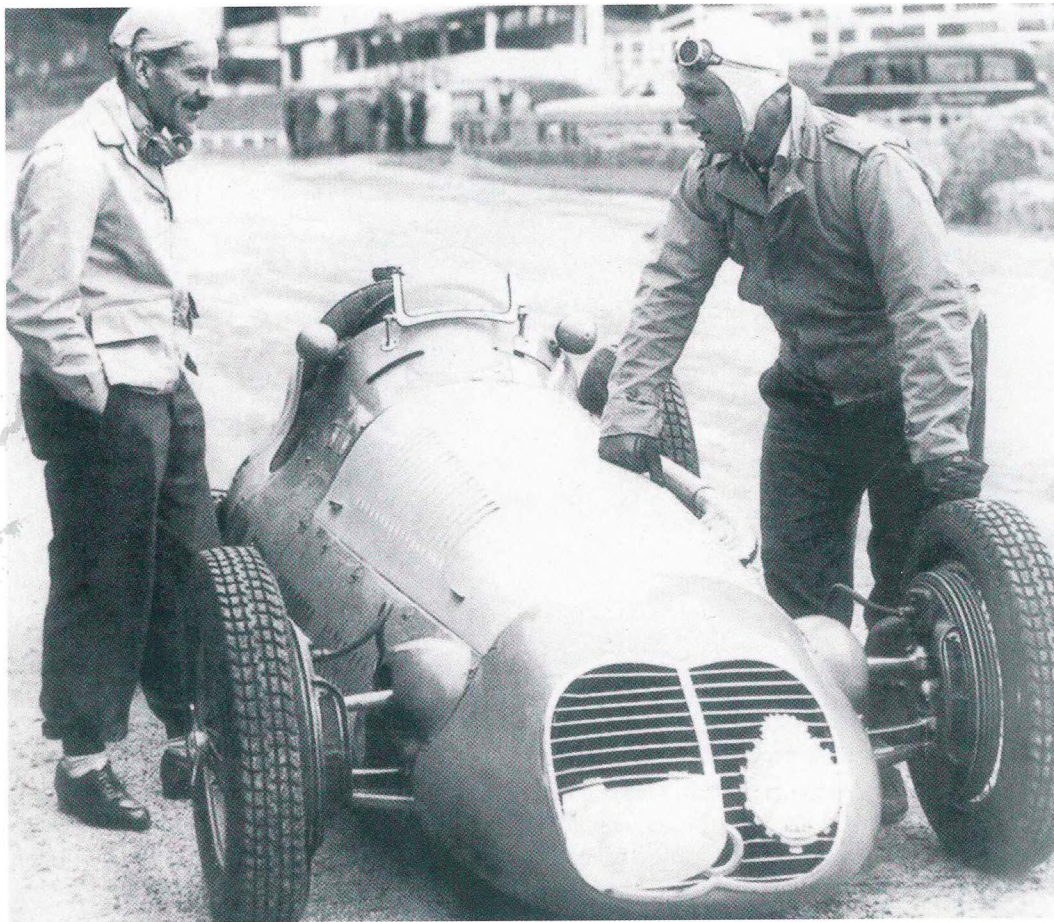
Fangio made a brilliant start to his European season. He won both the 178-mile (287km) San Remo race on 3 April from 'B. Bira' (also with a 4CLT/48) and the 189-mile (304km) Pau Grand Prix on 18 April from de Graffenried. The Maserati drivers all had their problems in the 176-mile (283km) Jersey Road Race on the St. Helier circuit on 28

April. Bob Gerard won with his elderly ERA, but de Graffenried took second place, having lost the lead because of an unscheduled refuelling stop. Another victory followed for Fangio in the Grand Prix du Roussillon run at Perpignan in two 79-mile (127km) heats on 8 May and 4CLT/48 drivers took the first six places in this race.

The entry for the British Grand Prix at Silverstone was not strong, but de Graffenried scored what was a remarkable victory for a driver entered by a small team. Toulo tells the story of this win on Page 217. The Maseratis met up with the works Ferraris for the first time in 1949 in the 315-mile (507km) Belgian Grand Prix on 19 June. Among the Maserati drivers were Fangio and Farina who had returned to race a *Milano* entry and was to revitalise Maserati after Fangio returned to Argentina. At Spa both Fangio and Farina retired and Ferrari drivers Villoresi, Ascari and Peter Whitehead (a private entry) could not make up the

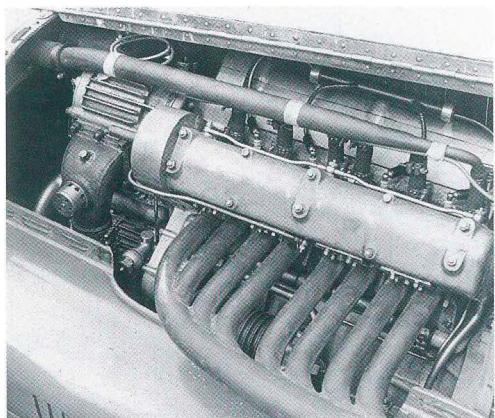
Reg Parnell had led for some while at Silverstone with this 4CLT/48 entered by Scuderia Ambrosiana, but dropped back because of mechanical problems and retired. Parnell's cars usually looked scruffy, but on this occasion the San Remo is remarkably pristine. (Guy Griffiths)



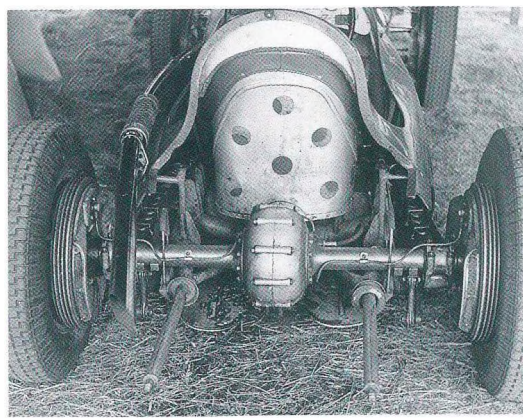


Fangio with his Squadra Achille Vazi-entered 4CLT/48 in the pits in the 1949 Belgian Grand Prix at Spa-Francorchamps. Chief mechanic Bignami is on the left of the car. Fangio retired on the first lap. (Guy Griffiths Collection)

The 4-cylinder engine of the 4CLT/48 with eight individual exhausts merging into a single tail-pipe. At the front of the engine is the twin-stage supercharger. (Guy Griffiths)



The rear end of a 4CLT/48, showing the rigid rear axle. The final drive was one of the weakest features of the design. This Scuderia Ambrosiana car is at the 1948 RAC Grand Prix. (Guy Griffiths)



time lost in the pits in refuelling stops. Louis Rosier drove his Talbot-Lago non-stop to take an unexpected win.

There was another clash between Ferrari and Maserati in the 181-mile (291km) Swiss Grand Prix at Bremgarten on 3 July. Once again the leading Maserati drivers dropped out of contention, although Farina had the satisfaction of setting fastest lap, just as he had at Spa-Francorchamps. Ascari and Villoresi took the first two places with their Ferraris ahead of Sommer and Etancelin with Talbot-Lagos. A week later Fangio won the 186-mile (300km) Albi Grand Prix from 'B. Bira'. The French Grand Prix was held as a sports car race at Comminges, but the Automobile Club de Champagne organised the 310-mile (500km) Grand Prix de France on the fast Reims circuit on 17 July. Villoresi retired his Ferrari early in the race and although Fangio and Campos were the fastest Maserati drivers with their *Squadra Achille Varzi* cars, both retired. Louis Chiron (Talbot-Lago) won from 'B. Bira'.

At the end of July the Zandvoort Grand Prix was again held in two 63-mile (101km) heats and a 104-mile (167km) final. Villoresi won the final with his Ferrari from de Graffenried, 'B. Bira', Farina, Etancelin (Talbot-Lago) and Parnell. Both Giuseppe Farina and Reg Parnell had been penalised a minute for jumping the start. A new British race was the *Daily Express*-sponsored International Trophy at Silverstone on 20 August. It was another event run in two qualifying heats and a final. The Ferraris of Ascari and Villoresi set the pace in both their heats and the final, but Farina with his *Milano* 4CLT/48 gave them a good run for their money. After a slow start in the final, he passed Villoresi and challenged Ascari until he spun and hit the straw bales. He kept his engine running and carried on to finish second.

There were two new Italian designs at the Italian Grand Prix. One was the four overhead camshaft, twin-stage V12 Ferraris and the other was the latest *Milano* (see Page 101) which had been developed by Mario Speluzzi. The drivers of the *Milanos* were Giuseppe Farina and Piero Taruffi. Initially Ascari and Villoresi with the new Ferraris led from Farina,

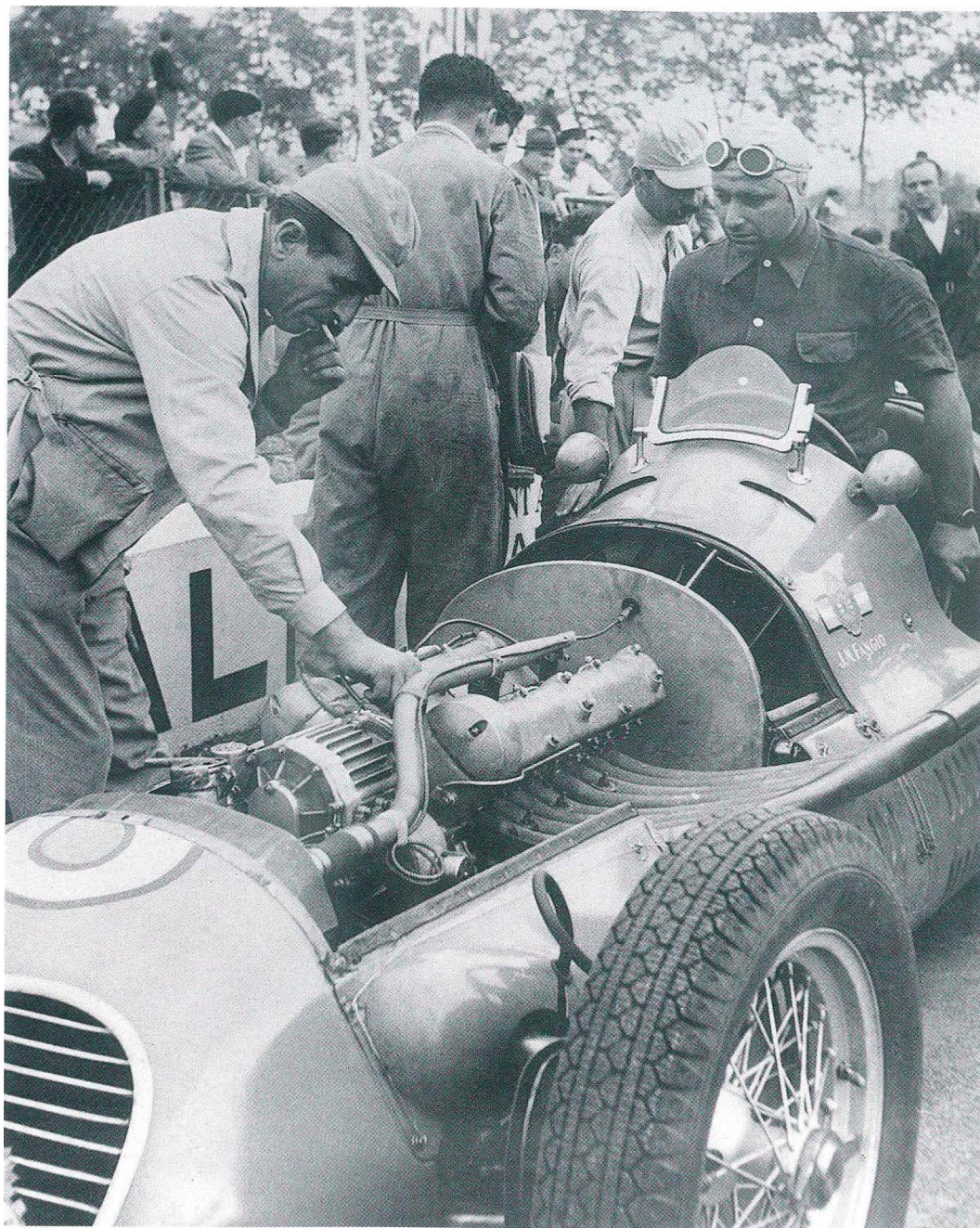
but after 18 laps Farina lost interest in the race because of his inability to catch them and pulled into the pits. If he had kept going, he would probably have finished second following Villoresi's retirement. The highest placed Maserati finisher was 'B. Bira' in third place behind Etancelin (Talbot-Lago).

That the 4CLT/48 was in decline was undoubted and although the cars continued to be raced over the next two seasons by private owners, their successes were few. Because of Maserati's inability to maintain development of the A6GCS, the cars were rarely seen in major events. Three of these cars ran in the Mille Miglia, but the sole finisher was that of Aprile/Bossetti, who finished seventh overall and third in the International Sports category. Piero Carini, who had retired his A6GCS in the Mille Miglia, won the Bolzano-Mendola and Susa-Moncenisio hill climbs. Maserati racing prospects looked far from bright.

1950

For the 1950 Argentinian *Temporada* races Maserati developed the 4CLT/50 with enlarged 1,719cc (78 x 90mm) engines claimed to develop 290bhp at 6,800rpm. Five cars were fitted with these engines, and they were installed in existing chassis. The precise number of *San Remos* built is not known, but it seems that in 1948 through to 1949 the team completed about 12 cars and thereafter the occasional example was built up until about the end of 1950. After they had competed in the *Temporada* series, the 4CLTs were fitted with 1,489cc engines for European racing. In this latest form there was a Weber twin-choke carburettor and minor changes to the steering linkage. The 2-litre supercharged Ferraris dominated the 1950 Argentine races and the only Maserati success was a third place by Piero Taruffi in the Mar del Plata Grand Prix.

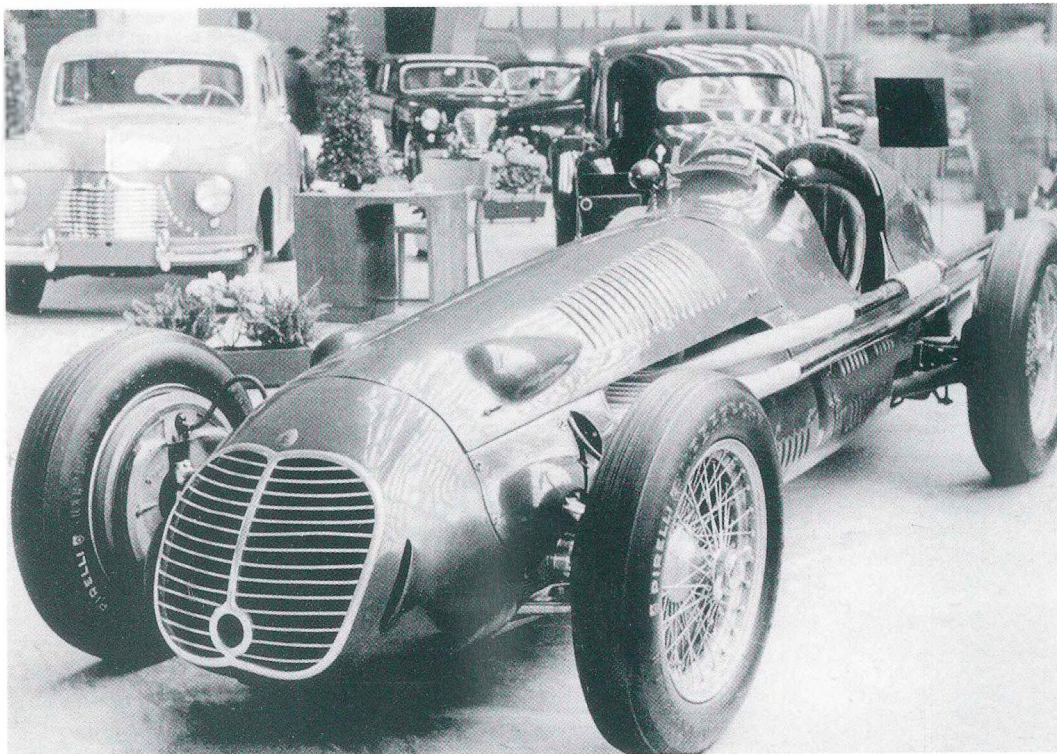
Development of the *San Remo* had ground to a halt, mainly because of the Orsi Group's industrial problems, but Maserati



Bignami, chief mechanic to the Squadra Achille Varzi, makes final adjustments to Fangio's 4CLT/48 at the 1949 Albi Grand Prix. Fangio won the race from Bira with another 4CLT/48.

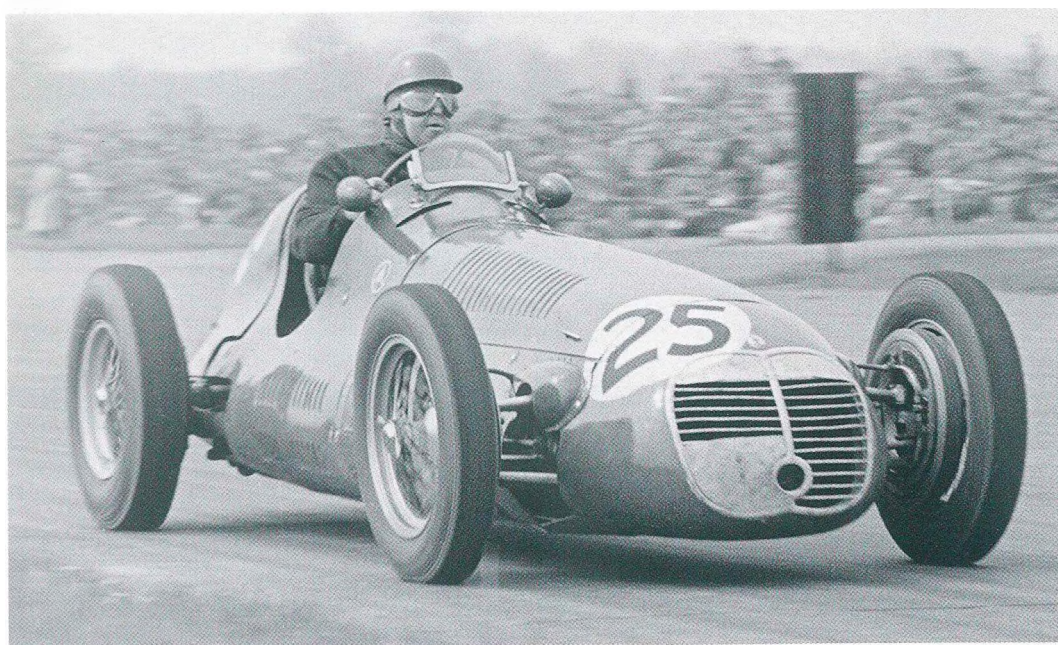
built two new cars, which had been commissioned by Franco Rol for Indianapolis. These had straight-eight 2,984cc engines like the 8CL and were said to develop 430bhp at 6,500rpm, the same as the output of the 1940-41 8CLs. The chassis were length-

ened versions of the *San Remo* with a wheel-base of just under 9ft. These cars, chassis numbers 3036 and 3037 were to be driven by Farina and Rol at Indianapolis. One was tested by Farina at Modena and although it is believed that he attained a speed of close



For 1950 Maserati built two 8-cylinder 3-litre supercharged cars to the order of Franco Rol and to be driven by himself and Farina at Indianapolis. They were uncompetitive and scratched from the race. This car was exhibited at the Turin Show.

Fred Ashmore at the wheel of his 4CLT/48 in the 1950 International Trophy at Silverstone. He drove a slow race and failed to finish. (I.C. March).



to 190mph (306kph), it was decided that the cars were not competitive and they were withdrawn from the race. They were eventually sold in New Zealand over a year later.

In 1950 the cars of *Scuderia Argentina* (the successor to *Squadra Achille Varzi*) were reckoned to be developing 280bhp, but Alfa Romeo had returned to racing and the 158 *Alfettas* in their latest form developed around 350bhp. The Milan team entered 11 races and won them all. Ferrari's supercharged cars were also overwhelmed by the Alfa Romeos, but at Maranello Aurelio Lampredi had developed an unsupercharged V12 Grand Prix engine and when this finally appeared in full 4,500cc form at the 1950 Italian Grand Prix, the gap between these two teams was greatly narrowed. It was the year of the first Drivers' World Championship, in which Alfa Romeo drivers took the first three places. Fangio still drove Maseratis for *Scuderia Argentina* when his commitments to Alfa Romeo permitted.

Mainly because of the reduced racing efforts of *Scuderia Ambrosiana*, the works returned to racing and entered cars for Louis Chiron and Franco Rol. It was to little purpose, for the 4CLT/48s were reduced to mere makeweights on the grids of Grands Prix and although the cars were still favoured by many private entrants, successes were few and limited to minor events. In World Championship events the only points scored by Maserati drivers were at Monaco (Sommer third, 'B. Bira' fifth) and the Swiss Grand Prix ('B. Bira' fourth and Bonetto with the *Milano* fifth). In contrast, drivers of the slow, unblown Talbot-Lagos took points in the British, Swiss, Belgian and Italian races. Fangio with a 4CLT/48 scored a second successive victory at Pau on Easter Monday, defeating Villorresi with a works single-stage supercharged Ferrari and the same day Parnell and de Graffenried took the first two places with their 4CLT/48s in the Richmond Trophy at Goodwood.

One of the more interesting performances by the Argentinian team was in the Albi race on 17 July and decided on the aggregate of two 94-mile (151km) heats. Fangio led the first heat easily, he set a new lap record of

106.63mph (171.67kph), but his car caught fire on the last lap; he kept going, despite his anxiety about the fuel tank exploding. Before the finish Fangio was passed by Sommer (Talbot-Lago) and after crossing the finishing line, he abandoned ship as rapidly as he could and while the car was still moving at more of a gallop than a trot.

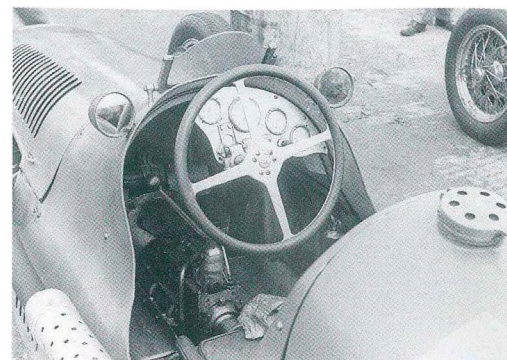
Fangio's new team-mate Froilan Gonzalez, already used to playing 'second fiddle' to Fangio, finished fourth in the first heat, but he pulled out the stops in the second heat to win from Rosier (Talbot-Lago). It was not good enough and Rosier, who had finished third in the first heat, won on aggregate. The following weekend Fangio led the poorly supported Dutch Grand Prix at Zandvoort and set fastest lap before retiring because of shock absorber failure.

Development of the sports cars had ceased, although factory records show that two cars were delivered in 1950. In comparison Ferrari development work had been intensive but the Maseratis were by now competitive no longer. The best Maserati performance was in the 189-mile (304km) Dolomite Gold Cup at Belluna in which Giovanni Bracco with a *Monofaro* finished second to Paolo Marzotti's Ferrari, and Franco Rol with his Maserati took fourth place. However, successes were also gained in minor Italian events.

There was an interesting and successful use of the A6GCS engine by *Scuderia Argentina*. Head mechanic Bignami installed one of these units in a 4CLI/48 chassis and Juan Fangio drove it to a win at 43.20mph (69.55kph) in the very slow and tortuous 103-mile (166km) Formula 2 Circuit des Remparts at Angoulême. André Simon (Simca) finished second and Gonzalez (Ferrari) was third. Musmeci finished fourth with an A6GCS in the Formula 2 Naples Grand Prix and former racing motorcyclist Bruno Ruffo took third place behind the works Ferraris of Ascari and Serafini in the 183-mile (295km) Formula 2 Circuit of Garda.

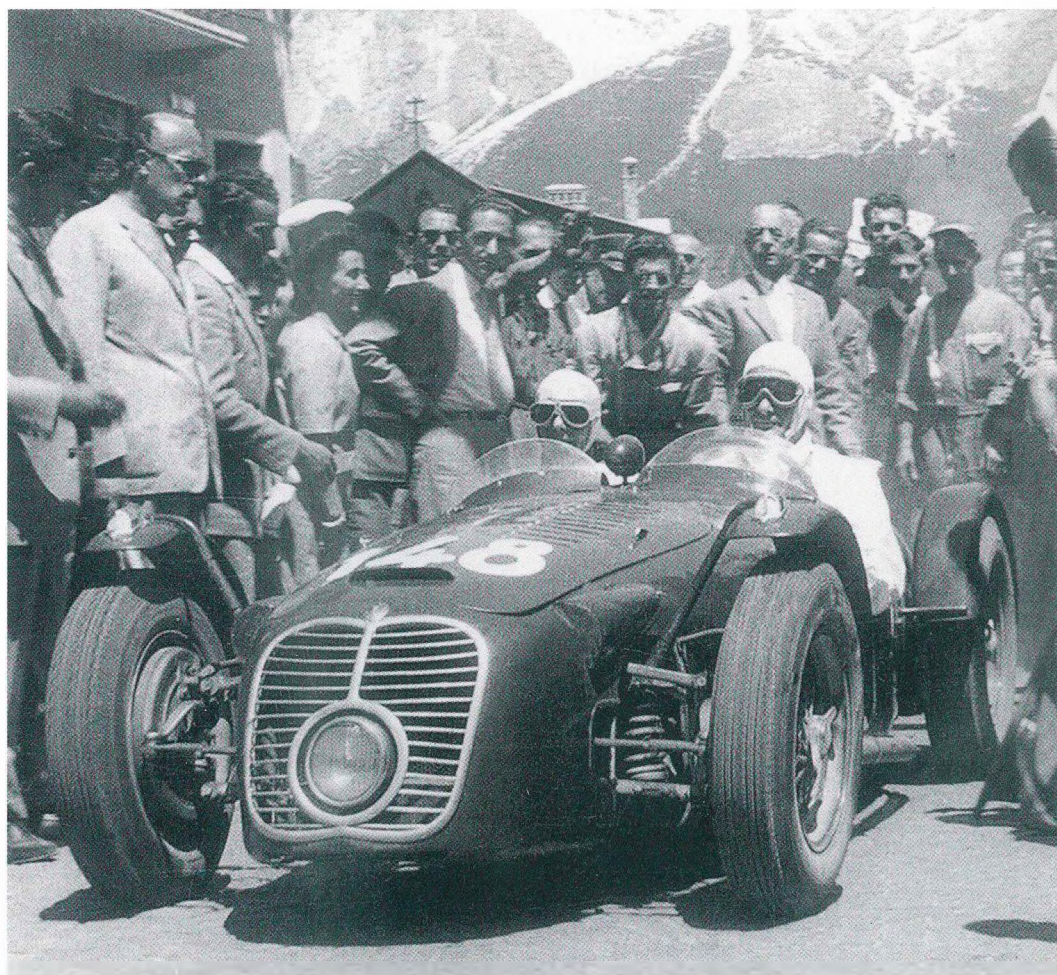
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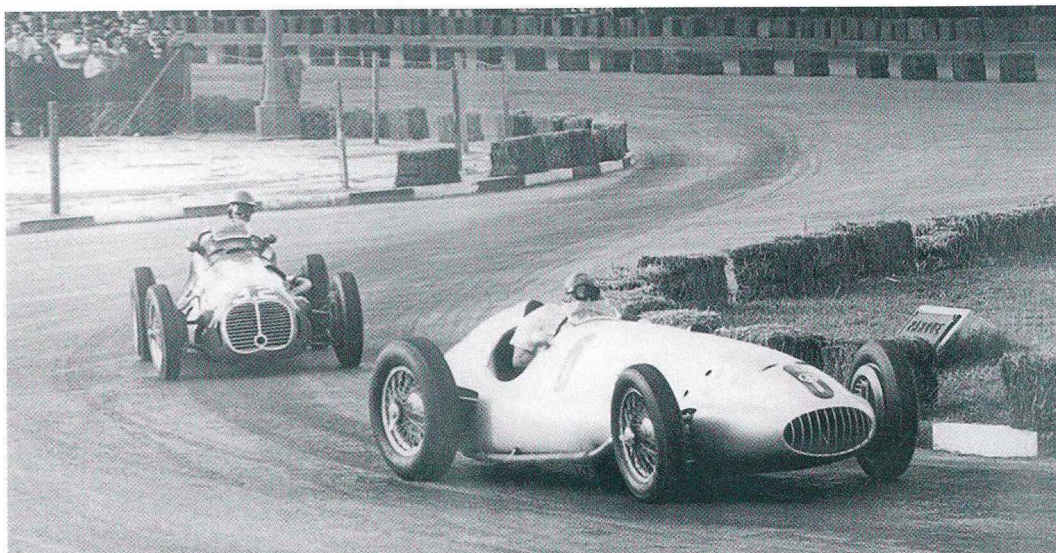
Private owners continued to persevere with their *San Remos* in 1951, but the only successes were all gained by Farina, who drove for *Scuderia Milano* when he was not needed by the Alfa Romeo team. He finished third in the Pau Grand Prix on 26 March, beaten by Villoresi (Ferrari) and Rosier (Talbot); won the poorly supported 200-mile (322km) Paris Grand Prix in the Bois de Boulogne on 20 May and scored another win in a minor race at Goodwood on Whit Monday. The Maserati factory was concentrating on developing a new 6-cylinder Formula 2



A cockpit view of the 4CLI/48 that shows clearly the central gear-change for the Fiat-based gearbox and the limited cluster of instruments to the right of the cockpit. (Guy Griffiths).

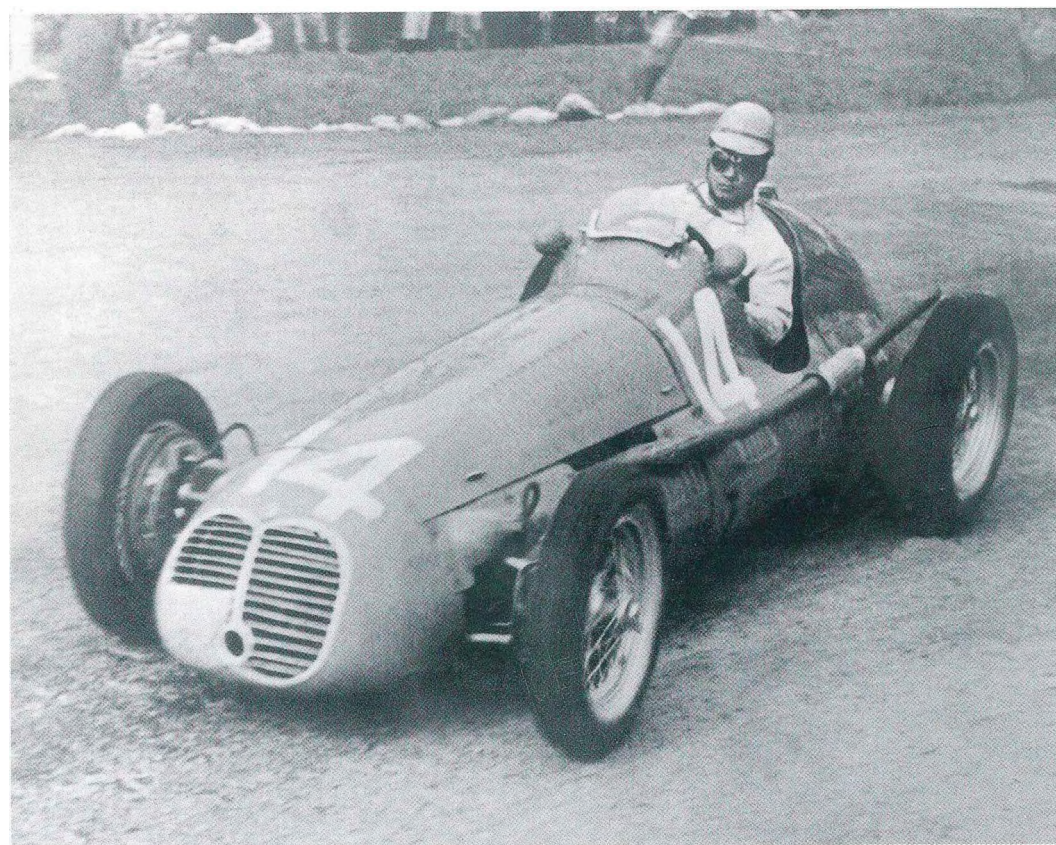
Franco Rol with his A6GCS at the start of the 1950 Dolomite Gold Cup race. It was the last Monofaro to be delivered. Giovanni Bracco with another A6GCS finished second to Giannino Marzotto (Ferrari) and Rol took fourth place. (Guy Griffiths Collection)





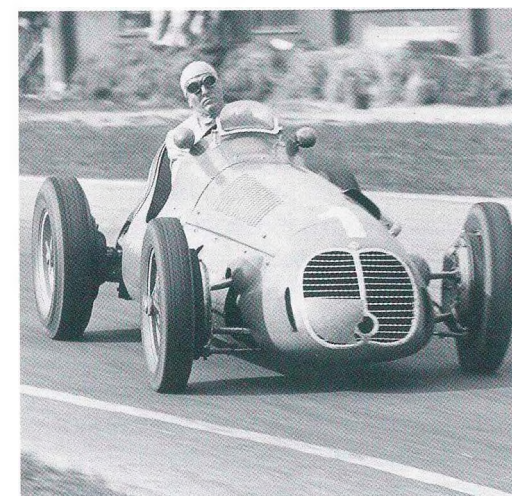
In the Eva Peron Cup race at Buenos Aires on 24 February 1951, Jorge Daponte (4CLT/48) follows Karl Kling (Mercedes-Benz W163). Daponte finished fourth. Sadly he was the driver involved in the fatal accident to Enrico Plate in January 1954. (Guy Griffiths Collection)

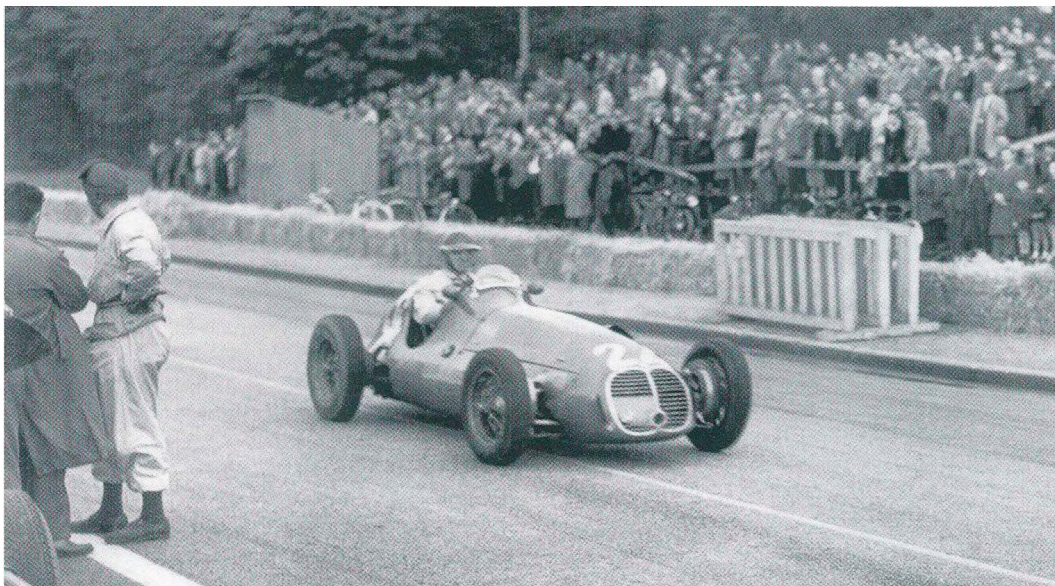
Bira with his 4CLT/48 in the Syracuse Grand Prix in March 1951. He retired and Ferraris took the first three places. The day of the San Remo was almost over. (Guy Griffiths Collection)



Eva Peron, Juan Fangio and Juan Peron, President of Argentina at Buenos Aires on 24 February 1951. But for Peron's enthusiasm for motor racing and, as a result, government support, drivers like Fangio and Gonzalez would never have been able to enter European racing. (Guy Griffiths Collection)

Nino Farina was entered by Scuderia Milano with this 4CLT/48 at Goodwood on Whit Monday, 1951. He finished second to Parnell with the Ferrari Thin Wall Special in the final of the Formule Libre Festival of Britain Trophy, but also won the Daily Graphic-sponsored Goodwood Trophy with a works Alfa Romeo 159. (Guy Griffiths)





Five days after Goodwood, Farina with his Scuderia Milano 4CLT/48 won the 194-mile (312km) Paris Grand Prix in the Bois de Boulogne from Gonzalez and Rosier with Talbot-Lagos. (Guy Griffiths Collection)

car, which was to have only limited success, but which eventually evolved into one of the greatest Grand Prix cars of all time.

The Milanos

Between 1947 and 1951 *Scuderia Milano* raced their own developments of the 16-valve Maseratis alongside standard factory cars, but they proved largely unsuccessful. In 1947 the team produced a slightly modified 4CL with twin-stage supercharged engine, an intake resembling that of the Tipo 158 Alfa Romeo, a full-width instrument panel and a left-hand gear-change instead of the usual central 'change. It was an obvious improvement on the standard 4CL (although as recorded earlier, the factory introduced its own twin-stage supercharging shortly afterwards), but it did not achieve any success.

In 1949 *Scuderia Milano* purchased two 4CLT/48s from the factory and they were rebuilt as new models. They won a prize of six million lire (approximately £3,000) offered by the Italian Automobile Club to the entrant of two new cars at the Italian Grand

Prix. The main change was the installation of the 4CLT/48 engine designed for motor-boat record-breaking by the team's technical chief, Mario Speluzzi. Engine capacity, according to Denis Jenkinson – aka 'Jenks', was 1,493cc, although the precise cylinder dimensions are not recorded. Twin-stage supercharging was of course fitted and power output was said to be 306bhp.

Other changes included larger brakes and a bulbous nose without Maserati badging. Weight was said to be 1,435 pounds, which was about the same as for the 4CLT/48. Farina withdrew from the Italian Grand Prix with his *Milano* in a fit of pique because he could not catch the latest four overhead camshaft, twin-stage supercharged Ferraris. Piero Taruffi drove the second *Milano* and he finished seventh after mechanical problems.

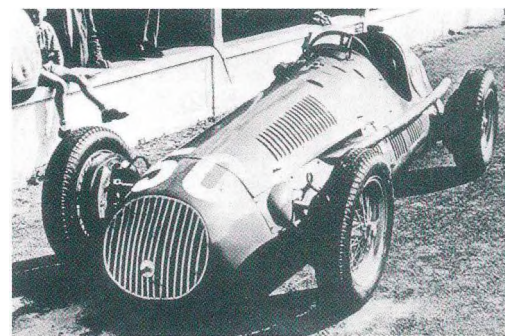
Speluzzi made further modifications to one of the *Milanos* in 1950, but in the meanwhile Bonetto drove one of the 1949 cars in the Swiss Grand Prix at Bremgarten on 4 June. During a pit stop, the *Milano*, which was running on nitromethane fuel additive, had a fuel explosion in the pits. The pit was destroyed, but Bonetto rejoined

the race to finish fifth. The latest version of the *Milano* appeared at the Grand Prix des Nations at Geneva on 30 July. The Speluzzi engine now had a single, very large Roots-type supercharger.

Later Speluzzi introduced a twin-plug cylinder head with twin magnetos driven from the rear of the camshafts and in this form power output was claimed as being 320bhp at 7,000rpm. The *Milano* had a new tubular chassis with front suspension by double wishbones and torsion bars, as fitted to the original 4CL, and at the rear a de Dion axle and a transverse leaf spring. The final drive was mounted on the chassis frame. New and even larger hydraulic brakes were fitted. There was also new and lower bodywork and a near-oval air intake.

Comotti drove the *Milano* at Geneva, but retired because of carburetion problems. Bonetto drove the less modified car in the Pescara Grand Prix in August, but dropped out of the race after ten laps. At Pescara the cars were timed over a flying kilometre of the ten-kilometre Montesilvano straight and these times indicated just how uncompetitive was the *Milano*. Fangio (Alfa Romeo 159) was timed at 192.5mph (310kph), Bonetto at 152.9mph (246.17kph). Comotti was at the wheel at the Italian race, but retired yet again. *Scuderia Milano* continued to enter the car in 1951 races without success.

The Milano in its final form seen at the 1951 European Grand Prix at Reims where Onofre Marimon drove it. It was slow in both practice and race and failed to finish.



Chapter 10

The dawn of a new era, 1952–53

AFTER THE ORSIS ABANDONED, albeit temporarily, development of the 6-cylinder cars, no serious development work took place until 1951, apart from minor changes to the 4CLT/48 cars. Then Alberto Massimino completely reworked the 6-cylinder engine. The main aim was the development of a 2,000cc unsupercharged Formula 2 car and this project achieved great importance when the various race organisers decided that all World Championship races and most other Grands Prix in 1952–53 would be held to Formula 2 rules.

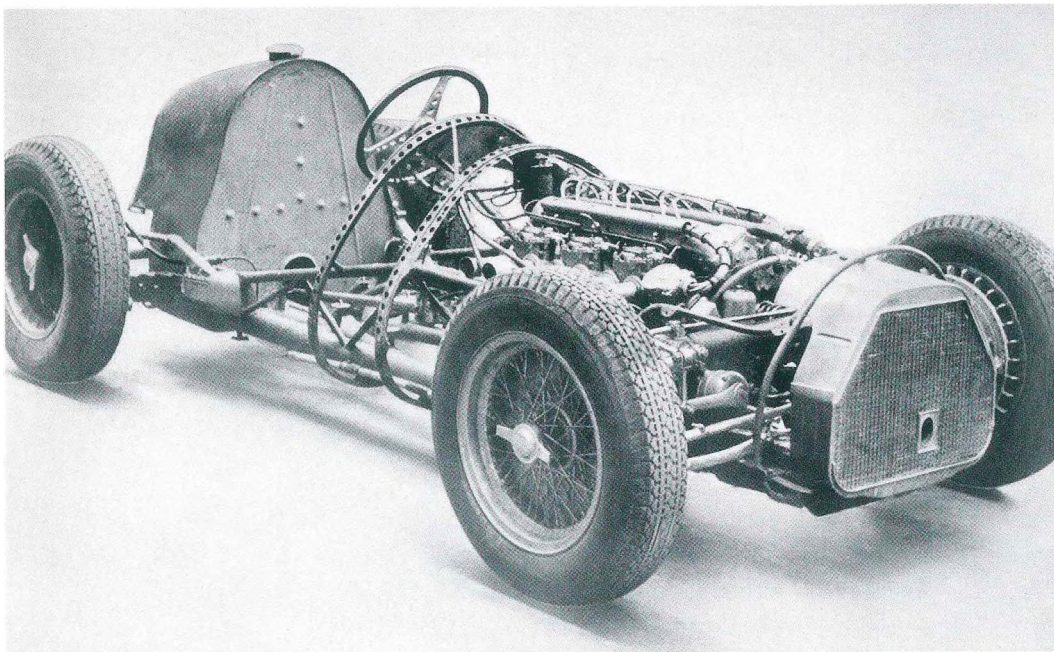
The A6GCM

The designation 'A6GCM' adopted for the single-seater was initially correct, as the first four or five engines had cast-iron (*ghisi*) cylinder blocks. Thereafter the cylinder blocks were cast in aluminium-alloy, but the designation was not changed. Alberto Massimino adopted cylinder dimensions of 75 x 75mm (1,988cc), following the Maserati tradition of using square cylinder dimensions. A gear train at the nose of the crankshaft drove the twin overhead

camshafts, the twin oil pumps and, by a double-vee belt, the generator and water pump mounted on the left side of the block. The crankcase was split on the centre-line and the crankshaft ran in seven main bearings.

The block had steel liners, wet at the top, but dry throughout the rest of their length. The outlet from the water pump was split so that it delivered water partly to the block and partly to a manifold which fed water to the exhaust valve area of the cylinder head. Ignition was by a single Marelli magneto driven from the front of the engine to a single plug per cylinder mounted in the centre of each combustion chamber. Three Weber 38DCO carburettors were fitted and there were two three-branch exhaust manifolds feeding into two long straight pipes. In original form it is doubtful whether power output exceeded 150bhp, but by the time a full team of cars was ready, it had been increased to 165bhp at 7,000rpm.

Transmission was by a dry multi-plate clutch and a 4-speed and reverse, constant-mesh gearbox through an open prop-shaft to the final drive, which incorporated a ZF limited slip differential. This gearbox was the work of Colotti, who had joined Maserati from Ferrari, and it was much stronger than the Fiat-based gearboxes used previously. The engine was offset to the left of the chassis frame, so that the prop-shaft ran at an angle to the nose of the final drive in the centre of the rear axle, and the height of the drive was lowered by spur reduction gears.



A view of the 1952 A6GCM Formula 2 car with body removed. The photograph reveals the twin-tubular chassis with hoop-shape bracing at the front and in the cockpit area.

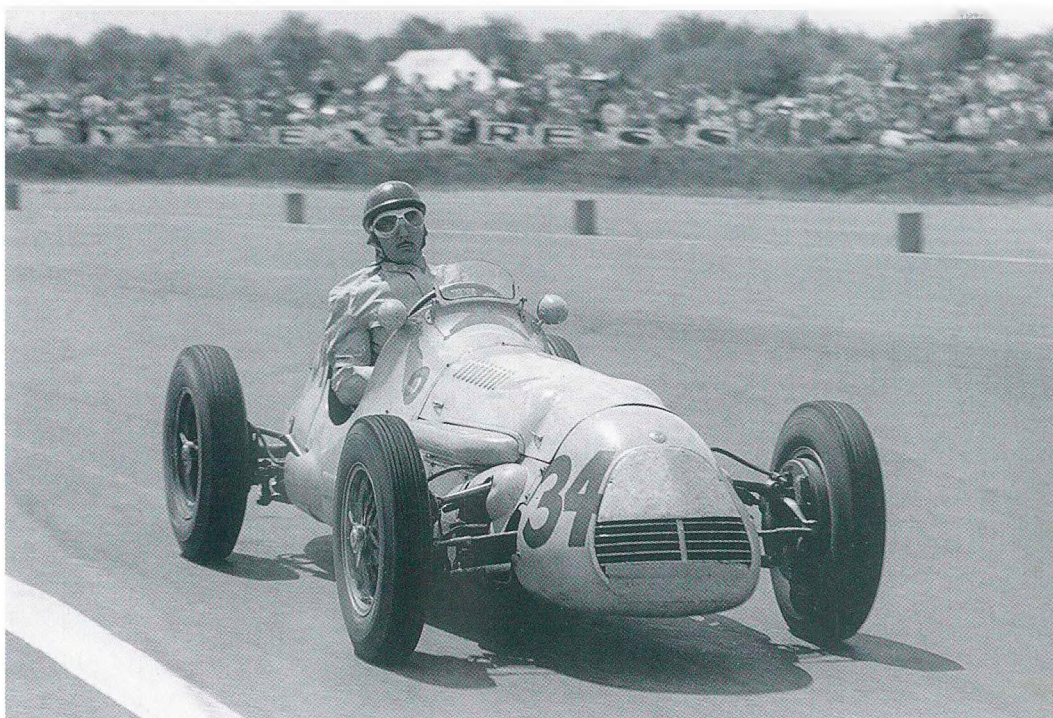
The simple chassis was derived from that of the 4CLT/48 and consisted of two 3.15-inch (80mm) chrome-molybdenum tubes with cruciform cross-bracing. At the front Maserati used unequal-length double wishbones, coil springs compressing against rubber blocks, Houdaille vane-type dampers and an anti-roll bar. A rigid axle suspended on quarter-elliptic springs, which were splayed outwards, was fitted at the rear. The springs were connected to the frame by light alloy castings on which were also mounted the radius rods.

Steering was by a worm and sector box with a long push-pull rod that ran along the right side of the engine crankcase. This rod was connected to a centrally mounted bell-crank with two half-track rods to the wheels. Fuel capacity was 44gal (Imperial). Hydraulic two-leading shoe brakes in 13-inch (330mm) light alloy drums were used. These drums, which had shrunk-in liners, had transverse fins at the front and circumferential fins at the rear. The body resembled a lower and slimmer version of that fitted to the 4CLT/48. The dry weight was about 1,100lb.

While the A6GCM was a neat-enough car, it was obvious that it would not, in its original form, prove a match for Ferrari's Tipo 500 4-cylinder car that had first appeared at Modena in 1951. By the start of the 1952 season the Tipo 500 had a power output of 170bhp at 7,500rpm and, thanks to its de Dion rear axle, superior road-holding.

Racing the A6GCM

The first car was completed in late 1951 and was shipped out to compete in the South American *Temporada* races in which it was driven by former racing motorcyclist Nello Pagani. There is no available specification for this car, nor has it been possible to trace a photograph, so it is not known how closely it resembled the definitive A6GCM that appeared later in the year. In the Rio de



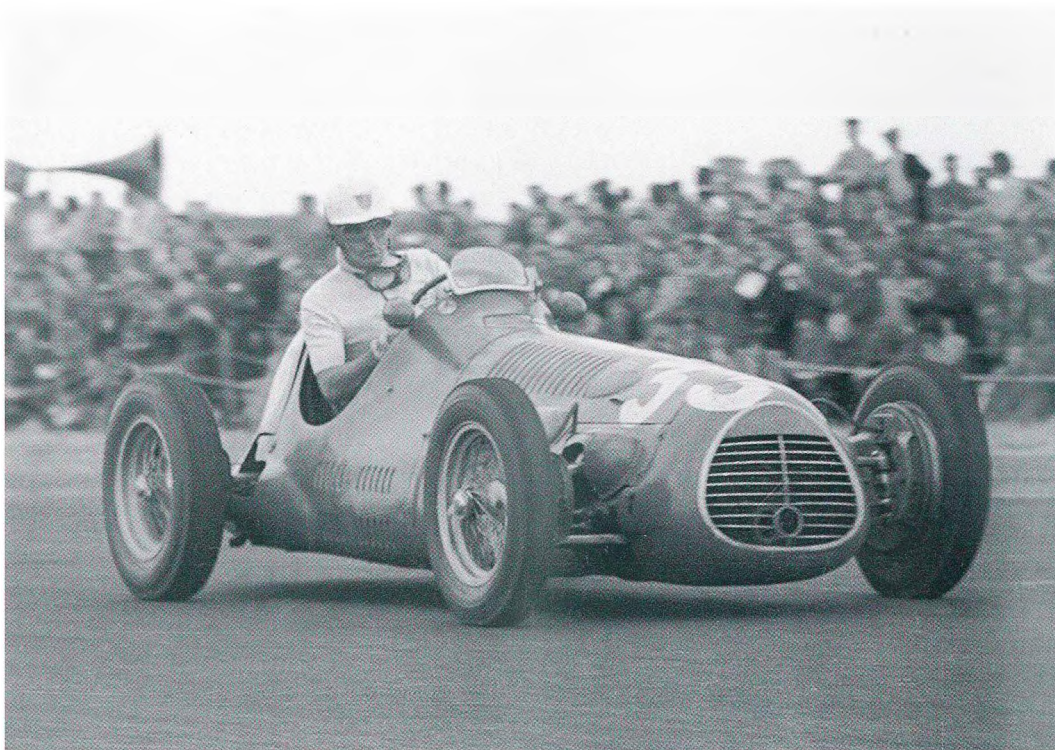
Following Fangio's serious crash at Monza, coupled with the obvious inadequacy of the Maseratis compared with the Ferraris, Modena abandoned its plans for a full season's racing. The Brazilian Escuderia Bandeirantes continued to race their cars and Bianco is seen in the British Grand Prix. He had a poor race and finished 18th. (T.C. March)

Janeiro Grand Prix on the Gavea circuit on 20 January 1952, Pagani finished third behind the supercharged V12 Ferraris of Fangio and Landi. Pagani retired the new car for reasons unknown in the two races held at the Buenos Aires Autodrome.

Maserati had signed up Juan Fangio, 1951 World Champion at the wheel of Alfa Romeos, available now that the Portello team had withdrawn from racing, Froilan Gonzalez (previously with Ferrari) and Felice Bonetto (also a former Alfa Romeo driver). After the Argentine races it had been realised that intensive work was required to make the A6GCM race-worthy and the team's drivers had to kick their heels, at least so far as Formula 2 was concerned, until the Autodrome Grand Prix at Monza on 8 June.

Both Fangio and Gonzalez were also contracted to drive the V16 BRMs in the comparatively few races for which these cars

were still eligible. On the day before the Monza race Fangio had driven a BRM in – and retired in – the Ulster Trophy on the Dundrod circuit in Northern Ireland. After the race he had flown from Belfast to Paris to connect with a flight to Milan. At Le Bourget he had learned that all flights to Italy were grounded because of fog, so he contacted Louis Rosier and borrowed a Renault 750, which he drove overnight to Milan. Fangio arrived at the circuit exhausted, and had to start from the back of the grid because he had not practised. Maserati were expecting the improbable from him, if not the impossible. A total of five much improved A6GCMs were entered in the Monza race, three of which were works cars. The other two cars were entered by *Escuderia Bandeirantes*, a team sponsored by the Brazilian government, and these were driven by Chico Landi and Gino Bianco.



Harry Schell is also seen in the British Grand Prix with a Plate-Maserati, a 4CLT/48 rebuilt in 2-litre unsupercharged form. His race was almost as bad as that of Bianco and he took 17th place. (T.C. March)

The Monza race was run in two qualifying heats and a final. On the second lap of the first heat Fangio, trying too hard to fight his way to the front, ran wide at Lesmo. He hit a straw bale, was thrown out of the car on to the edge of the track and suffered severe injuries that included broken vertebrae in the neck. At one stage it was thought that he would never race again, but although he was out of racing for the remainder of the season, he made a complete recovery. None of the other Maserati drivers performed well. Gonzalez retired in the first heat because of magneto failure, Bonetto finished fourth, Landi was 15th and Bianco retired. Only Bonetto started the second heat and he held third place until the fuel pump failed. He pushed his car across the line to finish ninth and took seventh place on the aggregate of the two heats.

The incident at Monza put the Maserati team in complete disarray and they missed

the majority of the season's races. The Brazilian team continued racing and appeared in the British Grand Prix and other events, but was uncompetitive. Despite this, they took delivery of a third A6GCM during August. A single works A6GCM for Bonetto was entered in the German Grand Prix, but a tyre threw a tread on the first lap and necessitated a stop for a wheel-change, which was done very quickly. On the second lap the engine started to run rough and he retired at the end of the lap. There is a much-seen photograph of Bonetto coasting back to the pits, with an unlit pipe jammed between his teeth. On more than one occasion the caption to the photograph has foolishly suggested that he was smoking while racing.

By the 313-mile (504km) Italian Grand Prix at Monza on 7 September Massimino had made some important modifications to

the A6GCM. The valve gear finger pivots were moved outboard from their original inboard positions, there was a second magneto installed at the rear of the exhaust camshaft and twin sparking plugs. In this form output was claimed as being 177bhp at the same engine speed of 7,000rpm. Gonzalez, Bonetto and Franco Rol were entered with these cars. The Argentinian was fifth fastest in practice, 1.9sec slower than Ascari (Ferrari). The team made the decision that Gonzalez would start the race with a half-full tank, in the hope that the reduced weight would give sufficient extra speed for him to make a quick pit stop to top up the tank without losing the lead.

The plan worked up to a point. The improved Maserati proved very competitive in the race, Gonzalez led for the first 36 laps of this 80-lap race and he had a lead of 16sec when he stopped at the end of the 37th lap. But the time lost in slowing down, refuelling and building up speed again meant that Gonzalez dropped to fifth place, close to a minute behind Ascari. Driving furiously he worked his way back up to second place, but was still just over a minute behind the winner at the flag. Bonetto took fifth place, a lap in arrears.

The twin-plug A6GCM appeared in one more race in 1952. A week after Monza, Gonzalez drove the only works A6GCM to start in the 147-mile (237km) non-Championship Modena Grand Prix. In the opening laps the Maserati was overheating and Gonzalez was forced to stop for the blanking plate across the radiator to be removed. After rejoining the race, he chased Villoresi (Ferrari) hard and despite the loss of third gear passed him into the lead. Only two laps from the finish Gonzalez was badly and deliberately baulked by Piero Carini (HWM) when trying to lap him. Villoresi slipped ahead again and won by four-fifths of a second.

Formula 2 in 1952 had been a total Ferrari landslide and Maranello won every race that it entered except the Reims Grand Prix in which the winning car was a Gordini

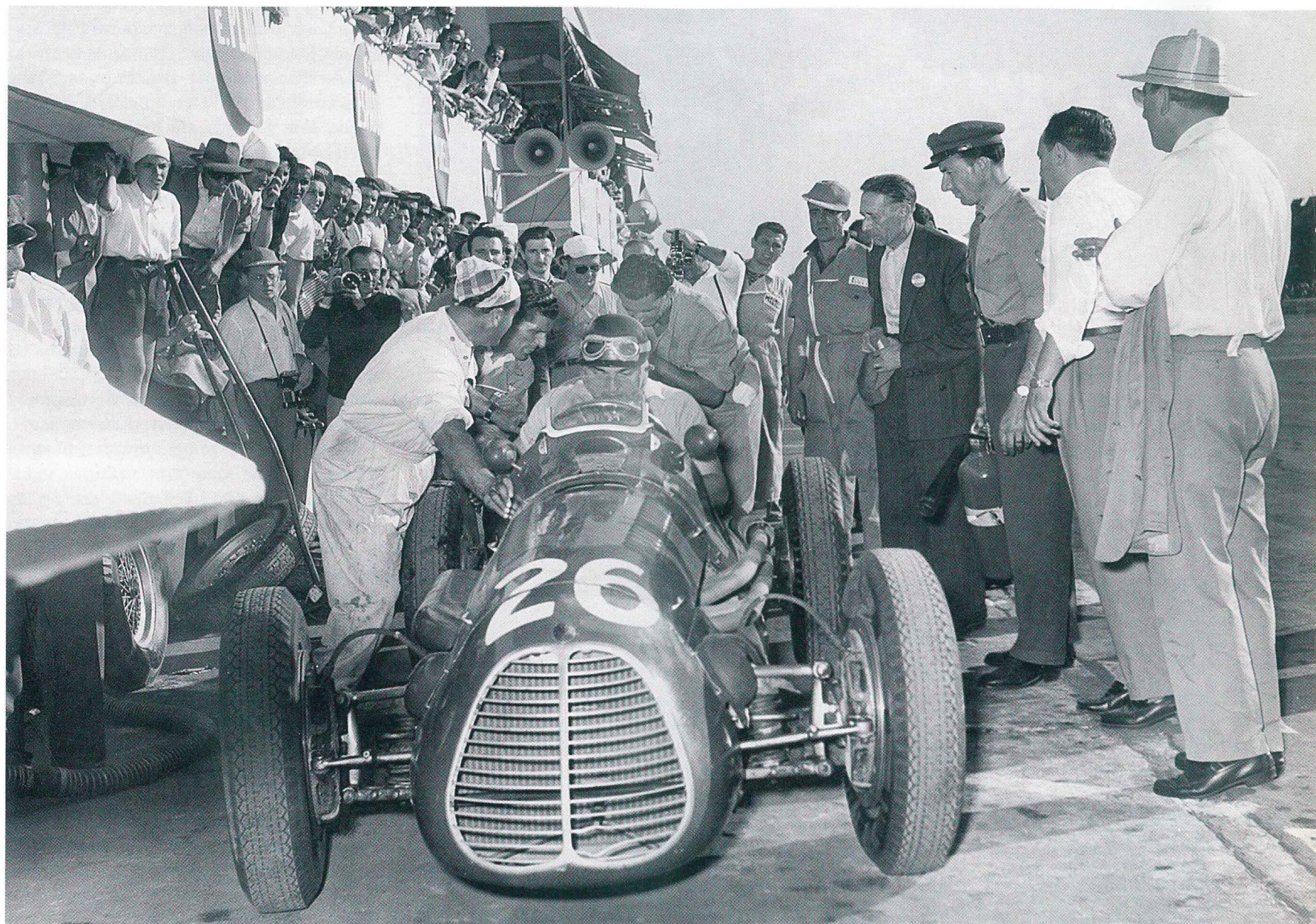
driven by Jean Behra. Gonzalez' late-season drives at Monza and Modena gave hope that the 1953 World Championship would be much more strongly contested. There were at least six A6GCMs built in 1952, three works cars and three for *Escuderia Bandeirantes*. Of these one was rebuilt as a sports car, one was used as a development car and was raced by de Graffenried in early 1953 and three passed into private ownership.

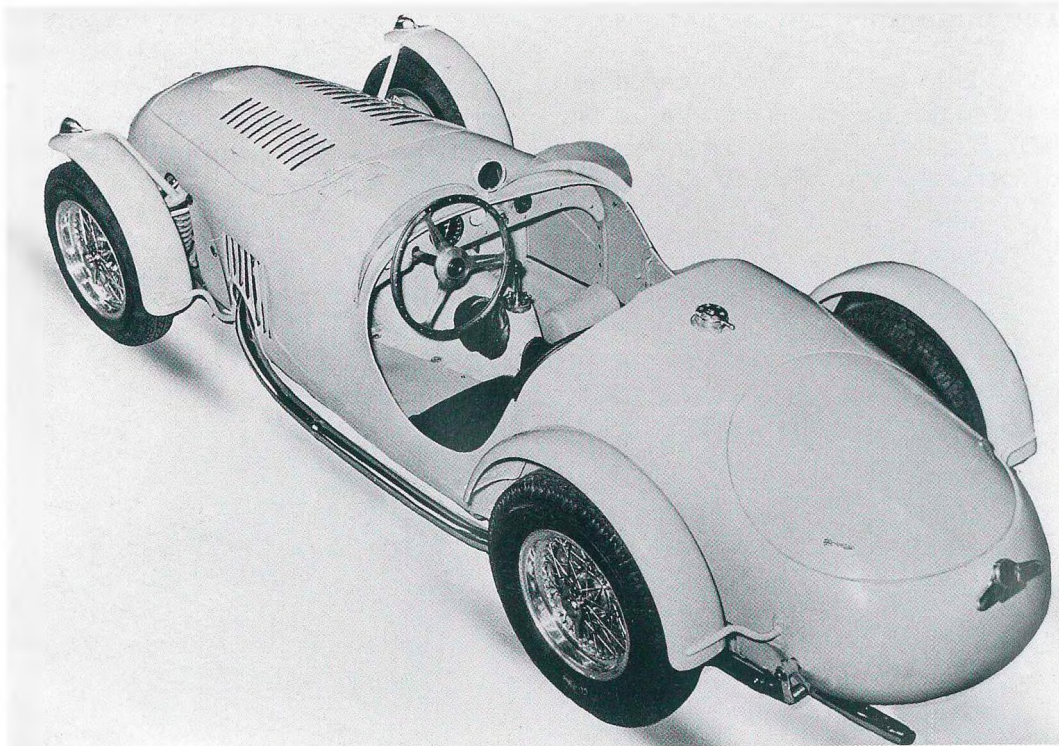
The Plate-Maseratis

Enrico Plate and Toulo de Graffenried had hoped to race one of the new A6GCMs in 1952, but the factory had made it clear that it could not promise a firm delivery date. So

By the Italian Grand Prix at Monza in September 1952, Maserati had ready a new and more powerful version of the Tipo A6GCM with twin-plug cylinder head. Gonzalez drove the new car, but the team was running the 'light fuel load' technique and after a pit stop to refuel, he finished second behind Ascari's Ferrari.

Plate decided to rebuild two 4CLT/48s as Formula 2 cars. It was the Milanese engineer's opinion that the 4CLT/48 engine was overstressed in later forms and would prove much more reliable with the supercharger removed. Plate bored out the block and





During 1952 Maserati had resumed work on the A6GCS sports-racing car and these became known as the 'Second Series'. This is the cycle-wing car based on an A6GCM chassis which was completed in late 1952.

using oversize liners achieved a bore of 90mm, which coupled with the existing stroke of 78mm gave a capacity of 1,980cc. New camshaft, pistons, connecting rods and crankshaft were made and once the prototype had performed satisfactorily during testing, new cylinder blocks were cast. With two twin-choke Weber 35DCO carburettors and on the very high compression ratio of 14:1 power output was 150bhp at 7,000rpm. Plate shortened the wheelbase by five inches, modified the steering geometry, fitted a smaller fuel tank in the tail and a new body that was both lighter and shorter.

The Plate-Maseratis were a very neat and professional job, as would be expected from this talented engineer, but they rarely performed well. They were usually driven by de Graffenried and Harry Schell, but other drivers handled them on occasions. In practice for the Syracuse Grand Prix

veteran Monégasque Louis Chiron went off the road with a Plate-Maserati, the car caught fire and as a result of the burns he suffered, he did not race again until 1953. De Graffenried finished sixth at Pau with a sick engine, fourth at Marseille, third in the International Trophy at Silverstone behind Lance Macklin and Tony Rolt with HWMs, and sixth in the Swiss Grand Prix.

In June de Graffenried and Schell took third and fourth place at Aix-les-Bains behind Behra (Gordini) and Macklin (HWM). At Les Sables D'Olonne Schell's engine seized, he spun, was rammed by Ascari and triggered off a multi-car accident that eliminated a total of five cars. De Graffenried finished fifth at Comminges, but the cars were too slow to qualify as starters in the Italian Grand Prix and later in September de Graffenried rounded off an indifferent season by finishing third at Cadours. The cars subsequently appeared

in the film *Such Men are Dangerous* in which they posed as 'Buranos', a mythical marque created for the film.

1953

Modifications to the A6GCM for 1953

Massimino left Maserati at the end of 1952 and Vittorio Bellentani became chief engineer. Giaocchino Colombo, previously with Alfa Romeo and Ferrari, joined Maserati as technical consultant. His brief was the design of the 250F for the 1954 2,500cc Grand Prix formula and once the general details of this had been settled, his consultancy came to an end and he left Maserati in about June 1953.

Initially Bellentani and Bertocchi had difficulty in working together, as, to quote Cozza, 'both wanted to be boss.' Both also realised that their attitudes were counter-productive and Bellentani discussed the situation with Adolfo Orsi. What was in effect agreed was that there should be a split between design and the development of the cars when they were constructed. This allowed both to get on with their own jobs and at the same time maintain maximum co-operation. Bellentani set up an Experimental Department with the approval of Adolfo Orsi. This was headed by Bellentani, with Reggienti and Leoni as senior assistants and the junior assistants were Cozza and Cavazzutti.

While Bertocchi's role combined the development and racing of the cars, Aldo Lugo, who was Maserati's director of sport, continued to act as team manager and to deal with administration, entries for races, etc. It was an arrangement that was to work well, but the overall organisation of Maserati's racing efforts was not initially as smooth and as well co-ordinated as at Maranello.

For 1953 Maserati developed an improved version of the A6GCM with

revised cylinder dimensions of 76.2 x 72mm and developing 180bhp. By the end of 1953 these cars had a power output of 190bhp at 9,000rpm. There were minor suspension modifications, including the adoption of an A-bracket to locate the rear axle. These cars were fitted with smoother, more aerodynamic bodies. The 1953 A6GCMs were as fast as the Tipo 500 Ferraris, but the road-holding was slightly inferior.

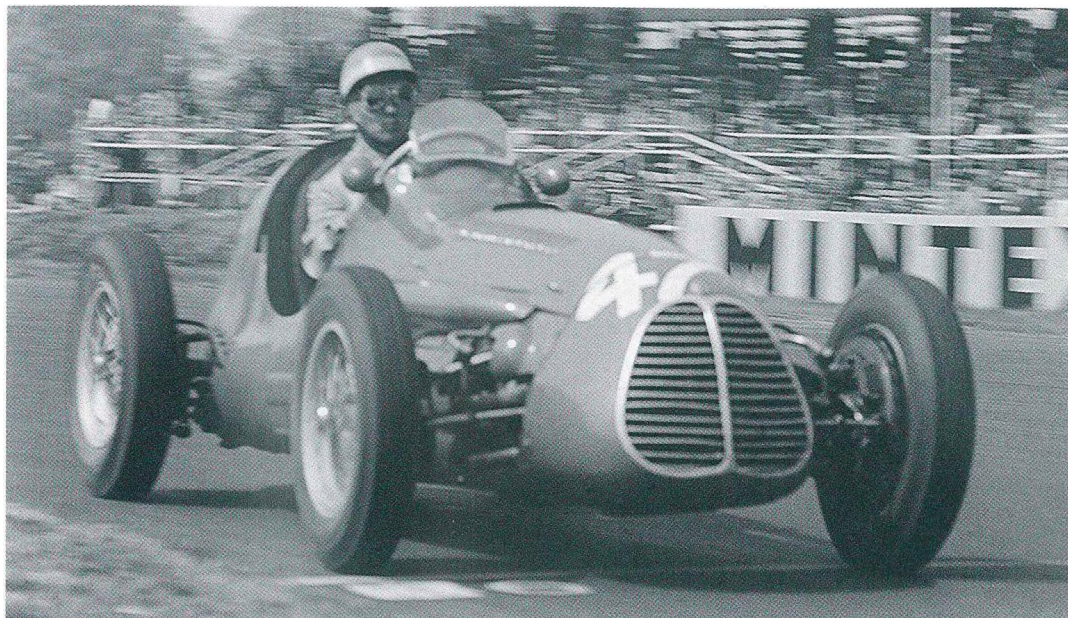
Fangio had made a complete recovery from the serious injuries suffered at Monza the previous year and again led the Grand Prix team in which he was backed up, as before, by Froilan Gonzalez and Felice Bonetto. A fourth car was entered later in the season in Argentinian blue and yellow colours for Onofre Marimon, who was sponsored by the Argentinian government through the *Automovil Club Argentina*. One new car was sold to Enrico Plate for Emmanuel de Graffenried to drive.

The 1952 A6GCMs continued to be raced. 'B. Bira' appeared in the International Trophy at Silverstone in May with an ex-*Escuderia Bandeirantes* car entered by the *Autosport* team and subsequently raced it under his own name. Chico Landi also raced one of the former Brazilian team cars. Neither driver achieved much in the way of success.

The Grand Prix Year

The latest version of the A6GCM was not ready at the beginning of the year and in Argentina Maserati relied on the 1952 cars. They were driven by Fangio, Gonzalez and another Argentinian, Oscar Galvez. The main event was the 3-hour Argentine Grand Prix, the first round in the 1953 World Championship. Inevitably the race was Ferrari-dominated, but Gonzalez and Galvez took third and fifth places. Fangio had held second place behind Ascari until he blew up his engine.

Throughout the year Fangio went out to beat the Ferraris or bust and it was a tactic that eventually paid off. On 1 February the



Private owners continued to race the 1952 cars. 'B. Bira' drove this A6GCM of the Autocourse team into fourth place in the International Trophy meeting at Silverstone in May 1953. (T.C. March)

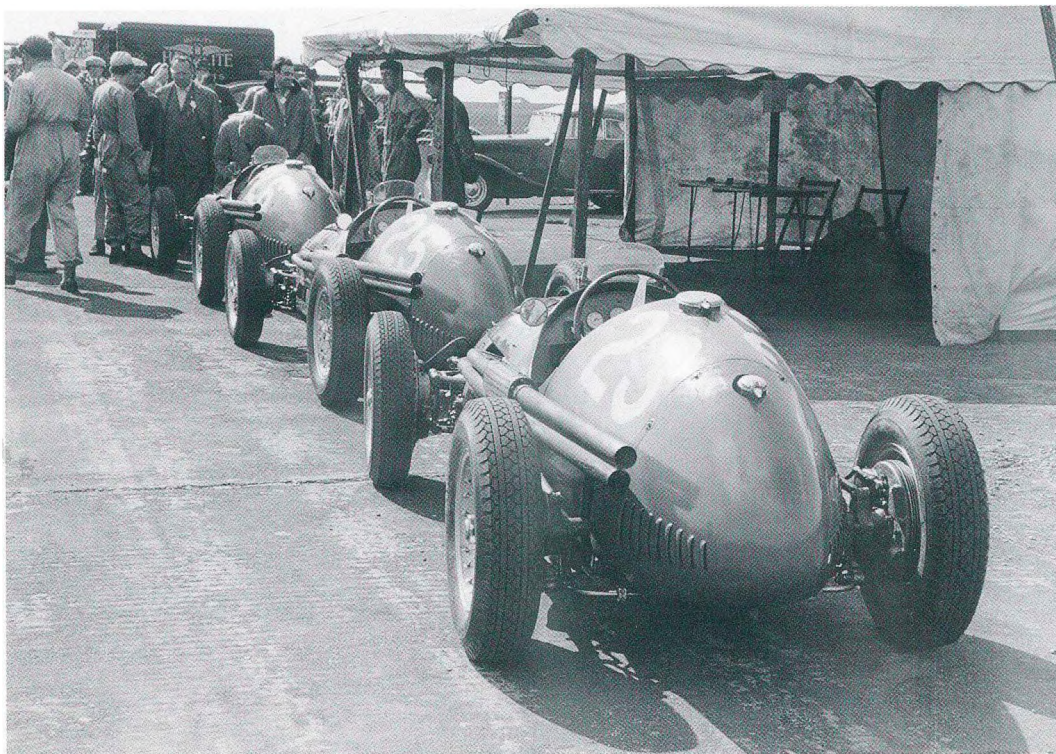
Maseratis competed in the Formule Libre Buenos Aires City Grand Prix, but Ferrari was using 2.5-litre engines in the Tipo 500s, so the A6GCMs were outclassed. Gonzalez, Galvez and Fangio (who was delayed by throttle trouble) took fourth, sixth and ninth places.

Enrico Plate had been champion at the

bit, pressing for delivery of the new A6GCM for Emmanuel de Graffenried to drive. When it became clear that this could not be ready for the start of the European season, Maserati lent him the development car, which in looks was a cross between the 1952 and 1953 versions and featured a high tail, but it had the 1953 mechanical modifi-

In the French Grand Prix there was an intense battle between Ferrari and Maserati and this developed into a wheel-to-wheel battle for the lead between Hawthorn and Fangio. Here they fight it out in the closing laps of the race, which was won by Hawthorn after Fangio lost the use of first gear on his A6GCM.





The works Maseratis line up for scrutineering at the 1953 British Grand Prix. They were driven by Marimon (number 26), Bonetto (number 25) and Fangio (number 23). Not seen in this photograph is number 24 driven by Gonzalez. (Guy Griffiths)

cations. De Graffenried was remarkably successful with this car and his performances included wins in the Syracuse Grand Prix (after the retirement of the works Ferraris), in two races at Goodwood on Easter Monday and in the Eifelrennen at the Nürburgring.

Maserati had the latest A6GCM cars ready in time for the 153-mile (246km) Naples Grand Prix on 10 May. In early races in 1953 it was obvious that the cars still needed considerable development work and throughout the season they were steadily improved. It was also obvious that the high-revving Maserati engine was best suited to very fast circuits such as Reims and Monza – in fact the A6GCM could be described as something of a ‘screamer’ – and that the power did not come in sufficiently far down the rev range for the A6GCM to match the Tipo 500s on slow and medium-speed circuits.

Two works A6GCMs ran on the very tortuous 2.55-mile (4.1km) Posillipo circuit – not suited to the Maserati’s engine characteristics – and for this race Fangio’s car was fitted with a small headrest and a large fuel tank that extended either side of the driver’s seat. Fangio took the lead when Ascari stopped at the pits because of a broken accelerator, but he was passed by Farina (Ferrari) and finished second, despite a pit stop to change a punctured front tyre. Team-mate Gonzalez finished third ahead of Villoresi and Ascari.

By the Dutch Grand Prix at Zandvoort on 7 June, Plate had taken delivery of the new car for de Graffenried to drive. Three works cars were entered for Fangio, Gonzalez and Bonetto. Rather foolishly the organisers had the circuit resurfaced only a week before the race, so it had no opportunity to settle and bed down. It soon began to break up in practice and for the race the A6GCMs were

fitted with protective gauze screens in front of the aero-screens and retained by the rear-view mirrors.

Zandvoort was another, relatively slow Ferrari circuit and the race was dominated by Ascari. Fangio retired because of rear axle failure, Gonzalez was eliminated by a broken drive-shaft and he took over Bonetto’s car to finish third behind Ascari and Farina. De Graffenried came across the line in fifth place. It was, unfortunately, a typical 1953 Maserati race.

A fortnight later the Belgian Grand Prix was held over a distance of 315 miles (507km) at Spa-Francorchamps. It was a high-speed circuit, but it had fast, sweeping curves and the tight La Source hairpin bend before the start/finish line and the pits. At this race the A6GCMs ran with their intake grilles removed. Four works Maseratis were driven by Fangio, Gonzalez, Marimon and local driver, ‘Johnny’ Claes, leader of the popular Belgian jazz band, *The Clay Pigeons*. The sheer speed of the circuit suited the Maseratis, but they were noticeably less stable than the Ferraris through the Burnenville and Stavelot fast curves. In practice Fangio took pole position in 4min 30sec, two seconds faster than Ascari and Gonzalez.

Gonzalez led from Fangio early in the race, trailed by Ascari and Farina with their Ferraris, but Gonzalez retired on lap 11 for reasons that varied from report to report, and a lap later Fangio was out of the race because of engine trouble. After lengthy consultation in the Maserati pit about the *realpolitik* of the situation, Claes was called in to hand over to Fangio, who fought his way back to second place, only to hit a patch of oil on the last lap at Stavelot, spin, take to the grass and crash. Ascari and Villoresi took the first two places with their Ferraris ahead of Marimon and de Graffenried, both a lap in arrears. Gonzalez set fastest lap of the race at 115.52mph (186kph). That the Maserati challenge was strengthening was beyond doubt.

The breakthrough that Maserati needed

would have happened in the French race at Reims, but for the outstanding driving of Mike Hawthorn with his Ferrari. Preceding the Grand Prix was a 12-hour sports car race in which the works Ferrari Tipo 375 *Le Mans* coupé of Carini and Maglioli was disqualified for a number of infringements of the rules, including switching the lights off before the permitted time and being pushed in the pits by the mechanics before the engine was fired up. As a result of this disqualification Ferrari threatened to withdraw from the Grand Prix and until the last moment it was unknown whether or not the Ferraris would start. Team-manager Ugolini had spoken on the telephone to Ferrari and it had been agreed that the team would not be withdrawn, but uncertainty would be maintained by not pushing the cars out until the last moment.

At this race Bonetto was back in the Maserati team. Gonzalez, probably at his own suggestion, started the race on a half-full tank and at the fall of the flag accelerated through from the second row of the grid into the lead. But any hopes of Gonzalez breaking up the Ferrari opposition were over-optimistic, for while he was able to pull out a lead which he extended to 19sec, behind him Ascari, Hawthorn, Villoresi, Fangio and Farina were locked in a closely fought battle, jockeying for position and sometimes with only inches separating them.

On lap 20 of this 60-lap race Fangio launched his attack and by lap 30, when Gonzalez pulled into the pits to refuel, the former World Champion assumed the lead for Modena. Lap after lap Hawthorn, whose performance earlier in the season had disappointed Enzo Ferrari, attacked the leading Maserati, overtaking Fangio under braking for the brick-paved Thillois hairpin and smoothly accelerating away from him out of the corner. Lap after lap, Fangio turned on the power of the Maserati between the pits and the start of the Thillois straight and went ahead again. Much later it was learned that Fangio had lost the use of first gear,

needed for a quick exit from Thillois, but this does not detract from the performance of Hawthorn, who had coolly assessed the situation, had left his vastly more experienced team-mates, Ascari and Villoresi, a few seconds behind and turned in the greatest performance of his career.

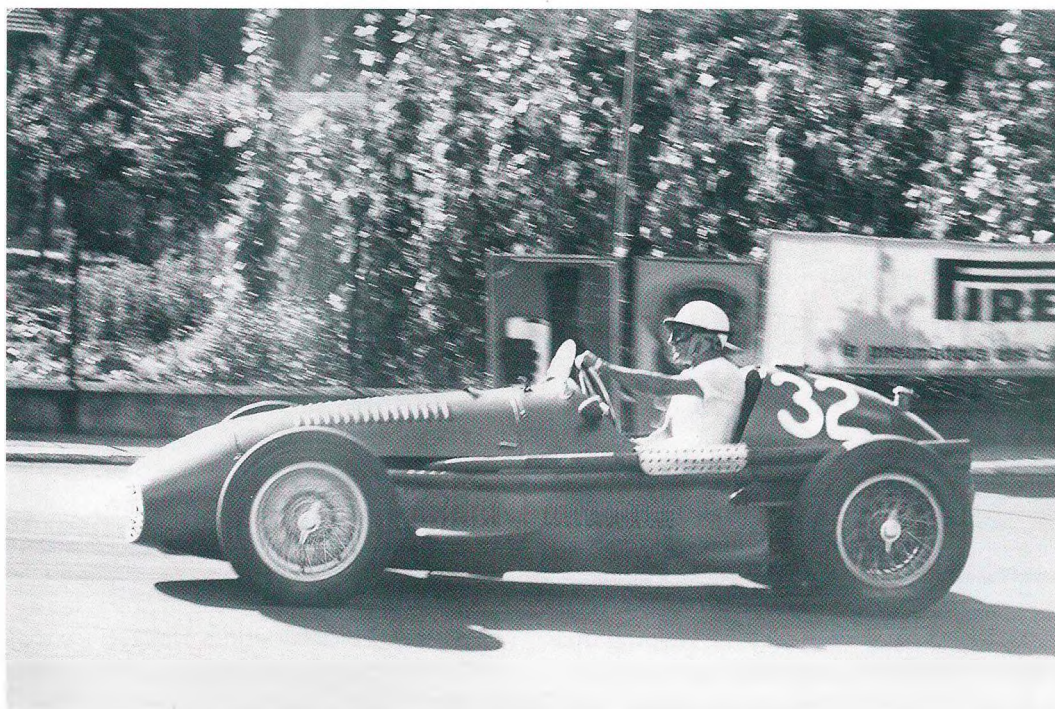
Almost as remarkable was the performance of Gonzalez, who had rejoined the race in sixth place and passed Marimon, Villoresi and World Champion Ascari to hold station less than a sec behind the leaders. Hawthorn started the last lap of the 5.19-mile (8.36km) Reims circuit very slightly ahead of Fangio, he held the lead throughout the lap and won by a margin of one sec. Gonzalez, Ascari and Farina took third, fourth and fifth places and only 7.6sec separated the first five cars.

De Graffenried finished seventh, while Marimon was classified ninth, five laps in arrears, after a stop to repair a leaking oil

cooler, holed by a stone thrown up by Ascari's Ferrari. *Autosport* called the 1953 French Grand Prix 'The Race of the Century', which was something of a hyperbole, but it was a race so tense and closely fought that it left the spectators as well as the drivers completely exhausted.

Normality restored itself in the British Grand Prix a fortnight later on the Silverstone circuit. Ascari took pole position with his Ferrari and led throughout this 263-mile (423km) race. Maserati were reconciled to defeat even before the start of practice, well aware that the A6GCM could not match the superior torque of the Tipo 500 Ferraris on this medium-speed circuit. Fangio took second place, a minute in arrears, outpaced and with the AGCM conspicuously less steady than the Ferraris through the corners. Farina (Ferrari) finished third with Gonzalez in fourth place. It had not been a good race for the

In the Swiss Grand Prix at Bremgarten in August, Fangio took over Bonetto's A6GCM when his own lost the use of third gear. Fangio blew up the engine of Bonetto's car in spectacular fashion, but the veteran Bonetto, seen here, carried on to bring the maestro's former mount across the line in fourth place.





A very relaxed Froilan Gonzalez. The Argentinian was a leading member of the Maserati team in 1952–53, but left and rejoined Ferrari for 1954. His best performance for Maserati was second place in the 1952 Italian Grand Prix. (Guy Griffiths Collection)

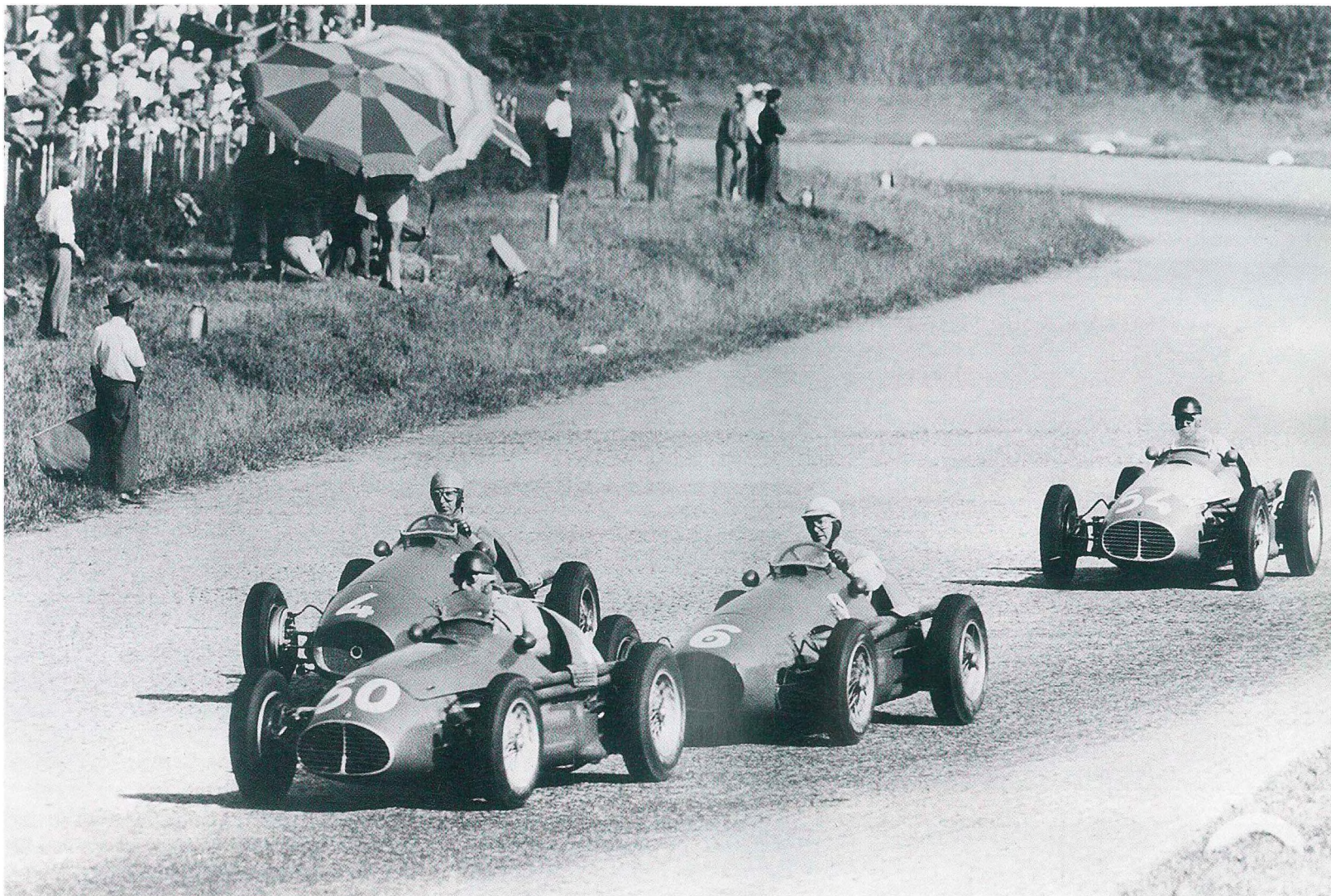
burly Argentinian, as he was black-flagged for allegedly dropping oil and rejoined the race after an argument in the pits with the stewards. Bonetto took sixth place and both Marimon and de Graffenried retired.

In his review of the race in *Autosport*, John Bolster, the Technical Editor, wrote, 'Fangio is consistently faster through corners than anybody else. He has only a tiny margin over the first-line drivers, and one might almost question the accuracy of hand timing if the same results had not been obtained over and over again. Gonzalez can corner as quickly on occasions, but shows considerable variation.'

The weekend after Silverstone the 150-mile (241km) Circuit of Aix-les-Bains was run in two heats on a triangular circuit round Lac Bourget, close to the French/Swiss border. Ferrari had entered the race, but then pulled out. The reason was the disqualification of his entry in the Reims 12 Hours race and Ferrari had indicated a refusal to compete in France until his appeal against that decision had been heard. Almost needless to say, Ferrari's appeal was eventually rejected. Maserati sent only a single red A6GCM for Marimon, rather than his usual blue and yellow car, and de Graffenried was at the wheel of his private entry.

The race should have been a walkover for Marimon, but Toulou rather strained his close relationship with the factory by dropping most of the contents of his oil tank on the circuit and this resulted in Marimon's elimination from the race. The young Argentinian had been battling with the Gordinis, which were competitive on this circuit, and had just taken the lead when he hit the oil at one of the hairpin bends. The Maserati spun wildly and collided with a brick wall. French driver Elie Bayol won the race on the aggregate of the two heats with his 6-cylinder Osca.

The same weekend Gonzalez crashed heavily with a works Lancia in the sports car Lisbon Grand Prix and put himself out of racing for the rest of the year. Only three works Maseratis ran in the German Grand Prix on 2 August. Maserati had offered the spare seat to two veteran German drivers



The battle for the 1953 Italian Grand Prix at Monza. Fangio (A6GCM) leads Ascari and Farina (Tipo 500 Ferraris), while Marimon brings up the rear, four laps behind with his A6GCM.

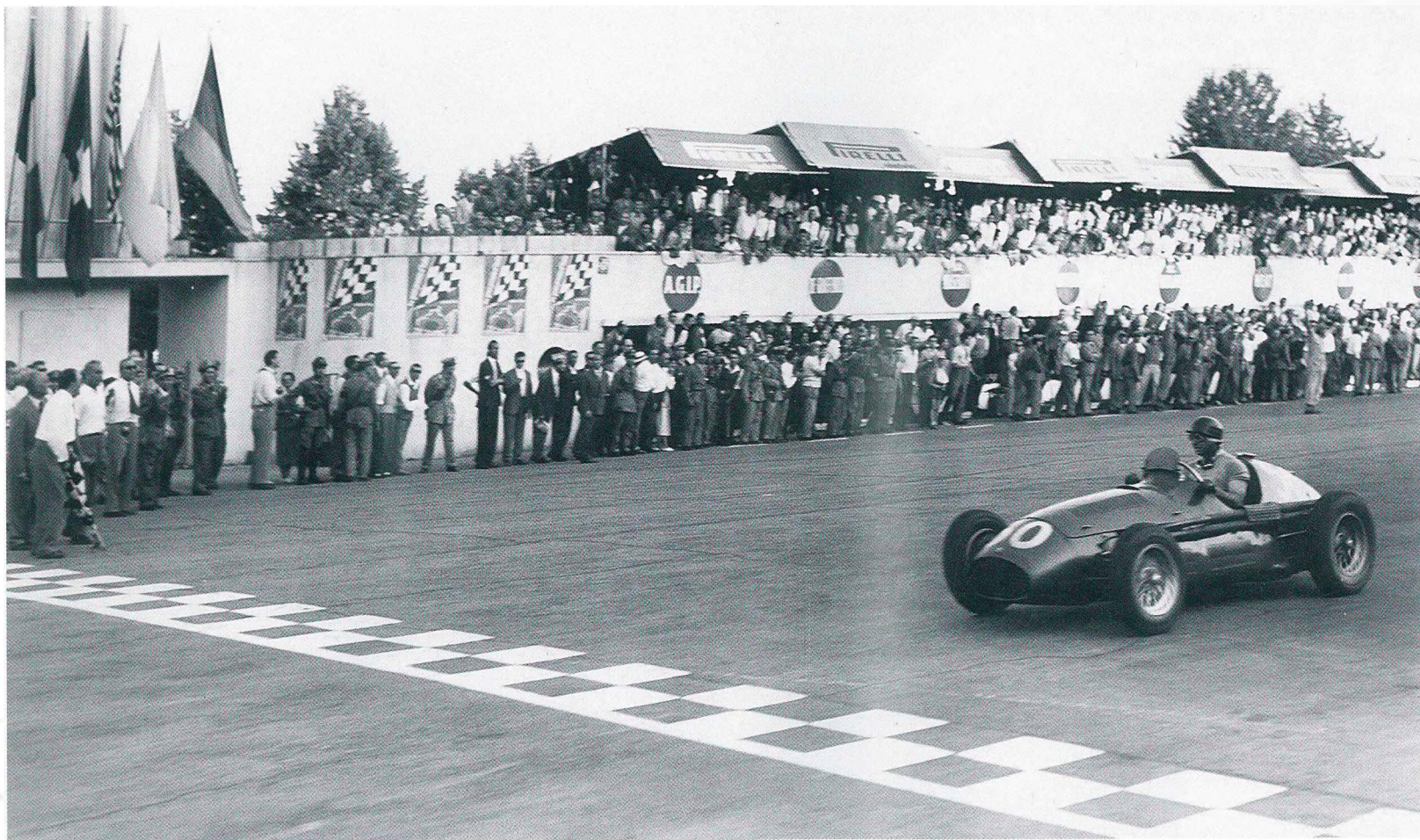
Hermann Lang and Paul Pietsch, but both declined as they considered that they had insufficient time before the race to familiarise themselves with the A6GCM. In practice Fangio was second fastest in 10min 3.7sec, 3.9sec slower than Ascari. Ascari again pulled out a commanding lead, while Fangio scrapped for second place with Hawthorn.

When Ascari crawled into the pits at the end of lap 4, minus the right-hand front wheel, Hawthorn took the lead, harried by Fangio, with Farina hot on the Maserati driver's exhausts. Two laps later Farina passed both Hawthorn and Fangio. Fangio then went ahead of the British driver,

although steadily losing ground to the leading Ferrari. Ascari took over Villoresi's car, but driving at the limit, he over-revved the engine, which blew up as he passed the pits on lap 14. Fangio's Maserati shed its exhaust on that lap, but he carried on with a rather odd note from the engine and the bodywork scorched black. At the finish of this 255-mile (411km) race, he was 64sec behind Farina. Bonetto took fourth place and, despite almost no brakes, de Graffenried finished fifth, a lap in arrears.

Few drivers have blown up their engine

as comprehensively as Fangio managed in the Swiss Grand Prix at Bremgarten on 23 August. The circuit in a public park at Bern was one of the most challenging, very much to Fangio's tastes and talent. At this race Hermann Lang, who had driven for Mercedes-Benz between 1934 and 1939 and again in sports car racing in 1952, agreed to appear for Maserati, but he was past his best and not expected to be competitive. Fangio took pole position in practice, but although he made a good start, Ascari took a narrow lead on the first



Fangio crosses the line in the 1953 Italian Grand Prix to take his and Maserati's only Championship race win of the year.

lap. Ascari started to pull away from the Argentinian at the rate of about a second a lap, Fangio was struggling with his gearbox and on lap 11 when he lost the use of third gear altogether, and so vital on this circuit, he pulled into the pits and Bonetto stopped for him to take over.

A lap later Fangio was back in the pits for a wheel-change and it seems that Bonetto had been indulging in some kerb-clouting. Then Fangio started a furious and futile chase through the field from tenth place. On occasions the over-revved engine could be heard almost screaming and at the end of lap 28 he passed the pits, the engine clattering and laying such a vast bank of blue smoke that drivers behind were forced to

ease off. When he pulled into the pits to retire at the end of the lap, the engine had disintegrated so thoroughly that there were specks of alloy over the splash-guards. The mechanics lifted the bonnet, shuddered and pushed the A6GCM away. Maserati gave out 'valve failure' as the official reason for retirement.

Marimon turned in a very encouraging performance, holding third place ahead of Hawthorn, before dropping back and then spinning out of the race because something had seized in the transmission. Ferraris took the first three places, but Bonetto finished fourth with the car he had taken over from Fangio and Lang crossed the line in fifth place, albeit three laps in arrears.

Maserati again entered four cars in the 312-mile (502km) Italian Grand Prix at Monza and brought into the team young Luigi Musso and Sergio Mantovani, both promising 'cub' drivers who were to share a car. De Graffenried drove his own car as usual and the Maserati entry list was completed by *Scuderia Milano*, making one of its occasional appearances with two 1952 A6GCMs driven by Francisco Landi and 'B. Bira'. In practice the Ferraris and the Maseratis were very closely matched. Ascari took pole position in 2min 2.7sec, Fangio was next fastest in 2min 3.2sec and the front row of the grid was completed by Farina with a time of 2min 3.9sec. Marimon was fourth fastest in 2min 4.1sec.

A one minute silence was observed before the start of the race in memory of the great Tazio Nuvolari who had died on 11

August 1953. The race produced another fantastic battle between the two Italian marques. Maserati had a definite 'edge' in speed, but this was balanced by the Ferraris' superior road-holding. From the fall of the flag Ascari, Fangio, Farina and Marimon battled for the lead, racing in close company, swapping positions several times on each lap. At no time did more than a couple of seconds cover the four leading cars; they were always in close line ahead or tucked in wheel to cockpit as the drivers jockeyed for position.

Constantly one car or another would pull out of the slipstream and thrust into the lead. As the race progressed, the noses of the leading cars and the faces and helmets of their drivers became increasingly coated with rubber dust and exhaust dirt. On lap 46 Marimon pulled into the pits because of suspension problems. He returned to the fray, stopped again two laps later and, although he was four laps in arrears, rejoined the leaders to give support to Fangio. As the race moved towards its close, Ascari and Farina held the first two places consistently and Fangio's chances of a win seemed to have evaporated.

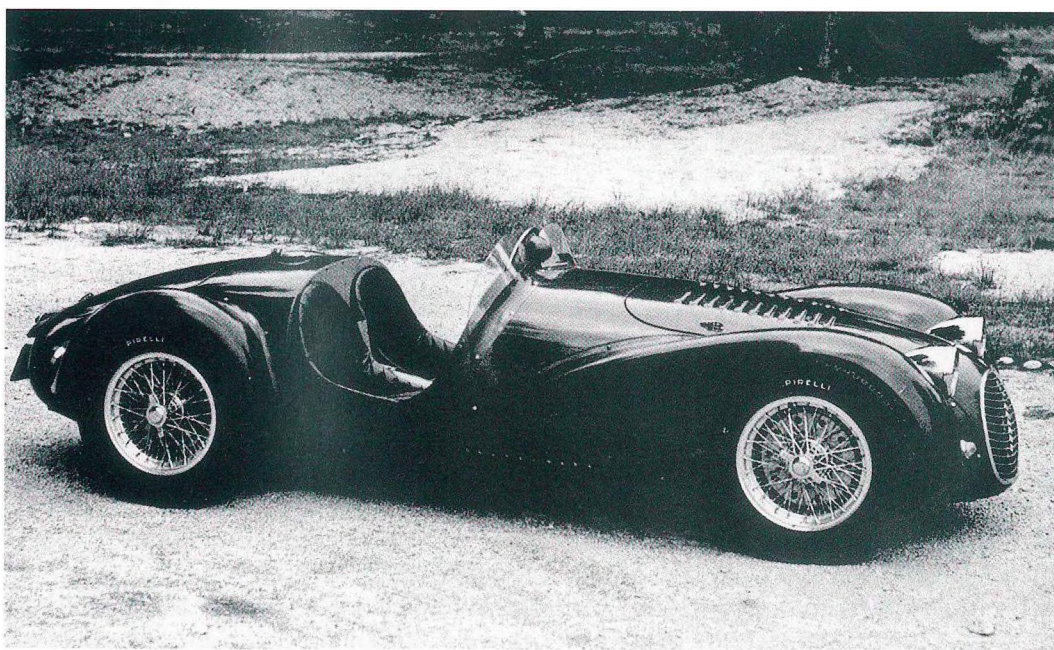
When the leading quartet, in the order Ascari, Farina, Marimon, Fangio, swept into the last corner of the last lap, the Curva Sud, Ascari spun wildly, twice; Farina swerved wide on to the grass, Marimon crashed head-on into the spinning Ferrari and Fangio took to the inside of the track. Fangio crossed the line to take Maserati's only Championship Grand Prix win of the year, followed by an exceedingly angry Farina and with Villoresi and Hawthorn in third and fourth places. Bonetto retired and the Musso/Mantovani duo drove their shared car into seventh place, four laps in arrears. Fangio set fastest lap at 113.126mph (182.13kph). In the Drivers' World Championship Ascari was the clear winner for the second year in succession with 34½ points and Fangio was in second place with 28 points.

There was one more race before the end of the season, the 143-mile (230km)

Modena Grand Prix, held a week later on 20 September, on the circuit formed by the perimeter roads of the local airfield. Ferrari had announced his withdrawal from racing at the Italian Grand Prix, but although this was simply a ploy to raise more financial support for 1954, there were no works Maranello entries at Modena. An unusual feature of the Modena race was a rolling start. At this race the fourth Maserati was driven by Emilio Giletti, more usually seen at the wheel of an A6GCS. There were only 13 starters, Fangio, Marimon, de Graffenried and Bonetto were the four fastest in practice and the race was a Maserati landslide.

Fangio won so easily that both his average speed and fastest lap were slower than the 1952 times. Marimon finished second, although he dropped well back in the closing laps because of suspected piston trouble. De Graffenried took third place, two laps in arrears. Bonetto retired because of transmission problems and Giletti retired his Maserati because of piston failure.

The second of the twin overhead camshaft A6GCS cars delivered in early 1953 to Fritz de Koster and raced extensively by him in the United States. In appearance the car resembled the late pre-war 8C 2900B Alfa Romeo with Touring body.



The A6GCS Sports-Racing Cars

Late in 1952 Maserati had completed two 2,000cc A6GCS sports-racing cars. They were what are often described as 'second series' cars, derived from the original 1947-48 2-litre sports cars, but with the A6GCM chassis and engine. With the introduction of the World Sports Car Championship for 1953, there was a change in the rules that in International races cycle-wings were no longer permitted. The reason behind the change is difficult to understand and it was not always strictly enforced. On cars such as the Frazer Nash *Le Mans Replica*, which had cycle-wings as standard, it was easy to circumvent the rule by tacking aluminium-alloy strips between the wings and body. Although later A6GCS cars had full-width bodies, the first car retained cycle-wings and the second had what might be described as a 'compromise' body.

Initially Maserati rebuilt one of the 1952 Formula 2 cars, chassis number 2038, as a sports-racing car and this was supplied with

a cycle-wing body to a private team. The second car, chassis number 2039, was built to the order of Dutch National, Fritz Koster, who was resident in the United States and was a partner with his brothers in a beeswax business in Sayville in New York State. It was an interim car, but it was generally regarded as the definitive production model, even by Tony Pompeo, the American importer, at least until improved cars ran in the Mille Miglia.

This Maserati had the wider chassis developed for the A6GCS for 1953, but it retained a 1952 engine of 75 x 75mm and was believed to have a power output on pump fuel of 140bhp at 7,000rpm. The body had an air intake similar to that of the 1952 Formula 2 cars and the bonnet was heavily louvred. There were separate front and rear wings permanently bolted to the body. In profile it resembled a pre-war Alfa Romeo 8C 2900B.

Koster first entered the car at MacDill Field, Tampa, Florida on 21 February, but non-started because of mechanical problems. It then appeared in the Sebring 12 Hours race in which it was co-driven by Argentinian Jorge Daponte. Koster and Daponte ran well, but retired because of further mechanical problems. The A6GCS was then shipped back to Europe for an overhaul at the factory.

The production version of the A6GCS (also known as the A6GCS/53) had the 1953 76.2 x 72mm Formula 2 engine in slightly detuned form with a power output of 165bhp at 6,750rpm. New and much more stylish bodywork designed and built by Medardo Fantuzzi was adopted. In this form the A6GCS was the most powerful and successful car in its class of endurance racing, more than a match for the Ferrari V12 Tipo 166 *Mille Miglia*. But Ferrari was planning the 4-cylinder, 2-litre *Mondial*, which first appeared in the Moroccan 12 Hours race on 20 December 1953, and thereafter the scales were much more finely balanced.

In its latest, improved form the A6GCS first ran in the Mille Miglia on 25–26 April. The works entered three A6GCS cars for

Musso, Mantovani and Giletti. These cars were all owned by their drivers and throughout the year they were raced regularly as works entries. Giletti was accompanied in the 1,000-mile (1,610km) race by Guerino Bertocchi, who had of course, brave man, been riding with Maserati drivers for 27 years. Musso crashed while leading the 2,000cc sports category, but Giletti won the class and finished sixth overall. Mantovani/Palazzi finished second in the class, but tenth overall, a little over 13min behind. It was a very promising racing debut for the new model.

The Maserati A6GCS was seen mainly in Italian events in 1953, races that were important at a national level, but which attracted very little outside interest. Two cars were entered in the Targa Florio on 14 May. The Sicilian road race was held over eight laps of the 44.7-mile (71.97km) Little Madonie circuit and was largely dominated by the new sports-racing Lancia 2.9-litre D20 coupés. Piero Taruffi crashed his Lancia while leading, but then his team-mate Maglioli assumed the lead and won the race from Giletti. Sergio Mantovani with the other works A6GCS, had a problem in getting to grips with the difficult circuit and the car was taken over and brought across the line in third place by Juan Fangio, who was at the circuit only as a friend of the factory.

On 7 June, the day of the Dutch Grand Prix at Zandvoort, there was first a one-hour race for sports cars up to 2,000cc and Koster entered his A6GCS. Juan Fangio also drove this car in practice. Koster led away from the Le Mans start, but his brakes started to fade and he was eventually caught and passed by Cliff Davis with his very fast and nimble Tojeiro-Bristol. Subsequently in June Musso won the 238-mile (383km) Perùgina Cup race at Perùgna near Lake Trasimeno, from the Lancia Aurelia GTs of Piodi and Valenzano. That was on 20 June and a week later the works-entered A6GCS cars ran in the Circuit of Caserta. Mantovani and Musso took the first two places, but Giletti dropped back because of mechanical

problems and finished seventh. Third place went to Milanese pilot, Franco Bordoni, who raced French Gordini cars with considerable success.

The Pescara 12 Hours race on 15 August was won by Hawthorn and Maglioli with a works Ferrari 375LM coupé, but the high level of retirements brought the Maseratis through to second and third places. Luigi Musso was lying second with his younger brother Giuseppe, but their engine failed on the last lap. He pushed the car to the finish, but was passed by another A6GCS shared by Mancini and Dal Cin. Maserati entered a team of three A6GCS cars in the first Nürburgring 1,000 Kilometres race on 30 August. These were fitted with Vignale bodies with cutaway wings at the front and the exhausts running along the left side of the body; the styling was very similar to Vignale's work on contemporary Ferraris.

It was not a successful outing for the Maserati team. Giletti/Marimon were leading their class when their engine failed on the 44th and final lap. Hermann Lang, partnered by Gianni Bertoni, also retired because of engine problems and the car shared by Hans Herrmann and American Ernie McAfee was disqualified because it was repaired with a part from the pits and not carried on the car. The *Supercortemaggiore* Grand Prix was held on 6 September over a distance of 168 miles (270km) at Merano in the Italian Alps. After the retirement of the complete works Lancia team, Fangio won with a 3-litre Alfa Romeo from Mantovani with his A6GCS. Giletti took eighth place.

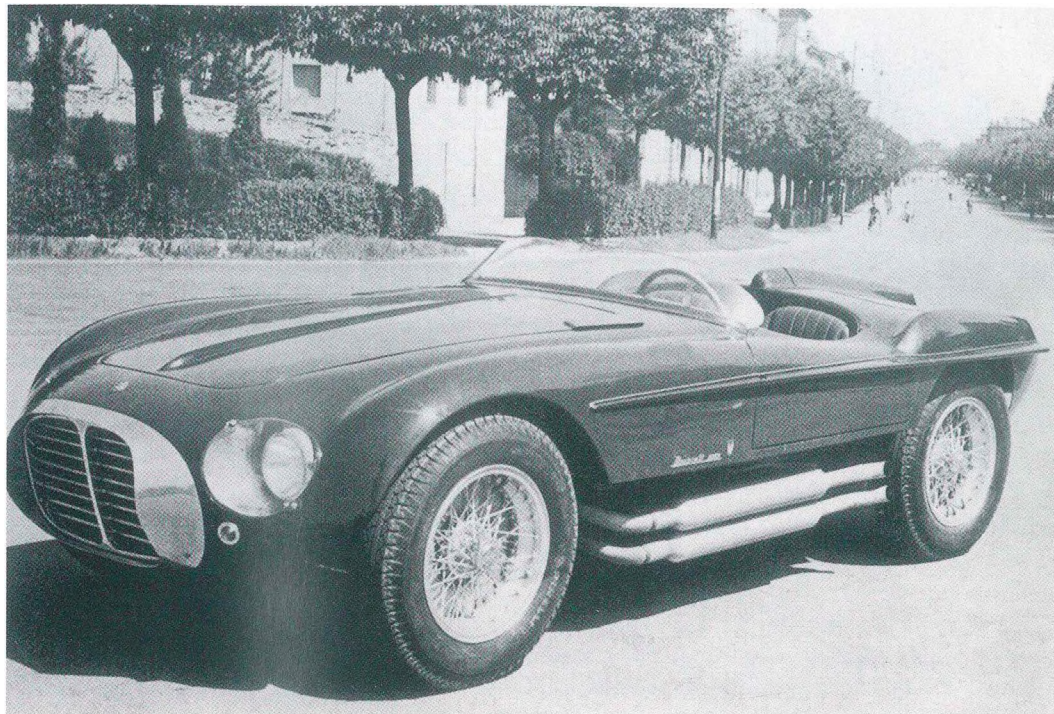
In September an A6GCS with the standard production body was imported into the UK by Sid Greene of Gilby Engineering for Roy Salvadori to drive. It was looked after by an Italian mechanic and painted British Racing Green. Roy first drove the new acquisition at the September Goodwood meeting. Although some successes were gained in 1954, the A6GCS proved too heavy for British short-circuit events, the power came in a narrow band

between 5,000 and 6,700rpm, its peak engine speed. Another disadvantage was the left-hand drive, for British circuits were clockwise with mainly right-hand bends. The A6GCS was rarely a match in the 2,000cc class for Archie Scott-Brown with the new Lister-Bristol. For 1955 the engine was fitted to a Cooper chassis, but this suffered from extreme understeer and it was not a success.

In the meanwhile Koster had shipped 2039 back to the United States where he competed in SCCA (Sports Car Club of America) races. At Cumberland on 19 July he won his class in a 25-lap race, but retired in a later event that day. A week later he competed at Giant's Despair hill climb and set fifth fastest time. The following day he ran at Brynfan Tyddyn, a very difficult, tortuous circuit, and won his race. He ran at Lockbourne Air Force Base, Columbus, Ohio on 9 August and won his class in a 100-mile (161km) race. He won his race outright at Thompson, New England on 11 October and rounded off his season with a class win in the 250-mile (402km) Strategic Air Power Trophy at Turner Air Force Base at Albany, Georgia. In this event the Maserati was timed on the straight at 128mph (206kph).

By late 1953 production of the A6GCS was well under way and at the Sicilian Gold Cup race at Siracusa, the usual three works-entered cars were joined by four private A6GCS entries. The race was run in two heats and a 61-mile (98km) final in which Musso and Giletti finished third and fourth behind Portuguese driver de Oliveira (Ferrari 4.1-litre) and Bordoni (Gordini 2.3-litre). Emmanuel de Graffenried borrowed Giletti's A6GCS to compete in two races in Brazil in December 1953 and he won both (see Page 222).

In 1953 Maserati had become a very changed company, far more active, far more eager for success, both racing and commercial – and for the next few years the two ran hand in hand. Now that there was a steady trickle of orders for the A6GCS, Maserati



At the Nürburgring 1000-km race at the end of August the works entered a team of three A6GCS cars with Vignale bodies. All three retired. The body was less aesthetically pleasing than the standard body by Fantuzzi. This car is seen in Modena before the race.

could expand the competition side of the business. Excluding the coupés and the engine sold for use in the Lister-Maserati, 52 A6GCS cars had been built by the time that production ceased in 1955. Sales of competition cars generated far more than just the selling price of the car, but also a continuing demand for spares, repair work and race preparation.

Over the next couple of years Maserati was to come close to matching Ferrari's sales of competition sports cars. It was to sell Formula 1 cars when Ferrari was unwilling to do so and it was to rival Ferrari in both Formula 1 and sports car racing. One major advantage that Maserati possessed over Ferrari was that its associate company possessed its own foundry and at this time many Ferrari castings were made at Modena.

A sad event in November 1953 was the death of Felice Bonetto at the wheel of his sports-racing Lancia on the fourth stage of

Carrera Panamericana Mexico road race. There proved to be a shortage of drivers in 1954 and probably Maserati would have wished to retain his services, even if not for every race. And at the end of the year Aldo Lugo, who had been director of sport and acted as team manager at Maserati since 1937, left to join the Maserati brothers at OSCA.

Mention also needs to be made briefly of the Tipo 4CF2 engine. This was a 4-cylinder twin overhead camshaft 1,987cc (88 x 82mm) unit designed by Massimino and possibly inspired by the Tipo 500 Ferrari. Power output is said to have been 182bhp at 7,000rpm. It is believed that it was only bench-tested and it was never run in a chassis. The precise date that this engine was built is not known, but it was before the 2,000cc Formula 2 came to an end. Giulio Alfieri carried out experimental fuel injection work on it, but this was at a later date.

Chapter 11

A new Grand Prix formula, 1954–55

IN 1954 OMER ORSI, Adolfo's son born in 1918, became managing director of Maserati, although he had been working at Maserati for some while. Ermanno Cozza remembers Orsi coming, red-eyed into the factory in the mornings, after sleepless nights because of the constant crying of his baby son Adolfo. He also remembers young Adolfo from about the age of seven coming to the factory after school to wait to return home with his father. Adolfo Junior, now *Dottor* Adolfo Orsi, is a pre-eminent expert on all matters Maserati.

The new Grand Prix formula for 1954 onwards had capacity limits of 2,500cc unsupercharged or 750cc supercharged. It had been thought possible that BRM would build a 750cc car based on one half of their V16, but this never happened and there were no serious supercharged contenders. It proved a very successful formula, with a close battle between at least two major contenders every year. It also gave scope for private entrants and the 'also-ran' teams to enjoy a piece of the action. Maserati were to have their ups and downs, but overall they were to prove one of the most successful teams competing during this era.

How much of the work on the new 250F/1 (more usually known as the 250F) had been completed before Colombo left Maserati is not known for certain, but probably far less than often supposed. The 250F was a development of the A6GCM, but it was so different from the 1953 single-seater that it was a new car. Both the bore and

stroke were increased to give a capacity of 2,493.8cc (84 x 75mm). Larger Weber 42DCO3 carburettors were fitted and despite Maserati's claim of a power output of 240bhp at 6,500rpm, the output of the 250F in its earliest form was around 220bhp. This was in fact adequate for the cars to be competitive in the early part of the 1954 season.

The 4-speed gearbox was retained, but Colotti proposed that it should be mounted behind the final drive; the idea was accepted and he carried out the design work. The cars were very difficult to get away from the start, especially when there was a full fuel load on board, without using a vast amount of revs. This problem was solved only when a 5-speed gearbox became available. The chassis had been completely redesigned and was now a multi-tubular structure (but not a fully triangulated space-frame as such). It retained two main, 1.57in (40mm) side-members with a superstructure of upper tubing and a total of eight cross-members. For the period it was a very stiff structure.

At the rear there was now a de Dion axle with the tube passing in front of the final drive housing and located laterally by a pivot block sliding in a channel plate, which was bolted to the housing. In the early part of 1954 this tube showed a tendency to break and so had to be strengthened. A transverse leaf spring was used. Originally the oil tank was mounted beneath the carburettors. In this position it

was subject to excessive vibration and engine heat prevented the oil from cooling adequately. From mid-season it was moved to the tail of the car behind the 44-gallon fuel tank. Subtle changes to the styling of the A6GCM body made the 250F one of the best-looking Grand Prix cars of its era.

Between June and December 1953 the engineering team worked from 8am to midnight in their efforts to complete development of the 250F. Much of the effort concentrated on compression ratios and fuel mixture. The 250F was first tested at Modena on 26 December 1953 and at this time it was claimed to be capable of 174mph (280kph) at 7,400rpm.

In early 1954 Maserati approached Bosch, the German electrical and ignition specialist, to ask whether they would develop a fuel-injection system for the 250F. With regret Bosch declined because of their commitments to Mercedes-Benz who were to use Bosch fuel injection on their 1954–55 W196 Grand Prix cars. So Bellentani started work on Maserati's own fuel-injection system, which used a pump from an OM diesel engine. When Bellentani left to join Ferrari, Giulio Alfieri carried on with the work and after Mercedes-Benz withdrew from racing at the end of the 1955 season, Bosch became free to assist Maserati. The results were seen in 1956 when a fuel-injected works 250F ran in a few races.

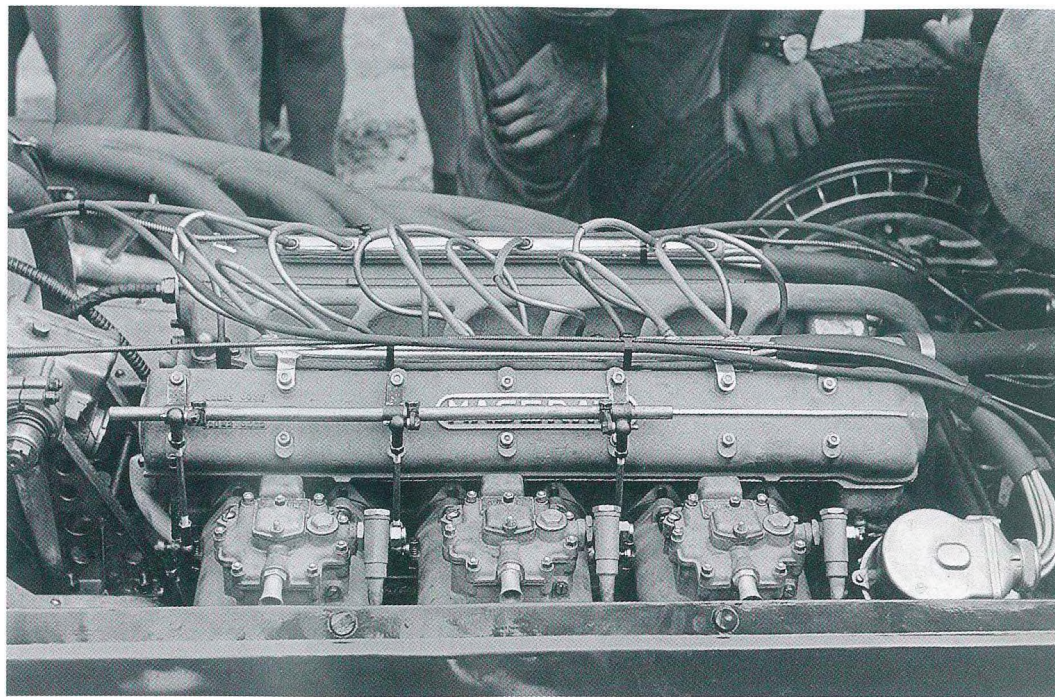
Another area of experimentation at this time was desmodromic valves (that is cam-

operated valves without springs). Maserati had prepared drawings of desmodromic-valve operation as early as 1942–3, and in 1954 a similar arrangement was built and tested on the 250F. Although it proved generally satisfactory, Bellentani concluded that the system was insufficiently reliable and was abandoned. Later Ernesto Maserati adopted the same system on his sports Oscas.

Maserati had made it known that they were prepared to sell the 250F and an order list soon built up. This was not simply because of the merits of the new car, but because no other manufacturer was offering a Grand Prix car for sale at the time. Ferrari had sold a small number of Formula 2 cars in 1952, so these were upgraded for 1953 and rebuilt with 2,490cc engines for 1954. But Maranello would not now sell new cars. Orders for the 250F were received from Gilby Engineering (for Roy Salvadori to drive), Stirling Moss (who would be driving a competitive Grand Prix car for the first time thanks to the support of his family and the BP oil company) and the Owen Organisation (so that they would have a competitive car to race until the new BRM was ready).

Other drivers who ordered 250Fs were 'B. Bira' and Emmanuel de Graffenried, but the Swiss privateer's order was cancelled after the death of Enrico Plate. Bira raced an A6GCM fitted with a 250F engine in the early part of the season until his new car could be completed and Argentinian Roberto Mieres and Harry Schell also raced 250F-engined A6GCM cars in 1954.

At the beginning of the season the main opposition came from the works 4-cylinder Ferraris, of which there were two types. The Tipo 625 was simply the 1952–53 Formula 2 car with a 2,500cc engine and had been first raced in this form in 1951. At the 1953 Italian Grand Prix Ferrari had raced the Tipo 553 *Squalo* in 2-litre form and was hoping to rely on this with 2,500cc engine. It had a markedly over-square engine, pannier fuel tanks and very sensitive,



The Maserati 250F twin overhead camshaft engine with three twin-choke Weber carburetors and twin-plug ignition. (T.C. March)

'quick' handling which most drivers disliked. During the year Ferrari tried different engine permutations to achieve a combination of performance and reliability, while the 250F was steadily developed without major changes.

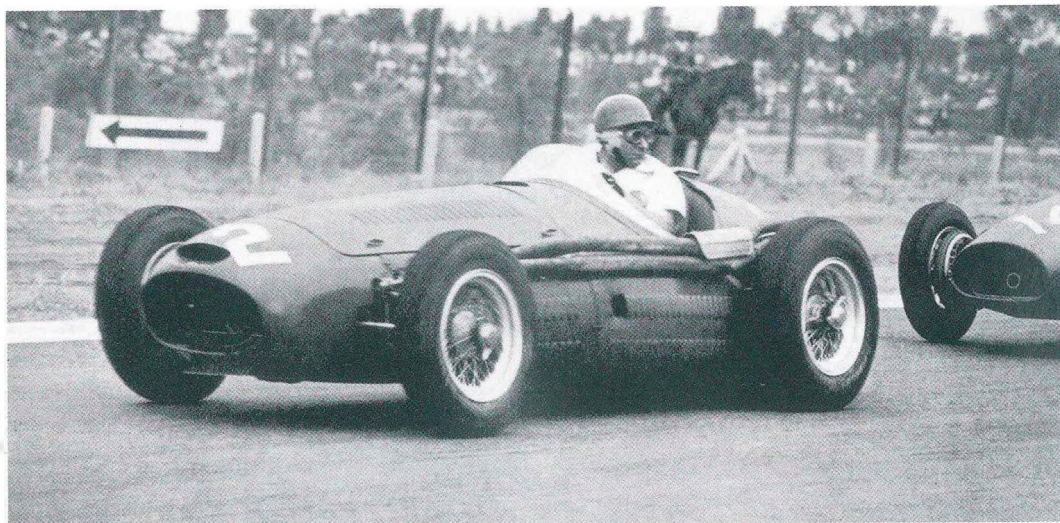
In July, at the French Grand Prix, the Mercedes-Benz team returned to Grand Prix racing for the first time since pre-war days with their new W196 cars. The German company had opted for a straight-eight twin overhead camshaft engine with desmodromic valves and, in the form in which the W196 first appeared, full-width aerodynamic bodywork. By the German cars' third race Mercedes-Benz had ready conventional, unstreamlined bodies. Although these cars were more powerful than the Italian opposition and proved the most successful in 1954, they were not without their problems; the swing-axle rear suspension proved less than adequate, as did their German Continental tyres. Juan Fangio had signed up to drive the W196 and much of Mercedes' success was attributable to the

combination of his exceptional skill and determination.

Another new contender was the Lancia D50, designed and built under the supervision of the great Vittorio Jano. It combined a V8 engine with an advanced chassis design which proved too advanced for tyre technology of the period. Alberto Ascari and Luigi Villorelli had left Ferrari to drive the new car, but it was many months before it was regarded as sufficiently developed to race and it did not appear until the last round in the World Championship at Barcelona in late October.

The 1954 Grand Prix season

Maserati were undecided whether to field a works Formula 1 team in 1954 and initially decided to do so only while Fangio was available prior to the appearance of the Mercedes-Benz W196. In the Argentine Grand Prix held on the Buenos Aires Autodrome on 18 January, Fangio and



In the Argentine Grand Prix, which he won, Fangio looks over his shoulder at the Ferrari of Giuseppe Farina. Note the large cooling inlet made in the nose cowling. (Guy Griffiths Collection)

Marimon drove works 250Fs, while Musso was at the wheel of a 250F-powered A6GCM. Ferrari dominated the early laps of this three-hour race, but heavy rain showers made the circuit very wet and slippery. Fangio came into the pits for the fitting of a set of rain tyres which had been hand-cut by the mechanics when the rain began to fall.

Nello Ugolini, manager of the Ferrari team, lodged a protest that five mechanics had worked on Fangio's car – the maximum permitted number was three – and after entering his protest, he slowed his drivers down on the blithe, but erroneous, assumption that his protest would be upheld. Fangio passed the leading Ferraris and won by the comfortable margin of 41sec from the works Maranello entries of Farina and Gonzalez. Both Marimon and Musso retired.

A fortnight later the Formule Libre Buenos Aires City Grand Prix was held on the same circuit of the Buenos Aires Autodrome. Marimon crashed in practice, took over Musso's car for the race and then went off at the first corner. Fangio retired because of rear axle failure. Hawthorn was all set to win with his works Ferrari, but he spun off at the last corner on the last lap

and stalled his engine. Maurice Trintignant with a private Ferrari entered by Louis Rosier won from Roberto Mieres.

Maserati were very encouraged by Fangio's win and the decision was now made to run in all the year's World Championship races, although it was realised that finding suitable drivers would be a problem. Before the next round, the Belgian Grand Prix, there were a number of minor events. On 11 April Marimon and Mantovani were entered in the 268-mile (431km) Syracuse Grand Prix. Farina set the pace and led with his works Ferrari, but Marimon chased him hard until he was forced out by mechanical problems. Mantovani finished third behind Farina and Trintignant, the latter now a member of the works Ferrari team.

Only a single works car was entered for Marimon in the three-hour Pau Grand Prix held nine days later on Easter Monday. He was rammed at the start by Farina (Ferrari), the de Dion tube was damaged and this caused his retirement when he was running well in third place. Moss had taken delivery of his 250F shortly before the 187-mile (301km) Bordeaux Grand Prix on 9 May. This differed from other 250Fs, not only in having a right-side (instead of central) accel-

erator pedal, but had a chassis cross-member moved so that the dash was further forward and Moss could adopt his usual, reclined driving position. He was still familiarising himself with the new car and, conserving the engine, took fourth place behind the Ferraris of Gonzalez, Manzoni (private entry) and Trintignant.

Six days later Moss ran in the International Trophy at Silverstone. In his heat held in the wet, he finished third behind Gonzalez (works Ferrari) and 'B. Bira' (250F-engined A6GCM), but he was saving his car for the final. Moss worked his way up into second place in the final behind Gonzalez, but retired on lap 25 when the de Dion tube broke. In the 207-mile (333km) Bari race on 23 May the works entered Marimon and Mantovani. Gonzalez and Trintignant took first and second places with their Ferraris ahead of Jean Behra (Gordini). Marimon was a poor fourth after stopping for water and then again to take on extra fuel. Mantovani retired.

On 29 May Moss ran his car in the Formule Libre Aintree '200' race at the newly-opened Liverpool circuit where, on this occasion only, the racing was held in an anti-clockwise direction. He finished third in his 51-mile (82km) heat, but took the lead in the final as Peter Collins with the 4½-litre Ferrari *Thin Wall Special* pulled into the pits with engine problems. Moss went on to win by a margin of just over 50sec from Reg Parnell (*Scuderia Ambrosiana*-entered Tipo 625 Ferrari). On 6 June the Rome Grand Prix was held over 212 miles (341km) of the new Castelfusano circuit at Ostia. Ferrari missed this race and Marimon and Mantovani with works 250Fs finished first and third, sandwiching Harry Schell (A6GCM/250F). Musso retired his works 250F. The same day 'B. Bira' won the poorly supported 153-mile (246km) Grand Prix des Frontières at Chimay in Belgium with his A6GCM/250F from Pilette (Gordini) and Beauman (2-litre Connaught).

The first important Formula 1 race of the European season, the 315-mile (507km) Belgian Grand Prix at Spa-Francorchamps took place on 13 June. Fangio was still available and he led the Maserati team, backed up by Marimon and Mantovani. Moss ran his 250F and 'B. Bira' also appeared with his newly delivered 250F. The only opposition came from Ferrari, led by Gonzalez and Farina with the latest *Squalos*, and with Hawthorn and Trintignant at the wheel of Tipo 625s.

Gonzalez set the pace in practice, lapping in 4min 23.6sec, but towards the end of the first session, when temperatures had fallen Fangio went out again. Private owners such as Moss and 'Bira' were advised by the factory not to exceed 7,200rpm, to conserve the engine so that it could complete several races without overhaul. The 250F engine could, however, be revved to over 8,000rpm in short bursts without breaking, but at the expense of a very high rate of wear. Driving at his hardest and bravest on this very fast and difficult circuit, Fangio lapped in 4min 22.1sec, faster than his own outright circuit record of 4min 23.0sec set with a supercharged Tipo 159 Alfa Romeo in the 1951 race. When he came into the pits, the engine was smoking, the brakes were red hot and it was obvious that the mechanics would have to do a vast amount of work before the race.

At the fall of the flag Fangio made a poor start; he was in third place behind Farina and Hawthorn, but he took the lead on the third lap. Already there had been retirements. Just after the start, Mieres's 250F-engined A6GCM caught fire because a mechanic had failed to close the fuel filler cap properly and fuel had splashed on to the exhaust. With flames licking round the back of his neck, he bravely stayed in the cockpit until the rest of the field had passed and then jumped clear. Gonzalez retired because of engine trouble on the second lap, and after three pit stops because of a rough engine Marimon retired after completing only three laps.

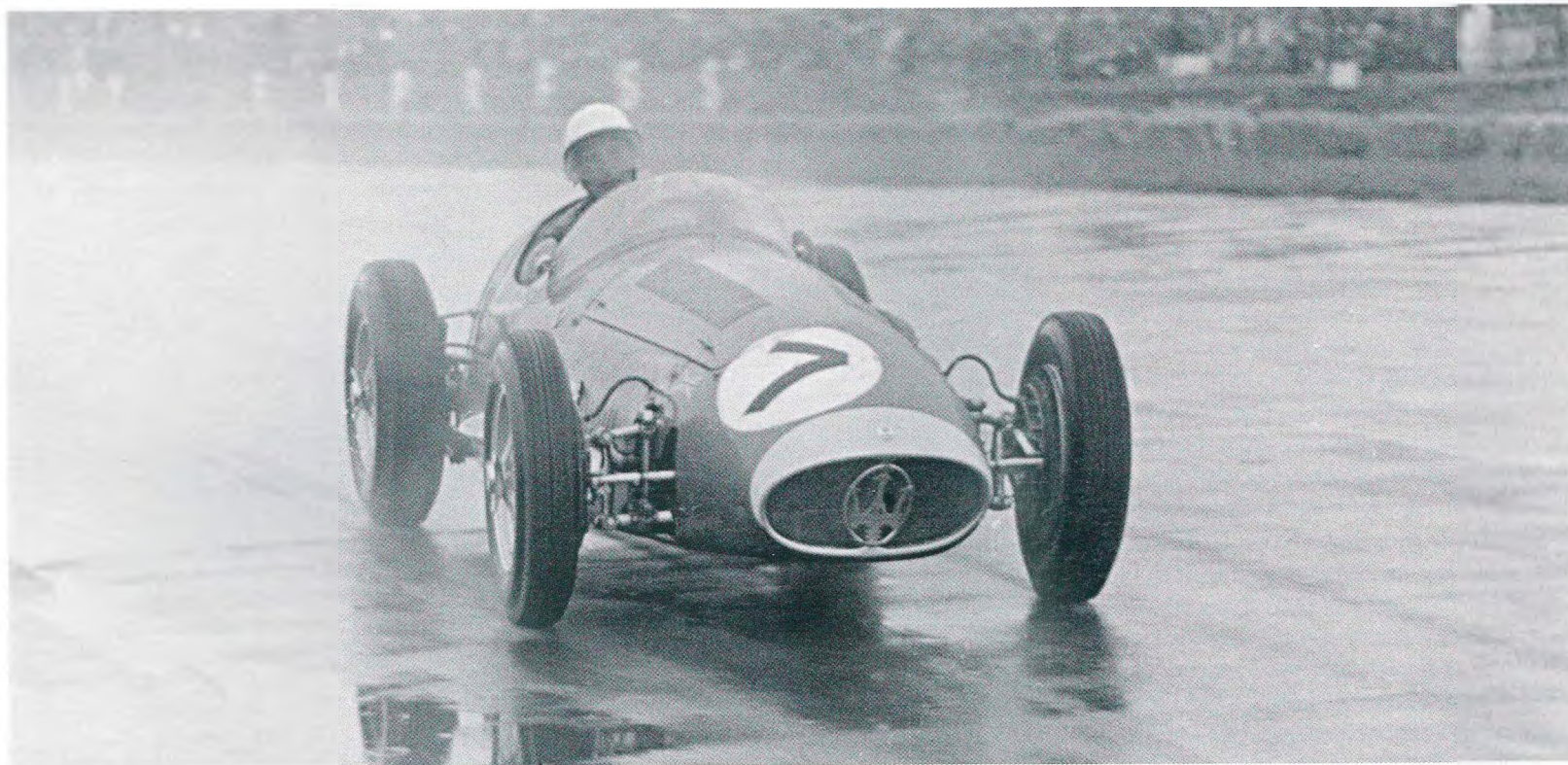
For the remainder of this race Fangio stayed in front, in the latter stages of the race nursing the car home because the suspension had collapsed and he won by the comfortable margin of 24.2sec from Trintignant, with Moss third, a lap in arrears. The Argentinian also set official fastest lap at 119.01mph (191.6kph), slightly slower than his 1951 outright lap record. Farina had retired because of engine trouble and Hawthorn, who had been in second place, came into the pits, almost

overcome by an exhaust leak. Mantovani was seventh and last after two pit stops. Maserati had won the first two Championship races of the year, but now their promising season began to disintegrate.

The issue of the British weekly *Autosport* for 25 June 1954 contained a cutaway drawing by Theo Page of what was said to be an experimental Grand Prix Maserati with full-width body and coupé top. It showed a 1953 chassis with the gearbox in unit with the engine. This was a complete

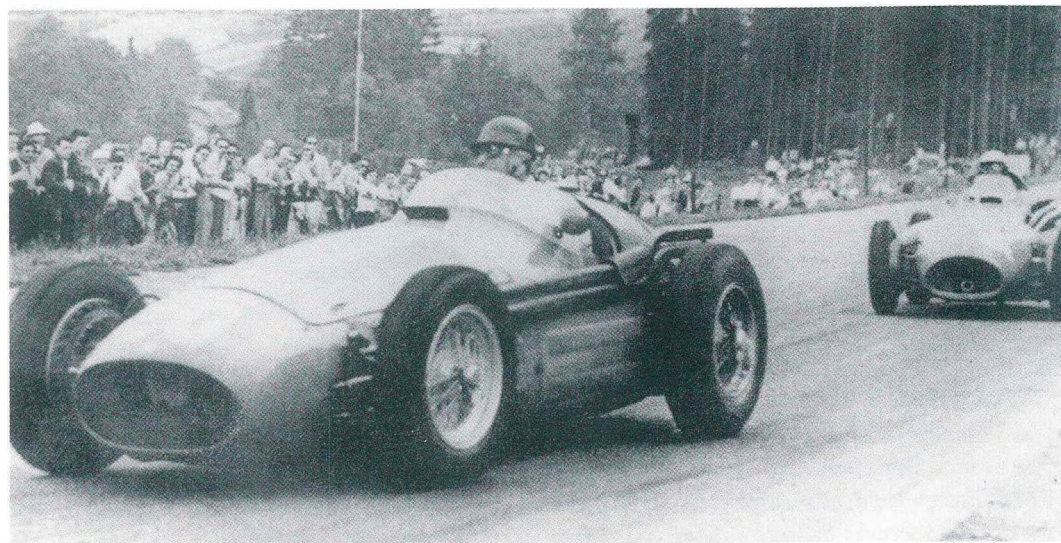


In this carefully posed photograph of a 250F taken at Buenos Aires in 1954, President Juan Peron is in the driving seat, with Juan Fangio on the left and Adolfo Orsi, head of Maserati, together with Onofre Marimon partially visible on the right. YPF was the Argentinian state oil company. (Guy Griffiths Collection)



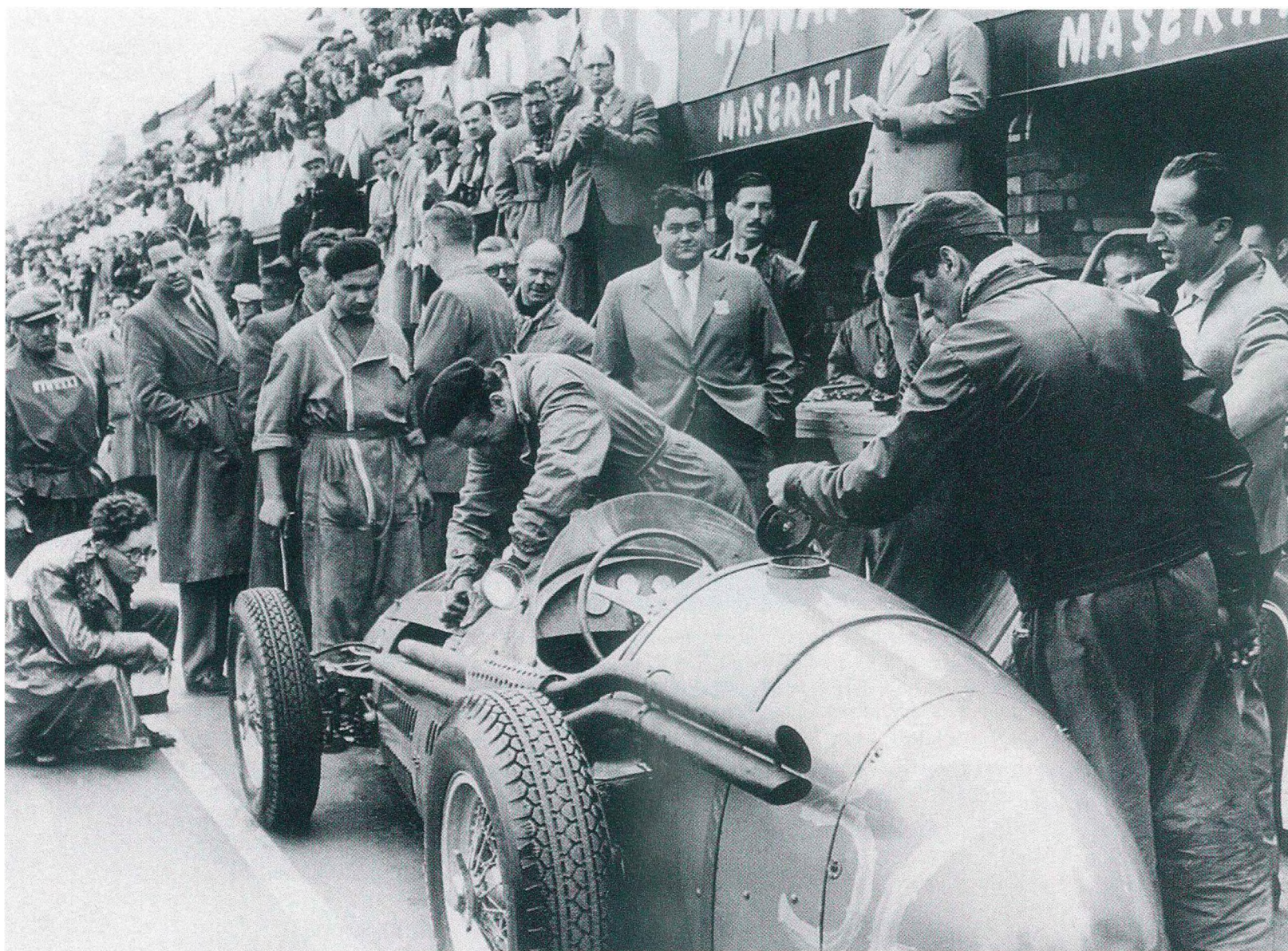
In 1954 Stirling Moss finally launched himself into Grand Prix racing with a competitive car. With financial support from BP, his family bought this 250F, chassis number 2507, seen in the wet at the International Trophy meeting at Silverstone in May. He was in second place in the final behind Gonzalez (Ferrari) when the de Dion tube broke. Note the prominent trident badge affixed to the air intake grille. The cars were rarely raced with this in place. (T.C. March)

Juan Fangio and Giuseppe Farina fight for the lead in the opening laps of the Belgian Grand Prix. The Argentinian went on to win from Maurice Trintignant (works Ferrari Tipo 625).



flight of fancy on Autosport's part, but what is interesting is that, that month at Monza, Maserati tested a standard 250F fitted with an aluminium-alloy 'cupola' top. It was soon abandoned because of driver complaints about lack of visibility, the heat and claustrophobia.

A fortnight later the Mercedes-Benz W196s made their debut in the 315-mile (507km) French Grand Prix at Reims. Fangio led the German team and for this race Maserati was short of both cars and drivers. The driver situation was resolved when Lancia agreed to release Alberto Ascari and Luigi Villorresi so that they could drive works 250Fs alongside Marimon. Moss's mechanic, Alf Francis, had been working on his 250F at the factory and Omer Orsi asked him if they could borrow the car for Villorresi to drive at Reims. As Moss was committed to drive a works D-type Jaguar in the 12 Hours race that preceded the Grand Prix at Reims, he had sensibly not entered the Maserati. Francis accepted and, apparently, only told Stirling later.



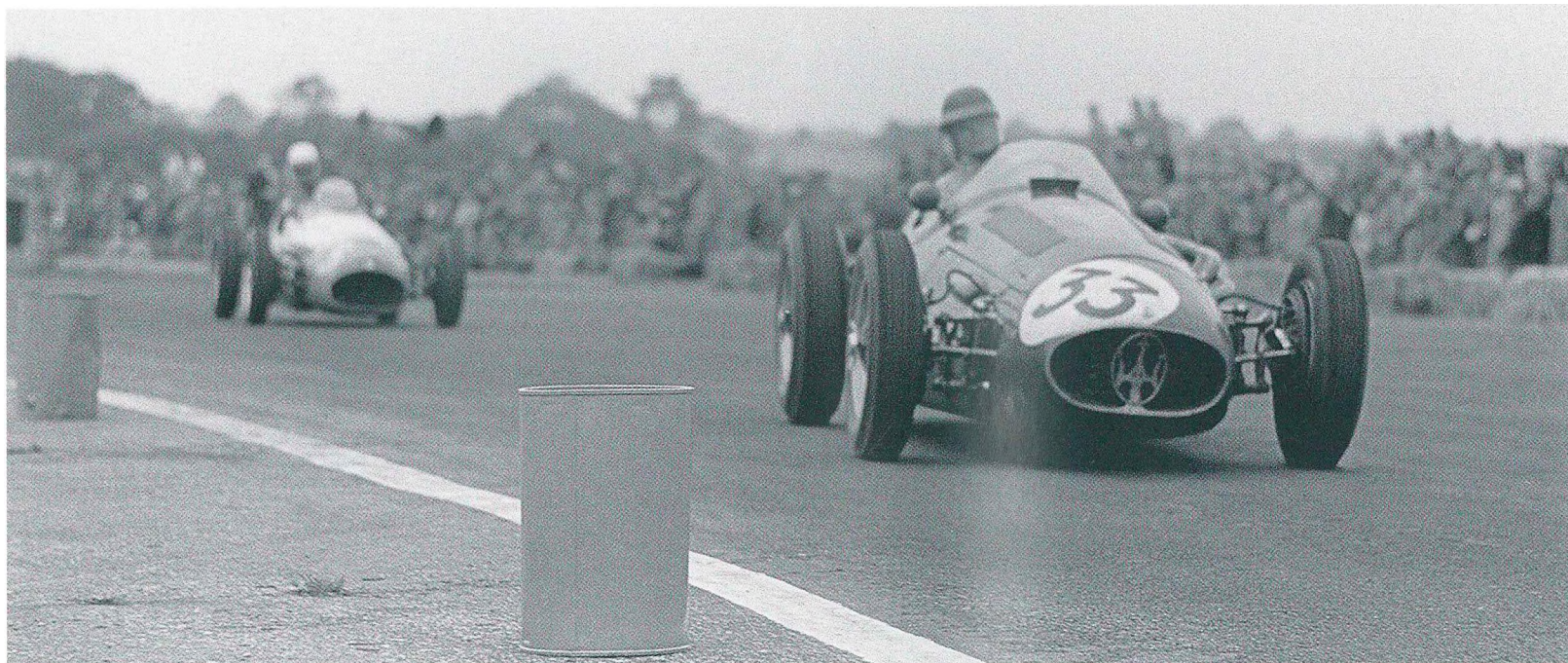
Mercedes-Benz made a glorious race debut at Reims, but for the Italian teams the French race was a complete debacle. Fangio and Kling with the W196s were fastest in practice, with Ascari alongside them on the front row of the grid. Initially Fangio led from Gonzalez (*Squalo* Ferrari) and Kling. After two laps Ascari was out with engine failure, the Ferraris of Hawthorn and Gonzalez were eliminated for the same reason on laps 10 and 14 and Marimon also pulled out with engine problems after a poor race. Fangio, who had

In the British race at Silverstone the works Maseratis started from the back of the grid after arriving too late for official practice. Ascari and Villoresi drove Maseratis with the consent of Gianni Lancia (the bulky figure at the back with his hands in his pockets). Ascari (on the right of the photograph) has already retired his own 250F because of a broken inlet valve. He is about to take over Villoresi's car. He retired this out on the circuit because of a broken connecting rod. (Guy Griffiths Collection)

averaged a record 115.90mph (186.6kph), won in a staged finish, leading team-mate Kling across the line by a mere metre. Young Hans Herrmann with the third W196 set a new lap record at 121.46mph (195.55kph) before retiring. Third place went to Robert Manzon with his private

Ferrari and 'B. Bira' and Villoresi with their 250Fs took fourth and fifth places.

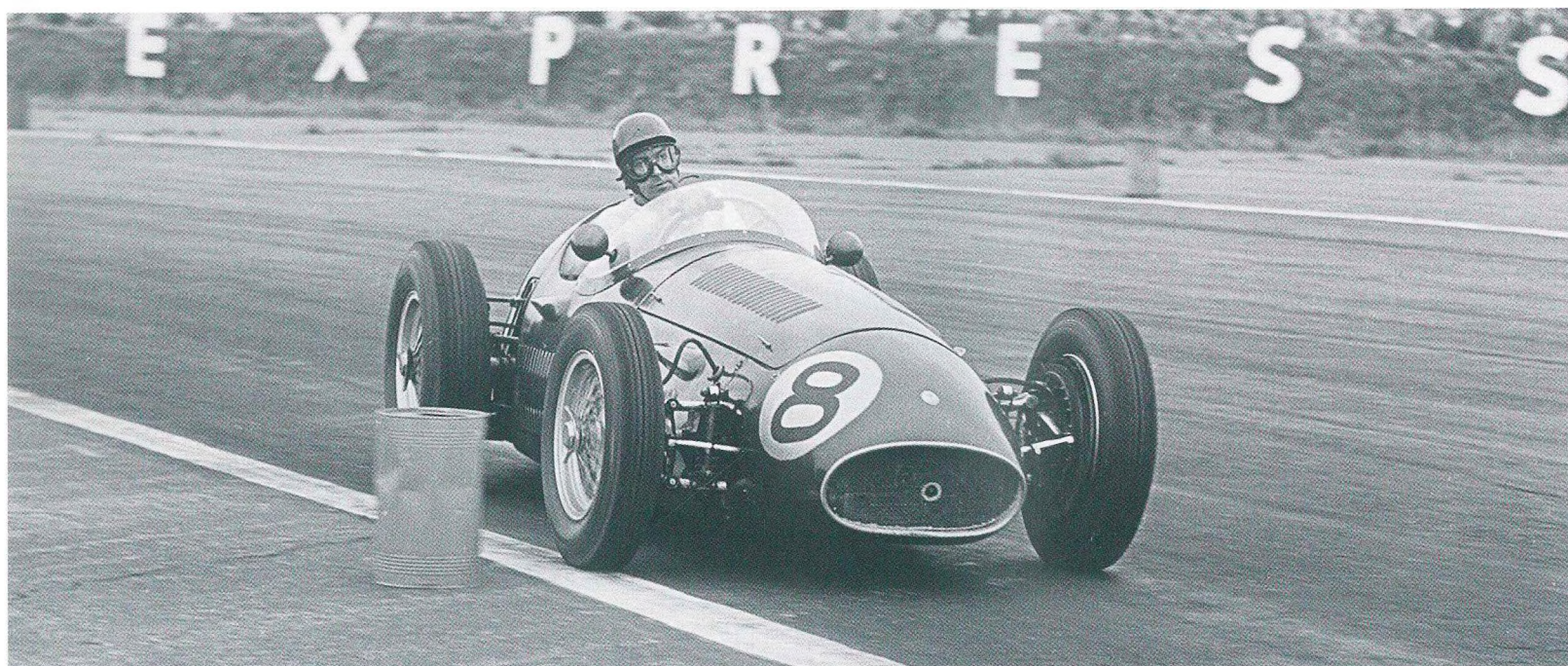
The British Grand Prix was held over 263 miles (423km) at Silverstone on 16 July. At this time the former airfield was a bleak, flat, medium-speed circuit with the corners marked by oil drums. It was to prove



In the British Grand Prix at Silverstone Marimon drove a fine race from the back of the grid, passing 19 cars on the first lap to hold sixth place and eventually finishing third. He had all the makings of becoming a great driver. (T.C. March)

Ken Wharton is seen with the Maserati 250F of the Owen Organisation in the 1954 British Grand Prix. He spun wildly on a damp track at Abbey Curve, but recovered to finish eighth. (T.C. March)

Mercedes' downfall, but the Maserati team failed to benefit. The team left Modena late and because of some cock-up it had travelled to the wrong Channel port and arrived late at the circuit. Ascari and Villoresi were again in the team alongside Marimon. The Maserati drivers missed official practice and



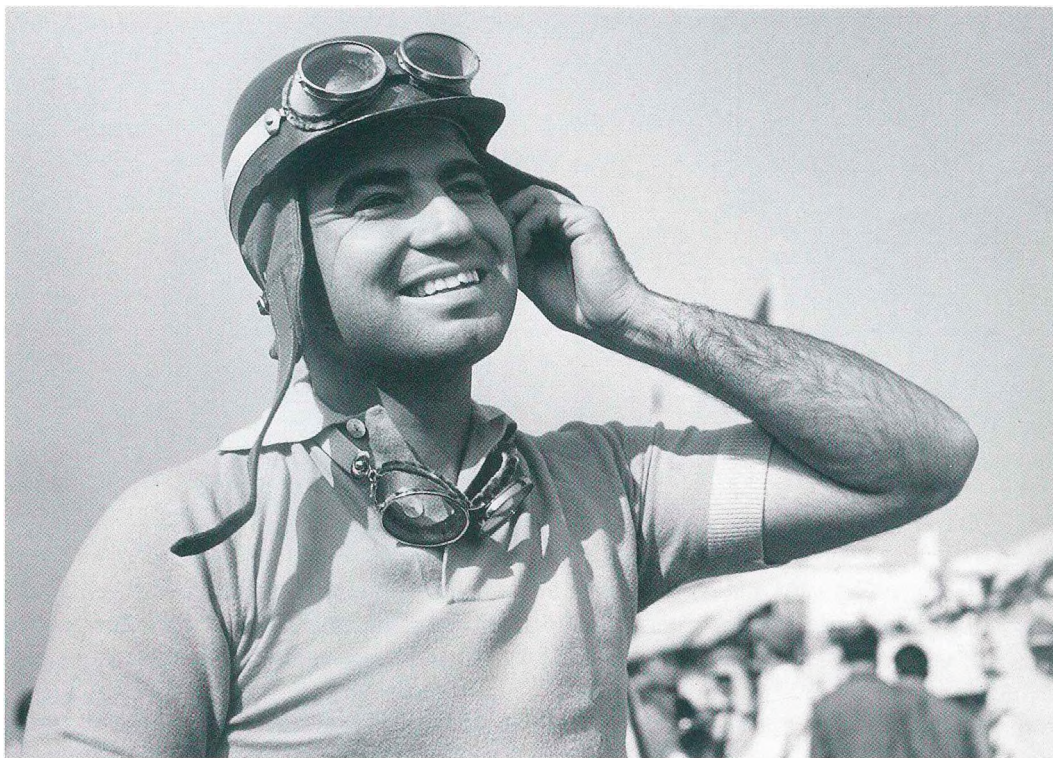
had to start from the back of the grid. Most of the preparation work seemed not to have been done and the mechanics worked on the cars overnight before the race, helped by Alf Francis.

Omer Orsi was deeply worried by the slump in the team's fortunes and the loss of morale since Fangio left. He came to a deal with Moss that Stirling would drive his 250F as hard as possible and Maserati would foot the bill for engine repairs. Other private 250Fs were driven by 'B. Bira', Roy Salvadori and Ken Wharton (at the wheel of the Owen Organisation BRM car on its race debut). Mieres and Harry Schell had entered 250F-powered A6GCMs. The Mercedes-Benz team soon found that Silverstone did not suit the streamlined body of the W196, its inadequate swing-axle rear suspension or its Continental tyres. At the expense of bodywork battered by oil drums, Fangio took pole position in 1min 45sec, the first 100mph (161kph) lap of Silverstone by an unsupercharged 2,500cc Grand Prix car.

Alongside Fangio on the front row of the grid were Gonzalez and Hawthorn, both of whom had recorded 1min 46sec, and Moss who was a further second slower. By the end of the first lap Gonzalez was in the lead with his Tipo 625 Ferrari and he stayed there for the remaining 89 laps. Behind him Fangio fought off Hawthorn who was battling with Moss. Moss passed Hawthorn and then overtook Fangio who was struggling with his ill-handling W196. Hawthorn also went ahead of the Argentinian.

Ascari failed to distinguish himself, over-driving his 250F in his efforts to prove that he had lost none of the skill that had brought him two World Championships. He broke a valve on the engine of his own car and then broke a con-rod on the car he took over from Villoresi. Having abandoned Villoresi's 250F, he returned to the pits, blue crash helmet swinging in his hand, and wryly asked Bertocchi, '*Ci sono ancora delle altre Maserati?*' (Any more Maseratis?).

In contrast Marimon drove a superb,



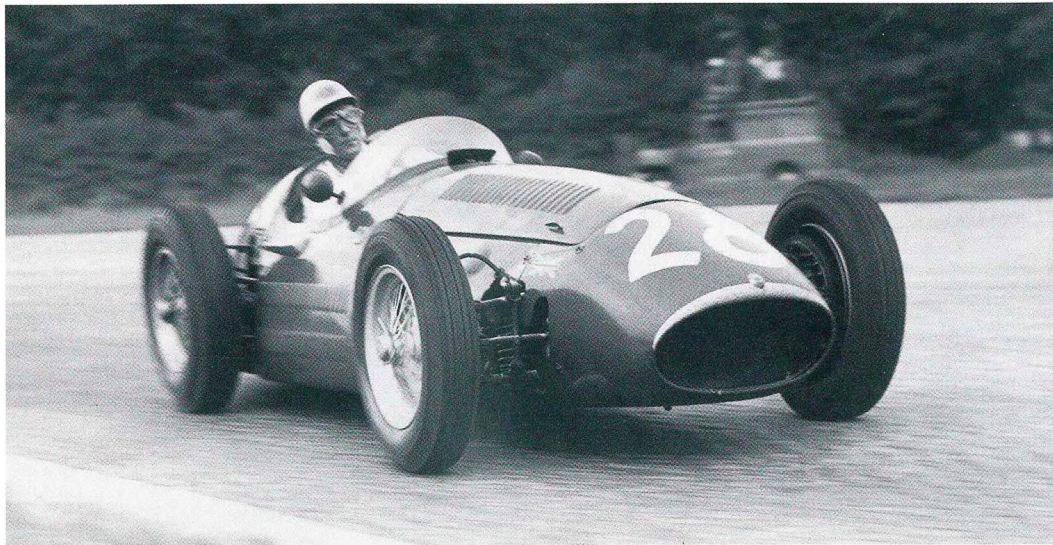
After Fangio left Maserati, Argentinian Onofre Marimon became team leader. He was one of the most cheerful and good-natured of all the leading drivers of his time. It was a devastating blow to Maserati when he crashed his 250F in practice for the European Grand Prix and suffered fatal injuries.

mature race. On the first lap he passed 19 cars to hold sixth place and 12 laps from the finish he slipped ahead of Fangio. The Argentinian's W196 was badly battered by contact with the oil drums, it was jumping out of gear, the brakes had faded and it was leaking oil. On lap 80 Moss slowed to a halt because a final drive reduction gear had loosened on its shaft, slid out of engagement and left him without drive to the back wheels. Gonzalez won from Hawthorn, Marimon (a lap in arrears), Fangio and Trintignant. Other Maserati finishers were Mieres sixth, Wharton eighth and Schell 12th. Seven drivers, Ascari, Behra (Gordini), Fangio, Gonzalez, Hawthorn, Marimon and Moss shared fastest lap at 95.79mph (154.22kph).

On 25 July Moss ran his 250F in the 131-mile (211km) Caen Grand Prix. He was entered in the name of *Officine Alfieri Maserati*, so it would appear that he had

already been invited to drive his own car as a member of the works – not at the Nürburgring as Stirling himself has written. After a close battle with Trintignant (works Ferrari), the handling of the 250F deteriorated because of weakened rear dampers, and Moss finished 3.6sec behind the Frenchman driving in his home town.

There were four works Maserati entries to be driven by Marimon, Villoresi, Mantovani and Moss (with his own car hastily painted red, but retaining a green noseband) in the 312-mile (502km) European Grand Prix at the Nürburgring on 1 August. Roberto Mieres had a works car on loan. The cars driven by Villoresi, Marimon and Mieres all had the new oil tank arrangement, with the tank mounted in the tail behind the fuel tank. Facing the Maseratis were four W196 Mercedes (three of them with new unstreamlined bodies) and four works Ferraris, all of them Tipo 625s.

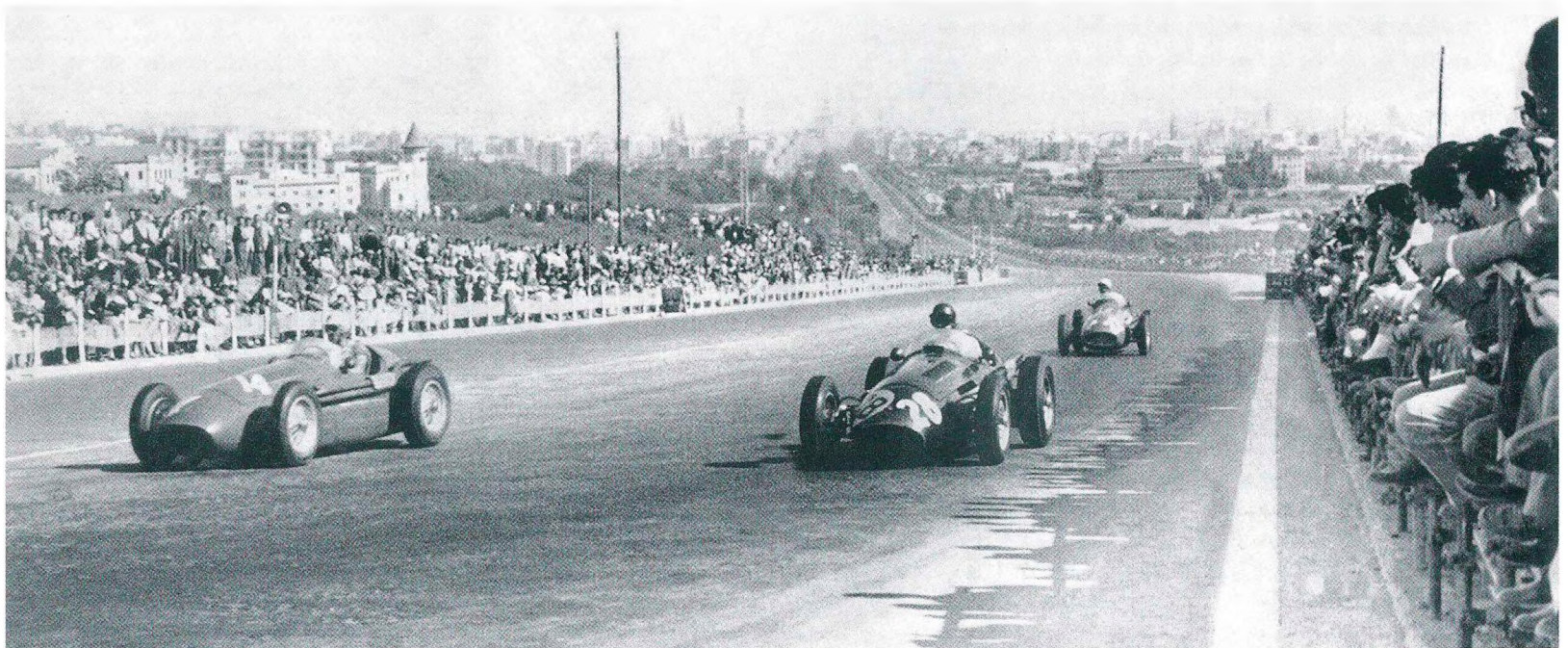


During 1954 Stirling Moss and his 250F were brought into the works Maserati team. Here they are seen in the Italian Grand Prix at Monza where Stirling drove brilliantly and was leading the race by 20 seconds when an oil pipe broke. He pushed the car across the line into tenth place.

This photograph captures well the atmosphere of the Pedralbes circuit through the streets of Barcelona, the setting for the 1954 Spanish Grand Prix. At this time Barcelona was like a third-world city, neglected because its Catalan population had supported the government during the civil war. It still showed the ravages of war, it smelt of rotting vegetables and stale garlic was on everyone's breath. Only the garlic is the same now. Musso, who finished second with his 250F, leads Ken Wharton with the Owen Organisation 250F and de Graffenried with the 250F-engined A6GCM that he was about to sell to Volonterio. (Guy Griffiths Collection)

But tragedy struck the Maserati team in practice. During the second day's practice Onofre Marimon lost control just past the Wehrseifen bridge, crashed heavily and suffered injuries from which he died very shortly afterwards. The 30-year-old Argentinian had been under some pressure, as he was Maserati number one following the departure of Fangio to Mercedes-Benz. He had been forced to put up with the farcical performances of Ascari and he was now facing a challenge from Moss's presence in the team. It seems that he was simply trying too hard when he crashed.

Omer Orsi was in Argentina on business where he was informed of the accident and he decided that the works Maseratis should be withdrawn as a mark of respect. Both Moss and Mantovani, who owned their cars, decided to run as private owners. Moss was third fastest in practice, held third place in the race, but retired because of big-end failure on the second lap. After Hawthorn had retired his own Ferrari, he took over that of Gonzalez, because the Argentinian was too upset by Marimon's death to drive a competitive race. He finished second to Fangio (unstreamlined



W196). Mantovani, in fifth place, was the highest Maserati finisher.

For the *Daily Dispatch* meeting at Oulton Park on 7 August Maserati loaned Moss the 250F that Villoresi should have driven at the Nürburgring and, although the car arrived too late for him to be able to practise, he came through from the back of the grid to win both the 99-mile (159km) Formula 1 Gold Cup race and the 55-mile (88km) Formule Libre event. A week later Moss and Musso were both in action with works cars in the 255-mile (410km) Pescara Grand Prix. No works Ferraris were entered and Moss led with his own car until an oil pipe feeding the rear axle's reduction gear broke on the fourth lap. Musso won from 'Bira' and Schell with a 250F-engined 1953 car. Although it was nominally a private entry, Schell's car was fitted with the throttle on the right so that Moss could take it over if necessary.

The Swiss Grand Prix on 22 August was the last in the series, as motor racing in Switzerland was to be banned after the Le Mans disaster the following year. In this 240-mile (386km) race on the difficult Bremgarten circuit near Bern Maserati entered four cars for Moss, Mantovani, Mieres and Schell, but the British driver was the only one with serious prospects of winning. Mercedes-Benz ran three unstreamlined W196 cars and there were four works Ferraris. Gonzalez was fastest in practice with his *Squalo* Ferrari in 2min 39.5sec, Fangio was two-fifths of a second slower and Moss completed the front row with a time of 2min 41.4sec. The times of the other works Maserati drivers ranged from 2min 56.9sec (Mantovani, ninth fastest) to 3min 12.1sec (Schell, 13th fastest out of 16 starters).

Moss settled into second place behind Fangio, but retired on lap 16 of this 66-lap race because of loss of oil pressure. Schell was called in for Moss to take over his car, but when he came into the pits this too had lost its oil pressure. On both cars a nut retaining a spring-loaded collar inside a new design of oil filler cap had vibrated off,

dropped into the tank and been swept through to the pressure pump which it damaged. Fangio won the race from Gonzalez, Herrmann (Mercedes-Benz), Mieres and Mantovani. In sixth place in this race, two laps behind the winner, was Ken Wharton with the Owen Organisation car. The BRM team had substantially modified this and it now featured Dunlop magnesium-alloy disc wheels and discs brakes, the oil tank repositioned in the cockpit alongside the driver and shorter exhaust tail-pipes.

The next round in the World Championship was the Italian Grand Prix held over 313 miles (504km) of the Monza circuit on 5 September. The Maserati entry had now grown to six cars; Musso had replaced Harry Schell, Villoresi had been brought into the team and the 250F about to be delivered to French privateer Louis Rosier was entered as a works car. There was a general feeling of relief that Ascari had opted to drive a Ferrari in this race. Two streamlined Mercedes W196s were entered on this very fast circuit for Fangio and Kling, while Herrmann drove an exposed-wheel car. There were five works Ferraris. Almost inevitably Fangio was fastest in practice in 1min 59.0sec and he was joined on the front of the grid by Ascari (1min 59.2sec) and Moss (1min 59.3sec).

It was so nearly a Moss and Maserati race. It was also, probably, the most exciting Grand Prix of an exciting season. Initially Fangio led, then team-mate Kling went ahead and when Kling spun off, Fangio led from Gonzalez, Ascari and Moss. Ascari then went through into the lead, Moss passed Gonzalez and Gonzalez retired his Ferrari because of a failed oil seal. Fangio repassed Ascari, then Villoresi made his supreme effort, screaming through from fourth into second place, but he retired because of clutch problems. Moss now passed Fangio and Ascari to take the lead, Ascari went in front again and then his engine failed. Moss now led the Italian Grand Prix, gaining ground on Fangio even after responding to a signal from Alf Francis in the pits to slacken his pace.

On lap 68 of this 80-lap race Moss pulled into the pits, trailing a cloud of blue smoke and with falling oil pressure. The oil tank was refilled, the car deposited most of the new oil on the pits road and by the *Curva Grande*, the first corner after the pits, Moss had again lost oil pressure. Shortly afterwards the engine seized and Moss pushed the car all the way to the finishing line to take tenth place, nine laps in arrears. An aluminium-alloy oil pipe, which had been clamped too tightly to the chassis, had cracked because of vibration. So Fangio won the race from the Ferraris of Hawthorn and Maglioli/Gonzalez. The highest placed Maserati finisher was Rosier in eighth place, six laps in arrears.

Before the last round in the World Championship there was the Berlin Grand Prix and two minor International races in Britain. Moss and Mantovani were entered in the Berlin race on 19 September, but failed to appear at Avus because, so Maserati said, the cars could not be prepared in time. The racing became a Mercedes-Benz demonstration for the beleaguered city and Kling was allowed to win from Fangio and Herrmann.

Both the British races were of particular interest because Tony Vandervell's Vanwall Special was raced in 2.5-litre form for the first time. At Goodwood on 25 September Moss was entered by the works, but at the wheel of his own car, and he won the 21-lap Goodwood Trophy from Peter Collins with the Vanwall. He also finished third in the 10-lap Woodcote Cup Formule Libre race behind Peter Collins (Ferrari *Thin Wall Special*) and Ken Wharton (V16 BRM).

The following Saturday, 2 October, there was an International meeting at the Aintree circuit and two works Maseratis were entered, for Moss with his own car and Mantovani. Moss won the 17-lap Formula 1 *Daily Telegraph* Trophy from Hawthorn with the Vanwall, Schell (private 250F) and Mantovani. In the Formule Libre race over the same distance Moss and Mantovani

took the first two places ahead of Ron Flockhart with a V16 BRM.

The Spanish Grand Prix was held on 26 October over a distance of 313 miles (505km) on the Pedralbes street circuit in the Catalan capital of Barcelona. It was a remarkable circuit in that it incorporated as its main

straight the very bumpy Avenida Generalissimo Franco, the main west-east route through the city, and so traffic, as much as there was, was badly disrupted. Maserati brought along five 250Fs, one of which was a new car. Four cars were driven by Moss, Mieres, Mantovani and Musso,

On a winding, bleak and isolated section of the Mille Miglia course between Florence and Bologna, Musso guns his A6GCS through a bend. Although Italian roads were much improved compared with earlier years, the surface of this stretch is liberally coated with mud. (Guy Griffiths Collection)



with the fifth as a spare and to be driven by Spaniard Francesco Godia-Sales if it was not needed by any of the other drivers for the race.

The spare car was new chassis 2501 (using the same number as the A6GCM driven by Mieres in the early part of the season) and it had been exhibited earlier in the month at the Paris Salon. It had smoother bodywork without the usual louvres and openings and neater pipework for the oil tank. Harry Schell also drove a 250F loaned by the works and prepared by them. He had agreed that he would follow the old and usually none-too-successful half-tank routine to try to break up the opposition.

Of the other entries, the most significant were the V8 Lancia D50s making their race debut in the hands of Ascari and Villorosi. Mercedes-Benz entered unstreamlined cars for Fangio and Kling, while Herrmann had to make do with a streamlined model. Only two Ferraris were entered for Hawthorn (with the latest *Squalo* having coil spring front suspension) and Trintignant (Tipo 625). Peter Collins drove the Vanwall Special, but non-started after a practice crash. Moss and Hawthorn also both crashed in practice, the former at the wheel of the spare car with central accelerator, which had confused him. It was repaired in time for Godia-Sales to drive it in the race. Fastest in practice was Ascari with the new Lancia in 2min 18.1sec and alongside him were Fangio (a second slower), Hawthorn and Schell who had turned in the surprisingly quick time of 2min 20.6sec.

Initially Ascari led from Schell, but the Lancia was retired after nine laps, while Moss was eliminated early in the race by scavenge pump failure and Schell spun before retiring with transmission problems. Hawthorn and Trintignant were left battling for the lead, until the Frenchman fell back because of an engine that had gone off-song and this was to cause his retirement. So Hawthorn led comfortably from Fangio who was struggling with the W196 on this

circuit, with Musso and Mieres in third and fourth places. Fangio's Mercedes began to run roughly, the air intake had sucked in litter discarded by the spectators and started to overheat and in the closing laps the W196 developed an oil leak. As Fangio fell back, Musso closed on him and took second place six laps from the finish and Mieres finished fourth.

In the Drivers' World Championship, decided on the best five results, the winner was Fangio with 42 points (net) from Gonzalez (25 points) and Hawthorn (24½ points). The Mercedes-Benz W196 had a definite edge in terms of speed on the faster circuits, but succeeded elsewhere through the tenacity and outstanding ability of Fangio and the better preparation of cars at Stuttgart than at Modena and Maranello. Fangio's two wins with Maseratis gave Modena an enormous boost, followed by bitter disappointment as the 250Fs failed again and again. Maserati believed that with Moss in the team they could achieve substantial success in 1955, but Moss left to drive for Mercedes-Benz and the Italian team sank into lethargy. Musso had driven for Maserati in Formula 1 on only a few occasions, but his second place at Barcelona revealed his immense potential.

The Sports Car Year

The first appearance of a works-entered A6GCS in 1954 was the single entry for Emilio Giletti and Luigi Musso in the Buenos Aires 1,000-km race on 24 January. This was Giletti's own car, which had been loaned to de Graffenried to drive in Brazil the previous month (see pages 222). There was no 2-litre class, but the two Italians finished sixth overall behind larger-capacity cars, fourth in the 3,000cc class and theirs was in fact the only 2,000cc runner.

In February Colonel 'Johnny' Simone, who later became Maserati distributor in France, shipped out an A6GCS to compete



Luigi Musso with his works-entered A6GCS at the Ravenna control in the 1954 Mille Miglia. Co-driver Zocca is about to get back into the car. Musso finished third overall, only nine seconds behind Vittorio Marzotto who won the 2,000cc sports class with a Ferrari Mondial.

in races at Agadir in Morocco and Dakar in Sénégal – at this time both countries were French colonies. In the 45-mile (72km) race at Agadir on 28 February Simone finished third in the 2,000cc class behind Picard (Ferrari) and Guelfi (Gordini). A week later on 7 March he took third place overall in the two-hour race at Dakar, the capital of Sénégal, behind Farina and Scotti with larger-capacity Ferraris. On the same day the works entered an A6GCS for Musso and Gatta in the Sebring 12 Hours race. The Florida airfield circuit was notoriously hard on brakes and the A6GCS was withdrawn on lap 47 because of complete brake failure.

Maserati sent only a single A6GCS for

Musso accompanied by Donatelli to the 671-mile (1,080km) Tour of Sicily on 4 April. Count Gravina, a Sicilian nobleman, also drove an A6GCS with Pinin Farina *Berlinetta* body. This car built in 1953 was the first of four of the type, which became known as the *Mille Miglia*. Examples were exhibited at the Turin and Paris shows in 1954. Umberto Maglioli (4.9-litre Ferrari) led initially from Piero Taruffi (Lancia D24), but after Maglioli overturned the 375 *Plus*, Taruffi scored an easy win. In third and fourth places came Gerino Gerini (4.5-litre Ferrari coupé) and Musso. Both had been humbled by Piero Carini with a modified Alfa Romeo 1900 saloon who finished



In the 1954 Targa Florio, Musso was leading from Taruffi (Lancia) when he pulled into the pits feeling ill. He was persuaded to continue, but had dropped back to second place.

second, albeit nearly an hour behind Taruffi. Gravina crashed badly and his co-driver was killed.

Three A6GCS cars were entered by the works in the Mille Miglia on 1–2 May. Both Musso and Venezian drove their own cars, but Sergio Mantovani was at the wheel of an experimental works car fitted with a 2,493.8cc Grand Prix engine in slightly detuned form and known as the Tipo 250S. It was reported that Musso's car was fitted with Porsche baulk-ring synchromesh on all four gears. The most serious opposition in the 2,000cc class came from Vittorio Marzotto with the new 4-cylinder Tipo 500 Mondial Ferrari and the battle for outright victory was between the 4.9 and 4.5-litre Ferraris and the 3.3-litre Lancia D24s.

Mantovani retired early in the race and all the large-capacity Ferraris were eliminated,

as were three of the four Lancias. Alberto Ascari won with the surviving 3.3-litre Lancia D24 at 86.72mph (139.62kph), over half an hour ahead of Marzotto. Musso, accompanied by Zocca, drove a fine race to finish third overall, a mere nine seconds behind Marzotto, and second in the 2,000cc class. Despite going off the road, battering the front of his car and losing the bonnet, Venezian, partnered by Orlandi, took fifth place overall, over 27 minutes behind Musso, and third in class.

On 16 May Musso won the 153-mile (246km) Naples Grand Prix for sports cars up to 3,000cc, but only after the retirement of Paolo Marzotto's Tipo 250MM Ferrari because of a broken differential. Musso averaged 63.918mph (102.9kph) over the difficult Posillipo circuit and set fastest lap at 65.90mph (106.1kph). Other Maseratis

driven by Bellucci and Scarlatti finished third and fourth. The same three drivers appeared with A6GCS cars in the Targa Florio held on 30 May and run over eight laps of the 44.7-mile (72km) Little Madonie circuit. Initially Musso led from Taruffi with a 3.3-litre Lancia, but then pulled into the pits, feeling very unwell, the result of a meal that he had eaten the previous evening, and he proposed retiring. He was persuaded to carry on, but Taruffi had passed him during his long pit stop, and he finished 7min 33sec behind the Lancia driver.

Another A6GCS was ordered by the Marquis de Portago, who had entered it in the Le Mans 24 Hours race held on 12–13 June. The invoice dated 27 April, 1954 was in the sum of Lire 5,200 and was sent to the Spanish nobleman's family home in the Avenue Foch in Paris. The notepaper on which the invoice was typed stated that Maserati was capitalised at Lire 4,500, lower than the cost of the car! The Italian currency had been revalued several times over the years. At Le Mans de Portago, soon to become a familiar name in racing, was partnered by Argentinian Tomasi, but they retired early on the Sunday morning because of loss of oil pressure.

On 20 June the Imola Grand Prix over a distance of 159 miles (256km) was held at the newly opened autodrome and was for cars of between 1,100 and 3,000cc. Musso led the opening laps with his A6GCS, but then Maglioli and Musitelli passed him with their Ferrari *Mondials* and he had to settle for third place. Other Maseratis driven by newcomer Cesare Perdisa and Bellucci took fourth and fifth places.

An important Italian race was the *Supercortemaggiore* Grand Prix, sponsored by the oil company of that name, and held at Monza on 27 June. The race distance was 1,000 kilometres and it was limited to cars of 3,000cc. A total of five cars ran as official entries of *Officine Alfieri Maserati*, but three were privately owned. The two true works entries were 250S models of the type that had run in the Mille Miglia, which were

driven by Fangio/Marimon (a new car with right-hand drive) and Mantovani/Musso.

The race started at 4pm and finished in the dark and was run in intermittent rain, at times very heavy. Two new Ferrari 3-litre sports cars, the Tipo 735S, interim models that preceded the *Monza*, were driven by Hawthorn/Maglioli and Gonzalez/Trintignant and these took the first two places. The 2½-litre Maseratis lacked the speed of the new Ferraris and both retired. All three A6GCS cars completed the race and that of Perdisa and Giovanardi in seventh place was the first 2-litre finisher. Two private A6GCS cars ran in the Reims 12 Hours race on 4 July, but only the car driven by Tomasi/Lopez finished, well down the field in 15th place and beaten in the 2,000cc class by a V12 Ferrari and the three works Bristol 450s.

Three A6GCS cars were entered by the works in the Messina 10-hour Night Race held on 24–25 July, but none was among the classified finishers. Luigi Musso had the small consolation of setting fastest lap at 79.18mph (127.48kph), but his A6GCS, shared by his younger brother Giuseppe, spent a long time in the pits while a leaking fuel tank was repaired and they finished the race outside the maximum time limit. The winners were the Sgorbati brothers with a 2-litre Osca. On the Sunday of the same weekend Perdisa finished fifth in the 198-mile (319km) Portuguese Sports Car Grand Prix on the Monsanto circuit, just ahead of Duncan Hamilton (Jaguar C-type). Works 3-litre Ferraris took the first two places.

Generally Musso continued to do well in Italian events. In the 339-mile (546km) Circuit of Calabria on 1 August and limited to 2,000cc cars, he finished third behind Giardini (Osca) and Biondetti (Ferrari). A week later a series of races was held at Senigallia on the Adriatic coastline between Rimini and Ancona. The 87-mile (140km) race for 2,000cc sports cars was hard fought. Initially Musso and Perdisa led with their A6GCS cars. Swiss amateur Benoit Musy (A6GCS) collided with Sergio Sighinolfi (works Ferrari *Mondial*) who hit

Sgorbati's Osca and this bounced into Musy's car and out of the race. Musso won comfortably at 96.58mph (155.5kph) from Sighinolfi and American Bob Said (Ferrari). Perdisa retired and Musy took fifth place. On 15 August Musy finished second in his class in a 65-mile (105km) race at Zandvoort in Holland behind Alan Brown with a Cooper-Bristol.

The British round in the World Sports Car Championship, the Tourist Trophy was held on the 7.4-mile (11.9km) Dundrod road circuit near Belfast on 11 September. It was run as a handicap event, with a distance on scratch of 697 miles (1,122km) and Championship points awarded on a scratch basis. The race on scratch was closely fought between Ferrari, Lancia, Aston Martin and Jaguar, but Maserati entered a team of three A6GCS cars for Musso/Mantovani, Bellucci/Scarlati and Perdisa/Musy. Cliff Davis/Horace Gould drove the Gilby Engineering A6GCS because Roy Salvadori was a member of the works Aston Martin team.

The 2-litre cars had a target speed of 80.85mph (130.17kph) and Musso and Mantovani drove superbly to just exceed this with a race average of 80.88mph (130.21kph). This gave them third place on handicap, behind the 745cc DB of Armagnac/Loreau and the Ferrari *Monza* of Hawthorn/Trintignant, and fourth on scratch. The other three Maseratis in this race failed to finish. Bellucci/Scarlati were eliminated by a broken water pump, Perdisa/Musy were disqualified for receiving outside assistance to restart the car in the pits and Davis/Gould retired because of transmission problems.

During 1954 the A6GCS had performed with great consistency and a good measure of success. There were however very few Ferrari *Mondials* being raced in Europe and these cars were slightly more powerful than the A6GCS and had better mid-range torque. The A6GCS was considered to be faster in a straight line. Maserati were developing a new range of sports-racing cars. The

Tipo 300S 6-cylinder 3-litre car based on the 250F was shown to the press in December 1954 and work on the Tipo 150S 4-cylinder car was well advanced.

1955

Grand Prix Racing

Maserati's 1955 Grand Prix season proved lack-lustre, mainly because there could be no adequate replacement for either Fangio or Moss, and with no prospects of outright wins – save in very minor races – the team lost both drive and determination. Former racing motorcyclist Jean Behra left the Gordini team after three seasons to become Maserati number one driver. But although he was a very brave, gutsy driver he was not World Championship material. Luigi Musso drove his heart out for the team and was probably the most consistent Grand Prix driver that year – Fangio and Moss apart.

Also included in the team were young Sergio Mantovani and Argentinian Roberto Mieres. Mantovani's promising career ended abruptly at Turin on 27 March when he crashed the team's spare car heavily and a leg had to be amputated above the knee. He remained involved in the administrative side of motor sport for many years. Thereafter, another young Italian, Cesare Perdisa, was elevated to the works team. In June 1955 the team was joined by Nello Ugolini, one of the most highly respected racing managers; until then Ferrari racing manager and also with considerable experience in managing football clubs. He was famed for his timekeeping and Cozza says that he could time as many as six or seven cars with two chronometers.

Changes to the 250Fs for 1955 were few. A 5-speed gearbox was introduced, with bottom gear for starting and the cars were now much easier to get off the line. The works cars had bodywork without louvres – as raced by Francesco Godia-Sales in the



Omer Orsi, managing director of Maserati from 1954 onwards. He was above all a great racing enthusiast and the driving force behind the company's racing successes in the mid-1950s.

1954 Spanish race – and a single large-bore exhaust was adopted, initially only at some races. The works had been continuing development work on fuel injection with Alf Francis, Stirling Moss's mechanic, but this never really came to anything. Only

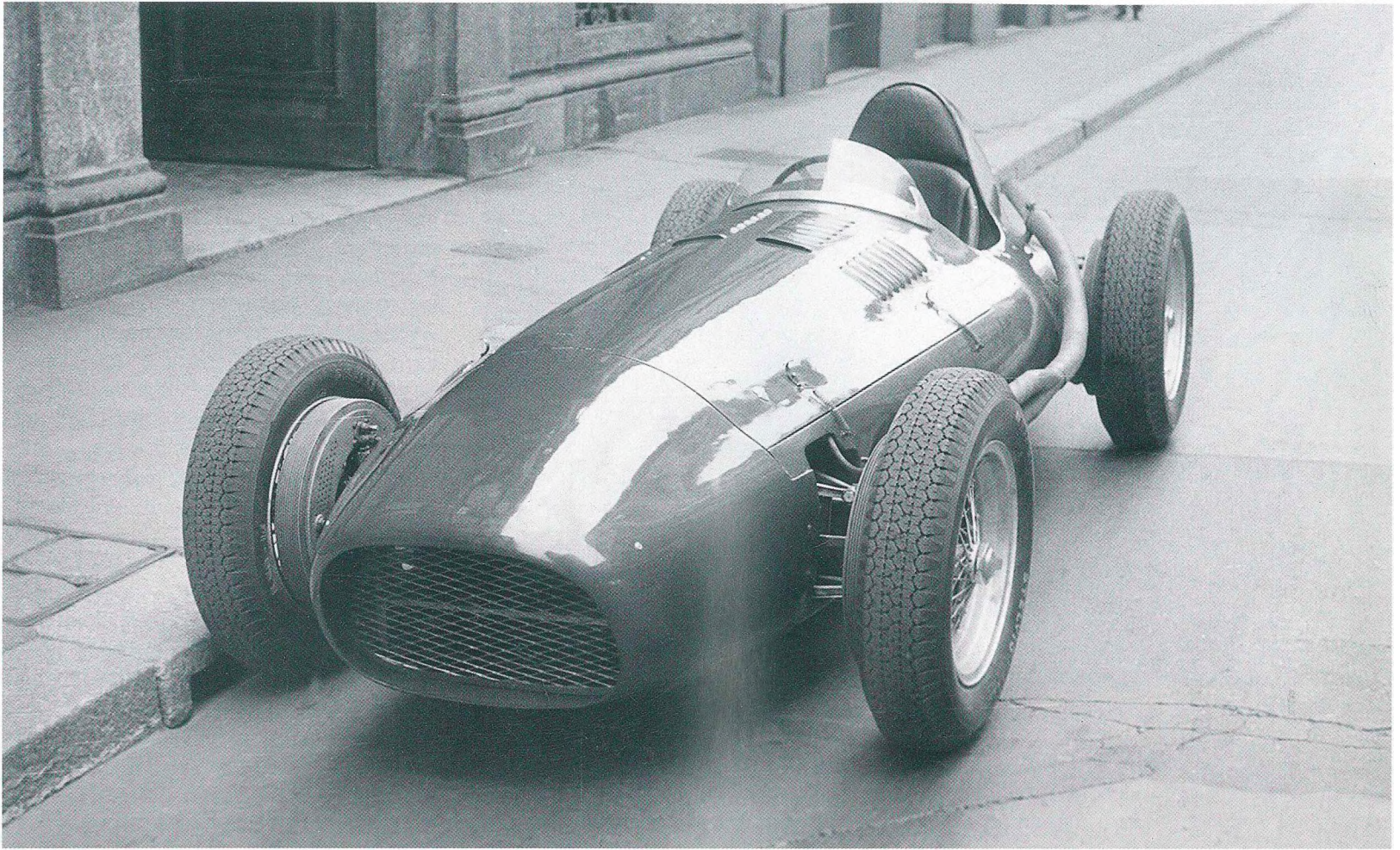
three new cars were built, one with full-width aerodynamic body, and no new single-seaters were sold to private owners.

A minor success at the beginning of the year was in the 204-mile (328km) New Zealand Grand Prix at Ardmore where 'B.

Bira' with his private 250F won from Peter Whitehead and Tony Gaze with 3-litre Monza-engined Ferrari Tipo 625s. It was Bira's last win in a long racing career. The Argentine Grand Prix was memorable for the intensely hot conditions in which it was run and only two drivers, both Argentinian, were able to complete the race without relief. Fangio won, almost inevitably, for Mercedes-Benz and although Mieres led briefly with his works 250F, he spent ten minutes in the pits and was classified fifth behind two Ferraris and another Mercedes-Benz. The other works 250Fs shared by Schell/Behra and Musso/Mantovani finished sixth and seventh. Mercedes-Benz, using W196 cars powered by 300SLR 3-litre engines also dominated the Formule Libre Buenos Aires City Grand Prix and the highest placed Maserati driver was Behra in fifth position.

Mercedes-Benz entered none of the early-season European races and these were fought out between the Italian teams. The first of these races was the 235-mile (378km) Valentino Grand Prix held at Turin on 27 March. The works Maserati drivers acted in concert for once and blocked Ascari (Lancia) at the first corner. But Ascari was able to forge ahead, Musso crashed and both Behra and newcomer to the team Perdica retired because of broken de Dion tubes. Ascari won by a margin of over 20 seconds from Roberto Mieres and Villorosi and Castellotti with their Lancias took third and fourth places.

As usual, on Easter Monday there were International meetings at both Goodwood and Pau. Moss drove his private Maserati running on SU fuel injection at the British meeting. Moss had retained Alf Francis as his personal mechanic and there was now the time to work on development of the 250F and much of this was carried out in SU's experimental department. The advantages of the system proved marginal, as although maximum power was increased, there was a power loss between 4,500 and 6,000rpm, so acceleration was affected.



Moss abandoned fuel injection after this meeting. Other changes to the car included Dunlop magnesium-alloy wheels and disc brakes. The brakes had a booster pump mounted on the left side of the gearbox and driven from the primary shaft.

At Goodwood Moss and Salvadori finished second and third behind Peter Collins with the lighter Mark II supercharged V16 BRM in the Formule Libre race. Moss led the Formula 1 Richmond Trophy, but retired because of fuel injector pump trouble and Salvadori with the Gilby 250F was the winner. In the shadow of the Pyrenees mountains Behra won for Modena, taking the lead when Ascari made a late pit stop because of a fractured brake pipe, and Mieres drove another steady race to finish third behind Castellotti (Lancia).

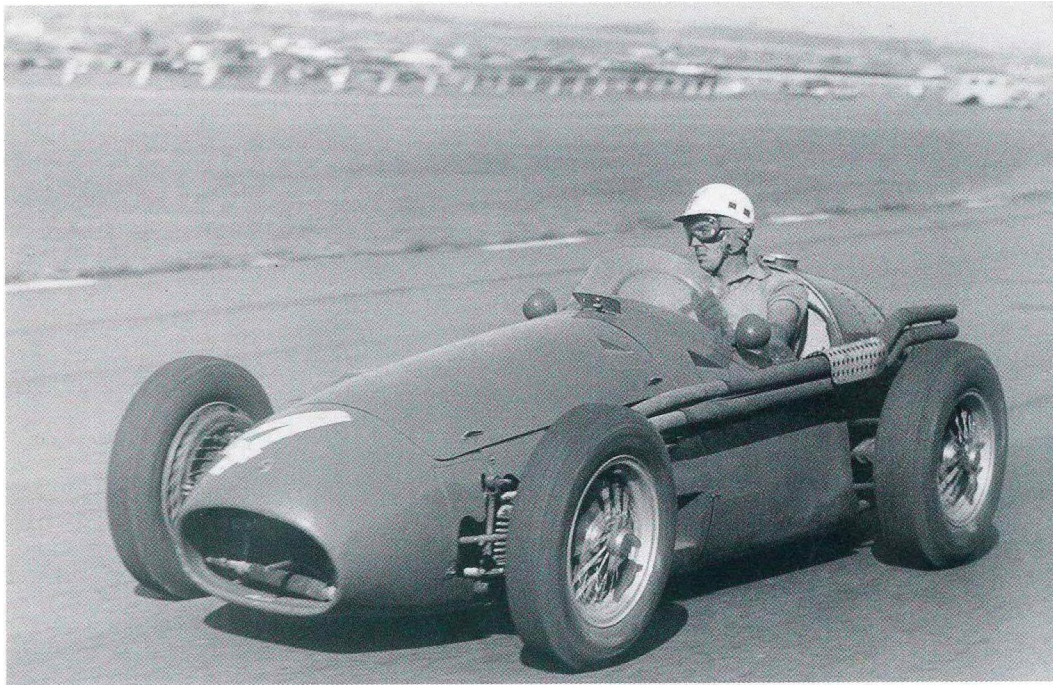
The Maserati-Milano-based Arzani-Volpini. It is seen in Milan near the workshop in which it was built. It was a good-looking and professionally built car. Inexperienced driver Mario Aldrighetti crashed it at Pau with fatal results. The car was not raced again, although it was entered for Luigi Piotti in the Italian Grand Prix, but failed to start.

Behra's 250F was fitted with a new cylinder head having slightly inclined inlet ports, larger valves and three larger Weber 45DCO3 carburettors and these features were to become standard.

An interesting car in the Pau race was the Arzani-Volpini built by Egidio Arzani and Gianpaolo Volpini who had done a 'Plate' by rebuilding a 1950 *Milano* in unblown form. Engine capacity had been increased to 2,490cc (94 x 90mm), there were four single-choke Weber carburettors and power output was *claimed* to be 220bhp at 6,500rpm. The 4-speed gearbox was in unit

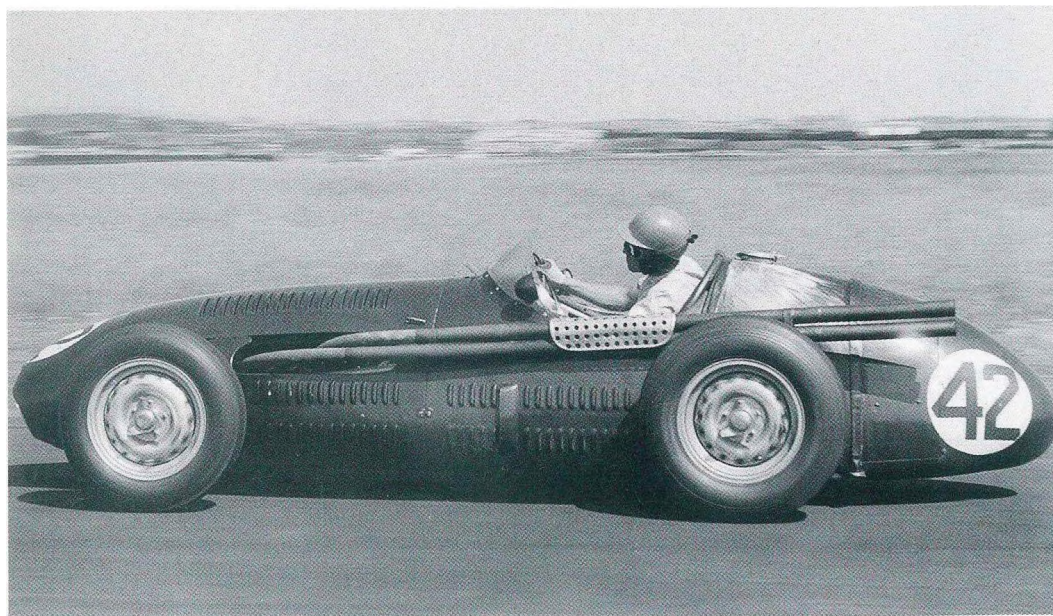
with the final drive. At the front there was the *Milano* double wishbone and torsion bar suspension and at the rear an independent system combining a transverse leaf spring and trailing links. It was overweight and underpowered, but it was a good-looking car and very competently built. Unfortunately it was too powerful for the inexperienced Mario Aldrighetti who when he went off the road during the race, killed himself and injured nine spectators. This car appeared in practice at Monza in September, but was not raced again.

In the 188-mile (303km) race at



As number two in the Maserati team in 1955, Luigi Musso drove with skill and restraint – the latter quality conspicuously absent in his subsequent years with Ferrari. Here he is seen with his 250F in the British Grand Prix at Aintree. He took fifth place behind the four Mercedes-Benz W196 entries. (T.C. March)

Peter Collins with the 250F of the Owen Organisation in the 1955 British Grand Prix. Alcohol fuel splashing from the filler has removed paint from the tail of the car. Modifications to this car included Dunlop magnesium-alloy wheels and disc brakes. He held eighth place ahead of Musso before he retired because of clutch failure. (Geoffrey Goddard)



Bordeaux on 24 April three works Maseratis and two Ferraris were entered, but both Ferraris dropped out and the works 250F drivers took the first three places in the order Behra, Musso and Mieres. Moss, who had chased Behra's works car until a fuel tank retaining strap broke, and 'B. Bira' took fourth and sixth places with their private 250Fs. There were no works Maseratis in the 176-mile (283km) International Trophy race at Silverstone on 7 May, but six private 250Fs faced new cars from the British Connaught and Vanwall teams. The British opposition soon disappeared, as did Moss with his 250F, and Peter Collins won with the Owen Organisation 250F from Roy Salvadori (Gilby 250F), André Simon and Rosier (both with 250Fs entered by Louis Rosier).

The following day the 153-mile (246km) Naples race was a straight Lancia-Maserati fight. Ascari led with his Lancia from start to finish and Musso, who seemed particularly comfortable on this difficult road circuit through a suburb of the city, took second place, but he was well over a minute behind the former World Champion. Early in the race Behra clouted a kerb very hard, damaging a rear wheel and hub and this cost him five laps. He set fastest lap at 70.83mph (114.04kph) and finished fourth behind Villorosi (Lancia). There were no other finishers.

Fangio and Moss with their extra-short-wheelbase Mercedes-Benz W196 cars dominated much of the Monaco Grand Prix held on 22 May as a Formula 1 race for the first time since 1950. In the early laps Behra was part of the chasing pack until his engine began to run rough. He stopped at the pits and swapped cars with Perdisa. It proved a race of attrition; the two leading Mercedes were eliminated by engine failure and Ascari with his Lancia assumed the lead briefly, but plunged into Monte Carlo harbour because of a locking brake. Unexpectedly, Trintignant (Ferrari) won from Castellotti (brakeless Lancia) and a steady drive brought Perdisa through to finish third.

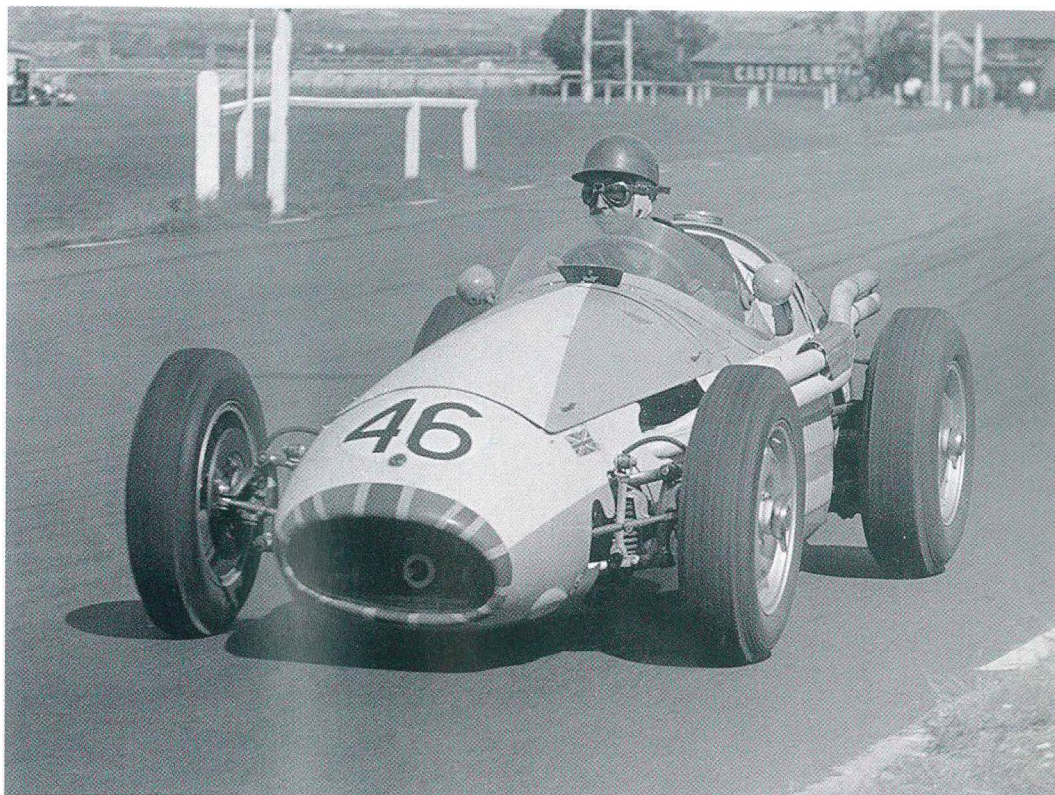
Behra spun and stalled Perdisa's car because of clutch failure and Mieres was eliminated by rear axle trouble.

There followed a series of events that were to change motor racing for ever. On 26 May, only four days after his Monaco accident, Ascari was killed while practising with a Ferrari *Monza* for the *Supercortemaggiore* sports car Grand Prix at Monza. Lancia were in dire financial trouble and after running a single D50 for Castellotti in the Belgian Grand Prix on 5 June, withdrew from racing. Four-and-a-half hours after the start of the Le Mans race on 11 June, 'Levegh's' Mercedes-Benz 300SLR collided with Macklin's Austin-Healey, ricocheted into the parapet of a tunnel running under the track, and exploded into a crowded spectator area killing the driver and at least 82 spectators.

Motor racing was banned in France for a short while and in Switzerland permanently. The short-term effect was the cancellation of the French, German and Spanish Grands Prix. On 26 July the entire Lancia Grand Prix *équipe* was handed over to Ferrari who now received a subsidy from Fiat. Maserati's position was that they would have liked the money, but not the cars, as they were convinced that the 250F had just as much potential as Jano's V8 D50.

Throughout this turmoil the Maserati works team and private owners had continued racing as normally as circumstances permitted. In the poorly supported Albi Grand Prix on 29 May the private 250Fs of Simon, Rosier and Gould (the last-named with 2504 leased from Bira) took the first three places. There were four works Maseratis in the Belgian race, but Modena turned in another poor performance. Behra crashed his car heavily just before *La Source* hairpin, walked back to the pits and took over Mieres' car to drive in an understandably lack-lustre fashion to finish fifth. Musso and Perdisa took seventh and eighth places.

Despite the Le Mans tragedy, the Dutch Grand Prix was held at Zandvoort on 19

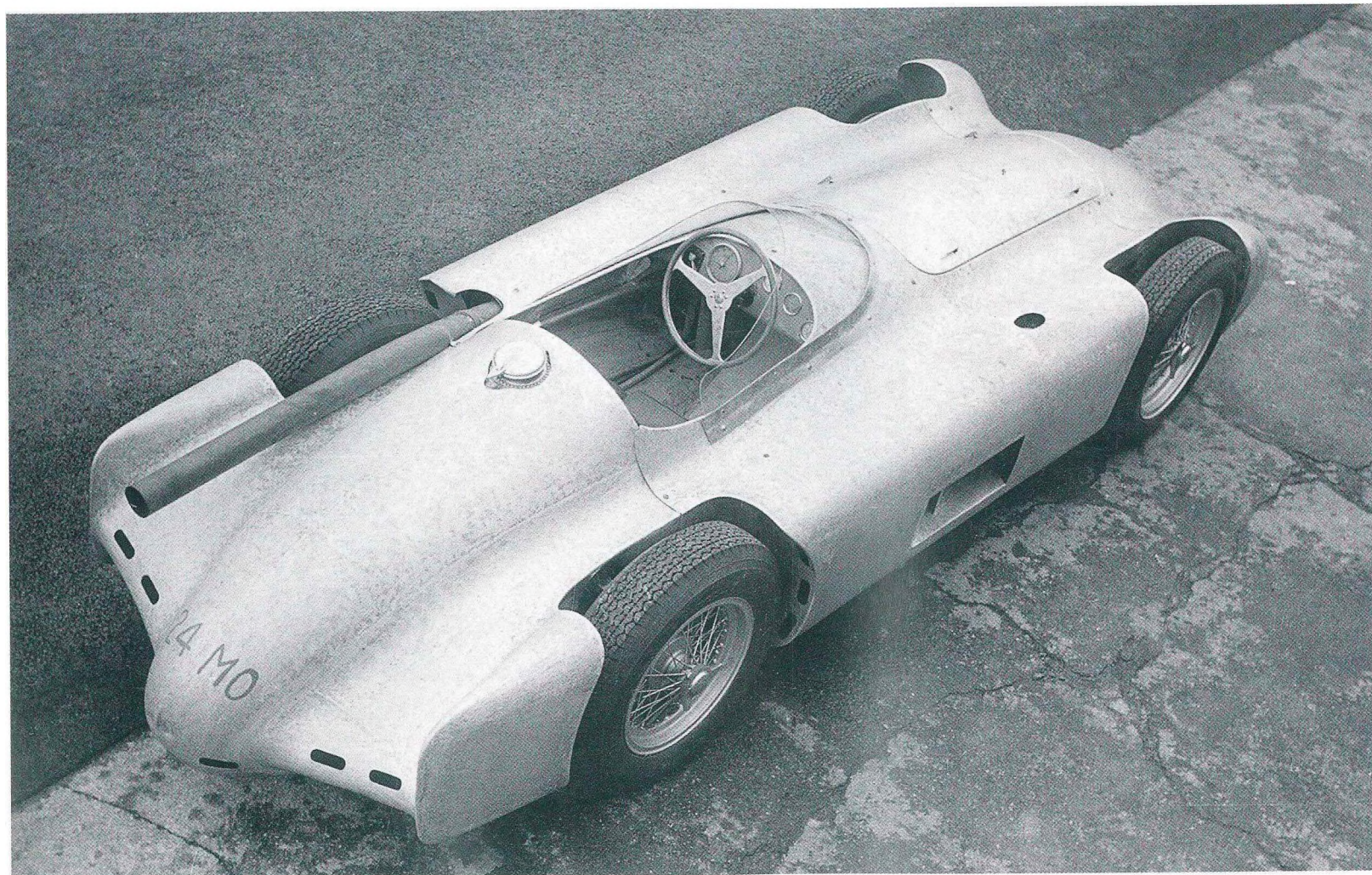


In his years with the HWM team Lance Macklin was rated as having almost as much potential as Stirling Moss, but he failed to fulfil it. In the 1955 British race Macklin drove the Moss Maserati. After he spun off and stalled, he received an illegal push-start. He held eighth place before he retired because of clutch trouble. At this time the Moss 250F was painted rather strange shades of grey with the stripes of the Union flag round the air intake. (I.C. March)

June and Musso drove a superb race to finish third on the same lap as Fangio and Moss with their W196 Mercedes-Benz entries. Mieres took fourth place. At Le Mans Behra had been 'run over' on the pits road by a French DB and was badly bruised and shaken. He finished sixth at Zandvoort, but was not really fit enough to race. The British Grand Prix on 16 July was held at Aintree and Maserati fielded four cars for Behra, Musso, Mieres and André Simon. The Mercedes-Benz team completely dominated the race and took the first four places, but Musso drove another good race to finish fifth, albeit nearly two minutes behind fourth-place man Taruffi. The other three works 250F entries all retired.

Two months elapsed before the next Championship Grand Prix, the Italian race

on 11 September, and the last of the 1955 season. The works 250Fs were not raced again until Monza and the race was held on a circuit that combined the newly restored banked track with the existing road circuit. Maserati joined the ranks of Mercedes-Benz and Connaught by entering a streamlined car. This was chassis 2518 with full-width nose and tail-sections and pontoons between the front and rear wheels. It was driven by Jean Behra. The other team cars were driven by Mieres, Musso, Peter Collins and Carlos Menditeguy. British privateer Horace Gould was planning to buy 2514 and he was also entered by the works in this race. Both Collins and the Argentinian Menditeguy were being given trial drives by the team with a view to the possibility of signing them on for 1956.



The streamlined 250F seen in unpainted form before the 1955 Italian Grand Prix at Monza.

The works Maseratis had minor modifications. All except Menditeguy's car had slightly downdraught carburettors. Larger fuel pumps were belt-driven from the prop-shaft. The two exhaust manifolds fed into a single large-bore tail-pipe (as seen earlier in the year) and there were slightly wider front brakes. They were also fitted with 5-speed gearboxes. Ferrari was planning to race the D50s for the first time, but they had to be withdrawn because of tyre problems. Early in the race the Mercedes team held the first four places, but both Moss and Kling retired their cars and Fangio and Taruffi won from Castellotti, who had had driven a strong, hard race with his *SuperSqualo* Ferrari.

Musso was again the star of the Maserati team and after a bad start had come through to hold sixth place ahead of Behra. The streamlined 250F had proved disappointingly slow and Behra was struggling with it. Musso was having gearbox problems, dropped back and became a very reluctant retirement. Behra's engine began to run rough; by the last lap it sounded terrible and he crossed the line to take fourth place with the car enveloped in blue smoke. Menditeguy finished fifth, Mieres seventh and Collins retired.

The works 250Fs ran in two other races in 1955. The 161-mile (259km) Gold Cup race at Oulton Park in Cheshire on 24

September attracted a remarkably strong entry that included two works 250Fs, two Ferrari-entered Lancia D50s, two works Vanwalls and two works Connaughts, together with Peter Collins at the wheel of the new BRM P25 Formula 1 car. Stirling Moss was in negotiations with the Orsis about rejoining Maserati as team-leader in 1956 so a car was entered for him and there was another for Musso. Stirling took the lead on the first lap and soon outstripped the field to win by over a minute from Hawthorn (Lancia D50) and Titterington (Vanwall). Musso retired near the end of the race because of gearbox trouble, but was classified eighth and last.

On 23 October the 243-mile (391km) Syracuse Grand Prix was held on a road

circuit in Sicily lined for much of its distance by low stone walls. Maserati entered a team of five cars for Musso, Villoresi, Carroll Shelby, Luigi Piotti and, with the streamlined car, Harry Schell. Conspicuous by his absence was Jean Behra who had crashed heavily in the Tourist Trophy the previous month. His presence in the team could have made a very big difference to the outcome. The race was held only after Maserati had confirmed their entry and a reasonably good field was obtained by offering exceptional starting money. Connaught entered cars for Tony Brooks and Les Leston and there were four private 250Fs.

Musso and Villoresi were fastest in practice, but alongside them on the grid was the young and inexperienced dental student Tony Brooks with the latest unstreamlined Connaught. From a slow start Brooks came through to challenge Musso for the lead; they passed and repassed and then Brooks went ahead to win by a margin of close to 50 seconds. Brooks' driving was outstanding, Maserati's defeat humiliating, but a significant factor was the Dunlop disc brakes of the British car which were vastly superior to the drums of the Maserati. It was fading brakes that compelled Musso to give up the fight. Villoresi, Gould (private 250F), Schell and Shelby in third to sixth places completed the list of official finishers.

In 1955, the works 250Fs were no match even for the struggling Ferraris and while the Mercedes-Benz W196 and Lancia D50 were undoubtedly faster cars, it was the absence of a Fangio or Moss in the Maserati team that made the real difference.

1955 Sports Car Developments

The 300S, which was first seen in December 1954, was a brilliant development by Giulio Alfieri of the 250F for sports car racing. In Maserati literature the car was designated the 300/S, but usually it is referred to without the slash. The same applies to other

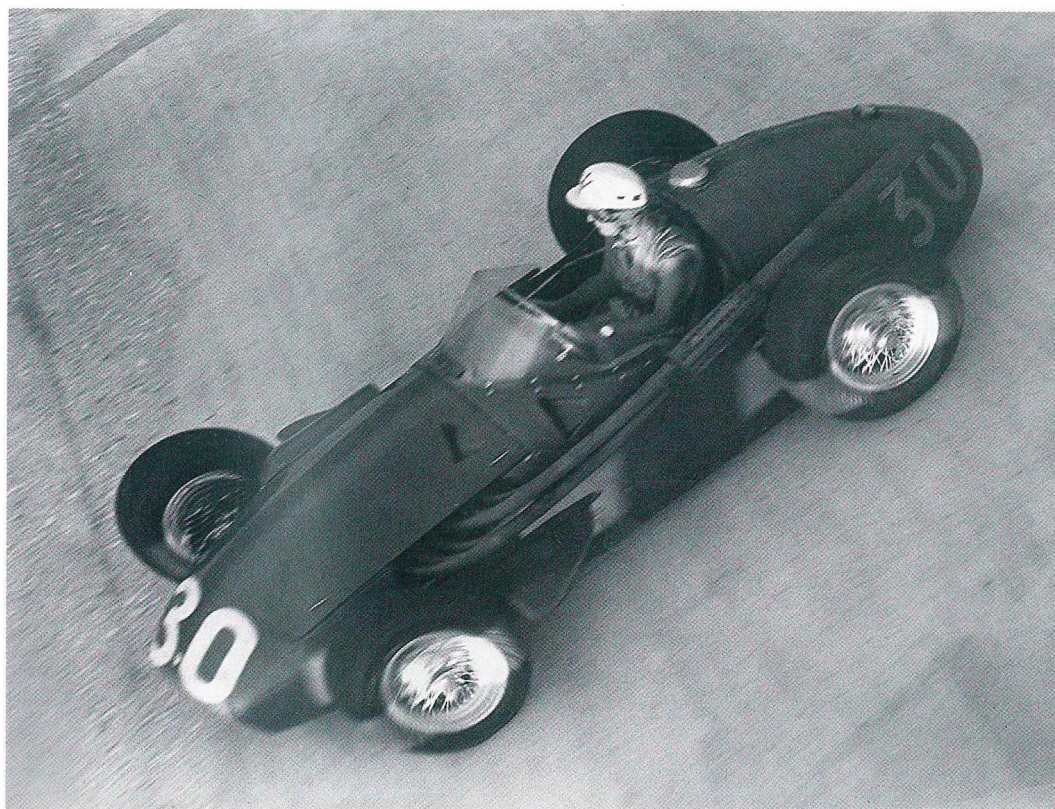
sports cars designated in this series. The evolution of the 300S was progressive and started with the 250F-engined versions of the A6GCS seen in 1954. Alfieri first developed a 2.8-litre engine with cylinder dimensions of 89 x 75mm, but this proved unsatisfactory so a revised 2.8-litre unit with dimensions of 92 x 75mm was built. Power output on alcohol fuel was 280bhp and during testing at Monza Villoresi with this engine installed in an A6GCS chassis lapped in 1min 59sec, compared with Gonzalez' fastest lap with a 3-litre Ferrari Monza in the 1954 Supercortemaggiore Grand Prix of 2min 8.5sec.

Subsequently, in 1954 Maserati built a 3-litre engine with cylinder dimensions of 92 x 72mm, but power output was now only 225bhp at 6,000rpm. It is obvious that

Alfieri and his colleagues were feeling their way, but the next and definitive engine built with a capacity of 2,992.5cc (84 x 90mm) developed 245bhp at 6,200rpm and was adopted for the production 300S. Apart from a starter motor, lower compression ratio, cylinder head and capacity, this engine was pure 250F. The transmission and chassis were similar to the 250F except outrigger tubing extended the frame to permit full-width bodywork to be fitted.

Right-hand drive steering was adopted and Fantuzzi produced a neat and sleek body. As was often the case, it seems that no two bodies were quite identical and there were different arrangements of side vents on different cars. Brake cooling inlets either side of the main air intake and a streamlined headrest were added before the cars were

An unusual view of Musso with his 250F on the banking at the 1955 Italian Grand Prix at Monza. The combined banked track and road circuit at Monza was being used for the first time since the banked track had been rebuilt and there were no chassis problems. It had deteriorated badly by the time the 1956 race was held.





Musso's 250F is pushed away from the pits in the 1955 Italian Grand Prix at Monza after he was forced to stop because of gearbox problems and retirement was inevitable. He had been holding a great fourth place, but in this race he had overdriven his car.

first raced. The 300S was a delightful competition car, with safe, predictable and progressive handling, excellent traction and a performance that matched that of the Ferrari *Monza* without the handling foibles of the Maranello car – unlike the *Monza* you could almost trust the girlfriend to drive it when she went to the hairdressers!

The A6GCS was still being raced in 1955 and in the Buenos Aires 1,000km race on 23 January, a privately entered car driven by Grandio/Faraoni finished third overall behind private 4.9-litre and 4.5-litre Ferraris. The 300S made its racing debut on 13 March on both sides of the Atlantic. In the 228-mile (367km) Dakar Grand Prix in

Sénégal, Behra led with his works 300S until forced out by transmission problems. Two cars had been shipped out to the United States and they ran the same day in the Sebring 12 Hours race. Both cars ran steadily and with great reliability.

Driven by Spear/Johnston (entered by Bill Spear) and Valenzano/Perdisa (entered by Briggs Cunningham with drivers nominated by the factory) they took trouble-free third and fourth places behind the Jaguar D-type of Hawthorn/Walters and the Ferrari *Monza* of Phil Hill/Shelby. It was a particularly good race for Cunningham, as he was also the entrant of the winning works-prepared D-type and it was his 1,500cc Osca that had won the race in 1954. Another 300S was delivered that year to Briggs Cunningham and Tony Parravano also took delivery of one of these cars.

In the Tour of Sicily on 3 April Maserati fielded a single 300S for Musso and private entrant Vittorio Marzotto, who had switched his allegiance from Ferrari, also drove a 300S. Neither could match the pace of the Ferraris driven by Taruffi and Maglioli and they took third and fourth places. The Mille Miglia on 30 April–1 May was dominated by the Mercedes-Benz 300SLRs of Moss/Jenkinson and Fangio, which took the first two places ahead of a Ferrari driven by Maglioli. Maserati entered a single 300S for Perdisa and although he was in second place at Bologna, with much of the course covered, he was forced to give up not long afterwards because of gearbox trouble. Maserati A6GCS drivers took the first three places in the 2,000cc sports class in the order Giardini (a superb fourth overall), Bellucci (ninth overall) and Sbraci.

The same weekend as the Mille Miglia Swiss privateer Benoit Musy with his A6GCS won the 2,000cc class of the Production Sports Car race at Spa-Francorchamps. The 172-mile (277km) Bari Grand Prix was held a fortnight later as a night race and after the retirement of Taruffi (Ferrari), Behra and Musso with 300S entries won from Masten Gregory

(Ferrari Monza). Perdisa, Scarlatti and Valenzano with A6GCS cars finished first, third and fourth in the 2,000cc class. On 22 May Sicilian private owner Gaetano Starrabbia with an A6GCS won the 249-mile (401km) Sardinia Trophy road race from Bornigia (Ferrari Monza) and Danny Margulies (Jaguar C-type) whose 'mechanic' Graham Hill, double World Champion to be, rode with him.

Another fine success followed in the 1,000-kilometre *Supercortemaggiore* Grand Prix limited to 3-litre cars and held at Monza on 29 May. After a race-long duel Behra/Musso won with their 300S by a margin of only 17 seconds from Hawthorn/Maglioli (works Ferrari Monza). Mieres/Perdisa (works 300S) took third place, but Franco Bordoni crashed his new 300S that he was sharing with Valenzano after a brake locked up. It may have meant little elsewhere, but in Italy this was an important and prestigious race.

Two 300S works cars were entered at the disastrous Le Mans race for Behra/Musso and Mieres/Perdisa. During practice Jean Behra was quietly minding his own – and Maserati's – business in the pits when Moss's Mercedes-Benz 300SLR and Storez' DB collided and he was hurled against the pit counter. He was injured badly enough to be taken to hospital and Valenzano took his place in the race. Both 300S cars retired because of transmission problems (the Achilles' heel of the model), but Musso/Valenzano had risen to second place before retiring in the 20th hour.

On 20 June private A6GCS entries were well to the fore in the 159-mile (256km) Imola Grand Prix limited to 2,000cc sports cars. Luigi Bellucci led initially with his works-entered A6GCS, but it developed engine trouble and Perdisa went ahead with another works car to win from Ferrari *Mondials* driven by Maglioli and Schell. A single 300S for Behra was taken to the Portuguese Grand Prix at Porto on 26 June. On the second lap the Frenchman took the lead from Duncan Hamilton (ex-works

Jaguar D-type) and won this 253-mile (407km) race comfortably from Masten Gregory (Ferrari Monza) and Hamilton. Musso drove an A6GCS but retired because of lubrication problems.

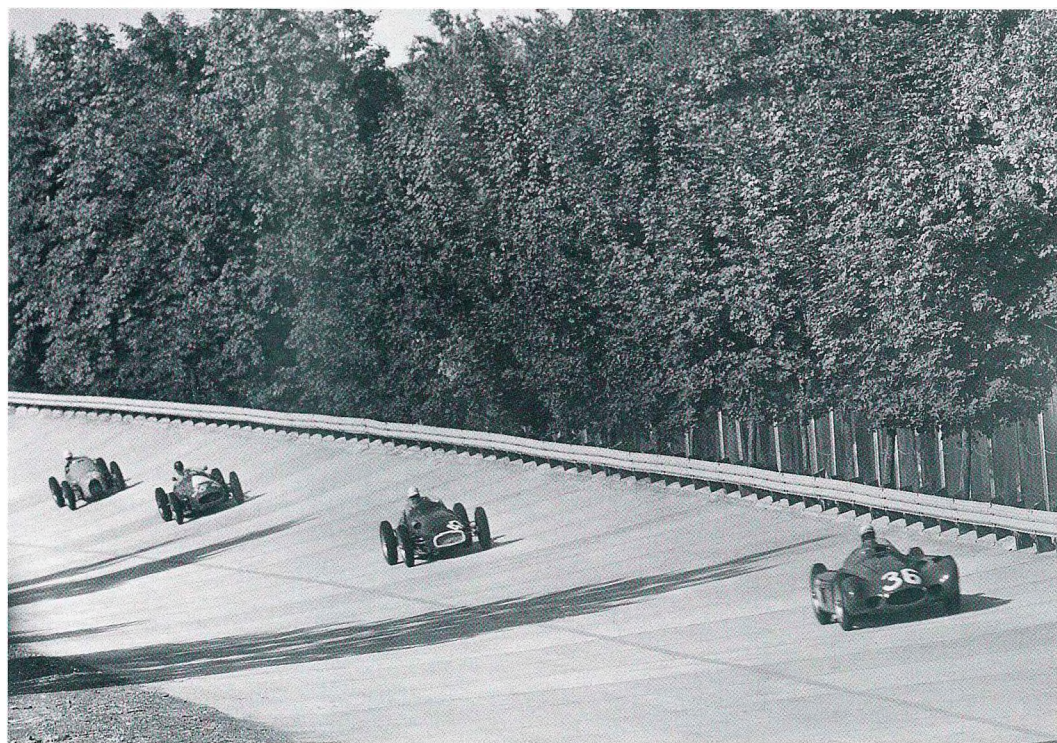
The Dolomite Gold Cup race was held at Belluna on 10 July and had a capacity limit of 2,000cc for sports cars and 3,000cc for GT cars. The only serious Maserati entry was an A6GCS driven by Piero Valenzano, but sadly the former Lancia GT and sports car driver crashed with fatal results. A good result for Maserati followed in the 107-mile (172km) Circuit of Reggio Calabria on 17 July. With works A6GCS entries Bellucci, Musso and Giardini took first, second and fifth places.

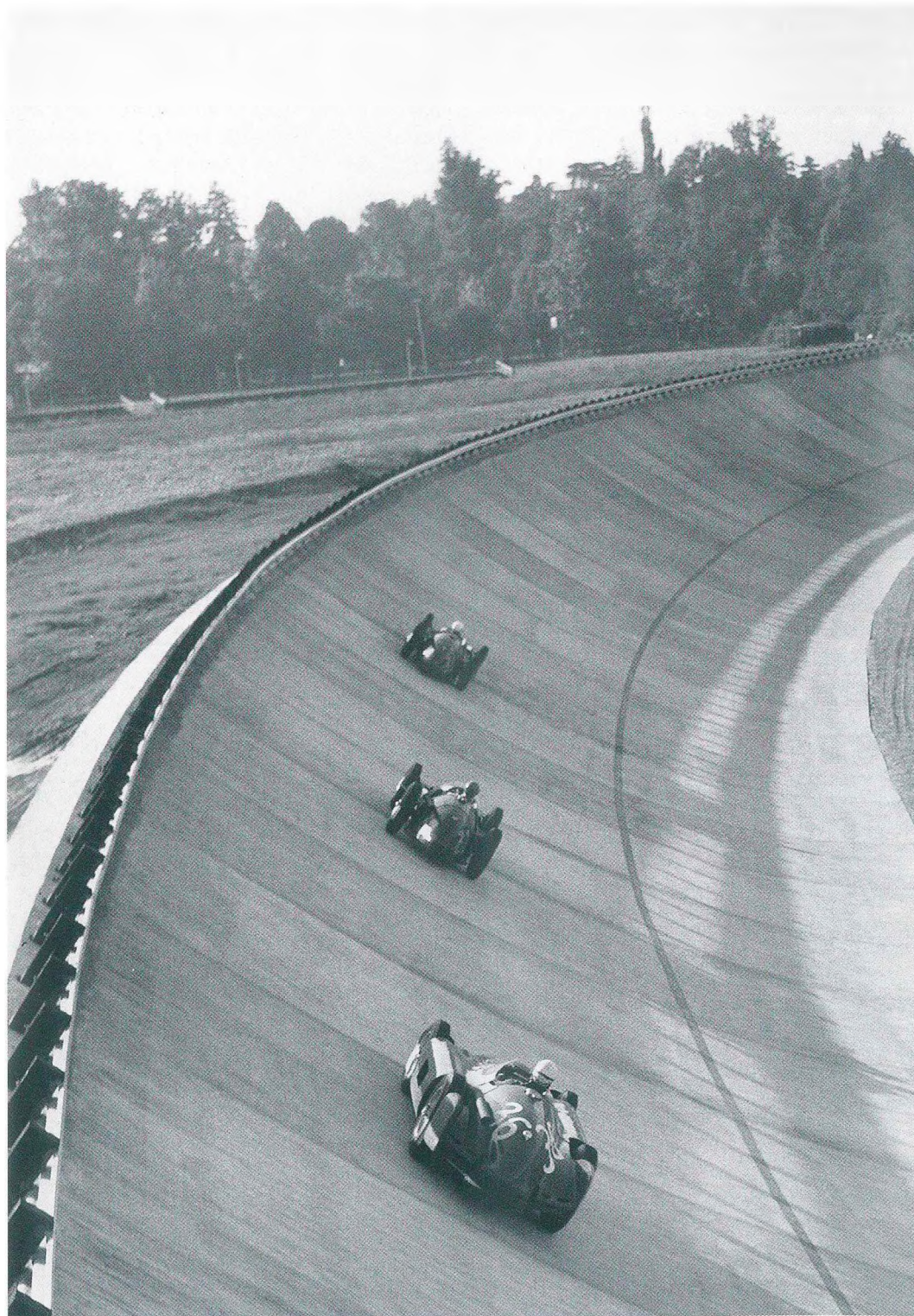
There is something peculiarly exciting about night races and one of the most exciting of these events was the Messina Ten Hours race held in Sicily, just across the straights from the toe of Italy. In the 1955 race held on 23–24 July, the results were

dominated by Ferraris which took the first two places. But, for the first time the name of Marie-Thérèse de Filippis appeared in the results of an International race and, partnered by Musitelli she brought her A6GCS across the line in third place. The 300S entries had a less than trouble-free race, Mieres, partnered by pilot Franco Bordoni, took fourth place and Musso retired the car that he was sharing with Perdisa.

The same weekend the 186-mile (300km) Lisbon Grand Prix was held on the Monsanto circuit. Shortly after the start – apparently while he was still in first gear – the transmission seized on Swiss driver Benoit Musy's new 300S and he was rammed by Masten Gregory. Gregory carried on with his battered Ferrari Monza to win from veteran Emmanuel de Graffenried at the wheel of a borrowed 300S. Behra drove the only works Maserati entry in the 130-mile (209km) Swedish Grand Prix at Kristianstad on 7 August.

On the banked track at Monza Jean Behra with the streamlined 250F leads Harry Schell (Vanwall), Horace Gould (works-entered 250F) and Jean Lucas (Gordini).





Another view of Behra and the streamlined 250F on the banking at Monza in the 1955 Italian Grand Prix. He is following two other 250Fs. He finished fourth after his engine failed on the last lap and crawled to the line with the Maserati belching out blue smoke.

Fangio and Moss took the first two places with Mercedes-Benz 300SLRs; Castellotti drove a good race to finish third with a 4.4-litre 6-cylinder Ferrari and Behra took a steady, but unspectacular fourth place.

Maserati sent three cars to the Tourist Trophy, a round in the World Sports Car Championship and held over the Dundrod circuit near Belfast on 17 September. For the first time the event was held as a scratch race. The efforts of teams such as Maserati and Aston Martin were completely overshadowed by the titanic battle between the sole works D-type Jaguar of Hawthorn and Desmond Titterton and the Mercedes-Benz team, the ultimate 1-2-3 finish by the 300SLRs and the horrific and stupid accident that cost the lives of two drivers early in the race. There was a further fatal accident later in the race when Dick Mainwaring crashed his Elva. The Modena team entered 300S cars for Behra/Bordoni and Musso/Musy, together with an A6GCS for Bellucci, but without nominating a co-driver.

It did not really matter, as Maserati followed the usual Italian practice of nominating every driver as reserve for every car and caused endless confusion to those journalists who reported races from the saloon bar. Bellucci retired the A6GCS early in the race because of engine failure. On lap 64 Behra, who was in fourth place at one stage, crashed heavily at Leathemstown Bridge. He suffered severe arm injuries and his head was trapped under the car. The road surface wore through his helmet and destroyed most of an ear. Afterwards he wore a false ear which was almost undetectable.

The surviving 300S, which had been shared by Musso, Bordoni and Behra, took fifth place, two laps behind the works Aston Martin DB3S of Peter Walker/Dennis Poore. There was not often the opportunity to see the 3-litre Maseratis and Aston Martins matched against each other, but, certainly, at Dundrod the British cars were faster. Maserati's best lap of 4min 50sec and best speed over the flying kilometre of 140.1mph (225.56kph) were bettered by the David

Brown team with a best lap of 4min 45sec and a speed of 142.1mph (228.8kph).

On 16 October Luigi Musso and Luigi Villoresi co-drove the only works 300S entered in the Targa Florio. Villoresi was racing for the first time since the death of his great friend Alberto Ascari. The Mercedes-Benz team dominated the race and although the 300S held fifth place at one stage, it retired before half-distance because of rear axle failure. The A6GCS entries fared rather better and those driven by Giuseppe Musso (younger brother of Luigi)/Giuseppe Rossi and Francesco/Giardini took fifth and sixth places overall and were first and second in the 2,000cc class. Marie-Thérèse de Filippis shared an A6GCS with Luigi Bellucci and they finished ninth overall and fourth in their class.

A team of three 300S cars was shipped out to compete in the first Venezuelan Grand held over a distance of 213 miles (343km) at Caracas on 6 November. It was a confusing race in a confusing country governed by a military junta. Initially it was announced that Fangio had won with one of the Maserati entries, but the organisers released no other results. Musso with another works 300S had chased him hard, but the young Italian had retired because of mechanical problems three laps from the finish. The reporters of Venezuelan newspapers persuaded their editors to suppress all reports of the race. There would have been problems with the government if reports critical of the organisers had been published, so they were forced to resort to this mode of attack. It was later announced that Ferraris had taken the next four places with the 300S shared by Villoresi and Mieres in sixth position.

The Tipo 150S and 200S

On 28 August another new Maserati sports car had appeared at the Nürburgring. This was the Tipo 150S, the design of which was largely the responsibility of Vittorio

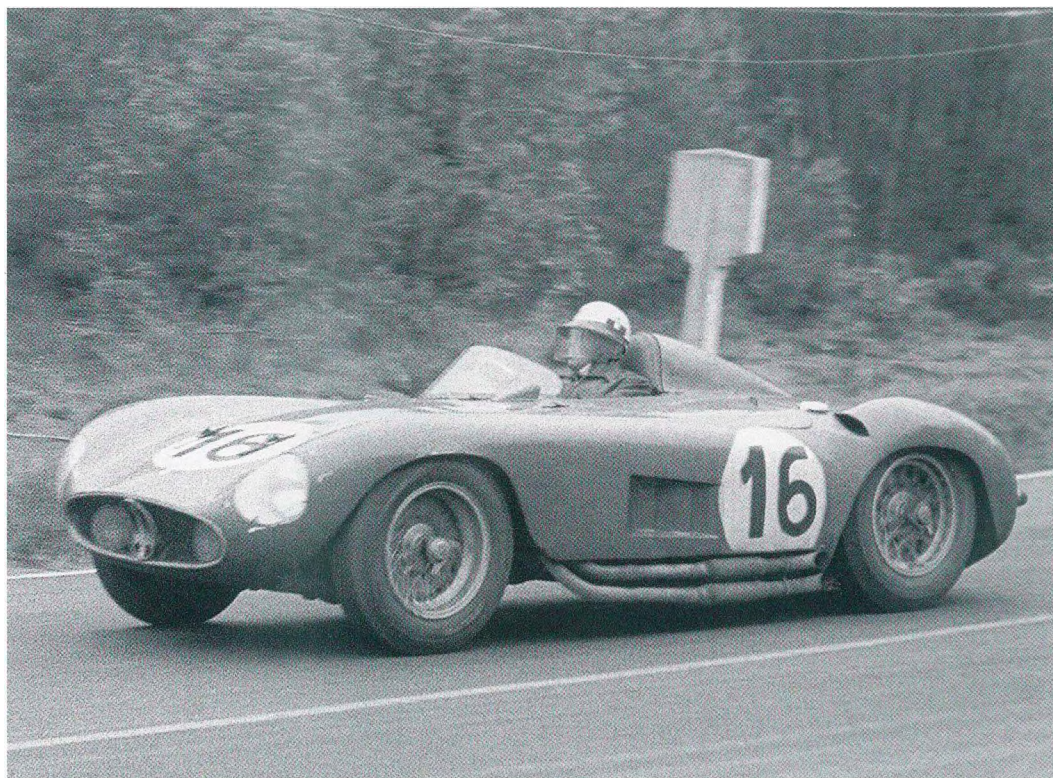
Bellentani. It was powered by a 4-cylinder 1,484.1cc (81 x 72mm) derivative of the 250F engine said to be capable of running up to 8,000rpm and developing around 140bhp. The 4-speed gearbox had Porsche baulk-ring synchromesh on all gears. Some later cars had a 5-speed gearbox. The chassis followed existing Maserati practice, but at the rear there was a de Dion axle with the tube located by a central sliding pivot mounted below the level of the tube itself, in accordance with the arrangement used by Lancia on their D50 Grand Prix car. The body looked like a scaled-down version of that of the 300S and was the work of Celestino Fiandri.

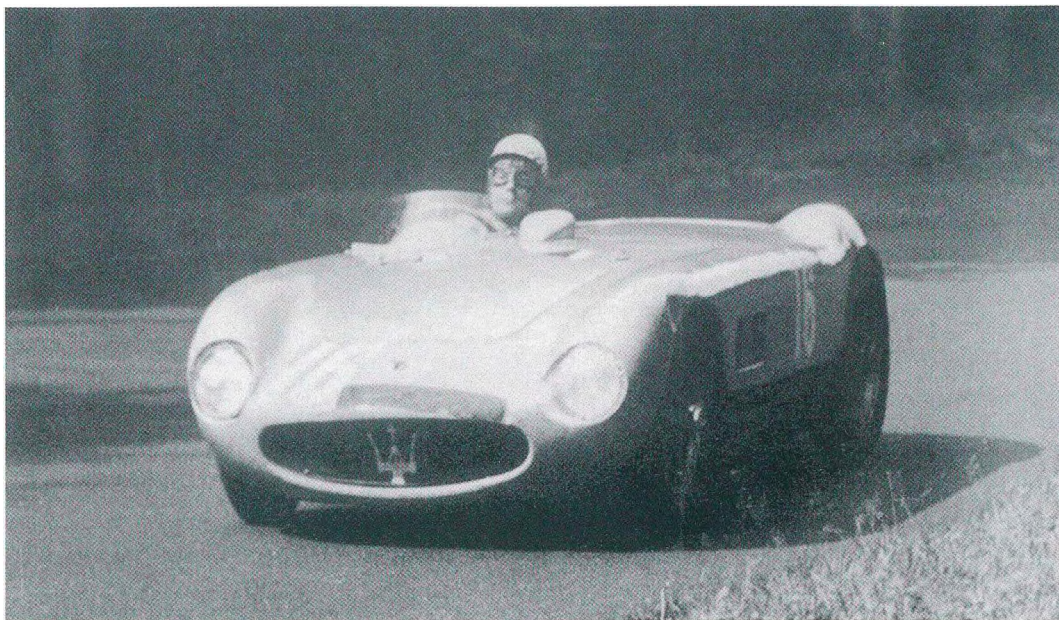
The model had been under development since early 1954. Originally Maserati experimented with a 4CLT/48 engine, from which the blower had been removed, in a chassis with a rigid rear axle. Subsequently the new

engine was tested in the same chassis. In October 1954 one of these engines was installed in the speedboat *Maria Luisa IV* raced by Liborio Guidotti. In this form it had a compression ratio of 11.5:1, but a rather lower 9:1 was used in the cars.

Although the final version with de Dion rear axle and slightly lengthened chassis is believed to have been completed as early as April 1955, commitments to Formula 1 and the 300S had necessitated shelving it until a 500 kilometre race for sports cars up to 1,500cc was held at the Nürburgring on 28 August. Between 1955 and 1957 Maserati built 24 of these cars with chassis numbers between 1651 and 1675. The last three cars had more streamlined bodies built by Fantuzzi. One car built in 1957 had a coupé body by Fantuzzi and it seems that Maserati was contemplating a production road-going version, but with which

This works Tipo 300S sports-racing car was driven at Le Mans in 1955 by Musso and Valenzano. It had risen to second place behind the winning Jaguar D-type of Hawthorn/Bueb, but it retired because of transmission problems four hours before the finish. (T.C. March)





Jean Behra with the new Tipo 150S won the Nürburgring 500-km race on 28 August and defeated a strong works Porsche entry. Despite the great promise shown in this race, the Tipo 150S proved to be too heavy and achieved little success in its later races.

The works entered this A6GCS for Bellucci in the 1955 Tourist Trophy on the Dundrod circuit, but, oddly, no second driver was nominated. It was retired because of engine problems. (Guy Griffiths Collection)



for unknown reasons they did not proceed.

At the Nürburgring Jean Behra had the choice of what was to be the definitive car with the de Dion rear axle or the rigid axle prototype. He chose the de Dion car; was fastest in practice and after a poor start took the lead towards the end of the first lap. In a strong field that included both works Porsche 550 *Spyders* and the very potent East German EMWs, he won by just under two minutes from von Frankenberg's Porsche at an average of 77.11mph (124.15kph) and set a new class lap record. There were serious expectations that the Tipo 150S would dominate the 1,500cc sports car class, but that did not happen and Behra's win in the Nürburgring was the only outstanding success that the model achieved.

By the Targa Florio in October the Maserati factory had developed the Tipo 200S version (also known as the Tipo 52). This was powered by a 1,994.3cc (92 x 75mm) engine developing around 186bhp at 7,500rpm. Early cars had a 4-speed gearbox, but later a 5-speed 'box was fitted. There was a rigid rear axle on some cars, but on most later cars it was a de Dion. The first five cars had bodies by Fiandri, but thereafter a sleeker design by Fantuzzi was used. Two of these cars were entered in the Sicilian race, a works entry for Bracco/Bordoni and another by American enthusiast Tony Parravano for Mancini/Musy. Bracco crashed the works car in both practice and the race and the American entry had an oil pipe break, lost most of its oil and ran its bearings.

During 1954–55 Maserati had been transformed into an exceptionally busy, at times hectic, competition organisation. It may not have made much impact in Grand Prix racing in 1955, but the sports cars, especially the 300S, had achieved an enviable competition record, mainly in Italian events. Although the management structure was beefed up in 1956, Maserati's workload continued to expand until the bubble finally burst at the end of the 1957 season.

Chapter 12

The zenith of Maserati power, 1956–57

STIRLING MOSS REJOINED Maserati, making an early decision after Mercedes-Benz withdrew from racing at the end of the 1955 season. Jean Behra and Cesare Perdisa remained with the team, while Luigi Musso left to drive for Ferrari. Roberto Mieres, who was a very consistent and unflappable Argentinian also left Maserati, allegedly for financial reasons, but there may well have been more deep-seated causes.

Only slight changes were made to the 250F at the beginning of the season, but a number of experiments were tried during the year and at the last Championship race Alfieri produced two new cars that were in effect prototypes of the 1957 T2 or 'Lightweight' cars. The 5-speed gearbox was now standard, as were the wider brake drums with larger and deeper stiffening and the large-bore single exhaust pipe. During the early part of the year three new cars were completed for use by the works team and more cars appeared in the hands of private owners.

The Grand Prix Year

Maserati scored its first victory of the year when Stirling Moss drove his own 250F to a win in the 204-mile (328km) New Zealand Grand Prix at Ardmore. Moss had built up a good lead, so when a fuel line started to leak, he had time to make a stop in the pits for a little over 30 seconds while the tank was topped up and still finish 23

seconds ahead of Tony Gaze (3-litre Ferrari Tipo 625). Moss then flew to the Argentine to join the works Maserati team.

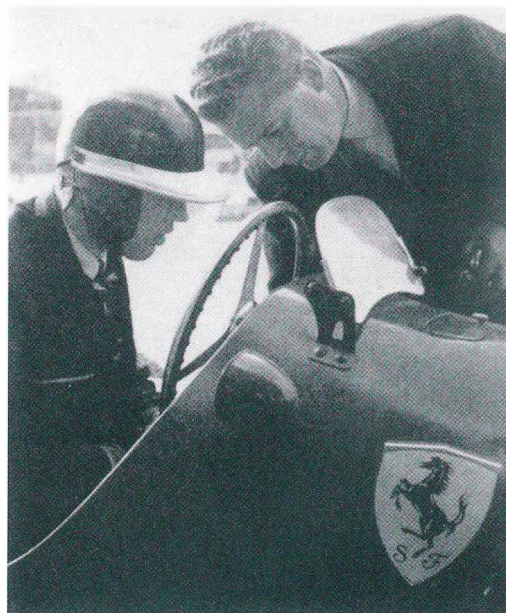
In the Argentine Grand Prix there were six works-entered Maseratis. Excluded from the list of drivers was Perdisa, but added were Carlos Menditeguy, Luigi Piotti, Francesco Landi and the once-great Froilan Gonzalez. There were only 11 starters in this race. Moss soon worked his way into the lead, but was forced to retire because of piston failure. Fangio won with what was now popularly known as a Lancia-Ferrari, followed across the finishing line by Behra and Mike Hawthorn (driving the Owen Organisation-entered 250F). Fangio also won the Formule Libre Buenos Aires City Grand Prix from Moss, Behra and Menditeguy. The Championship would clearly be a two-horse battle.

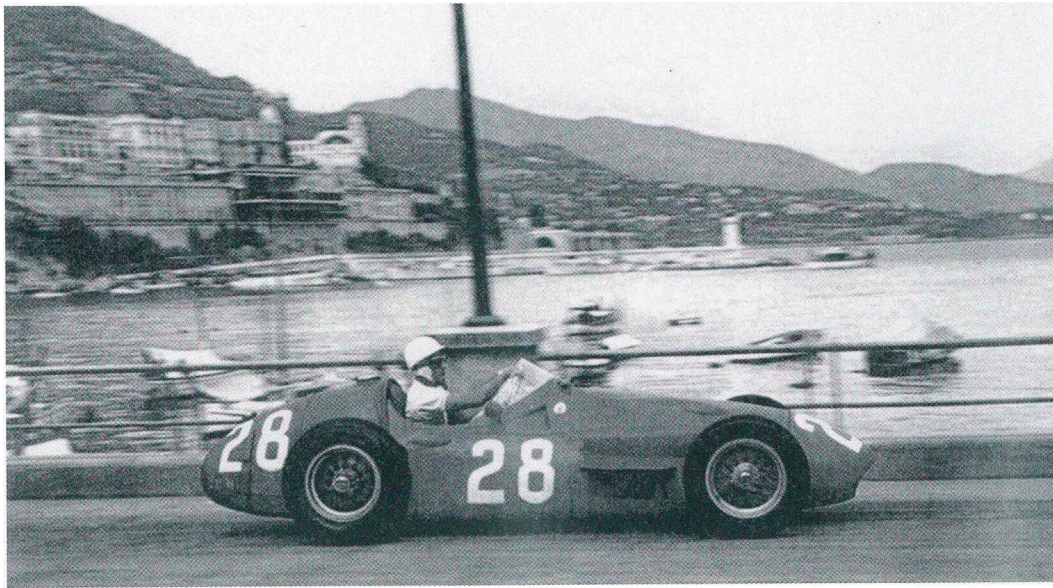
From April onwards there were the usual non-Championship races in Europe. In the Richmond Trophy at Goodwood on Easter Monday Stirling Moss drove one of the new 1956 works cars fitted with experimental fuel injection. This incorporated an OM/Bosch fuel injection pump mounted on the exhaust side of the engine and driven by chains and sprockets from the timing gear. On the inlet side of the engine six inlet pipes, each with a vertical throttle slide, were linked to injector nozzles mounted on the tops of the air intake tubes.

During practice a piston seized and a replacement engine had to be sent hastily from Modena. On the morning of the race

Moss practised with both the works car and his 1954 250F and was only two-fifths of a second slower with his older car. The fuel injection-engine suffered from poor torque characteristics and Moss would have preferred to drive his own car. He chased Archie-Scott Brown (Connaught) hard in the race, but when the British car slowed with mechanical problems, Moss went on

In 1955 Nello Ugolini had joined Maserati as racing manager. He was highly respected and very able, probably one of the great team managers of all time. He is seen here at Siracusa in 1954 checking the tachometer 'tell-tale' of Hawthorn's Tipo 625 when he was still at Ferrari.





At Monaco Moss took the lead on the first lap with his 250F and led throughout this 100-lap race to win from Fangio who had taken over Peter Collins's Lancia-Ferrari. Later in the race the nose of the Maserati was dented as the result of a collision with team-mate Cesare Perdisa who over-braked to let Moss lap him.

to win by a little over three seconds from Salvadori with the Gilby Engineering 250F.

The relatively poor performance of the works 250F at Goodwood convinced Maserati – and Moss – that a great deal of development work was still needed before the Monaco race on 13 May. So it was proposed to scratch from the Syracuse Grand Prix, to be held on 15 April, but Behra who lived near the circuit persuaded the team to let him run in the race. He drove chassis 2501 with a fuel injection engine, but retired on the first lap because of a broken oil pipe.

At Aintree on 21 April, Moss won the '200' race with his old Maserati after the retirement of Scott-Brown (Connaught) and Hawthorn (BRM), and Brooks (BRM) had been forced to ease right back because of failing brakes. There were no works Maseratis entered in either the International Trophy at Silverstone on 5 May or the Naples Grand Prix the following day. Ferrari entered both races and failed in both. At Silverstone the winner was Moss who had been released to drive the much-improved

Vanwall, while on the Posillipo circuit Robert Manzon with a works 6-cylinder Gordini was the totally unexpected winner.

Maserati entered three cars at Monaco for Moss, Behra and Perdisa. There would have been an additional entry for Argentinian polo-player Carlos Menditeguy, but he had crashed heavily at Sebring and put himself out of racing for the rest of the year. Moss drove a car specially fitted with a 4-speed gearbox for this circuit and it also had a new cylinder head with 10mm instead of the usual 14mm sparking plugs. Perdisa's car was fitted with a right-hand throttle, just in case Moss needed to take it over. Veteran, one-time great Monégasque driver Louis Chiron brought his racing career to a humiliating end by breaking in practice both his *Scuderia Centro-Sud* 250F and the works spare car.

Moss drove a superlative race, taking the lead on the first lap and staying ahead for the remaining 99 to win by a margin of 6.1sec. He had maintained a pace that kept him comfortably ahead of the Lancia-Ferrari that Fangio had taken over from Peter

Collins. The only hiccup came when Moss was lapping Perdisa, his team-mate over-braked and Moss ran up the back of Perdisa's car; the nose of the leading Maserati was crumpled, fortunately without blocking off the air-flow, but it allowed Fangio to close the gap a little. Behra drove a good race to finish third, albeit a lap in arrears. It was Maserati's first World Championship race win since the 1954 Belgian Grand Prix and only its fourth since the Championship was inaugurated in 1950.

At the Belgian Grand Prix on the very fast Spa-Francorchamps circuit Maserati made a total of five entries, which included Godia-Sales and Mike Hawthorn. Hawthorn was contracted to BRM, but this British team was in mechanical disarray and did not race again until the British event in July. The real truth of what happened over Hawthorn's Spa entry is far from clear, but certainly Enzo Ferrari was angered that Hawthorn, a long-term Ferrari driver, should appear for the opposition, so Mike withdrew from the race. Godia-Sales drove the team's spare car, after he had blown-up in practice the team's 'hack' engine fitted to his new car, 2524.

Moss drove 2501, which was becoming Maserati's development car. Alfieri had aped Vanwall practice by fitting 2501 with a long tapering nose, a high-sided cockpit and a wrap-round Perspex screen; the radiator was mounted more towards the front of the car with ducting to ensure that hot air did not enter the engine bay or the cockpit. Moss practised the car with both fuel injection and carburettor engines, concluding that there was nothing to choose between them in performance, but used the carburettor engine in the race because it was more economical. The team's spare car, 2523, also had the long tapering nose, but the radiator header tank was mounted on the bulkhead.

At the start Moss accelerated into the lead, chased by the Lancia-Ferraris; he was passed by Fangio on the fifth lap and on lap

10 at L'Eau Rouge Bridge, Moss's Maserati shed the nearside wheel complete with hub and brake drum. Moss sprinted back to the pits, took over Perdisa's car, which was already a lap in arrears, but fought his way back to finish third behind Collins and Paul Frère with Lancia-Ferraris. Fangio had built up a substantial lead with his Lancia-Ferrari, but transmission problems forced his retirement. Because of a rough-running engine Behra lapped slower and slower and eventually finished 12th.

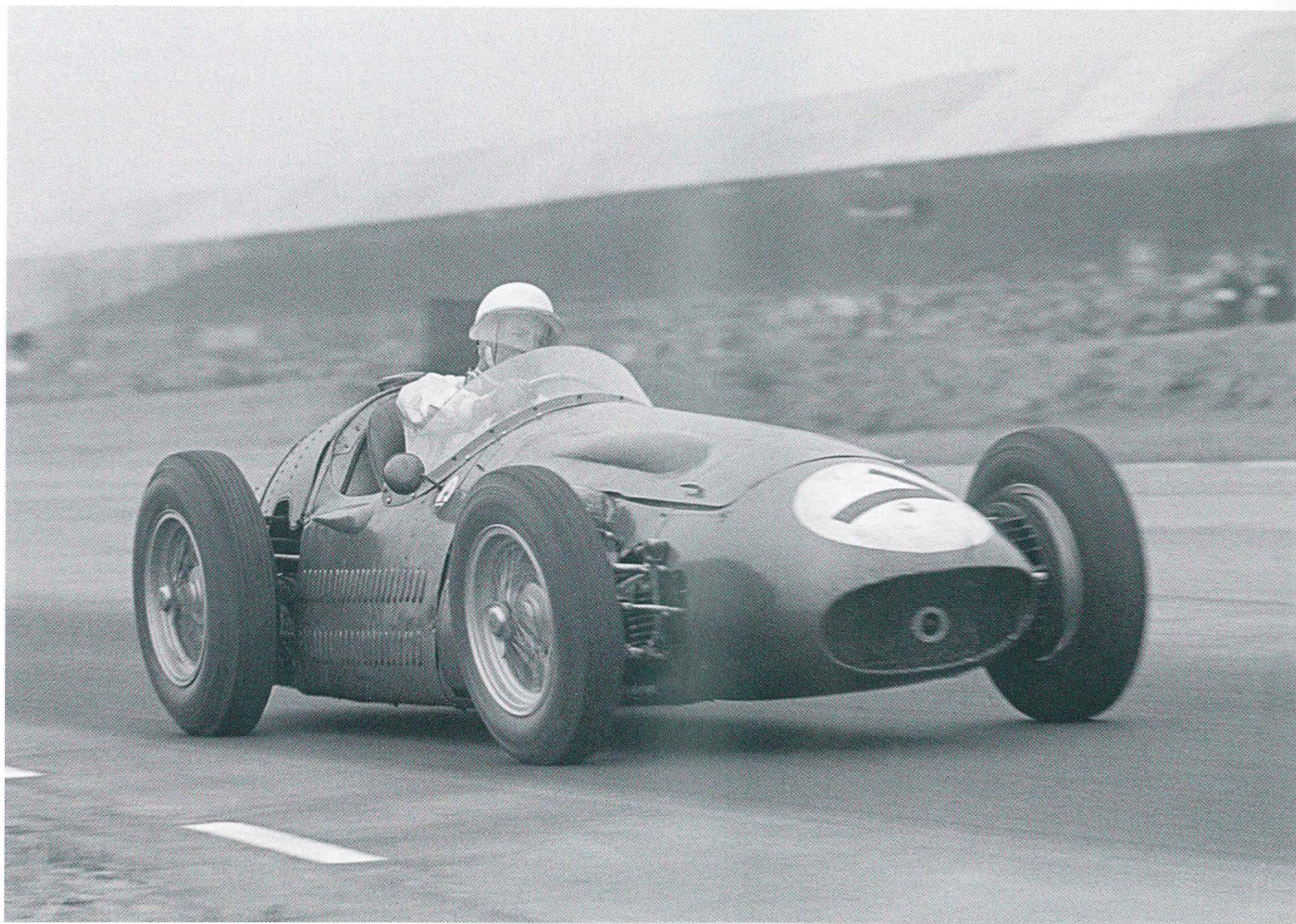
Among the works Maseratis at the French Grand Prix at Reims held on 1 July was

2518, the streamlined car not raced since Monza the previous year. It was now fitted with a fuel injection-engine and Dunlop disc brakes. It had a 4-speed gearbox, as it was not possible to use a brake servo with the 5-speed gearbox, but a 5-speed 'box was essential for Reims, so the car was pushed to one side. At this race a fourth car was entered for veteran Piero Taruffi.

Moss retired 2501 early in the race after

the gear-lever snapped and took over Perdisa's car – cockpit awash with oil – to finish fifth. Behra drove a steady race to take third place behind the Lancia-Ferraris of Collins and Castellotti. Taruffi was never up with the leaders and retired because of mechanical problems. On this high-speed circuit the 250Fs were simply not fast enough to challenge for the lead. Alfieri and Ugolini were forced to rethink their strategy

In the British Grand Prix at Silverstone Moss drove another fine race. He took the lead on lap 16 and led for the next 50 laps until his engine lost power. He retired seven laps from the finish because of gearbox problems and was classified eighth. (T.C. March)



after Reims and the team's performances in Grand Prix racing improved during the remainder of the season.

So the teams moved on to Silverstone and the British Grand Prix on 14 July. Silverstone was still a medium-speed circuit and Moss, Behra, Perdisa and Godia-Sales drove standard 250Fs. Alfieri had decided to concentrate on reliability with the 250F running on carburettors and had, for the time being at least, abandoned experiments with fuel injection. A total of seven private 250Fs were entered in this race in which there was no limit on the number of starters.

Moss took pole position in 1min 41sec, with the Lancia-Ferraris of Fangio, Hawthorn and Collins alongside him on the front row. Moss was in the lead by lap 14 and eight laps later Salvadori was up into second place with his elderly 250F. It was

to be a disappointing day for Modena, for Salvadori ran into problems and retired, Moss dropped to second place behind Fangio after a pit stop caused by ignition problems and retired seven laps from the finish when his gearbox broke. So Fangio and Collins (who had taken over de Portago's car) took the first two places with Lancia-Ferraris, Behra was a consistent third and an uncompetitive Perdisa took a less than satisfactory seventh place.

In the German Grand Prix at the Nürburgring on 5 August Moss drove the long-nose car that he had raced at Spa, while Behra and Perdisa had normal 250Fs. Godia-Sales again ran as a works entry. In the sports car race preceding the Grand Prix, Perdisa had crashed his Tipo 150S and was not fit to drive in the Grand Prix. Umberto Maglioli was hastily brought into the team and the *Scuderia Guastalla* 250F

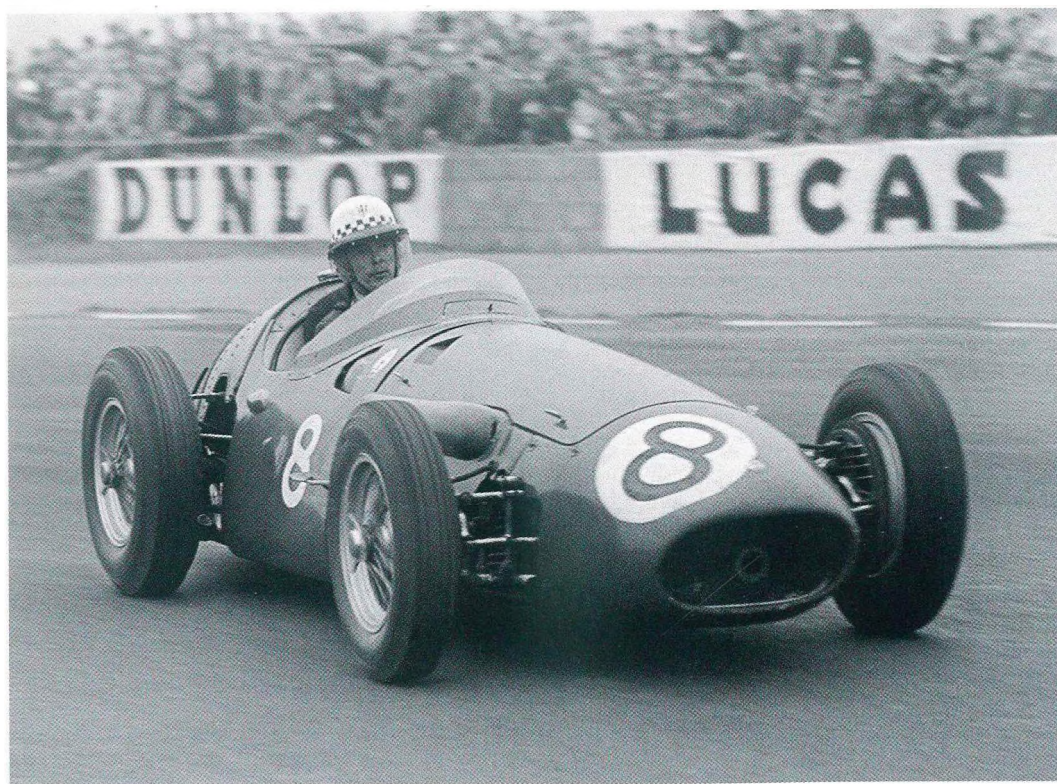
entry which he should have driven non-started. Fangio led initially from team-mate Collins, but when he retired, Moss maintained second place for the remainder of the race. Jean Behra finished an almost inevitable third, Godia-Sales was fourth and Rosier with his private 250F fifth.

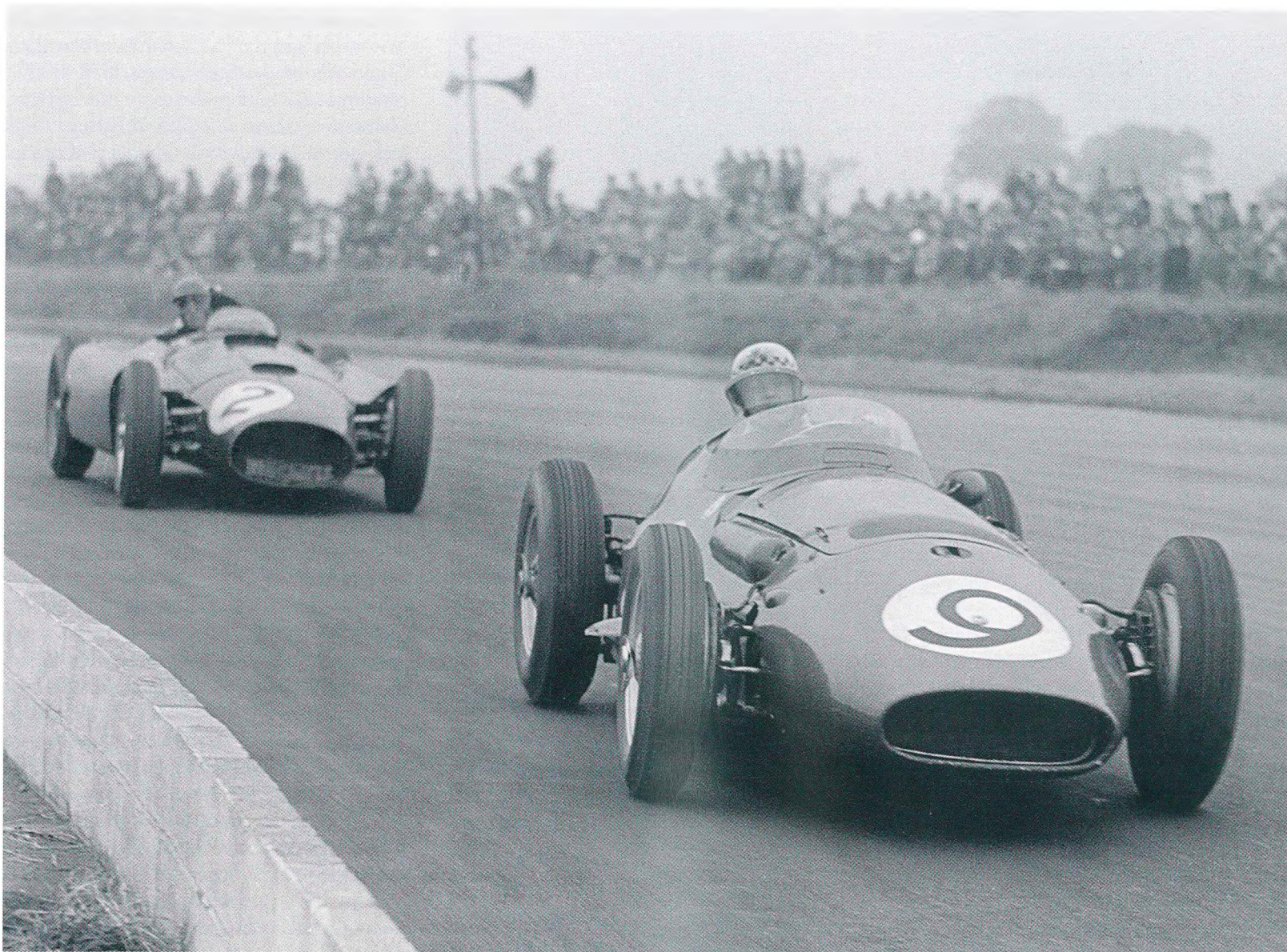
The number of minor Grands Prix staged during the year had been dwindling, but the 153-mile (246km) Caen Grand Prix took place on 26 August. Maserati had made a single works entry, but this was taken over by *Scuderia Centro-Sud* who ran the much-raced 2511 for Harry Schell. The race was held in rain for most of its distance. Salvadori with the Gilby car took an early lead and set a new lap record on the second lap. When the rain intensified, Roy had the misfortune to spin off, but he rejoined to finish third behind Schell and Simon (6-cylinder Gordini).

Giulio Alfieri displayed the fruits of his labours at Monza with two new 250Fs that were lower, had a reduced centre of gravity, were more aerodynamic and gave the Maserati drivers better prospects of matching the speed of the Lancia-Ferraris on the very fast banked track and road circuit. They also won for Maserati the substantial financial prize offered by the organisers to the Italian manufacturer who raced a new design. The usual 250F suspension was unchanged and there were few alterations to the chassis, but the engine was angled in the frame with the nose of the crankshaft pointing to the right of the car and the transmission was redesigned. The prop-shaft now ran from the left side of the gearbox bevel housing across the car at an angle to join the final drive.

The driver was seated on the under-tray alongside the prop-shaft, about eight inches lower than in the standard 250F, and Alfieri lowered the bonnet-line by mounting the steering box on the main cross-member behind the engine instead of its usual place on top of the clutch housing. At the rear there was a redesigned fuel tank, which formed the driver's headrest and was

This works 250F was driven in the British Grand Prix at Silverstone by Jean Behra, who turned in consistent if not outstanding performances all season. He finished third behind Fangio and de Portago/Collins with Lancia-Ferraris. (T.C. March)





mounted on rubber blocks secured by spring-loaded bolts. The Vanwall influence was again prominent in the adoption of a long tapering nose and the carburettor intakes were in a long tubular duct on the bonnet. The cars would not fit Maserati's transporter because of the length of the noses and so they were made to be quickly detachable.

The new cars were driven by Moss and Behra, while ordinary 250Fs were entered for Luigi Villorelli (deputising for Perdica who was still not fit) and Godia-Sales with his own car. There were also eight privately

In the Silverstone race, the third works 250F was as usual driven by Cesare Perdisa. He was at the wheel of car 2501 which had been rebuilt with long nose and high cockpit sides. He finished well down the field in seventh place. Here he is about to be lapped by Peter Collins. (T.C. March)

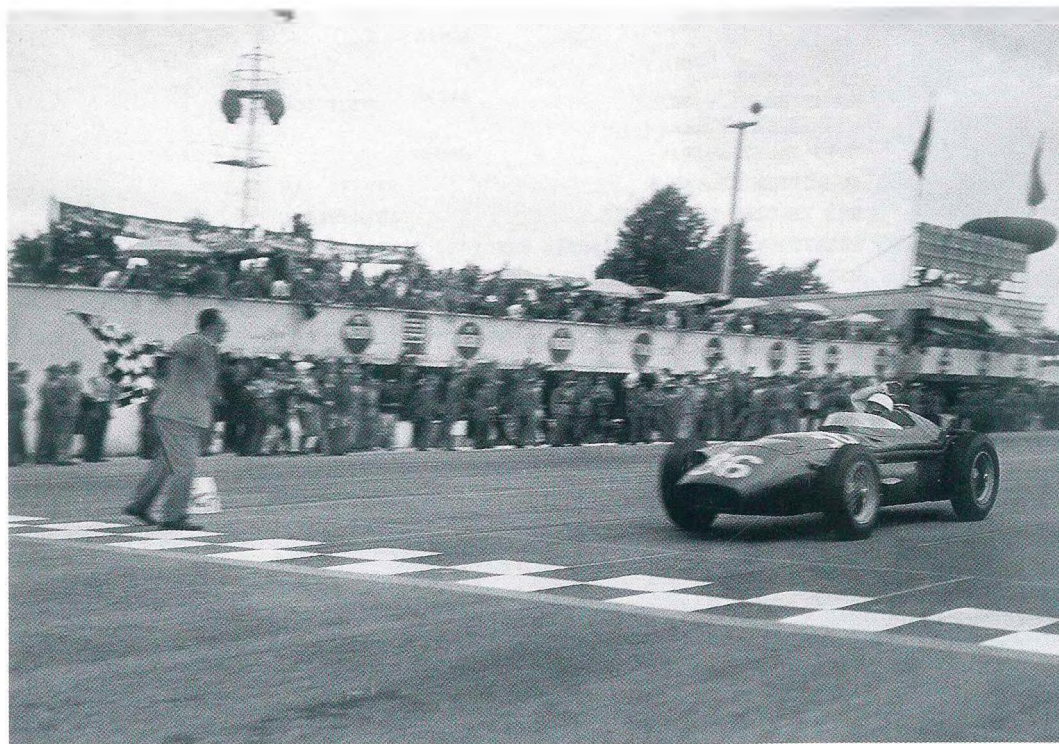
entered 250Fs of which six started. Facing the Maseratis were five Lancia-Ferraris and practice showed that they still had the edge in speed. The field was completed by three Connaughts, three Gordinis and three Vanwalls. Fangio took pole position in 2min 42.6sec and Behra and Moss were back on the second row with times of 2min 45.6sec and 2min 45.9sec.

Moss was to achieve his second Championship race win of the year, but for once there was more than a little good luck involved for the man who was usually singled out for misfortune. Ferrari drivers Castellotti and Musso destroyed their own prospects in their high-speed duel at the front of the field, each determined and undisciplined in his ambition to win his

home Grand Prix. The Lancia-Ferraris had never raced on the banking at Monza previously and were plagued by problems with their Belgian Englebert tyres and steering-arm breakages.

By lap five Moss was in the lead, he lost it briefly to Musso on lap ten and then was in front again between laps 12 and 45 of this 50-lap race. He set a new lap record of 135.50mph (218.15kph) and seemed assured of victory in the race that meant so much to the Maserati team. Then the engine faltered and cut out. The fuel tank had developed a slight split and run dry. In his mirror Moss saw private Maserati driver Piotti, gesticulated furiously and the tubby Italian, quick to grasp the point, manoeuvred behind the works car and gently pushed it so that it rolled towards the pits. Fuel was hastily poured in to the tank and Moss rejoined in second place behind Musso.

At Monza Stirling Moss takes the chequered flag to win with his new lower car. It was a close-run thing, however, for he ran out of fuel because of a split tank and Luigi Piotti with his private 250F gave him a push that kept him rolling to the pits to take on extra fuel.



Three laps from the finish the steering arm broke on Musso's Lancia-Ferrari, a tyre burst and after spinning wildly he came to rest only a few inches from the pit counter. Moss won by a margin of 5.7sec from Fangio, who had taken over Peter Collins's Lancia-Ferrari. Behra had retired because of magneto failure, although as the car was being pushed away it was noticed that fuel was gushing out of its split tank, and Villoresi was eliminated early in the race by engine failure. Ron Flockhart took an excellent third place with his British Connaught and Godia-Sales's fourth place was one of his better performances. In the Drivers' World Championship Moss finished second with 27 points to the 30 of Juan Fangio.

The works 250Fs made one more appearance in 1956. Attracted by the high level of starting money offered and the possibility of selling the cars after they had raced, Maserati sent works cars to compete in the

sports car Australian Tourist Trophy on 25 November and the Formule Libre Australian Grand Prix on 2 December. In the 248-mile (400km) Grand Prix held in Albert Park, Melbourne, Moss (2501) and Behra (2523 with 3-litre engine) took the first two places ahead of Peter Whitehead (Ferrari *SuperSqualo* with 3.4-litre engine). As explained later, there was more than one chassis 2523 and the car raced in Australia had been built up on a new chassis in August 1956. After the race it was sold to Australian Doug Whiteford who had previously raced a Talbot-Lago.

Sports Car Racing in 1956

At this time sports car sales were booming at Modena. The Tipo 300S, which was such a delightful car to drive, remained in production for a considerable time and between the appearance of the prototype in December 1954 and the roll-out of the last example in early 1958 about 27 examples were built. These have chassis numbers running between 3051 and 3080. Early cars had a chassis made by Maserati themselves, but later construction was contracted out to Gilco in Milan, the specialist chassis-building company founded by Gilberto Colombo. After the first six cars larger Weber 45DCO3 carburettors were fitted and the fuel system was modified. In 1956 a lengthened, more aerodynamic nose was adopted from chassis number 3063 onwards. The 300S was to achieve considerable success during 1956.

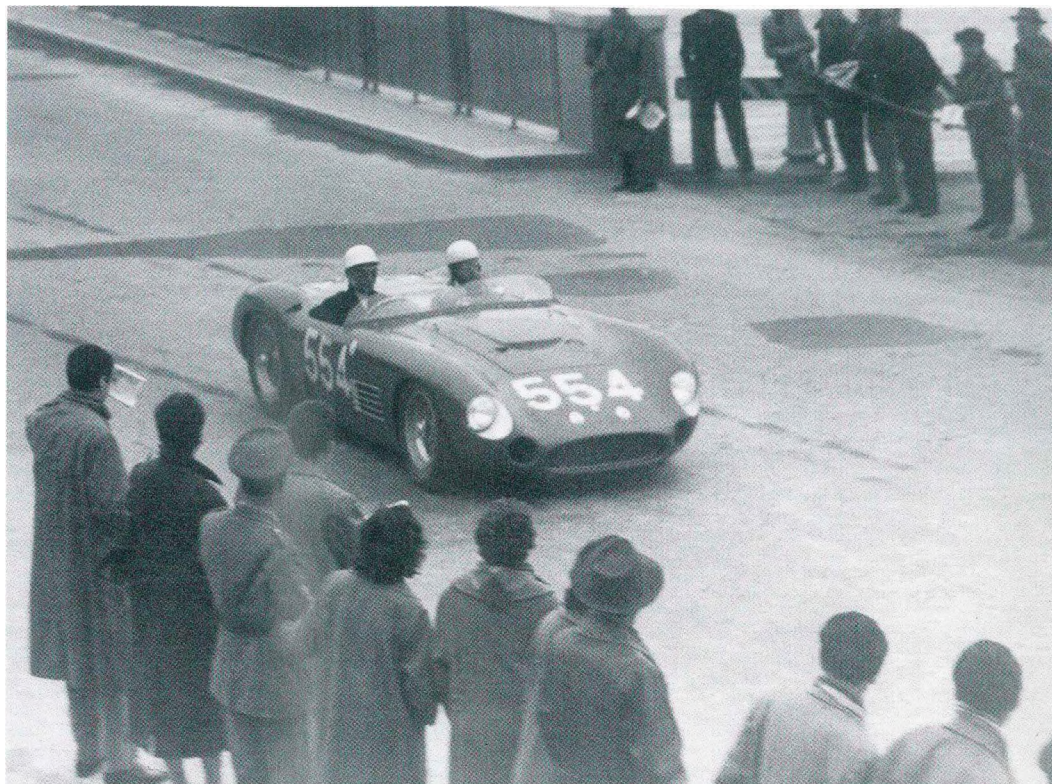
The 150S cannot be regarded as a success because it was too heavy and it never, after its so promising debut in 1955 at the Nürburgring, proved a real match for the Osca and Porsche opposition. There was considerable demand for the 200S and this proved rather more successful than its smaller-capacity stable-mate. Chassis numbers ran from 2401 to 2433, but these include the 200SI to which reference is made later. Of these about eight were the

original version. (This total includes a re-engined Tipo 150S.)

With his range of 4-cylinder and 6-cylinder engines, what Alfieri had created was a modular engine design, a concept so loved by modern designers. The large number of cars sold by Maserati increased the pressure on the competition department, for not only did owners in Italy (the majority of sales were in Italy and the United States) expect the works to maintain and repair their cars, but it was also very lucrative business for the company. It was a pressure that Maserati could not really cope with and it was a problem that was never solved.

It is believed that the two 300S works entries in the Buenos Aires 1,000km race, the first round in the 1956 World Sports Car Championship, had competed in the Venezuelan Grand Prix in late 1955. In the Argentine they were driven by Moss/Menditeguy and Jean Behra partnered by Froilan Gonzalez. They faced strong works Ferrari opposition that included two 4.9-litre cars built specially for this race and a new 3.5-litre V12 car. Both the 4.9s retired and Moss/Menditeguy scored Maserati's first ever win in a round in the Championship. Gendebien/Phil Hill with the 3.5-litre Ferrari finished second ahead of Behra/Gonzalez. In fourth place – and winning the 1,500cc class – were Alessandro de Tomaso, a name to become important in Maserati history, partnered by Tomasi at the wheel of his 150S.

The Agadir and Dakar races provided a good break from the European winter and also offered good starting money. Behra was happy to return to North Africa in 1956. At Agadir on 26 February he was leading in this 206-mile (332km) race when the steering failed and he spun to a halt, fortunately without hitting anything. Trintignant and Schell (Ferraris) took the first two places. In the Dakar race in Sénégal Trintignant won with a Ferrari, Harry Schell (Ferrari) was second and Behra took third place. A second works 300S driven by Perdita retired. On this very fast circuit Trintignant



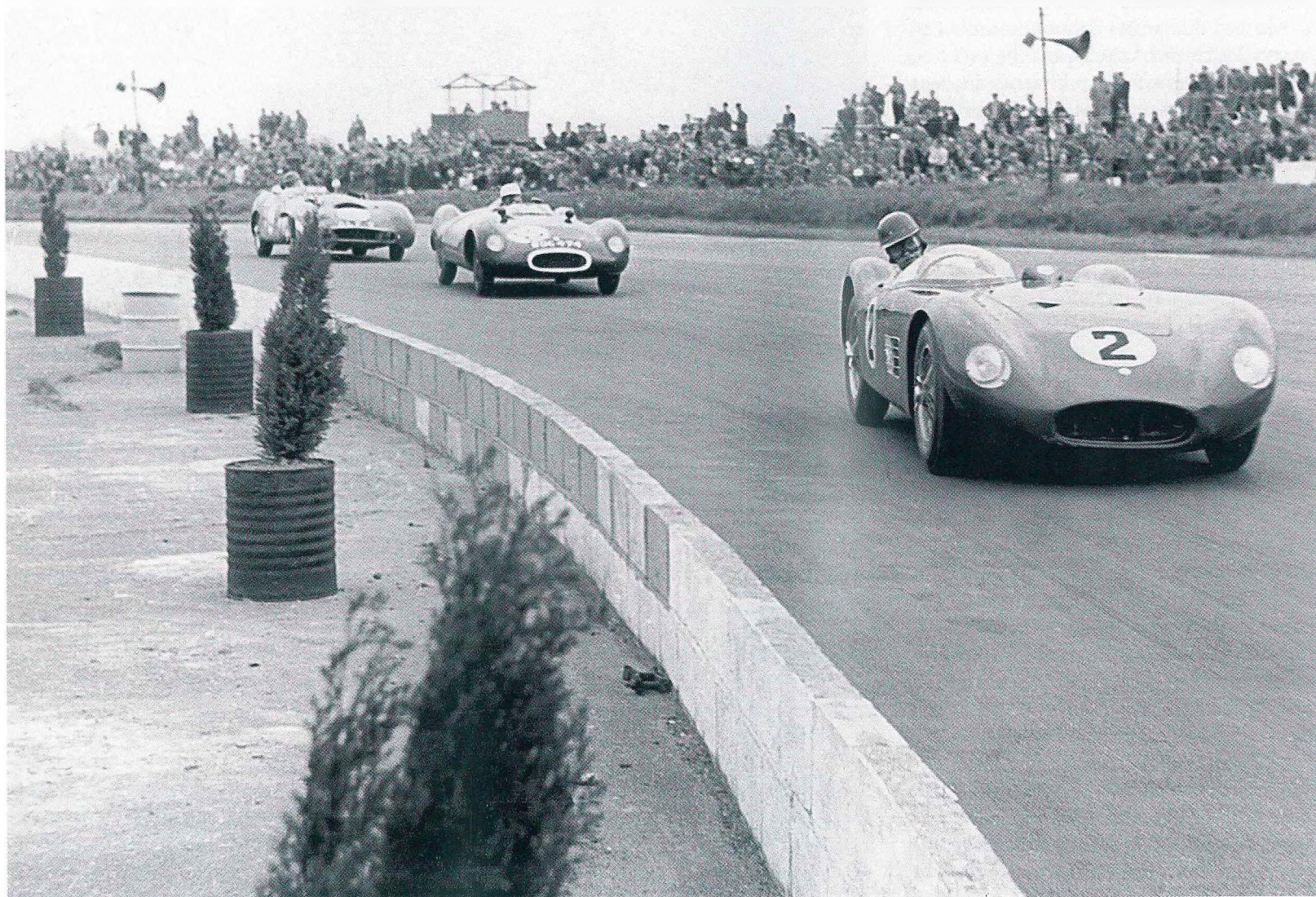
Stirling Moss, partnered by Denis Jenkinson, was the reluctant driver of this ill-handling, underdeveloped Tipo 350S 6-cylinder 3.5-litre car in the 1956 Mille Miglia. They were in fifth place when they went off the road shortly after the Pescara control.

set fastest lap at 125.47mph (202.01kph), the highest lap speed to that date ever recorded in a sports car race.

The Sebring 12 Hours race on 24 March proved a great disappointment for Maserati. There were two works 300S entries driven by Behra/Taruffi and Menditeguy/Perdisa. At this race Stirling Moss was in the Aston Martin team. Moss was committed to Aston Martin for sports car racing, but did not in fact drive in many events for the team. Menditeguy crashed very heavily in the Esses and completely wrecked his car. His injuries were bad enough to keep him out of racing for the rest of the year. The Behra/Taruffi car was slow compared to the Ferrari opposition and they finished a poor fifth behind two of the latest Maranello cars, the private D-type Jaguar of Sweikert/Ensley and the works-entered Aston Martin DB3S of Salvadori/Shelby.

Peter Collins with a works Ferrari took first place in the 671-mile (1,080km) Tour of Sicily on 8 April, but Piero Taruffi, who had won for Maserati in 1955, finished second, only 53 seconds behind. Giuseppe Musso drove a works 200S, he was in a very nervous state before the race and, in the words of Denis Jenkinson, '... shot up the starting ramp at speed and knocked all the officials for six ...'. He crashed out of the race. The 300S made its first appearance in Britain when Swiss private entrant Benoit Musy drove his 300S in the British Empire Trophy at Oulton Park. The race was run in three scratch heats and a handicap final and after winning his heat, he retired in the final because of engine problems.

Alfieri had produced a new sport-racing car typed the 350S (also known as the Tipo 53) and this amounted to an interim model until the V8 450S was ready. It combined a



British private owner Brian Naylor at the wheel of his Tipo 150S in the 1,500cc sports car race at the International Trophy meeting at Silverstone in May 1956. The car proved to be too heavy for British short, airfield-circuit races and Naylor transferred the engine and gearbox to a Lotus Eleven. (T.C. March)

3,485cc (86 x 100mm) engine developed from that of the 300S, but incorporating many new components and was intended for use in the planned production 3500GT model. Power output was initially 270bhp at 5,800rpm, but many changes were

made, including the adoption of dry-sump lubrication and power rose to about 290bhp.

Behind the clutch a pair of step-down gears lowered the line of the prop-shaft and a new gearbox with five usable gears was

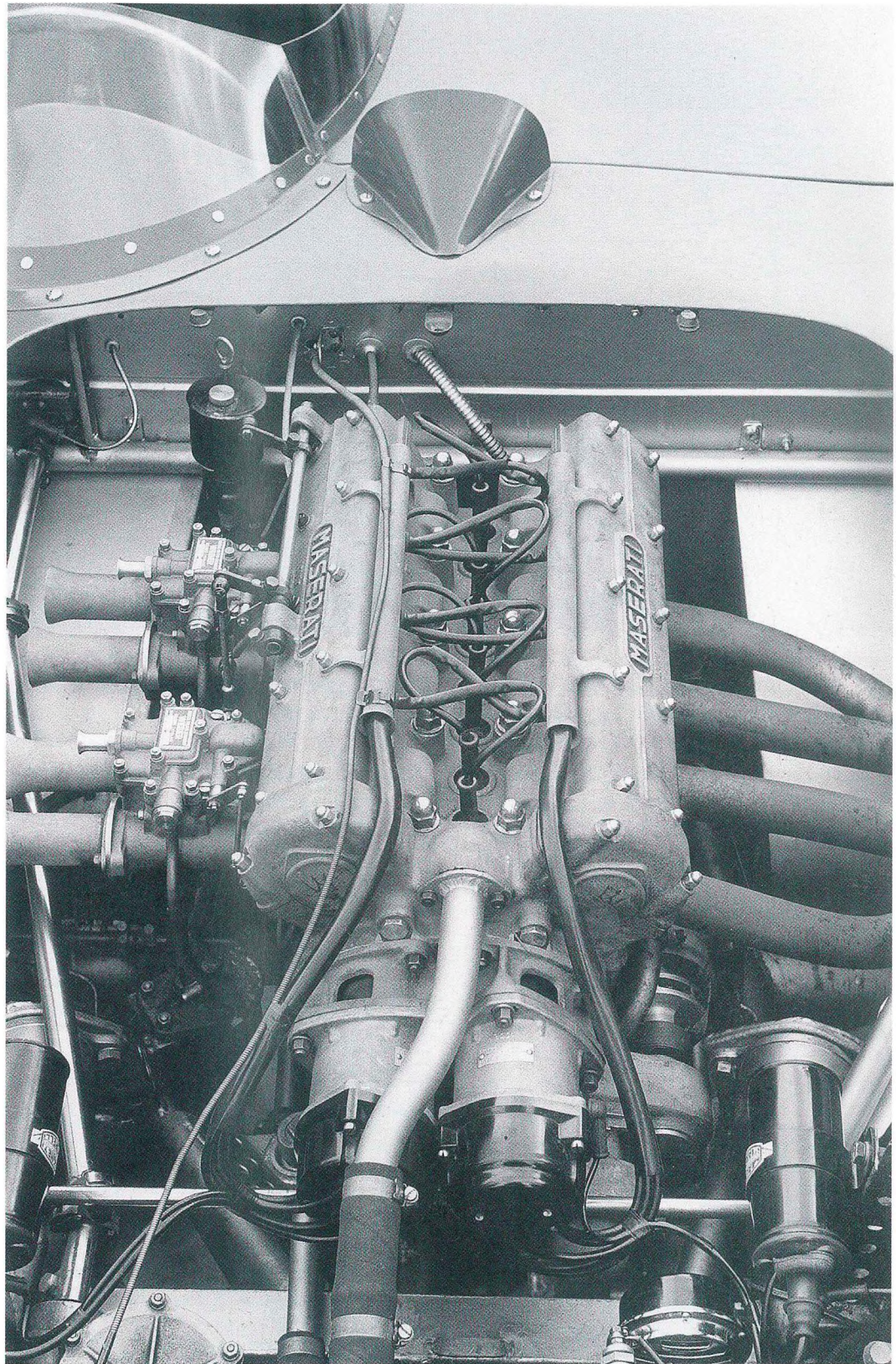
mounted in front of the rear axle-line. (On the 300S the gearbox was mounted on the side of the differential). The multi-tubular chassis had been considerably redesigned and was of more substantial construction than that of the 300S. There were additional shock absorbers at the front and the de Dion axle at the rear was located vertically by the central guide of the tube running in the rear cross-member. Both the gearbox and rear suspension were intended for use

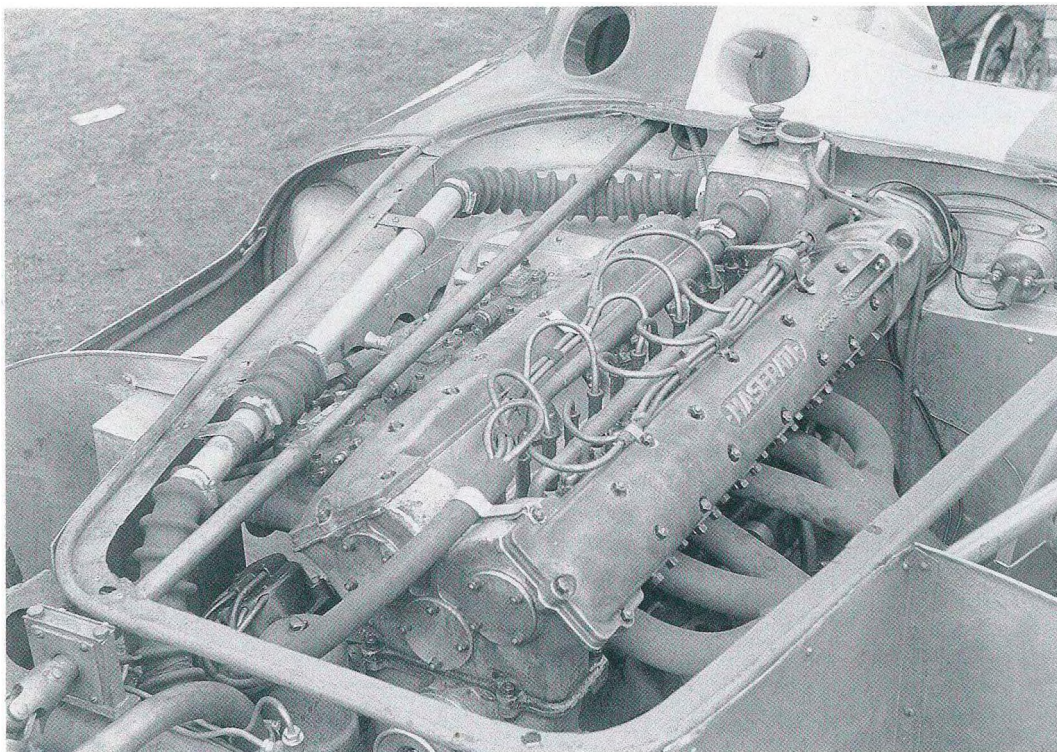
with the 450S. There was a main 40-gallon fuel tank in the tail and a supplemental 18-gallon tank on the left side of the cockpit.

It was intended that Moss, partnered by 'Jenks', and Taruffi should drive Tipo 350S cars in the Mille Miglia on 28–29 April. The veteran Italian insisted on driving a 300S, but Moss, who would really have liked to have done the same, succumbed to pressure from Bertocchi who was very keen that the new car should be raced. While Maserati frantically worked to complete their 350S, Moss and Jenkinson practised over the Mille Miglia circuit with a Zagato-bodied A6G/54 GT car and a 1954 A6GCS fitted with a 2,493.8cc engine, one of the cars used in the 1954 *Supercortemaggiore* race at Monza.

Two days before the race the mechanics were still working on the car, but the following morning Bertocchi and Moss tested it at Modena *Aeroautodromo*. Before Moss arrived a spoiler had been added under the air intake in an unsuccessful effort to eliminate front-end lift. Moss also did a back-to-back comparison with a 300S on the Raticosa Pass. The superb balance of the 300S was lost, the handling was unforgiving, although the 350S was undoubtedly a much faster car. In the race, run for much of the way on wet roads, Moss battled with the 350S, working his way up to fifth place. He went off the road on the Via Salaria just after Pescara and a little short of half-distance. It was a bad accident, precipitated by locking brakes and Moss and Jenkinson were fortunate to escape without injury. The full story of Moss and the 350S is narrated in *Stirling Moss, My Cars, My Career*, Stirling Moss with Doug Nye (Patrick Stephens, 1987).

A view of the 4-cylinder Tipo 150S engine when still installed in Naylor's Maserati chassis. Like all Maserati engines of the period it was a twin overhead camshaft unit with twin plugs per cylinder and twin-choke Weber carburettors. (T.C. March)





Another Maserati engine installation: the 6-cylinder A6GCS engine fitted in the works Lister sports car raced in 1956 by Archie Scott-Brown. It proved to be a very fast combination, but the Maserati engine was rather unreliable. (I.C. March)

In all there were 27 Maseratis entered in the 1956 1,000-mile (1,601km) race. Works 300S cars, with large supplemental fuel tanks on the left side of the cockpit, were driven by Taruffi and Perdisa. Taruffi was leading the race when he went off the road due to brake problems, just past Forlì on the southern run down the Adriatic coastline. Initially Perdisa ran well with his 300S, at one stage he was swapping places on the road with Moss, but he fell back because of mechanical problems and although well down the field, he won the 3,000cc sports class. In the 2,000cc sports class Scarlatti and Giardini took the first two places with their A6GCS entries. Behra with a 150S was thrashed in the 1,500cc class by Cagianca (Osca) and was over half-an-hour behind him at the finish. Ferraris took the first five places overall.

Benoit Musy was very active with his 300S and brought it to Britain to run in the

unlimited capacity sports car race at the International Trophy meeting at Silverstone on 5 May. This was the controversial race in which a collision triggered by Desmond Titterton (works Jaguar) eliminated two other Jaguar D-types and two works DB3S Aston Martins. Despite a depleted field, Musy could manage no better than fifth place. On 20 May, Musy ran in the 149-mile (240km) sports car Grand Prix des Frontières at Chimay and won from Duncan Hamilton (Jaguar D-type) and Graham Whitehead (Aston Martin DB3S).

The third round in the World Sports Car Championship was the Nürburgring 1,000-km race on 27 May, having last been held in 1953, its inaugural year. Three 300S cars were entered for Moss/Behra, Taruffi/Schell and Perdisa/Robert Manzon. The main opposition came from the Ferrari team running both 4-cylinder and V12 cars. Moss built up an early lead, but soon after

Behra took the wheel, one of the mountings for the rear transverse leaf spring failed. The Perdisa/Manzon car had retired early in the race because of a broken shock absorber mounting.

Behra took over the Taruffi/Schell 300S and brought it from third to second place before handing over to Moss at the end of lap 32. Moss rejoined the race 66 seconds behind the Fangio/Castellotti Ferrari with 12 laps to the finish. In one of those chases which he always enjoyed so much he rapidly closed the gap, went into the lead when Fangio stopped to refuel and was just over 26 seconds ahead at the finish. In the World Sports Car Championship Maserati had scored 18 points to the 22 of Ferrari.

The 447-mile (720km) Targa Florio on 10 June was a rather parochial Italian event. Maserati sent a single 300S for veteran Piero Taruffi. The two works Ferraris were again the most formidable opponents, but Castellotti retired the car he was sharing with Collins and Gendebien was badly delayed by a puncture. The Porsche of Maglioli/von Hanstein moved up into the lead and went on to win. Taruffi was in second place, dropped to third behind Cagianca (Osca) because of delays caused by a broken fuel tank mounting, and was then elevated to second place in the results when the Osca driver was disqualified.

On the same day French veteran Louis Rosier partnered by Jean Behra at the wheel of his new 300S scored a comfortable win in the Paris 1,000-km race at Montlhéry from two privately entered Ferraris. There were four Tipo 150S cars entered in this race, but the highest placed finisher driven by Cornet/Mougin was a poor 12th overall and was headed in the 1,500cc class by a Porsche, a Gordini and another Porsche. Musy took his 300S to Portugal for the 207-mile (333km) Porto Grand Prix on 17 June and drove a good race to finish third behind de Portago and Collins, both at the wheel of Ferraris.

The 1000-km *Supercortemaggiore* Grand Prix on the combined banked track and

road circuit at Monza on 24 June now had a 2,000cc capacity limit. At this race Maserati entered the improved 200SI (*Sport Internazionale*) with a chassis built from lighter-section tubing, an extended nose cowling and ducted radiator. Power output was slightly higher at 190bhp at 7,800rpm and there was a 5-speed gearbox (this was optional on cars sold to private owners). Production of these cars continued through 1957, some were supplied with hood and windscreen wiper to comply with the Appendix C regulations of 1957 onwards and in all about 20 were built.

During practice for the Monza race the new car was crashed by Farina who broke a collarbone in the accident. A 200S with rigid rear axle, but the latest body, was substituted. This was driven by Perdisa/Bellucci, while Moss shared a Tipo 150S with Taruffi. Ferrari entered three 2-litre *Testa Rossa* cars. Collins/Hawthorn with their Ferrari dominated the race from start to finish, while Maserati struggled but performed quite well. Moss was out on the first lap when the prop-shaft broke on his 150S and thrashed through the reserve fuel tank in the left side of the cockpit. So when Perdisa stopped to refuel, Moss took over and then drove a great race to finish second, a little under half-a-minute behind the winning Ferrari.

The 350S that Taruffi should have driven in the Mille Miglia was sold to Luigi Piotti and he entered it for himself and Maglioli in the 12 Hours race at Reims at the beginning of July. The race started at midnight and the 350S was fifth at the end of the first hour, but was withdrawn during the second hour because it was almost uncontrollable on the fast straights in the dark and the rain that had started to fall. American John du Puy entered a 300S at Reims for Prince Metternich and Ken Wharton, but it retired because of a broken prop-shaft, an increasingly common Maserati weakness.

As far as can be ascertained, only two 350S cars were built, chassis numbers 3501 and 3502. Development work had contin-

ued on the car that Moss drove in the Mille Miglia, and intensive work on the engine increased power output to 325bhp at 6,000rpm. The chassis was also fitted with new double wishbone and coil spring suspension having different geometry to that of the 300S.

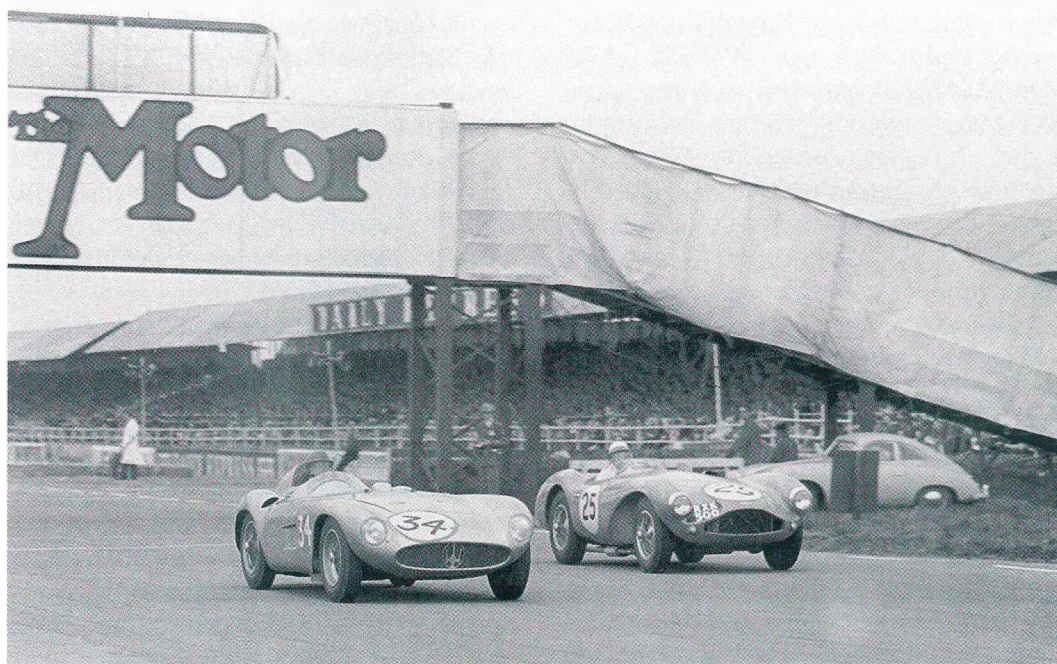
An interesting race was the 203-mile (327km) Rouen Grand Prix run on the delightful Circuit des Essarts on 8 July and limited to 3-litre cars. Behra and Perdisa drove works 300S entries, while the Aston Martin team included Moss, Collins, Salvadori and Brooks. Castellotti drove a works Ferrari *Monza*. Perdisa led initially, then Behra went ahead and stayed in front until the handling of his 300S deteriorated, allegedly because a stone thrown up by another competitor had damaged a shock absorber. Castellotti won from Moss and Behra while Perdisa retired because of a broken prop-shaft.

A succession of minor races followed. On

14 July at the British Grand Prix meeting at Silverstone a single works 300S was entered for Moss and he won easily from Roy Salvadori with a works DB3S Aston Martin. The following day Musy with his 300S won a 97-mile (156km) race at Les Sables d'Olonne on the Atlantic coast of France from Belgian driver André Loens at the wheel of an A6GCS. On 22 July, Behra with a 200S won the 93-mile (150km) 2-litre race at the Bari Grand Prix held on a street circuit, while in the unlimited capacity event over 124 miles (199.6km) Maserati took the first four places with works cars in the order Moss (300S), Behra (200S), Perdisa (200S) and Taruffi (300S).

In 1956 Le Mans was postponed until 28–29 July because of the length of time needed for circuit modifications following the 1955 disaster. That year the race was not a round in the World Sports Car Championship because of its own special regulations that limited prototypes to

Very experienced private owner Peter Whitehead acquired a Tipo 300S for the 1956 season. He is seen alongside Hans Davids (Aston Martin DB3S) in the unlimited capacity sports car race at the International Trophy meeting at Silverstone in May 1956. It was not one of his better performances and he finished 11th. (T.C. March)





Maserati brought this 300S to Silverstone in July 1956 for Stirling Moss to drive in the sports car race at the Grand Prix meeting. Moss scored an easy win from Roy Salvadori with a works Aston Martin DB3S. (T.C. March)

2,500cc. It was something of a nonsense that Aston Martin's DB3S should be admitted as a production car (100 built or intention to build) with only 30 built, while Ferrari had certainly constructed more than 30 Ferrari *Monza* and Maserati close to 30 of their 300S cars. It was not so much a case that the Ferrari and Maserati models should have been accepted, but that the Aston Martin DB3S and Jaguar D-type cars should, under the peculiar race regulations, have been refused.

Maserati was represented in the race by the French Talbot concern, which entered two cars powered by detuned 250F engines and with A6GCS gearboxes. These cars had a simple, ladder-type tubular chassis, independent front suspension by wishbones and a transverse leaf spring, rigid rear axle suspended on semi-elliptic leaf springs and neat, very typical Talbot-style bodies. Jean Lucas crashed the car he was sharing with

Freddie Zehender early in the race, but the other car driven by Behra/Rosier was in eighth place when it retired because of rear axle trouble in the 21st hour. It was the intention that Talbot would construct cars powered by Maserati 2.5-litre engines built under licence, but the prospects of this getting off the ground were slim, because Anthony ('Tony') Lago's company had been more or less insolvent ever since the end of the Second World War.

A 1,500cc sports car race, the 99-mile (160km) Rheinland Cup preceded the German Grand Prix at the Nürburgring on 5 August. Maserati entered two Tipo 150S cars for Moss and Behra. Moss has expressed the view that the 150S was very underpowered ('struggling' was his expression), but it could perform well if the driver tried hard enough. Stirling took pole position in practice, but overnight before the race the team changed the gearing and the

cars were hopelessly under-geared. So after driving at his hardest, he could only manage second place, 3.2 seconds behind Herrmann (Porsche). Behra rather lost interest in the proceedings and finished sixth.

At the last round in the World Sports Car Championship, the Swedish Grand Prix at Kristianstad, Maserati brought along the prototype 450S to try in practice and raced three 300S cars driven by Moss/Behra/Villoresi/Schell/Taruffi in whatever permutation Ugolini decided. On the first lap Taruffi ran up the back of Ron Flockhart's *Ecurie Ecosse* D-type Jaguar when it locked its brakes and put himself out of the race. In the meanwhile Moss moved up to lead the field and the Ferraris in magnificent style, but soon after he handed over to team-mate Behra the leading 300S developed brake problems and lost considerable time in the pits. By the time that this had been sorted as best it could be, the Villoresi/Schell car was fifth and Moss/Behra had dropped to sixth place.

Moss was now switched to the car driven so far by Villoresi and Schell, while Behra carried on until he handed over his now brakeless 300S to Villoresi. As fuel was being taken on board, petrol was splashed on to the hot exhaust. The fire was quickly extinguished, although both car and pit staff were well doused with foam. It was realised that the fuel tank had split and there was no alternative but retirement. Soon afterwards brake problems struck the surviving 300S with Moss at the wheel; he took to the escape road and out of the race. Ferraris finished in the first three places and Maranello won the World Sports Car Championship with a net 24 points to the unchanged 18 of Maserati.

To all intents and purposes the serious racing season was over, but there remained a number of minor races. On 19 August the works entered 200Ss for Behra and Taruffi in the 224-mile (361km) Pescara Grand Prix for sports cars up to 2,000cc. There were no works Ferraris entered and the Maserati drivers were expected to win easily. Instead

Manzon (Gordini) scored an unexpected win for the struggling Paris concern. Behra lost a lap because of mechanical problems and finished at the tail of the field. Taruffi led until the last corner of the last lap, but, partially overcome by fumes from a leaking exhaust manifold, he had not realised how close was Manzon until the Frenchman surged through into the lead.

On 7 October the Coupe du Salon was held in torrential rain on the 3.9-mile (6.28km) combined banked track and road circuit at Montlhéry. The weather was so bad that the race should not have been started. Two drivers lost their lives in this 24-lap event. Rosier (Ferrari) crashed on the first lap and died three weeks later in Arpajon hospital. Benoit Musy, at the wheel of a newly delivered 200SI, was leading when he lost control on the banking – possibly because of a burst tyre – went over the top and on hitting a wall was killed instantly. Godia-Sales with a 300S won the race from Duncan Hamilton (Jaguar D-type).

The Rome Grand Prix was held on the very fast Castelfusano circuit on 20–21 October as six one-hour races, including events for sports cars of up to 1,500cc and 2,000cc. Behra was entered with a 150S, but the car was so uncompetitive in practice compared with the Osca and Cooper-Climax opposition that it was scratched. Jean Behra and Harry Schell with 200SIs won the 2,000cc race, but this was marred by a bad crash when Villorezi, lying third with another 200SI, went off the road, struck some straw-bales and overturned. The veteran Milanese was seriously injured and never raced again.

On 3 November the Venezuelan Grand Prix was held over a distance of 213 miles (343km) at Caracas and if the Venezuelan organisation came up to scratch, the country would stage a round in the World Sports Car Championship in 1957. Works 300S Maseratis were entered for Moss and Schell and there were works 3½-litre Ferraris for Fangio, de Portago and Schell. Moss led away, was passed by de Portago on lap

seven, took the lead again on lap 15 of this 85-lap race and stayed in front until the finish. He was 19.2 seconds ahead of Fangio who had made strenuous efforts to catch him. Behra drove a poor race to finish fifth. The works Maseratis were sold to local drivers after the race.

In the 100-mile (161km) Australian Tourist Trophy held on 25 November on the Albert Park circuit in Melbourne, Moss and Behra took first and second places with works 300S cars ahead of Ken Wharton (private Ferrari *Monza*). After the race the Maseratis were sold to local drivers, as in Venezuela. From Australia, Moss flew to Nassau in the Bahamas to drive a 300S in the 210-mile (338km) Nassau Trophy. The car was made available by Bill Lloyd, who had been Moss's co-driver at the wheel of the winning Osca in the 1954 Sebring 12 Hours race. It was a rather tired example and had been damaged in a collision earlier in the meeting, but Moss scored yet another win, heading across the line the Ferraris of Masten Gregory and the Marquis de Portago.

Two cars powered by Maserati engines had performed well in minor British events in 1956. Brian Naylor, a motor trader and enthusiast from Stockport in Lancashire, had bought a 150S to race in British events, but soon realised that it was too heavy for British short-circuit races. So he transferred the engine and gearbox to a Lotus Eleven, a car usually raced with the Coventry Climax engine. The car proved phenomenally successful and during the 1956 season Naylor won many races with it.

After two seasons of racing his Lister sports cars with Bristol engines, Brian Lister built a new and very low car powered by an A6GCS engine bought from the factory. Although the engine was not without its problems, works driver Archie Scott-Brown won the 2-litre class at several British events that year. Probably impressed by Naylor's successes, during the late summer of 1956 the Maserati factory bought from Lotus an Eleven Series 1 sports-racing car, chassis

number 192, for design study purposes. The Chapman-designed multi-tubular space-frame inspired Alfieri when he designed the later and much more complex 'Bird-cage' chassis.

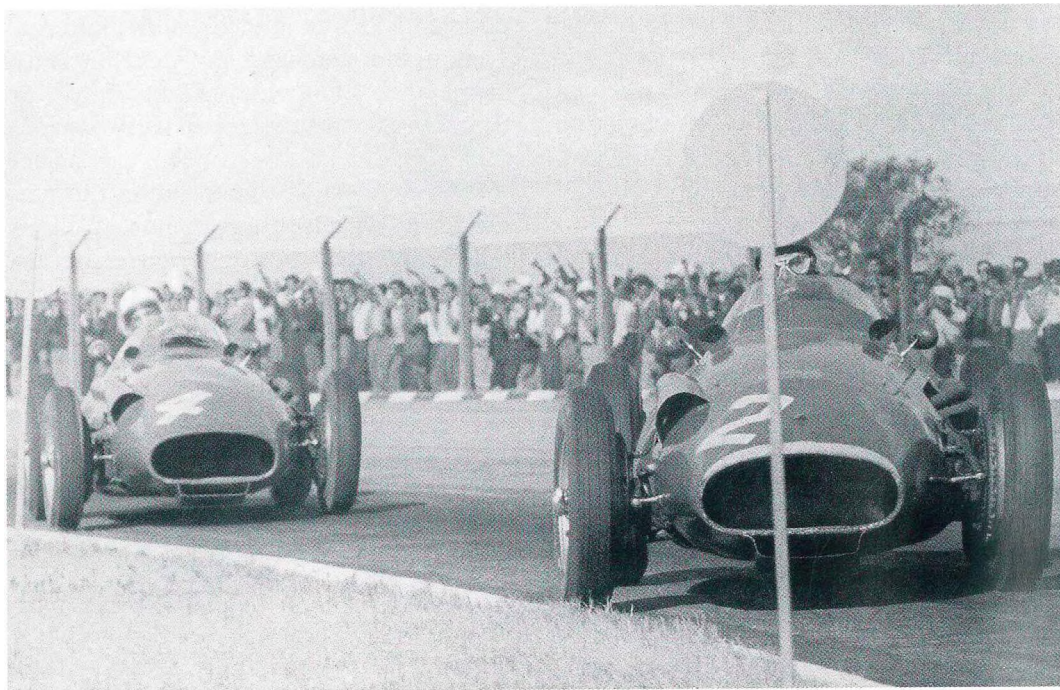
During 1956 Maserati had been extremely active in both racing works cars and building and selling cars to private buyers. The team had won two Championship Grands Prix and two rounds in the World Sports Car Championship, rather fewer than anticipated, but with the new cars planned for 1957 the team's prospects were great. Most importantly, Maserati had a very profitable year, financially, and the company's future seemed assured.

1957

In 1957 Maserati was at the peak of its racing power. Juan Fangio returned to the team to win his fifth World Championship and Maserati was only narrowly beaten by Ferrari in the World Sports Car Championship. The company had also built up an excellent customer base and was still selling competition cars in good numbers. There were exciting new cars, the V12-engined 250F which Alfieri struggled to make race-worthy all year and the V8 4.5-litre sports-racing car seen in prototype form at the 1956 Swedish Grand Prix. Development of a production GT car was well advanced and Alfieri was also working on new competition cars for sale to private owners. It was the team's greatest year, but it was also the year in which the company's financial fortunes plummeted and Maserati's involvement in racing would never be so great again.

The Grand Prix Year

Following the successful appearance of the two much modified 250Fs at the 1956 Italian Grand Prix, Alfieri developed the definitive 'Lightweight' or T2 cars for 1957 and only three of these were built for use by



Juan Fangio in an extreme four-wheel-drift in the 1957 Argentine Grand Prix as he tries to shake off Stirling Moss with another Lightweight 250F. In fact Moss was many laps behind as he had been forced to make a pit stop immediately after the start to sort out a throttle linkage problem. Fangio won the race from team-mate Behra.

the works team. Alfieri adopted a much lighter and stronger, multi-tubular chassis of smaller-diameter tubing and with the corners between main tubes reinforced by tubular struts. The arrangement of having the engine angled in the frame and transmission offset was abandoned. No changes were made to the suspension, other than that one of the team cars, as an experiment, had welded tubular wishbones in place of the forged wishbones usually fitted. As on the 1956 Monza cars, the steering box was mounted on the chassis frame to minimise vibration. There were new wider and stiffer brake drums and these had cooling cross-ribs grouped in threes.

Steady development work on the 6-cylinder engine had increased power output to around 280bhp. A very distinctive tubular intake on the right side of the bonnet fed air to an aluminium-alloy box in which the trumpets of the Weber carburettors were sealed from the engine bay. The newly

styled body incorporated a tapering nose, there was a riveted-alloy fuel tank in the tail and this formed the driver's headrest. An intake on the top of the scuttle fed cool air to the driver's feet. These three cars were given chassis numbers 2527, 2528 and 2529. Pirelli had officially withdrawn from racing, but for 1957 agreed to continue to supply tyres to Maserati, and were persuaded to do the same for Vanwall.

Juan Fangio, in his last full season of racing and glad to be back at Maserati after the repression of Ferrari, usually drove 2529; Jean Behra, now in his third season with the team was usually seen with 2528; and Harry Schell, who had joined Maserati after two seasons with Vanwall, was usually at the wheel of 2527. Maserati entered a fourth car at most races, often 2501, the team's development car. Up until the German Grand Prix Argentinian Carlos Menditeguy, now fully recovered from 1956 accident, drove the fourth car. For the

remainder of the year Giorgio Scarlatti took Menditeguy's place in the team.

Maserati had been developing a V12 Formula 1 engine, which was always known at the factory as the *dodici* (twelve). This had originally been designed as a horizontally opposed unit, but once this had been largely completed in 1956, Alfieri realised that there was insufficient time to build a new chassis for 1957. It was decided that the *dodici* would be redesigned as a 60-degree V12, which would then fit a modified 250F chassis. This does seem to reflect thinking that was rather less than logical. The V12 car was known as the Tipo 250F T2, which was confusing, as the 1957 'Lightweight' cars were also known as T2s.

The V12 engine had a capacity of 2,490cc (68.7 x 56mm) and there were twin overhead camshafts per bank of cylinders driven by a train of gears from the nose of the crankshaft, as were the fuel, oil and water pumps. There was a deep crankcase, which extended up to surround pressed-in cylinder liners, and there were separate cylinder heads. Dry sump lubrication was of course used. Alfieri originally intended to mount six Weber twin-choke carburettors of the normal pattern in the 'vee' of the engine, but soon realised that there would be insufficient space.

He solved this problem by using inlet ports that rose vertically from the valves, alongside the centrally located twin sparking plugs per cylinder. Weber made up a set of special twin-choke carburettors and these were given the designation 35IDM. There were separate Marelli motorcycle-type coils for each plug and special distributors, which had 12 sets of contacts and were mounted at the front of each inlet camshaft. It is believed that during initial testing power output was about 300bhp, but this was later increased to about 320bhp. The V12 engine was said to peak at 12,000rpm.

A new 5-speed gearbox with five fully usable gears was used, but this was not ready until the Monaco race in May. Chassis

2523 was adapted to take the V12 engine and extensive modifications were needed. The steering box was mounted behind the radiator, which was of a larger type than standard, and the steering column ran down the 'vee' of the engine. The chassis was fitted with 1957 250F brake drums and there were two air scoops on the bonnet. The *dodici* was instantly distinguishable by the exhausts on both sides, curving over the rear axle line.

Early testing revealed many problems for, apart from the fact that there was a time lag before the power came in on heavy use of the throttle, the power in the middle of the rev range was deficient and was too great for most drivers to be able to handle. Alfieri had given birth to something of a monster.

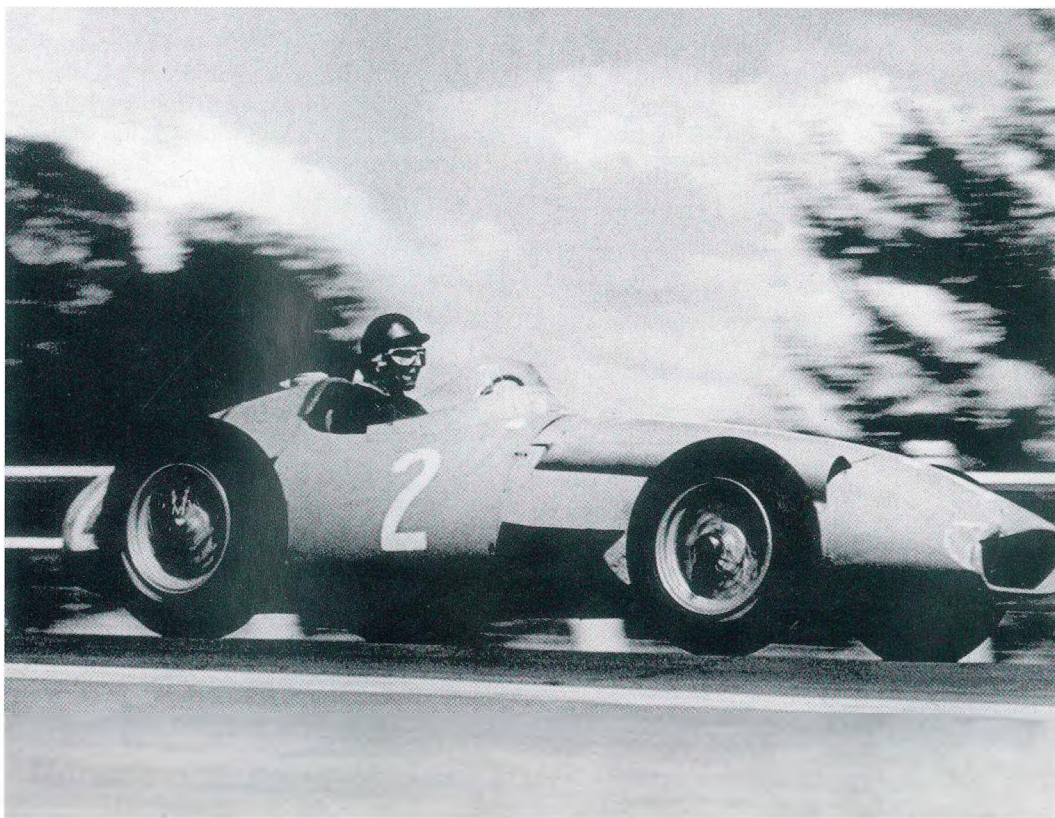
The season proved to be a direct fight between Maserati and the vastly improved British Vanwalls driven by Stirling Moss and Tony Brooks. Up until the Vanwall breakthrough at the European Grand Prix at Aintree, it was a rather one-sided battle, as the British cars were faster, but still very unreliable. As for the other contenders, the Lancia-based Ferrari V8s were no longer competitive and failed to win a single Championship race during the year, while BRM remained in technical disarray, despite the great promise of their P25 4-cylinder cars. Both Gordini and Connaught withdrew from racing early in the season.

Vanwall missed the Argentine Grand Prix on 13 January, so Moss was offered a drive by Maserati, and Harry Schell dropped out of the works team and instead appeared with a 250F entered by *Scuderia Centro-Sud*. Behra led initially from Castellotti (Lancia-Ferrari) and Fangio, but Moss – who had been fastest in practice – went straight into the pits because of a bent throttle linkage and lost nine laps. Castellotti took the lead from Behra, but dropped out when his car lost a wheel. Fangio assumed the lead and the finishing order was Fangio, Behra, Menditeguy and Schell. Moss took eighth place, having made up two laps and chased Fangio just for the hell of it. Alessandro

de Tomaso drove a *Centro-Sud* 250F into ninth place.

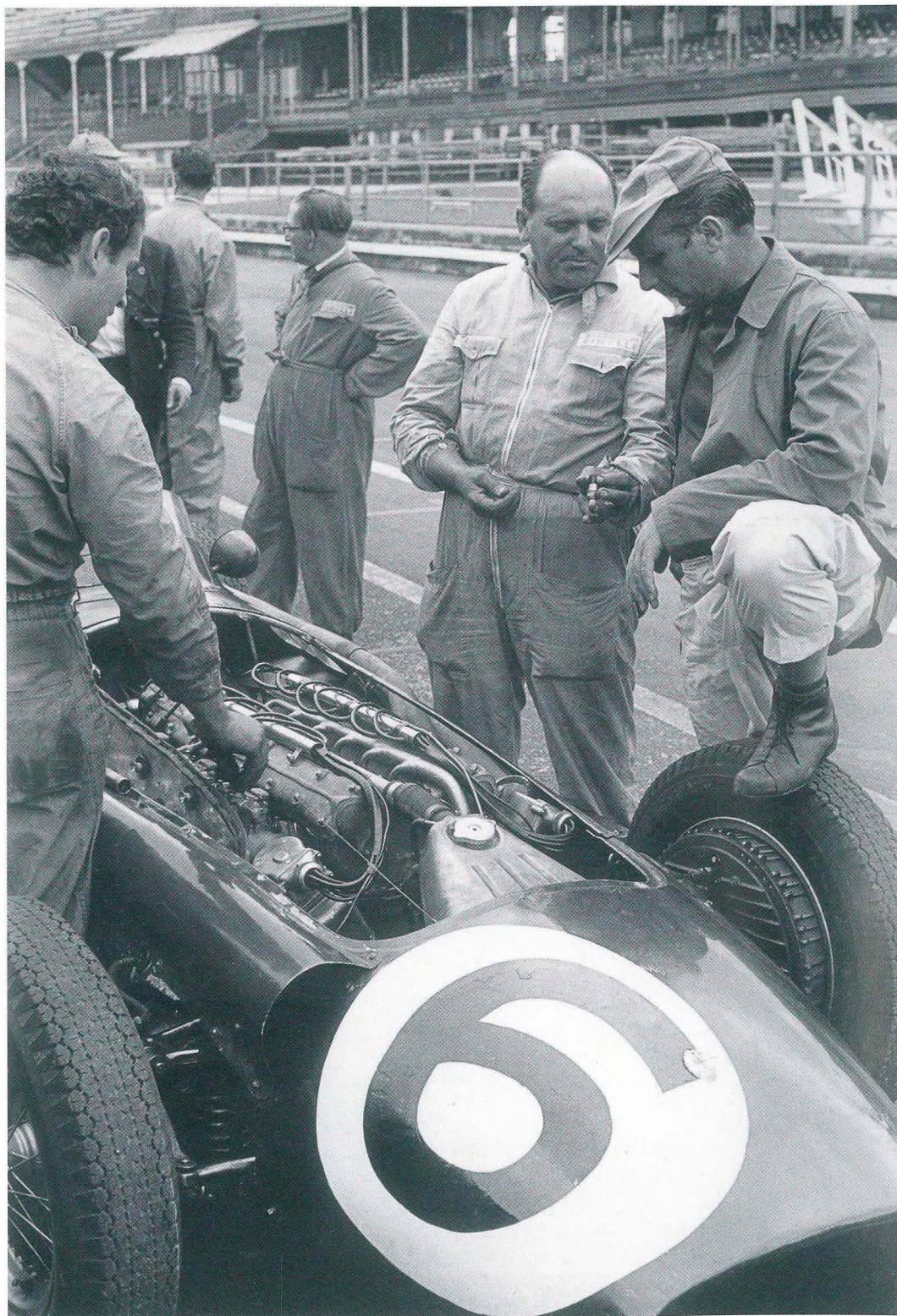
The Buenos Aires City Grand Prix was decided on the aggregate of the results of two heats, each of about 85 miles (137km). The race was run in oppressively hot conditions, Moss led the first heat for a while, but his engine was down on torque and pulling badly at the lower end of the power range, the brakes started to lock up and he became badly affected by the heat. Moss pulled into the pits, while Fangio and Behra took the first two places ahead of Castellotti and Hawthorn with Lancia-Ferraris. Peter Collins won the second heat with the Lancia-Ferrari that Musso had driven in the first heat. Fangio and Behra took second and third places and first two places on aggregate.

One of the greatest Grand Prix drives in Fangio's long career was in the French Grand Prix at Rouen. He was the complete master of the circuit's fast sweeps and curves and won by a margin of 50sec from Musso (Ferrari Tipo 801). The dent in the nose happened when Fangio made his one mistake of the race and indulged in a small off-course excursion.



The first Formula 1 race of the European season was the Syracuse Grand Prix on 7 April. Behra drove a 'Lightweight' car, Schell was at the wheel of 2501 and the *dodici* made its first public appearance. Behra, Schell and Scarlatti drove it in practice, but too much development work was needed for it to be raced. Both Behra and Schell retired, while Moss dominated the race with his Vanwall until a fuel-injection pipe split and after a pit stop he rejoined the race to finish third behind the Lancia-Ferraris of Collins and Musso.

After an interval of two years the Pau Grand Prix was restored to the calendar and held, as usual, on Easter Monday. The only works Maserati was a 'Lightweight' car driven by Behra. In the absence of Ferrari opposition he won from Schell (*Centro-Sud*



In the pits before the 1957 European Grand Prix at Aintree, Guerin Bertocchi and Juan Fangio discuss plugs. (T.C. March)

250F) and Ivor Bueb (Connaught). It was Behra's third successive win in this race. There were no works Maseratis in the Naples Grand Prix on 28 April and Collins and Hawthorn took the first two places with Lancia-Ferraris, ahead of Musso with the new Ferrari Formula 2 V6 car. Horace Gould brought his private 250F slowly across the line to take fourth place after a valve had broken.

Maserati was out in force at the Monaco Grand Prix, the first European round of the World Championship, held on 19 May. Behra was not fit to take part in the race after a road accident and Fangio, Schell and Menditeguy drove the three 'Lightweight' cars. The team also entered 2501, which was driven by Scarlatti in the race after he had lapped faster than Hans Herrmann in practice. All the drivers tried the V12 car, now fitted with the two pipes per bank of cylinders terminating just ahead of the rear wheels and fitted with megaphone ends. Although Fangio hurled the V12 round Monaco with great verve, it was clearly still a long way from being ready to race.

The Vanwall team was coming closer and closer to a major victory and at the Monaco race Moss accelerated into the lead at the start, heading Fangio and Collins. The young British driver took his Lancia-Ferrari up into second place on lap two. On lap four Moss had the front brakes fail on the Vanwall and he hit the barricades at the chicane. Collins swerved to avoid the Vanwall and hit the barricades on the other side of the track. Both Fangio and Brooks (Vanwall) negotiated around the crashed cars, but Hawthorn hit a rear wheel of Brooks' Vanwall and slid up the tail of Collins' car.

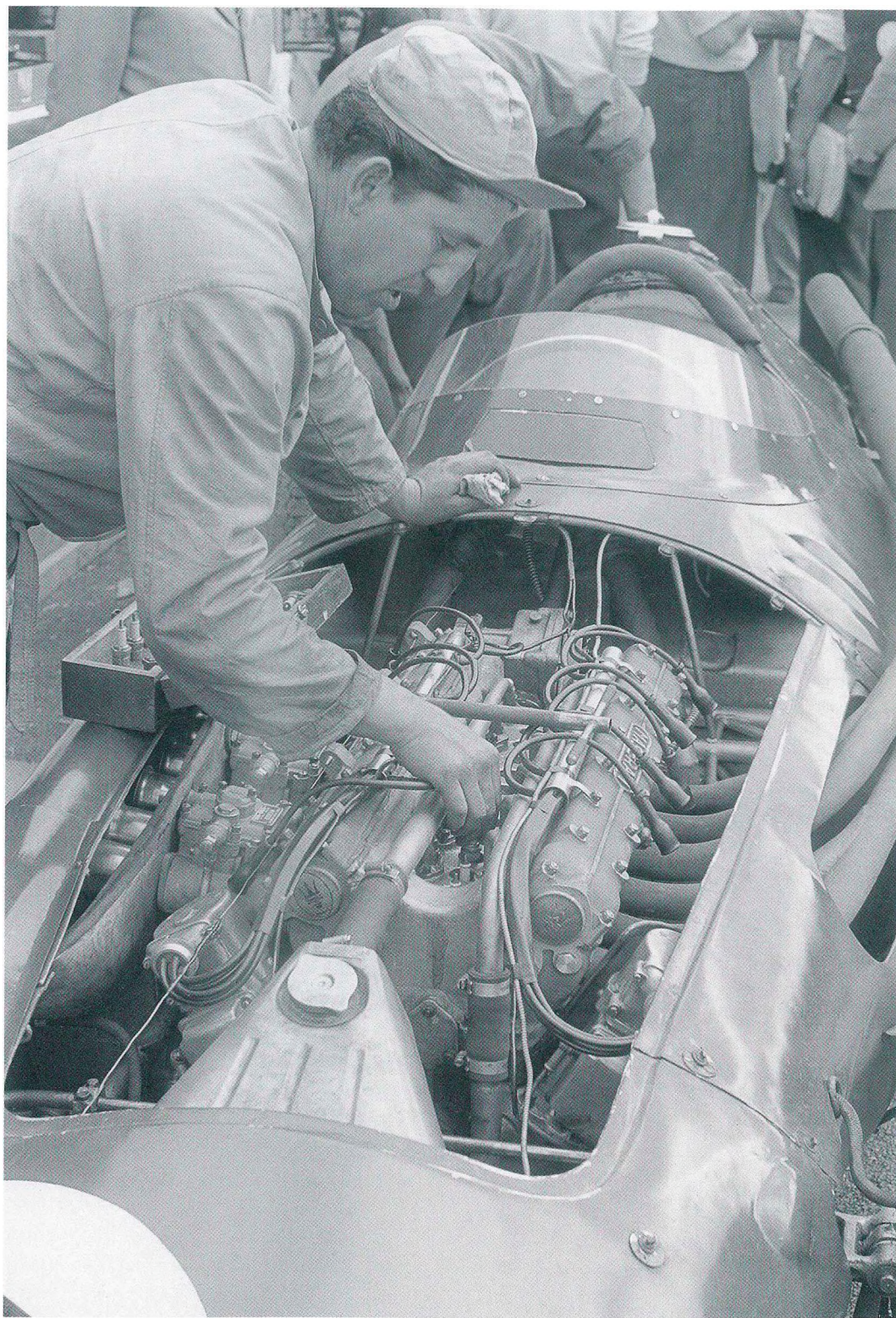
What had the makings of a close and exciting race was over. Fangio led for the remaining 101 laps of the race and consolidated his lead in the World Championship. Brooks finished second with his Vanwall, his left hand raw and bleeding because of the vast number of gear-changes needed on this circuit, and Kansan Masten Gregory

brought his *Centro-Sud* 250F across the line in third place, two laps in arrears. The other three works Maserati drivers all retired. Menditeguy had driven exceptionally well and had risen to third place, but crashed into a lamppost at the chicane on lap 51, suffering minor injuries that included a fractured nose.

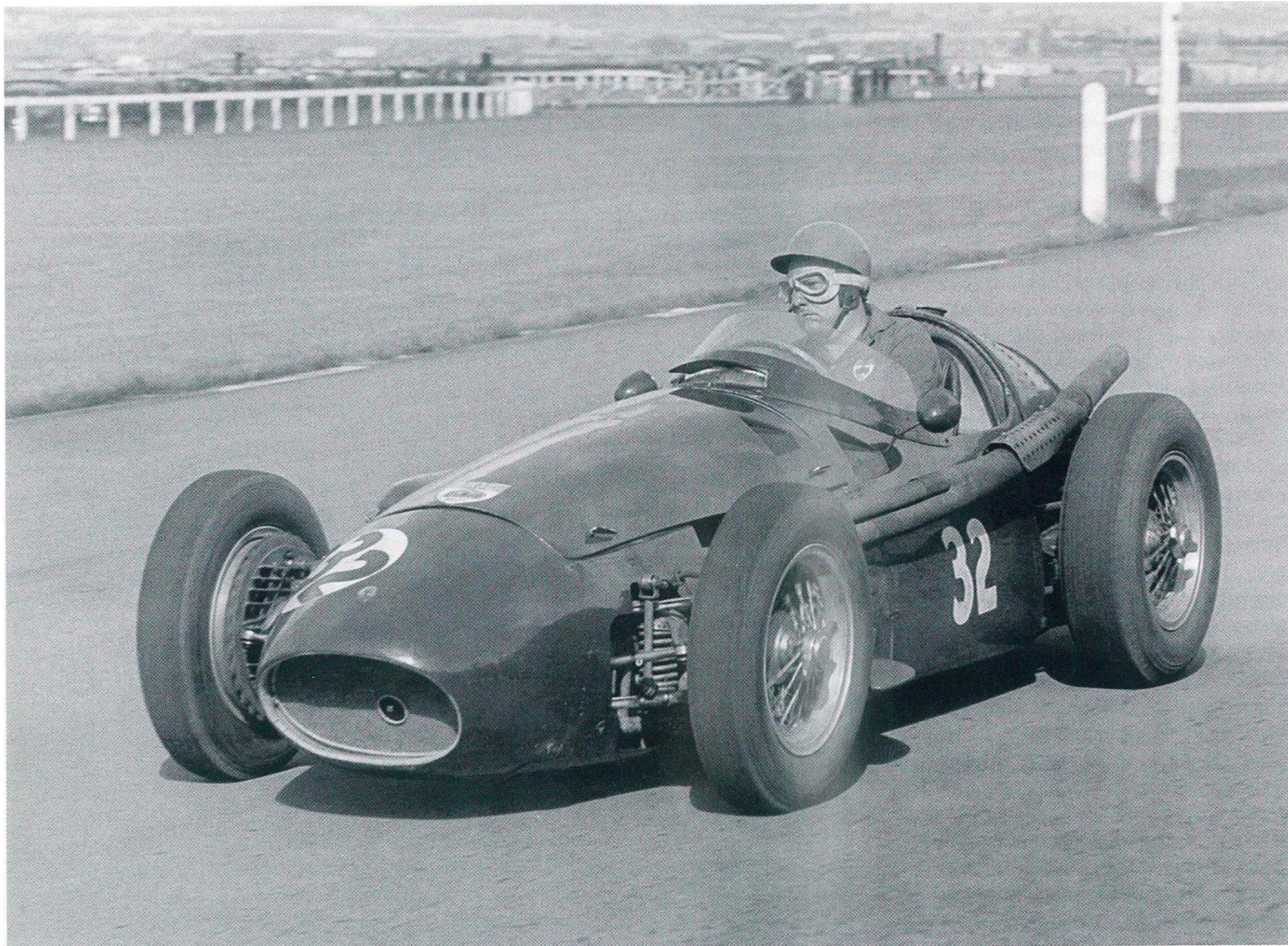
Formula 1 was in financial difficulties in 1957 and this resulted in the cancellation of both the Belgian and Dutch Grands Prix. There was however a new and short-lived addition to the calendar; the Monza 500 Miles race for the 'Two Worlds' Trophy' on the banked circuit on 29 June. The race, run to United States Automobile Club 256cu in (4,200cc) unsupercharged/170cu in (2,800cc) supercharged rules, was intended to provide a contest between European and American racing teams. Through the newly formed UPPI (Union of International Professional Drivers) most European drivers boycotted the race and ultimately the only European team to contest the event was *Ecurie Ecosse* with a trio of D-type Jaguars.

Maserati did however try to compete in the event and produced two cars, both of which Jean Behra drove during qualifying. The V12 Formula 1 car, chassis 2523, was fitted with the 3,490cc (73.8 x 68mm) V12 engine used by Hans Herrmann in the Mille Miglia, Halibrand magnesium-alloy disc wheels on modified Maserati hubs and 18-inch Firestone track tyres. In this form the car handled atrociously and was withdrawn. Maserati also produced a 450S sports-racing car with the engine having a shorter stroke of 75.8mm to give a capacity of 4,190cc. When one of these engines was supplied to Parravano in early 1957 it was said to develop 425bhp on alcohol fuel. This also suffered from handling problems and was withdrawn after a split rubber gaiter on a rear universal joint caused the pot-joint to seize up.

The next Grand Prix was the French race held on 7 July on the 4.06-mile (6.54km) Circuit des Essarts at Rouen, a circuit of fast



A Maserati mechanic works on the engine of Jean Behra's Lightweight 250F in the pits at Aintree before the 1957 European Grand Prix. (T.C. March)



A car that had seen better days: Ivor Bueb in the 1957 European Grand Prix with the Gilby Engineering 250F which was then in its fourth season of racing. Bueb finished ninth on the road, but was too far behind to be classified. (T.C. March)

curves, downhill swerves and with no straights of any real length. In addition to the three 'Lightweight' cars with the usual drivers, Menditeguy was at the wheel of 2501 and Maserati also brought along a new version of the V12, chassis number 2530. In most respects it was similar to the 1957 6-cylinder chassis, but spur gears behind the clutch lowered the line of the

transmission. A long, tapering nose cowl was fitted, an aluminium-alloy tray enclosed the carburettor intakes to act as a heat-shield from the engine, and sunken ducts replaced the bonnet-top air scoops. There was a strict limit on the number of starters at Rouen and the only private entrant accepted was Gould with his 250F.

Fangio and Behra dominated practice and

alongside them on the front row of the grid was Musso. Neither Moss (with sinusitis) nor Brooks (recovering from injuries suffered at Le Mans) was fit enough to drive and their places in the Vanwall team were taken by Roy Salvadori and Stuart Lewis-Evans. Fangio was firmly established in the lead by lap four and he gradually extended it, as he drove at top form, broadsiding through the downhill curves after the pits and switching from lock to lock as need be.

Towards the end of the race there were indications in the Maserati pit that Fangio

would have to stop for new tyres, but it was a feint and he carried on to win from Musso by a margin of 50 seconds, with Collins and Hawthorn in third and fourth places with their Lancia-Ferraris. Schell, whose engine had started to run rough, finished fifth and Behra, soaked in oil, stopped just short of the finishing line to push his car across into sixth place when Fangio took the chequered flag.

A week later, Maserati – and the other leading teams – contested the non-Championship 315-mile (507km) Reims Grand Prix. The European Grand Prix at Aintree was only a week away and while two of the 1957 cars were being overhauled at Modena, Maserati entered Fangio with one of the 1956 Monza cars in slightly modified form, Behra with 2501, Harry Schell with a 'Lightweight' car and also brought along two V12 cars, with the intention that one should be driven by Menditeguy.

One of the Maserati V12s was a new car with a chassis similar to that of the 1956 Monza cars with the engine offset and a diagonal prop-shaft. Behra was at the wheel of the new car when a piston broke and so choice was taken away. That nine private 250Fs were entered was indicative of the extent to which the model had become an established part of the Grand Prix scene. One of these was Swiss Count Ottorino Volonterio's car, which would have been driven by Herbert Mackay Fraser if he had not been killed at the wheel of a Lotus in the earlier Formula 2 race at this meeting.

Stuart Lewis-Evans, second fastest in practice with his Vanwall, led initially, chased by Musso and Fangio. The slim young Welshman fell back because an oil leak spread over his gloves and goggles, and Musso, Fangio and Behra all overtook him. The two Maserati drivers scrapped for second place until Fangio's brakes locked up at the Thillois hairpin, he aimed for the straw bales to slow the car, but they hid an earth bank and the World Champion was out of the race with wrecked front suspen-

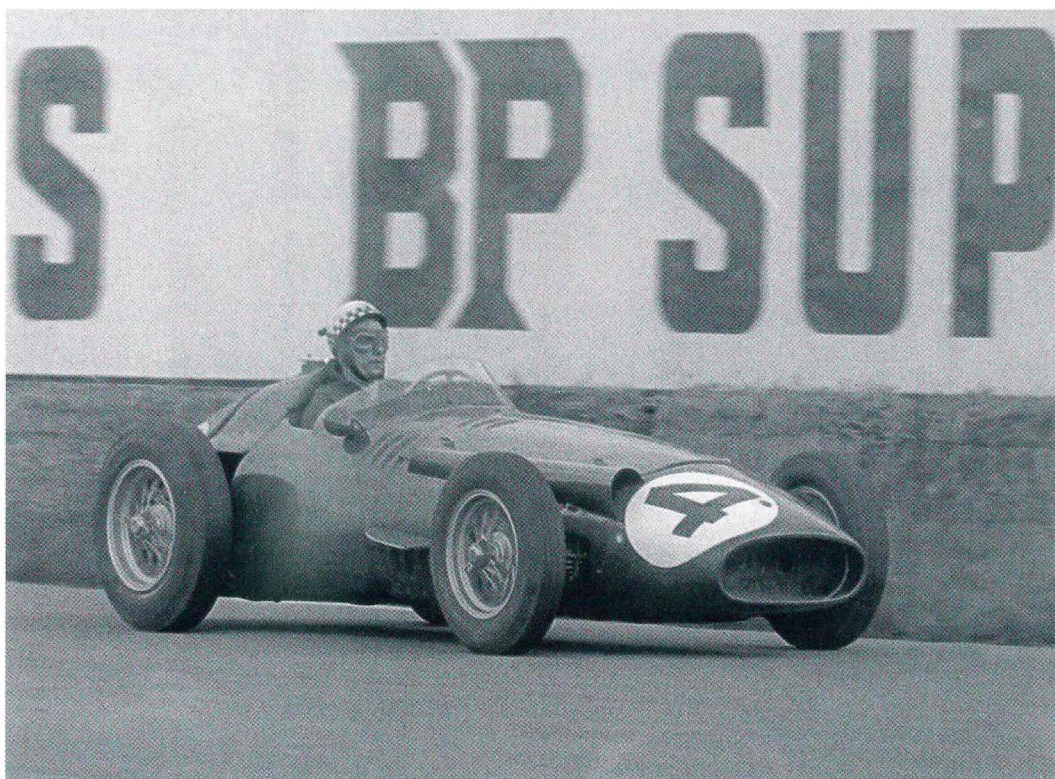
sion. Musso won from Behra, Lewis-Evans, Schell and Salvadori (with the second Vanwall). Menditeguy retired the V12 car because of gearbox trouble.

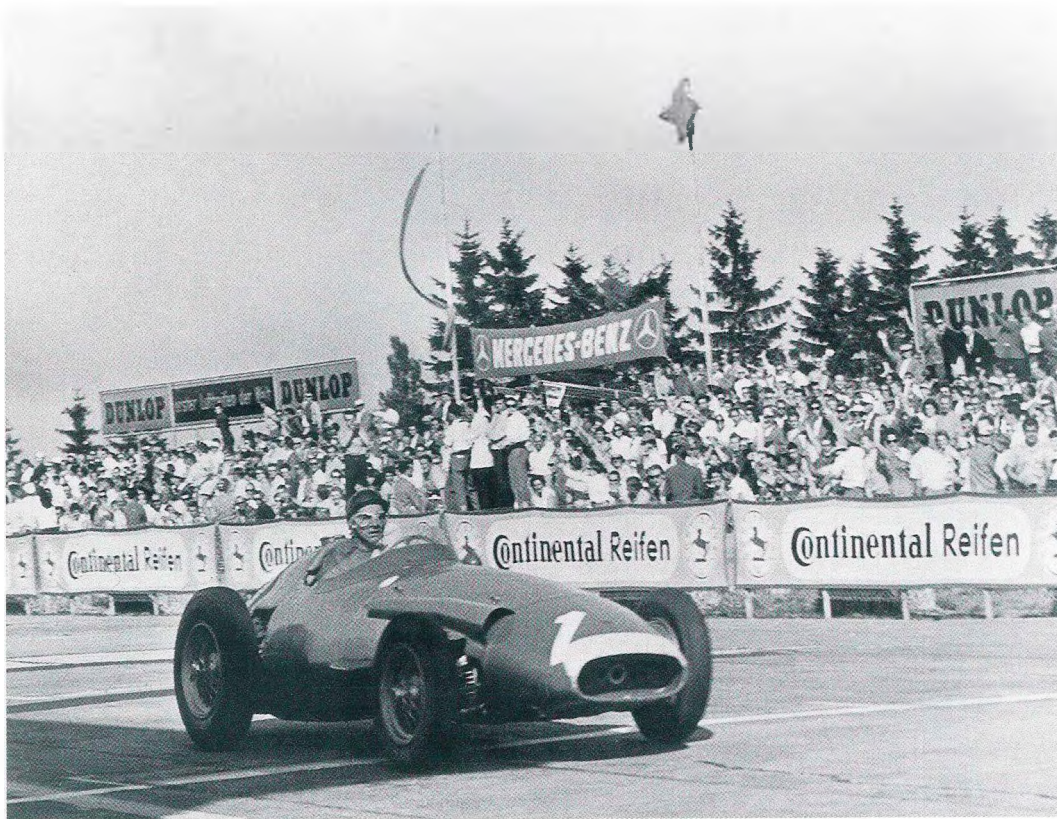
In the next two races Fangio's driving was to contrast strongly between mediocrity at Aintree, where he complained of aches following the Reims shunt, and complete supremacy at the Nürburgring. Moss, back at the wheel of the Vanwall, was fastest in practice for the 270-mile (435km) European Grand Prix at the Liverpool circuit on 20 July and he led until the end of lap 22 when he pulled into the pits because of an engine misfire. Behra now led from Hawthorn and Collins, while Fangio, in seventh place, carried on until lap 49 of this 90-lap race when he retired because of engine trouble. Brooks had not fully recovered from his Le Mans crash and on lap 26 came in to the pits to hand over to Moss.

Moss had resumed the race in ninth place and then began a furious, 'against the odds' chase of the leaders. When Collins retired his Lancia-Ferrari because of a water leak on lap 53, Moss moved up into fourth place, but it seemed to be Behra's day and he looked uncatchable. Just as Moss was about to take third place from team-mate Lewis-Evans, the clutch on Behra's Maserati disintegrated completely, spreading bits of metal over the track.

Hawthorn punctured a tyre on the debris and headed into the pits and Moss and Lewis-Evans were now in first and second places. Lewis-Evans stopped out on the circuit because a ball-joint in the throttle linkage had become disconnected, but he resumed the race, only to be disqualified for not refitting the bonnet panel. Moss had time for a precautionary refuelling stop and went on to win by nearly 36sec from Musso

Never a lucky driver, Jean Behra was leading the 1957 European Grand Prix with his Lightweight 250F and seemed assured of victory when the clutch disintegrated. He failed to win a single World Championship Grand Prix before he was killed at Avus in August 1959. (T.C. March)





Another of Juan Fangio's greatest drives came in the 1957 German Grand Prix at the Nürburgring where he trounced the Lancia-Ferraris and substantially reduced the lap record. Here he crosses the start/finish line. It was Fangio's last World Championship race victory.

(Lancia-Ferrari). Other Lancia-Ferraris driven by Hawthorn and Trintignant/Collins took third and fourth places. Moss and Brooks had achieved the first *Grande Epreuve* win by a British car since Segrave's victory with a Sunbeam at Tours in 1923. It was a bad day for Maserati and the sole 250F to finish was the old Gilby car driven into ninth and last place by Ivor Bueb, but too far behind to be classified.

There were no works Maseratis in the 186-mile (300km) Caen Grand Prix on 28 July and so Behra was free to drive a BRM. He won from Salvadori (Cooper-Climax) and Bruce Halford with his private Maserati. The works Maserati team next appeared in the German Grand Prix at the Nürburgring on 4 August. The usual three 'Lightweight' cars were driven by Fangio, Behra and Schell, while Scarlatti was at the wheel of

2501. Facing Modena were two Vanwalls for Moss and Brooks and four Lancia-Ferraris. In practice Fangio took pole position, slashing the lap record for the 14.17-mile (22.81km) circuit from 9min 41.6sec to 9min 25.6sec. The Vanwalls were uncompetitive on this circuit because the team had never raced there before and had been unable to set up the suspension to suit it.

Maserati sometimes favoured the half-full tank approach, which rarely paid off, as it was usually not possible to build up a sufficient lead to compensate for the time lost in making a pit stop. Although they adopted it at the Nürburgring and Fangio won, he would certainly have won in any event if he had started the race with a full tank and run through on the one set of rear tyres. Fangio did not take the lead until the third lap, steadily reduced the lap record and he

pulled into the pits at the end of lap 11 with a lead of 28 seconds. While his car was topped up with fuel and fitted with new rear tyres, Fangio dropped to third place, around a minute behind Collins and Hawthorn with Lancia-Ferraris.

During the next three laps Fangio made little dent in the deficit on the leaders, but then he began to close up at the rate of 8–9 seconds a lap, breaking the lap record several times and finally reducing it to 9min 17.4sec – 91.53mph (147.36kph). By the start of lap 21 of this 22-lap race, he passed the pits about 100 yards behind the leading Ferraris and by halfway round that lap he was in the lead. At the finish he was 3.6sec ahead of Hawthorn, with Collins third, Musso fourth, Moss fifth and Behra sixth. Schell took seventh place and Scarlatti finished tenth. In Fangio's long career there were many outstanding performances, especially with the blown Alfa Romeos in 1950–51, so it is unfair to describe this drive as his greatest, but it was certainly one of the most outstanding.

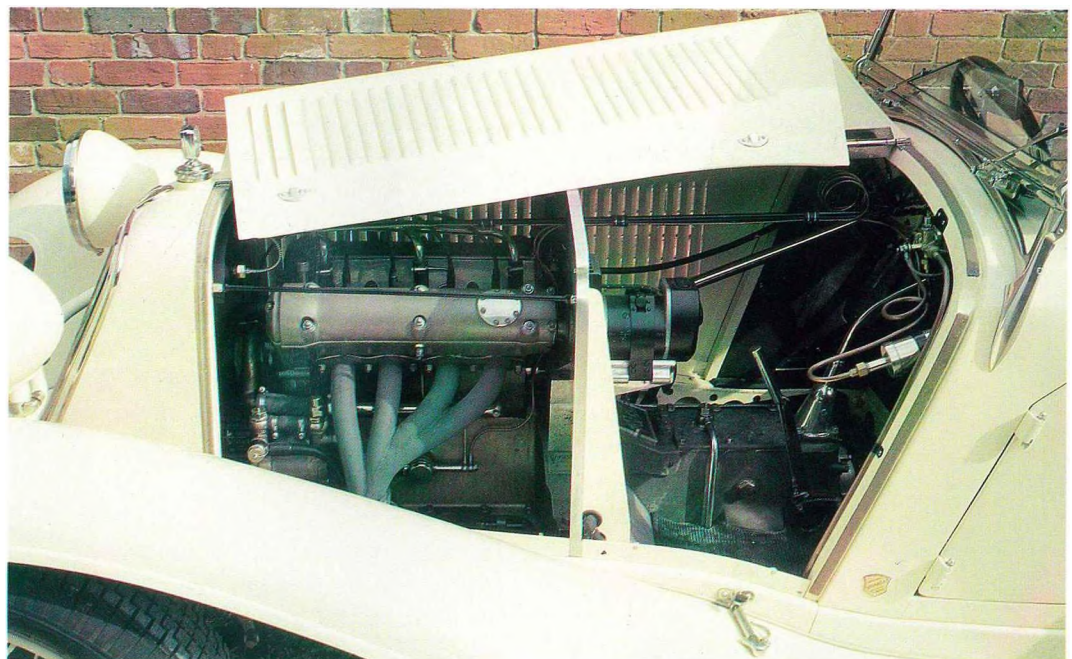
As a result of the cancellation of the Belgian and Dutch races, Italy was allowed to stage a second Championship race in 1957. This was the 286-mile (460km) Pescara Grand Prix held on 18 August over the daunting 15.9-mile (25.6km) road circuit. The race was to prove near enough a straight fight between Maserati and Vanwall, as Ferrari had – only with great reluctance – sent only a single car for Musso. He was still under pressure from the authorities enquiring into de Portago's fatal crash in the Mille Miglia and had wanted to miss the race. The usual Maserati drivers handled the usual cars and the latest V12 car, 2531, appeared in practice. It is known that Maserati used nitro-methane fuel additive from time to time on the 250Fs and there is little doubt that Fangio was running on it when he set fastest lap at Pescara in 9min 44.6sec. Moss recorded 9min 54.7sec and they were the only two drivers to break ten minutes.

Musso led for the first of the 22 laps,



Above: Very Mille Miglia. Tony Merrick has only recently completed the restoration of this Tipo 4CS-1100 Maserati which was probably the first of the type to be built. It was sold in chassis form to the Rome Maserati agent, De Silva. It was bodied by Brianza, the name adopted and used by Zagato for three years after that company's financial collapse and prior to refinancing in 1933. It was exhibited at the 1932 Milan Show.

Right: A view of the 4-cylinder supercharged engine of the 4CS-1100. By 1938 this car was fitted with a single-seater body and was being raced by Count Luigi Castelbarco. It later went to Eritrea, was found during the British occupation in the Second World War, by when it again had a two-seater body, and was brought back to the UK.

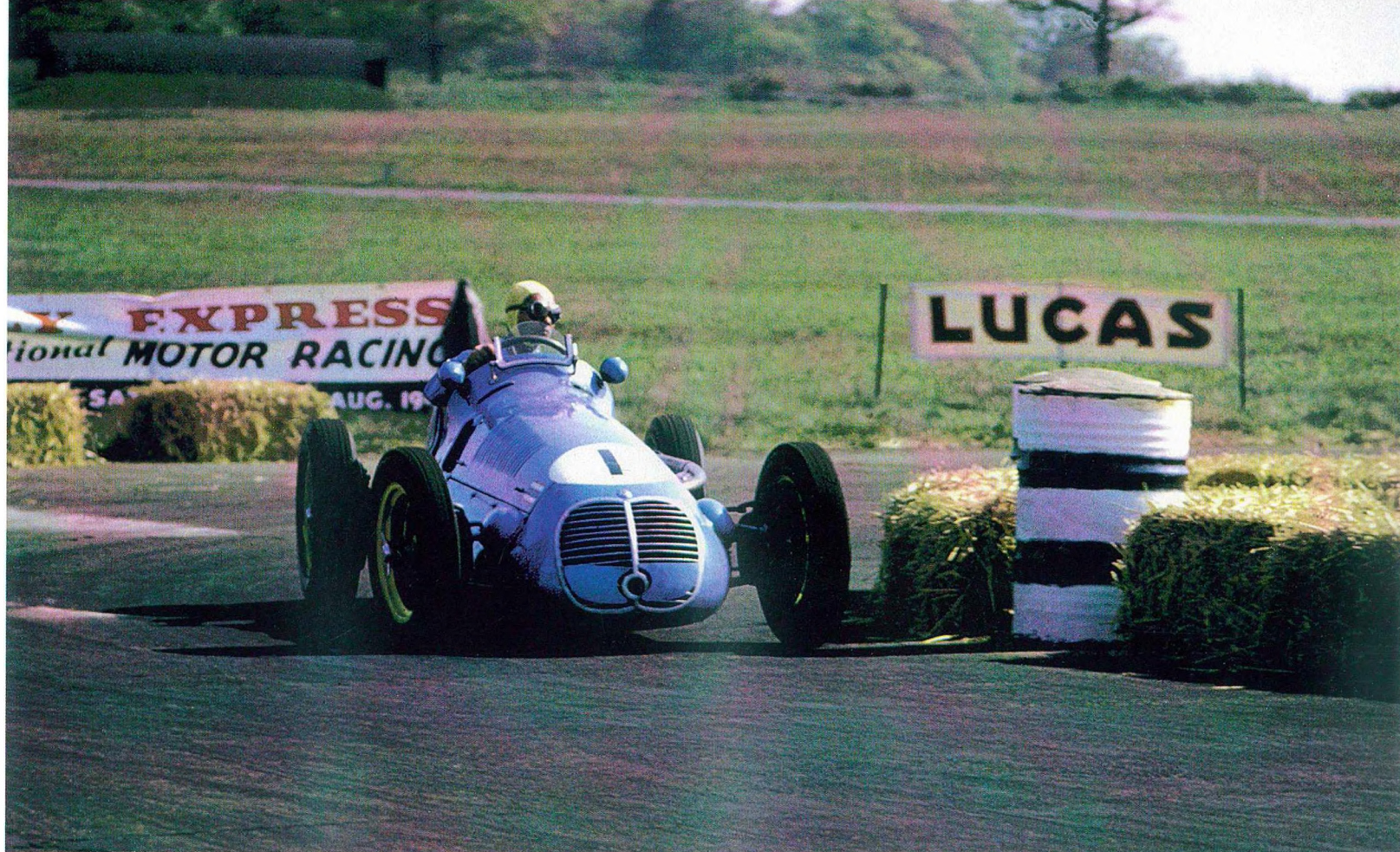




One of a number of allegorical advertisements published by Maserati in 1940–41. This 1941 advertisement shows the range of Maserati products: racing car and the projected GT car; sparking plug and battery; and milling machine. The two chimneys top left represent those of Orsi's steel factory in the Viale Ciro Menotti opposite the car factory.

Opposite above: Prince Bira with his 4CLT/48 San Remo in the 1949 British Grand Prix at Silverstone. He was leading the race with his Plate-entered car, but overshot a corner and buckled his front suspension. (Guy Griffiths)

Opposite below: The Plate-Maserati was a largely unsuccessful attempt by Enrico Plate to rebuild 4CLT/48s as 2,000cc unsupercharged Formula 2 cars. Emmanuel de Graffenried is seen with his Plate-Maserati in the 1952 International Trophy at Silverstone. On this occasion the car went well and he finished third behind two HWMs. (T.C. March)





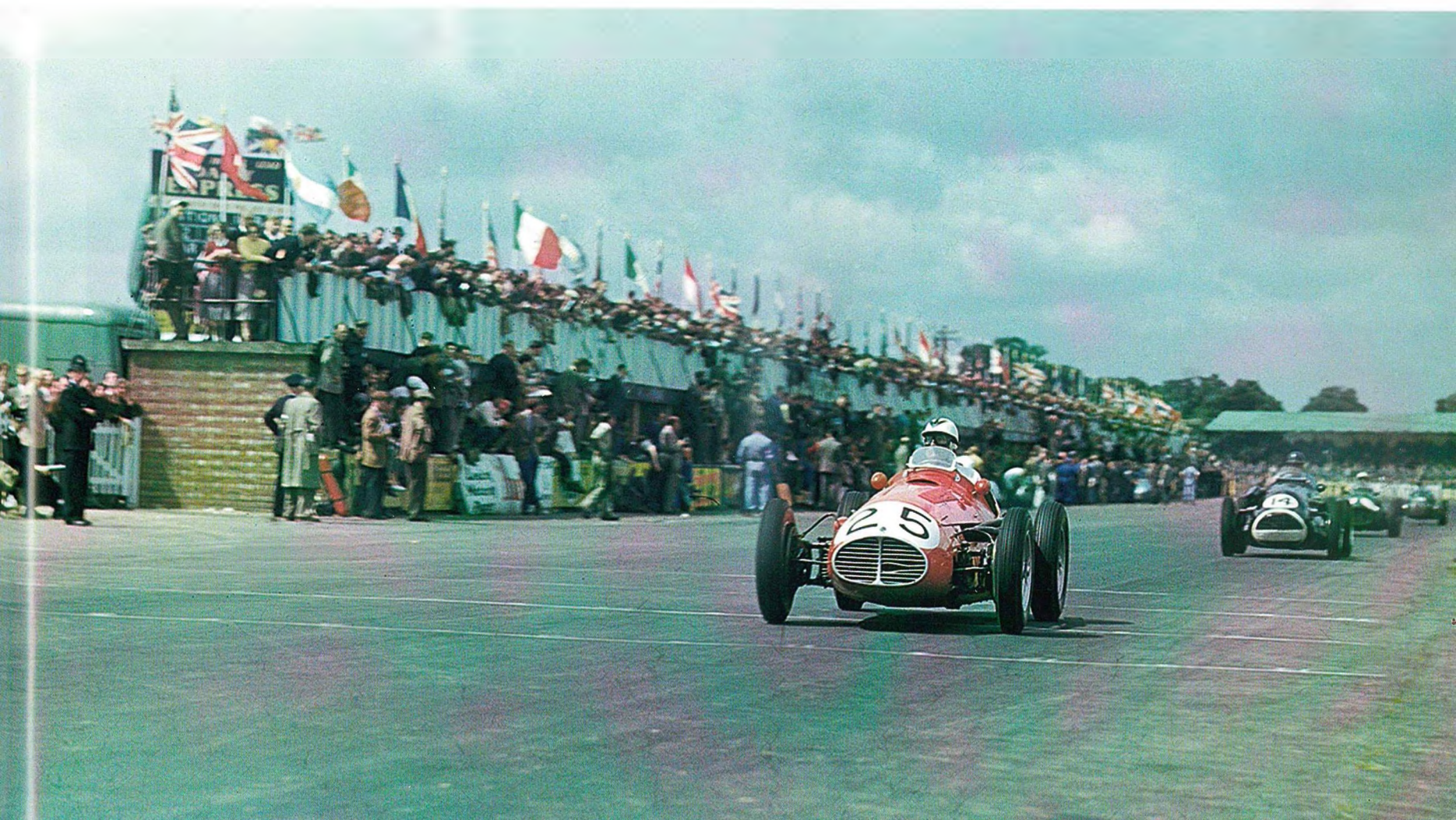
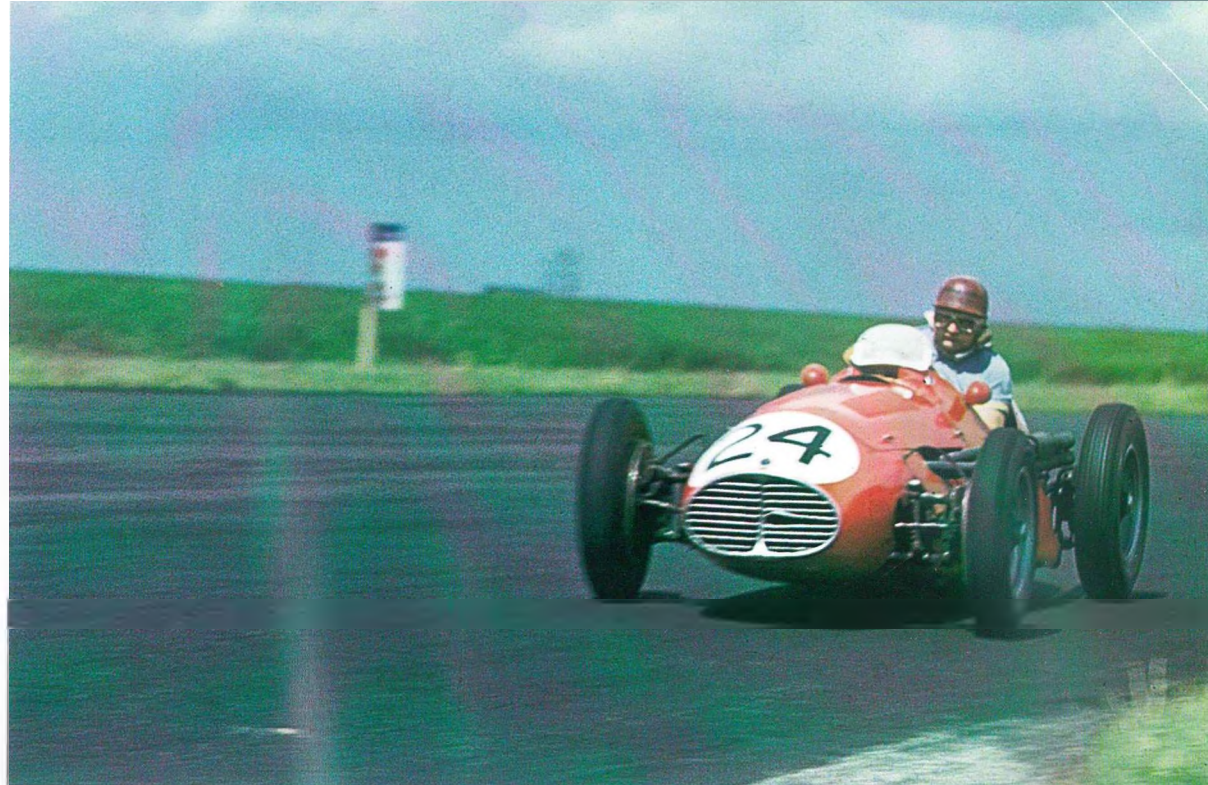
Left: 'B. Bira' with a 1952 AGCM entered by the Autosport team in the 1953 International Trophy race. It was out of character for the Siamese Prince to drive anything but the latest Maserati available to private owners. He finished fourth. (T.C. March)

Below: Emmanuel de Graffenried at the wheel of his private A6GCM before the start of the 1953 British Grand Prix at Silverstone. Although Toulo had a good season in 1953, he was out of luck in this race. After being plagued by a misfiring engine, he retired because the throttle pedal broke off. (T.C. March)



Right: Argentinian Froilan Gonzalez is seen with his works A6GCM in the 1953 British Grand Prix and despite being black-flagged for allegedly dropping oil, he finished fourth. He was a fine, but often underrated, driver. (T.C. March)

Below: Felice Bonetto was a works Maserati driver in 1952-53. With this A6GCM he finished sixth in the 1953 British Grand Prix. Here he is leading Tony Rolt (Connaught). (T.C. March)



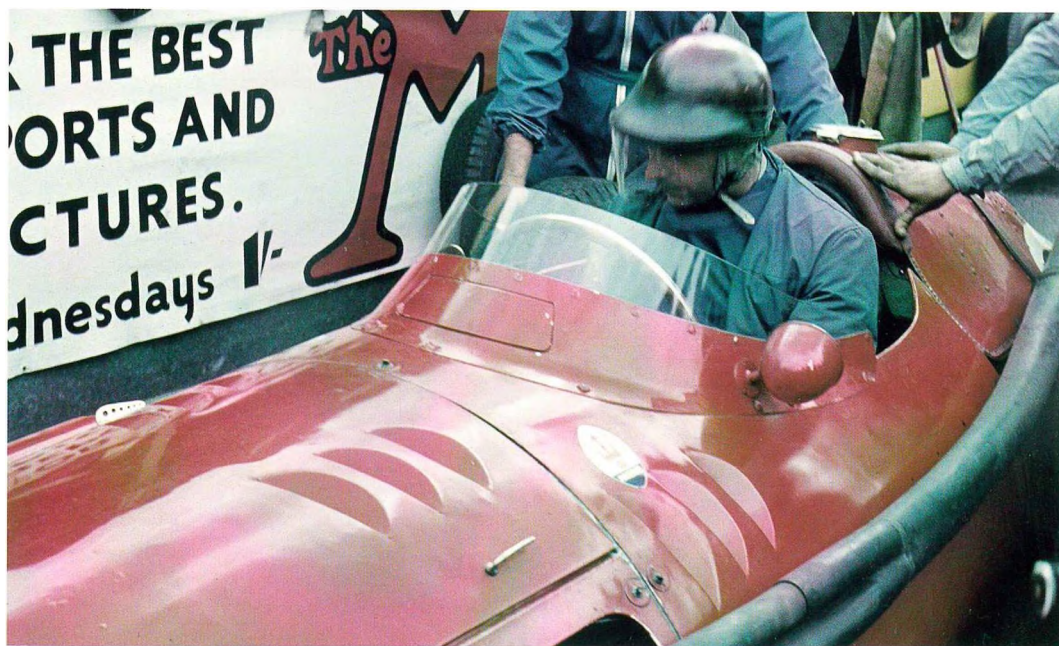




Above: At the 1957 European Grand Prix at Aintree the Maserati mechanics get ready to push one of the 'Lightweight' 250Fs out to practice. (T.C. March)

Right: Reigning World Champion Juan Fangio at the wheel of his 'Lightweight' Maserati 250F at the 1957 European Grand Prix at Aintree. (T.C. March)

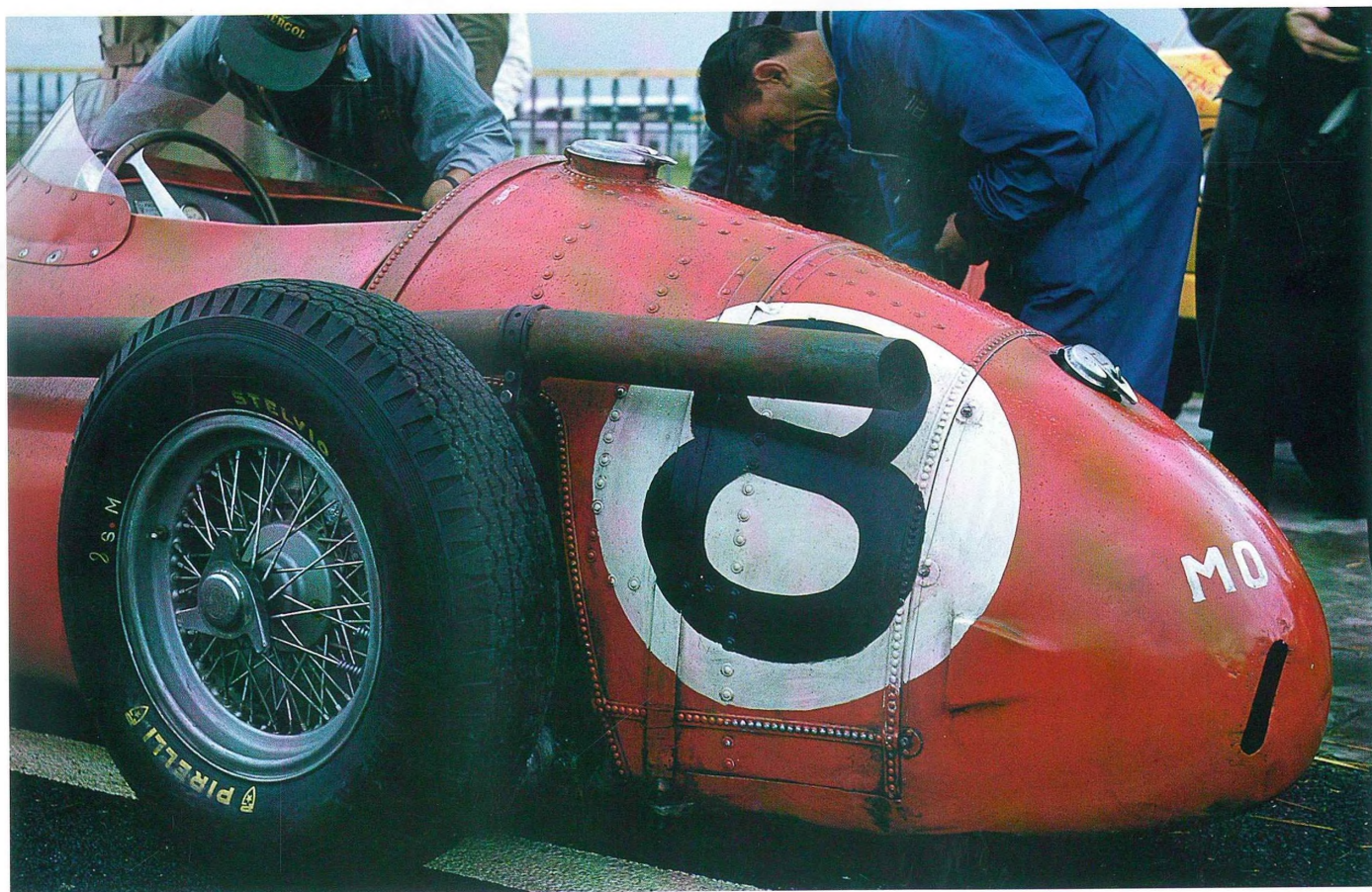
Opposite: In the 1955 International Trophy at Silverstone there was a strong entry that included works Connaughts and Vanwalls, together with private Maseratis. The race turned into a duel between Roy Salvadori (Gilby Engineering 250F), seen leading here, and Peter Collins (Owen Organisation 250F) who won. (T.C. March)

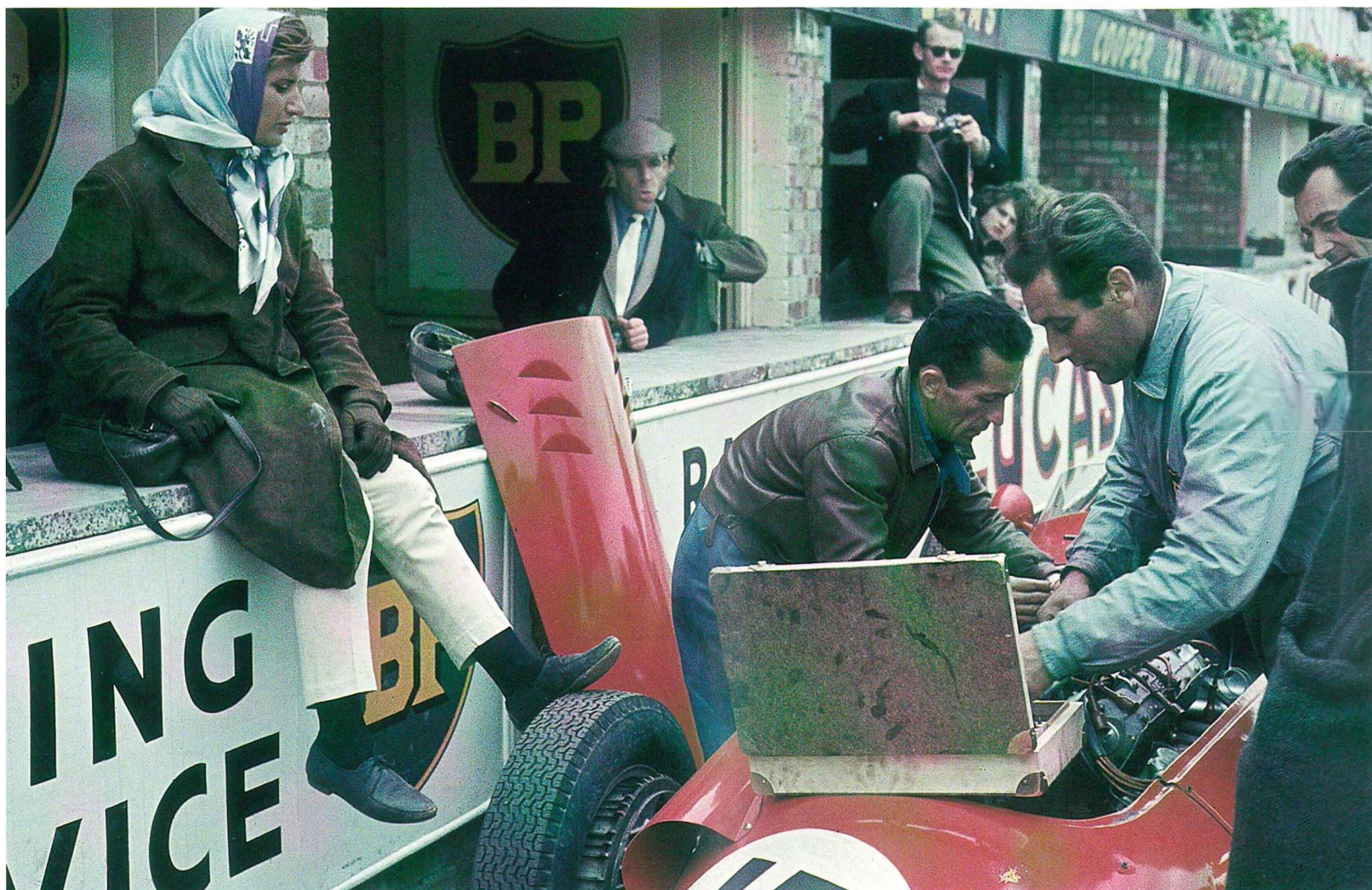




Left: The mechanics work on a 'Lightweight' 250F at the 1957 European Grand Prix at Aintree. (T.C. March)

Below: A tail view of the 1956 250F entered by the works for Carlos Menditeguy at the 1957 European Grand Prix at Aintree. (T.C. March)





Above: Changing the plugs on Scarlatti's Lightweight 250F at the 1958 International Trophy at Silverstone. The wooden plug box on the 250F was of the type used by most Continental teams in the 1950s and often identified the driver to whose car it related. (T.C. March)

Right: Masten Gregory in the 1958 International Trophy at Silverstone with a 250F entered by Scuderia Centro-Sud. This car, 2511, is painted in a semblance of American racing colours. Gregory, a very fast driver, finished third behind Collins (Ferrari Dino) and Salvadori (Cooper-Climax). (T.C. March)



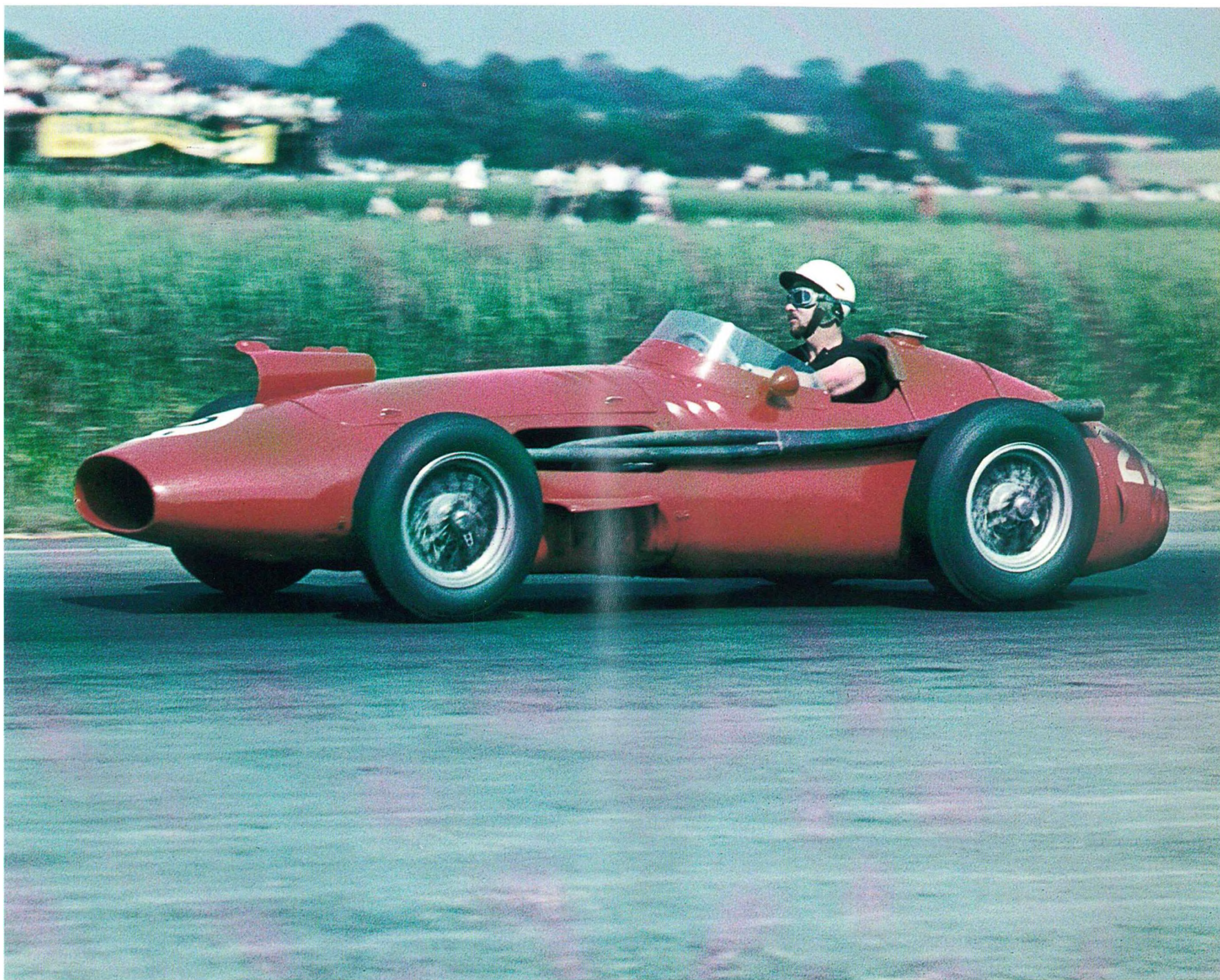


In the 1958 International Trophy at Silverstone, Giorgio Scarfiotti with his Lightweight 250F, 2529, leads the Formula 2 Cooper-Climax of Stuart Lewis-Evans. Scarfiotti retired because of rear suspension problems. (T.C. March)

Opposite: Another 250F entered by Scuderia Centro-Sud in the 1958 International Trophy was chassis 2522 driven by Wolfgang Seidel. Although the 250Fs entered by this team were often 'old nails', they had late engines developing around 270bhp. Seidel's car was not running well and he finished at the tail of the field in 17th place. (T.C. March)



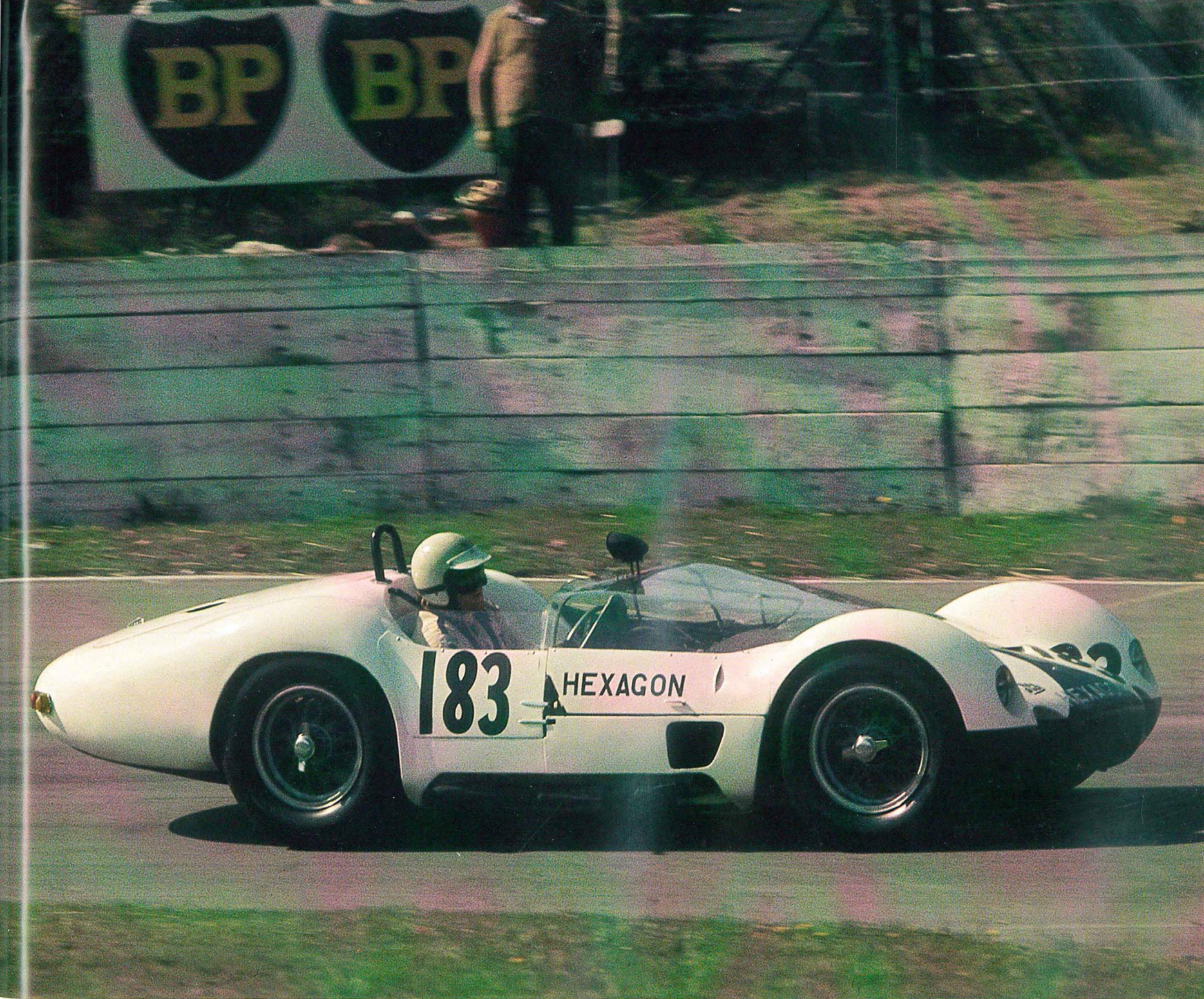




Joakim Bonnier with his private 1956 250F in the 1958 British Grand Prix at Silverstone. The bonnet-top air-intake appears to be detaching itself. He retired because of gearbox trouble. (T.C. March)

Opposite: Joakim Bonnier's mechanic pushes 2524 out to the start of the 1958 British Grand Prix at Silverstone. (T.C. March)





Nick Faure with the Hexagon-owned T61 'Bird-cage' in 1972. This car is fitted with the long sloping windscreen and longer, more aerodynamic tail used at Le Mans. (Author's Collection)

Opposite: Willie Green with a T61 2.8-litre 'Bird-cage' Maserati on his way to a win in the round of the JCB Historic Championship held at Silverstone in April 1972. (Author's Collection)



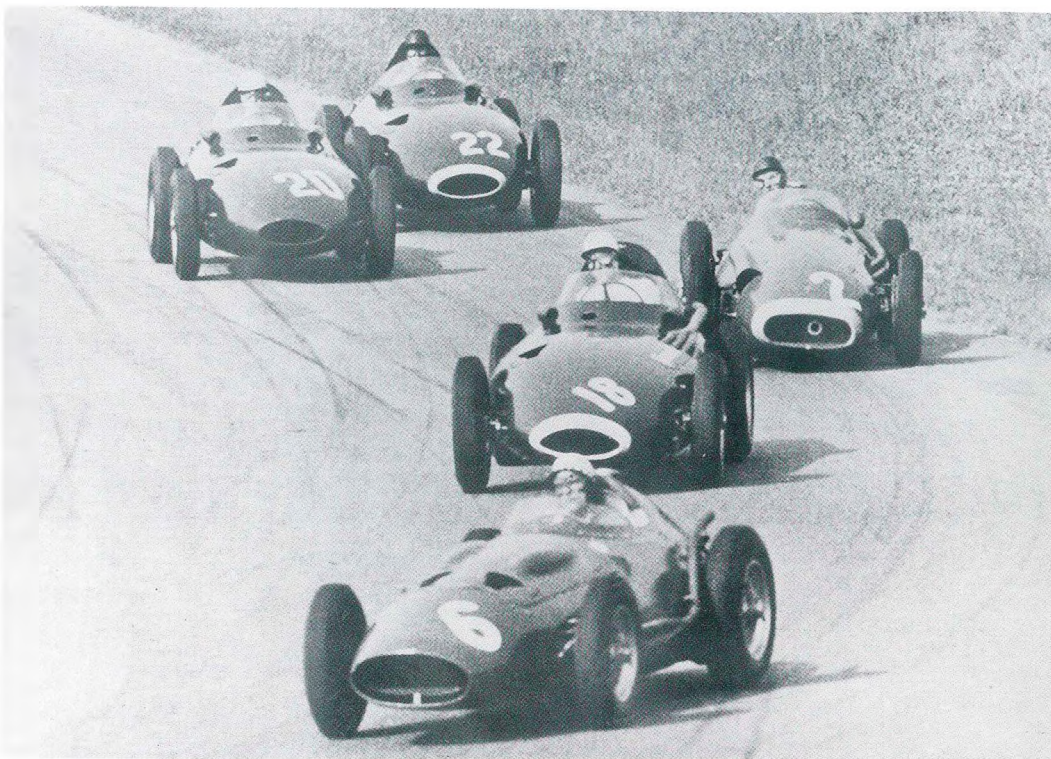
This photograph of Pedro Rodriguez at Spa in 1967 with the T81 Cooper-Maserati gives a good view of the four overhead camshaft Maserati V12 engine fitted to these cars. At half-distance he held third place, but he retired because of a broken piston and was classified ninth. (Author's Collection)

then Moss went ahead. Musso chased Moss hard, but Fangio, in third place, steadily lost ground. Behra was out of the race on lap four because of engine trouble. On lap nine Musso retired because of a split oil tank, depositing oil all over the track; Fangio spun on the oil and buckled two wheels. He made his way back to the pits, the wheels were changed, but at the flag he was over three minutes behind Moss. Schell finished third and Masten Gregory was fourth with a *Scuderia Centro-Sud* 250F. The Vanwall team had now found the reliability to match the speed of their cars.

So the teams moved on to Monza for the 311-mile (500km) Italian Grand Prix on 8 September, the last round in the Championship and held on the road circuit only. Since Pescara the latest V12 car had been extensively tested and it was entered for Jean Behra, while Fangio and Schell drove their usual cars and Scarlatti was at the wheel of 2501. The three Vanwalls were fastest in practice and Fangio joined them on the front row of the starting grid. In practice both Fangio and Behra drove the V12 with great élan and they were cornering in long slides, with the engine screaming at high revs and the wheels spinning. Behra was fifth fastest in 1min 43.4sec, a second slower than Lewis-Evans in pole position. Before the race a priest, wearing an official Maserati armband, blessed the works 250Fs.

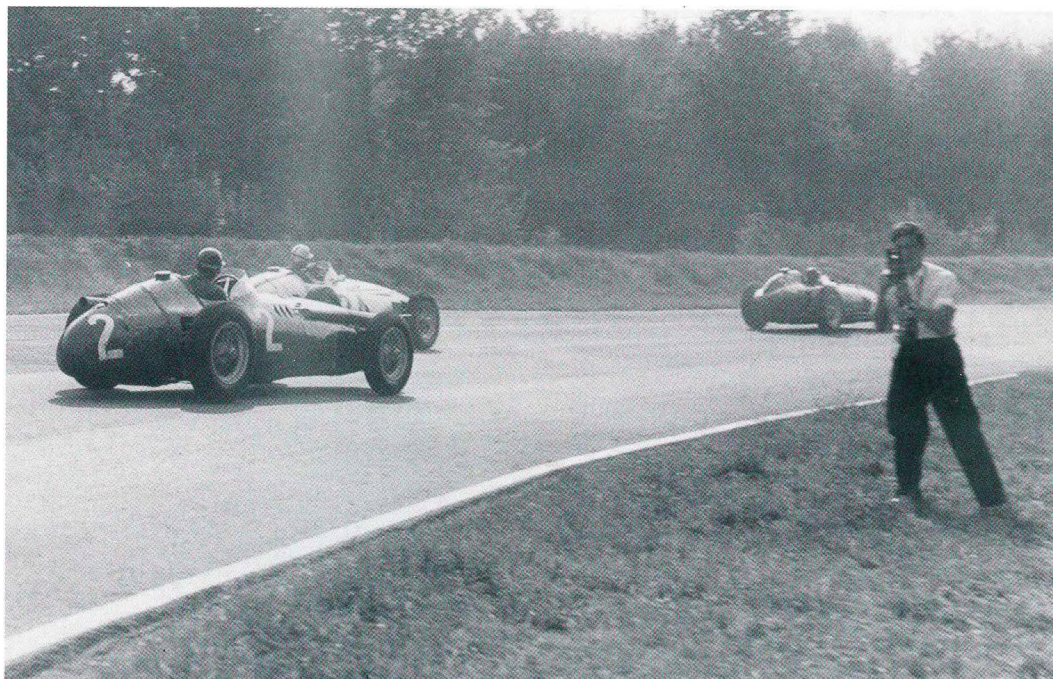
In the opening laps there was a furious battle between the Maseratis and the Vanwalls, Moss and Behra swapped the lead several times, Fangio went ahead, then Moss re-passed him, established himself in front and stayed there for the remainder of this 87-lap race. Both Lewis-Evans and Behra retired and Brooks lost time in the pits because of a jammed throttle on his Vanwall. At the finish Moss led Fangio by 41.2seconds, von Trips (Lancia-Ferrari) took third place and Gregory was fourth with his *Centro-Sud* 250F. Fangio won his fifth World Championship with 40 points to the 25 of Moss.

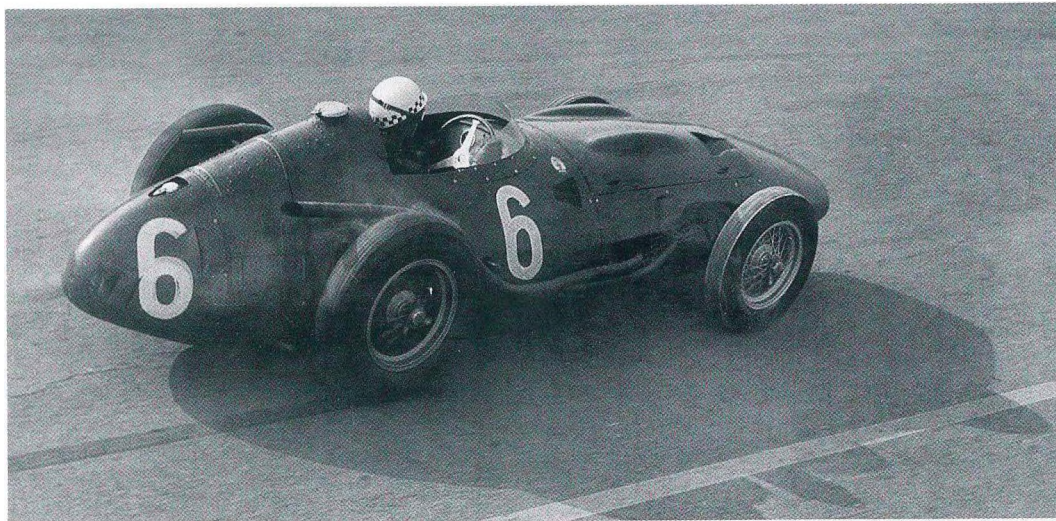
There remained three minor races before



In the 1957 Italian Grand Prix at Monza, Jean Behra with the V12-engined Maserati 250F leads Moss (Vanwall), Fangio, Lewis-Evans (Vanwall) and Brooks (Vanwall).

In the Italian Grand Prix Fangio, who finished second behind Moss (Vanwall), comes up to lap Bonnier (Scuderia Centro-Sud 250F) and Collins (Lancia-Ferrari).





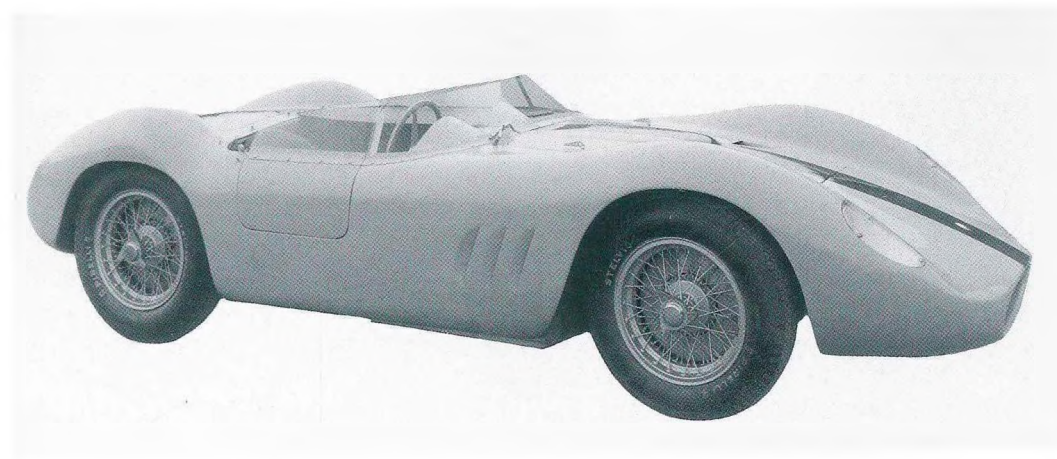
Another view of Behra in the 1957 Italian Grand Prix with the very powerful, but difficult-handling V12-engined 250F. He led on several laps early in the race, but retired because of engine failure at a little after half-distance.

the Formula 1 season ended. The International Trophy at Silverstone had been postponed from its usual date in May to 14 September, the result of the Suez crisis in late 1956 and the ensuing petrol rationing in Britain. The race had reverted to its original format of two qualifying heats and a final. The Vanwalls non-started and the Italian works teams failed to enter, so the results were dominated by BRM who took first three places in the final. Behind them

came Joakim Bonnier and Masten Gregory with their *Scuderia Centro-Sud* 250Fs.

Maserati entered four cars in the Modena Grand Prix held in two 40-lap heats on the *Aeroautodromo* on 22 September. Fangio was to have driven a Maserati, but non-started after a road accident on the way to the circuit. In both heats Behra, Musso (with the new V6 Ferrari in 2-litre form), Schell, Collins (with another V6 Ferrari) and Scarlatti took the first five places and

Maserati had first introduced the 4-cylinder 1,993cc Tipo 200S in 1956, but the following year announced this improved Tipo 200SI model with sleeker body, ducted radiator and an increased power output of 190bhp at 7,800 rpm.



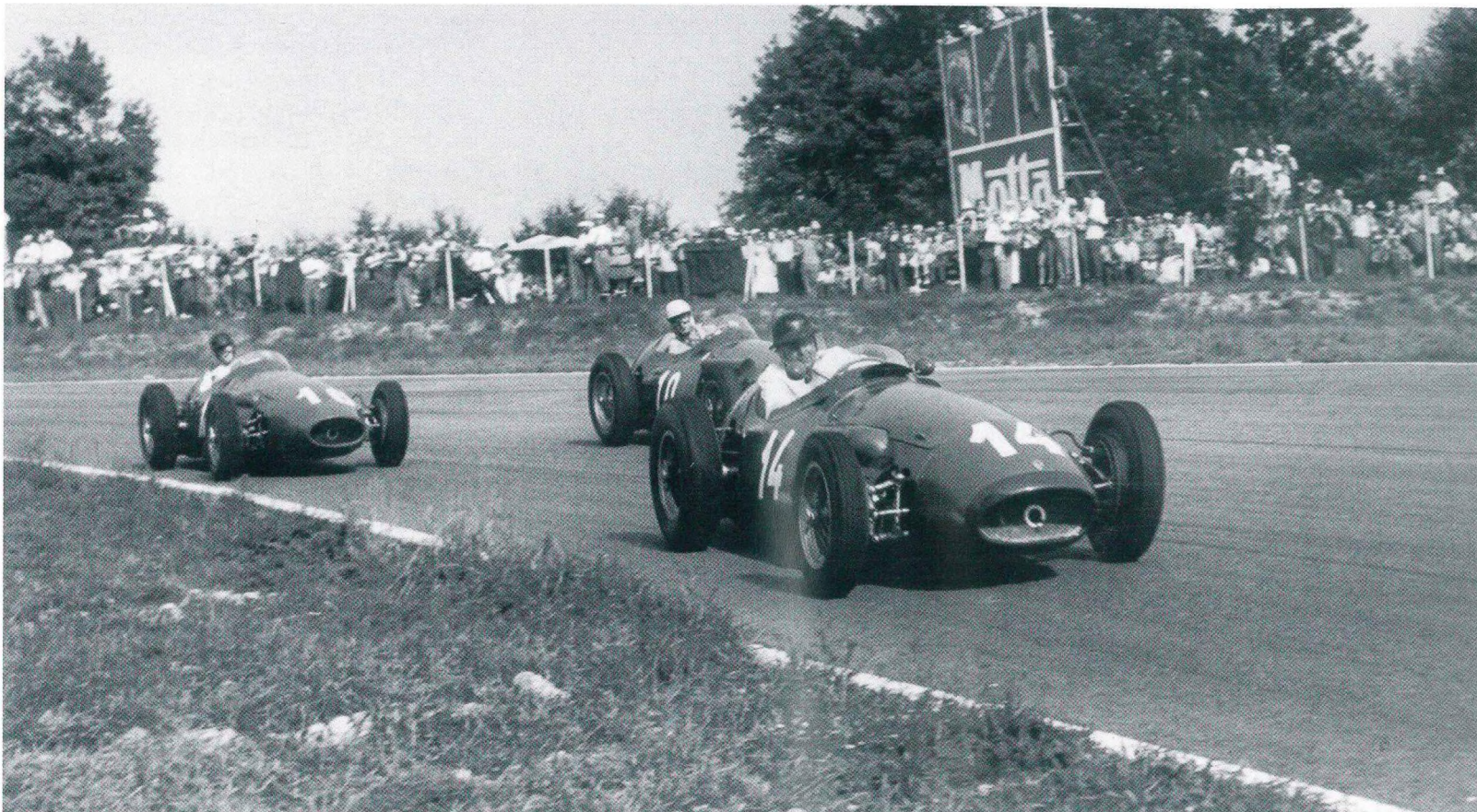
these were, of course, the results on aggregate. It was a very dull race.

The final Formula 1 race of the season was the 261-mile (420km) Moroccan Grand Prix held at Casablanca on 27 October and if the event was successfully organised, the race was to be a round in the World Championship in 1958. Maserati entered the usual four cars for the usual four drivers, there were the three Vanwalls and two of the V6 Ferraris; in 2.4-litre form for Collins and 2.2-litre form for Hawthorn. Moss non-started after he developed influenza during practice and Fangio, Collins, Hawthorn and Schell were all suffering from flu symptoms to a greater or lesser extent. Although Collins led initially, Behra went ahead on lap 8 and stayed in front for the remainder of the race to win from Trintignant (BRM) and Fangio who had spun off and been push-started.

The Sports Car Year

That the 300S was a great success was undoubted, but it lacked the power and speed to win major sports car events. Maserati were determined to rectify this situation and there was, in effect, a two-stage development programme. The first stage was the Tipo 350S that appeared in 1956 and has been described earlier. The chassis of this model was intended to be used for the new Tipo 54 or 450S model on which engine development had started in 1956.

Engineers Ascari and Taddeucci carried out most of the work on the 90-degree V8 engine of 4,477cc (93.8 x 81mm) with twin overhead camshafts per bank of cylinders driven from a train of gears at the front of the crankshaft. Technically, Alfieri was in overall control, but both Colotti and Taddeucci resented having to follow the young man's instructions. Despite this friction, there was close liaison between Alfieri and Taddeucci and there were long discussions about the configuration of the crank-



shaft. Testing had started with a crankshaft designed by Alfieri, but this proved unsatisfactory and Taddeucci's design was adopted. Alfieri was, in the opinion of Ermanno Cozza's who had worked for Maserati since 1951, a great theorist but not as practical as other Maserati engineers.

The cylinder head design of the 450S had much in common with that of the 200S. The inlet ports were in the 'vee' of the engine and four Weber 45IDM carburettors were fitted. There were two sparking plugs per cylinder, with one set of plugs fired by a magneto driven from the gear train of the left bank of cylinders and the other fired by a pair of coils and a distributor driven from the gear train of the right bank of cylinders. The exhaust manifolds fed into twin tail-pipes on each side of the car and then into small expansion boxes and exit pipes immediately ahead of the rear wheels. Power output was about 400bhp at 7,500rpm.

A trio of private Maserati owners in the 1957 Italian Grand Prix. Horace Gould leads Francesco Godia-Sales and Bruce Halford. Halford retired, but Godia-Sales and Gould finished at the tail of the field in ninth and tenth places. The photograph emphasises the large number of private 250Fs competing in Grand Prix racing at this time.

The first blocks of the 450S engine were cast in April 1956 and the first completed engine was installed in the chassis of the 350S driven by Moss in the 1956 Mille Miglia. The 300S body was retained and this resulted in a very high bulge in the bonnet to clear the carburettors. At this stage there were four stub exhausts each side that emerged just behind the front wheels. This car was taken to Anderstorp in August and tried in practice for the Swedish Grand Prix. Although the 450S prototype proved largely trouble-free, the standard 300S brakes were hopelessly inadequate.

Work then started on a new chassis, which was of neater construction, and a new body was built. Much improved brakes

with larger, heavily ribbed drums were fitted. There were slots at the front of the rear wings to feed air to the brakes and to allow inspection of the tyre treads. As with all sports-racing Maseratis that followed the A6GCS, right-hand drive was fitted. The main fuel tank was in the tail with an auxiliary tank to the left of the gearbox/final drive unit, and the tank for the dry sump system to the right.

It is believed that around ten or eleven cars were built, with chassis numbers between 4501 and 4520. Chassis number 4502 was delivered to Tony Parravano in California and he was also supplied with spare 4.2-litre and 4.7-litre engines, the former for possible use at Indianapolis.

John Edgar was another 450S buyer and he took delivery of 4506. A car was also delivered to Hollywood resident, Temple Buell.

Parravano was an Italian by birth, but he emigrated to the United States where he made his fortune, firstly in the cement and concrete business and, later, from property construction. However, he amassed considerable debts and came under enquiry by the IRS. In 1958 the Parravano stable, consisting of the 450S and several competition Ferraris was taken secretly to Mexico. Parravano disappeared in April 1960 and his body was never discovered. It seems that he may have found his destiny in the concrete which at one time made him so much money. The IRS recovered the cars and the 450S was sold at auction to an American owner. It was acquired in the 1970s by Cameron Millar who imported it into the UK and it now belongs to a German collector.

The works shipped out both a 450S and a 300S to compete in the Buenos Aires 1,000-km race on 20 January. The 6.294-mile (10.13km) course combined the

Costanera circuit, which had been used before the construction of the Autodrome, with a long stretch of very bumpy, dual carriageway on which the faster cars were attaining 150mph (241kph). This was generally considered to be dangerous and at the last moment the organisers installed a diamond-shaped chicane on the main straight. As usual the principal opposition came from Ferrari who fielded a team of four 3.5-litre V12 cars.

Fangio was fastest in practice with the 450S and Moss, who started the race with this car, built up a lead of almost a lap before the clutch failed and although Fangio carried on making clutchless gear-changes, the transmission gave up under the strain. Moss was then switched to the fourth-place 300S shared by Behra and Menditeguy and started a chase up the field. If Ugolini had decided that Moss should take over the 300S as soon as he knew there were problems with the 450S, the smaller Maserati might have won. As it was the 300S finished second, 23.5

seconds behind the winning Ferrari shared by Perdita, Gregory and Castellotti.

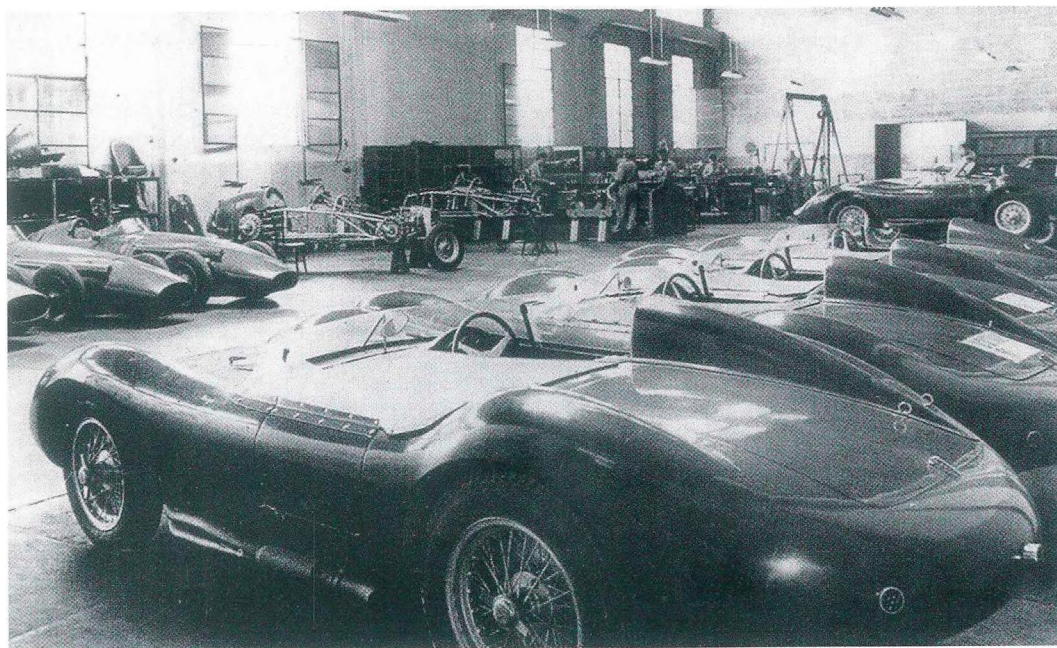
The first Cuban Grand Prix was held on 25 February. It was run over a distance of 313 miles (504km) over a 3.47-mile (5.59km) circuit at Havana with a long, fast section along the seafront. Because of a dock-strike in New York many of the cars did not arrive. One of the cars that did though was the works 300S for Fangio, who took the lead when de Portago's Ferrari made a pit stop because of a fractured fuel line. Moss borrowed a 200S, but retired this; took over the borrowed 300S that Schell was driving and retired again because of engine failure.

At Sebring on 23 March Fangio/Behra drove a 450S and there were 300S entries for Moss/Schell and Carroll Shelby/Roy Salvadori. They faced two new works four-cam V12 3.8-litre Ferraris, but the Maranello machinery lacked the speed of the 450S and was also plagued by tyre and brake problems. Fangio/Behra won easily from Moss/Schell and Hawthorn/Bueb took third place with a works-prepared Jaguar D-type. The other 300S was disqualified for refuelling after 18 laps, instead of completing the minimum of 20. Of Maserati at this race, Salvadori wrote, 'When we arrived at Sebring, no one in the Maserati team seemed to take much interest in us, there was a complete lack of organisation and no one told us when to practise or for how long; this chaotic state of affairs was to have repercussions in the race ...'

The main thrust by Maserati in the Mille Miglia on 11-12 May was the entry of two 450S cars fitted with a supplementary two-speed gearbox mounted between the clutch and the normal gearbox and operated by a push-pull control that emerged through the central panel and was to the left of the gear-lever. It enabled the driver to select either a high set of ratios or a low set and Colotti, who had designed it, anticipated that it would be used only when the car was stationary and the set of ratios chosen according to the terrain that came next.

Moss soon discovered that it was possible

A view of the main workshop area at Modena in 1957. At the rear on the left are three works 250Fs. To the right are two 250Fs undergoing overhaul and their engines are being worked on in the right-hand corner. In the foreground is a line-up of 300S cars. (Guy Griffiths Collection)





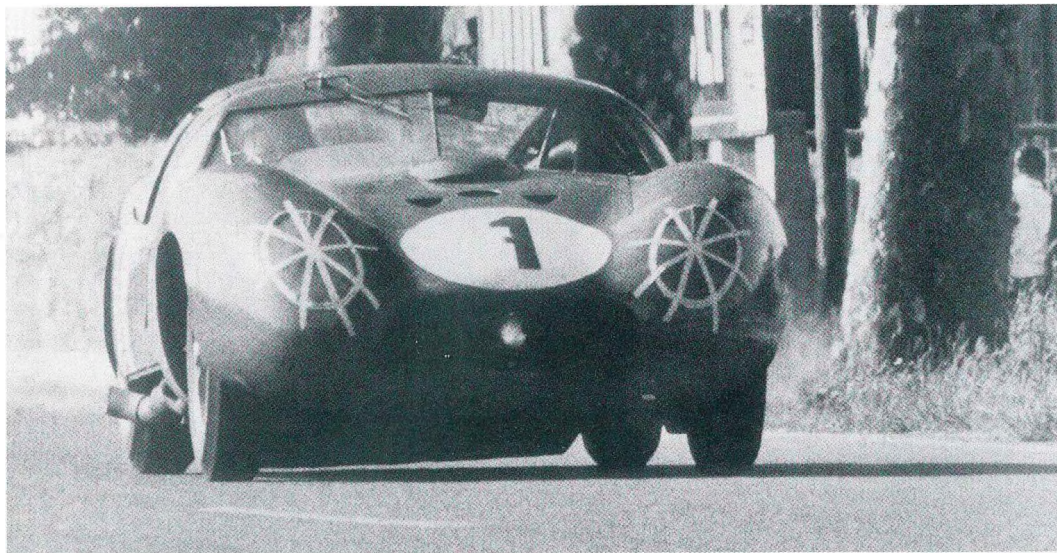
for the driver to accelerate through the low set of gears into fifth and then operate the push-pull control to select high fifth. In this form the maximum speed of the 450S was over 180mph (290kph). The two 450S cars were to be driven by Moss/Jenkinson and Behra, but the Frenchman non-started because of a wrist injury he suffered in a testing accident. He was driving at around

'Jenks' is shouting in Moss's ear as they sit on the ramp at Brescia for the start of the 1957 Mille Miglia. Their race with the 450S was short and they retired soon after the start because of a broken brake pedal.

150mph (241.5kph) when he came upon a lorry blocking the road and a collision was unavoidable.

In addition there were two works 300S entries, but one of these was very special. It

was powered by an experimental V12 engine based on the castings for the Grand Prix engine with cylinder dimensions of 73.8 x 68mm, giving a capacity of 3,490cc, and developing 330bhp at 7,500rpm. This



Seen in the Le Mans race is the 450S Berlinetta with Costin-designed, Zagato-built body. Although the design possessed superb aerodynamics, the construction of the body was bad and the car lacked the edge in performance that had been anticipated. It retired early in the race.

car was fitted with the new gearbox with five fully usable ratios that was to be introduced on the V12 Grand Prix car at Monaco. This car was driven by Hans Herrmann. Giorgio Scarlatti drove a 300S with larger 450S brakes. Maserati had learned from their mistakes in 1956, when the cars were badly prepared and a great deal of time had been spent on development and detail preparation. There was a strong Ferrari entry and yet again, despite Maserati's efforts, Maranello was to dominate the results of the last Mille Miglia.

At the start Moss drove the 450S gently down the starting ramp at Brescia and then accelerated hard. He and Jenkinson knew that they had the fastest car in the race, even if Moss was less than happy with the brakes, and he soon had the car up to 6,700rpm in high top – very close to 180mph (290kph). He believed that his prospects of winning were great, but only seven miles (11.2km) from the start the brake pedal broke just above the pivot, he brought the car to rest with great difficulty and then when the last runners had passed, rumbled back to the start. It was a terrible blow for the whole team.

Herrmann ran well with the 3.5-litre V12 car until he reached Ferrara, less than 100 miles (161km) from the start, where he was forced to retire because the bumpy roads had holed the bottom plate of the engine. The works Ferraris took the first three places in the order Taruffi, von Trips and Gendebien/Wascher (the last-named at the wheel of a 250GT). Scarlatti was not a sufficiently inspired driver, nor was his 300S fast enough for him to be able to challenge for the lead, but he drove well to finish fourth, 33 minutes behind the winner. Following de Portago's fatal crash with a Ferrari, costing the lives of the driver, his companion Eddie Nelson and ten spectators, it was the last Mille Miglia to be held.

Maserati made another big effort in the next Championship round, the Nürburgring 1,000Km event on 26 May. The entry consisted of two 450S cars, the 300S that Scarlatti had driven in the Mille Miglia and Godia-Sales's 300S was brought into the team for this race. The 3.5-litre V12 car ran in practice only. Under the race regulations any pair of drivers could be switched to any other car during the race, which led to confusion as to who was driving what car at

any time. Ugolini had the choice of Fangio, Moss, Schell, Bonnier, Herrmann, Scarlatti, Godia-Sales and Horace Gould. In practice the 450S entries were fastest and headed the line-up of starters and Fangio had set the times for both.

Initially Schell drove the faster 450S and Moss was at the wheel of the second of these cars. Moss's car showed the not uncommon reluctance of the 450S engine to fire up, but did so eventually and by lap eight he had worked his way through the field to lead from Brooks (Aston Martin DBR1). Two laps later this 450S was out of the race – a hub-shaft broke causing the car to shed the left rear wheel together with brake drum, and Moss spun out of the race. Fangio brought the other 450S into the pits with a loose oil tank, this was repaired and Moss rejoined the race in 17th place, only to retire two laps later. Moss now took over the works 300S, but he found the handling so bad that he brought it back in again after only two laps. Moss was then switched to Godia-Sales's 300S, which was back in 11th place, and he and Fangio brought it through to finish fifth behind the Aston Martin of Brooks/Cunningham-Reid, two works Ferraris and a 1,500cc Porsche.

On 9 June there were two works 300S entries in the 185-mile (298km) Portuguese Grand Prix on the Monsanto circuit at Lisbon. These were driven by Fangio and Menditeguy, who was racing for the first time since Monaco. Initially Masten Gregory led with his Ferrari *Monza*, but then Fangio went ahead to win by 16 seconds. Menditeguy took third place. Godia-Sales had been running third with his private 300S, but retired because of engine problems.

For Le Mans on 22–23 June a special 450S *Berlinetta* was built. At Moss's suggestion Maserati had commissioned aerodynamicist Frank Costin, renowned for his bodies on early Lotus cars and the Vanwall, to design this coupé. In the drawings it was a gloriously smooth, aerodynamic design, but the late and hasty execution of the work by Zagato was a travesty. The cooling open-

ings were in the wrong position, the full-length under-tray had been omitted and the result was an interior that was fume-filled as well as incredibly noisy, and an inability to pull more than 6,200rpm in top, instead of the usual 7,000rpm. Windscreen wipers were added at the last moment and these made contact with the screen – and smeared it – only under braking! Moss shared the car with Harry Schell, while Behra/Simon drove an open 450S. A 300S was entered for Scarlatti/Bonnier.

The Maserati challenge was short-lived. Moss held second place briefly, but the coupé lost a lot of time in the pits while an oil pipe was changed and retired in the fourth hour when a rear universal joint seized. Already Behra/Simon were out. In the second hour Behra was leading the race when the steel ring retaining a universal joint shot off and holed the fuel tank. The 300S lasted until the sixth hour when the clutch failed. The works Ferraris also failed, but Jaguar D-types took the first four places and scored the model's third successive win in this race. One of the 1956 Talbots in re-bodied form lined up for the start of this race and the story of the misfortunes of this car is told on Pages 232–233.

It seemed that there was only one more round in the 1957 World Sports Car Championship, the six-hour Swedish Grand Prix on 11 August. The Venezuelan Grand Prix to be held in November had been cancelled, although it was later reinstated. On the basis that the last round was at Kristianstad, Maserati could still win the Championship, provided that they won in Sweden and Ferrari finished no higher than fifth. Modena sent two 450S cars to Sweden, one the Le Mans *Berlinetta*, now with standard body, and the other with the two-speed supplementary gearbox, together with a 300S.

Initially Hawthorn with a 4.1-litre Ferrari led the race, but then Moss took the lead with the ex-Le Mans coupé. Moss stopped to hand over to Schell and took over from Behra when he came into the pits. Schell

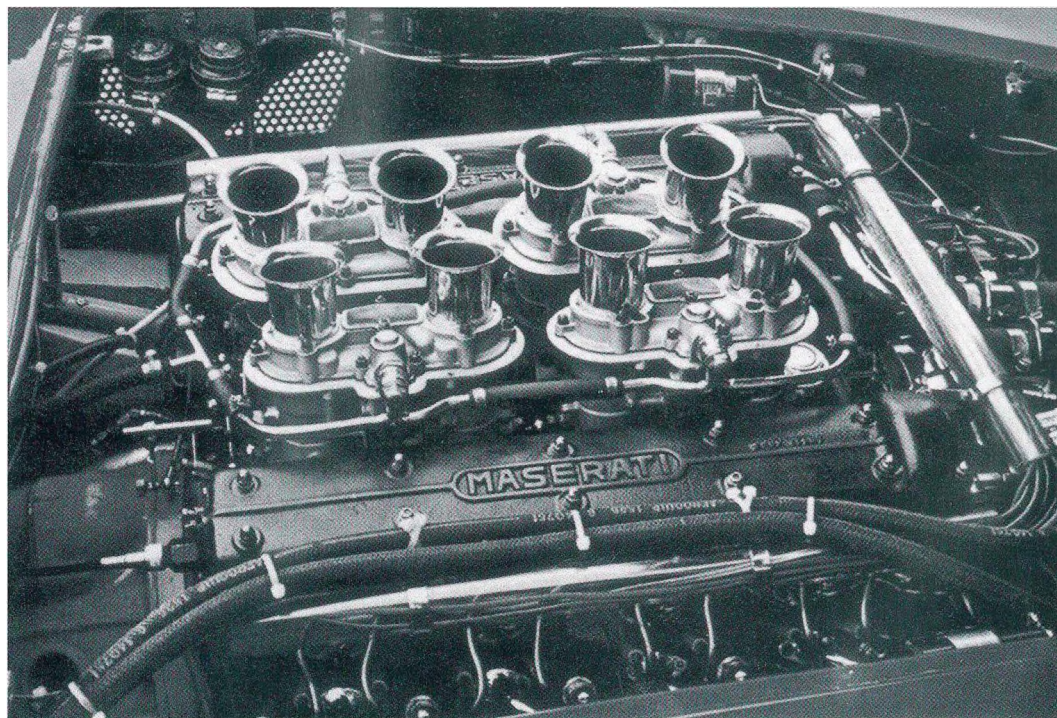
was soon out of the race because of a seized universal joint, a problem that was becoming all too familiar, while Moss/Behra went on to win from the Ferrari of Phil Hill/Peter Collins. The 300S, which had been driven by Bonnier, Scarlatti, Schell and, in the closing stages of the race, Moss, took third place. At this stage Ferrari had accumulated 33 points and Maserati 27 points. Only the best four results counted. However, because of the reinstatement of the Venezuelan Grand Prix, it was still possible for Maserati to win the Championship.

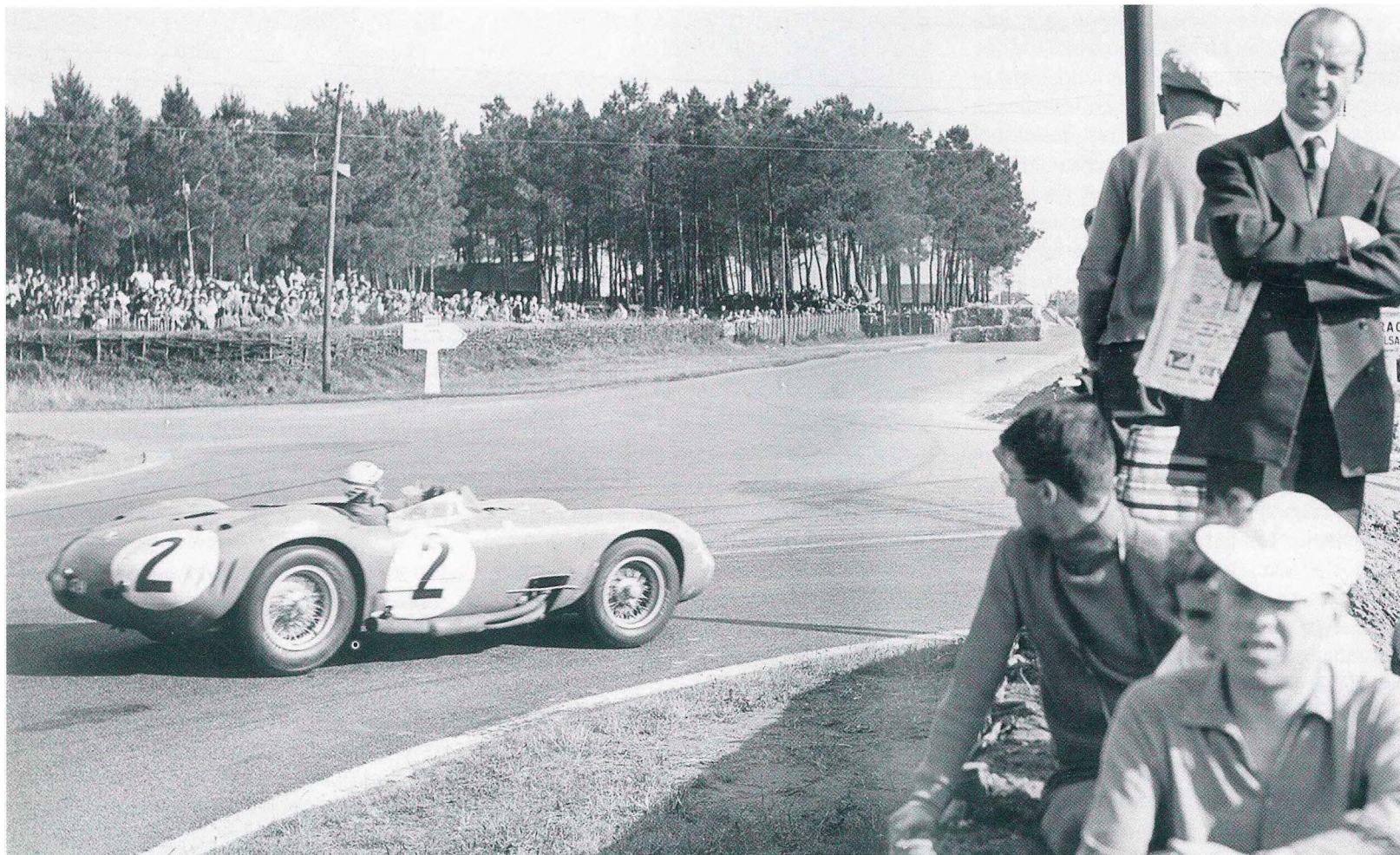
Maserati sent a very strong team to the race at Caracas on 3 November. There were two 450S cars, both with the supplementary two-speed gearbox, the V12 3.5-litre and a 300S. The drivers were Moss, Behra, Schell, Bonnier and Scarlatti, joined for this race by Tony Brooks. There was to be the usual situation of drivers jumping in and out of different cars. In addition Temple Buell entered his 450S for Masten Gregory and Dale

Duncan. Ferrari fielded two 4.1-litre V12 cars and two 3-litre V12 models. The V12 3.5-litre Maserati non-started after it had developed transmission problems in practice.

At the start both Moss (450S) and Brooks (300S) had difficulty in inducing their cars to fire up and the 4.1-litre Ferraris led from Gregory with the Buell car. Gregory took the lead on the first lap, but on the second lap he clipped one of the sandbags lining the road and rolled the car. Shortly before the race Gregory had insisted that this 450S be fitted with a roll-over bar and there is little doubt that this saved his life. Moss with his 450S was the next Maserati driver to be eliminated. He had worked his way into the lead, but on lap 33, while he was travelling at about 170mph (273kph) along the dual carriageway that formed parallel straights, an AC-Bristol pulled across his path and the cars collided. The Ace hit a lamppost and was cut in two, while the battered 450S spun down

A view of the massive 4.5-litre V8 Tipo 450S engine, showing the mounting of the four twin-choke Weber carburettors in the 'vee' of the engine and the sparking plugs mounted outside the 'vee'. This is an engine in a restored car.





Jean Behra at the wheel of the 450S he shared with André Simon at Le Mans in 1957. After two hours they were leading the race when the steel ring retaining the rear prop-shaft universal joint came off and holed the fuel tank.

the road until Moss could finally bring it to rest.

Stirling made his way back to the pits where he saw the surviving 450S catch fire when Behra, who was relieving Schell, pressed the starter. Guerino Bertocchi, hair and overalls on fire, dowsed the burning car from a fire extinguisher and then dowsed himself. Behra had burnt his arms and neck, so Moss took the car out. He soon discovered that the driving seat was still burning and so he went back into the pits where the fire was extinguished, he received treatment for burns and Schell resumed the race with the 450S. As Schell was lapping

Bonnier with the 300S, a rear tyre on the slower car burst and the cars collided. Bonnier hit a lamppost, which collapsed on to the car, seconds after he had jumped out of it. Schell hit another lamppost, the 450S burst into flames and then hit a concrete wall; the Franco-American suffered burns to the face and arms.

Ferrari took the first four places and on the basis of the best four performances won the Championship with 30 points to the 25 of Maserati. It was a dismal, appallingly unlucky result for Modena. Maserati had also hoped to sell the cars after the race and in modern money the accidents cost them

something close to £1 million. It was a bad end to the short works racing career of the 450S, although these cars continued to race successfully in American events. Maserati was about to withdraw from racing and the reasons are explained in the next chapter.

The 300S was above all a safe car for even the most inexperienced drivers to handle and lacked vicious tendencies. In contrast the 450S was a vicious, ill-handling brute. Only the most able drivers could exploit its potential and if they did so they faced the problem that the drum brakes were not really capable of retarding the car from the high speeds of which it was capable. The majority of classic racing enthusiasts who have had the chance to drive a 450S admit that they find the car difficult to control in the dry and impossible in the wet.

Chapter 13

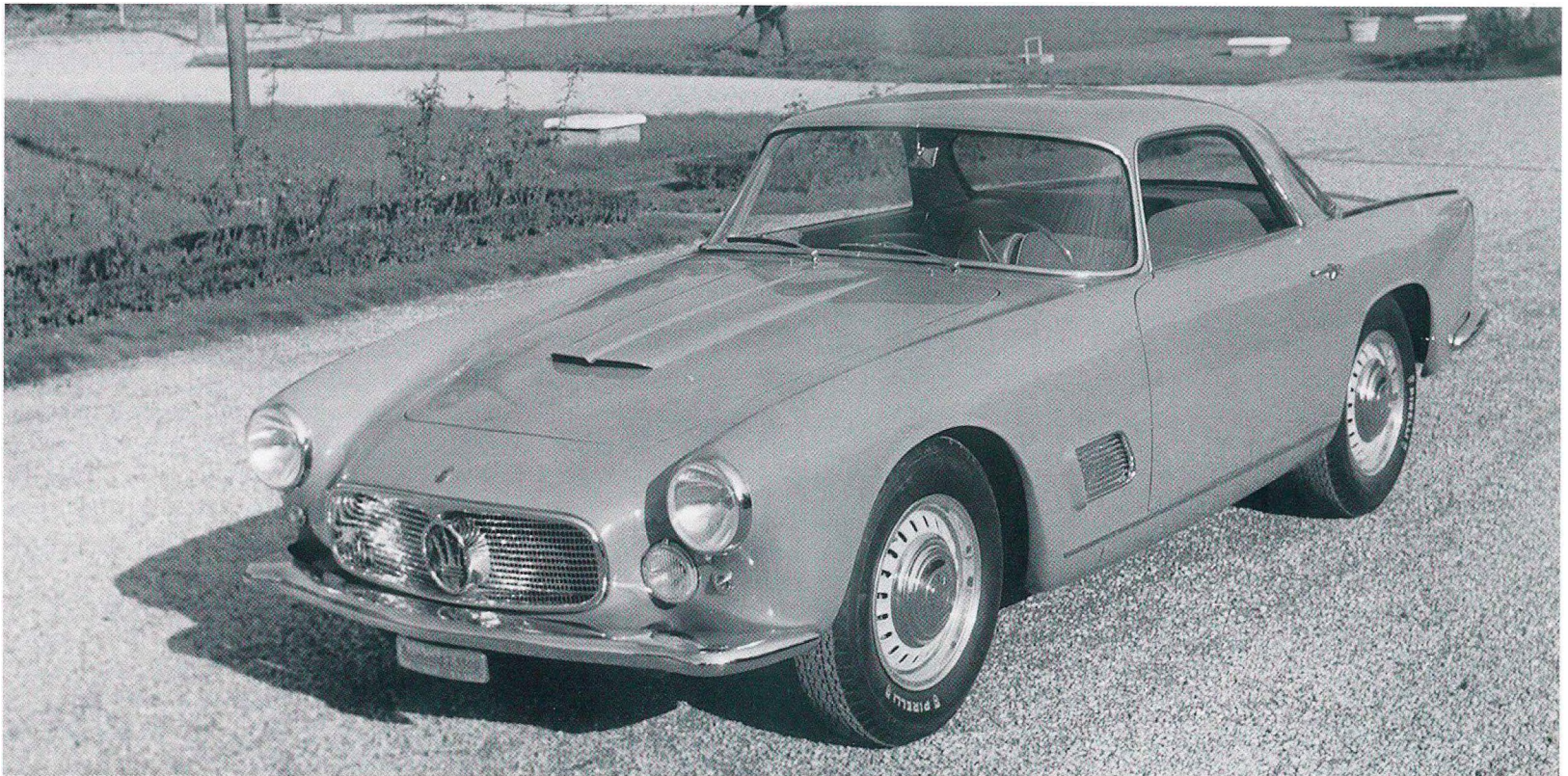
Financial failure

AS MASERATI ACHIEVED the greatest successes in its long history, so financial disaster was overtaking the company. Because of the split of assets in 1953, the Orsi group had been weakened and Adolfo Orsi was determined to rebuild its financial strength. There appeared to be excellent opportunities for expanding the company's business in Argentina and in 1954 Orsi had long talks with Juan Peron at the presidential palace, Casa Rosada.

High import duties made it difficult to sell milling machinery and machine tools in Argentina, but Orsi persuaded Peron that import duties should be relaxed, as the import of this equipment would benefit Argentinian industry. A Maserati company was set up in Argentina and this also represented other Italian machinery manufactur-

ers. Machine tools were ordered in substantial quantities from Maserati and they were delivered from 1955 onwards on deferred credit with payment not due until 1957. It is believed that the total value of the Argentinian debt was \$3 million. Peron was deposed in 1955 and the new government reneged on the debts.

The 3500GT production road car was a great commercial success and the high level of sales contributed to Maserati's financial recovery. This is an early 1958 car with coupé body by Touring.





There were only 36 Tipo 103 5000GT cars with 4941cc engine derived from the Tipo 450S sports-racing car and built from 1959 onwards. This is a second series car with Lucas fuel injection, ZF 5-speed gearbox and disc brakes at all four wheels. Carrozzeria Touring was responsible for the bodywork, with exceptionally ugly frontal treatment, on this example.

But this was not the only problem. At the invitation of the Mexican government Orsi had studied plans for setting up a factory in Mexico to manufacture motorcycles and scooters. These had no connection with the Maserati motorcycles made in Modena. A deal had been reached with Renzo Rivolta who built Iso scooters and motorcycles at Bresso, Milan and these machines with double-piston two-stroke engines were to be built under licence at the new Mexico plant. They were to be known as Maseratis, but the badge, in addition to the usual trident, portrayed a 250F in profile. The Mexican government failed to conclude the deal and the project was abandoned after a great deal of money had been spent.

Another failure was the company set up in the United States, the Maserati Corporation

of America based at Westfield in New York State. It was mainly established to market milling machines produced by both Maserati and other Italian manufacturers, but also sold Maserati racing cars and the A6G/54 2,000cc GT model. It had to be shut down in 1958. The American company was badly managed and it could not sell enough GT cars, mainly because prospective buyers thought that the capacity of the engine was too small for the price asked.

At this time the sports car market in the United States was largely dominated by much lower-priced British cars, such as the 3.4-litre Jaguar XK range, the Austin-Healey 100 and the Triumph TR2. These were of course mass-produced in large numbers and sold at a much lower price. If buyers wanted something more exotic – and much

more expensive – then a V12 4.1-litre or 4.5-litre Ferrari was the answer.

Operating the Maserati works team was horrendously expensive and whereas Ferrari received an annual subsidy of 50 million lire from the Italian Automobile Club (provided, it is believed, by Fiat), Maserati received nothing. Maserati withdrew from racing at the end of 1957 and it was decided that all future racing projects would have to be customer-funded. This policy was adhered to rather loosely. Alfieri had been working on a new road car design, the Tipo 101 3500GT, which was first seen at the Geneva Salon in March 1957. It entered production in 1958 and proved remarkably successful.

Unlike Grand Touring Ferraris of the period, which were ‘weekend cars’ (as Dottor Adolfo Orsi neatly expresses it), the GT Maseratis were practical cars for businessmen who drove long distances. They were soundly built, reliable and incorporated many tried and tested British components, including the suspension units and Girling disc brakes. Maserati also considered the creature comfort of the drivers and was one of the first European manufacturers to install equipment such as electric windows and air conditioning. Close to 2,000 of these cars were built before production of the type ceased in 1964.

The 3500GT appeared too late to save Maserati in the short term and on 1 April 1958 the company was put into Administrative Control, a form of insolvency management that protected the interests of creditors and allowed the company to continue to trade. Adolfo Orsi responded vigorously to the problem. He sold his machine-tool interests and many personal assets, including land with considerable development potential in Modena. He cleared Maserati’s debts and by the end of 1958 had regained control of the company. Although Maserati was to become a manufacturer of road cars only, competition cars continued to be built in small numbers between 1958 and 1965.

Chapter 14

The decline of Maserati, 1958–65

IN LATE NOVEMBER 1957 Maserati announced its withdrawal from racing and there were obvious reasons in addition to the catalogue of financial woes that was to emerge. As early as 1956, even before the 450S was raced, the *Fédération Internationale de l'Automobile* had been talking to manufacturers on the basis that there should be a capacity limit of 3,000cc or 3,500cc in World Sports Car Championship events. Through 1957 it had become known that there would be such a limitation for 1958, but it was not until October of that year that it was officially announced that the limit would be 3,000cc.

It meant that the racing career of the 450S was at an end, in Europe at least, but Maserati had been aware for some time that the model's potential was limited. There was reason to suppose that Maserati had anticipated a 3,500cc limit, which would have suited Jaguar, and this is supported by the appearance in the 1957 Mille Miglia of the 3,500cc V12 car driven by Hans Herrmann. Maserati continued to develop the 450S V8 engine and it was used in hydroplane racing in various capacities up to 5.4 litres

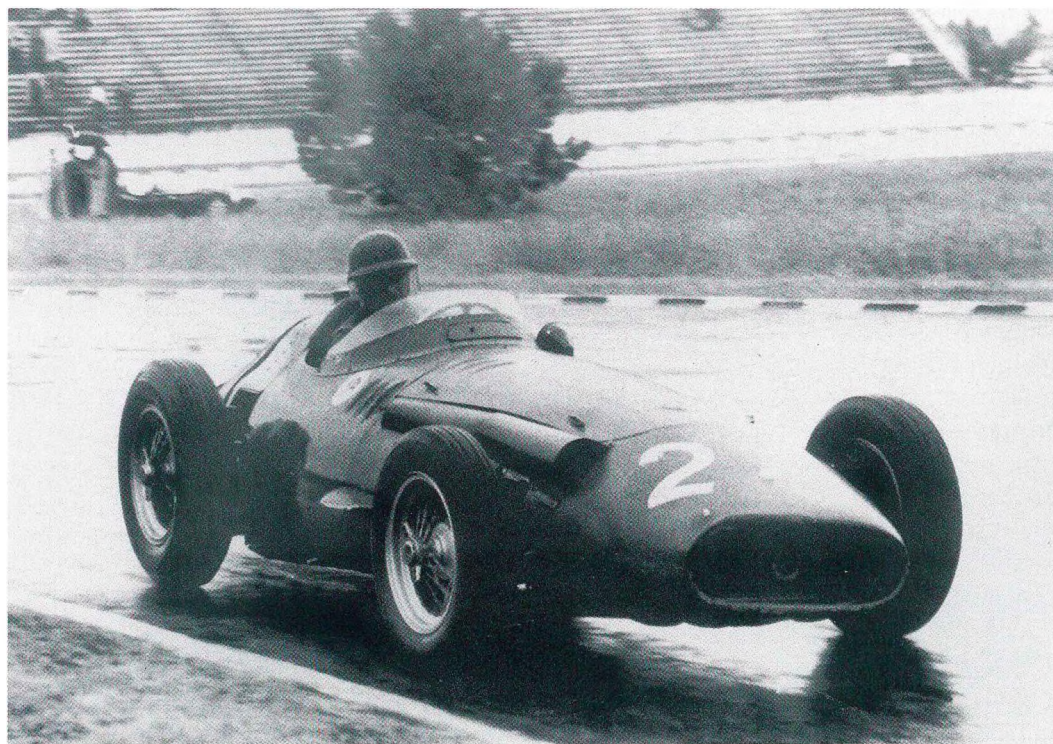
So far as Grand Prix racing was concerned, the sheer cost was a major problem, especially as financial conditions in Europe had resulted in a protocol in early 1957 that restricted both starting and prize money. This was in itself a deterrent from continuing to race in Formula 1. Another problem for all the teams was the requirement for 1958 that cars ran on 100/130-octane

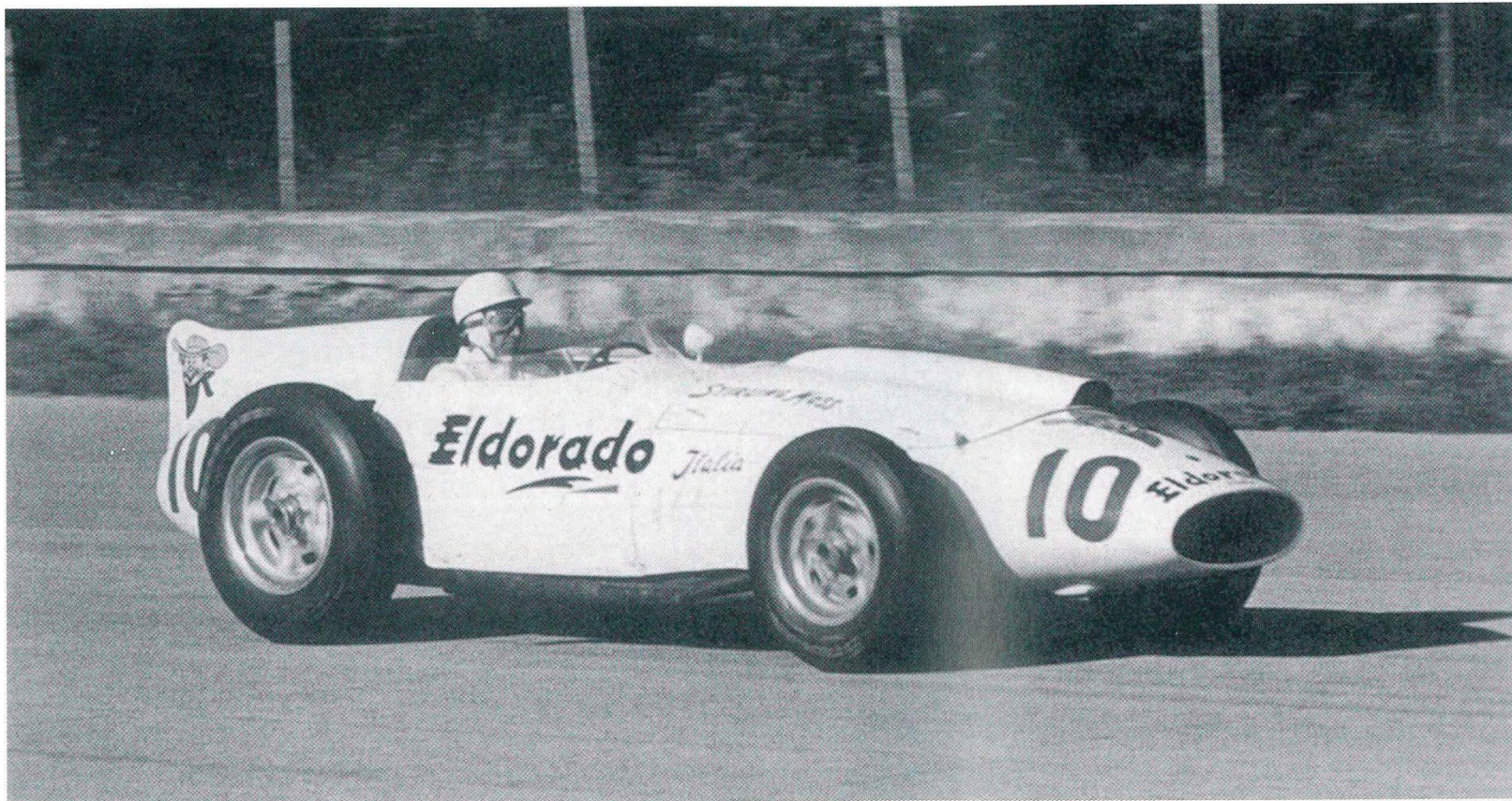
Avgas, a compromise between the teams who wanted the *status quo*, a free choice of fuel, and the fuel companies who wanted the teams to use pump fuel so that they could maximise advertising from racing successes. Another important change was in the minimum race distance, which became 300 to 500km (instead of 300km) and

two hours (instead of 300km or 3 hours).

This led to a general shortening of races, which now tended to last a little over two hours. It also encouraged the development of smaller, lighter cars carrying less fuel and was a major factor in the success of the Cooper-Climaxes, which won their first Championship races in 1958. Grand Prix

Juan Fangio and Carlos Menditeguy drove Lightweight 250Fs entered by Scuderia Sud-Americana in the 1958 South American races. Fangio is seen in the wet first heat of the Formule Libre Buenos Aires City Grand Prix. He finished second to Hawthorn's Ferrari Dino in his heat, but won on the aggregate of the two heats.





Stirling Moss at speed with the 4.2-litre Tipo 420/M58 Eldorado in the 1958 Two Worlds Trophy on the banked Monza circuit. This photograph shows the car on the Pista de Alta Velocita main straight, shortly before the steering failed on the banking.

racing in 1958 was, however, primarily a battle between Ferrari and Vanwall, with Hawthorn winning the Drivers' World Championship at the wheel of the new V6 Ferrari *Dino*; Stirling Moss beaten into second place by one point and Vanwall winning the newly inaugurated Manufacturers' Championship. Although only very limited success was gained during the year, the Maserati 250Fs were as numerous as ever in the hands of private owners and three new 250Fs were seen racing.

Early Grand Prix Racing

As usual, the racing year started with the Argentine Grand Prix, held on 19 January and now shortened in distance to 194 miles

(312km). Fangio was undecided about his plans for 1958 and so the *Maestro's* racing manager Marcello Giambertone leased two of the 'Lightweight' 250Fs for this and the Formule Libre Buenos Aires City Grand Prix. These were entered in the name of *Scuderia Sud-Americana* and were driven by Fangio and Menditeguy. Moto Guzzi works motorcycle rider Ken Kavanagh had bought the third 'Lightweight' car, 2527, and Jean Behra drove this in Argentina. *Scuderia Centro-Sud* entered 250Fs for Masten Gregory and Joakim Bonnier and throughout the year 'Mimmo' Dei's team was to be the most active entrant of 250Fs. Alterations had been made to the compression ratio and carburetion to suit the new fuel requirements, but otherwise the Maseratis were unchanged from 1957.

Neither BRM nor Vanwall ran in South America.

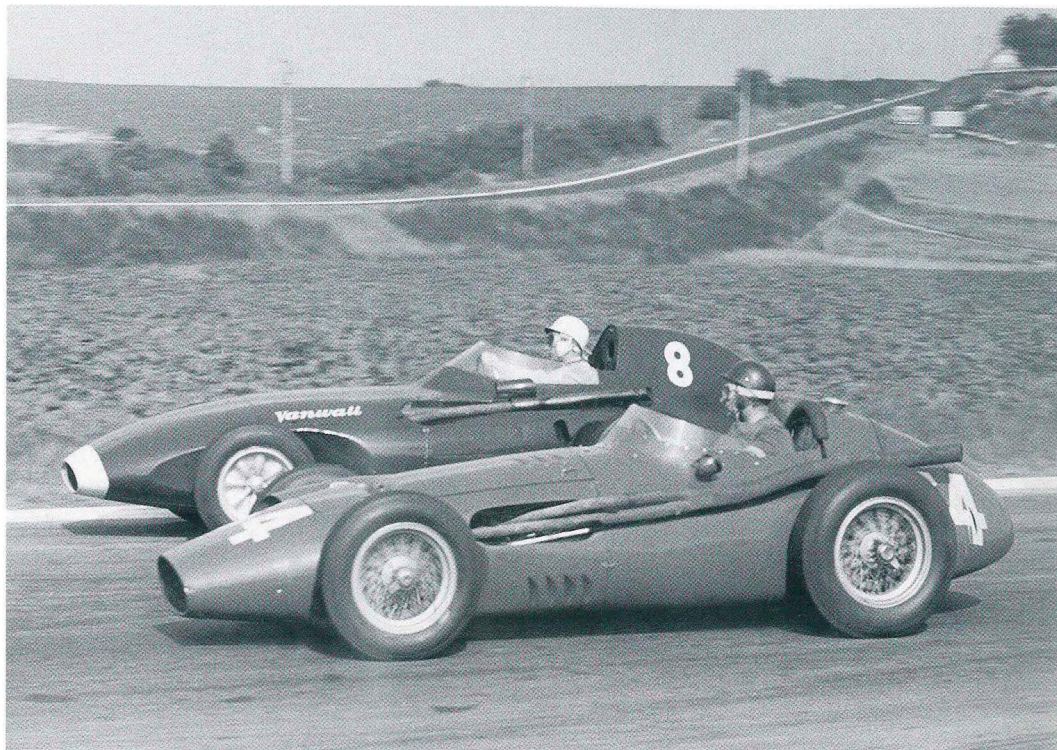
Fangio was fastest in practice and the 'Lightweight' 250F had the power and the speed to beat the new Ferraris, but although he led initially he fell back to finish fourth because of engine overheating and the need for new rear tyres. The race was won – unexpectedly – by Stirling Moss with Rob Walker's 2-litre Cooper-Climax from Musso and Hawthorn with Ferraris. Behra finished fifth and Menditeguy took seventh place. The Formule Libre Buenos Aires City Grand Prix on 2 February was held in two 87-mile (149km) heats and Fangio won on aggregate, having finished second to Hawthorn in the first heat and winning the second. Behind Fangio came Musso and Godia-Sales/Menditeguy (the Spaniard started the race with the *Sud-Americana* car because Menditeguy arrived late at the circuit).

Once the European season started,

Fangio was conspicuous by his absence and the 250Fs by their lack of success. Bonnier with his 250F finished second a lap behind Musso's Ferrari – the sole Maranello entry – at Siracusa on 13 April, while Masten Gregory with a *Centro-Sud* car drove a good race to take third place behind Collins (Ferrari) and Salvadori (Cooper) in the International Trophy meeting at Silverstone on 3 May. Nine drivers with 250Fs were entered at Monaco on 18 May. Of these Fangio failed to appear, six Maserati drivers failed to qualify as starters and the two starters, Bonnier and Scarlatti (who had bought 2529), failed to finish. The race provided another unexpected Cooper win as Trintignant took first place with a car entered by Rob Walker.

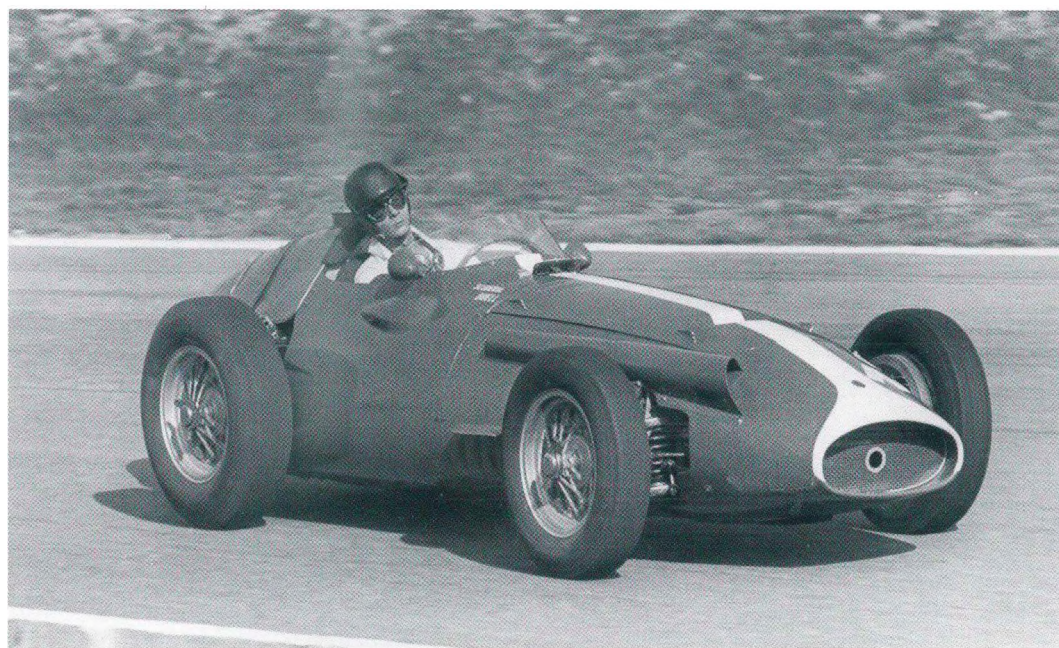
Amongst the private Maserati entrants was Marie-Thérèse de Filippis who had bought 2523 with 6-cylinder engine from the factory. Despite her valiant efforts with her 250F, her season was dismally unsuccessful, as might be expected. Her best performance was at Siracusa where she finished fifth, albeit four laps in arrears. She failed to qualify as a starter at Monaco and she was 11th and last, two laps in arrears, in Belgium. In Portugal her own car broke in practice, so she drove a *Scuderia Centro-Sud* entry, only to retire early in the race because of mechanical problems. Her last outing was at Monza where she again retired. De Filippis would have appeared more frequently, if she had been able to obtain entries. She continued to race this 250F again in 1959. For many years she has been secretary of the *Association des Pilotes Anciens de Grand Prix et Formule 1*.

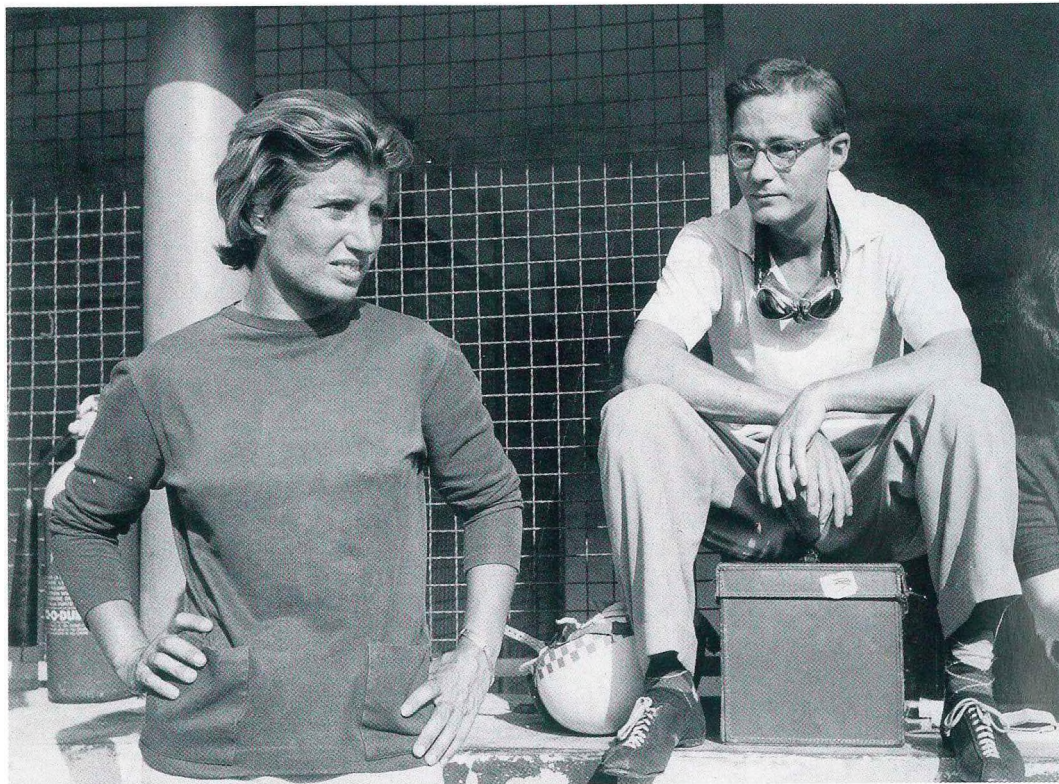
The Maserati transporter was an unexpected sight in the paddock at the Belgian Grand Prix. The team had brought along what appeared to be a new and lighter 250F with chassis number 2532. It seemed that it was the first of the T3 *Piccolo* cars, but it later became known that it was V12 chassis 2530 with a 6-cylinder engine and in effect a development car for the T3. It was not entered in the race and was driven



Fangio at the wheel of the 1958 experimental version of the 250F alongside Moss (Vanwall) in the 1958 French Grand Prix. It was the reigning champion's last Grand Prix and he finished fourth.

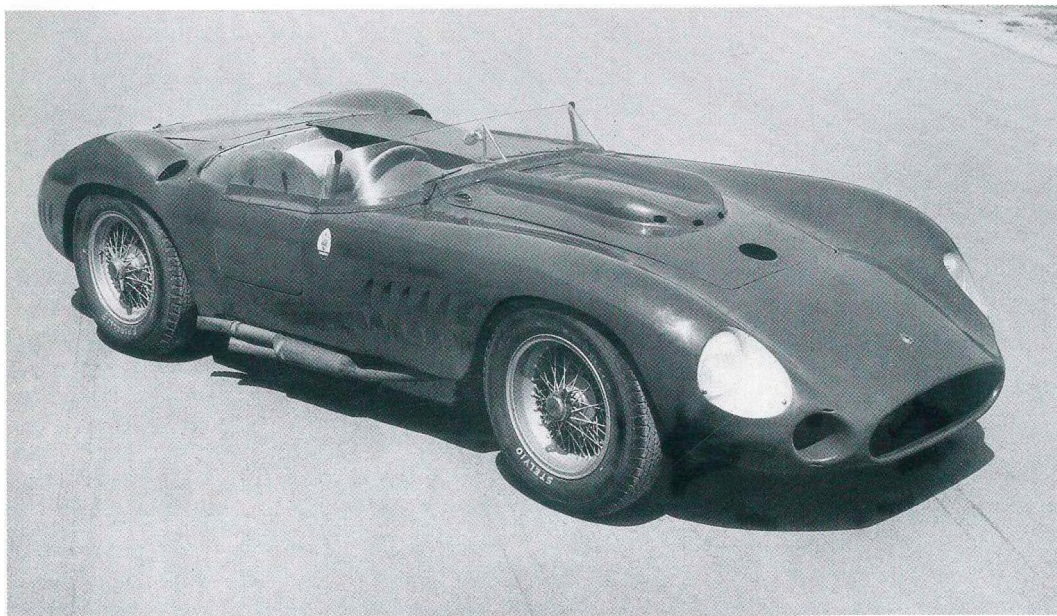
Masten Gregory with the Scuderia Buell Piccolo 250F in the 1958 Italian Grand Prix. He was racing for the first time since a bad crash and handed over to Carroll Shelby. They finished fourth, a very good result, but the car was disqualified because Shelby was not a nominated substitute driver.





Seen at the Italian Grand Prix at Monza in 1958 are lady 250F driver Marie-Thérèse di Filippis and that fine Kansan driver Masten Gregory. These days Gregory is both underrated and falsely maligned.

This car, known as the Tipo 58, combined the 300S chassis with a V12 3-litre engine. Stirling Moss tested this car at the Nürburgring in 1958 and formed a poor view of its capabilities. The model was never raced.



for a few laps by Masten Gegrory, before Ugolini and Bertocchi took it off to the Nürburgring where on the Monday after the Belgian race Stirling Moss tested it.

The Two Worlds Trophy

On 29 June the second Two Worlds Trophy was run on the banked Monza track. Interest by European manufacturers was somewhat greater than in 1957 and both Ferrari and Maserati built cars for the event. The Maserati was commissioned by the Eldorado ice cream company and was to be driven by Stirling Moss. It had a new 7ft 10.5in (2,044mm)-wheelbase multi-tubular chassis longer than that of the 250F, Tipo 450S double wishbone and coil spring front suspension, stronger steering arms and track rods and a strengthened 250F de Dion axle with twin Houdaille dampers each side. The brakes were as on the 1957 250F and there were Firestone-shod Halibrand magnesium-alloy wheels with 6-pin drive mounted on modified Maserati hubs.

The engine was the Tipo 450S in 4,190cc form running on alcohol fuel. Although fuel injection was tried during qualifying the car was raced with four twin-choke Weber carburettors. The engine was mounted nine centimetres to the left of the centre of the car and drove through an open prop-shaft to a two-speed gearbox mounted at the rear. A pair of bevel gears took the drive through a right-angle and straight-cut gears raised the drive to the height of the rear axle. No differential was fitted and the drive was then taken through universal joints and heavy-section drive-shafts to the rear wheels. The driver sat alongside the prop-shaft and the gear-change was mounted high up on the left side. The body was similar to that of the 250F, but there was a large scoop on the bonnet and a very prominent tail-fin. It was painted gleaming white with *Eldorado Italia* slogans, cartoon figures and Stirling Moss's name on the bonnet. This

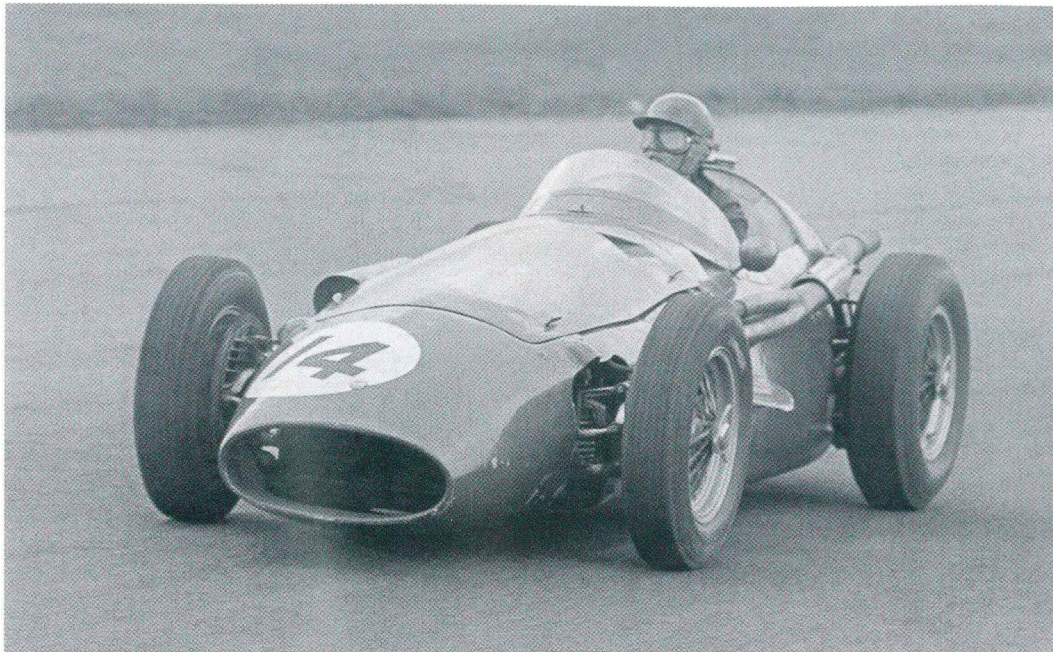
car was typed the Tipo 420/M/58 and had chassis number 4203. It was usually known as the *Eldorado Special*.

For this event racing was in an anti-clockwise direction and as is usual in American racing, qualifying was on the basis of three flying laps. The race was held in three 63-lap heats, 166 miles (267km) each, to give the appropriate total of about 500 miles (805km). Although the Maserati was adequately powerful compared to the American opposition, it bounced about badly on the notorious bumps of Monza's banked track. Moss qualified ninth fastest at 164.39mph (264.67kph). He finished fourth in the first heat, fifth in the second, but he had an horrific accident on the 41st lap of the third heat when the Maserati's steering failed, he hit the retaining wall at the top of the banking, three of its concrete posts were demolished and three of the Maserati's tyres burst. Very fortunately, he was unhurt. Moss was officially classified seventh.

The Piccolo

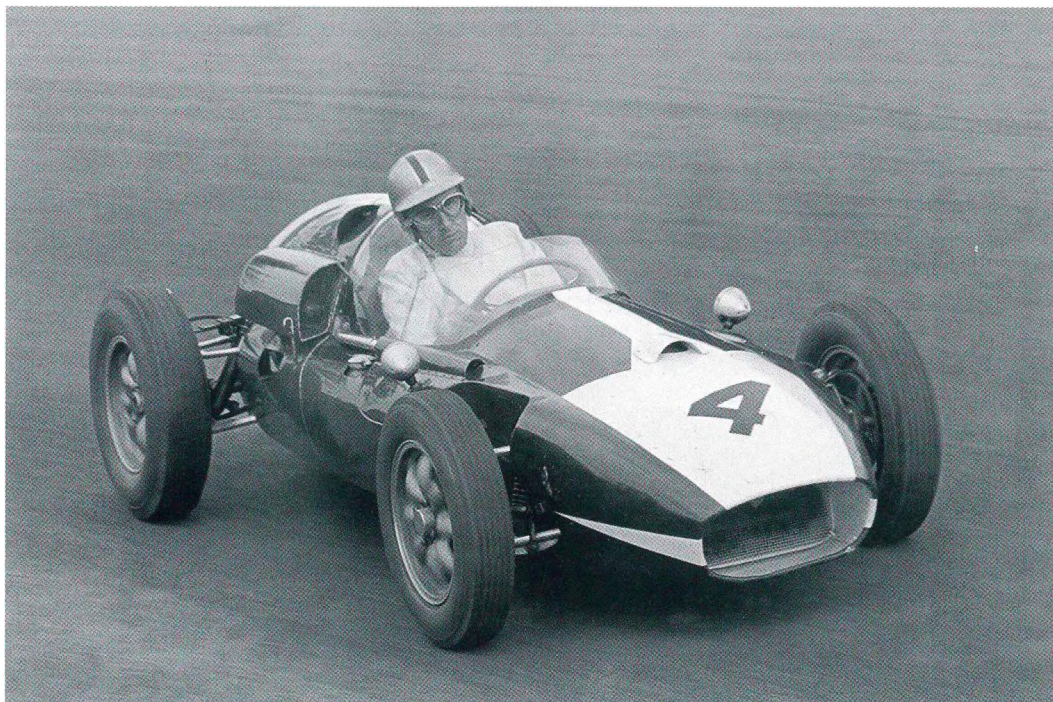
At the French Grand Prix at Reims on 6 July there was a Maserati 250F for Fangio and entered in his own name. This car had chassis plate 2532, but, in fact, it was a new car and the true prototype of the T3 *Piccolo* ('Diminutive') cars. Early in the race Hawthorn (Ferrari) led from Brooks (Vanwall), while Fangio battled for third place with Moss (Vanwall) and Schell and Behra (BRMs). Brooks retired, both the BRMs dropped back because of mechanical problems and Fangio made a brief pit stop to complain to Bertocchi about gear-selection problems. He rejoined this very fast race to finish fourth behind Hawthorn, Moss and von Trips (Ferrari). It was Fangio's last Grand Prix.

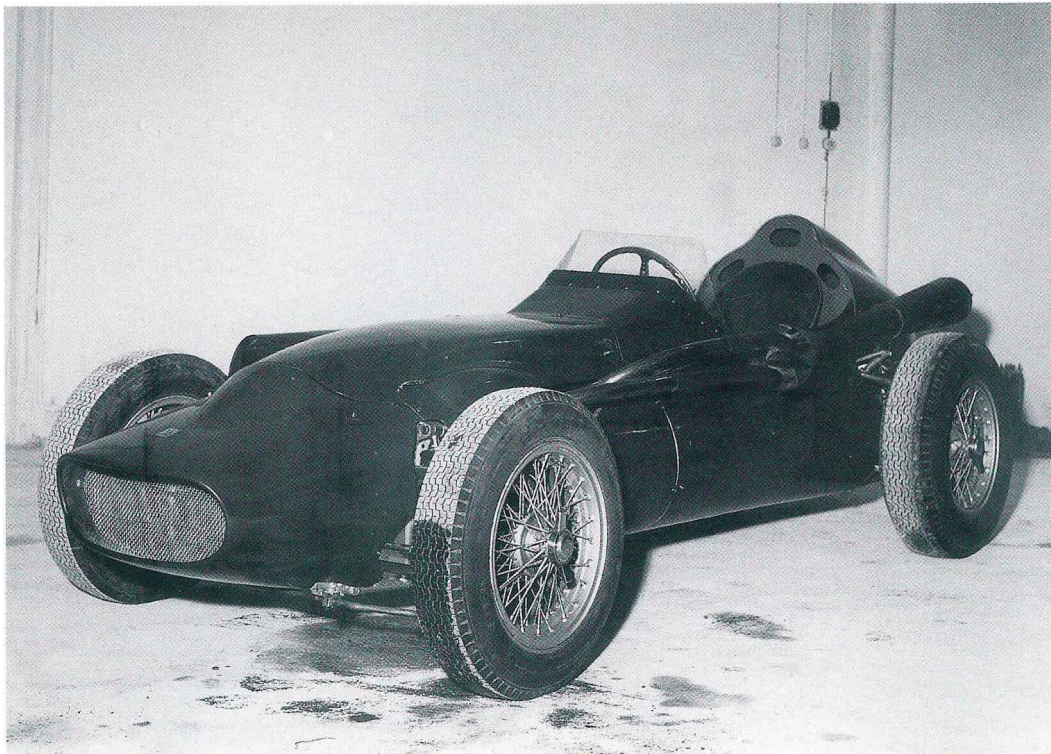
A new Maserati, looking very like the car that Fangio had driven at Reims, was entered by Temple Buell in the Portuguese Grand Prix on 24 August for Masten



Marie-Thérèse de Filippis is seen with her 250F entered by Scuderia Ugolini in the 1959 International Trophy race at Silverstone in May 1959. She retired because of mechanical problems. (T.C. March)

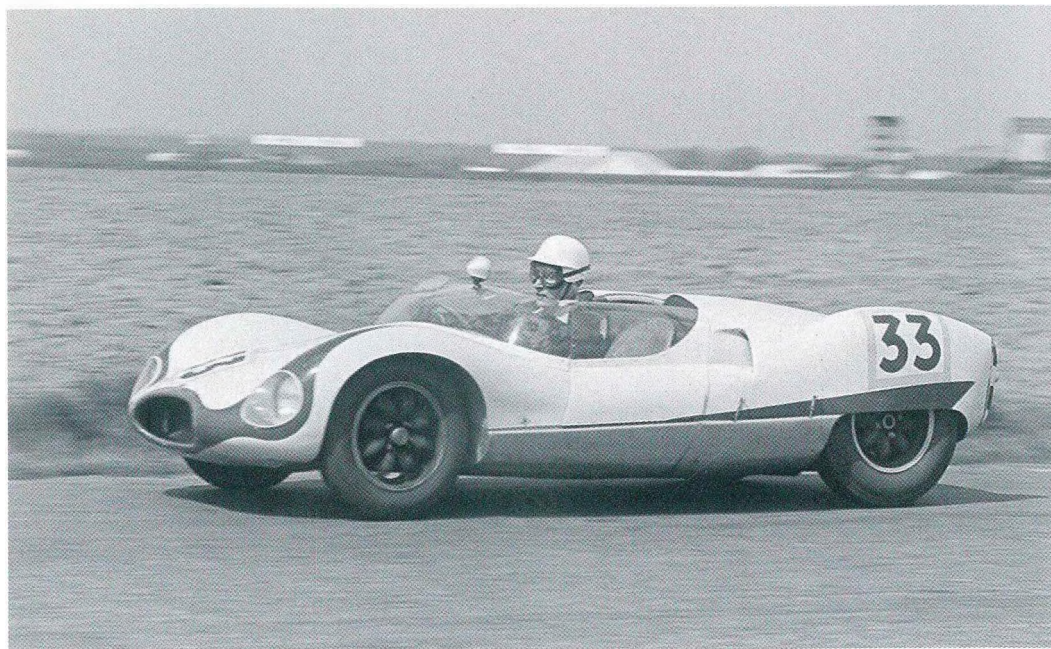
During 1959 quite a number of Cooper chassis were fitted with Maserati 2.5-litre 4-cylinder engines. Roy Salvadori drove this Cooper-Maserati for C.T. Atkins, but only when the Aston Martin Formula 1 team did not need him. Here, in the Gold Cup race at Oulton Park, he finished fourth. (T.C. March)





The Tec-Mec seen in Valeiro Colotti's workshop in Modena shortly after it had been completed

Roy Salvadori drove this Cooper Monaco with Maserati 2.5-litre engine for John Coombs during the 1959 season. Here, at Silverstone in May, he won the race for sports cars up to 3,000cc from Stirling Moss (Aston Martin DBR1) at 98.40mph (158.4kph). As the race progressed, the handling deteriorated and afterwards it was found that the rear of the chassis had broken. (T.C. March)



Gregory. This 250F, chassis number 2533, was the first of the *Piccolo* cars that Buell had ordered. The price invoiced to Buell on 25 June 1958 was \$14,500. The wheelbase of the *Piccolo* was about an inch shorter than that of the Lightweight 250F and weight had been reduced by about 160lb (71.43kg). It is believed that the compression ratio was increased to 11:1 and power output is said to have been 290bhp at 8,000rpm.

The five-speed gearbox was smaller and lighter with a fully usable first gear, the front suspension incorporated fabricated tubular wishbones and larger coil springs with Girling dampers, there were Koni dampers at the rear and large brakes were used. It was, however, merely an update of an obsolescent model. Shelby drove a steady race at Oporto, holding fifth place until he spun off and crashed near the end of the race, but he was classified ninth.

A last-minute driver of a *Scuderia Centro-Sud* 250F in Portugal was works Lotus team-member Cliff Allison. In practice he had crashed his new Climax-powered front-engined Lotus 16 when he lost control after crossing tramlines. He and Guglielmo Dei put their heads together and Allison drove the team's spare car, 2522, on the basis that they split the starting money, and Allison started from the position on the grid that he had gained with the Lotus. Cliff has commented that, 'Compared to the Lotus, the Maserati was a lorry, but a very fast one.' He was running only for the starting money and he retired after 15 laps.

Both Buell cars, 2533 and 2534 appeared at Monza for the Italian Grand Prix on 7 September, but only one, to be driven by Masten Gregory, was entered. History has done the Kansan an injustice. Gregory was a very fast, very able and very brave driver of great determination and one of the very best American drivers racing in Europe in the 1950s. That he was hyperactive is undoubted, but because of his sometimes erratic behaviour, there have been

scurrilous and untrue allegations that he took drugs. That he leapt out of cars about to crash on more than one occasion has also led to an unfair notoriety.

Gregory started from the third row of the grid (eighth fastest) and fought his way through to hold fourth place. It was his first race since he had crashed the *Ecurie Ecosse* Lister-Jaguar in practice at Silverstone in July and he was so exhausted that he brought the 250F into the pits for Shelby to take over. Shelby carried on to finish fourth, but the car was disqualified because he was not a nominated reserve driver. Gregory was entered with the car again in the last round of the World Championship at Casablanca on 19 October and despite damper problems he drove steadily to finish sixth.

The two *Piccolos* together with Joakim Bonnier's ex-Scarlati Lightweight, 2529, were then fitted with shark-mouth noses and peculiarly shaped tail fins inspired by journalist Hans Tanner who was managing the team. The work was carried out by Fantuzzi. These cars were to be shipped out to compete in the 150-mile (241km) Formule Libre New Zealand Grand Prix at Ardmore on 10 January 1959. Hans Tanner, writing from the Strand Palace Hotel in London, arranged the shipping through LEP Transport and the prices quoted were as follows:

2534 (Insurance value of \$15,000).	Freight and insurance charges £5235.
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2533 (Insurance value of \$13,000).	Freight and insurance charges £4800.
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2529, which in fact was stated in the paperwork to be chassis 2504

(Insurance value of \$8000).	Freight and insurance charges £3750.
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In their letter LEP commented, 'We further note that these cars have all been drained of

petrol and water and that there are no batteries on the cars.' It was stated that 2534 was to be exported and so there was no carnet permitting its return to Italy. Bertocchi travelled out to look after the cars. Shelby, relieved by Harry Schell, finished fourth and Ross Jensen with the other car entered in the name of *Scuderia El Salvador* took place fifth place after his engine went off song.

Sports Cars in 1958

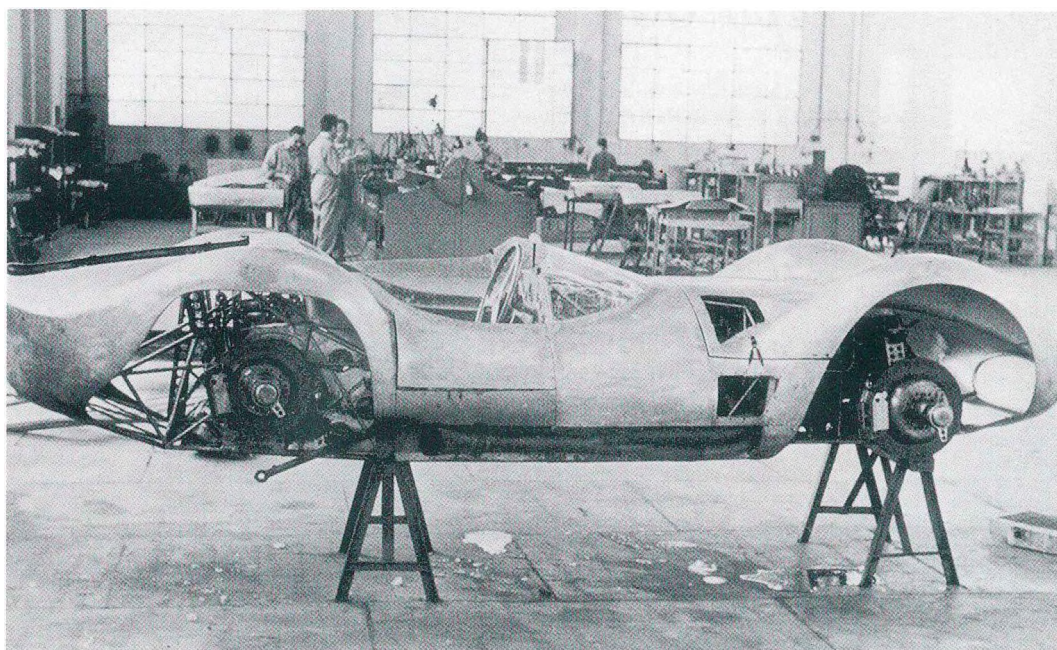
In February, Fangio hit the world headlines in a way never achieved throughout his earlier racing career. He was to drive a privately entered Maserati 450S in the Cuban sports car Grand Prix, but on the eve of the race he was kidnapped at gunpoint in the lobby of his hotel. The kidnap was made 'in the name of the Twenty-sixth of July Movement'. This was an organisation which supported Fidel Castro and was trying to focus world attention on Castro's political movement, which

the Batista government was struggling to suppress. Fangio's car was driven in the race by Maurice Trintignant and the World Champion was released unharmed at the Argentinian embassy in the evening of the day following the race.

The race was a disaster and was abandoned after six laps following a fatal accident when a local Ferrari driver slid off the track and killed five spectators. The track was almost awash with oil; Stirling Moss said that he had never seen so much oil on a track anywhere and there were suggestions of sabotage. Moss, leading with a 4.1-litre Ferrari when the race was abandoned, was awarded first place. Despite not starting the race, Fangio still received the equivalent of £1,785 guaranteed appearance money, more than Moss received for winning the race!

Although Maserati 300S cars, together with the smaller-capacity models, continued to be raced by private owners, they were now outdated and achieved little. At the Nürburgring on 16 June 1958, the day that

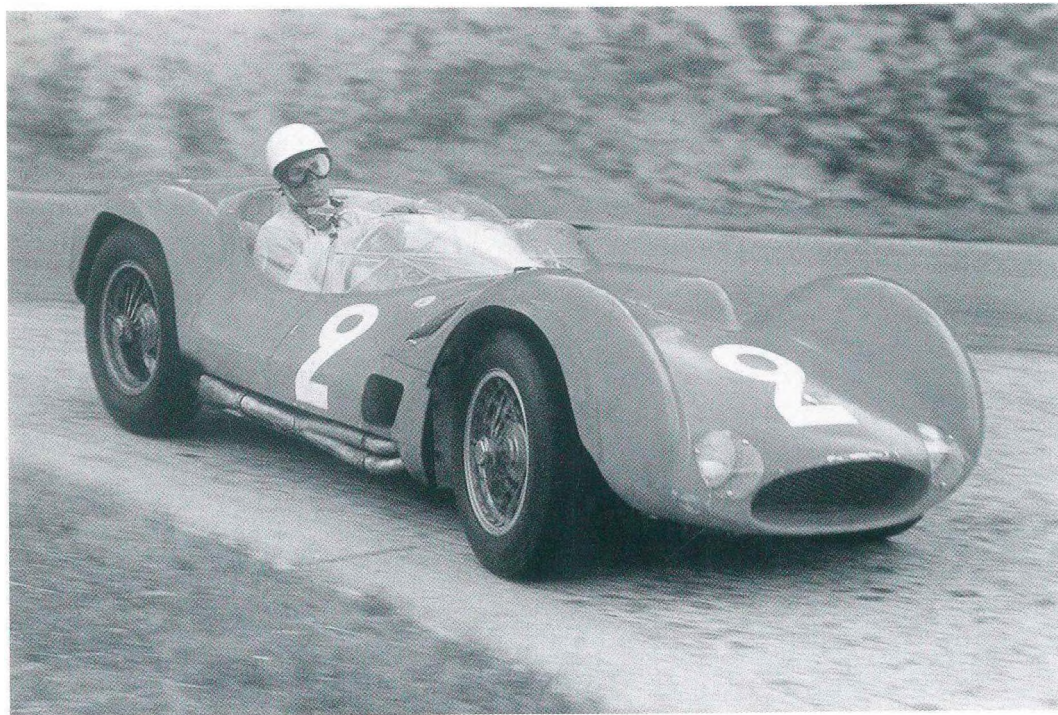
The first Tipo 60 2-litre 'Bird-cage' car under construction in the Maserati workshops early in 1959. The photograph makes a sharp contrast with that shown on Page 180 when Maserati racing activity was at its busiest.



Stirling Moss tested the modified 250F seen at Spa-Francorchamps, he also tested the Tipo 58 sports car. This was a 300S fitted with a 3-litre (68.2 x 68mm) V12 engine said to develop 305bhp at 10,000rpm. His report to Ugolini was disappointing, for he considered that the car lacked power high in the rev range and that it oversteered. This car was never raced.

Just under a month later, on 13 July, Maserati made a one-off entry with two 300S cars, now fitted with five-speed gear-boxes, in the 150-mile (241km) Vila Real race in Portugal. The cars were driven by Moss and Behra on this combined road and street circuit and in the absence of serious opposition they put on a show for the spectators, passing and re-passing. Moss has commented that it was a circuit on which he never engaged top gear, but went up to 6,500rpm in fourth. He won at 84.73mph (136.42kph) from Behra with Francesco Godia-Sales at the wheel of his private 300S in third place.

Stirling Moss with the 2-litre Tipo 60 'Bird-cage' on its debut in the Coupe Delamare Deboutville at Rouen in 1959. He was fastest in practice, led throughout and set fastest lap.



On 10 August Moss competed in the Kannonloppet at Karlskoga in Sweden with a 300S which he had borrowed from the factory. He won easily from locally entered Ferraris. He then travelled with the 300S to Roskilde to compete in the Copenhagen Grand Prix, run in six heats over the two days of 15–16 August. He retired because of engine trouble in the first heat and then borrowed Brian Naylor's 2-litre Maserati-engined JBW Special for his other two heats and won them both. Overnight the 300S was fitted with a replacement engine and after the three heats on the Sunday he took second place overall behind Carlsson (Ferrari *Monza*), beaten by less than a second.

1959

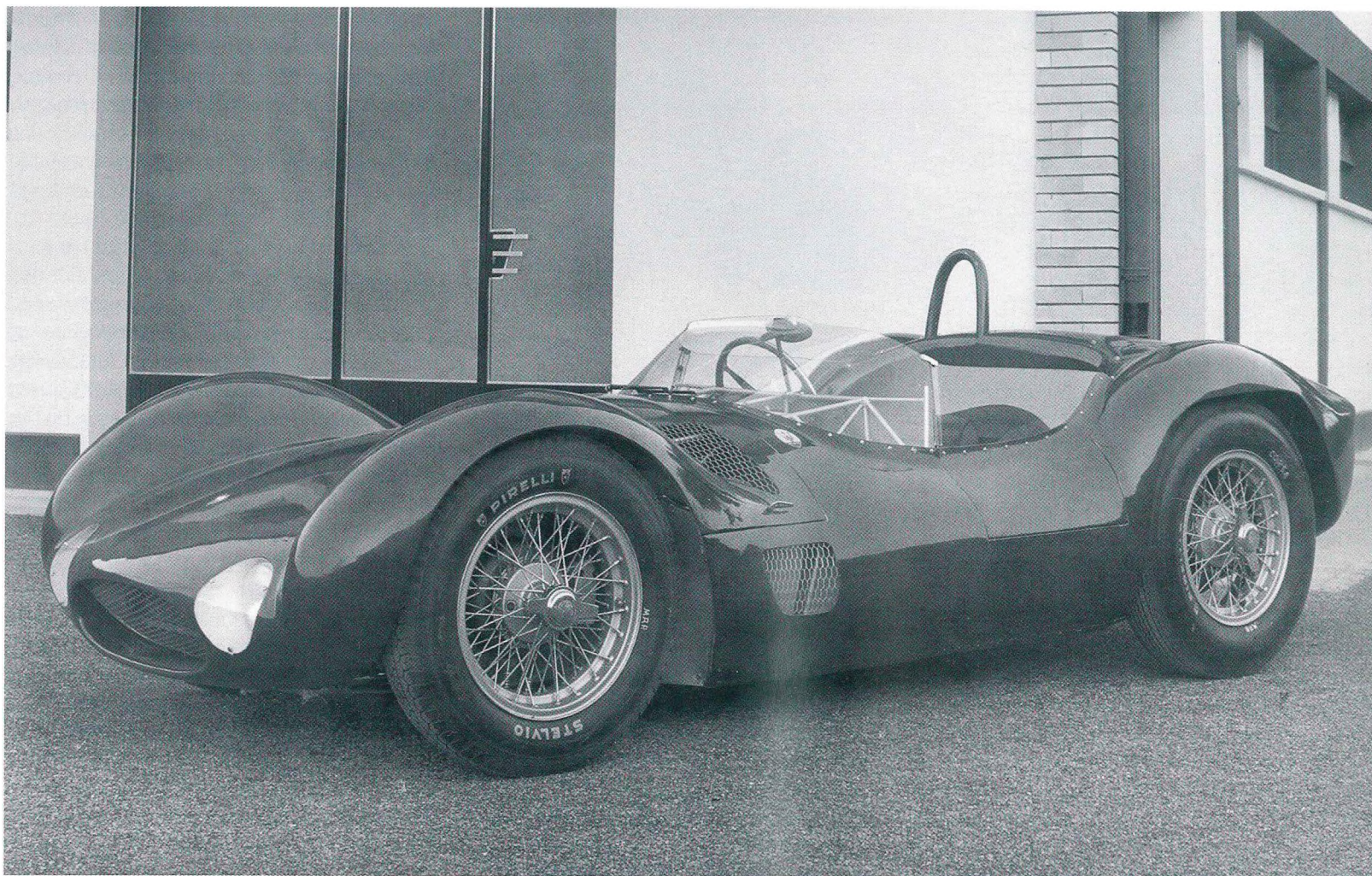
Early in 1959 all three Buell cars had been shipped back to Genoa, but 2534 remained at the docks because of the absence of a carnet. On 15 March Maserati wrote to

Temple Buell at his address in California, reminding him that they were still owed \$10,500 and requesting settlement at his early convenience. Hans Tanner was endeavouring to sell the *Piccolo* cars and he wrote to wealthy New Zealand amateurs Arnold Glass and Ross Jensen, pointing out that Buell was giving up racing, and in the letter to Glass said that a deal could be done 'el cheapo.' Tanner also revealed that there was a new and lighter Maserati space-frame available to which the components of one car could be transferred. He added in the letter to Glass that he would still have a good chance with the cars, especially if he lost some weight!

Neither driver was interested; Jensen had already driven one in New Zealand, Glass had presumably seen them and both had the chance then to buy a car. Tanner was also corresponding with Ugolini at his private address in Modena, seeking advice about fitting the *Piccolos* with disc brakes. Ugolini took the view that fitting disc brakes would add too much weight and so the idea was dropped. Eventually 2534 joined 2533 at the factory and presumably some 'horse deal' was done over the money owed.

With a view to running at Indianapolis, the 1958 *Eldorado* car that had competed in the Two Worlds Trophy was rebuilt for 1959. The body was neater, without a tail-fin, and the gear-change was now mounted conventionally on the left of the cockpit and much more convenient to use. It has been stated that a 4.7-litre V8 engine was fitted, but this is wrong as there was still a 170cu in/4,200cc capacity limit for unsupercharged cars at Indianapolis. During qualifying Ralph Liguori could not lap with the *Eldorado* faster than 136mph (219kph), far too slow to qualify – at this time the slowest qualifier was lapping at over 141mph (227kph) and so it was, inevitably, a non-starter.

Although most of Maserati's resources were now directed towards the production of GT cars, experimental work on competi-



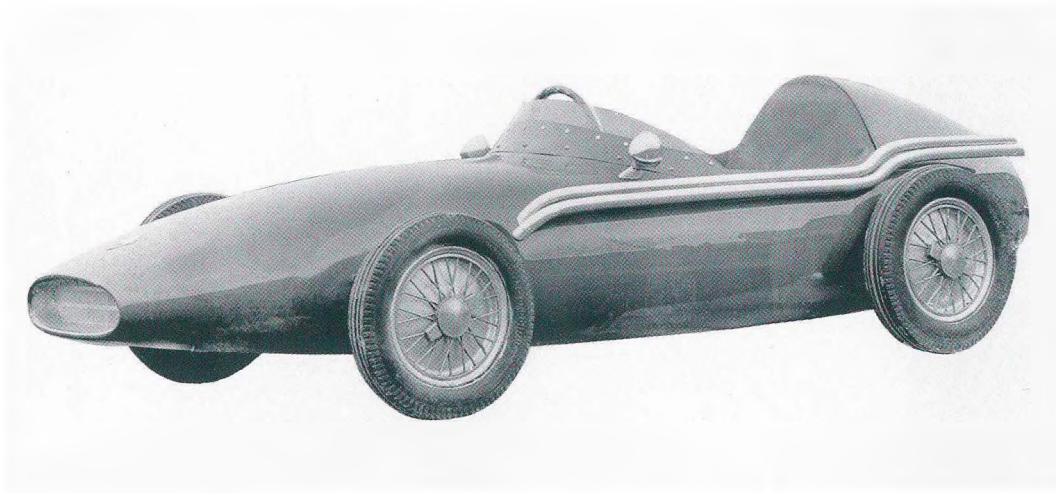
tion cars continued. It was not enough to keep everyone occupied and Nello Ugolini had left to run the short-lived *Scuderia Ugolini*. He formally entered Giorgio Scarlatti and Marie-Thérèse de Flippis, who had run their 250Fs under their own names in 1958, but the team did not complete a full season of racing. By 1960 Ugolini had become racing manager of Count Volpi's *Scuderia Serenissima di Repubblica de Venezia*, which entered Ferraris, including the famous 'Breadvan' version of the 250GT bodied by Drogo. *Scuderia Centro-Sud* had an ever-increasing collection of 250Fs and a large stock of parts. The team competed regularly through the year, but without much success, as not only were the cars obsolete, but they were often far from well prepared.

The Tipo 61 'Bird-cage' car with 2,890cc engine appeared late in 1959 and two of them ran at the Nassau Speed Week in December of that year. This is the first of the cars to be completed seen outside the Modena works.

Alfieri had developed the 250S, a version of the 200S sports-racing car, but with 2,489cc (96 x 86mm) engine developing 230bhp at 7,000rpm. Four of these 160mph cars were built and sold during late 1958 to early 1959. Far more engines of this type, known as the Tipo 250/S4 were sold than complete cars and among the first buyers of engines were Brian Naylor who installed one in his JBW Special single-seater, and 'Tommy' Atkins' High Efficiency Motors team who raced one in a 1958 Cooper T45 chassis.

Roy Salvadori drove this Cooper when

not required by the Aston Martin Grand Prix team and has commented that although the Maserati engine was less powerful than the 2,495cc Coventry Climax FWA, it was readily available, while the British engines were in short supply. Another user was John Coombs who installed one of these engines in a Cooper Monaco sports car chassis, again for Roy Salvadori to drive, and it was very successful in British events. These engines were much more difficult to maintain than the Climax FWA and many of the components had a very short life. They had to be used



Maserati built quite a number of children's versions of the Competition cars. This battery-powered model 250F – with one-piece body/chassis by Fantuzzi, forward and reverse gears, adjustable pedals and 4½ hours' endurance – was constructed in 1957. The factory retained it until 1959 when it was presented to one Pagliani, a friend of the Orsi family.

with Colotti gearboxes (see below) and these proved very troublesome.

Scuderia Centro-Sud took delivery of two new T51 rear-engined Cooper chassis into which Maserati engines were installed. These cars made their debut in the French Grand Prix at Reims where they were driven by Ian Burgess and Colin Davis (son of 'Bentley boy' and *The Autocar* sports editor 'Sammy' Davis). Other drivers of 'Mimmo' Dei's Coopers during the year were Hans Herrmann and Mario Cabral. They were not successful and the best performance by a Maserati-powered single-seater in 1959 was Salvadori's fourth place in the International Gold Cup race at Oulton Park at the end of September. A Cooper Monaco was also supplied to Scuderia Centro-Sud and Colin Davis drove this car to a win in the 186-mile (300km) Messina sports car race in August.

Another interesting Maserati-powered car at this time was the WRE (the initials stood for *World Racing Enterprise*), three of which were built, powered by 200SI engines. They were the work of former Willment Racing Team mechanic John Wadsworth. These were front-engined sports-racing cars and were raced almost exclusively in Italy. They

achieved a small measure of success, including a win in the sports car Naples Grand Prix by Tony Settember in 1959 and by Mennato Boffa in the 1960 Naples race.

During 1957 Maserati had been working on what would have been the 1958 team car if Modena had continued to race. Work was abandoned after one space-frame chassis with transverse leaf spring and wishbone independent rear suspension had been completed. It must be stressed that this was a different project from the *Piccolo*, which was merely a lighter and shorter version of the existing 250F. It was this chassis that Hans Tanner was offering to New Zealand drivers. After they had failed to respond to his offers, Tanner, together with Scarlatti and Valerio Colotti, both of whom also provided finance, decided that they would build up the space-frame chassis.

A very handsome body was built by Gentilini, who had worked with Fantuzzi at Maserati, and the 250F engine was the original number 2523 that had been removed from that chassis when it was first fitted with a V12 engine and since then had been in store at Modena. The car was fitted with Girling disc brakes. It became known as the Tec-Mec F/415. Studio Tec-Mec was the

small gearbox organisation that Colotti had set up near the Maserati factory after leaving the company at the end of 1957. Colotti carried out all the work on the project at his premises.

Tanner had grandiose ideas and wanted to set himself up as a team principal. He issued press statements saying that Automobili Tec-Mec was a company of which he was racing director, Gordon Pennington commercial Director and Colotti chief engineer. The team planned to run two new Maserati-powered Grand Prix cars of advanced specification to be driven by Jack Fairman (a driver of reasonable competence) and Colin Murray (whose experience was limited to minor British events, but was also, for a short while, British Maserati agent). The new company also offered a sports car powered by a 5.9-litre version of the 450S engine and the Poggi Formula Junior car, which was in fact built by another firm.

Both Colotti and Scarlatti disassociated themselves from Tanner's plans. It was claimed that Piero Drogo and Boris 'Bob' Said had covered 500 miles (805km) in testing at Modena with the Tec-Mec and the car was also tested by Scarlatti and Joakim Bonnier. As he went past the pits, Scarlatti extended his arms outwards. When he came into the pits, he was asked why he had done this. 'To demonstrate the straight-line stability,' he replied. Even so, the proposed entry for Scarlatti in the Italian Grand Prix was abandoned. Tanner took the car to the United States and it eventually appeared at the US Grand Prix at Sebring on 12 December in the name of *Camoradi USA* (see below) and was driven by young hopeful Fritz D'Orey. D'Orey was third slowest qualifier and after six laps trailing round at the back of the field he retired because of an oil leak.

The *Camoradi* team entered the Tec-Mec in one more race, an American National event at Daytona early in 1960. It may have been painted in American white and blue colours and it ran on 16in (40.64cm)

wheels. The Tec-Mec simply lacked development and many years later Colotti told present owner Barrie Baxter, who competes very successfully with the car, that in original form it had been fitted with 15in (38.1cm) wheels and that the larger wheels fitted in the United States had made the roll-centre too high.

Over the winter of 1958–59 Alfieri had been building another sports car, to be known officially as the Tipo 60, but more familiarly as the 'Bird-cage.' Alfieri had taken on board the lessons learned from the Lotus Eleven space-frame chassis and then gone a stage further. The chassis of the Tipo 60 was formed by a multitude of small-diameter tubes welded to form a frame that was both very stiff and very light, and with additional rigidity provided by the lower body panels.

At the front the suspension was by double wishbones and coil springs, while at the rear there was a de Dion axle suspended on a transverse leaf spring and located by radius rods. Dunlop disc brakes were fitted front and rear. The dry-sump 1,989cc (93.8 x 72mm) engine was a development of that used in the 200S, power output was 200bhp at 7,800rpm and it was canted in the chassis at an angle of 45 degrees. This worked, whereas when Colin Chapman canted Climax FWA engines in his Lotus 15 sports and Lotus 16 Formula 2 cars, it did not work. Transmission was by a five-speed gearbox in unit with the final drive. Very skimpy alloy bodywork was fitted.

The sheer complexity of this Altieri-designed chassis was staggering and in their superb book, *Racing and Sports Car Chassis Design*, Michael Costin and David Phipps wrote:

One of the most interesting cars produced in recent years is the type 60-61 Maserati, which very quickly earned itself the nickname 'bird-cage' because of its extremely complicated chassis construction. Race results have shown that the use in this way of very large numbers of small diameter

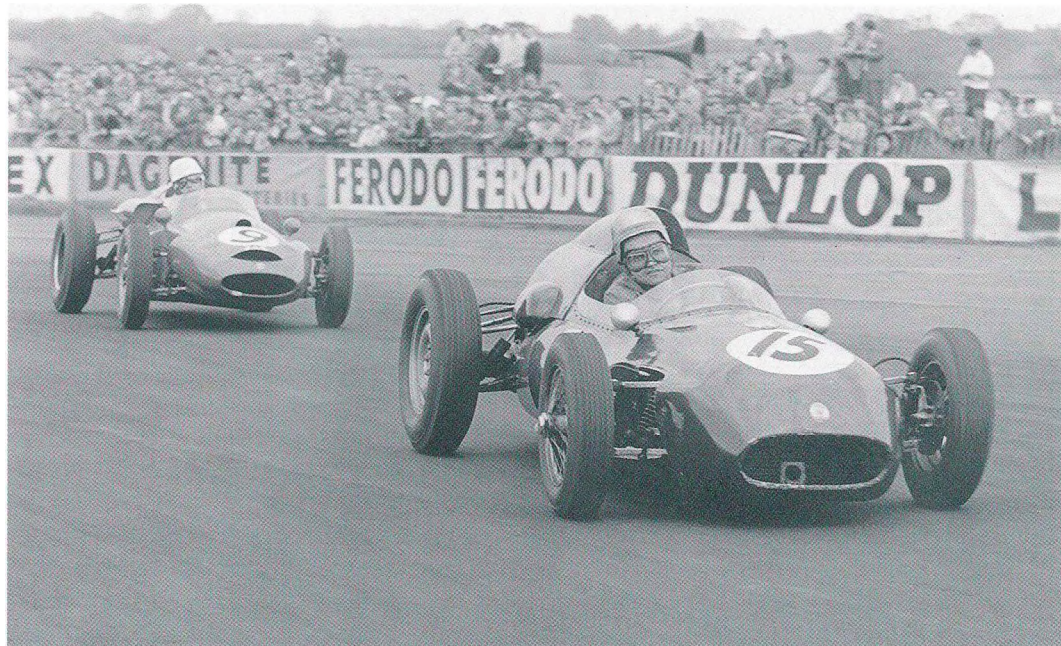
tubes is no mere gimmick, but a serious attempt to obtain an extremely rigid lightweight structure. The chief disadvantage of this type of chassis is its complexity and the amount of work involved in making it. Distortion during welding would also seem to be unavoidable. And . . . accessibility is hardly the Maserati strongpoint. Tubes have to be cut and bent to make way for vital components, oil pipes writhe in and out of the chassis members and most of the engine accessories have to be dismantled before the engine can be removed from the frame.

With such thin tubing, bays accommodating large loads need considerable reinforcement, and as carried out on this type 61 Maserati many of these leave much to be desired from the structural viewpoint. The rear radius arms, for example, are located amid a maze of tubes whence the load paths out into the chassis are extremely tortuous. Traditional Italian brackets, copiously drilled, support the front suspension units and an extremely complex front bulkhead

deals with suspension and steering loads. Without being churlish one might well ask whether the same job might not be done by a straightforward space frame having the minimum necessary number of members.

Stirling Moss was invited to the factory the day after the 1959 Monaco Grand Prix to see the Tipo 60 and the following day he tested it at Modena AeroAutodromo. It was then taken to the Nürburgring for him to test during practice for the 1,000-km race, but the engine seized on the first lap. Moss persuaded Maserati to enter the car in the 186-mile (300km) Coupe Delamare Debutteville for 2-litre sports cars on 12 July, a meeting at Rouen where he was already committed to drive a Formula 2 car. He took pole position in practice, led throughout, set fastest lap and won easily from Alan Stacey (Lotus 15). After this the Tipo 60 went into production, but only six cars were built in all, believed to be chassis numbers 2451, 2460, 2462, 2465, 2466 and 2468.

Brian Naylor with his very potent JBW special leads Masten Gregory with a Cooper entered by Scuderia Centro-Sud in the 1960 International Trophy race at Silverstone. Gregory finished sixth and Naylor, plagued by mechanical problems, 11th. Both of these cars were powered by 4-cylinder 2.5-litre Maserati engines. (T.C. March)





OFFICINE ALFIERI MASERATI S. p. A. • MODENA

CARATTERISTICHE DELLE NUOVE VETTURE SPORT MASERATI - 4 Cilindri

	Tipo 60	Tipo 61
MOTORE:		
n.4 cilindri in linea - Inclinato a 45°		
Alesaggiomm.	92	100
Corsa "	75	92
Cilindrata totalecc.	1994	2890
Camera di combustione emisferica - Doppio albero a cammes in testa - Comando valvole con linguette e molle a spillo - Alberi a cammes comandati da ingranaggi elicoidali - Accensione doppia con spinterogeno - Lubrificazione forzata con pompa ad ingranaggi e serbatoio ad elementi irradianti.- Raffreddamento con pompa centrifuga e radiatore.		
PotenzaHP	195	250
Regime massimo di rotazione	8000	6500
Rapporto di compressione	9,5x1	9,7x1
Carburante: N.O. 100 RM.		

FRIZIONE

A dischi multipli a secco

CAMBIO

A 5 velocità e retromarcia. Il cambio é in gruppo unico con il differenziale tipo Z.F.

PONTE

Con semiassi di trasmissione oscillanti e scatola rigida al telaio.

TELAIO

Estremamente leggero con reticolazione di tubo che lo rende rigidissimo

Passo	mm.	2200	2200
Carreggiata a terra anteriore	"	1250	1250
Carreggiata a terra posteriore	"	1200	1200

SOSPENSIONI

Anteriore: indipendente con molle elicoidali, barra di compensazione, ammortizzatori telescopici.

Posteriore: a balestra trasversale e ammortizzatori telescopici.

STERZO: a cremagliera con correzione della sterzata

FRENI: anteriori e posteriori a disco con Ø 335 e 314 mm.

RUOTE: a raggi - cerchio ant. 4.50x16 - Post. 4.50x16

PNEUMATICI: anteriori 5.50x16 - posteriori 6.50 x 16

PESO DELLA VETTURA A SECCO Kg. 570 600

mod. 3 bis 6000 - 1957

Another early success gained by the Tipo 60 was in the Pontedecimo-Gioir hill climb in which Govoni set fastest time of the day, defeating Scarlatti at the wheel of a 2-litre Ferrari *Dino* V6. The Tipo 61 was the next step, with 2,890cc (100 x 92mm) engine developing 250bhp at 7,000rpm. The Tipo 61 was first revealed in September 1959 and these cars were very modestly priced at the equivalent of £3,900 ex-factory and £4,400 delivered in the United States. Two cars were delivered in time for the Nassau Speed Week in the Bahamas in December. Lloyd Casner entered one of these cars for Carroll Shelby, but he retired in his race because of mechanical problems. The other was driven by Gaston Andrey and he was fighting for second place when a slight collision put him out of the race.

1960

Lloyd 'Lucky' Casner was an opportunistic car-dealer from Miami. He sniffed the possibility of a good racing deal and succeeded in putting together a very remarkable package. He persuaded the Goodyear tyre company, at this time completely unknown as a force in European racing, to finance a team of Tipo 61 cars, including paying for their support by the factory. It was not quite the deal that Casner would have liked, for there was never enough money for him to do everything he wanted and when Goodyear withdrew their support for 1961, he was really left struggling.

Still, there was enough money to order three more cars for delivery in 1960 and the team operated under the name *Camoradi USA* (Casner Motor Racing Division). The cars were, of course, painted in United States racing colours of white with a dark blue stripe. What the Tipo 61 and the deal did was to inject some interest in sports car racing at a time when otherwise there would have been complete Ferrari domination. A change in sports car regulations required cars to be fitted with windscreens

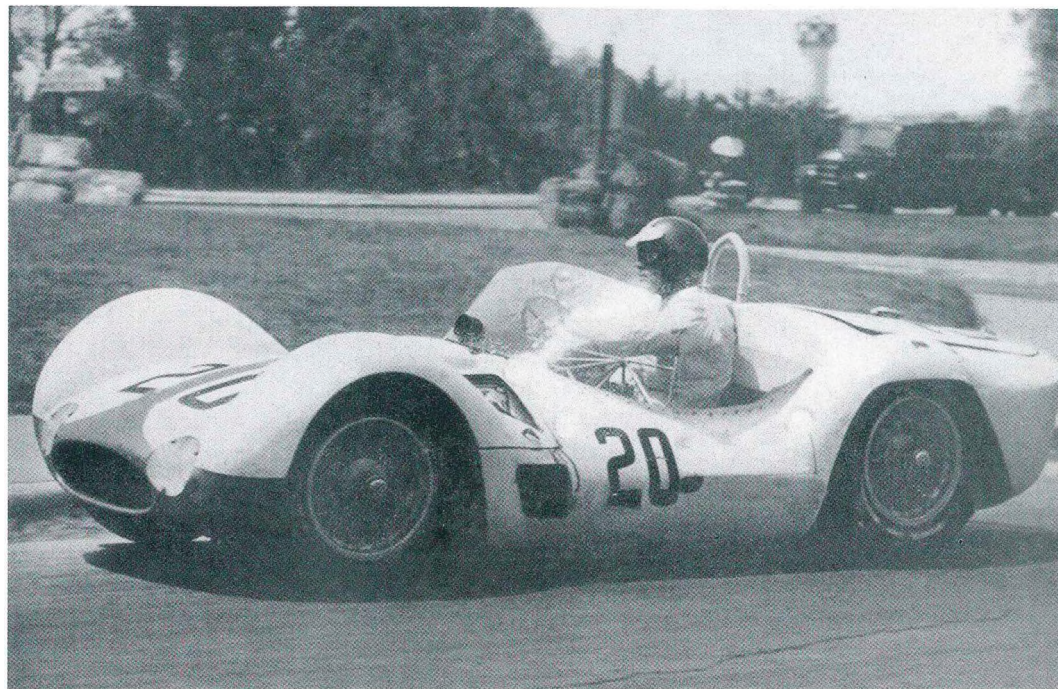
A specification sheet issued by Officine Alfieri Maserati for the Tipo 60 and 61 'Bird-cage' cars.

not less than 25cm (1ft) in height and for luggage accommodation to be provided. The windscreen requirement was particularly stupid, as it was impossible to keep screens clear from circuit filth and dead insects, and caused vision problems for drivers.

In January the single car so far in the *Camoradi* team's possession was entered in the Buenos Aires 1,000Km race for Masten Gregory and Dan Gurney. In practice Gurney was second fastest behind Phil Hill (Ferrari *Testa Rossa*), a second slower. There were only 23 starters. Initially Gurney built up a lead over the Hill/Allison Ferrari and this continued after Gregory had taken over. The handling of the Maserati started to deteriorate and by lap 50 it had dropped to third place and it retired not long afterwards. All interest went out of the race and works Ferraris took the first two places ahead of five 1,600cc Porsche RSKs.

The following month Stirling Moss was asked to drive a *Camoradi* Tipo 61 in the Cuban Grand Prix at Havana on 28 February. On a circuit consisting of part-airfield and part-roads Moss took pole position, set a lap record and won from Pedro Rodriguez (Ferrari) and Masten Gregory (Porsche). This was despite the 'Bird-cage' being fitted just before the start with unsuitably hard tyres, the seat working loose and the exhaust system falling apart. Quite how long the race was, is not entirely clear, for it was scheduled to run for 63 laps, the drivers were told at the start that it had been cut to 50 laps and the chequered flag was waved after 51 laps. It appears to have been the first and only motor race held in Cuba after the Fidel Castro Communist take-over in 1958.

By the Sebring 12 Hours race on 25 March there were quite a number of Tipo 61s in circulation. The *Camoradi* team entered three cars and Briggs Cunningham fielded two. Ferrari refused to enter as the Amoco fuel company sponsored the race and a requirement was that competing cars used its products. The race proved a complete debacle for



Dan Gurney at the wheel of the *Camoradi* Tipo 60 which he co-drove with Masten Gregory in the 1960 Buenos Aires 1,000-km race. They led the works *Testa Rossa* Ferraris until forced out of the race by transmission problems.

Maserati. One of the *Camoradi* cars non-started after breaking its engine in practice – probably con-rod failure.

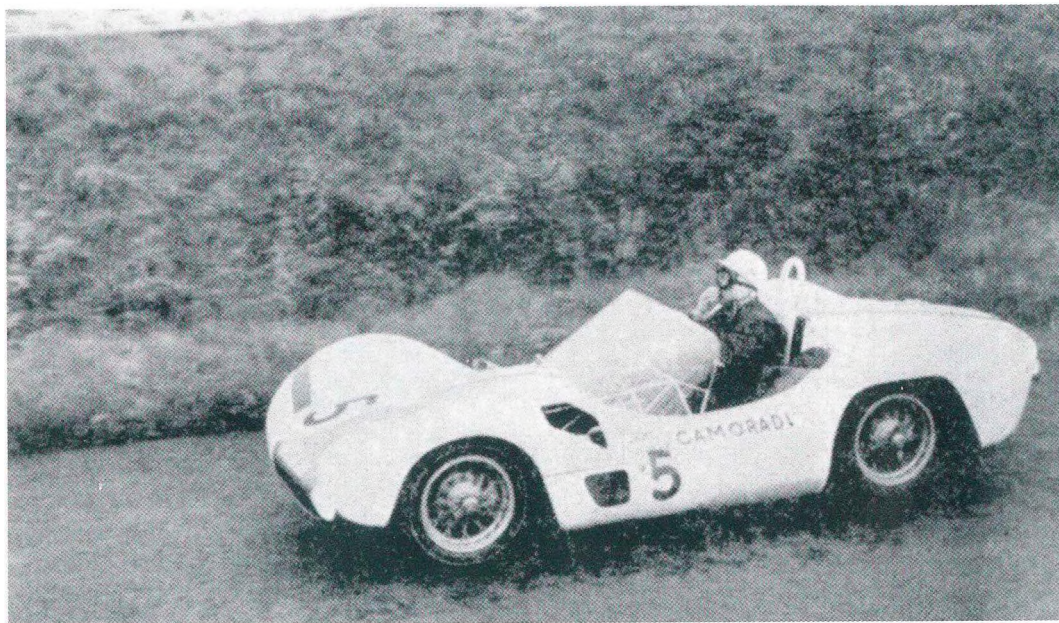
Stirling Moss and Dan Gurney with another *Camoradi* car built up a staggering lead, only to retire four hours before the finish because of rear axle failure. The third team car driven by Gregory/Shelby succumbed to a broken piston. Nor did the Cunningham-entered cars fare any better; the Tipo 61 driven by Causey/Steer was in third place when the rear axle failed about half-an-hour before the finish, while the Hansgen/Crawford car also retired because of transmission problems after an excursion into the sand. Porsche entries took the first two places ahead of six private Ferraris.

As a paying customer, who was himself being paid, Casner turned on Alfieri and demanded that the cars were made race-worthy. In a short space of time Maserati had developed stronger con-rods, together with stronger gearbox internal components and final drive. Casner had scratched his

entry from the Targa Florio on 8 May, but Alfieri and Bertocchi were convinced that the Tipo 61 now had the reliability to match its speed and eventually *Camoradi* entered a single car for Umberto Maglioli and Nino Vaccarella.

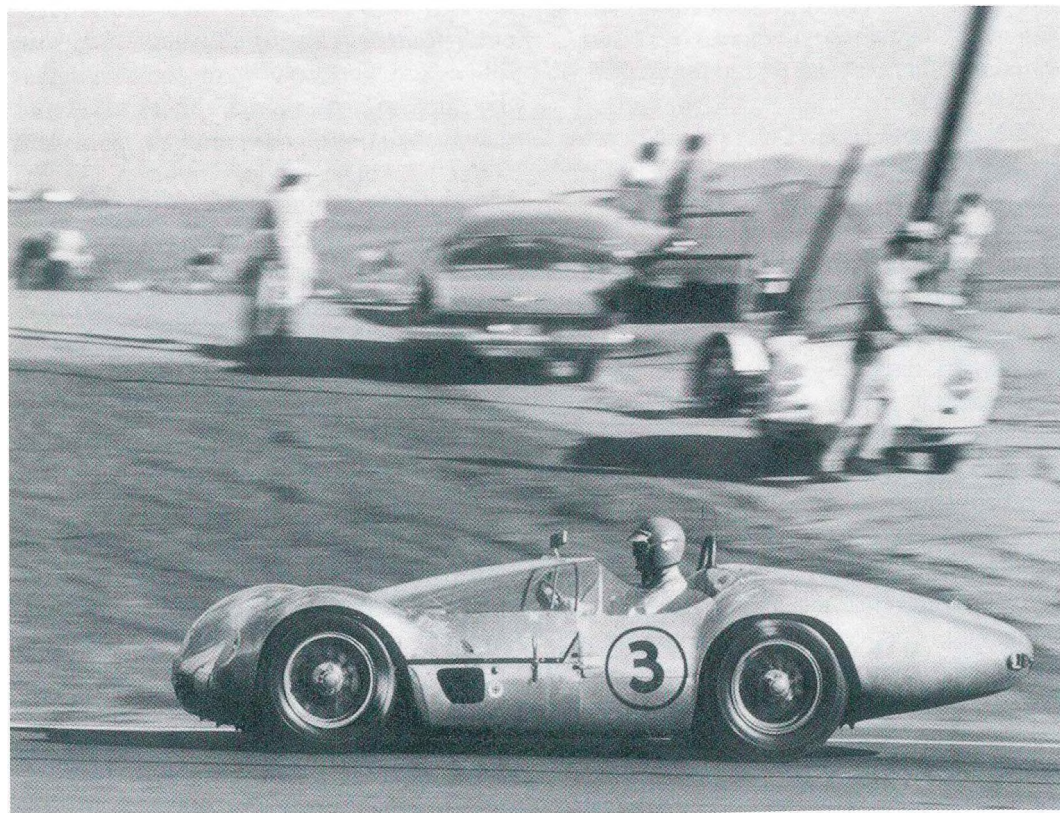
In this 10-lap, 447-mile (720km) race the Tipo 61 held second place for the first four laps, then moved up into the lead. Two laps from the finish Vaccarella ran out of petrol, he managed to cadge some off a spectator and carried on until the engine cut out in the middle of a corner and he crashed. It was discovered afterwards that the fuel tank had split, possibly because of damage caused by a rock. Bonnier/Herrmann won with a Porsche from the surviving works Ferrari of von Trips/Hill.

Rarely have conditions been so appalling at the Nürburgring, as they were on 22 May, the day of the 1,000-km race. Race morning dawned to persistent drizzle that lasted for much of the race and then was succeeded by mist that turned into drifting



At the Nürburgring in May 1960 this Tipo 61 was entered by the Camoradi team for Stirling Moss and Dan Gurney. They won the race by a margin of over three minutes from a 2-litre Porsche.

The remarkable Le Mans Tipo 61 with long sloping windscreen and a more aerodynamic tail. Here it is being driven by Jeffords at Laguna Seca in late 1960



fog that reduced visibility in places to less than a hundred metres. Visibility was so bad that drivers passing the pits could not see the spectators in the stands. Two Camoradi Tipo 61 cars were entered for Moss/Gurney and Gregory/Gino Munaron. At this race Piero Taruffi managed the Camoradi team. Initially Moss led and then Gregory moved up into second place ahead of the works Ferraris, but it was not to be a trouble-free race. On lap 20 Gurney brought the leading Tipo 61 into the pits because of a broken oil pipe. Conditions were very cool, causing a rise in oil pressure on the Tipo 61 and this led to the breaking of the pipe.

Over five minutes were lost while the pipe was replaced and a blanking plate fixed across the air intake. Gurney rejoined the race, climbed back into the lead and held it despite his goggles being broken by a stone two laps before he came back into the pits. Moss rejoined the race in third place and he went on to win by a margin of just over two minutes from the Porsche of Bonnier and Gendebien. The other Tipo 61 of Gregory/Munaron had slowed as the race progressed and finished fifth, a lap in arrears. It was Moss's third successive win in the Nürburgring race – he had won with Aston Martins in 1958 and 1959.

At Le Mans one of the Camoradi Tipo 61s was fitted with much more aerodynamic bodywork consisting of a long sloping windscreen that extended from almost the nose of the car to the scuttle and a longer and more aerodynamic tail. The new windscreen effectively circumvented the problem of the minimum windscreen height by combining the necessary depth with improved aerodynamics and also gave hope that because of its slope insects and much of the dirt would be swept over the top. Masten Gregory/Chuck Daigh drove this car and two other standard Tipo 61s were entered by the Camoradi team.

Gregory showed the modified car to be the fastest in the race by a considerable margin and pulled out a good lead over the

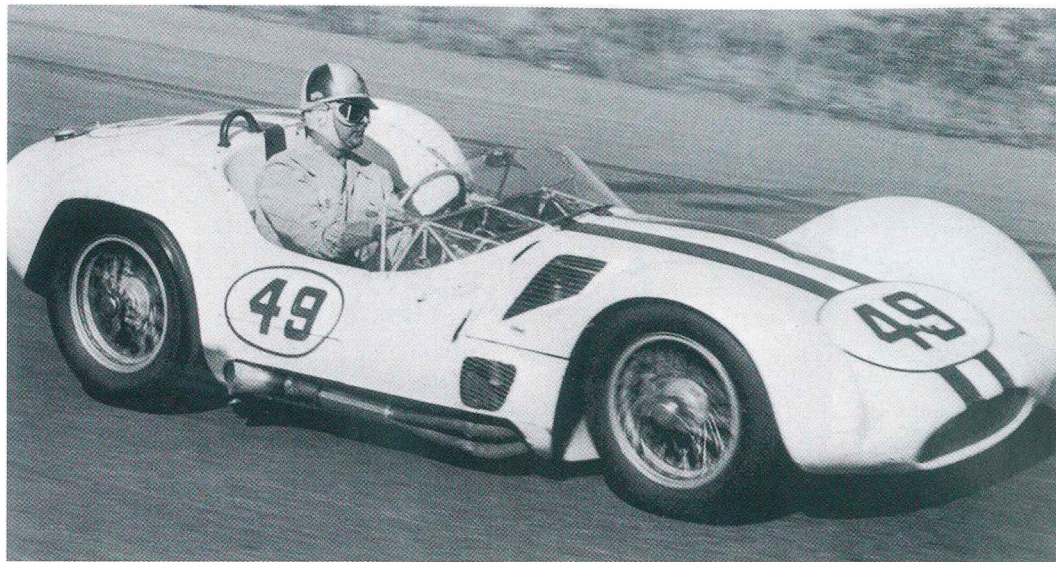
opposition. At the first routine pit stop the engine refused to fire and 12 laps were lost while the trouble was traced to a broken wire in the starter motor and the problem cured. The car was now in 46th position, but it had climbed back to 29th when the electrics failed early on the Sunday morning. Both the other *Camoradi* entries retired and works Ferraris took the first two places.

That the Tipo 61 suffered from teething troubles was undoubted, but Alfieri was moving on to new projects without getting the model fully sorted. It is believed that 17 of these Tipo 61 cars were built with chassis numbers running between 2451 and 2472 (excluding the six numbers allotted to the Tipo 60 cars). All the Tipo 61s were sold to drivers based in the United States and they enjoyed many successes in the hands of private entrants.

Maserati was no longer any force at all in Grand Prix racing and the 2,500cc formula finished at the end of 1960. *Scuderia Centro-Sud* continued to race their Maserati-powered Coopers without success. Owners of 250Fs could no longer readily obtain entries in World Championship events and the only Championship races in which they appeared during 1960 were the Argentine and United States Grands Prix. When Bob Drake finished 12th in the United States race at Riverside Raceway on 20 November, the 250F became the only Grand Prix car to compete in the first and last races of the seven-year 2,500cc Formula.

1961

Alfieri continued development work on the 'Bird-cage' and in December 1960 Giorgio Scarlatti tested a new rear-engined version designated the Tipo 63. By the latter part of 1960 most constructors had followed Cooper's very successful lead and adopted a rear-engined configuration for their cars. Everybody, including Enzo Ferrari, had concluded that the era of the front-engined racing car was at end. From now on the



One of the most successful drivers of Tipo 61 'Bird-cage' cars in the United States was Bob Drake. Here he is seen at Riverside Raceway, New York State in 1960.

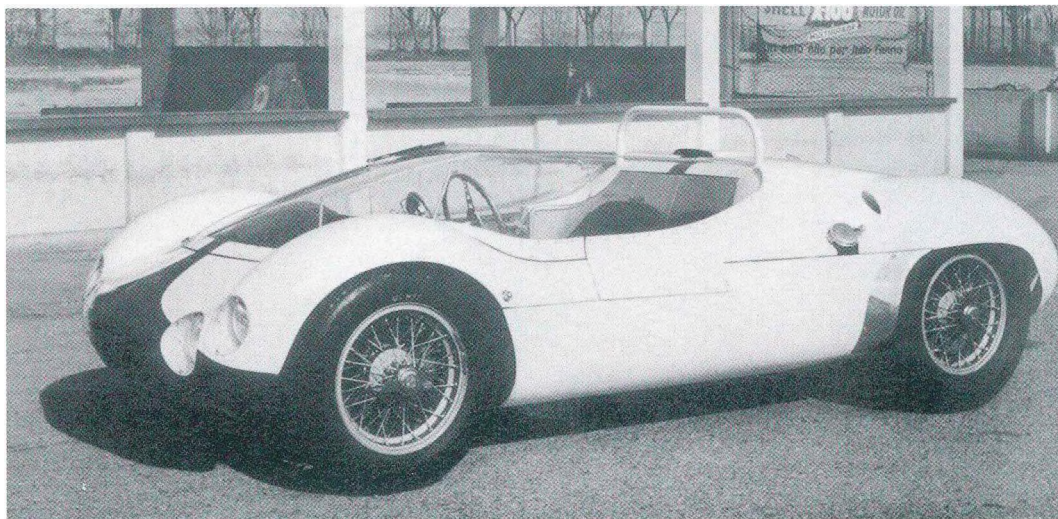
horse would push the cart. The chassis of the Tipo 63 followed the general design of the Tipo 60/61, with the same wheelbase and similar track and it retained the same front suspension layout. At the rear the de Dion rear axle had been replaced by coil springs and wishbones. The engine was the same 4-cylinder 2,890cc unit used in the Tipo 61.

Maserati also built an experimental V8 2,930cc (81 x 72mm) engine for use in the Tipo 63 and this was said to develop 290bhp at 7,500rpm, but it was not proceeded with. Instead Maserati made available a development of the V12 engine used in the prototype 1958 Tipo 58 sports car. This had a capacity of 2,989cc (70.4 x 64mm) and was said to develop 320bhp at 8,500rpm. So far as can be ascertained, four Tipo 63 cars were built with 4-cylinder engines and three or four with V12 engines. The Tipo 63 had considerable potential in the World Sports Car Championship. These cars were ordered by Volpi's *Scuderia Serenissima Repubblica de Venezia*, Briggs Cunningham and Lloyd Casner. At least one of these cars, belonging to *Serenissima*, started life with a 4-cylinder engine, then had a V12 fitted and

has now been restored by Matteo Panini with a 4-cylinder unit.

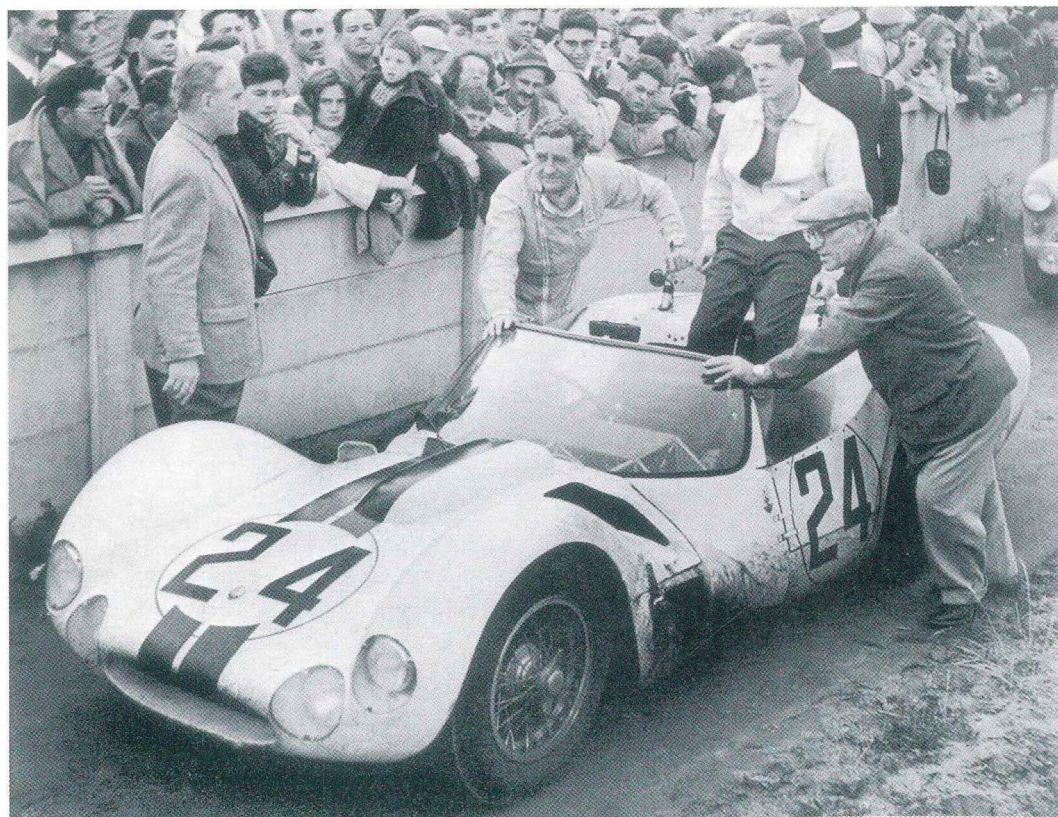
The first round of the Championship was the Sebring 12 Hours race on 25 March and six 'Bird-cages' faced a horde of Ferraris. Casner had now lost his Goodyear sponsorship and he was trying to run the team without money. Stirling Moss and Graham Hill were entered to drive the new *Camoradi* Tipo 63, while there was a Tipo 61 for Gregory and Krasner. Moss was far from happy with the twitchy handling of the Tipo 63, so he and Hill swapped cars with their team-mates. Cunningham made three entries, a Tipo 63 for Walt Hansgen/Bruce McLaren, a Tipo 61 for John Fitch/Dick Thompson and a Tipo 60 for himself and Bill Kimberley. Rallye Motors also entered a Tipo 61 for Causey/Steer.

At the start Moss was left on the line with the *Camoradi* Tipo 61 because of a flat battery and six minutes were lost before the 4-cylinder engine could be induced to fire up. Moss started his usual fast chase through the field, was in second place by the end of the second hour, but shortly after Hill took the wheel, he came into the pits partially overcome by exhaust fumes and the Tipo 61 was retired because of a broken



This is the first of the Tipo 63 cars with rear-mounted 4-cylinder engine seen at Modena shortly before delivery to Briggs Cunningham. The driving position is very far forward and the windscreen is enormous.

This rear-engined V12 Tipo 63 'Bird-cage' was entered by Briggs Cunningham at Le Mans in 1961 and driven into fourth place by Augie Pabst and Dick Thompson. It was one of the few races in which these unreliable cars lasted the full distance. Alfred Momo, well-known American car preparer, is helping to push the car.



exhaust manifold. Moss and Hill were now switched to the Tipo 63, but it was soon out because of broken rear suspension. Casner had pinned his hopes on a good result finding more funding, but *Camoradi* had let itself down by bad preparation. The other three three-litre Maseratis retired and Ferraris took the first four places. Cunningham/Kimberley finished 11th after delays while the exhaust system was repaired.

The 447-mile (720km) Targa Florio held on 5 May was the next round in the Championship and the *Serenissima* team entered their two 4-cylinder Tipo 63s. Maglioli/Scarlatti drove a car with Borrani disc wheels at the front, Dunlop disc wheels at the back and a streamlined tail-fin incorporating a head-rest. The car driven by Vaccarella/Trintignant, which had been completed a little later, had wire-spoked front wheels, Dunlop disc rear wheels and lacked the tail-fin/head-rest. On this circuit the Maseratis could not match the speed of the Ferrari and Porsche opposition and finished fourth, Vaccarella/Trintignant, and fifth, Maglioli/Scarlatti, behind a Ferrari and two works Porsche entries.

Once again the weather did not favour the Nürburgring 1000-km race and much of this long race was run in snow and sleet and on a very slippery surface. It should have proved another Ferrari benefit, but, instead, there was a very unexpected result. The penurious *Camoradi* team entered a very scruffy Tipo 61, running on wider rear wheel rims and with increased rear wheel camber, and this was driven by Gregory/Casner. *Serenissima* ran both their Tipo 63s for Trintignant/Maglioli and Scarlatti/Vaccarella. This team was now being managed on an occasional basis by Nello Ugolini and it was supported by a full complement of works mechanics. Reporters commented on how very different the two Maseratis looked from each other.

The *Camoradi* Tipo 61 was not expected to last long, but ran steadily in the appalling weather conditions, gradually moving up

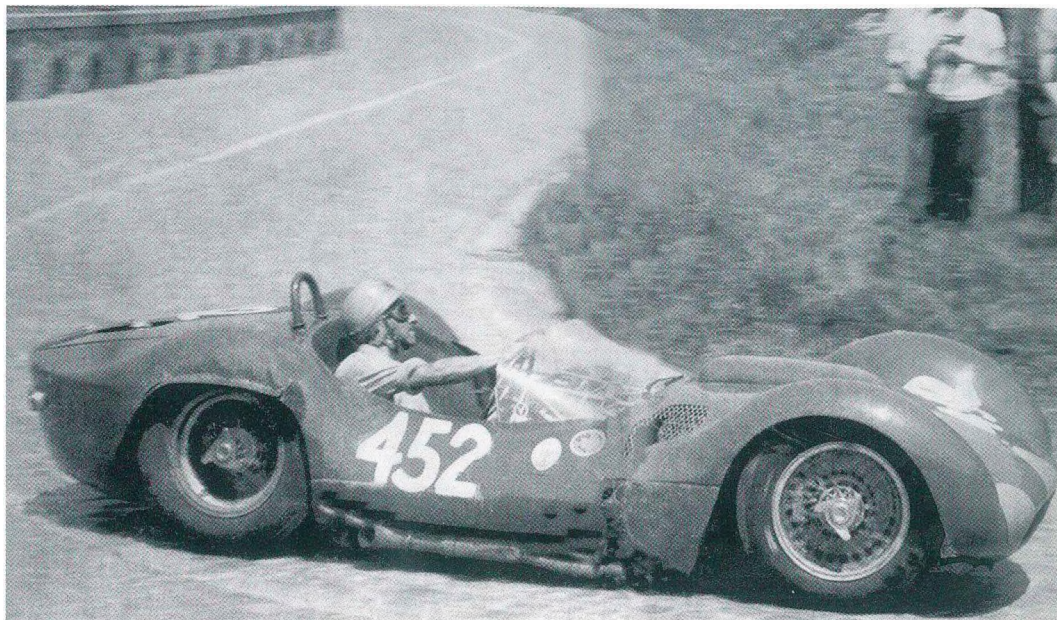
the field and closing the gap on the leading and very rough-running Ferrari of Phil Hill/von Trips. On lap 25 the Ferrari went off the road and caught fire. After a routine pit stop Gurney/Casner led by two and a half minutes and as the race progressed gradually extended their advantage. At the end of this 44-lap race they were 1min 12.8sec ahead of the Ferrari driven by Ricardo and Pedro Rodriguez.

Neither of the *Serenissima* entries lasted the distance. Maglioli came into the pits on lap 17 and the car was retired because of a split final drive casing. It had lost all its oil and must have been very hot, as the mechanics poked at it with bits of stick before pushing it away. Trintignant was switched to the other Tipo 63. He buckled the nose in an off-course excursion and this car was also retired because of final drive failure, four laps before the finish.

A week later Casner drove the Tipo 61 in the Rouen Grand Prix run in two two-hour heats. He faced little opposition apart from the potential unreliability of his car and, after being delayed four minutes at the start because of starter switch-failure, he finished second in the first heat to Mairesse (250GT Ferrari). He won the second heat easily and was the overall winner on aggregate.

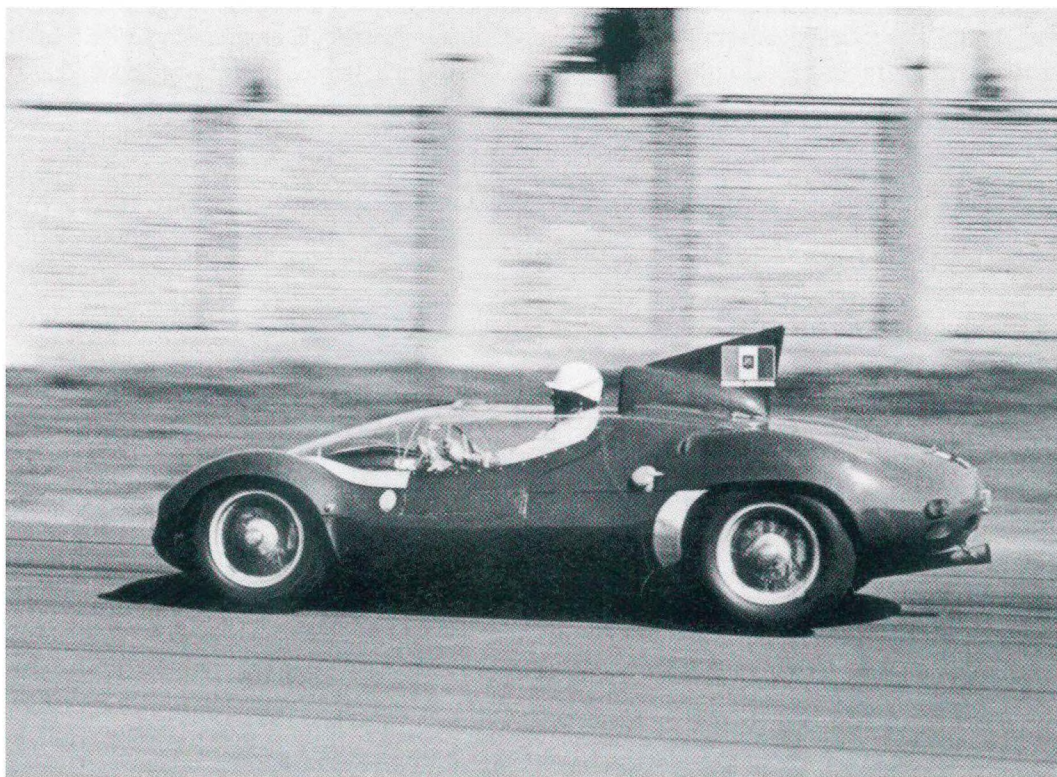
The V12-engined Tipo 63 had first appeared at the Le Mans Practice Weekend, 8–9th April, when a single example painted light green ran in the name of *Scuderia Serenissima*. With Scarlatti at the wheel it was fourth fastest behind a trio of different Ferraris in 4min 3.3sec (124.10mph/199.8kph). Cunningham entered two V12 Tipo 63s at Le Mans on 10–11 June and there was also a V12 Tipo 63 from *Scuderia Serenissima*.

While these cars were experimental, it was odd that each should have different cylinder dimensions. By this time so few competition Maseratis were being built that they were little more than 'specials', with rather more sophisticated input than most of their kind. The Cunningham cars were driven by Hansgen/McLaren (cylinder



With this 2-litre Tipo 60 car Menarto Boffa scored many successes in Italian events. Here he is on his way to a class win in the 1961 Pescara Four hours race. The bodies of these cars were very flimsy and splits round the rear wheel arch can be seen.

Count Volpi's Scuderia Serenissima Repubblica di Venezia raced this rear-engined V12 Tipo 63 in various events in 1961. In this photograph Guerino Bertocchi is testing the car at Modena.



dimensions of 70 x 64mm) and Pabst/Thompson (75.2 x 56mm – dimensions later used in the 1957 V12 engines supplied to Cooper). There was also a Tipo 60 2-litre car with long sloping windscreen and long tail driven by Cunningham partnered by Jim Kimberley. The *Serenissima* V12 had cylinder dimensions of 68.2 x 68mm and was driven by Vaccarella and Scarlatti.

The Hansgen/McLaren car was in third place after two and half hours when Hansgen lost control in the wet at *Tertre Rouge* and rammed a sandbank. A blown cylinder head gasket, the result of overheating, eliminated Vaccarella/Scarlatti in the sixth hour, but the V12 of Pabst/Thompson, despite its overheating problems, finished fourth, 182 miles (293km) behind the winning Ferrari. Cunningham/Kimberley also finished with their Tipo 60, taking eighth place.

Ferrari had easily won the World Sports Car Championship with the maximum of 24 points to the 14 of Maserati, but for the presence of Maserati this last Championship year would have lacked any interest at all. There was one more round still to be run, the Pescara Four Hours on 13 August, and this counted for half-points only because of its length. Four Maseratis were entered in this race. There were two Tipo 63s from *Scuderia Serenissima*, a 4-cylinder for Vaccarella and what amounted to a works development V12 driven by Bonnier. At the rear Maserati had reverted to a de Dion axle, with long struts, incorporating coil springs, running backwards from the bottom of the hub carriers to a pivot point below the centre of the axle and radius rods. The coil springs were compressed by the struts, which shortened as the wheel rose. Casner entered the 1960 Nürburgring-winning *Camoradi* Tipo 61 (2472) and Mennato Boffa drove his Tipo 60.

Both the *Serenissima* cars displayed the usual Maserati reluctance to start, but Casner, who made a quick start, held second place behind Richie Ginther in the

works Ferrari. Bonnier retired his Tipo 63 early in the race because of a broken drive-shaft and Vaccarella worked his way up to second place ahead of Casner, only to retire with engine problems. Not long after Ginther had handed the leading Tipo 246SP Ferrari over to Baghetti, the rear suspension broke. So Casner led and seemed uncatchable, but he went off the road in avoiding a slower car that had crossed his line. The Maserati rolled into a field and Casner was badly burned by water leaking from the radiator header tank. Bandini/Scarlatti won the race at the wheel of a Ferrari *Testa Rossa* loaned by the works to *Scuderia Centro-Sud*. Boffa finished third and won the 2,000cc class.

The 1,500cc Grand Prix formula came into force for 1961 and Maserati supplied 4-cylinder 1,484.1cc engines developing 165bhp at 8,500rpm, to a number of entrants. These engines were known as the Tipo 6. Principal users were *Équipe Nationale Belge* (who fitted them in Emeryson chassis) and *Scuderia Centro-Sud* who used them to re-engine their 1959 T51 Cooper chassis, later adding a 1961-built T53 to their stable. *Scuderia Serenissima* also used one in a 1959 Cooper chassis. Other users included Gaetano Starrabba who fitted an engine in a 1960 Lotus 18 chassis, Renato Pirocchi/Pescara Racing Club (1959 Cooper T51) and Doug Serrurier in South Africa (T51 Cooper). They were singularly unsuccessful, even against the old FPF 4-cylinder Climax engines used by the British teams and had largely disappeared by 1962 when the BRM and Climax V8 engines were widely available.

1962

Maserati was in reality a spent force in racing, although the company had become well established as a manufacturer of luxury GT cars. Even so, a small number of competition cars continued to be built. The World Sports Car Championship had now

died through lack of interest. Initially there was no replacement Championship and the sports categories were now for Prototype GT Cars with a capacity limit of 4 litres (in 1962 only) and, as in the past, GT cars. Then the organisers of the leading races got together and promoted the Prototype GT Championship. As there were very few of the new cars around, most races still had a sports car category.

The new Tipo 64 with neater Cooper *Monaco*-style body, modified suspension and 70.4 x 64mm V12 engine had been given shake-down tests at Modena by Bertocchi at the beginning of March and then was tested by Bruce McLaren and Walt Hansgen, both of whom raced Maseratis for Briggs Cunningham.

At the Sebring 12 Hours race on 24 March Briggs Cunningham entered a V12 Tipo 63 for Hansgen/Thompson, and a Cooper *Monaco* sports car with a 4-cylinder 2.5-litre Maserati engine for McLaren/Penske (both of whom were later to become manufacturers in their own right). There was also a 4-cylinder Tipo 63 from *Scuderia Serenissima* driven by Vaccarella/Carlo Mario. Vaccarella retired the 4-cylinder car early in the race because of gear-selector trouble and the Cunningham V12 was eliminated by rear suspension problems. The Cooper was plagued by brake trouble, but McLaren and Penske persevered and finished fifth, 16 laps behind the winning Ferrari.

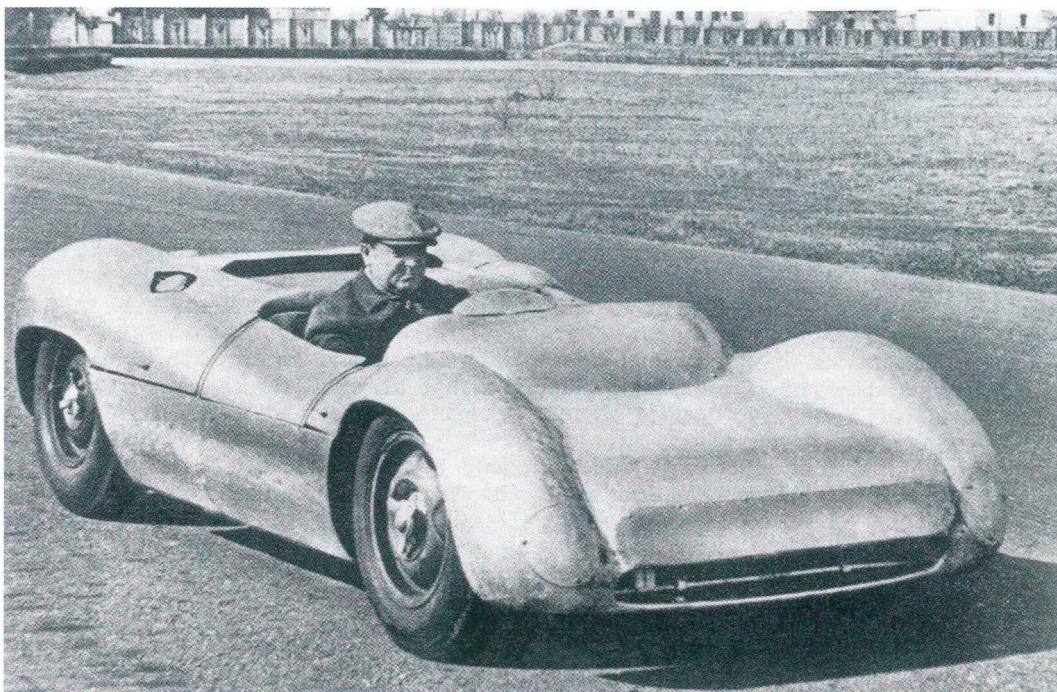
Scuderia Serenissima turned up at the Targa Florio held on 6 May with the Tipo 64, its appearance now marred by a very ugly divided air intake. It was driven in Sicily by Carlo Abate/Colin Davis, but it never showed any real form. Davis took over after three laps, but on his first lap at the wheel he was slowed by steering problems. Then the engine cover flew open and he drove back to the pits to retire, holding the engine cover down with one hand and steering with the other.

Lloyd Casner reappeared at the Nürburgring 1,000-km race with the Tipo

61, which he had crashed at Pescara the previous year and which had been rebuilt at the works with independent rear suspension and other major modifications. It had been re-bodied in a very neat style by Drogo, although apparently Drogo was never paid for his work! Masten Gregory was co-driver and although the Tipo 61 was delayed by problems that included overheating, Casner and Gregory finished in 19th place, which was good enough to win them the 3,000cc Prototype class. Strictly speaking the Maserati was not eligible as a Prototype GT car, but Casner and Gregory were good chaps and liked everywhere, even in Germany.

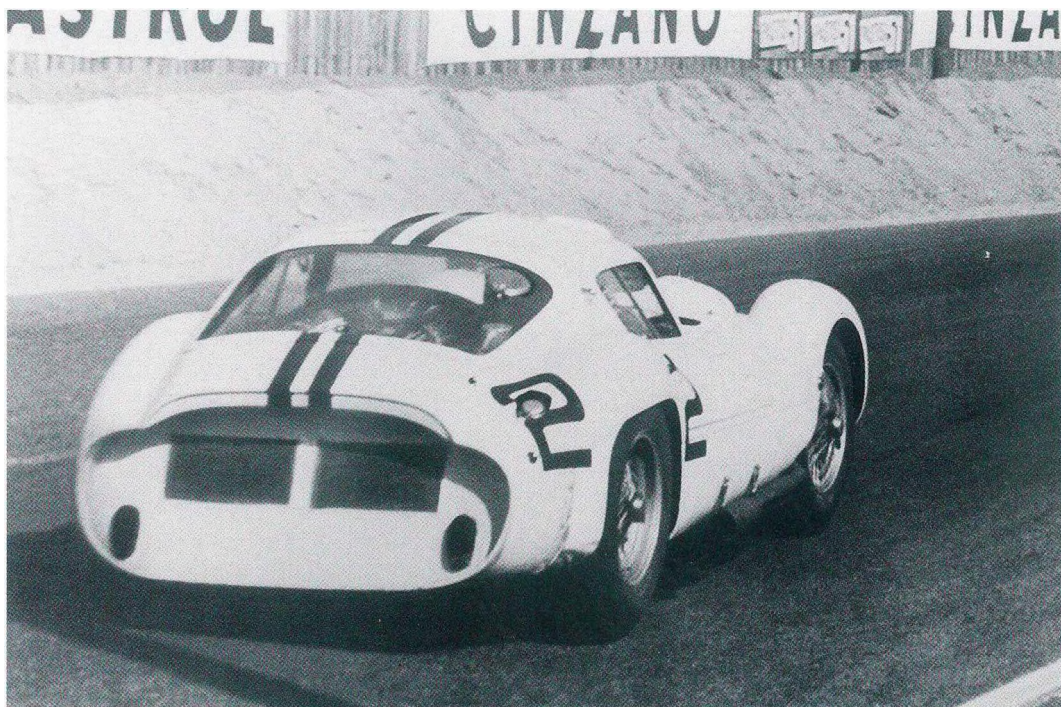
Maserati produced a new front-engined design, the Tipo 151, for Le Mans. It was based on a simple, large-diameter tubular chassis with front suspension by unequal-length double wishbones and at the rear a de Dion axle, twin-trailing arms and coil springs. The de Dion tube was located laterally by a trunnion on the rear of the final drive unit and there were arms at either end of the tube, which gave a limited degree of independent mounting and increased roll resistance. A neat, but stark body with Kamm-type, cut-off tail was fitted. The engine was a development of the V8 Tipo 450S in 3,943cc (91 x 75.8mm) form with four twin-choke Weber carburettors and power output was 360bhp at 7,000rpm. An all-synchromesh 5-speed gearbox was mounted in unit with the final drive.

The front-engined mounting was chosen because, after all, it was a Prototype GT car and so possessed a slight resemblance to the production models. Alfieri also considered that handling problems could be sorted out much more quickly and, as so often the case with Maserati in later days, the cars were produced in a hurry. Two were entered by Cunningham and were to be driven by McLaren/Hansgen and Thompson/Salvadori. Salvadori found the cockpit too cramped for his lanky frame and swapped places with Kimberley due to drive one of Cunningham's E-type Jaguars.



The Tipo 64 undergoing shake-down tests with Guerino Bertocchi at the wheel at the Modena AeroAutodromo early in 1962.

At Le Mans in 1962 the Briggs Cunningham team entered two front-engined Tipo 151 cars for Hansgen/McLaren and Thompson/Kimberley. Hansgen and McLaren held second place with this car at the end of the third hour, but retired at half-distance because of engine problems.





Maserati France returned to Le Mans in 1964 with this Tipo 151/1 4.9-litre car driven by Maurice Trintignant and André Simon. It led for the first two hours, but was plagued by minor problems and retired in the fourth hour.

French Concessionaire, Maserati-France, also entered a Tipo 151 for Maurice Trintignant and Lucien Bianchi.

It was obvious that with Maserati's track record at Le Mans they would not last the distance, but they were very impressive in practice and were achieving over 180mph (290kph) on the Mulsanne straight, although they were conspicuously slower than the Ferraris through the bends. Thompson/Kimberley were in second place at the end of the second hour, but gradually fell back and just past the five-hour mark Thompson lost control in the Esses. The Tipo 151 crashed, caught fire and was

burnt out. The Maserati-France car also hit a bank, deranged the left rear suspension and this led to excessive tyre wear, which enforced retirement in the tenth hour. The Hansgen/McLaren car survived until early on the Sunday morning when it was withdrawn because of engine problems. Ferraris took the first three places ahead of two Jaguar E-types.

The Maserati-France Tipo 151 was entered for Lucien Bianchi in the Guards Trophy race at Brands Hatch on Bank Holiday Monday, 6 August. Unfortunately, it non-started after an oil line fractured while it was being warmed up in the

paddock before coming out to join the grid. Although Maserati prototypes were to be raced during the next three years, Maserati competition activities, to all intents and purposes, had come to an end.

1963

Colonel 'Johnny' Simone of Maserati-France wanted to have another go at Le Mans, so Maserati built for him a revised version of the 1962 car and this was typed the Tipo 151/1. According to factory records, the wheelbase was the same as that of the original Tipo 151, but most observers, including the writer, believe that it was slightly shorter. It was also fitted with a different body, looking not dissimilar to

the 'Breadvan' Ferrari bodied by Drogo and raced by *Scuderia Serenissima* in 1962. The engine was the 4,941.3cc (94 x 89mm) version of the Tipo 450S used in the limited-production 2nd series 5000GT, but fitted with fuel injection and said to develop 430bhp at 7,000rpm.

At the Le Mans Practice Weekend only the 1962 car appeared in the hands of André Simon. During practice before the race itself the new car was timed on the Mulsanne Straight at a shade under 181mph (291kph), very slightly faster than the 4-litre Ferrari of Pedro Rodriguez/Penske, but its best lap was over six seconds slower. Simon and Casner led in

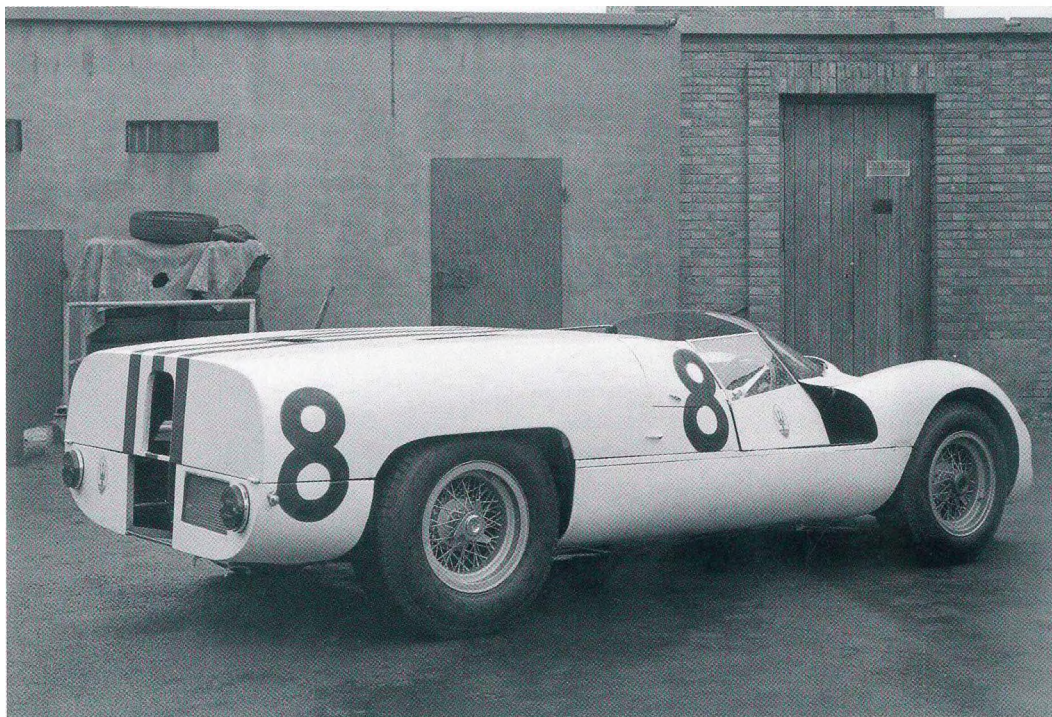
the 'Grand Prix' during the first two hours of the race, but they fell back to 18th at the end of the third hour and shortly afterwards the Maserati clattered into retirement. Not long after Le Mans, Simon with this car and Casner with his Tipo 61 appeared in a 25-lap race at Reims, but Simon went off the road on the first lap and Casner retired because of mechanical problems. The car again contested the Guards Trophy at Brands Hatch, but driver Lucien Bianchi

found it a tremendous handful on this circuit and finished a poor 13th.

During 1963 Maserati bench-tested an experimental 60-degree V12 1,500cc Formula 1 engine designed by Alfieri and known as the Tipo 8/F1. It had cylinder dimensions of 55.2 x 52mm, giving a capacity of 1,493.3cc, twin overhead camshafts and during testing developed 200bhp at 12,000rpm. It was intended for transverse mounting and a 6-speed gearbox

In 1964 Roy Salvadori drove this car based on a strengthened Cooper Monaco chassis and with a Maserati 4,941cc V8 engine for C.T. Atkins. Roy is seen at the International Trophy meeting at Silverstone in May. Although Salvadori finished second in the sports car race at this meeting, this Cooper-Maserati proved to be an almost unmanageable brute. (T.C. March)





Following Casner's fatal crash at the 1965 Le Mans Test Weekend with the Maserati-France Tipo 151, this rear-engined 5-litre Tipo 65 car was hastily built to compete at that year's Le Mans race. It was entered at Le Mans for Siffert/Neerpasch, but went off the road on the third lap.

and final drive unit were incorporated within the crankcase. The concept of a transverse engine did not appeal to constructors, because of the inevitable width of the installation, most were content to use Coventry Climax or BRM engines and it was never tested in a chassis.

1964

Maserati-France persevered with the Tipo 151/1 and it ran at the Le Mans Test Days in April 1964, driven by André Simon and Maurice Trintignant. It had been modified in detail since 1963, but there were no substantial changes. In the race in June it became evident that more speed had been found since 1963 and the car was fastest along the Mulsanne Straight at 191.30mph (308kph). It came through the field to hold third place

at the end of the fifth hour, but then fell back because of brake problems and eventually retired because of alternator failure.

The Tipo 151/1 reappeared in the Reims 12 Hours race, again driven by Trintignant and Simon. After a slow start it climbed up to fourth place, only to fall back again because of an engine misfire. After prolonged efforts to cure the problem, it was retired. Maserati-France again wheeled out the Tipo 151/1 for the Paris 1,000-kilometres race on 11 October and the drivers were Trintignant/Simon as before. After only five laps Trintignant came into the pits because the oil pump mounting had worked loose and six laps were lost before he rejoined the race. The Maserati dropped further and further back and was eventually retired. The race was won by the 330P Ferrari entered by Maranello Concessionaires for Graham Hill/Jo Bonnier.

1965

When the Tipo 151/1 returned to Le Mans for the Practice Weekend in April, Lloyd Casner was at the wheel. It was intended that he should be partnered by Masten Gregory in the race. During the first day's practice, Saturday, Casner crashed at the end of the Mulsanne Straight at an estimated speed of 170mph (274kph) and was killed. Despite this, 'Johnny' Simone was determined to run a Maserati at Le Mans and Alfieri was persuaded to design a new car. The result was the Tipo 65 built in France between 1 May and early June.

The new car was in effect a redesigned 'Bird-cage' with a chassis constructed from even smaller-diameter tubing and the engine mounted at the rear. Suspension at the front was by double wishbones and coil spring/damper units and at the rear there were double wishbones and longitudinal torsion bars. The rear disc brakes were mounted inboard. A 5,046cc (95 x 89mm) V8 engine was fitted and like the engine in its predecessor this was said to develop 430bhp at 7,000rpm. It was fitted with a neat, but rather uninspiring open body.

It is known that the car was tested at Modena before the race and driven by Bertocchi. It lacked development and in practice on the Sarthe circuit it was soon found to handle badly at high speed, presumably because of aerodynamic shortcomings. Jo Siffert and Jochen Neerpasch drove it in the race, but on the third lap Siffert spun at *Tertre Rouge* and crawled back to the pits to retire because of damaged suspension and radiator. Maserati racing history did indeed 'end not with a bang but a whimper' (T.S. Eliot, *The Hollow Men*, 1925). It should be added that this car was subsequently revived as a private venture and is believed to have competed in a couple of Interserie races in around 1970.

Chapter 15

The Cooper-Maseratis, 1966–67

HOW MASERATI RE-ENTERED racing as a supplier of engines to a major Grand Prix contender is closely linked to their ties with their British concessionaires. Adolfo Orsi had wanted to sell touring Maseratis in the UK, but one of the problems was British financial regulations in early post-war days which severely restricted car imports. In the late 1950s Maserati appointed Colin Murray in Lancashire as British Maserati concessionaire. He had raced a 6CM and a Cooper-Jaguar and his business was selling Pontiacs on a tax-free basis to US servicemen stationed in the UK. There were hopes that he would also be able to sell them Maseratis, but he made very few sales.

Subsequently Taylor & Crawley in London became concessionaires. This was a very successful company headed by Clifford Taylor whose agencies included Alfa Romeo and Mercedes-Benz. Clifford Taylor's son, Michael, had been a very promising racing driver until he was critically injured when the steering failed on his Lotus 18 at Spa in 1960. He ran the company on a day-to-day basis. In May 1962 he held a 'drinks and drive party' at which guests were invited to have a drink and then take a Maserati GT car for a few laps round Grosvenor Square. The event was so successful that he placed a single order for 60 Maserati GT cars.

Jonathan Sieff (a family member of one of the founders of Marks and Spencer) who had also been a racing driver until his near-fatal accident during practice at Le Mans in 1960, had a shareholding in and was a

director of Chipstead Motors, along with David Hodge and Mario Tozzi-Condivi. They were keen to expand the business and acquired Taylor & Crawley, Roy Salvadori's two car businesses in Surrey, together with the famed Thomson & Taylor at Cobham. They wanted to be more involved in motor racing and after the death of Charlie Cooper in October 1964, Sieff made Charlie's son John an offer to buy the Cooper Car Company. Jonathan Sieff remembers that the price paid was £250,000. At this time Cooper was floundering in Formula 1 and its last World Championship win had been Bruce McLaren's victory at Monaco in 1962.

Roy Salvadori became racing manager and the team struggled through 1965, the last year of the 1,500cc Grand Prix formula, with its uncompetitive Coventry Climax-powered cars. Cooper concentrated on development of a new car for 1966 when a 3,000cc Formula 1 came into force. Different entrants had very different ideas as to the type of power unit required for the new formula; from Brabham who chose the Australian Repco V8 single cam per bank engine based on a General Motors Oldsmobile/Buick block to BRM who developed an incredibly complicated H16 eight overhead camshaft engine derived from two of their 1961–65 V8 units. Truly the sublime to the ridiculous. Brabham won the Drivers' and Manufacturers' Championships in 1966–67 and the BRM engine only achieved one success, when installed in the Lotus that Jimmy Clark

drove to a win in the 1966 United States Grand Prix.

Cooper pondered the possibility of striking a deal with Maserati. Mario Tozzi-Condivi, who had served in the Italian air force during the Second World War and had known Maserati since 1947, had long talks with Adolfo Orsi. Maserati proposed an updated version of the 1957 V12 Grand Prix engine, which had already been raced in 3-litre form in sports car events and Giulio Alfieri set to work on this. There are different stories as to the financial deal that was struck. Jonathan Sieff says that Cooper bought the engines and paid Maserati to maintain them. This seems likely, because Maserati still worked within tight financial restraints.

In *Cooper Cars* (Osprey Publishing, 1983) Doug Nye quotes Tozzi-Condivi who tells the story differently: '... the works engines would be Maserati property. They would commit themselves to provide sufficient engines for three works cars, to development to keep them competitive and all necessary servicing. We would pay them a fixed fee per rebuild, irrespective of the amount of work necessary. It was around £700 per rebuild, I think ...'

In its latest form the Maserati V12 engine was known as the Tipo 9/F1. The cylinder dimensions were those of the engine used in the first V12 Tipo 63 sports-racing cars, namely, 70.4 x 64mm to give a capacity of 2,989.48cc. Fuel injection was fitted and Alfieri used separate dell'Orto motorcycle

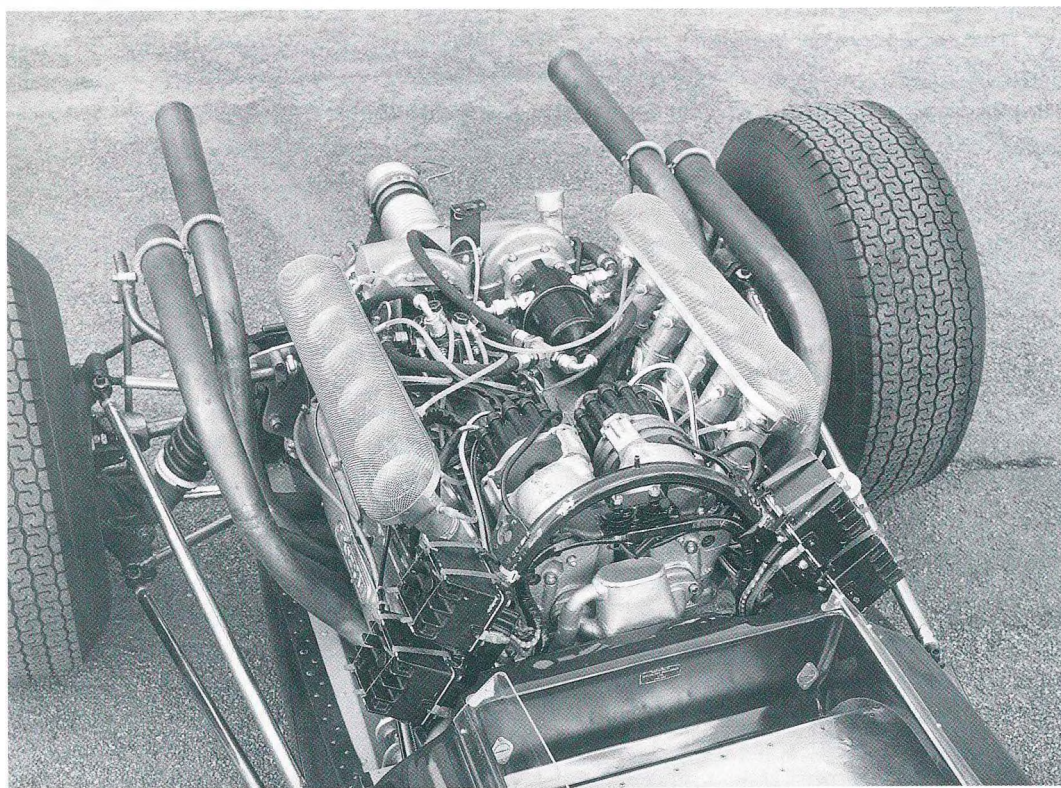
piston slides to control airflow. Initially two Lucas 6-cylinder fuel metering units were fitted, but later in the season Lucas made available a 12-cylinder unit. Transistorised, electronic ignition was used and power was claimed as 360bhp at 9,000 rpm. This engine was mated with a ZF 5DS25 combined gearbox and final drive, as used in the Ford GT40.

The engine, at that stage fitted with coil ignition, was originally tested in the Cooper T80, a space-frame chassis built to take the Coventry Climax FWMV horizontally-opposed 16-cylinder 1,500cc engine that never became available. The T81, as the 1966 car was known, was a simple monocoque, with inboard front suspension by upper rocking arms and lower wishbones and, at the rear, reversed lower wishbones, lateral top links, twin radius rods and outboard coil spring/damper units. It was a

big, bulky car with 8ft 2in (2,540mm) wheelbase, 5ft (1,270mm) front track and a rear track of 4ft 9.5in (1257mm). At the start of the season there were two works cars and Cooper-Maseratis were sold to Rob Walker (for Jo Siffert to drive), Joakim Bonnier and *Scuderia Felipe Pemeti* (Swiss-based for Guy Ligier).

The works Coopers first appeared at the International Trophy at Silverstone in May, but nothing was gained until the team's third outing in the Belgian Grand Prix at Spa-Francorchamps. There was a torrential downpour just after the start; nine cars went off the circuit and Jochen Rindt with his works car spun wildly at about 150mph (241kph) at the kink on the *Masta* straight. He carried on in sixth place, but worked his way through to lead the race from John Surtees (Ferrari) who was content to keep a watching brief.

This view of the V12 Maserati engine installed in the Cooper T81 chassis shows the three-into-one exhausts each side of the engine, the twin-plug ignition and the protective gauze covers over the inlet trumpets for the fuel injection system.

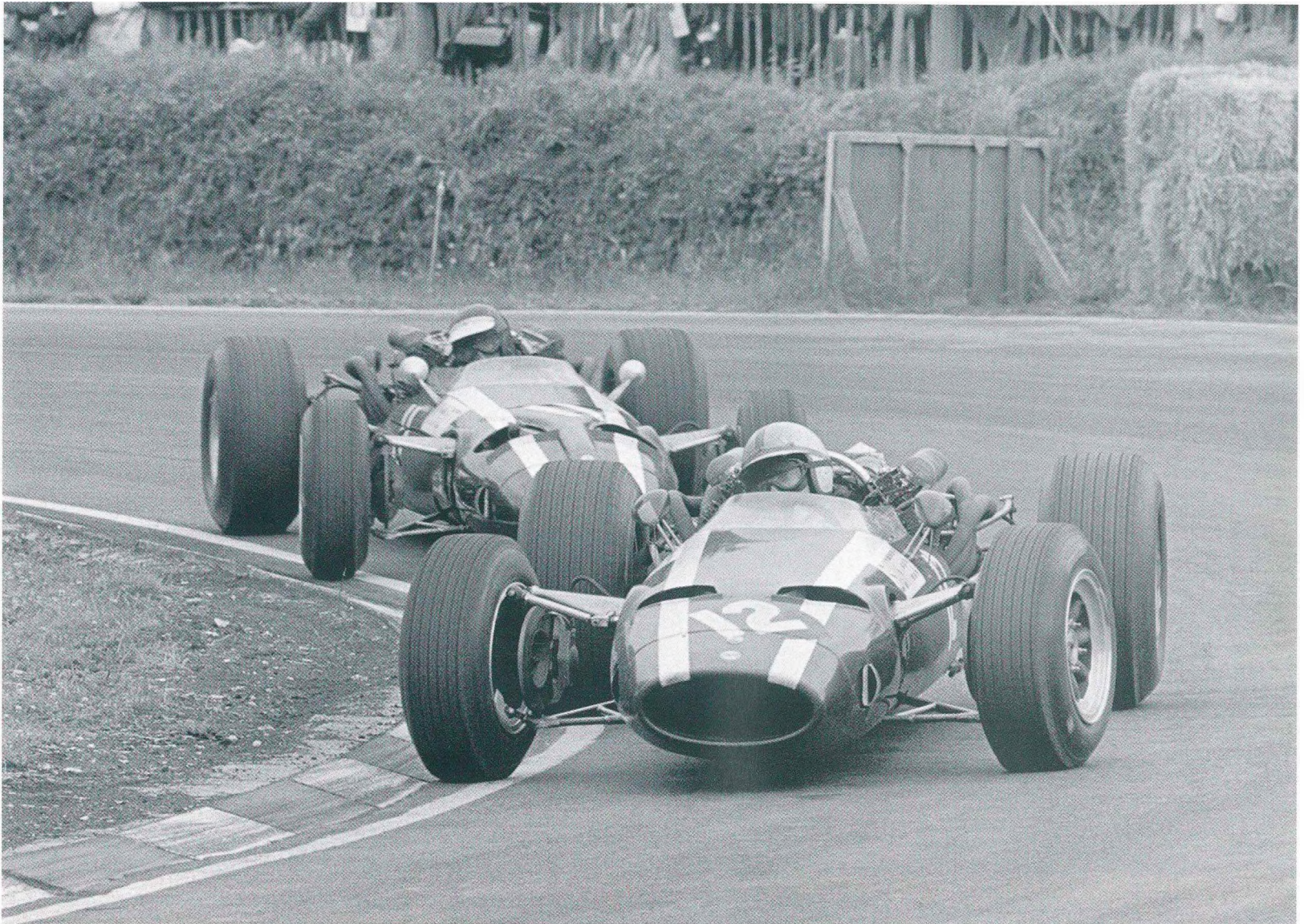


As the race progressed, weather conditions improved, but Rindt was forced to ease off because of handling problems. Surtees sailed into the lead to win by a margin of just over 42sec. The Coopers' handling problems were originally – and wrongly – diagnosed as an intermittent fault in the self-locking mechanism of the ZF limited slip differential. Later in the season it was traced to the Dunlop tyres, which were fine in the wet, but lacked adequate grip on a drying oily surface.

When the news broke that John Surtees, the 1964 Formula 1 World Champion, had quit Ferrari after an argument with team manager Eugenio Dragoni at Le Mans, Cooper had strong hopes that he would join the team. They adopted a wait and watch policy, building an additional car so that it would be available when he contacted them, which he duly did. Surtees first appeared for Cooper at the French Grand Prix, but because of continuing problems with the cars it was some time before he won a race. By the Italian Grand Prix at Monza there was a new version of the Maserati engine with the inlet ports inclined inwards and this made the engine much more compact.

Rindt and Surtees took second and third places in the United States Grand Prix at Watkins Glen and Surtees won the last round of the Championship at Mexico City. With the combination of points gained with both Ferrari and Cooper, Surtees on 28 points took second place in the Championship to Jack Brabham (42 points) and Rindt was third with 22 points.

In 1967 Lotus introduced the new V8 Cosworth-powered 49, using the engine as a stressed chassis member and Jimmy Clark and Graham Hill raced these cars with great success, despite early teething problems. The 49 set new standards in Grand Prix racing and made most of the opposition, including the Coopers, obsolete. It was powerful, light and handled superbly and won on its first outing at Zandvoort. Although the 49s lacked reliability in 1967,



they won four races. In contrast the Cooper-Maseratis were too heavy and lacked sufficient power.

John Surtees had left to drive for Honda, and Rindt was now in his third season with the team. Pedro Rodriguez was given a trial drive in the South African Grand Prix on 2 January and scored a lucky and unexpected win. At this race the Maseratis engines were fitted with old-type cylinder heads and coil ignition because of the high altitude of the Kyalami circuit. After the South African race Rodriguez drove for the team on a regular basis.

The works Cooper-Maseratis of John Surtees and Jochen Rindt in the 1966 British Grand Prix at Brands Hatch. The cars ran well on a damp track, holding second and third places briefly. They fell back as the circuit dried out and while Surtees retired because of differential trouble, Rindt took fourth place. (T.C. March)

This was Cooper's last-ever Grand Prix victory. Alfieri struggled on at Modena to produce more powerful developments of the V12 engine and at Monaco there appeared the Tipo 10/F1 engine with revised cylinder dimensions of 75.2 x 56mm (2,983.14cc), three valves per cylinder and the angle between the valves so narrow that the camshafts on each bank of

cylinders could be enclosed in a single cover. The sparking plugs were relocated beneath the exhaust ports in the side of the combustion chamber. Power output was 380/390bhp at 9,800 rpm. At a time when the Cosworth engine developed around 380bhp and the Lotus 49 was lighter and had vastly superior handling, the Coopers remained outclassed.



In the 1967 British Grand Prix at Silverstone Jochen Rindt drove this prototype Cooper T86 with magnesium-Elektron-skinned monocoque. This car was powered by the Maserati V12 engine in 36-valve form. Rindt retired because of engine problems. (T.C. March)

At the British Grand Prix at Silverstone in July the Cooper team produced the new T86 which had a lower, narrower and lighter monocoque skinned in magnesium-Elektron. The Tipo 10/F1 engine was fitted and was used with a Hewland gearbox. By the United States Grand Prix Alfieri had produced yet another version of the Tipo 10 engine, with three plugs per cylinder and these were accommodated on the inside of the 'vee' of the engine. This engine was installed in the T86 chassis

driven by Jochen Rindt. Both Coopers blew their engines at Watkins Glen. By this time Rindt was totally disenchanted with Cooper and after the race he boasted that feeling his engine was about to blow up, he had deliberately booted the throttle as hard as possible so that it would blow up spectacularly and could never be used again. Rindt had made it clear that he did not want to drive for Cooper at the last race of the year in Mexico and was released from the team.

For 1968 Cooper ceased using Maserati

engines and switched to the new BRM V12, but after another unsuccessful season Cooper withdrew from racing, blaming lack of sponsorship. In May 1969 the Cooper closed its racing operations and in June the team's cars were sold at auction. One 1967 Cooper-Maserati, the T86, was entered in a few events in 1969 by Colin Crabbe's Antique Automobiles Ltd team and driven by Vic Elford. Elford finished 12th with this car in the International Trophy at Silverstone and seventh at Monaco. Crabbe and Elford then moved on to a Cosworth-powered McLaren M7A/B. Jonathan Sieff admits that Cooper had financial difficulties and these were resolved with some help from his family.

Citroën, de Tomaso and after

ADOLFO ORSI WAS WORRIED about the long-term security of the company. Demand for expensive road cars was fickle and subject to economic conditions, and changes in taste and fashion. The introduction of United States safety and emission regulations was making the marketing of cars there expensive and difficult. The student and workers' strikes and demonstrations, prevalent in both France and Italy in 1968, made drivers of expensive cars such as Maseratis concerned for their personal safety. Adolfo Orsi was now 80 years old and Omer suffered from ill-health in the form of kidney problems.

During 1968 Adolfo Orsi received an approach from Citroën, owned by the Michelin tyre company, asking whether Maserati would be interested in designing and building the engine for their proposed SM high-performance luxury model. Negotiations took place and during these Adolfo suggested that Citroën should buy a controlling interest in Maserati. This led to the agreement that Citroën should buy a 60% stake. Adolfo Orsi became Honorary President, while Omer remained a director and was appointed Commercial Manager. Giulio Alfieri remained in control of the technical department.

Under Citroën control the company produced some fine cars. Citroën's own SM model introduced in 1970 was an exceptionally sophisticated design powered by an Alfieri-engineered, four overhead camshaft V6 2,670cc engine and with a specification

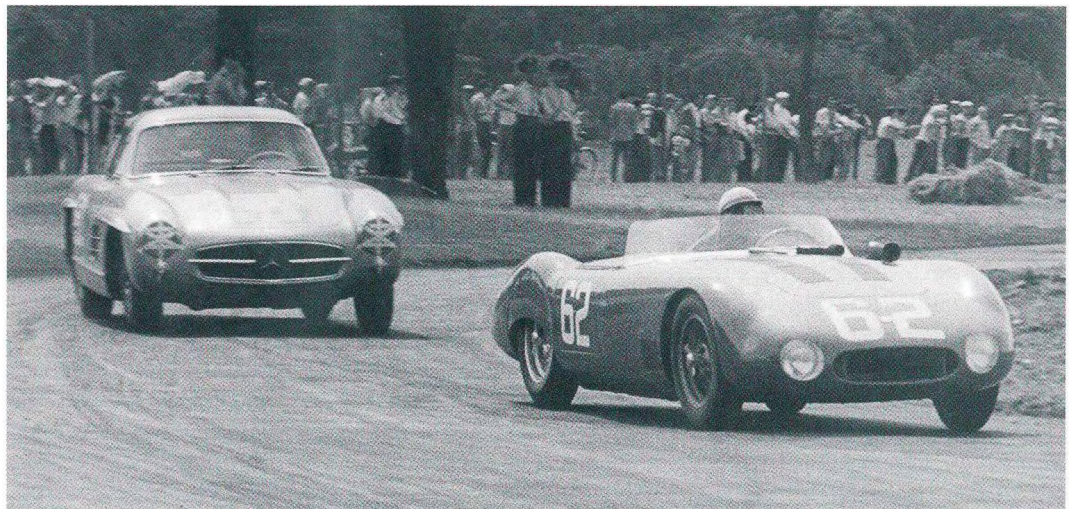
that included front-wheel-drive, Citroën DS hydraulics, self-levelling pneumatic suspension and self-centring steering. Maximum speed was in excess of 135mph (217kph) and the same engine was used in Ligier competition cars. The SM was built in Citroën's Paris factory and later in the Ligier works. Maserati's own production included two mid-engined models, the V8 4.7-litre Bora introduced at the 1971 Geneva Salon and the V6 3-litre Merak with bored-out SM engine that appeared at the Paris Show in 1972.

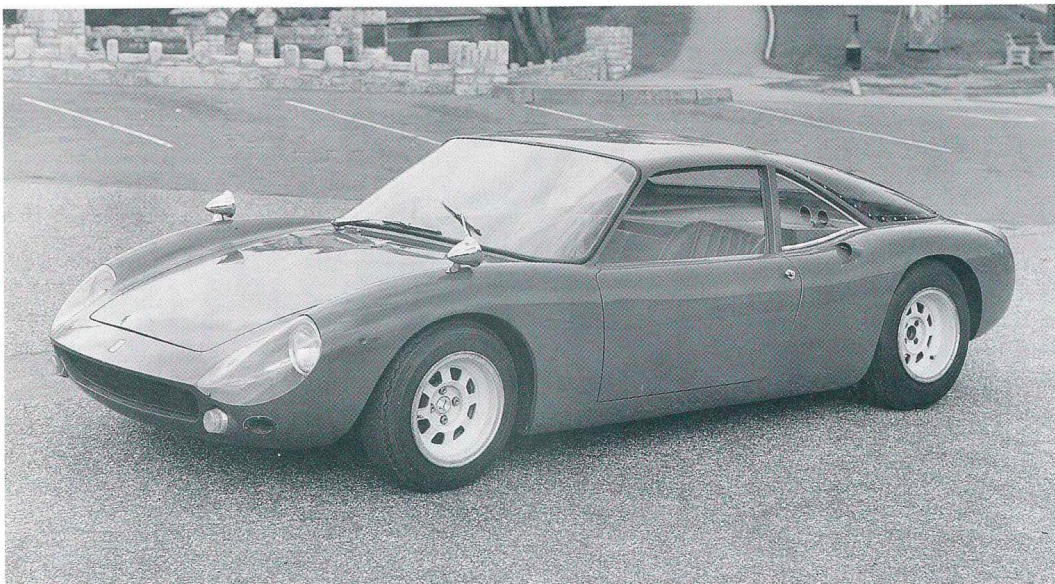
During Citroën control the whole culture of Maserati operations changed. Citroën had no experience of running a small

company and the management became bureaucratic. The workforce increased to about 1,000 from the 360 at the time Citroën took over and instead of two men working on a chassis throughout its assembly, there was now a production line with each workman carrying out a simple, repetitive task. The Orsi family was unhappy with the way in which the company was being run and sold their remaining shares to Citroën in 1971. Guerino Bertocchi left the company to work for de Tomaso and, sadly, he was killed in a road accident in 1981.

Citroën was finding itself in worsening financial difficulties and in 1974 its owner, Michelin, disposed of it to Peugeot. The

Alessandro de Tomaso, partnered by fiancée Isobel Haskell, drove this 1,500cc Osca into sixth place in the 1957 Buenos Aires 1,000-km race. De Tomaso played an important, if ultimately damaging, role in Maserati history.





An early product of the fertile, but rarely commercially successful brain of Alessandro de Tomaso. This is a mid-engined de Tomaso Vallelunga with 1,500cc Ford unit, built in about 1965.

conservative Peugeot board's sole aim was to rationalise the group's car production and improve profits. On 23 May 1974 Peugeot announced that Maserati was to be put into liquidation, but it discharged all Maserati's debts to make it a more attractive proposition should anyone be interested in acquiring the assets. The workforce at Maserati then numbered 795 and was sufficient, together with local and regional authorities, to exert pressure for the Italian government to intervene. Initially closure of Maserati was extended by six months while discussions with parties interested in the company took place.

The closure date was again extended and eventually on 8 August 1975 a 30% shareholding was acquired by Alessandro de Tomaso through his industrial group and he became chief executive. Argentinian De Tomaso, born in 1928, was a former Osca and Maserati driver. He had an impressive, but not particularly successful, record of taking over ailing companies. Since 1959 he had been running his own de Tomaso car company based in Modena, but its only real success was the Ford-powered, mid-engined Pantera coupé which was sold in

the United States in large quantities through Ford's Lincoln Mercury Division.

De Tomaso had acquired the Ghia and Vignale coachbuilding companies and the latter is said to have been bought for him by his wealthy American wife, Isobel (nee Haskell). Isobel was a Coca-Cola heiress and had herself raced Oscas. Later de Tomaso sold Ghia to Ford. He also acquired the ailing Benelli and Moto Guzzi motorcycle companies and took over Innocenti in Milan, which originally built Lambretta scooters and, later, British Leyland cars under licence. British Leyland had bought this concern in May 1972, but rapidly lost interest. The day that de Tomaso took over Maserati, Giulio Alfieri, peremptorily sacked, found his effects in the car park. Alfieri was not short of work though; he joined Lamborghini and also worked on a number of other projects. He died on 19 March, 2002 at the age of 78.

Although existing models, together with Maserati-powered de Tomaso derivatives remained available in the short term, de Tomaso was determined to turn Maserati into a mass-production company. In 1981 he introduced the Biturbo high-perfor-

mance, compact saloon powered by a twin-turbo 2-litre V6 18-valve engine developing 180bhp and looking like an Italian-styled BMW. Despite a maximum speed of a little over 130mph (209kph) and with acceleration from 0–60mph (0–96.6kph) in 7.8sec, the Biturbo was marred by turbo lag, indifferent handling and poor build quality.

At one stage production of the Biturbo attained 5,000 units a year and there was an agreement whereby sales in the United States were handled by Chrysler. De Tomaso also used the Innocenti works in Milan to assemble Chryslers, which were marketed as 'TC by Maserati'. The damage to the prestige of the Maserati name was substantial and de Tomaso had done much the same with Benelli and Moto Guzzi motorcycles.

Under de Tomaso's control Maserati made one further effort to build a competition car. This was the *Barchetta* of 1992 intended for amateur drivers in a six-event *marque* Championship. The Bi-turbo 90-degree V6 1,996cc (82 x 63mm) four overhead camshaft engine developed 315bhp at 7,200 rpm. Together with a 6-speed gearbox it was installed in an aluminium-alloy beam-structure chassis, with strengthening panels in carbon-composite material.

There was independent suspension front and rear by double wishbones and coil spring/damper units. A carbon-fibre *Spyder* body was fitted and maximum speed was said to be 186mph (300kph). Michele Alboreto tested the *Barchetta* at Monza and the company was optimistic about the car's prospects. Unfortunately, only 15 cars were sold (one fitted out as a touring car) and after a few poorly supported races the project was abandoned.

In 1991 Fiat Auto acquired a 49% stake in Maserati and took full control in May 1993. In 1997 management passed to Ferrari, already part of the Fiat conglomerate, and there began the long haul to restore Maserati reputation and prestige. It seems that the rehabilitation of Maserati is steadily being achieved.

Maserati drivers – their stories

EMMANUEL DE GRAFFENRIED

Private Maserati driver 1937–1956

De Graffenried was the most consistent and successful private driver of Maseratis, the marque to which he remained faithful throughout his racing career. He was born in Paris on 18 May 1914, to a Swiss father and American mother. In 1920 the family moved to Fribourg, as they wished their son to be educated in Switzerland. Emmanuel was educated at Le Rosey school at Rolle near Morges and he travelled instead of going to university. The Barony of the de Graffenried family was granted before the First World War by the Austro-Hungarian government to Emmanuel's grandfather, who was Swiss military attaché in Vienna. Emmanuel has always been known as 'Toulo', a nickname given to him by his nanny when he was about four years' old.

My father, who died in 1934, was a great horseman, but I was always keen on motor cars. I started my racing career in 1936 with an Alfa Romeo Zagato 1,500, quite a rare car. With this I won my class of the Swiss National Grand Prix at Bremgarten and competed in a couple of hill climbs. For 1937 I went into partnership with an American friend, John de Puy. He came from a wealthy family in the steel business in Pittsburgh and he never worked in his life. We raced a Maserati 6CM and a 4CM fitted with Tecnauto twisted coil spring independent front suspension. I drove these cars all over Europe and competed with them in some British events.

During 1937 I won the Swiss National Grand Prix with the 4CM, but I retired in the Naples Grand Prix. I drove in two British races, the 195-mile (314km) Light Car race on the Douglas circuit on the Isle of Man in June, an event dominated by ERAs, in which I finished sixth and the 153-mile (246km) Nuffield Trophy at Donington Park

where I took fifth place. The following year I ran in the short, 23-mile (37km) Formule Libre Campbell Trophy at Brooklands and finished fourth with the 6CM behind Bira and Austin Dobson (both with ERAs) and Hyde (Maserati). I also ran in the British Empire Trophy race at Donington Park, but retired. Another event in which I competed that year was the *Voiturette* Coppa Ciano on the Montenero circuit near Livorno, but again retired.

An amusing break from our usual racing was a downhill skiing race for drivers held in 1938 at Auron, a resort in the Alpes Maritimes above Nice. Christian Kautz, the Swiss works Mercedes-Benz and Auto Union driver, won easily from my friend Raymond Sommer. I took third place ahead of Wimille and Chiron.

Although I regarded du Puy as a very good friend, he had a major problem: he boozed far too much. At one stage he was drinking 30 bottles of beer a day. Although he was also supposed to be racing, our

mechanic and I worried about his safety if he raced in his boozed condition. We used to let him practise, but just before the race we would find some reason why the car could not run, for example, no oil pressure (because we had disconnected the pipe leading to the gauge).

I remember when he came to the drivers' briefing for the Swiss Grand Prix in 1939 and caused me great embarrassment. In front of the Mercedes-Benz and Auto Union teams he said in a loud voice, 'I can't understand a fucking word they're saying.' [Despite his alcoholic tendencies, du Puy survived for many years and as late as 1957 he was the owner of the 250F driven by Bruce Halford in the Italian Grand Prix – AP].

For 1939 we moved on to a 6-cylinder Tipo 6C/34 Maserati, an unusual car because it was fitted with an aerodynamic, streamlined body built in Turin and the engine was sleeved down to just under three litres so that it complied with the current Grand Prix regulations. The body was polished aluminium-alloy. I first drove it in the Pau Grand Prix on 2 April, but retired. For reasons that I cannot remember, I was the entrant of Raymond Sommer's Alfa Romeo in the Belgian Grand Prix, the race in which Dick Seaman crashed, sustaining fatal burns. Sommer also drove one of our 1,500cc Maseratis in the Picardie Grand Prix because he wanted to gain points in the French Championship.

I then drove the 3-litre car in the German Grand Prix at the Nürburgring on 23 July.

This 312-mile (502km) race was dominated by the German Mercedes-Benz and Auto Union cars. Rudolf Caracciola won with a Mercedes-Benz and I retired. I won the Swiss National Grand Prix at Bremgarten, but in the International Grand Prix I retired yet again. I also competed with the 3-litre car in the famous La Turbie hill climb near Monte Carlo and finished second to Raymond Sommer who was driving a 3-litre Alfa Romeo.

During 1939 I had been offered a Type 55 Bugatti, the twin-cam supercharged 2.3-litre super sports model, at a very favourable price and so I bought it. I decided to enter it at Montlhéry in the Coupe de Paris races on 7 May. I knew Jean Bugatti well and both he and his father, Ettore, bet me that I would not finish the course, even though the races were only over 62 miles (100km). I was well down the field, but I did finish and that cost

Ettore an expensive lunch in Paris. Sadly, Jean was killed while testing a Bugatti competition sports car in August and without his talent the company failed to recover after the war.

During the war I continued driving, but as a Corporal on the Swiss army staff. In 1944 I married Elsa, our son Leo was born the following year and we settled in Lausanne in 1949. For me racing resumed in 1946. Immediately after the war I, together with an Italian friend based in Geneva, 'Cyro' Basadonna, formed the *Autosport* team and we had three cars including a 6CM and a 4CL. I drove a 4CL at Marseille, but retired. At that race I met a man called Enrico Plate who was also racing a Maserati 4CL. He was an Italian from Milan, a typical *Milano* chap. Enrico was the nephew of Luigi Plate who had raced Talbots before the war and had long been involved in the mechanical world of motor

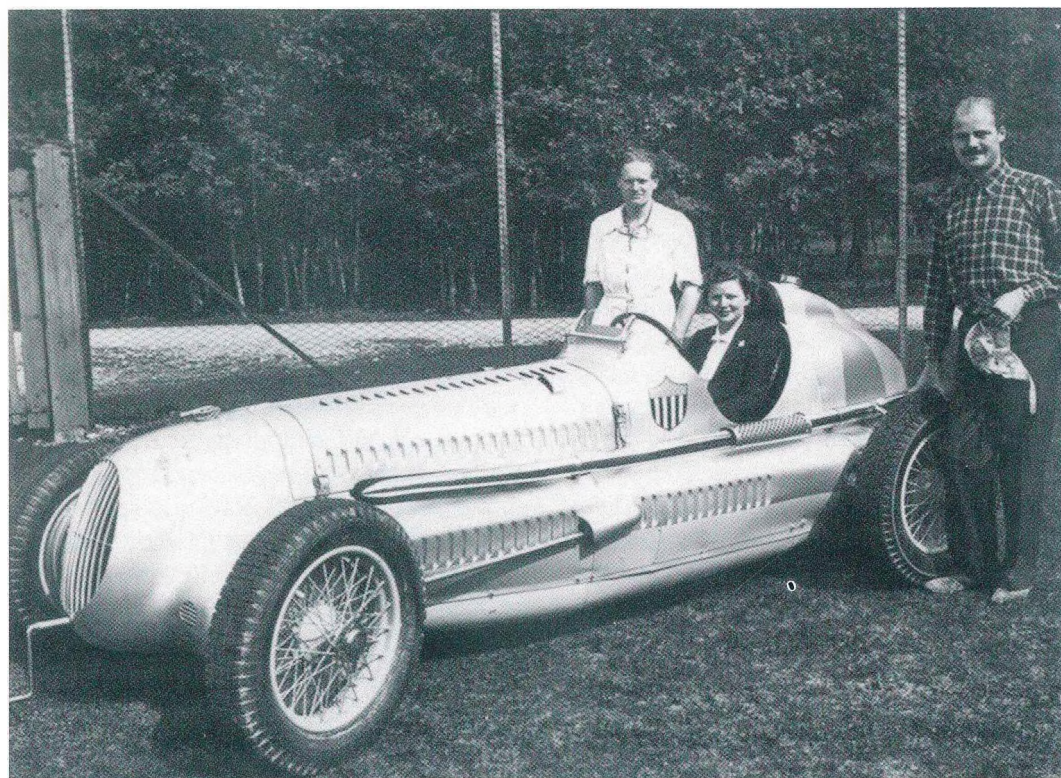
racing. Plate and I talked, we got on well and he asked me, 'Do you want to drive that car – I don't want to drive it any more.'

So that is how I started my long relationship with Plate who was a very able engineer and had good relations with the Maserati factory. I, of course, had to invest money in the team. We raced the various 16-valve Maseratis through to the end of 1952 and their only real weakness was tendency of the aluminium-alloy cylinder block to crack. I drove Plate's car for the first time in the Grand Prix des Nations at Geneva. The circuit used then was quite a long one that incorporated two sides of a dual carriageway alongside the lake and at subsequent Geneva races this part of the circuit was omitted for safety reasons. The 1946 race was run in two qualifying heats and a final. The works Alfa Romeos of Farina, Trossi and Wimille took the first three places in the final, but I finished fourth in my heat and fifth in the final behind Tazio Nuvolari who was also driving a Maserati. Later in the year I finished sixth in the Milan Grand Prix behind Trossi, Varzi and Sanesi (Alfa Romeos), Villoresi and Sommer (Maseratis). I also won the Maloja hill climb.

At the start of 1947 I continued to race Plate's 4CL, but during the year we took delivery of a 4CLT. For much of the year I did not have much luck. I was ninth in the Swiss Grand Prix, a race marred by poor discipline by the crowd who were so close to the track that drivers were forced to ease off. In the second heat Leslie Johnson fatally injured two spectators who still stood at the edge of the track despite a warning from the police. Shortly afterwards I retired because of piston failure in the European Grand Prix at Spa-Francorchamps in Belgium.

My engine started to run rough in the Comminges race on the St. Gaudens circuit and I fell back to finish fifth. I worked my way up to fourth place in the Italian Grand Prix held in Milan on a slow circuit round the site of the Milan fair, but I was forced to retire because of steering problems. In the

The Tipo 34 with streamlined body raced by de Graffenried in 1939. Toulo is on the left of the photograph, John de Puy on the right, with de Puy's wife seated in the car.



French Grand Prix at Lyon I was hit on the forehead by a stone but carried on racing with blood streaming down my face until I was forced to retire yet again because of a cracked cylinder head. I finished the season off with third place behind Villorresi (Maserati) and Wimille (Simca) in my home race at Lausanne.

We continued to race the 4CLT in 1948 and the season started well for me. At Geneva I took second place behind Farina who was driving a twin-stage supercharged 4CLT and I took a good third place behind Farina and Louis Chiron (Talbot-Lago) in the first post-war Monaco Grand Prix. At the *San Remo* race in June Maserati had brought out their new and much improved 4CLT/48 model and these cars driven by Ascari and Villorresi meant that the opposition I faced as a private entrant was becoming even greater.

My compatriot Christian Kautz was killed when he hit a tree with his Maserati in the Swiss race at Bremgarten. I collided with debris from the accident and was forced to retire. I also retired in the French Grand Prix and after mechanical problems I was ninth in the very wet Italian Grand Prix held at Turin. The RAC Grand Prix at Silverstone in October was another poor race for me. I went off the track and 50 yards (45.7m) into a field. I managed to rejoin the race, but finished ninth after a lengthy pit stop for the car to be checked over by Plate.

For 1949 Bira joined me in racing with Plate and we both had the latest 4CLT/48 Maseratis. We, of course, paid for our cars and participated in expenses, but I recall that I contributed rather more than Bira! We shared prize money and starting money. It could be £600 or £700 for the two cars because organisers liked to have a prince appearing in their races. For Plate racing was a business and he had to make it pay. He was a very good engineer and organiser and he employed very good mechanics. Plate had a very small workshop in the centre of Milan, with just enough room to



De Graffenried first raced the 6-cylinder Maserati at Pau in April 1939. He retired, but is seen here leading the Mercedes-Benz W163 of Caracciola.

work on two cars. Everything with Plate was Al and I was very happy racing with him. He and his two mechanics had *la passion!* I always went to the Maserati factory once a year, but Plate was there often because his workshops were so close to it.

It was to prove a very satisfactory year for me. I started at San Remo where I finished third behind Juan Fangio who was driving a Maserati in his first full European season and team-mate Bira. Later that month I took two second places. At Pau Fangio won again, but I was a satisfactory second. At one stage I took the lead when Fangio's Maserati would not start after a pit stop. In those days this sometimes happened when the magneto overheated. I was told that the mechanic was struggling to restart the car on the handle, but Fangio was a strong man, he jumped out of the car, turned the handle and the Maserati went vroom! Very soon he shot past me into the lead again.

In the very wet Jersey Road Race I was beaten by Bob Gerard who drove his old ERA with exceptional skill. Early in May I took fourth place in the Grand Prix de Rousillon, a street race held in two heats at Perpignan. Ahead of me were Fangio, Bira and Campos (another Argentinian driver), all with Maseratis.

The British Grand Prix at Silverstone was my best performance of the year. As Alfa Romeo did not race in 1949 and Ferrari did not enter the British race, it was fought out between the fastest Maserati drivers. It was of course a long, 311-mile (500km) race and I took it very steadily in the early stages, playing a watching game, as Bira led from Reg Parnell. Very stupidly Bira hit the straw bales at a corner and damaged the suspension. Then I was second. Reg Parnell had a lot of problems and abandoned. So that's how I won. *Bon!* – That's racing. Bob Gerard was second with his ERA, but there was no way that he could catch me.

At the end of May we travelled north to compete in the short Swedish Summer Grand Prix held at Skarpnack. It was held on a very slow circuit and there was not much in the way of opposition. Bira and I took the first two places ahead of a locally entered 'special'. Later I finished seventh in the Swiss Grand Prix at Bremgarten and fourth at Albi. At the Zandvoort Grand Prix both Farina and Parnell were penalised for jumping the start and I drove a very good race to take second place behind Villorosi (Ferrari). In August we ran in the International Trophy at Silverstone, staged in two qualifying heats and a final. The lead in the final was fought out between Ascari and Villorosi with works Ferraris and Farina at the wheel of a Maserati. I drove a steady and successful race to finish fourth.

A week later I was back on home territory, racing in the Lausanne Grand Prix, and again I drove a steady race to finish third behind Farina and Ascari. The new

Ferraris with twin-stage supercharging appeared at the Italian Grand Prix and I drove another good race, despite sinking oil pressure, to take fourth place behind Ascari with one of the Ferraris, Etancelin (Talbot) and my team-mate Bira. At the end of October a race was held on a short 2-mile (3.2km) street circuit at Madrid for 1,100cc sports cars. There were two 20-lap qualifying heats and a 60-lap final. The organisers had indicated that it would be regarded as a sort of test race for drivers wanting to compete in the Argentine *Temporada* Formule Libre races early in 1950. I arranged to drive a Fiat-based Stanguellini and with this I was fourth in my heat and third in the final behind Raymond Sommer and Maurice Trintignant, both of whom were driving Gordini-entered Simcas. For me, running as a private entrant, it had been a very good year.

After long discussions Plate, Bira and I finally decided that we would run in the

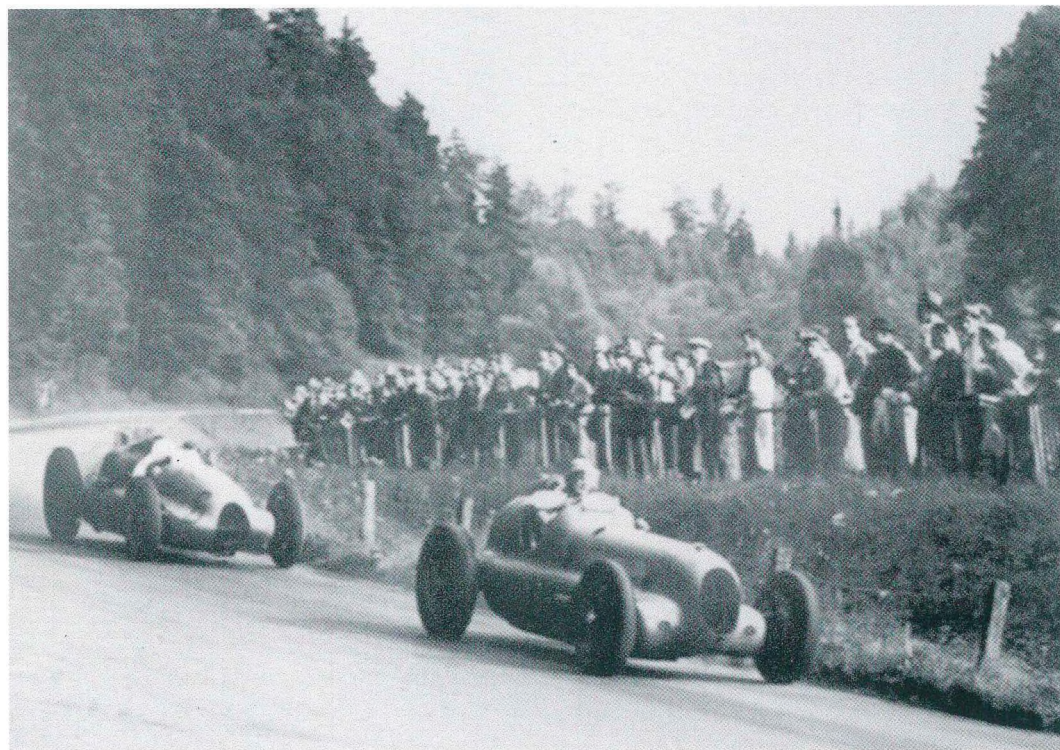
Argentine. The starting money was very good and we thought that our chances would be improved because Maserati were making available more powerful 1,720cc engines. Unfortunately our cars were still not as fast as the 2-litre supercharged Ferraris and we achieved very little. Bira took a fifth and a sixth place, but all I could manage was fifth in the Mar del Plata Grand Prix.

My first race of the European season was at Goodwood on Easter Monday and it was also my first visit to the new British circuit which had opened in 1948. Although it was only the perimeter track of a former airfield, it was an interesting circuit, there was a good and enthusiastic atmosphere and excellent hospitality. Race day was wet and miserable, with high winds, but I finished second behind Parnell's Maserati in the 11-lap Richmond Trophy, the main race of the day.

Amédée Gordini invited me to drive one of his 1,220cc Simcas in the Formula B Circuit of Erlen held on 7 May in eastern Switzerland. He needed the starting money and I always attracted good starting money in my home country. The Simca had superb roadholding and the engine was very powerful for its size and usually very reliable. I set fastest lap and would probably have won, if on this occasion a valve had not broken. There were four works Alfa Romeo 158s entered in the European Grand Prix at Silverstone in May, these completely dominated the race and I had no prospects of repeating my 1949 victory. Early in the race I held sixth place, but I fell back because my engine was running badly and I retired when a connecting rod broke.

In the Swiss Grand Prix on 4 June I finished sixth behind Farina and Fagioli (Alfa Romeos), Louis Rosier (Talbot-Lago), team-mate Bira and Felice Bonetto with a *Milano*. No more success came my way until the 140-mile (225km) British Empire Trophy on the Douglas road circuit in the Isle of Man on 15 June. Even by Continental standards it was a difficult and

In the 1939 Swiss Grand Prix, another race in which Toulo retired, he leads the Auto Union of Nuvolari.



interesting circuit and one which I liked very much. The race was run in steady, but light rain that made the circuit very slippery. I drove a cautious race and my tactics paid off. Bira spun on mud on the road and two other cars collided with him. My steady driving earned me third place behind the ERAs of Gerard and Harrison.

I raced again in Britain on 13 July in the 176-mile (283km) Jersey Road Race, another event on a road circuit that I liked. I worked my way up to second place behind Peter Whitehead with his private Ferrari, but Plate and I had made a tactical error. We had decided that I should run with a light fuel load, but although I made one refuelling stop, I soon realised that I would not complete the race without another quick stop. Although this took only 17sec, thanks to Plate's efficient pit work, I dropped back behind Parnell (Maserati) and finished third.

I had been asked by my good friend Battista Guidotti, Alfa Romeo team manager, if I wanted to drive a works 158. My answer was, 'My God – Yes!' and so I was given a test at Monza. The 158 was so different from the Maserati, very much more powerful and with a superb gearbox – the gearbox in the Maserati was a Fiat gearbox with synchromesh on only third and top gears. The roadholding of the 158 was much better and it drifted beautifully. It was so much faster and more powerful than the Maserati on the straights.

I first drove the 158 in the Grand Prix des Nations at Geneva on 30 July. It proved a disastrous race, for the crankshaft broke on Ascari's new 4.1-litre Ferrari and dropped a large quantity of oil on the road. Poor 'Gigi' Villoresi hit the oil, lost control and crashed heavily, killing four spectators and injuring another 27. I also hit the oil and went off into the straw bales, stalling the engine. The starting handle was kept in the cockpit alongside the driver. I grabbed it, jumped out of the cockpit, inserted it, managed to pull it up and 'roop' – the engine was so well tuned that it fired immediately. I rejoined the



Toulo: Emmanuel de Graffenried, the most consistent and successful driver of private Maseratis seen here at Silverstone in 1949 when he won the first British Grand Prix. (Guy Griffiths)

race to take a very satisfactory second place behind team-mate Fangio, but ahead of Taruffi with another 158. I could hardly have done better and Guidotti promised me another drive when the opportunity arose.

After that I returned to Plate and the Maserati. The 1950 Italian Grand Prix was a battle between the Alfa Romeos and the new unsupercharged Ferraris. I drove another steady race and took sixth place, a rather disappointing result, as Rosier and Etancelin finished ahead of me with their unsupercharged and rather slow Talbot-Lagos. I returned to Goodwood for the meeting on 30 September and it was another wet and rather miserable day. I finished third in a very short 5-lap race behind Reg Parnell with the V16 BRM and Bira. The main race of the day was the 12-lap Goodwood Trophy. I led away from the start, but was soon passed by Parnell and

Bira. In these wet conditions at Goodwood the old British ERAs were as fast as the Maserati, I battled furiously with Bob Gerard and Brian Shawe-Taylor and fell back to finish fourth after I went slightly wide at a corner and Gerard slipped ahead of me. My last race of the year was the Penya Rhin Grand Prix at Barcelona in which I took fifth place behind three works Ferraris and Etancelin's Talbot.

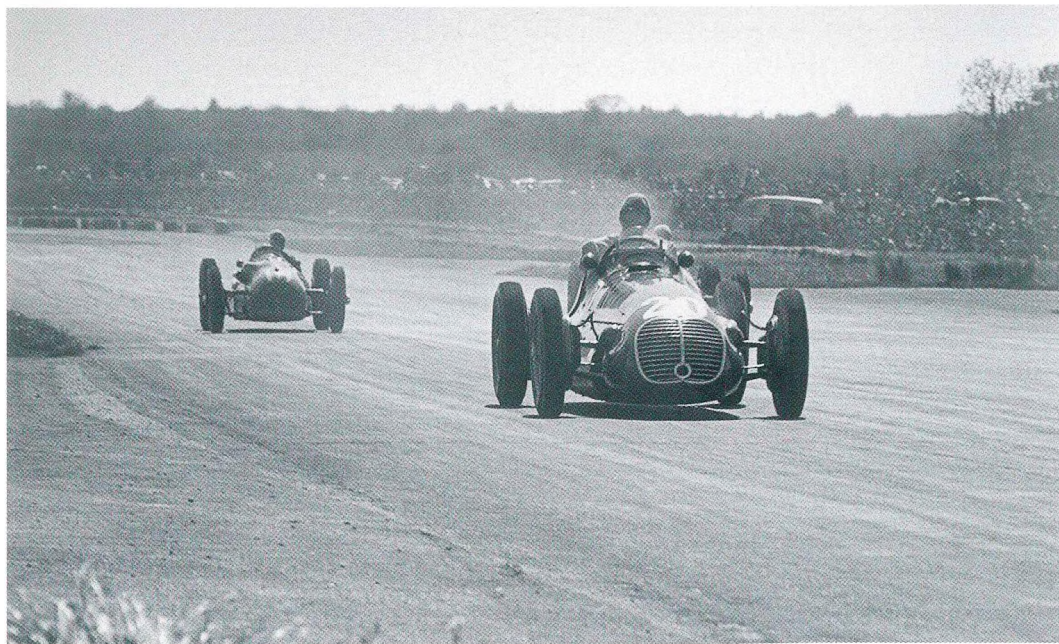
For 1951 Bira left Plate to race a new car that combined an Osca V12 engine with the Maserati 4CLT/48 chassis. We were now joined by Harry Schell. Plate and I were convinced that the 4CLT/48 was still the best car for a private team to race and we continued to have the help and support of the factory. We raced regularly throughout the year, but achieved no real success.

My best results came from more drives for Alfa Romeo and I appeared with works 159s



Toulo de Graffenried at the wheel of his 4CLT/48 on his way to a win in the 1949 British Grand Prix at Silverstone. It was his greatest victory. (Guy Griffiths)

De Graffenried at Silverstone in May 1950, his 4CLT/48 emitting blue smoke. Behind is Giraud-Cabantous (Talbot-Lago). Toulo was still driving a 4CLT/48 entered for him by Enrico Plate, but the car was no longer competitive and he had a poor season. (Guy Griffiths)



– as they were known in their more powerful 1951 form – in three races. I was brought into the team for the Swiss Grand Prix at Bremgarten on 27 May. The most powerful 159 was to be driven by Fangio who was the undisputed team leader – but only if the race was dry. Race day proved very wet and so I was given the most powerful car. I drove a cautious and satisfactory race, as the cars threw up great plumes of spray. Fangio won from Taruffi (unsupercharged 4.5-litre Ferrari), Farina and Sanesi and I was content to finish fifth, having done what I was told – drive steadily to finish.

I did not think that I would be getting any more drives with the team, but they came through Sanesi's misfortune. During pre-race testing at Monza prior to the Italian Grand Prix, he was badly burnt when his car caught fire during refuelling practice. So I joined the team at short notice, but retired after only a lap because of supercharger problems. The last round in the 1951 World Championship was the Spanish Grand Prix on the Pedralbes street circuit at Barcelona on 28 October and Guidotti again asked me to drive for the team. We thought that we would be beaten by the Ferraris, as had happened at the three previous Championship races, but these unsupercharged cars were plagued by tyre problems. Fangio won from Gonzalez (Ferrari) with Farina third, Bonetto fifth and myself sixth. Sadly, there were to be no more drives for Alfa Romeo as they withdrew from racing at the end of the year.

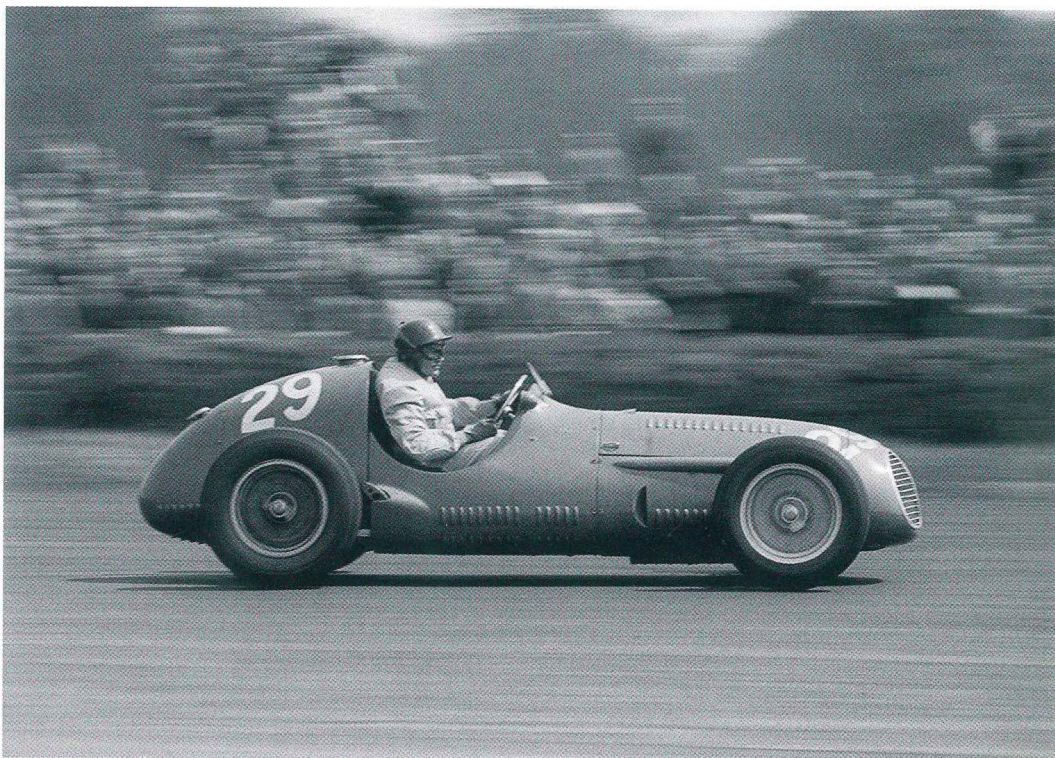
Alfa Romeo's withdrawal from racing was the main reason why the decision was made to hold all World Championship races and most other Grands Prix to 2-litre Formula 2 rules in 1952–53. Maserati were developing a Formula 2 car, but it would not be ready at the beginning of the season. So Plate decided to develop his own Formula 2 car based on the 4CLT/48. The Plate-Maseratis had shortened chassis, engines with supercharger removed and new cylinder blocks cast with a bore of 90mm to give a capacity of 1,980cc. They had fantastic roadholding

on small circuits, but they did not have much speed along the straight. Two of these cars were driven by myself and Harry Schell, but we did not achieve much success.

At Pau on Easter Monday I set third fastest lap in the race, but the engine went off-tune and I fell back to finish sixth. I finished fourth at Marseille and took third place in the International Trophy at Silverstone behind the British HWMs of Lance Macklin and Tony Rolt. Shortly afterwards I was sixth in the Swiss Grand Prix, but achieved nothing more until Comminges in August when I took fifth place. The biggest disappointment of the year was at the Italian Grand Prix on the very fast Monza circuit where both Harry and I were too slow in practice to qualify as starters. I finished the season with third place in a race at Cadours near Toulouse.

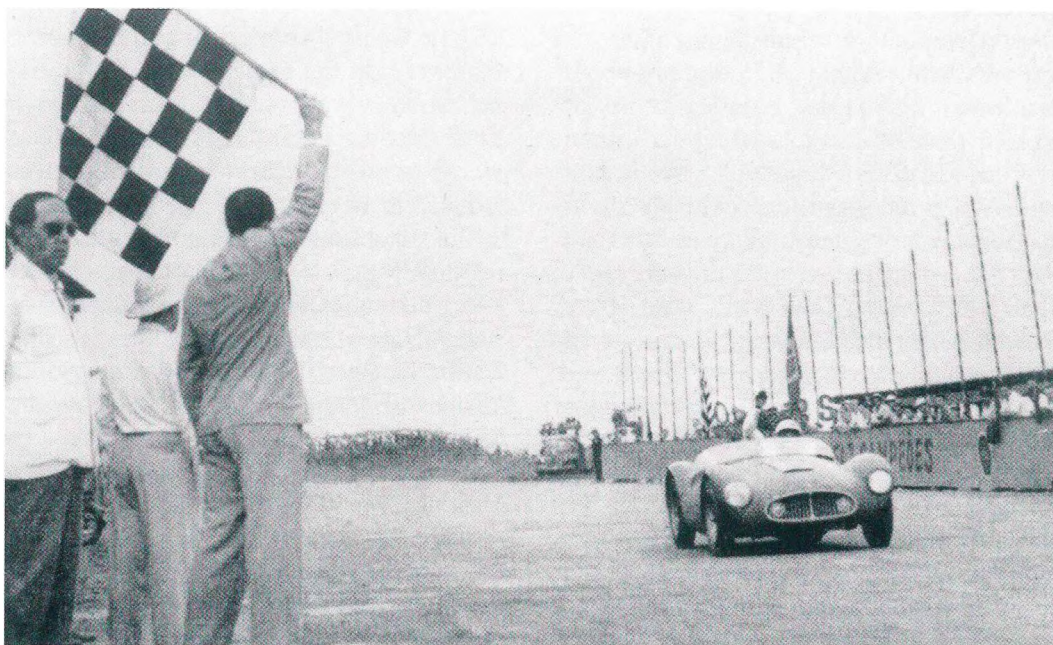
The 1952 season is better forgotten, especially when compared with 1953 when I enjoyed one of my most successful years. We had ordered one of the improved A6GCM cars from the Maserati factory, but it was not ready by the start of the season. Plate was well connected at the factory, so they lent us the prototype and it was a wonderful car to drive, very fast and with good roadholding. I first drove it at Siracusa on 22 March and I faced a strong team of works Ferraris. The latest Ferraris all retired because of mechanical problems and I won the race from Louis Chiron (Osca) and Rodney Nuckey (Cooper-Bristol). It was a very pleasing win, because as a private entrant it was only possible to win occasionally.

We then travelled to Goodwood for the meeting there on Easter Monday. It was a day with a succession of short races and it was for me very successful. My first race was the 7-lap Lavant Cup for Formula 2 cars. I held second place, chasing hard Roy Salvadori with a works Connaught, until he slowed off near the end of the last lap because of a broken throttle linkage, and I then passed him to score my first win of the day. Then I ran in a handicap race in which I finished fourth.



In the International Trophy at Silverstone in May 1953 Tulo won his heat with the prototype 1953 A6GCM, but was penalized a minute for jumping the flag at the start of the final. He pulled out of the race, although he was going well in second place. (Guy Griffiths)

De Graffenried crosses the line with Giletti's A6GCS to win the Rio de Janeiro Grand Prix in December 1953.



Now rain had begun to fall and I remember sitting on the front row of the starting grid in the middle between the V16 BRMs of Ken Wharton and Reg Parnell. Each was 16-cylinder, twin-blown, revving with unbelievable noise and I had to take my hands off the wheel and start the race with my fingers in my ears! I accelerated away in the lead, the BRMs were so difficult to drive in the wet and I won by just under a second from Wharton. The big race of the day was the 15-lap Richmond Trophy and I drove another good race to finish third behind Wharton (BRM) and Piero Taruffi (Ferrari *Thin Wall Special*).

Then we ran at Bordeaux at the beginning of May where I retired because of a broken half-shaft. A week later I ran in the International Trophy at Silverstone, held in two heats and a final. I won my heat from Stirling Moss with his new Cooper-Alta and we jointly set fastest lap. Mike Hawthorn won the other heat with his works Ferrari at slightly higher speed. The line-up of the front row of the grid was Hawthorn – Wharton (Cooper-Bristol) – me – Moss. I was very tensed up because I knew that the race would be a battle between Hawthorn and myself and I was anxious to make a good start.

Very stupidly I jumped the start, I stopped immediately, but the stewards penalised me a minute. I led Hawthorn for the first three laps of this 35-lap race, then he went ahead, but I was still chasing him hard. When the organisers told Plate about the penalty, he argued with them furiously, but they would not relent. I did not know that I had been penalised until Plate showed me a board and whilst I deserved a small penalty, a whole minute spoilt the race for me and the spectators. I simply pulled into the pits to retire.

We stayed in the UK to compete in the Ulster Trophy on the Dundrod circuit the following weekend. This was another race run in two heats and a final and should have provided another chance with me to do battle with Hawthorn. Unfortunately I

retired because of a final drive problem on the first lap of my heat. Next came the Eifelrennen, seven laps of the Nürburgring. No works Ferraris were entered and I won my third race of the year from the HWMs of Paul Frère and Peter Collins.

The first of the European World Championship races was the Dutch Grand Prix on 7 June and by then we had taken delivery of the latest Maserati. The rest of the year was a battle fought out between the works Ferrari and Maserati drivers, but I took some good places. We worked very closely with the factory, the Orsis regarded Plate very highly and he could have whatever he wanted. As a result our car was almost as good as those entered by the works, but I always had to drive with restraint to save the engine and keep the bills as low as possible. I finished fifth at Zandvoort, I took fourth place at Spa-Francorchamps and fifth in the German race at the Nürburgring. In addition I finished second in the Fribourg hill climb behind Hans Herrmann and took third place in the Modena Grand Prix at the end of the year. It had proved to be one of our most successful years.

We ordered a new 250F Maserati Grand Prix car for 1954, the first year of the new 2,500cc Grand Prix formula, but this would not be ready for some while and in the meanwhile we would race the 1953 car fitted with the latest 2½-litre engine. I was invited to take part in two sports car races in Brazil in December 1953, but I did not have a suitable car. So I arranged to borrow a 2-litre Maserati A6GCS from an Italian friend, Emilio Giletti, a woolmaker from Biella. We would take the single-seater 2,500cc-engined 1953 car with us to South America and after I had driven it in the Argentine Grand Prix, Giletti would be at the wheel in the Formule Libre Buenos Aires City Grand Prix.

The first Brazilian race was the Rio de Janeiro Grand Prix run over 30 laps of the 6.69-mile (10.7km) Gavea street circuit. Most of the cars were Ferraris and one of

these with 3-litre engine was driven by the Brazilian hero, Chico Landi. He was expected to win the race, but he was too excited and at the first corner he hit the kerb and burst a tyre. He had no spare wheel and had to drive all the way back to the pits on the rim. I took the lead and none of the other drivers were experienced enough to challenge me. I won the race and at the prize-giving the Brazilian dictator Getulio Vargas was to present the first prize, a beautiful Swiss Universal watch, to the winner. When he handed me the trophy, he didn't have a big smile and I wondered what I had done to upset him. Later when I looked at the back of the watch, I saw that it was already inscribed with Chico Landi's name. [*In 1954 Vargas committed suicide – AP.*]

A fortnight later I drove Giletti's car in the Sao Paulo Grand Prix held over 40 laps of the very old Interlagos circuit. I made a poor start and initially was back in eighth place. There was a terrible thunderstorm, the Maserati had very good undershielding and the circuit was so flooded that it was like driving a motor boat. I dropped back further and then began to make up ground, passing driver after driver. I climbed up to second place, spun and then worked my way up to second again. When Landi's car caught fire because of a detached carburettor float chamber, I took the lead and won by a margin of nearly three minutes from another locally driven Ferrari.

With the single-seater I finished in eighth place in the Argentine Grand Prix on 17 January. Then Giletti drove it in the Buenos Aires City Grand Prix a fortnight later, but retired because of loss of oil pressure. The circuit was quite new and the pits were dangerously situated on a fast curve. It was a very hot day and I said to Plate, 'Tomorrow, we're leaving for Europe. The race is over, let's go and have a shower.' He said, 'No, I want to watch the rest of the race.'

While I was showering, I heard a big yell and some shrieks. I thought that there had been a bad accident and I went back to the pits. It was Enrico Plate who had been hit

and killed by an Argentinian driver, Jorge Daponte. No one else was injured. It was fate. If he hadn't moved, he would not have been hit, but he had moved instinctively and that was why he was killed. I felt fatalistic about it and said to myself that I must quit racing. In his apartment in Milan, Plate had a painting by Roy Nockolds of me and Bira with the 4CLT/48s. The day before Plate was killed his wife heard a bang and found that it had fallen off the wall.

Plate's death was a terrible blow and I did give up racing. The order for the 250F was cancelled and we used the 250F-engined A6GCM for filming in the making of *Such Men are Dangerous*, based on Hans Ruesch's novel, *The Racer*. I was with 20th Century Fox all year, acting as consultant on the film and doing the driving scenes for Kirk Douglas. Both and I and American driver John Fitch drove camera cars in some Grands Prix. The Plate-Maseratis were brought out of storage and also used in the film. After that I raced only six more times.

I entered the 250F-engined A6GCM that we had raced in the Argentine in the 1954 Spanish Grand Prix to be driven by Ottorino Volonterio and myself. Volonterio, who was a fellow Swiss, was a keen, but inexperienced, amateur and sharing the driving we ran steadily until we had mechanical problems. Anyway, he bought the car.

At Bari in southern Italy on 15 May 1955 I drove a Ferrari in the 186-mile (300km) sports car Grand Prix and finished fourth behind Jean Behra, Luigi Musso (both with Maseratis) and Masten Gregory (Ferrari Monza). I next ran in the Lisbon Grand Prix on 24 July, 1955 with a Maserati 300S belonging to a Swiss owner. I had a race-long battle with Masten Gregory and I was beaten into second place by two-fifths of a second after almost, but not quite getting past the Kansan at the last corner. I could have won if I had been prepared to over-rev the engine. It was on the day of this race that Masten Gregory's second child was born. In November I drove a Ferrari Monza in the 213-mile (343km) Venezuelan Grand



After winning the Sao Paulo Grand Prix at Interlagos in Brazil in December 1953, de Graffenried salutes the Swiss National Anthem.

Prix and finished third behind Fangio (Maserati) and de Portago (Ferrari).

In June 1956 'Mimmo' Dei of Scuderia Centro-Sud entered me and André Canonica with a Maserati A6GCS in the 1,000-kilometre Supercortemaggiore Grand Prix run for sports cars up to 2,000cc at Monza. I started the race well and was battling for seventh place with Jean Lucas (Ferrari Testa Rossa) when the Maserati's engine broke on lap 17. My very last race was the 1956 Italian Grand Prix on the combined banked track and road circuit at Monza. 'Mimmo' Dei persuaded me to drive one of his old 250F Maseratis and we ran only for the starting money. I finished eighth in a field that included four Lancia-Ferraris and two new works Maseratis, which was reasonable in the circumstances. It was not a bad note on which to end my 20-year racing career.

When he retired from racing, Toulo had for some time been the Alfa Romeo agent in Lausanne. Later he obtained the Ferrari agency.

In 1972 he was asked by Ronnie Thompson, President of Philip Morris Marlboro, to act as consultant. He stayed with them for ten years and introduced them to the world of motor racing. Philip Morris's involvement in Grand Prix racing was to prove a substantial factor in it becoming such a popular sport and its sponsorship helped many drivers and teams that included BRM, McLaren and Williams. Toulo's son Leo also competed in racing with a Mini Cooper and an Alpine-Renault.

In 1962 de Graffenried, together with Fangio, Farina, Paul Frère, Robert Manzon, Gianfranco Comotti and Albert Divo founded the Club International des Anciens Pilotes de Grand Prix et F1. Toulo was Secretary until 1980 and then became President following the death of Louis Chiron. He supports it enthusiastically, although regretting that so many drivers against whom he raced have now died. In May 2002 the Association celebrated its fortieth anniversary at the Historic Grand Prix at Monaco and Toulo decided it was time to retire. He and Elsa still live near Lausanne.

ROY SALVADORI

Racing the Gilby Engineering Maserati, 1954–1956

Although he never won a Grand Prix, Salvadori was one of the most successful British drivers of the 1950s. Born on 12 May 1922, he first took part in motor sport in 1946 driving R-type MG and Riley 2-litre cars. The following year he acquired an Alfa Romeo Monoposto, he moved on to a 4C Maserati in 1948 and then raced a 4CL Maserati which he leased from Bira. Later he raced a Frazer Nash Le Mans Replica with which he had a near-fatal crash at Silverstone in 1951. He drove Ferraris for Bobby Baird in 1952 and was a member of both the Aston Martin and Connaught works teams in 1953.

I had discussions in the early part of 1953 with Sid Greene of Gilby Engineering, whose main business was machine work for Ford. These led to one of my most enjoyable periods of racing, as well as one of the more lucrative deals in my racing career. Sid was a great enthusiast for the sport, but he believed in making his racing pay and he liked to employ a professional driver. He had lost his left arm in an accident, so he was unable to race himself, although he was in fact an extremely quick and competent driver.

Sid was planning to import a 2-litre Maserati A6GCS sports-racing car, no example of which had been seen in the UK, and he later extended his plans to include a new 250F Grand Prix car for the 1954 season. In the meanwhile I drove his Frazer Nash Le Mans Replica whenever my other commitments permitted.

To make the project viable Sid needed substantial financial support and so I set up a meeting with Reg Tanner, Competitions Manager of Esso, who had backed me for several years. The project appealed to Esso and they funded the purchase of the A6GCS, which cost about £3,000, nearly doubled by import duty and purchase tax. The car, together with Italian mechanic, arrived in time for me to drive it at the Goodwood meeting in September 1953. For 1954 Esso agreed to provide Gilby with a racing budget of about £10,000, which helped to fund the purchase of the 250F. This cost about £4,000, again nearly doubled by the time it had been imported.

I received a similar sum to Gilby for using Esso products exclusively, but even so Esso would consent for me to drive for other entrants, provided that there was no conflict of interest. In addition Sid split the starting money and prize money with me. Starting money for the 250F ranged from £250 or so at small meetings up to about £650 for a Grand Prix.

From my point of view it would have been a difficult deal to better. Sid was very serious with regard to this project and for 1954 he appointed Maurice Wilson as Competitions Manager. Later he even talked about Gilby building its own Formula 1 engine, but this never went beyond the discussion stage.

I had been to the Maserati factory at Modena back in 1949 when I had an arrangement with Prince Bira to race a Maserati 4CL in the name of the *White Mouse Stable* and so I already knew *Le Patron*, Adolfo Orsi, and the head mechanic, Guerino Bertocchi. Sid and I had been there again in 1953 when the A6GCS was ordered and after that year's Italian Grand Prix when I test-drove the A6GCM single-seater.

We returned to Modena in late January 1954 when Sid confirmed the order for the 250F. At this time the 250F was the only competitive Grand Prix car available for purchase by private owners. I had the opportunity to drive the 250F with which Fangio had recently won the Argentine Grand Prix. I really enjoyed the 250F and as I familiarised myself with it I lapped the Modena *Autodrome* faster and faster.

Eventually I equalled the lap record set by Ascari with a 4.5-litre Ferrari in 1952. By the time that we left Modena both Sid and I had become good friends of the company and Maserati were to support us consistently over the next three seasons.

At the beginning of 1954 the 250F developed around 220bhp, which was more than enough to be competitive. It now also had a much wider power band than the 1953 car. The adoption of a de Dion rear axle in place of the rigid axle of the A6GCM had transformed the roadholding. It was a very well balanced car (weight distribution was 48% front and 52% rear) with slight understeer which I preferred.

I had no problems with the central throttle, a feature of most Italian competition cars of the time, and this was true even at British race meetings where I switched from car to car for as many as five events. The right-hand gear-change working in an open gate was fairly light and precise, and with only two turns lock-to-lock the steering was positive and accurate. The large drum brakes were well able to withstand the rigours of a long race. Unlike most Italian cars it had a very roomy cockpit and this suited my lanky frame.

Up until that time it was the fastest car that I had ever driven and I revelled in its performance. As with all Grand Prix cars of the period, there was a great deal of vibration, but it was essentially a reliable car, despite early teething problems that included a weak clutch, drive-shafts, prop-shaft and, rather more serious, sticking throttle. Our 250F was also very slow off the line and it was only at the end of the year we discovered that for no obvious reason it had been fitted with a very high, non-standard first gear.

The 250F, painted British Racing Green, was delivered in time for me to race it at the International meeting at Goodwood on Easter Monday. Sid and I had agreed our strategy for the season. We would enter all the British races that Esso and our other sponsors wanted and we would take

in the occasional Grand Prix. There was little opportunity for taking part in many overseas races as Sid and I both had business commitments. In addition, on grounds of cost, we had to conserve the 250F's engine as much as possible. We did very little testing and I always tried to restrict the engine speed to less than 7,500rpm, whereas the works drivers consistently used 8,000rpm. This reduced bearing wear and tear and extended time between overhauls. For serious engine and chassis work it was necessary to send the car back to Modena.

At Goodwood I took second places with the 250F in the Lavant Cup and the Chichester Trophy and also set fastest lap. In the main race of the day, the Formule Libre Richmond Trophy, I was stuck behind Ken Wharton's BRM V16, which was holding me up through corners and emitting fuel and oil, which spread over my face, goggles and windscreen. I was having difficulty in seeing my line through corners and eventually I tried to pass Wharton at Lavant Corner, hoping that he would give way, but this was an optimistic move and the cars collided and spun. We both kept our engines running and rejoined the race, but on the next lap my clutch exploded with such force that holes were punctured through the bell-housing and bodywork. This was a common enough problem on early 250Fs, as the clutches were nowhere near strong enough.

The 250F was not back in action until the International Trophy at Silverstone the following month and my performances were mediocre both there and at Aintree later in May. At Silverstone I was fourth in my heat and a miserable tenth in the final after a two-minute pit stop caused by a sticking throttle. I was second in my heat of the Aintree '200' race and set fastest lap, but I spun off in the final whilst in fourth place and rejoined the race to finish a poor fifth. In June I won the Formula 1 and Formule Libre races at Snetterton, but the opposition was weak.

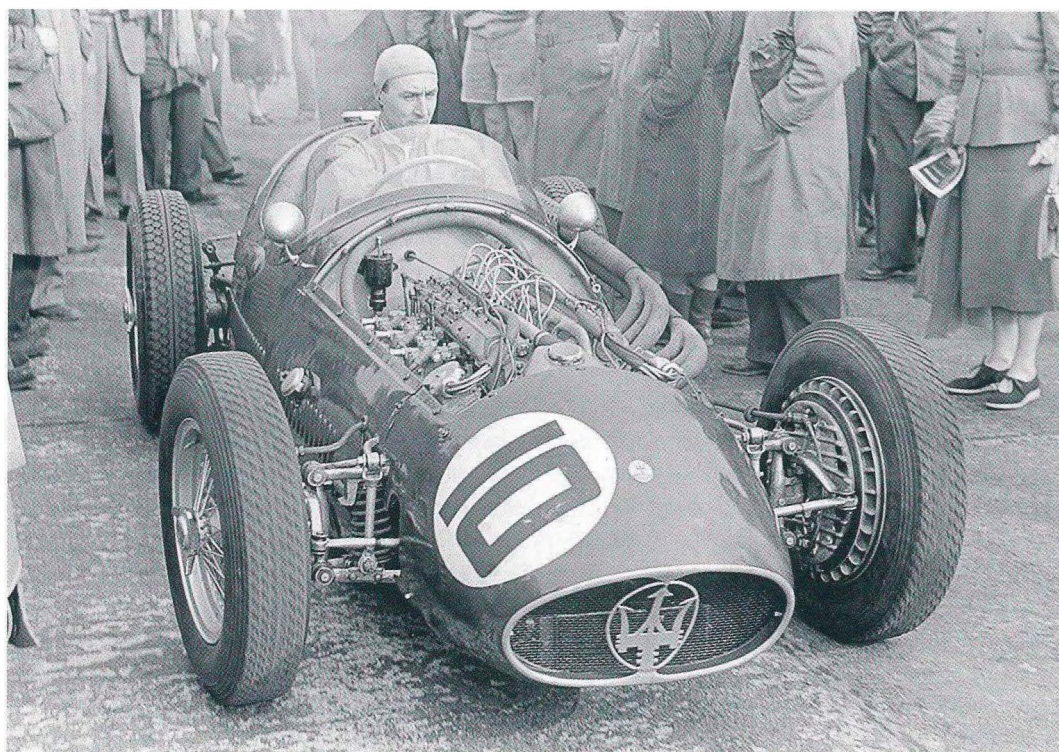
We entered the French Grand Prix in July, an historic event because it witnessed the racing debut of the Mercedes-Benz W196 'streamliners', and then stayed in France to compete in the Rouen Grand Prix. This meant very little practice at either race because of the need to conserve the engine. I ran tenth on the very fast Reims circuit until the rear axle stripped, and I finished third at Rouen behind the Ferrari of Trintignant and the Maserati of Prince Bira, despite an enforced pit stop when I was black-flagged for dropping oil. We had an oil breather problem, so we had linked the breather to a one-gallon oil tank in the tail. I think that we were slopping some oil out on corners, but there were no drips when I was stationary in the pits and I was allowed to carry on. We did well financially out of these two events.

Another Grand Prix followed, the British event at Silverstone, but again I was out of

luck. I lost five minutes in the pits after the fuel tank worked loose and later retired because the gearbox seized up. At the August Bank Holiday meeting at the Crystal Palace I was second in both my heat and final of the Formula 1 race behind my mate Reg Parnell with his ex-Baird Ferrari now fitted with a 2½-litre engine. Later in August we ran the 250F in the first Gold Cup race at Oulton Park. Stirling Moss with a works Maserati dominated the event, but I moved up into second place, the car was running beautifully and I was lapping faster and faster.

Everything was fine until lap 15 when I eased my foot on the accelerator as I approached Druids and there was a marked change in the engine note as the throttle jammed open. Our 250F had been fitted by Gilby with twin push-button cut-out switches to enable each magneto to be tested individually. I pushed in the

Roy Salvadori is seen at the wheel of the Gilby Engineering Maserati 250F in the paddock at the International Trophy meeting at Silverstone in May 1954. The car was not running well and he finished tenth in the final. (T.C. March)



switches, but mistakenly I only operated one of them, so the engine was still running flat-out. I entered Druids far too fast, the 250F slid sideways, mounted the grassy bank and rammed a tree. Smoke was pouring out of the engine bay, but there was no fire, mainly because the top of the tree collapsed on to the engine. I had been thrown forward on to the steering wheel and although I was badly dazed by hitting the thick Perspex windscreen, my face was protected by the visor that I was wearing because I had been expecting wet weather. My only other injuries were bad bruising and cuts around the knees and chest.

It seemed a disaster, though, because the car was badly damaged. We were going to miss races at the height of the season and it seemed that Gilby would face an enormous repair bill. All that could be done was to pack the 250F off back to Italy in the Gilby transporter. Maserati discovered that the engine had swallowed a valve and that the valve had, somehow, gone through one of the carburettors and wedged the butterfly open. The car needed a complete rebuild, including a new chassis frame, but it was back in England after just over a month and Maserati, much to Sid's relief, presented only a very modest bill of about £750.

I raced the 250F at the Crystal Palace again in mid-September, but retired because of a broken drive-shaft. Later that month I finished third in the Formula 1 race at Goodwood behind Moss (250F) and Collins (Vanwall *Special*) and fifth in the Formule Libre event. My last race meeting with the 250F in 1954 was at Aintree where I missed practice because of mechanical problems and started from the back of the grid. The car was still running badly and I finished a poor seventh in the Formula 1 event and fifth in the Formule Libre race.

Overall we were disappointed by the results achieved by the 250F in 1954, although very often we were running against works cars and we had suffered more than our fair share of bad luck. Esso

were happy to continue their sponsorship in 1955 on the same terms and I was content to stay with Gilby. My terms with Sid were the same, except that he insisted on paying me a £1,000 retainer. The 250F was completely overhauled at Modena, but it remained essentially to 1954 specification. During 1954 the car had been looked after by Italian mechanics from the factory, but they soon became homesick. We decided that the car would now be prepared at my garage on the Kingston Bypass by Les Wilson (ex-Thomson & Taylor) and Michael Norris. As a result we achieved better reliability and more success.

I won a Formule Libre race at Snetterton in March 1955 and then came the Easter Goodwood meeting. Goodwood was a superb circuit and there was always a garden party atmosphere. It proved to be one of my best Goodwoods ever, as I drove in six races, won three and finished second in two. With the 250F I was second in the Chichester Cup Formule Libre race behind Peter Collins (V16 BRM) and I was also second in an Easter handicap. My biggest success of the day was in the Richmond Trophy Formula 1 race. I was in second place behind Stirling Moss with his 250F, I pressed him hard at the chicane and spun at the exit.

I rejoined the race in sixth place, carved my way back to second and passed Stirling just before he retired. I went on to win the race and set fastest lap. Sid had negotiated better starting money for us than any other British driver/entrant except Moss. By taking part in six races at Goodwood, the combination of starting money, prize money and bonuses made it a very good day. Later in April I scored another win and set a new circuit record with the 250F in the Formule Libre race at Ibsley near Bournemouth.

Although the International Trophy at Silverstone in May attracted none of the Continental works teams except Gordini, there was a strong entry that included two of the new streamlined Connaughts, two

Vanwalls and six privately entered 250Fs. Among these were Stirling's car and the Owen Organisation 250F driven by Peter Collins. I was jointly fastest in practice with Mike Hawthorn (Vanwall) in 1min 48sec.

I expected Stirling to make the running in the race, but his Maserati had problems and he dropped out on lap 10. I was in front with Peter Collins snapping at my exhausts. We passed and re-passed constantly, but on lap 33 Collins started to establish a clear lead and I was not able to get to grips with him again. At the finish I was 39sec behind. I had made a tactical error, for I should have allowed Peter to lead early in the race and then turned the pressure on him. During this race we both equalled the circuit record.

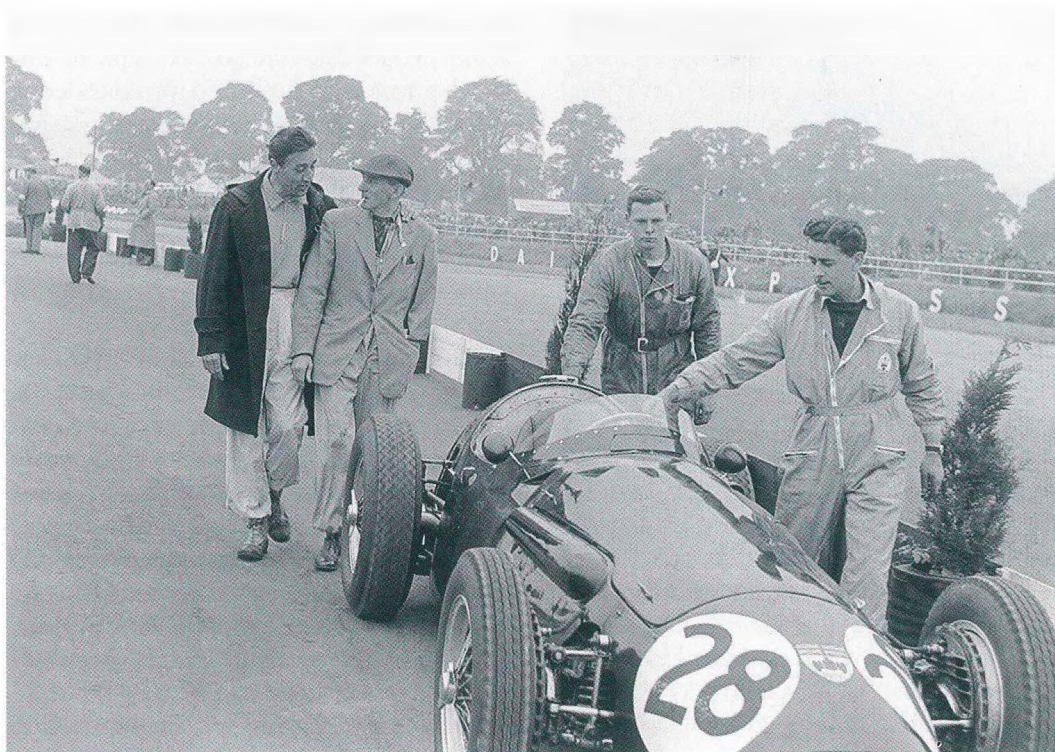
At the Whitsun weekend I won the Formula 1 Curtis Trophy and the Formule Libre race at Snetterton on the Saturday, and at the Crystal Palace on the Monday I came up against Peter and the Owen 250F once more. I failed to offer a challenge as my 250F developed an oil leak and I was forced to retire. Our problems continued at the British Grand Prix at Aintree where the 250F was plagued by low oil pressure which we were unable to cure. Frankly, we only ran for the starting money and I retired after a slow race.

We ran the 250F at the Crystal Palace again on August Bank Holiday Saturday, but without its tail after a practice crash. The Formula 1 race was run in two heats and a final. I was second in my heat to Mike Hawthorn at the wheel of the Moss Maserati, which was in fine fettle once more, and third in the final behind Mike and Harry Schell (Vanwall). On the Monday we were in action again at Brands Hatch, then only 1.24 miles (2km) long and very bumpy. We were worried about the 250F grounding, so after practice we raised the suspension with distance pieces. Inevitably the handling was affected and my third place on the aggregate of the two heats was not a fair showing of the 250F's capabilities.

Next came another race at Snetterton. I spun in the Formula 1 event and finished a poor fifth. In the Formule Libre race I battled for lap after lap with Peter Walker at the wheel of Rob Walker's new Formula 1 Connaught. It was certainly Peter's day and he was driving far harder than I expected. I was leading on the last lap when Peter had a final go at passing me, locked his brakes and pushed my 250F off the road. I managed to rejoin the race to finish second.

One of my best – and luckiest – races in 1955 was the 51-mile (82km) *Daily Telegraph* Trophy at Aintree in September. Although I made a dreadful start, I worked my way through to third place behind Reg Parnell (works Connaught streamliner) and Moss (250F). I passed Moss as he pulled into the pits to retire with mechanical problems, but with only four laps to the finish I thought that I was too far behind Reg to be able to catch him. I was still pushing the 250F as hard as I could and I made fastest lap of the race. I bounced off the side of my old mate John Young's 2-litre Connaught when he was right on my line through Tatts and just before the finish I shot past Reg's Connaught which was going at a crawling pace. I won the race and set fastest lap, while Reg pushed the Connaught, which had broken its engine, across the line into sixth place. I also finished second in the Formule Libre race at Aintree behind Peter Collins' V16 BRM.

Before the end of the year I competed in two British races of especial interest. In the *Daily Dispatch* Gold Cup at Oulton Park later in September *Scuderia Ferrari* raced for the first time two of the Lancia D50s which the team had taken over earlier in the year, and the new 4-cylinder BRM P25 made its debut in the hands of Peter Collins. I finished fifth after an uneventful race behind Moss (works Maserati), Hawthorn (Lancia), Titterton (Vanwall) and Parnell (Connaught), which was not too bad in the face of such strong opposition. At Castle Combe in Wiltshire at the beginning of October I was fourth in the



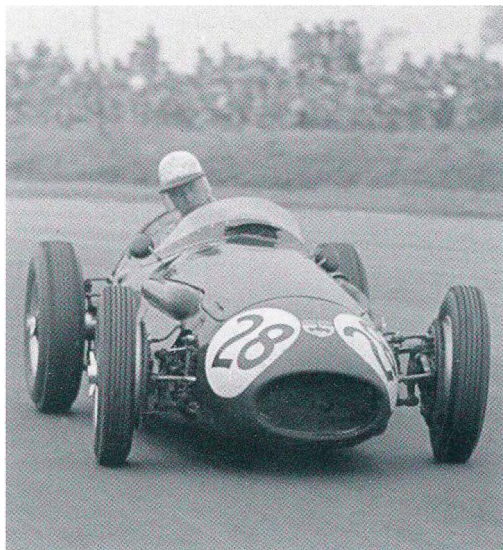
The Gilby Maserati is pushed out to the start of the 1956 British Grand Prix. Roy Salvadori has his arm round the shoulder of entrant Sid Greene. There was a very close bond between driver and entrant. (T.C. March)

Formula 1 and Formule Libre races, not very satisfactory performances. What was interesting was that both races were won by Harry Schell with a Vanwall and this British Grand Prix contender was now showing very real potential.

Later in the month I drove the 250F in the Syracuse Grand Prix held in the south of Sicily. We ran there because exceptionally good starting money was offered, but it was an incredibly long drive, especially for me at the wheel of my Morris Minor! While Tony Brooks made history by defeating the works Maserati team and scoring a brilliant victory with his works Connaught, I had a thoroughly miserable race. In the opening laps I hit one of the stone walls that lined most of the circuit and I had to stop to change a badly damaged wheel and tyre. Shortly afterwards I retired because of a leaking oil tank. It was a poor end to what had been overall a very good year.

Long before the start of the 1956 season I had agreed with Sid to drive the Gilby 250F for a third year. Although it had again been fully overhauled at the works, it was becoming obsolescent and we raced it rather less during the year. Our first race with the 250F was at Goodwood on Easter Monday. The entry for the Formula 1 Richmond Trophy included Moss with a works Maserati, two of the new BRMs and three of the ever-improving Connaughts, so I was not expecting a good result. Both BRMs retired, as did Archie Scott-Brown whilst leading with his Connaught. I was faster than the other Connaught drivers and took a very satisfactory second place behind Stirling whose works Maserati was fitted experimentally with fuel injection.

In the Aintree '200' race I retired the 250F because of low oil pressure, but worse problems followed in the International Trophy at Silverstone. The strong entry



Roy Salvadori drove a fine race with the Gilby Engineering 250F in the 1956 British Grand Prix. He led at one stage, but retired because of a misfiring engine. (T.C. March)

included two works Lancia-Ferraris driven by Fangio and Collins, two of the redesigned Vanwalls driven by Moss and Schell, Hawthorn with a BRM and five works Connaughts, together with Rob Walker's private Connaught. Stirling built up a good lead with the vastly improved Vanwall, but both of the *Scuderia Ferrari* entries retired and Hawthorn was also eliminated.

After a poor start I came through to take second place from Archie Scott-Brown (works Connaught) and we battled it out, swapping places lap after lap, each of us with complete confidence in the other's driving. I was ahead of Archie on lap 49 when a drive-shaft seized, the back end of the 250F locked up, I hit the bank at Stowe and the Maserati overturned. I was badly bruised, injured a knee, burnt my left arm on the 250F's exhaust and was concussed. I was racing again by the end of May, but the 250F had to be rebuilt at the factory yet again and it was not ready to race until the British Grand Prix in July.

My performance in the British Grand Prix was probably my best that year. Although caution about an engine misfire resulted in

my retirement, I held second place behind Moss' works Maserati for 26 laps of this 101-lap race, which pleased me considering that our 250F was now three years old and unmodified. Stirling also retired and Fangio with a Lancia-Ferrari won the race. A week later we were racing at Snetterton and with the 250F I won both the Formula 1 Vanwall Trophy and the Formule Libre Sears Trophy race.

After this we entered the 250F in the German Grand Prix at the Nürburgring at the beginning of August, a convenient arrangement as I was also driving a works Cooper in the sports car race that preceded the main race. Inevitably I had to restrict practice with the 250F to conserve the engine, but I was pleased with my driving in the Grand Prix and I held fifth place, battling with Jean Behra (works Maserati) until the rear transverse leaf spring broke.

At the end of August we ran the 250F in the 153-mile (246km) Caen Grand Prix held on a typically rough and bumpy Continental road circuit. I built up a substantial lead, but a heavy downpour soaked the circuit, already liberally coated with oil and rubber, and I spun off where the road was crossed by tramlines. It took me ages to bump-start the car on my own and I eventually finished third behind Schell (works Maserati 250F) and Simon (works Gordini), but I had the consolation of setting a new lap record of 91.35mph (147.07kph).

From Caen we travelled on directly to compete in the Italian Grand Prix held on the Monza combined road and banked track circuit. The banking was very bumpy and gave all the cars a bad hammering. My 250F was plagued by minor problems and I finished 11th and last, but at least I finished. My last race with the 250F was at Brands Hatch in October and in a short 19-mile (30km) race I finished third behind the works Connaughts of Scott-Brown and Lewis-Evans.

For a number of reasons my years with Gilby Engineering had come to an end. Because my car business was expanding it

was no longer possible to base the 250F at Elmbridge Motors, the car was obsolete and at that time there was nothing reasonably sensible that Sid could buy to replace it.

During my years with Gilby my driving had matured a great deal, I was becoming more and more involved with Cooper and I was even foolish enough to sign up and drive works BRMs in 1957 (the relationship was short-lived!). Gilby continued to race the 250F in 1957 and it was driven by Ivor Bueb, Jim Russell and Sid's 17-year-old son Keith. While Gilby were to go on to construct their own cars for Keith to drive, the 250F eventually ended up in the stock of Performance Cars on London's Great West Road.

The Maserati 250F was an outstanding Grand Prix car and ideal for the private owner. It handled extremely well, had excellent brakes and roadholding and no real vices; in addition it was relatively easy to maintain. I was quite fond of the Gilby 250F and in the three years that I drove the car it served me well, covering up many of my mistakes, and, regardless of the treatment it received, always remained user-friendly.

Roy signed up to drive for BRM in 1957, but withdrew from the team at Monaco once he learned that the team had been tampering with the disc brakes – despite assuring him that they had left all work on the brakes to the maker, Lockheed. He also drove Vanwalls in two races when Stirling Moss was unfit to take part. He had been a member of the Cooper team since 1956 and in 1958 finished third in the British Grand Prix and second in the German race.

He had continued to drive works Aston Martins and won at Le Mans in 1959 with Shelby as co-driver. In later years he drove Lolas in Grand Prix racing for the Bowmaker team, raced extensively in British events for 'Tommy' Atkins and in 1962 won the Coppa Inter-Europa at Monza with a works Aston Martin DB4GT. Later he was involved in the development of the Ford GT40 and became Cooper racing manager in 1965.

BRUCE HALFORD

Private 250F Owner, 1954–1956

As a private owner operating on the most limited of means and dependent for survival on starting money, Halford provides a complete contrast with the well-financed private teams. The sheer determination of his efforts made him greatly respected by the Grand Prix 'circus' and he also received good 'copy' from the British magazines. He was born on 18 May 1931 and educated at Blundells School. His parents ran hotels in Bournemouth before moving to Torquay where they bought and ran the Warberry hotel.

My family ran hotels in the Torbay area. I worked in the business. I was 22 in late 1953 when I bought a Riley TT Sprite similar to that raced by Mike Hawthorn in his early days. I competed with this car in 1954 at circuits such as Ibsley, Davidstow and Silverstone and I drove it on the road to and from meetings. I remember that once when I was competing at Silverstone I stayed at the Randolph Hotel in Oxford – so finances could not have been that bad.

In 1954, when I still had the Sprite, a local lad, Tom Kyffin, formed *Équipe Devone*. He had just come out of the navy where he had reached the giddy height of ABS (*Able Bodied Seaman*). He got it all wrong; he had looked at all these garagistes who were racing. They had been successful *garagistes* before they started racing. He got together a racing team and then thought that he had better become a *garagiste* and he set up Torbay Speed Shop.

Kyffin had two single-seater Mark II Cooper-Bristols and a sports version. I pushed and pushed him to let me drive one of the cars. His second-string driver had, I understand, been one of his officers in the navy, but he left Kyffin for whatever reason and I took over his car. This single-seater had been converted to look like a Ferrari for a film and almost always overheated. We raced every weekend from late 1954 onwards and I have no recollection of just how many races we competed in. I accumulated a vast amount of experience in a very short space of time.

By the end of 1955 even Tom, who had been left a lot of money in a trust fund – his mother was one of the Wills tobacco sisters

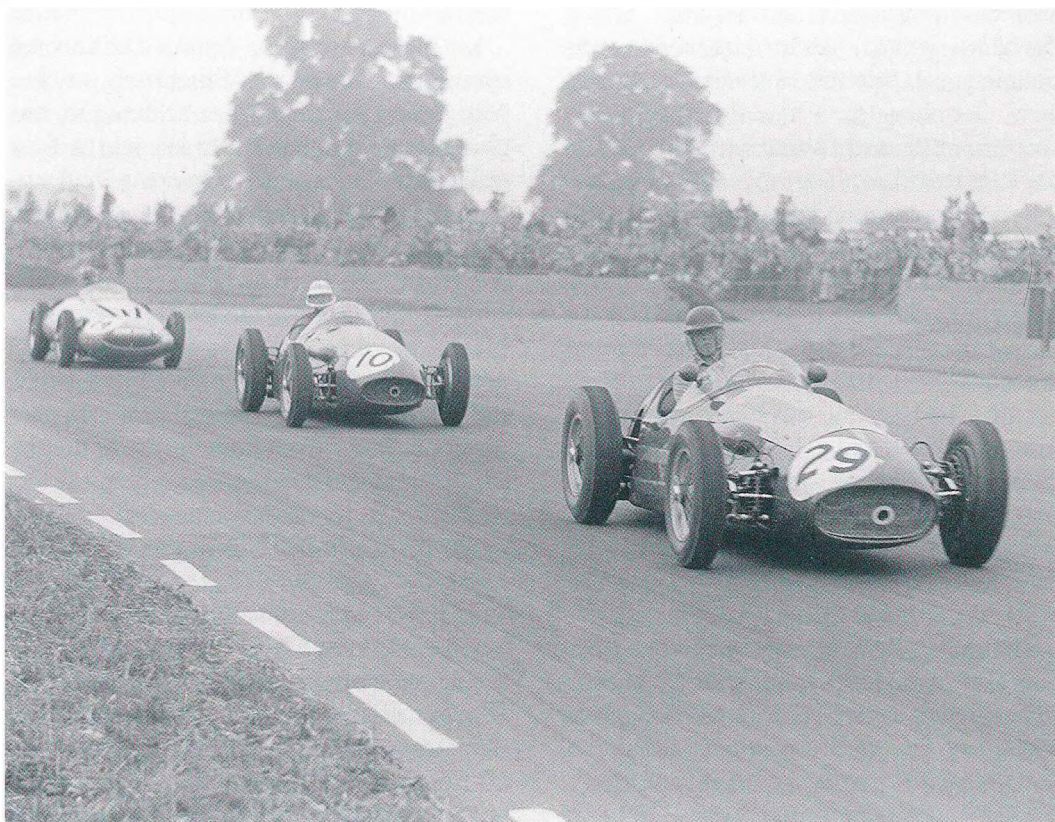
– found it tough-going. He decided to buy a sports car and purchased an ex-works Aston Martin DB3S from Peter Collins. So there was no longer room in the team for me and I had to make my mind up whether to get a proper job or, by hook or by crook, buy myself a car to race that would be self-financing.

Sports cars and single-seaters cost about the same to buy and about the same to

maintain, as you needed a mechanic for both. You were not getting that much starting money, but you were getting about two and a half times as much for a single-seater as you would for a sports car. So I decided to see whether I could get a single-seater and the only one that an independent could sensibly buy, with any hopes of getting anywhere, was a Maserati 250F. So my dear mama, who was a canny Scots lady and always had a couple of bob tucked away, helped me and I bought Bira's Maserati at the end of 1955.

This car was chassis number 2504 and Horace Gould, who was a good mate of mine, drove it in two or three races when he was thinking of buying it. He was then made a better offer by the factory for one of their ex-works cars, 2514. So the Bira car came back on the market. My father carried

In the 1956 British Grand Prix, Bruce Halford with his 250F leads Francesco Godia-Sales (works 250F) and Herrmanos da Silva Ramos (straight-eight Gordini). Halford retired because of piston failure. (T.C. March)



out the negotiations with Bira together with his solicitor who kept an office in Admiralty. My father kept referring to me as 'my little boy' – I was 25 at the time! I flew out to Nice to see Bira. When we met and I stood towering over him in my military British warm, he simply said, 'My little boy!'

We drove to Modena in the car belonging to Bira's wife, an Aston Martin DB2/4 which had a gold plate on it stating that it belonged to 'Her Royal Highness Princess Ceril Birabongse'. We stopped off at all the little circuits, like San Remo on the way, but did finally make Modena. When we arrived there Bira, who spoke fluent Italian, conducted all the conversations with Gianluigi Moncalieri who was the secretary and finance director of Maserati at the time (*he was company secretary, 1940–74 – AP*). I think that Bira owed them money and had to square up.

So we went and looked at the 250F which was patently no tatty old wreck. It had had a very good rebuild and at that time was to the latest specification. It had the sloping head on it rather than the straight head. I didn't try it out at the time, there was no point, a Maserati 250F was a Maserati 250F, and I knew what they would do. Bira was obviously very anxious to get rid of this car and on the way back to Nice I rang my father from a restaurant at Monte Carlo. I told him that the car was fine and he said, 'Right, we'll do a deal.' So that was that. I bought the lot for £2,500, the car, the transporter, the spares and even Bira's hat in a hatbox. The problem was that at this time if you bought a car like this in England, it would come out at about £10,000 with import duty and purchase tax. The moneys for the 250F changed hands in England, but I don't want to say much about this.

The car was chassis number 2504, which had also been used for the A6GCM with 250F engine that Bira had raced early in 1954, so at one time there were two Maseratis with the same chassis number in existence. Even so, there were never any

problems with the car. If, for example, I was short of a carnet and wanted to compete at Pau, Moncalieri would go down there with his set of stamps and change the numbers to match one of the works carnets – it was as easy as that. Maserati had an incentive, for all the work was done on credit and if I couldn't compete, I couldn't pay the bills.

I contacted Ken Gregory, Stirling Moss's racing manager, and asked him if he would manage me. He agreed, but in fact he never actually did and the one good thing that he did do was to get me a mechanic. I teamed up with Tony Robinson who was Moss's second mechanic to Alf Francis and we are still good chums today. He was never given enough credit for the work he did, for he later designed cars for the British Racing Partnership and in some ways he was better than Alf Francis. I wasn't sure that one mechanic would be enough, so I got hold of a local lad and off we set to do the 1956 season. Before that we fitted a right-hand throttle in place of the usual Maserati central throttle.

My first race was the Aintree '200' which was a total catastrophe. I had been running with Jack Brabham who was driving the ex-Owen Organisation 250F. He had a tank strap come loose and I was trying to gesticulate to him that he had a bit of a problem. I was not concentrating on my driving and went into the wall at the bottom of the straight. The car was badly bent, so it was back to the factory where 2504 received a new chassis and I received a big bill. I saw them building up the chassis on a surface plate – there were no jigs. Both the mechanics went to Modena and the car had another total rebuild which I didn't think it needed. I had to borrow the money off the family.

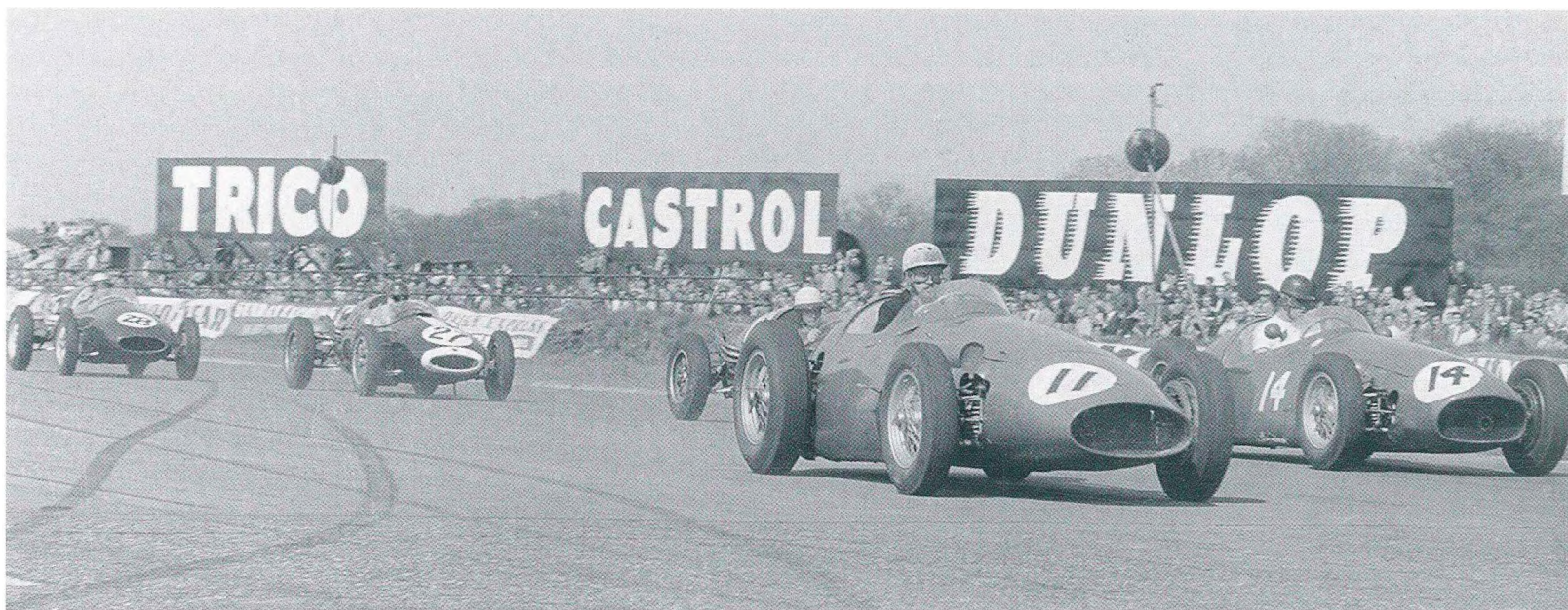
I had vowed that I would make my racing pay for itself and that I would pay back to the family what I owed them and I did this. Starting money averaged about £250 and we lived very frugally. The standard money at this time for a racing mechanic was £10 a week and when Tony was away from his

home, I paid him £1 a day in England and £2 a day if we were abroad. He could live on this – and pay for his hotel – and still put his wages in the bank. The Vanwall mechanics and people like that were all getting the same sort of money.

The bills from Maserati were on credit and Ugolini, the team manager at the time, would have a note from me to say that he could pick up my starting money; he subtracted what I owed Maserati and paid me the rest. What held me back in my career was that I could not afford to blow up the 250F's engine. I did not rev it above 7,000rpm, while everybody else was revving their private cars to 7,600rpm for which they were designed. By 1957 the works cars were being revved to 8,400rpm. Other private owners would blow past me on the straight and I had to make it up through the corners.

It was a decision I had to make. Did I rev the engine to 7,600rpm, hoping that it would hold together and I would finish in the first five – which I was quite capable of doing – or did I save the engine? Later, in 1957, I wanted to run on nitro-methane fuel additive, as the works did, but Bertocchi pointed out that I could not afford it, as it would have meant an engine overhaul after every race. I received free oil and fuel and a discount on tyres, but that was all I got in the way of subsidies.

The car was repaired in time for me to drive it in the North Staffs Car Club meeting at Oulton Park on 9 June. I was entered in a seven-lap Formule Libre race, but because of the small number of entries it was combined with a 1,500cc sports car race over the same number of laps. I finished third behind the Cooper-Climax cars of Les Leston and Mike MacDowell passing Brian Naylor (Maserati 150S) as he slowed on the last lap. I won the Formule Libre category. I also took part in a ten-lap handicap, but it was shortened to seven laps after the race had started which made nonsense of the handicapping and no results were published.



Next came the Aintree '100' race on 24 June. Archie Scott-Brown with a Connaught led initially, but retired early in the race. I finished third behind Horace Gould (Maserati) and Bob Gerard (Cooper-Bristol). It made me some money. I always liked Aintree because I had a school chum who was under-manager at the Adelphi Hotel in Liverpool and I always had a bit of fun there.

Another British race followed, the 12-lap event for unlimited capacity sports and racing cars at a BRSCC meeting at Mallory Park on 7 July. Bob Gerard with his Cooper-Bristol led throughout, but once I had fought my way clear of Reg Bicknell (Lotus Eleven) I closed to 4.4sec behind the Cooper and took second place. Next came the British Grand Prix, but at Silverstone I retired because of piston failure and this meant another fairly large bill, as well as non-starting at Snetterton the following weekend and so losing out on starting money.

I had secured an entry for the German Grand Prix and I drove really well, getting up to fourth place, but I got pushed out of it. Fangio came up behind me in his Lancia-Ferrari and I could hear his engine noise above that of my Maserati. I tried to get out of his way and I don't know whether he

The 1958 International Trophy at Silverstone: Bruce Halford (on the outside, number 14) and Joakim Bonnier (number 11) with their 250Fs lead Stuart Lewis-Evans and George Wicken, both with Formula 2 Coopers. Halford finished at the tail of the field in 16th place. (T.C. March)

nudged me or not, but I ended up in the ditch. Spectators came over and pushed me back into the race.

I was shown the black flag, then I got the red flag and all the British spectators were making signs at me to carry on. I was thinking here I am in fourth place in my first International Grand Prix – they can't take that away from me, but of course they did. The exhaust had fallen off the 250F and landed in front of me. The car was burning pure methanol, I was breathing in the fumes and I felt rough. After I pulled out of the race, people asked me how I was feeling and I told them that I didn't feel too good. They urged me to play it up with the ACVD, who were making a fuss about me ignoring the flags, and this was what I did.

I did think that I would lose my licence. For the whole of the time that I was Grand Prix racing, I didn't even have a private car. I used to drive around in the transporter, but it had to go off to Caen for the next race. Anyway the Secretary of the Automobile Club von Deutschland took me to this meeting that was held in some *Schloss* in

the middle of nowhere. I was kept waiting in the corridor like a naughty boy while they had a meeting. They eventually decided they would fine me the equivalent of sixteen quid.

Then I had to find my way home which I managed to do. I thought that Dean Delamont of the RAC would be the next bloke I had to deal with. Alan Collinson, who was the racing manager of Ferodo, said he would take me to lunch with Dean. This he did and I explained everything to Dean and that was the end of the matter, thank goodness.

Caen was always a happy hunting ground for me and I used to give the car a few more revs there than at other circuits. I was in third place when I crashed – it wasn't a heavy crash, the track was very slippery, I slid into the barriers and couldn't restart.

We moved on to the Italian Grand Prix on the combined banked track and road circuit at Monza. The banked track was very bumpy and bounced you about in the seat above the airstream. In the ordinary way that big Perspex screen on the Maserati was

very effective in keeping the air off you. I retired with valve trouble, but we only reckoned on finishing 50% of the races entered. In my time with the 250F it dropped valves on a couple of occasions and this is why I never wore ear plugs. If a valve dropped I wanted to be the first, and not the last, to know. In that way I twice managed to stop before too much damage was done and so saved the engine. All it needed then was a liner, a piston and a rod.

Maserati told us that the problems had been caused by a bad batch of valves. The valve stem stretched until it wouldn't close, the piston hit the valve, bent it a little so that it closed even less and ultimately nibbled a hole in the top of the piston, as well as having gone off song. By that time I had enough experience to realise that I was losing a valve. What Maserati didn't actually tell us was that if the clearances closed up, we should throw the valves away and put some fresh ones in.

My last event in 1956 was a short Formula 1 race at Brands Hatch in October and there I finished sixth behind two Syracuse Connaughts, Salvadori's Maserati and another two Syracuse Connaughts.

The 250F still had the original 1954 body, which showed it to be an old dog. So I had a local bodyshop in Torquay build me new body parts including a bonnet with the NACA-type ducts that Maserati were using in place of the original bonnet with louvres to make it looked newer than it actually was. That was the big tune-up for 1957.

We were very worried about bringing the car home in case we were nicked by the Customs & Excise for having no carnet. Hans Tanner, who used to write for *Motor Racing* magazine and lived in the same hotel as I did when in Modena, had a Swiss passport and I spent most of the year taking the car round on a Swiss carnet – for which a small sum of money changed hands. The carnet was in effect an identification passport for the car. I could not get a carnet in England. We did much the same thing with triptyques (International passes), which we

bought at the border of each country, one to get in and then one to get out again.

My first race in 1957 was the Syracuse Grand Prix in Sicily in early April. It was three days' and three nights' solid driving from Torquay in my transporter, an old *Royal Blue* coach. This would only do 38mph (61kph) flat-out and Tony was not too good at driving at night, so he drove during the day and I drove at night. There were no motorways at all in those days. We used to go down the Adriatic side of Italy as the roads were better than on the Mediterranean side and it was an absolute pig of a drive. The usual starting money was about £250 and the maximum I got for any race was £500. I can't remember exactly how much we were paid at Syracuse, as it came in a great handful of lire that made you feel a millionaire, but I think that it was a bit over £250.

In practice we had trouble and the engine had gone-off song. The 250F engine had no gaskets and if it overheated, the head warped. Tony decided that he would have the head off. We used to carry with us two great 1½in-thick pieces of glass, one of which was scored and one of which was smooth. We used the scored glass as a grinder and the smooth glass to blue the head up. Tony worked all night, but 15 laps from the finish the engine dropped a bloody valve.

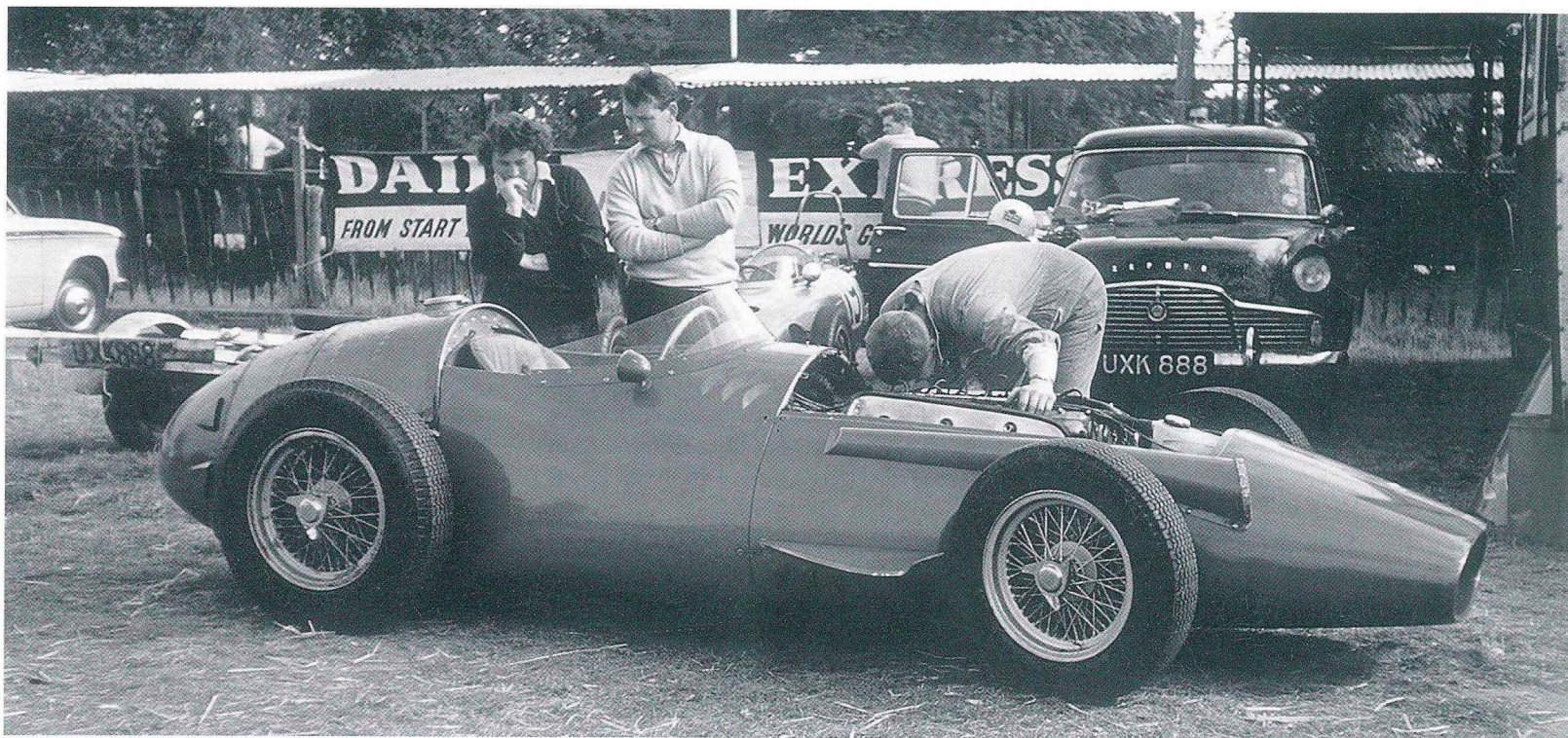
A fortnight later I was in action at Pau and the gearbox broke when I was in fifth place. This was unusual because I had a 4-speed 'box which had a high first gear and was very tough. I could never be brutal with it enough to do a decent start. With 54gal (245l) of methanol on board at the start of a Grand Prix, what you were meant to do was to give the engine a lot of revs, drop the clutch and get the back wheels spinning. Every time you did it, you bent the half-shafts. You would get through the race, but you had to replace the half-shafts afterwards. The latest cars had a 5-speed gearbox, but I could never afford the new 'box.

I was back in action at Naples two weeks later where the entry included a full Ferrari team. An odd feature of the Posillipo circuit at Naples was that there were parts of the course that were so narrow that overtaking was prohibited. Unusually racing also took place in an anti-clockwise direction. The Ferraris took the first three places and I finished sixth, which was not too bad, except like the majority of Continental races, prize money was only paid down to third place.

At Le Mans I was entered to drive a Maserati-engined Talbot with Belgian 500cc driver André Loens. There were two cars entered and I had carried out all the testing on them. They were the same Talbots that had gone quite well the previous year, but they were now sponsored by André Dubonnet. All the money had been spent on putting on very pretty new bodies built by Campagna in Modena and modelled on that of a sports Stanguellini. Nothing else had been done to the cars since 1956. The original intention was to use a new type of Dubonnet brake – he was of course the designer of Dubonnet independent front suspension – but his design had been overtaken by the success of disc brakes and was never fitted to the Talbots.

The team was headed by pre-war racing driver and Talbot man Freddie Zehender. He was convinced that with these sleek, aerodynamic bodies the cars could do 200mph (322kph) down the Mulsanne straight if they had a high enough axle ratio. So the team had put in such high rear axle ratios that the cars could not get off the line. All you could do was to run the engine up to maximum revs and then gently ease the clutch in. We knew that the buggers were not going to get off the line, although Zehender would not accept this. It seemed that he was more interested in spending Dubonnet's money. The team did everything at Le Mans in great style and catering was by Maximes of Paris who had brought their little Citroën van to the circuit.

Loens tried to persuade Zehender that he



should weld a piece of chain from the chassis to the rear axle. At least, he said, that will get us off at the start, even if we can't restart later. It was the only thing that would stop us looking like a pack of idiots. As it was, with such high gearing and no torque-tube the axle would be twisted into a ball until it knuckled against the prop-shaft and the car stalled. Zehender would have none of this, but it was eventually agreed the day before the race that one of the cars would be scratched. We did hope that after we had stalled a couple of times at the start, the organisers would let a couple of fellows give us a push, but they wouldn't and so the car stayed on the line. Afterwards I had to go to M. Dubonnet's house to get my money and it was all very embarrassing. By then Freddie Zehender had disappeared.

The French Grand Prix in 1957 was at Rouen, a race that I missed, but I ran in the non-Championship Reims race the following weekend. I remember the circuit well. On the very fast straight down to Thillois corner the revs were screaming away and I

A satisfactory tail-piece for this book, if not for Bruce Halford. He was entered with this 250F, chassis 2514, belonging to Horace Gould in the Gold Cup race at Oulton Park on 26 September, 1959, but non-started because of mechanical problems. As it can be seen, the car is fitted with a 1957-style bonnet and carburettor air intake. It was the last appearance by a 250F at a British Formula 1 race. (Jim Evans)

was backing off and backing off in case the engine blew sky-high. I had problems during the race, although I can't remember what they were, and I made a pit stop. At the finish I was in 11th place, but too far behind to be officially classified.

My next race should have been the British Grand Prix at Aintree, but for some reason I didn't get an entry. It was pretty grim not getting any entry for my own Grand Prix, but there was nothing I could do about it. One of the problems as an independent was that there was no way of guaranteeing that you would get an entry. I had to sort out my entry and do a deal for starting money by telegram when I was entering Continental races, as I did not speak enough of any of the languages to do it by telephone. Minor Grands Prix were usually organised by the local motoring

club, aided and abetted by the clerk to the council, and they usually didn't start doing anything about the race until about a month before it was held.

I next ran at Caen at the end of July and I always did well there. It was, I think, just before the 1957 race that we had trouble with the *Royal Blue* coach. It had run a bearing up in the Alps somewhere on its way from Modena and when Tony finally managed to get hold of me, he told me that all we could do was hire a truck. The only problem was that the cost was going to be more than the starting money. So I went to see the secretary of the meeting, M. Achat of the *Automobile Club de l'Ouest*, and persuaded him to increase the starting money so that we had enough to cover the cost of the truck.

Tony finally arrived at the circuit in this

open truck – he didn't even have a seat and was lying in the back with a tarpaulin over him and what few spares and tools he could find room for. I finished third behind Jean Behra's works BRM and Roy Salvadori's works Cooper. I had earned some money, so we had a decent dinner that evening and we then set off for the Nürburgring and the German Grand Prix.

I was *persona non grata* at the German race and I didn't have an entry. I travelled there with Jenks and his lady friend in his little Porsche 356. The French lorry drivers couldn't take the Maserati any further than the border and when we arrived there we saw Tony sitting on his toolbox by the side of the road with the car. But he and the border guards had organised it all and a German lorry came to pick us up and take us to the 'Ring. I finally grovelled my way into the race, but the bastards would only pay me £100 starting money, to teach me a lesson. In fact I was sitting on the grid before they finally came and told me that I could start. I finished 11th after grinding the 250F into the deck for 311 miles (500km). Still, it hadn't been a bad race and I had been faster in practice than both Gould and Godia-Sales, whose 250Fs were more modern and to a more up to date specification.

Then it was back across the Alps and down the Adriatic coastline of Italy to the Pescara Grand Prix which, in 1957 only, was a round in the World Championship, following the cancellation of the Belgian and Dutch races. It was a terrific road circuit, 15.9 miles (25.6km) long, very fast and even faster and more exciting in pre-war days before they put the chicanes in. I dare not risk much practice with the 250F. I had to do three compulsory laps to qualify and on this occasion I was, unusually, slower than all the other 250F drivers.

To learn the circuit I went round and round in the *Royal Blue*. It was a typical road circuit, with just a few straw bales and no armco or other protection. It went through two villages, turned right in the middle of them, there was a very, very long straight

coming off the mountain and a long pits straight in the middle of which they had put a chicane. It was as hot as hell – you couldn't walk on the beach without shoes – and the race started at 9.30am to miss the heat of the day.

It was as far as I can remember the only time that the works Maserati team took spare engines and changed them before the race. At least I was there and there were not that many people who can say that. I went really well and I was in sixth place when the differential broke at half-distance. Stirling Moss won his second Championship Grand Prix with the Vanwall from the Maseratis of Fangio and Harry Schell.

We then moved on to Monza for the Italian Grand Prix and in this race I didn't drive my own car. Someone called John du Puy owned 250F number 2521, a 1956 works car, and was looking for a driver at Monza. De Graffenried was acting on his behalf and asked at the factory if they knew of someone who would drive it and share the starting money. Maserati suggested me and as I had been offered very good starting money for the International Trophy at Silverstone the following weekend, I think that it was £500, the offer for Monza seemed a very good deal and enabled me to save my car. I was running well in ninth place when it went off-song because a valve cam had broken. Moss won his third Championship race of the year with the Vanwall.

The Silverstone race had been postponed from its usual date in May because of the Suez crisis in late 1956 and the petrol rationing that followed it. I drove a good race, finishing fifth in my heat and seventh in the final. We ran at Modena eight days later. It was convenient anyway because we always spent the winter there. Modena was of course the home of Ferrari, Maserati, Stanguellini and others so this race was a celebration for the town-folk more than anything else. I drove my own 250F, although some records say that I was at the wheel of du Puy's car. I finished seventh, pushing the car across the line, so some-

thing had gone wrong, although I can't remember what it was.

Before the start of the 1958 season Tony came to see me and said, 'Boss, Ken Gregory's offered me a job with BRP. I'll never leave you, but it's a marvellous opportunity.' BRP or British Racing Partnership was a new team set up by Ken and Stirling Moss's father, Alfred. I told Tony, 'Off you go lad. We're reaching the end of the road with this Maserati.' I found a new mechanic who was quite happy to live the same way as Tony did.

We had overhauled the car and carried out the latest modifications. For 1958 the Maserati had to be adapted to run on 'Avgas' (100/130-octane aviation fuel) and this meant rebuilding the engine with new pistons, larger valves and a lower compression ratio. The great thing about the methanol that we had been using was that it ran cool. To get any power out of it you had to use a very high compression ratio and it made the car a bugger to start. What the power output was on 'Avgas' I never knew, after all I was only a customer of the factory, and they never told me. I doubt however if my 250F ever produced more than 220bhp.

By 1958 I was well into sports cars and I was driving a Lister-Jaguar, HCH 736, entered by Dick Walsh who had been one of Tom Kyffin's mechanics. He had been my second mechanic when I started racing the 250F, but he wasn't very good and I had to sack him. The car later became known as the 'flat-iron' because of the shape of the body built by Maurice Gomm, it still had the 3.4-litre D-type engine, rather than the more powerful 3.8, and it was the first non-factory Lister-Jaguar approved by Brian Lister. At British meetings I would sometimes drive both it and the 250F.

I also drove it at Le Mans where it was of course fitted with a 3-litre engine. The entry was in my name and I managed to obtain it because of my friendship with Raymond Achat of the *Automobile Club de l'Ouest*. My co-driver was Brian Naylor. During the race

we replaced a broken camshaft – the Jaguar mechanics looking after Duncan Hamilton's D-type took 25 minutes to diagnose the problem and we took 20 minutes to change it – and I virtually rebuilt the gearbox out on the circuit. Although we were well down the field in 15th place, we were the only drivers ever to finish the 24 hours' race with a 3-litre Jaguar engine.

Years later I was sitting in my caravan at an Historic meeting with 'Jenks', having a wee jar, when 'Lofty' England of Jaguar passed by. We hailed him in to have a chat and a jar. I mentioned what a catastrophe the 3-litre engine had been and he said that the problem had been the titanium con-rods. Even to 'Jenks' it came as a complete surprise that Jaguar had been using titanium 'rods as far back as that.

My first race in 1958 with the 250F was at Goodwood on Easter Monday, but I had problems and finished 11th and last, too far behind to be classified. Then came the Aintree '200' where I retired because of a puncture and next the International Trophy at Silverstone. I ran well in practice with what was now 'an old nail' and started from the fourth row of the grid with a big field. I finished 16th overall, but the race included Formula 2 cars, and I was 11th Formula 1 car.

I didn't run with the 250F again until the Caen Grand Prix in July and again I took third place, behind Moss (Cooper-Climax) and Joakim Bonnier with another, more recent 250F. It was my last outing with my 250F. It was a good note on which to end my career with the car. I sold it to a New Zealand fellow who raced intermittently for Lister, Ross Jensen. He paid £750, but on the basis that he brought it back to discharge the carnet – which he did.

The 250F had the sort of handling that enabled a driver to show how good he was. It was beautifully balanced, it power-oversteered and if you took your foot off the accelerator it gently understeered back under control. It did however take me some while to get used to the Maserati after the

Cooper-Bristol. You could throw that about how you wanted to and get it all back under control again. The 250F had to be driven with more respect and precision. It probably took me a season to learn to drive it properly, even though I could never drive a 250 the way Fangio did!

In many ways the Lister-Jaguar was the same, not with the best handling, but with handling that the driver could fully exploit. At the end of 1958 Walsh sold his Lister to the Border Reivers team for Jim Clark to drive. I joined the works Lister team alongside Ivor Bueb in 1959 and I also drove a Formula 2 Lotus 16 for Portsmouth car trader John Fisher. At Snetterton in September BRM offered me a drive in a P25 Grand Prix car in the Silver City Trophy at Snetterton and I took third place behind Ron Flockart with another BRM and Jack Brabham with a Cooper. I never heard from BRM again.

During 1960 I shared an *Ecurie Ecosse* D-type Jaguar at Le Mans with Ron Flockhart and we were running steadily in fourth place when the crankshaft broke. I also drove Coopers that year for Somerset trader Fred Tuck and Yeoman Credit. I pulled out of racing at the end of the year to concentrate on earning a living. I did however share the *Ecurie Ecosse* Cooper Monaco at Le Mans in 1961 with Tom Dickson, but during the second hour I lost control at speed on a very slippery track at the Dunlop curve past the pits. The car hit the bank, somersaulted, I was thrown out and was lucky to escape with bad abrasions. Later, I competed very successfully in Historic Racing with two different Lotus 16s that I owned.

The full account of how Tony Robinson overcame the problem of transporting the 250F from the French Alps to Caen and then the Nürburgring in 1957 is told by Denis Jenkinson on Pages 92–97 of A Story of Formula 1 (Grenville Publishing Company, 1960). After he gave up racing Bruce Halford concentrated on the hotel business and sailing. He owned several



The late Bruce Halford, seen in Maserati days in front of the ex-Royal Blue coach that he used as a transporter. (Guy Griffiths Collection)

Brixham trawlers and supervised the restoration of a former Brixham lifeboat. For many years he and his wife ran the Lord's Cafe at Princetown next to Dartmoor prison. Sadly his only son Peter was killed in a road accident and his wife Patsy died shortly afterwards. Bruce died of leukaemia in December 2001, not long after this interview was recorded.

Chapter 18

Cameron Millar's Maserati 250Fs

A GREAT MASERATI ENTHUSIAST and Patron (formerly President) of the Maserati Club, Cameron Millar's construction of a total of ten Maserati 250Fs has given rise to great enthusiasm and also great controversy. In his book *Directory of Historic Racing Cars* (Aston Publications, 1987) the great Denis Jenkinson categorises historic cars from 'Original' to 'Duplication' (by which Jenks meant forgery) and includes a 'Facsimile' category into which the Millar cars undoubtedly fit.

Cameron Millar's cars have been given 'CM' chassis numbers, they were built with support from the factory and all incorporate a large number of genuine 250F components. After he had acquired his first 250F in the 1960s (and, eventually, a total of five spent time in his ownership), Millar made regular visits with an old bus to the factory where he bought a vast quantity of spares. At the time Maserati had virtually no demand for these and were happy to sell a cylinder head or crankcase for about £25 and a complete rear axle unit for around £50.

In the late 1960s Millar bought the inventory of 'Mimmo' Dei's *Scuderia Centro-Sud* in Milan, the leading private entrant of 250Fs in the 1950s and operator of a large racing drivers' school in Italy. The inventory consisted of spares amounting to about five-and-a-half 250Fs, together with two accident-damaged chassis and a new engine. Millar was able to obtain jigs from the factory and Cozza, in the drawing office

at Modena, supplied him with many of the drawings needed.

Not long after Millar bought the inventory from *Scuderia Centro-Sud*, the Hon. Patrick Lindsay crashed his 250F heavily at Thruxton and sold the remains to Innes Ireland. It was suggested to Ireland that he should approach Millar about the rebuild, as he had many original chassis jigs and, after giving the matter some thought, Cameron expressed a willingness to undertake the project. He approached Frank Coltman, who had built early Lotus and Brabham chassis, and asked him if he would undertake chassis construction. He agreed, provided that Millar supplied the drawings and jigs, and quoted a reduction in price of £500 if he ordered two chassis. The Lindsay car was rebuilt and is entirely original apart from the chassis.

Millar received an approach from two Americans and used one of the Coltman-constructed chassis to build CM1. Eventually a total of ten cars was built. Although the number of original 250F components incorporated varies from car to car, all contain a substantial number of 250F parts. Engine work has been carried out by Cyril Embury, apprenticed at Rolls-Royce, who later worked for BRM and Cosworth. Embury continues to build 250F engines and many 250F drivers use these in Historic racing. Most of the bodies were built by Grand Prix Metalcraft. Many of their employees had worked for Handley Page aircraft, which went into liquidation in 1970.

Of the cars built, three are of the T1 type (the original 1954–56 design), four are T2s (1957 Lightweight-type) and three are T3s (1958 Super-lightweight or *Piccolo*-type). The last example was completed in 1996. All the first eight are recognised for historic racing by the Vintage Sports Car Club and the *Fédération Internationale de l'Automobile*. All ten cars were fitted with throttle pedals on the right.

Some of the detailed information about the cars, Cameron Millar will not reveal, as he has been planning a book about them for some considerable time. However most of the relevant details are set out below:

CM1: T1-type. Commissioned by two Americans, Leydon and Reutter, and completed in the early 1970s. Original 250F apart from the chassis and powered by the engine from 2520 blown-up in historic racing by Colin Crabbe and rebuilt at the factory. This engine was bought from the factory by Millar for around £1,000. The car was returned to the UK and at the time of writing is in storage.

CM2: T2-type. Built for David Keron and Peter Martin. It was extensively raced by Alan Cottam who had driven very successfully in early historic racing with Connaught A-series AL10. At the time of writing it is owned by Ian Duncan.

CM3: T3-type. Built for Dan Margulies, former C-type Jaguar driver and classic car

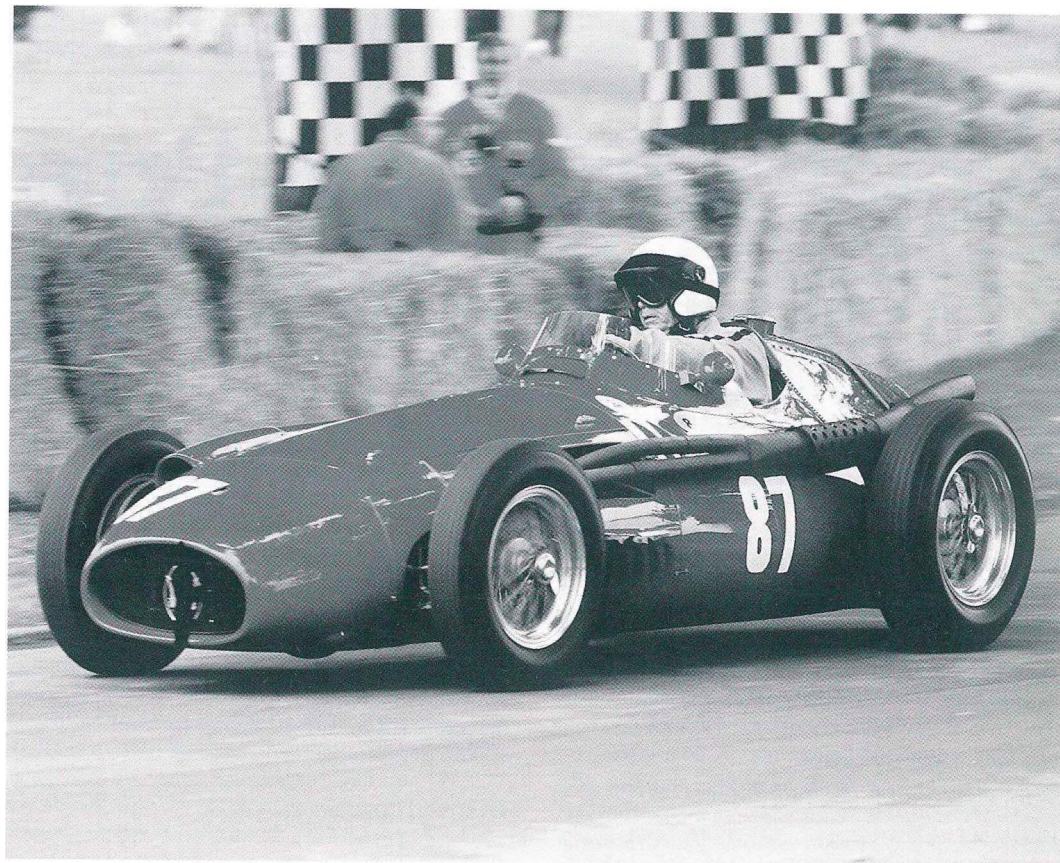
dealer. It was extensively raced for him by Richard Bond. Fangio had wanted a 250F, but Maserati had not been able to afford to give him one after his 1957 season. He drove CM2 on the Birmingham Grand Prix circuit, was unable to distinguish it from an original car and Cameron Millar brokered the sale of CM3 to him for £275,000. It remains in the Fangio museum at Balcarce, Argentine.

CM4: T1-type. Sold to a buyer in Italy and then acquired by new owner. Powered by 250F engine number 2505 and fraudulently raced by the new owner with this chassis number. After a FISA enquiry the number 2505 was removed and the car returned to its original identity of CM4. Currently owned by a Mr. Benz and retains engine 2505.

CM5: T1-type. There is considerable confusion because two cars have this number for which no explanation is known, even by Cameron Millar. Millar supplied the car as a kit to an old friend, Ray Fielding. Fielding, who owned a garage at Forres, Morayshire had hill-climbed for many years with cars that included the original works HWM-Jaguar HWM1 (which became YPG8 in his ownership) and the only Emeryson-Climax sports car. He had a Maserati agency at his garage. He died in the mid-1990s before the car was completed and it remains with his family.

CM6: T3-type. This is the second CM5 which should be renumbered CM6. It was built and assembled by Peter Shaw for Cameron Millar who raced it. It was then sold to Bob Graves who raced it extensively in France. It was eventually sold to Peter Gooch who is the owner at the time of writing.

CM7: T3-type. Originally built for Ted Rollason. It is powered by a works experimental engine with a long-stroke crankshaft giving a capacity of a little over 2,650cc. It



Rob Hall at the wheel of CM10, the last of the Cameron Millar 250Fs to be built, at the Goodwood Festival in 2001. Millar's fascimiles are painstakingly accurate and were carefully numbered in the 'CM' series in an effort to prevent them being passed off as genuine cars. (Steve Welsh Racing Photos)

was raced with great success by Rollason and then sold to Ludovic Lindsay who raced it for many years.

CM8: T1-type. This car was powered by Millar's last remaining 250F engine and was supplied to David Sankey. A subsequent owner stripped the car of its genuine 250F parts for the building of a fake 250F. Millar recovered all the remaining components and rebuilt the car with an engine constructed by Cyril Embury at a cost of £70,000. It was sold to Robin Lodge who raced it and then sold on to Swedish owner Gunnar Elmgren and track-tested in the magazine *Auto Italia*, issue 11. It incorporates the fuel tank from ex-Moss 2508. It has now been sold again.

CM9: T2-type. Retained by Cameron Millar. It has a new engine apart from some ancillaries. The trans-axle, wheels and exhaust are all original. Bag-type fuel tank with plug-in pipe-line for refuelling. While building the car, Millar ran out of cash and came to a deal with Hall and Fowler whereby he supplied parts for the construction of CM10 and received payment sufficient to complete CM9. Featured in *Auto Italia*, November 2001/issue 63.

CM10: T2-type. Built by Ricky Hall and Fowler for Australian Clive Smith. Bag-type fuel tank as CM9. Raced very successfully in Australia and driven at Goodwood by Rob Hall in 2000 and 2001.

Appendix 1

Dramatis Personae

A guide to the more important personalities

Alfieri, Giulio, 1924–2002

Born at Parma, Alfieri joined Maserati on 1 August 1953, he became chief engineer in 1955 following the departure of Bellentani and was responsible for the later development of the 250F, together with the 300S, 150S, 450S and 'Bird-cage' sports cars. He stayed with Maserati until he was sacked by de Tomaso on his take-over in July 1975. He subsequently worked for other companies including Lamborghini.

Arcangeli, Luigi, 1902–1931

Born at Forlì, he drove Maserati Tipo 26B and 8C-2500 cars in 1930. With 8C-2500s he won the Rome, Monza and Spanish GPs. He joined *Scuderia Ferrari* for 1931, but he was killed at Monza that year at the wheel of one of the twin-engined Alfa Romeo Tipo A cars.

Ascari, Alberto, 1918–55

Son of Antonio Ascari who was killed in a crash with an Alfa Romeo P2 in the 1925 French GP. He started racing shortly before the outbreak of war and drove a 6CM, as well as appearing with one of Ferrari's AutoAvia 815 cars in the 1940 closed-circuit Mille Miglia. Drove 4CLT/48s for *Scuderia Ambrosiana* in 1947–48. He joined Ferrari for 1949, was second in the Drivers' World Championship in 1951 and won it in both 1952 and 1953. Signed for Lancia for 1954, but their new D50 GP car was not ready until the Spanish GP at the end of the season and was released to drive 250Fs in the French and British GPs. In the 1955 Monaco GP his Lancia plunged into the harbour because of a locking brake while he was leading the race. He was apparently unharmed, but he was killed a few days later while practising with a Ferrari *Monza* sports car at Monza.

Behra, Jean, 1921–1958

Born at Nice and originally raced motorcycles. Works Gordini driver 1951–54. Drove for Maserati 1955–57. Joined BRM for 1958, Ferrari for 1959, but he was sacked after striking team manager Romolo

Tavoni at Reims. He was killed when he crashed his Porsche sports car at Avus in August of that year.

Bellentani, Vittorio, 1906–68

He was born in Modena and died in Modena. He worked for Moto Mignon, a motorcycle manufacturer in Modena. He joined Maserati on 11 January 1948, became head of the Technical Department in 1951 and left the company on 31 May, 1955. His main achievement at Maserati was the development of the 250F. He worked for Ferrari between 1956 and 1959.

Bertocchi, Cavaliere del Lavoro Guerino, 1907–1981

Born in Bologna, Bertocchi joined Alfieri Maserati in 1922 at the age of 15. He rode many times with drivers in the Targa Florio and Mille Miglia. He later became head mechanic and chief tester. In 1974 he joined de Tomaso. As a passenger in a car driven by a de Tomaso customer, he was killed in a head-on crash. His son, Aurelio, also worked for Maserati and joined De Tomaso. He too was killed as a passenger in a de Tomaso in 1985.

Birabongse, Prince Bhanubandh, 1914–1985

Cousin of Prince Chula Chakabongse of Siam (now Thailand) who bought him an ERA for his 21st birthday. He raced three different ERAs, the ex-Seaman Delage and Maserati 8CM 3011 in pre-war days. Post-war he drove 3011 for a short while, then 4CL, 4CLT/48, Osca V12, Maserati 250F-engined A6GCM and 250F cars. He retired from racing in 1955. He later ran an airline in Thailand. He returned to the UK and died in poverty on Earls Court station in London.

Bonetto, Felice, 1903–53

Drove as a private owner with Alfa Romeos in pre-war days. Post-war, he drove for Alfa Romeo (1950–51), also appeared with the *Milano* on occasions in 1950. He was a member of the works Maserati team in 1952–53. In 1953 he also drove works Lancia sports

cars and he was killed at the wheel of one of these cars in the Carrera Panamericana Mexico road race in 1953.

Borzacchini, Mario Baconin 1899–1933

Named Baconin after a Russian revolutionary, but after meeting the Italian Crown Prince Umberto at Monza, he changed his first names to Mario Umberto. He started racing at the age of 21 and drove for both Alfa Romeo and Maserati. He was killed when he crashed his 8C Maserati in the second heat of the Monza Grand Prix on 10 September 1933.

Campari, Cavaliere Giuseppe, 1892–1933

Known as *Il Neger* (the 'black one') or according to some sources, *El Negher*, which was the same in Spanish. He was an outstanding and exceptionally popular and Alfa Romeo driver from pre-World War One days until 1932. He had great ambitions to be an opera singer. He joined Maserati in 1933 because of tensions and dissension in *Scuderia Ferrari* between Enzo Ferrari and Tazio Nuvolari. He was planning to retire from racing, but was killed when he crashed his 8C-3000 Maserati in the second heat of the Milan Grand Prix on 10 September 1933.

Casner, Lloyd, 1928–1965

Graduate of Miami University, became a civil airline pilot. As a Florida car dealer he persuaded the Goodyear tyre company to sponsor the *Camoradi* team of 'Bird-cage' Maseratis in 1960. Continued racing 'Bird-cage' Maseratis without Goodyear support in 1961–62. He was killed when he crashed the *Maserati-France* Tipo 151/1 Maserati at the Le Mans test weekend in April 1964.

Colombo, Giaocchino, 1903–87

He was born at Legnano and he joined Alfa Romeo as a draftsman in 1924. He became number two to Vittorio Jano in the Design Department and after Jano was sacked in 1937 he designed the Alfa Romeo 158 *Alfetta* and other racing cars. He became consultant

to Ferrari, joined him at Maranello in 1947 and stayed until Lampredi was promoted over his head. Returned to Alfa Romeo, where he was responsible for the 1952 *Disco Volante* sports-racing cars, but he also acted as consultant to Maserati, 1952–53, on the design of the 250F. Subsequently he designed the unsuccessful Bugatti Type 251 Grand Prix car.

Colotti, Valerio, 1925–

Born in Modena and originally employed by Ferrari, but joined Maserati to carry out design work on gearboxes and transmissions. Left Maserati at the end of 1957 and founded Studio Tec-Mec. He built up the space-frame 250F-based Tec-Mec that ran in the 1959 United States Grand Prix. Colotti was a very successful maker of gearboxes and at the time of writing he still works with his son in the technical office of Colotti transmissions.

Cozza, Ermanno, 1933–

He attended the Technical School in Modena and joined Maserati in 1951. He was apprenticed to Bellentani, he worked under Bellentani in the Experimental Department, later acted as mechanic at races and worked in the drawing office at Maserati. He continues to work there on a part-time basis as historian. He has enormous fund of knowledge of all matters Maserati.

De Graffenried, Emmanuel, 1914–

He was the leading private driver of Maseratis between 1937 and 1956. He won the 1949 British Grand Prix. He also drove Alfa Romeo Tipo 158/159 cars in four races in 1950–51. He tells his own full racing story on Pages 215–223.

Dei, Guglielmo 'Mimmo', 1909–1983

Amateur racing driver, became Maserati agent in Rome. Ran *Scuderia Centro-Sud*, which was both a racing drivers' school and a team entering mainly Grands Prix with 250F Maseratis, but also sports car races. In the late 1950s to early 1960s he possessed a vast collection of 250F cars and spares, which were sold on mainly to British enthusiasts in the early years of the 250F in historic racing events. Many ex-*Scuderia Centro-Sud* parts were incorporated in the series of 250F replicas built by Cameron Millar.

de Tomaso, Alessandro, 1928–

Born in Argentina, de Tomaso raced sports Osca and Maseratis. He married American heiress Isobel Haskell and came to Modena where he set up the de Tomaso car company. He made a large number of acquisitions of failing Italian companies, including coachbuilders Ghia (subsequently sold on to Ford) and Vignale, motorcycle manufacturers Benelli and Moto Guzzi and the one-time BMC-owned Innocenti car company. He acquired a 30% shareholding in

Maserati in 1975 and is regarded, especially in Italy, as destroying the *marque's* reputation by turning it into a mass production manufacturer. He ceded control to Fiat in 1991.

Etancelin, Philippe, 1896–1981

Born at Rouen, 'Fi-Fi' as he was known, was instantly recognisable by his cap with the peak worn to the back (he was almost a role model for today's youngsters). He worked in the family wool business and never devoted himself full-time to racing.

He first raced in 1927 with a Bugatti and continued to drive Molsheim cars until 1931. He bought the first Alfa Romeo *Monza* to be sold to a private owner and raced it between 1931 and 1933. 'Fi-fi' raced Maseratis during 1934–36, dropped out of racing in 1937 and returned to race Talbot cars in 1938–39. He ran Maserati and Delage cars in 1946–47 and then bought one of the new Talbot-Lago GP cars. He was still racing one of these cars as late as the Gold Cup meeting at Oulton Park in 1954.

Fagioli, Luigi, 1898–1952

Fagioli was born at Osimo near Ancona and his family ran a very successful pasta-making business. He trained as an accountant before taking up motor racing with a 1,100cc Salmson in 1925. For 1928 he acquired a Tipo 26 1,500cc Maserati and in 1930 through to the early part of 1933 he was a works Maserati driver. When Nuvolari joined Maserati, Fagioli took himself off to fill the vacant seat at *Scuderia Ferrari*. For 1934 he joined Mercedes-Benz and moved to Auto Union in 1937. He suffered badly from arthritis and was forced to retire after only three races for his new team. He did not race again until 1948 when he made a couple of appearances with a Maserati, but he became a surprising choice for the Alfa Romeo team in 1950. He stayed with Alfa Romeo in 1951, but drove only in one race. In practice for the 1952 Prix de Monte Carlo 2-litre sports car race he crashed heavily in practice with a Lancia Aurelia GT and suffered head injuries to which he succumbed three weeks later.

Fangio, Juan Manuel, 1911–1995

Born at Balcarce in Argentina and raced in local events before coming to Europe to drive for 4CLT/48s for *Squadra Achille Varzi* in 1949. Works Alfa Romeo driver, 1950–51 (won World Championship, 1951). Joined Maserati for 1952, but crashed badly at Monza in June and did not race again until 1953. Finished second in the World Championship with A6GCMs in 1953, won two races with 250Fs in early 1954, thereafter joined Mercedes-Benz and stayed through 1955. Won World Championship in 1954, 1955 and 1956 (with Lancia-Ferraris). Rejoined Maserati in 1957 and won fifth World

Championship. Retired in 1958. Known in Italy as *Il Maestro* and remains one of the most popular drivers in that country.

Fantuzzi, Medardo, 1908–1986

Born in Bologna and joined Alfieri Maserati in 1923. He became Maserati's in-house coachbuilder and was responsible for the majority of bodies on Maserati racing cars until the team withdrew at the end of 1957. In 1959 he joined Ferrari to build bodies, but did not stay long. Subsequently he worked for the Tecno company in Bologna. He had built the bodies for model 250Fs produced by Maserati and used the same front-end design on the Tecno K250 go-kart in 1968. He died in Modena.

Farina, Dottor Giuseppe, 1906–1966

Born in Turin. His father and uncle ran the *Stabilimento Farina* coachbuilding company. He raced Maseratis for Gino Rovere's *Scuderia Subalpina* in 1934–35. He joined *Scuderia Ferrari* for 1936 and *Alfa Corse* in 1938. Raced Alfa Romeos again in 1946, but he was sacked from team at the end of the year after withdrawing from the Milan GP as a protest against Alfa Romeo choosing which of their drivers won the race. He dropped out of racing in 1947, but reappeared on the racing scene the following year and drove Maserati 4CLT/48 cars for *Scuderia Milano* in 1948–49 and continued to do so occasionally in 1950–51. He also tested the new GP Ferrari and drove it in four races in 1948. He was a works Alfa Romeo driver, 1950–51; he won the first Drivers' World Championship in 1950. He became a works Ferrari driver 1952–55, but was badly injured in an accident with a sports car at Monza in 1954. He was killed in an accident with his Lotus-Cortina at Chambéry while he was driving to the 1966 French GP.

Gonzalez, Froilan, 1922–

Born in Argentina and drove in local events before coming to Europe as part of *Scuderia Argentina* in 1950. Works Ferrari driver, 1951 and won the British GP. He joined Maserati for 1952–53. Returned to Ferrari in 1954, co-drove winning car at Le Mans and won the British GP. He crashed heavily in practice for the Tourist Trophy and thereafter raced in the *Temporada* series only, apart from 1956 British GP in which his Vanwall broke a drive-shaft at the start. Now lives in Montevideo, Uruguay.

Gregory, Masten, 1922–1985

He was born in Kansas City. After driving in American events, he came to Europe and raced a private Ferrari *Monza*. In 1958 he drove 250Fs for *Scuderia Centro-Sud* and Temple Buell. He raced Maserati 'Bird-cage' cars for the *Camoradi* team and co-drove the winning Tipo 61 at the Nurburgring, 1961.

Halford, Bruce, 1931–2001

Amateur British driver with ex-Bira Maserati 250F. His full story of racing this car is told on Pages 229–235.

Mantovani, *Ingeniere* Sergio, 1929–2001

In 1953–54 raced his own A6GCS as a works car. He shared a works A6GCM with Luigi Musso in the 1953 Italian GP. He bought his own 250F in 1954 and ran it as a member of the works team from June onwards. He crashed the spare team 250F in practice at Turin at the end of March 1955 and it proved necessary to amputate his left leg. He and his brother ran a large Lancia agency in Milan until the 1980s. He acted as technical officer to both the Monza circuit and the Italian Automobile Club. He was also a consultant to the Maserati Register.

Marimon, Onofre, 1924–54

Argentinian whose father, Domingo, was a close friend of Fangio. First appeared in Europe in 1951, drove for Talbot at Le Mans and also occasionally for *Scuderia Milano*. He raced a sponsored works A6GCM in Argentinian blue and yellow colours in 1953. He became a works driver proper in 1954 and unofficial team leader after Fangio left. He was killed when he crashed his 250F in practice for the German GP.

Maserati, *Cavaliere* Alfieri, 1887–1932

Worked for Isotta Fraschini, founded Maserati sparking plug company with Trucco in 1918, raced Diattos and acted as consultant development engineer. Founded *Officine Alfieri Maserati* in 1926. Died following a kidney operation in 1932.

Maserati, Bindo, 1883–1980

Worked for Isotta Fraschini and joined *Officine Alfieri Maserati* after the death of Alfieri in 1932. Stayed at Maserati until the end of 1946 and thereafter founded OSCA with brothers Ernesto and Ettore.

Maserati, Carlo, 1881–1910

Worked at Fiat, Bianchi and Isotta Fraschini with whom he had a limited racing career.

Maserati, Ernesto, 1894–1975

Joined Alfieri at his original business, *Officina Alfieri Maserati*. Became President on Alfieri's death and stayed with Maserati until the end of 1946. Then with brothers Bindo and Ettore he founded OSCA in Bologna.

Maserati, Ettore, 1894–1990

Joined Isotta Fraschini and then joined Alfieri at original *Officina Alfieri Maserati*. Stayed with Maserati until the end of 1946 when he left to form OSCA with brothers Bindo and Ernesto.

Maserati, Mario, 1890–1981

He studied at the Fine Arts Academy in Brera, Milan. He became a talented and established artist, his first exhibition was held in 1921, he moved to Bologna and he designed the Maserati badge. In 1943 he and his wife moved again, to her home town, Novi Ligure, Alessandria. Their only son Rodolfo died in 1945. His work covered a wide field including still life, landscapes, portraits, male and female nudes and religious paintings in a variety of styles from literal to impressionist. He remains a highly respected and regarded artist and an exhibition of his work in private collections was held in Canelli, Piedmonte not far south of Alessandria in April 2001.

Massimino, Alberto, 1895–1975

Born in Turin, Massimino worked for Fiat, Alfa Romeo, AutoAvia/Ferrari and joined Maserati in 1940. He was primarily responsible for the development of the improved 4CLT/48 GP car and the 6-cylinder models that led to the A6GCM Formula 2 car. He left Maserati in late 1952 and thereafter worked as a consultant for Ermini, Ferrari, Stanguellini, de Tomaso and Serenissima. He also carried out work at Fiat on aero engines.

Moss, Sir Stirling, 1929–

Outstanding British driver of the period from 1948 onwards. Raced own Maserati 250F in 1954, becoming part of the works team later that year. Drove for Mercedes-Benz in 1955 (won Mille Miglia accompanied by Jenkinson and was second in World Championship). Returned to lead Maserati in 1956, won Monaco and Italian GPs, finished second in the World Championship and continued to drive works Maserati sports cars in 1957. Drove in Grands Prix for Vanwall (1957–58) and Rob Walker (Cooper and Lotus, 1959–62). Tested works Maseratis and raced sports cars on one occasion. Drove for *Camoradi* team and with Dan Gurney won the 1960 Nürburgring 1000-km race. Retired from racing after a serious accident with a Lotus at Goodwood on Easter Monday, 1962.

Musso, Luigi, 1924–58

Born in Rome and raced private A6GCS as a works entry in 1953–54 and achieved considerable success in Italian sports car races. Shared an A6GCM with Mantovani in the 1953 Italian GP. Became a works Formula 1 driver in mid-1954 and finished second in the Spanish GP. Stayed with Maserati in 1955, but achieved only limited success, including third in Dutch GP and winning the *Supercortemaggiore* sports car race with Behra. Joined Ferrari for 1956 and had close rivalry with Eugenio Castellotti until the latter was killed in a testing accident at Modena in April 1957. Musso was killed with a Ferrari *Dino* in the 1958 French GP at Reims.

Nuvolari, Tazio, 1892–1953

Born at Casteldorio, 10 miles from Mantua. One of the greatest drivers of all time and undoubtedly the greatest Italian driver of the inter-war years. Originally raced motorcycles, formed partnership with Varzi, 1927–29, thereafter raced for *Alfa Corse* and *Scuderia Ferrari*. He had difficult relations with Enzo Ferrari and in 1933, following the withdrawal from racing of the Alfa Romeo *Monoposti*, he left to join Maserati and raced for them during the remainder of 1933 and in most races in 1934. Nuvolari returned to *Scuderia Ferrari* in 1935 and despite the strength of the German opposition achieved some remarkable successes. He left *Scuderia Ferrari* in early 1938 and shortly afterwards joined Auto Union with whom he remained until the outbreak of war. In post-war days he raced 4CLs for *Scuderia Milano*, but he was a sick man, suffering from emphysema. He died at Mantua on 11 August 1953.

Orsi, Adolfo, 1888–1972

Successful Modena-based industrialist. He had three children, a son Omer and daughters Laura and Idina. He bought Maserati from the Maserati brothers with effect from 1 January 1937 and controlled it until its eventual sale to Citroën in 1968. Orsi's control of Maserati lasted almost three times as long as that of the Maserati brothers.

Orsi, Dottor Adolfo, Jnr, 1951–

Grandson of Adolfo Orsi, qualified as a lawyer and is now an expert on all aspects of Maserati. Currently writing a book on Maserati touring cars.

Orsi, Omer, 1918–1980

Son of Adolfo who became managing director of *Officine Alfieri Maserati* in 1954. He was in control of the company during its most successful racing years. He suffered ill-health, including kidney problems.

Panini, Dottor Matteo, 1971–

Father, Umberto, worked with the motorcycle division of the battery and sparking plug company. The family runs a very successful printing business. Panini has close connections with the Maserati factory and has a superb collection of Maseratis in his museum at the family's Parmesan cheese farm near Modena. Apart from touring cars, the collection includes 6CM chassis number 1545, ex-*Camoradi* Tipo 61 chassis number 2472 (the 1960 Nürburgring-winning car rebodied by Drogo) and ex-*Scuderia Serenissima*, Tipo 63 chassis number 63008.

Perdisa, Cesare, 1932–1998

The Perdisa family was involved in agriculture and publishing and they were friends of the Orsis. Cesare raced sports Maseratis before becoming a member of the works team in 1955 and he stayed until the end

of 1956. He gave the Orsi family their first German Shepherd dog. Perdita established the magazine *Velocitas* in 1956 (it ceased publication in 1964). He joined Ferrari for 1957, but retired from racing after the death of his close friend Eugenio Castellotti in April 1957. After his retirement from racing he became the Maserati agent in Bologna. He ran the family Calderini publishing company following the death of his father.

Peron, Juan Domingo, 1895–1974

Argentinian soldier who took a leading part in the military coup in 1943. He gained widespread support through his social reforms and became President in 1946. Peron married his second wife, radio and screen actress Maria Eva Duarte de Peron in 1945. Juan Peron gave great support to motor racing and it was because of him that so many Argentinian drivers were able to come to race in Europe. His wife (on whom the musical *Evita* is based) died in 1952. Adolfo Orsi negotiated with Juan Peron for the sale of large quantities of milling machinery and machine tools to Argentina on extended credit from 1955 onwards. Peron was deposed in 1955 and the new government reneged on payment. Peron married Maria Estela Cartas (familiarily known as Isabelita) in 1961 and he was re-elected President in 1973 with an overwhelming majority vote, but died the following year.

Plate, Enrico, 1909–1954

Nephew of pre-war amateur driver Luigi Plate, Enrico was born in Milan and was based there throughout his life. He formed a team with Emmanuel de Graffenried and they raced 4CL and 4CLT/48 Maseratis, the Plate-Maseratis and A6GCMs very successfully together until January 1954 when Plate was killed while standing in front of the pits at the Buenos Aires City Grand Prix.

Salvadori, Roy Francesco, 1922–

Born at Dovercourt near Harwich of Italian parents, Roy was often thought to be Italian when he raced in Italy. He started racing after the war and among his early cars were a 4C-1500, which he raced in 1948, and a 4CL which he leased from Bira in 1949. The 4CL was rammed by an Alta, caught fire and was completely burnt out in that year's Wakefield Trophy race. He drove Frazer Nash *Le Mans Replicas* in 1951 and following a serious crash at Silverstone was expected to die and given the last rites. He recovered to drive Ferraris for Bobby Baird, whose family owned the *Belfast Daily Telegraph*, in 1952, works Connaughts in 1953 and began a long relationship with Aston Martin in 1953. From late 1953 he drove a Maserati A6GCS sports car for Sid Greene's Gilby Engineering and a Maserati 250F in 1954–56. His

story of racing the 250F is told on Pages 224–228. After a long and varied racing career he was racing manager of the Cooper team when they were running Maserati-powered Formula 1 cars in 1966–67.

Schell, Harry, 1921–60

Born in France to Laury Schell and Lucy O'Reilly Schell, Harry came from a strong motor racing background. Apart from racing, he ran a very expensive but popular bar in Paris. He drove a 4CLT/48 for Plate in 1951 and the 2-litre Plate-Maserati in 1952. He made occasional appearances for Gordini, raced a 250F-engined-A6GCM in early 1954 and drove a works 250F in the Spanish GP. Harry was a works Vanwall driver in 1955–56, but Tony Vandervell did not think he was sufficiently thrusting and he was dropped from the team at the end of 1956. He rejoined the works Maserati team for 1957. He was killed when he crashed his *Yeoman Credit* Cooper in practice for the 1960 International Trophy at Silverstone.

Tanner, Hans, 1927–1975

He was born at Schaffhausen in Switzerland. He became involved in Italian motor racing and lived in a hotel in Modena. Tanner was a familiar figure at racing circuits in the 1950s and entered and managed a number of different cars. He wrote for the British magazine *Motor Racing* under both his own name and the *nom de plume* of Coche. He was always one of the first with information of new developments at Ferrari and Maserati. Tanner wrote a number of books of which *Ferrari* became the standard work on the *marque*. He managed the Temple Buell Maserati *Piccolos* in late 1958 and early 1959. He took part in the émigré Bay of Pigs anti-Castro invasion in 1961 and afterwards became an editor of motoring books in Los Angeles. He committed suicide in 1975.

Taruffi, Piero, 1906–1988

Born in Rome, he had a long career that included driving *Scuderia Ferrari* entries in the early 1930s, writing off the V5 16-cylinder Maserati at Tripoli in 1934 and driving the works 4C-2500 at Monaco that year. He signed up with Bugatti in 1935 and became Gilera motorcycle racing manager. Taruffi later raced 6CM and 4CL Maseratis for *Scuderia Ambrosiana*. In early post-war days he was manager, technical consultant, tester and driver at Cisitalia. He returned to the Gilera concern as racing manager and between 1948 and 1957 he broke 37 records with his twin-boom Tarf car. Taruffi was a member of the Ferrari team in 1951–52, he drove works Lancia sports-racing cars in 1953–54, he returned to Ferrari in 1955 and signed up with Maserati for 1956. In 1957 he won the last Mille Miglia with a Ferrari and it was his 14th appearance in the race. He retired from racing in 1957, but

was closely involved with 'Mimmo' Dei's *Scuderia Centro-Sud* racing school. He wrote two fine motor racing books, *The Technique of Motor Racing* (1962) and his autobiography *Works Driver* (1964).

Tavoni, Romolo, 1926–

He was born in Formigine, Modena and worked for Maserati as a transport administrator in 1948–49. He left to become Secretary to Enzo Ferrari. After Ugolini left, Tavoni became Ferrari team manager.

Ugolini, Maestro Cavaliere Ufficiale Nello, 1905–2000

He was born at Vignola, Modena in 1905 and in 1923 became Secretary of Modena Football Club. He joined *Scuderia Ferrari* as Team Manager in 1936, but left in 1939 to become head of the Alfa Romeo racing department and personnel manager. He managed Modena Football Club in 1946–47 and Firenze Football Club between 1947 and 1952. He returned to Ferrari as team manager in 1952, but in May 1955 he left Ferrari for reasons that are considered confidential, joined Maserati and remained with them as Team Manager until December 1958. In 1959 he ran the *Scuderia Ugolini* team for 250Fs of Marie-Thérèse de Filippis and Giorgio Scarlatti and also managed the Bologna Football Club. Thereafter he managed the Torino and Venezia Football Clubs, as well as being involved to a certain extent in the racing management of *Scuderia Serenissima Repubblica di Venezia*. He worked for de Tomaso between 1966 and 1974 when he retired. He died in Modena.

Villoresi, Luigi, 1909–1997

Born in Milan, both he and brother Emilio started their racing with modified Fiats in 1931. From 1937 Luigi drove Maserati *Voiturettes* for *Scuderia Ambrosiana* and appeared with an 8CTF in both the Coppa Acerbo and at Donington. His brother became a member of *Scuderia Ferrari* and was killed while demonstrating an *Alfetta* at a reception for Alfa Romeo customers at Monza in 1939. He had become mentor to Alberto Ascari and in post-war days they both raced *Scuderia Ambrosiana* 4CLs and 4CLT/48s and works sports cars. They ran a transport business together. Both joined Ferrari for 1949 and stayed until the end of the 1953. For 1954 Villoresi and Ascari signed up to drive the new Lancia D50 GP car, but as it was not ready until the Spanish GP Gianni Lancia released Luigi to drive for Maserati. Luigi appeared with 250Fs in the French, British and Italian Grands Prix. The Lancias were raced in the early part of 1955, but the team withdrew after Ascari's fatal crash at Monza, primarily for financial reasons. Villoresi resumed racing with Maseratis in 1956, but retired after a bad crash with a 2-litre sports car at Rome later that year.

Appendix 2

Maserati Grand Prix car chassis information

The 8C-3000, 8CM-3000 and 6C/34

3001: Engine only installed in a Tipo 26M chassis in 1932 to form 8C-3000. Driven by Campari to a win in the 1933 French Grand Prix. Sold for 1934 to Eugenio Siena.

3002: Engine only installed in a Tipo 26M chassis in 1932 to form 8C-3000. Bought by Bernard Rubin and driven by Tim Birkin to third place in the 1933 Tripoli Grand Prix, the race in which Birkin burnt his arm on the exhaust and subsequently incurred the blood poisoning which proved fatal. Later raced by Austin Dobson. John Crampton raced it in early post-war days.

3003: Engine sold to Count Luigi Premoli, Milan and installed by engineer Egidio Galimberti in a modified Bugatti Type 35 chassis. Known as the PBM (Premoli-Bugatti-Maserati). Premoli competed with it extensively.

3004: In factory listing as *Off Maserati*. Probably never built, but might have been supplied to Raymond Sommer in component form for spares.

3005: 620mm-wide chassis frame. Hydraulic brakes. Delivered to Raymond Sommer in March 1933 and sold on to Piero Taruffi later that year.

3006: 620mm-wide chassis frame. Mechanical brakes. Delivered to Raymond Sommer for Goffredo Zehender, raced throughout 1933 and used for record-breaking at Montlhéry. Crashed fatally by Chambost in late 1936. Rebuilt at factory with stainless steel chassis and sports body.

3007: 620mm-wide chassis frame. Hydraulic brakes. Delivered to Tazio Nuvolari in April 1933. Chassis boxed and strengthened by Imperia. Nuvolari went off the road with it at Alessandria in April, 1934, broke his left leg in two places and the car was badly damaged. It is debatable whether it was rebuilt and given new chassis number (see below).

3008: 620mm-wide chassis frame. Hydraulic brakes. Delivered to Hans Ruesch, Zurich in October 1933.

3009: 620mm-wide chassis frame. Mechanical brakes. Delivered to Mme Nelly Brailard in January 1934 and driven to wins by Benoit Falchetto in the 1934 Picard GP and GP de France at Montlhéry. Peter de Paolo crashed heavily with this car in practice for the 1934 Penya Rhin GP at Barcelona.

3010: 620mm-wide chassis frame. Hydraulic brakes. Delivered to Philippe Etancelin in December 1933 and raced extensively. Sold to Armand Girard in 1935. Displayed at Musée Nationale/Collection Schlumpf at Mulhouse.

3011: The most famous of all 8CMs. 620mm-wide chassis frame. Hydraulic brakes. Delivered to Whitney Straight in February 1934. Modified by Reid Railton with Armstrong Siddeley pre-selector gearbox, stiffened chassis and strengthened suspension, restyled body with heart-shaped radiator cowl and grille. Originally painted white with blue chassis, repainted black later in 1934. Bought by Prince Chula for cousin Prince Bira to drive and used by him until early post-war days. Kenneth McAlpine drove it in sprints, hill climbs and some races until 1950. McAlpine entered it as having a 3,015cc engine to enable it to compete in unlimited capacity classes. Later owners included H.C. Spero and Dan Margulies.

3012: 850mm-wide chassis frame. Hydraulic brakes. Delivered to Whitney Straight in March 1934. Modified by Reid Railton as above. Rebuilt and fitted with sports two-seater body by Gurney Nutting. Rebuilt to single-seater form in the 1960s by Bill Black. During Whitney Straight's ownership 3012 was fitted with the engine from 3011, and 3011 with the engine from 3012. David Heiman swapped the engines to the original chassis when both cars were in his ownership.

3013: 850mm-wide chassis frame. Hydraulic brakes. Delivered to Lord Howe in March 1934. Sold to T.P.

Cholmondley Tapper (see *Amateur Racing Driver*, G.T. Foulis, circa 1954). Crashed heavily by A.B. Hyde in the 1938 German Grand Prix. Kenneth McAlpine competed with it for a short while in post-war days. Subsequently rebuilt as a sports car.

3014: Believed to have 850mm-wide chassis frame. Hydraulic brakes. Delivered to Carlo Pedrazzini in March 1934. Owner killed at the wheel at Alessandria in April 1934.

3015: Believed to have 620mm-wide chassis frame. Mechanical brakes. Delivered to Mme Nelly Brailard in May 1934.

3016: 620mm-wide chassis frame. Hydraulic brakes. Has been argued that it was the crashed 3007 rebuilt after Whitney Straight commenced legal proceedings for late delivery of the third car that he had ordered. Delivered in May 1934. Written off in Hugh Hamilton's fatal crash in Swiss Grand Prix in August 1934 before Reid Railton's modifications could be carried out.

3017: Believed not built, as 3017 is an unlucky number in Italy.

3018: 850mm-wide chassis frame. Hydraulic brakes. Built as replacement for Nuvolari in place of 3007. Delivered in May 1934. Subsequently fitted with pre-selector gearbox supplied by Straight. Fitted with 3,234cc Tipo 6C/34 engine for 1934 Italian Grand Prix. Restored to 8-cylinder form and now exhibited in the Donington Grand Prix Car Collection.

3019: 850mm-wide chassis frame. Hydraulic brakes. Chromium-plated radiator cowl. Delivered to Count José de Villapadierna in June 1934.

3020: 620mm-wide chassis frame. Hydraulic brakes. There are suspicions, mainly because it was a very late date for a narrow chassis frame, that it was chassis 3006 rebuilt. Delivered to Count José de Villapadierna in June 1934.

3021: Maserati listings reveal nothing of this car, but it *could* have been the car with Tipo 6C/34 engine supplied to Josef Bradzil and crashed fatally by him in practice for the Masaryk Grand Prix in September 1934. (See Pages 48–49.)

3022: 850mm-wide chassis frame. Hydraulic brakes. Delivered in July 1934 to Hans Ruesch. Subsequently fitted with 6C/34 engine.

3027: 850mm-wide chassis frame. Hydraulic brakes. Said to have been delivered to Piero Taruffi in October 1935 to compete in Circuit of Genoa. Claimed by Orsini to have modified engine developing 312bhp at 6,200rpm and to be a prototype for 8CTF engine (improbable). In lightened form it was used by Giuseppe Furmanik for breaking class records in January 1936.

3018: 6C/34. See under 8CM-3000 above.

3023: 6C/34. 3.2-litre engine originally, delivered to Gino Rovere, *Scuderia Subalpina* in December 1934. A 3.7-litre engine was fitted subsequently.

3024: 6C/34 3.7-litre engine, delivered to Hans Ruesch in February 1935.

3025: 6C/34 3.7-litre engine, delivered to Gino Rovere, *Scuderia Subalpina* in March 1935. This car was discovered only recently at the works, as a bare chassis and with the 4-valve Tipo 6CM engine, number 1558, installed. Drawings for the 6C/34 engine are available and Matteo Panoni will be having this car fully restored.

3026: 6C/34 3.7-litre engine, delivered to *Scuderia Subalpina* in April 1935.

The Tipo V8RI

4501: Works car in 1935 driven by Philippe Etancelin. He crashed badly at *Monza* in September and the car was completely rebuilt for 1936 with new independent rear suspension and new body. *Scuderia Torino* bought the car, but it was raced very little. In 1937 Alistair and Esmond Bradley-Martin in the United States bought the car. Deacon Litz drove it in practice for the 1937 Vanderbilt Cup race, but did not start. George Robson drove it with engine reduced to 4.5 litres and supercharger removed at Indianapolis in 1939, but failed to qualify. Jim Brubaker failed to qualify with the car at Indianapolis in 1946–49. It was sold in 1950 to George Weaver and then to Phil Cade. Cade later fitted a Chrysler V8 engine and retained the car in this form.

4502: *Scuderia Subalpina* took delivery of this car in September 1935. It passed to *Scuderia Torino* for 1936 and in 1937 was sold to George Rand in the United States. Enzo Fiermonte drove it in practice for the 1937 Vanderbilt Cup race, but Wilbur Shaw took over the car for the race and finished eighth. Rand drove it in minor events in 1938. Deacon Litz reduced the engine capacity to 3 litres, qualified at Indianapolis in 1939 and retired with valve trouble (classified 31st). Ran in minor events and thereafter driven by Hinnershitz at Indianapolis in 1947, but failed to qualify. It was bought in 1947 by the Granatelli brothers. Walt Brown drove it at Indianapolis in 1948, but failed to qualify. In 1949 the Granatelli brothers fitted a 4.72-litre Offenhauser engine and new body. The engine was sold to George Weaver. Jim Rathmann drove it at Indianapolis in 1949, but failed to qualify. In 1954 the car was rebuilt as a sports-racing car, with Chrysler engine and many other mechanical changes. Later it became the subject of long-term restoration.

4503: Philippe Etancelin took delivery of this car in February 1936, won at Pau and thereafter raced throughout the year without success. After the Vanderbilt Cup, Etancelin sold the car to Henry 'Bob' Topping, Jnr, owner of the New York Yankees. 'Babe' Stapp drove it at Indianapolis in 1937 by when it had the engine supposedly enlarged to 5 litres, a left-hand drive sports body fitted and was entered as a 'Topping'. The regulations that year also required that cars ran on pump fuel. Stapp qualified, retired because of clutch problems and was classified 31st. Stapp drove it, now returned to its original form in the Vanderbilt Cup race that year, but retired because of engine problems. Two years later Topping took the car to Hawaii where he used it on his estates with the supercharger removed and a Ford carburettor fitted. The car was dismantled in 1945, the components were shipped to California and the engine was installed in a sprint car for Oval racing. Trevor Harris used some of the components in an Oldsmobile-powered sports-racing 'special'. Later all the parts were reunited, a British dealer brought them to the UK in 1977 and the following year Wing-Commander Douglas Marr put in hand a complete restoration. The restoration was completed in 1989 and the car was later sold in Germany.

4504: Raphael Bethenod de Las Casas took delivery of this car and ran it only in the 1936 Vanderbilt Cup race. Townsend B. Martin bought the car in the United States and Mauri Rose drove it in the 1937 Vanderbilt Cup, but retired because of rear axle failure. Hollis Cheeseman entered it at Indianapolis in 1938, but failed to run. Henry Banks drove it as the Cheeseman-Maserati and with engine reduced to 3 litres at Indianapolis in 1939, but failed to qualify.

Henry Banks drove it again at Indianapolis in 1940, but failed to qualify. George Weaver bought the car after the war for club racing. He retained the car until his death in 1990 and the car was loaned by his widow for an American enthusiast to drive at a VSCC meeting at Donington Park. It suffered cylinder head damage, was retained at Donington and is now displayed on loan in the Donington Grand Prix Car Collection.

The Tipo 8CTF

3030: Works car, 1938 (first appeared Tripoli Grand Prix driven by Felice Trossi). Works car in 1939 (Villoresi in German Grand Prix only), thereafter sold to Laury Schell. Ran at Indianapolis in 1940 and again in 1941, then as *Elgin Piston Pin Special*. Ran at Indianapolis in 1946 as *Jim Hussey's Special*, ran at Indianapolis in 1947 driven by Snowberger, ran at Indianapolis in 1948 as the *Federal Engineering Special*. Entered at Indianapolis in 1949, but failed to qualify with Sam Hanks at the wheel. Entered at Indianapolis in 1950 with 3-litre Offenhauser supercharged engine by *Maserati Race Cars*. Remained in the United States and at the time of writing owned by Dean Butler.

3031: Works car, 1938 (first appeared in the Coppa Ciano driven by Goffredo Zehender). Works car in 1939 (Pietsch in German Grand Prix only, finished third), thereafter sold to Laury Schell. Ran at Indianapolis in 1940. Ran at Indianapolis in 1941 and 1946 as *Elgin Piston Pin Special*. Entered at Indianapolis in 1951 by Joe Barzda, but crashed by Bud Sennett during qualifying. Imported into the UK by Cameron Millar. At the time of writing owned in the United States by Joel Finn.

3032: Supplied to Cotton Henning for Wilbur Shaw to drive at Indianapolis in 1939. Arrived in the United States with cracked cylinder blocks. Replacement engine supplied and fitted and Shaw won the race with the car entered as *The Boyle Special*. Shaw won at Indianapolis again in 1940. In 1941 Shaw led at Indianapolis until a wheel collapsed and he crashed. Driven into third place by Ted Horn in the 1946 Indianapolis race. Entered as the *Bennett Brothers Special* in the 1947 race and again Horn finished third. Horn finished fourth with this car in 1948. Entered at Indianapolis in 1949 by *Indianapolis Race Cars Incorporated* and retired with Lee Wallard at the wheel. Entered again by the same team in 1950, but failed to qualify. Entered at Indianapolis in 1951 by *Maserati Race Cars*, but no attempts made to qualify it. Car restored to original red colour finish and exhibited in the Indianapolis Speedway Museum.

3033: Engine constructed only and supplied to Cotton Henning to replace frost-damaged engine in 3032.

The Tipo 8CL

3034: Shipped to the United States after completion in 1940 and driven in the Indianapolis 500 Miles race by veteran Argentinian driver Raoul Riganti who crashed.

3035: Completed in 1941 and stored during the war years. It was shipped to the United States by *Scuderia Milano* and driven by Luigi Villorelli in the 1946 Indianapolis 500 miles race. Shipped back to Europe and raced in two events by Villorelli.

The Tipo 250F

There were 34 250Fs built (including the Tec-Mec), but there have been so many fakes and forgeries that, as Matteo Panini has commented, if you gathered all the 250Fs in the world in one place, there would be between 50 and 60 cars present.

2501: Number originally used on 250F-powered A6GCM built up for Roberto Mieres. 250F with this number built mid-1954. Works team car 1955–57 and used as development car. Rebuilt in 1958, re-numbered 2526 and sold to Moto Guzzi factory rider, Keith Campbell. Little raced by him.

2502: Number first used on 250F-powered A6GCM supplied to Jorge Daponte. One of the first two 250Fs raced in the Argentine in 1954 also had this number. Later in 1954 this new car was owned and raced by Sergio Mantovani. Its ultimate fate is not known.

2503: Number not used.

2504: Number used for 250F-engined A6GCM raced by Prince Birabongse to replace his 250F-engined A6GCM. Engine transferred to new 250F with this number to 250F raced by Bira mid-1954 to mid-1955, then ‘loaned’ to Horace Gould for a few races. Sold by Bira to Bruce Halford. Fitted with new chassis frame at factory after being crashed by Halford. Raced in New Zealand in 1960 with Chevrolet engine.

2505: Driven by Fangio to a win in the 1954 Argentine Grand Prix. Works team car through 1954. Sold to André Simon and then Joakim Bonnier. Spent a long period at Modena before being refurbished and presented to the Turin museum as chassis number 2500.

2506: Works team car raced in 1954 by Marimon. Sold to Louis Rosier and raced consistently by him. It spent a long period in the Henri Malartre museum in Rochetille-sur-Saône and then went to the Schlumpf Collection.

2507: Built for Gilby Engineering and raced by Roy Salvadori, 1954–56, Jim Russell, Ivor Bueb and 17-year-old Keith Greene (son of Gilby boss Sid Greene), 1957. Sold through Performance Cars, Brentford to Portuguese collector. Later it was returned to the UK.

2508: Built for Stirling Moss and raced by him in 1954, becoming part of the works team from the Caen GP. Fitted with SU fuel injection over winter of 1954–55, together with Dunlop disc brakes and magnesium-alloy disc wheels. Entered by Moss in 1955 for various drivers including Mike Hawthorn, ‘Johnny’ Claes, Lance Macklin, John Fitch and Bob Gerard. Raced again by Moss in 1956 and then sold to Ross Jensen in New Zealand, with paperwork identifying it as 2513. It spent many years in Australia, it was returned to standard form, came to England and then the United States.

2509: Built for Owen Racing Organisation and raced by them until the new BRM P25 was ready. It was extensively modified, including the fitting of Dunlop disc brakes and magnesium-alloy wheels. It was sold to Jack Brabham in 1956 and then to New Zealand where Chris Amon raced it. Later it was in a New Zealand museum. The Schlumpf Collection has a car numbered 2511 built up with chassis frame 2509. BRM (Ron Flockhart at the wheel) crashed 2504 while on loan from Bira and chassis frames were swapped.

2510: Chassis number not used.

2511: Factory team car driven by Mantovani. It was sold to *Scuderia Centro-Sud*. Raced by them extensively and retained, but dismantled. Parts obtained by Cameron Millar and built up again into 250F chassis number 2511. Sold in Japan.

2512: Works team car in which Marimon was killed in practice for the 1954 German Grand Prix. Rebuilt and driven by Mantovani. Believed sold by factory at a later date as 2518. It should not be confused with the CM replica that masqueraded under this chassis number.

2513: Supplied to Tony Vandervell as rolling chassis, less engine and body, for design study purposes in connection with Vanwall development. After Vandervell’s death and some time after the acquisition of VP Products by GKN, David Sankey, son of a GKN director, completed the car for Historic racing.

2514: Built in September 1954 for Luigi Musso and retained as works team car in 1955. Crashed by Mantovani during practice at Turin in April 1955. It was rebuilt and sold in late 1955 to Horace Gould. It was raced by him during 1956–58 and then retained. It was sold to H.C. Spero who raced it in VSCC Historic events, masquerading as 250F-engined A6GCM chassis number 2504 as cars built later than 1953 were not, at this time, admitted by the Vintage Sports Car Club into Historic racing. It was later sold in Japan.

2515: Factory team car for 1955. It was sold to *Scuderia Guastalla* in 1956 and driven by Gerino Gerini. Bought by Swiss enthusiast Count Ottorino Volonterio in 1957, it was raced little and ultimately sold to Tom Wheatcroft for the Donington Grand Prix Car Collection. At some stage the car was fitted with 1957 Lightweight-style body and it is painted red with a yellow noseband, colours used by Fangio in some 1957 races.

2516: Factory team car for 1956. This car was sold to Reg Hunt after the 1956 Australian Grand Prix. It was raced extensively and then imported back into the UK by Cameron Millar. It was sold to Anthony Mayman at a later date.

2517: Unlucky number in Italy, especially in gambling circles. Number not used.

2518: Streamlined car driven by Behra in the 1955 Italian Grand Prix. It was later seriously damaged in a fire at the works. The surviving components apparently stored. It appears that paperwork relating to this chassis was supplied to a German enthusiast who applied it to a CM replica.

2519: Built for Luigi Piotti in 1956. It was sold to *Scuderia Centro-Sud* in 1958 and raced by Gerino Gerini. Was apparently returned to the factory. Parts of it may have been among those acquired by Cameron Millar.

2520: Factory team car for 1956. Sold to Stan Jones after the 1956 Australian Grand Prix. Later raced in Historic events in the UK and subsequently sold in Italy.

2521: Factory team car for 1956. Sold to John du Puy, American resident in Switzerland. Raced by Jean Lucas, André Testut and, on one occasion, by Bruce Halford. Sold to Serge Pozzoli.

2522: Factory team car for 1956. Sold to *Scuderia Centro-Sud* in 1957 and they raced it extensively. Formed part of the collection of spares and components bought by Cameron Millar and rebuilt on a new ‘Lightweight’ chassis made in the UK. Sold in Holland.

2523: There were two cars bearing this chassis number and they can be differentiated as follows:

The first car was built up by the factory, using the damaged chassis frame from 2507. After a new 2523 was completed in August 1956, the engine and gear-box were removed and the car was put into 'store'. This chassis was then used in 1957 as a mobile test-bed for the new Grand Prix engine. After testing, the V12 engine was removed and the rolling chassis again stored. It was renovated in 1958 with 6-cylinder engine and raced by Marie-Thérèse de Filippis. Subsequently sold in South America.

The new 2523 was a factory team car in 1956 and shipped out to the Australian Grand Prix. There is some doubt whether it was returned to Italy, although this is a view favoured by the writer. In any event the car was later exported to New Zealand. A car was built up in the United States based on what were said to be parts from this car.

2524: Built for Francesco Godia-Sales in 1956. Subsequently was sold in 1958 to Joakim Bonnier. Taken to the United States and sold to Phil Cade.

2525: One of the two cars built for the 1956 Italian Grand Prix. Sold afterwards to Tony Parravano. After many years it was imported into the UK to join the JCB (Sir Anthony Bamford) collection. Sold later to an American collector.

2526: One of the two cars built for the 1956 Italian Grand Prix. It was refurbished in 1958 and sold to Antonio Creus with chassis number 2530. Raced by him once and later sold to the Schlumpf brothers.

2527: T2 factory team car for 1957. Sold in 1958 to

Moto Guzzi factory rider Ken Kavanagh. Raced only a few times and eventually brought to the UK for VSCC racing. Badly damaged in racing accident and rebuilt with almost totally new chassis frame. Sold to an American collector.

2528: T2 factory team car for 1957. Sold in 1958 to Francesco Godia-Sales. Later acquired by Neil Corner and raced extensively in VSCC Historic events.

2529: T2 factory team car for 1957. Driven by Fangio to wins in the French and German GPs. Sold in 1958 to Giorgio Scarlatti and then to Joakim Bonnier. Sold by Bonnier to American collector, then in Cunningham Museum in California until sold to a German collector.

2530: T2 chassis fitted with V12 engine and driven in practice at French Grand Prix by Fangio, Menditeguy and Schell. Not seen again in this form. Chassis number transferred to Antonio Creus on sale to him of 2526.

2531: Chassis as for 1956 Italian GP cars and fitted with V12 engine. Driven in 1957 by Behra in practice for French GP and by Fangio and Behra in practice for Pescara GP. Modifications made and driven by Behra in 1957 Italian GP. Subsequently appeared in practice at Modena and Casablanca. Apparently sold in the Argentine with 6-cylinder engine and later discovered incomplete and minus engine.

2532: 6-cylinder experimental car built in 1958 from chassis 2530 and with latest engine. In effect, it was the *Piccolo* prototype, it was tested at the Nürburgring and appeared in practice at the 1958 Belgian Grand

Prix. The car driven by Fangio in 1958 French GP also had plate 2532, but was a different car. Both cars sold in South America, parts of 2530/2532 brought back to Britain and car rebuilt with new frame as 2532, but 2532 proper remains in South America as far as the writer is aware.

2533: T3 6-cylinder *Piccolo* car built in 1958 for Temple Buell. Believed to be the car driven in the 1958 Italian Grand Prix. Raced in New Zealand GP in early 1959 by Buell Team and driven by Ross Jensen who ran under the name *Scuderia El Salvador*. Then returned to factory. Sold in 1961 to Joe Lubin, United States and then sold on in 1984 to Don Orosco.

2534: Second T3 6-cylinder *Piccolo* car built in 1958 for Temple Buell and delivered in September. Raced in New Zealand, returned to Europe, sold to Italian collector and then in 1972 to the JCB/Sir Anthony Bamford collection.

2535: No Maserati chassis number issued, but it would have been 2535. After the closure of the Maserati racing department, this car with space-frame chassis was completed with 250F engine number 2523 as the Tec-Mec by Valerio Colotti. It was raced unsuccessfully by Fritz d'Orey in the 1959 United States Grand Prix and thereafter by the *Camoradi* team at Daytona in 1960. It was later abandoned on a trailer in Florida. In about 1968 Tom Wheatcroft acquired it for the Donington Grand Prix Collection, it was restored and raced by Tony Merrick. Later acquired by present owner Barrie Baxter who had it completely restored and resolved handling problems.

Appendix 3

Specifications of Maserati competition cars

THE EARLY 8-CYLINDER CARS

Tipo 26, 1926 Onwards

Engine: Straight-eight 1,492.6cc (60 x 66mm), twin overhead camshafts driven by a train of gears from the nose of the crankshaft, single Roots-type supercharger; power output approximately 115bhp at 5,300rpm.

Transmission: Multi-plate clutch and 4-speed gearbox.

Chassis: Channel-section, suspension by rigid axles and semi-elliptic springs front and rear.

Dimensions: Wheelbase: 8ft 8.3in (2,650mm). Front track: 4ft 4.8in (1,340mm). Rear track: 4ft 5.5in (1,360mm). Dry weight: 1,433lb (650kg).

Tipo 26B, 1927 onwards

As Tipo 26 above, except engine 1,980cc (62 x 82mm) developing 150bhp at 5,500rpm.

Tipo 8C-1500, 1928 onwards

Developed version of the Tipo 26 and similar specification except developing 120bhp at 5,000rpm. Dry weight 1,521lb (690kg).

Tipo 8C-1100, 1929 onwards

As 8C-1500 above, except engine 1,077cc (51 x 66mm) developing 100bhp at 5,000rpm.

Tipo 26M 8C-2500, 1930 onwards

As 8C-1500 above, except engine 2,495cc (65 x 94mm) developing 175bhp at 5,300rpm. Dry weight: 1,590lb (720kg).

Tipo 26M 8C-2800, 1931 onwards

As 8C-2500 above, except engine 2,795cc (68 x 94mm) developing 198bhp at 5,300rpm.

Tipo 26M 8C-3000, 1933 onwards

As 8C-2500 above except engine 2,992cc (69 x 100mm) developing 230bhp at 5,500rpm.

Tipo 8CM-3000, 1933 onwards

Engine: As 8C-3000 above, except power output increased to 260bhp at 5,800rpm.

Transmission: Multi-plate clutch and 4-speed gearbox.

Chassis: Channel-section, suspension by rigid axles and semi-elliptic springs front and rear.

Dimensions: Wheelbase: 8ft 7.1in (2,570mm). Front track: 4ft 4.5in (1,330mm). Rear track: 4ft 3.2in (1,300mm). Dry weight: 1,543lb (700kg).

Tipo 6C/34, 1934 onwards

Engine: In-line 6-cylinder 3,326cc (84 x 100mm), twin overhead camshafts driven from the nose of the crankshaft, single Roots-type supercharger, power output approximately 260bhp at 5,000rpm. In 1935 these cars had a 3,729cc (84 x 112mm) engine developing 280bhp at 5,300rpm.

Transmission, chassis and dimensions: As for 8CM-3000.

THE 16-CYLINDER CARS

V4, 1929 onwards

Engine: 90° V16 3,960cc (62 x 82mm), four overhead camshafts driven by a train of gears from the noses of the crankshafts, two Roots-type superchargers, power output approximately 305bhp at 5,500rpm.

Transmission: Multi-plate clutch and 4-speed gearbox. *Chassis:* Channel-section, suspension by rigid axles and semi-elliptic springs front and rear.

Dimensions: Wheelbase: 9ft 2in (2,750mm). Front track: 4ft 5in (1,350mm). Rear track: 4ft 6in (1,370mm). Dry weight: 1,980lb (900kg).

V5, 1932 onwards

Engine: As V4 above, except 4,905cc (69 x 82mm)

developing approximately 360bhp at 5,500rpm. *Transmission, chassis and dimensions:* As V4 above, except dry weight 2,029lb (920kg).

THE EARLY 4-CYLINDER CARS

Tipo 4CM-1100, 1931 onwards

Engine: In-line 4-cylinder 1,088cc (65 x 82mm), twin overhead camshafts driven from the nose of the crankshaft, Roots-type supercharger, power output approximately 105bhp at 6,600rpm.

Transmission: Multi-plate clutch and 4-speed gearbox.

Chassis: Channel-section, suspension by rigid axles and semi-elliptic springs front and rear.

Dimensions: Wheelbase: 7ft 10.5in (2,400mm). Front track: 3ft 11.2in (1,200mm). Rear track: 3ft 11.2in (1,200mm). Dry weight: 1,058lb (480kg).

Note: 4CS-1100 sports version built from 1932 onwards with wider chassis, two-seater body and engine developing 90bhp at 5,300rpm.

Tipo 4CM-1500, 1932 onwards

As 4CM-1100 above, except engine 1,496cc (69 x 100mm) power output approximately 130bhp at 6,100rpm and dry weight of 1,100lb (500kg).

Note: 4CS-1500 sports version built from 1933 onwards with wider chassis, two-seater body and engine developing 115bhp at 5,000rpm.

Tipo 4CM-2000, 1933 onwards

As 4CM-1100 above, except engine 1,969cc (80 x 98mm) developing 155bhp at 5,500rpm.

Tipo 4CM-2500, 1934 onwards

As 4CM-1100 above, except engine 2,482cc (84 x 112mm) developing 175bhp at 5,300rpm and dry weight of 1,278lb (580kg).

THE LATER 8-CYLINDER CARS

Tipo V8RI, 1935 onwards

Engine: 90° V8 4,329cc (84 x 100mm), with single overhead camshaft per bank of cylinders driven from the nose of the crankshaft, single Roots-type supercharger, power output approximately 300bhp at 5,300rpm. In 1936 these cars had 4,788cc (84 x 108mm) engine with power output of approximately 320bhp at 5,300rpm.

Transmission: Multi-plate clutch and 4-speed gearbox.

Chassis: Channel-section steel-alloy, independent front suspension by unequal-length wishbones and torsion bars, independent suspension at the rear by swinging half-axes and semi-elliptic springs.

Dimensions: Wheelbase: 8ft 10in (2,700mm). Front track: 4ft 5.1in (1,350mm). Rear track: 4ft 5.9in (1,370mm). Dry weight: 1,654lb (750kg).

Tipo 8CTF, 1938 onwards

Engine: In-line 8-cylinder, 2,992cc (69 x 100mm), with twin overhead camshafts driven from the nose of the crankshaft, two separate Roots-type superchargers with Memini twin-choke carburettors, power output approximately 360bhp at 6,000rpm.

Transmission: Multi-plate clutch and 4-speed gearbox.

Chassis: Channel-section, with independent front suspension by unequal-length wishbones and torsion bars, rear suspension by underslung rigid axle and quarter-elliptic springs.

Dimensions: Wheelbase: 8ft 11in. (2,720mm). Front track: 4ft 4.8in (1,340mm). 4ft 5.4in (1,360mm). Dry weight: 1,540lb (700kg).

Tipo 8CL, 1940 onwards

Engine: As for 8CTF above, except 2,978cc (78 x 78mm), four valves per cylinder, developing approximately 420bhp at 6,400rpm.

Transmission, Chassis and Dimensions: As for 8CTF, except wheelbase 9ft 1.8in (2,790mm) and dry weight 1,521lb (690kg).

THE VOITURETTES OF THE LATER 1930S

Tipo 6CM-1500, 1936 onwards

Engine: In-line 6-cylinder 1,493cc (65 x 75), twin overhead camshafts gear-driven from the nose of the crankshaft, single Roots-type supercharger, power output approximately 155bhp at 6,800 (later

increased to 175bhp at 6,700rpm). Note: At least one engine was built with four valves per cylinder.

Transmission: Multi-plate clutch and 4-speed gearbox.

Chassis: Channel-section with independent front suspension by unequal-length wishbones and torsion bars, rear suspension by rigid axle suspended on semi-elliptic leaf springs.

Dimensions: Wheelbase: 8ft 2in (2,490mm). Front track: 3ft 11.2in (1,200mm). Rear track: 3ft 11.2in (1,200mm). Dry weight: 1,367lb (620kg).

Tipo 4CL-1500, 1939 onwards

Engine: In-line 4-cylinder 1,489cc (78 x 78mm), twin overhead camshafts gear-driven from the nose of the crankshaft, four valves per cylinder, single Roots-type supercharger, power output approximately 220bhp at 6,600rpm. Note: From 1947 some cars fitted with twin-stage supercharging.

Transmission: Multi-plate clutch and 4-speed gearbox.

Chassis: Channel-section with independent front suspension by unequal-length wishbones and torsion bars and rear suspension by rigid axle suspended on quarter-elliptic leaf springs. Note: In 1947 some cars were fitted with a tubular chassis and in this form were known as the 4CLT.

Dimensions: Wheelbase: 8ft 2.4in (2,500mm). Front track: 4ft 1.2in (1,250mm). Rear track: 4ft 2in. (1,272mm). Dry weight: 1,390lb (630kg).

THE EARLY POST-WAR 6-CYLINDER CARS

Tipo A6-1500, 1947–48

Engine: In-line 6-cylinder 1,488cc (66 x 72.5mm), single overhead camshaft gear-driven from the nose of the crankshaft, unsupercharged, power output approximately 65bhp at 4,700rpm.

Transmission: Single-plate clutch and 4-speed gearbox.

Chassis: Twin-tubular with independent front suspension by unequal-length wishbones and coil springs and rear suspension by rigid axle suspended on coil springs.

Dimensions: Wheelbase: 8ft 4.4in (2,550mm). Front track: 4ft 2.2in (1,274mm). Rear track: 4ft 1.3in (1,252mm). Dry weight: 1,257lb (570kg).

Tipo A6G, 1947

Engine: As for A6-1500 above, except 1,954cc (72 x 80mm), power output approximately 90bhp at 4,700rpm.

Transmission, Chassis and Dimensions: As for A6-1500 except dry weight 1,212lb (550kg).

Tipo A6GCS Monofaro, 1947 onwards

Engine: As for A6-1500 above, except 1,978cc (72 x 81mm), three carburettors, power output approximately 130bhp at 6,000rpm.

Transmission: Single-plate clutch and 4-speed gearbox.

Chassis: Twin-tubular, with independent front suspension by unequal-length wishbones and coil springs and rear suspension by rigid rear axle suspended on semi-elliptic leaf springs.

Dimensions: Wheelbase: 7ft 6.9in (2,310mm). Front track: 3ft 11.6in (1,210mm). Rear track: 3ft 9.7in (1,150mm). Dry weight: 1,212lb (550kg).

THE POST-WAR SUPERCHARGED CARS

4CLT/48, 1948 onwards

Engine: In-line 4-cylinder 1,489cc (78 x 78mm), twin-overhead camshafts driven from the nose of the crankshaft, four valves per cylinder, single Weber twin-choke carburettor, twin-stage supercharging, power output approximately 260bhp at 7,000rpm. Note: 4CLT/50 had 1,719cc (78 x 90mm) engine with a power output of 290bhp at 6,800rpm. By 1950 the 4CLT/48 had a power output of about 280bhp.

Transmission: Multi-plate clutch and 4-speed gearbox.

Chassis: Twin-tubular, with independent front suspension by unequal-length wishbones and inclined coil springs, rigid rear axle suspended on quarter-elliptic springs.

Dimensions: Wheelbase: 8ft 2.2in (2,500mm). Front track: 4 ft 1.2in (1,250mm). Rear track: 3ft 11.2in (1,200mm). Dry weight 1,420lb (645kg).

8CLT/50, 1950

Engine: In-line 8-cylinder 2,978cc (78 x 78mm), twin overhead camshafts driven by a train of gears from the nose of the crankshaft, four valves per cylinder, twin-staging supercharging, power output approximately 430bhp at 6,500rpm.

Transmission: Multi-plate clutch and 4-speed gearbox.

Chassis: Twin-tubular structure, with independent front suspension by unequal-length wishbones and inclined coil springs, rigid rear axle suspended on quarter-elliptic springs.

Dimension: Wheelbase: 8ft 8in (2,720mm). Front track: 4ft 6.7in (1,390mm). Rear track: 4ft 5.3in (1,355mm). Dry weight: 1,984lb (900kg).

THE UNSUPERCHARGED SINGLE-SEATERS

A6GCM, 1952–53

Engine: In-line 6-cylinder 1,988cc (75 x 75mm), 1952; 1,978cc (76.2 x 72mm), 1953; twin overhead camshafts driven by a train of gears from the nose of the crankshaft, single-plug ignition (twin-plug from September, 1952), power output approximately 165bhp at 7,000rpm (1952), 177bhp at 7,000rpm (Twin-plug form, late 1952); 190bhp at 8,000rpm (1953).

Transmission: Multi-plate clutch and 4-speed gearbox.

Chassis: Twin-tubular structure, with independent front suspension by unequal-length double wishbones and coil springs compressing on rubber blocks, rigid rear axle suspended on quarter-elliptic springs.

Dimensions: Wheelbase: 7ft 6.9in (2,310mm). Front track: 4ft 0.2in (1,225mm). Rear track: 3ft 9.7in (1,160mm). Dry weight: 1,100lb (500kg).

250F, 1954 onwards

Note: The 250F was built in three series generally known as follows:

T1: The original model built 1954–56, used by the works and sold to private owners. During this period there were also two works cars built for the 1956 Italian Grand Prix with engine and transmission angled in the frame and lower overall height.

T2: The 1957 'Lightweight' cars of which three were built for use by the works team. In 1957 Maserati also introduced the V12-engined 250F which ran in a couple of races.

T3: The 1958 lighter, shorter *Piccolo* cars.

Engine: In-line cylinder 2,493.8cc (84 x 75mm), twin overhead camshafts driven by a train of gears from the nose of the crankshaft, twin-plug ignition, power output of about 220/240bhp at 7,200rpm (1954), 270bhp at 8,000rpm (1956), 280bhp at 8,000rpm (1957), 290bhp at 8,000rpm (1958). The 60-degree V12 engine had a capacity of 2,490cc (68.7 x 56mm), twin overhead camshafts per bank of cylinders driven by a train of gears from the nose of the crankshaft, twin plugs per cylinder and a power of approximately 310/320bhp at 10,000rpm.

Transmission: Multi-plate clutch and 4-speed in unit with and behind the final drive (5-speed gearbox

available from 1955 and subsequently fitted to most cars).

Chassis: Multi-tubular chassis, with independent front suspension by unequal-length double wishbones and coil springs, de Dion rear axle with the tube running in front of the final drive/gearbox unit and suspended on transverse semi-elliptic leaf spring.

Dimensions: Wheelbase: 7ft 5.8in (2,280mm), 1954–56; 7ft 3.4in (2,225mm); 1957; 7ft 2.6in (2,200mm), 1958. Front track: 4ft 3.2in (1,300mm), 1954–57; 4ft 3.6in (1,310mm), 1958. Rear track: 4ft 1.2in (1,250mm). Dry weight: 1,389lb (630kg), 1954–56; 1,212lb (550kg), 1958.

The Tipo 420/M/58

Engine: 90-degree V8, 4,190cc (93.8 x 75.8mm), twin overhead camshafts driven by a train of gears from the nose of the crankshaft, twin-plug ignition, power output of approximately 410bhp at 8,000rpm.

Transmission: Multi-plate clutch and 2-speed gearbox mounted in unit with and behind the final drive.

Chassis: Multi-tubular structure with front suspension by unequal-length wishbones and coil springs, de Dion rear axle with the tube running in front of the final drive/gearbox unit and suspended on transverse semi-elliptic spring.

Dimensions: Wheelbase: 7ft 10.5in (2,400mm). Front track: 4ft 3.2in (1,300mm). Rear track: 4ft 1.2in (1,250mm). Dry weight: 1,671lb (758kg).

THE SPORTS CARS OF THE 1950S

A6GCS, 1953 onwards

Engine: In-line 6-cylinder, 1,985.6cc (76.5 x 72mm), twin overhead camshafts driven by a train of gears from the nose of the crankshaft, twin-plug ignition, power output of approximately 165bhp at 7,300rpm.

Transmission: Multi-plate clutch and 4-speed gearbox.

Chassis: Twin-tubular, with independent front suspension by unequal-length wishbones and coil springs, rigid rear axle suspended on quarter-elliptic springs.

Dimensions: Wheelbase: 7ft 6.9in (2,310mm). Front track: 4ft 4.5in (1,335mm). Rear track: 4ft 0.3in (1,220mm). Dry weight: 1,278lb (580kg).

250S, 1954

As A6GCS above, except for 2,493.8cc (84 x 75mm) engine, developing approximately 220bhp at 7,000rpm.

300S, 1955 onwards

Engine: In-line 6-cylinder, 2,992.5cc (84 x 90mm), twin overhead camshafts driven by a train of gears from the nose of the crankshaft, twin-plug ignition, power output of approximately 245bhp at 6,200rpm.

Transmission: Multi-plate clutch and 4-speed gearbox in unit with and behind the final drive (5-speed in 1958).

Chassis: Multi-tubular, with front suspension by unequal-length wishbones and coil springs, de Dion rear axle with the tube running in front of the final drive/gearbox unit suspended on transverse semi-elliptic leaf spring.

Dimensions: Wheelbase: 7ft 6.9in (2,310mm). Front track: 4ft 3.2in (1,300mm). Rear track: 4ft 1.2in (1,250mm). Dry weight: 1,720lb (780kg).

Note:

The 350S (Tipo 53), 1956, used an enlarged version of this engine; 3,483cc (86 x 100mm), with an approximate ultimate power output of 325bhp at 6,000rpm. This car also had a revised chassis and a 5-speed gearbox in front and in unit with the final drive.

The same designation 350S (Tipo 57) was used for a version of the 300S that appeared in 1957, 60-degree V12, 3,495cc (73.8 x 68mm), with a power output of approximately 335bhp at 9,000rpm. Driven in the 1957 Mille Miglia by Herrmann and entered at that year's Venezuelan Grand Prix, but withdrawn. Other V12 engines with different cylinder dimensions were installed experimentally in this chassis.

The Tipo 58, 1958 was a 300S chassis with 60-degree V12 3,000cc (68.2 x 68mm) engine developing approximately 305bhp at 10,000rpm. It was intended for World Sports Car Championship racing, but not used.

Tipo 150S, 1955 onwards

Engine: In-line 4-cylinder 1,484.1cc (81 x 72mm), twin overhead camshafts driven by a train of gears from the nose of the crankshaft, twin-plug ignition, power output of approximately 140bhp at 7,500rpm.

Transmission: Multi-plate clutch and 4-speed gearbox mounted in unit with and behind the final drive (5-speed available from 1956).

Chassis: Multi-tubular, with independent front suspension by unequal-length wishbones and coil springs, de Dion rear axle with the tube running in front of the final drive/gearbox unit and suspended on transverse semi-elliptic leaf spring.

Dimensions: Wheelbase: 2,200mm (7ft 2.6in). Front track: 4ft 1.2in (1,250mm). Rear track: 3ft 11.2in (1,200mm). Dry weight: 1,390lb (630kg).

200S (Tipo 52), 1955 onwards

Engine: As Tipo 150S above except, 1,994.3cc (92 x 75mm), power output approximately 186bhp at 7,500rpm (Tipo 200SI introduced in 1956 had power output of approximately 190bhp at 7,800rpm).

Transmission, Chassis and Dimensions: As for Tipo 150S above, except for dry weight of 1,477lb (670kg).

Tipo 450S (Tipo 54), 1957

Engine: 90-degree V8, 4,477cc (93.8 x 81mm), twin overhead camshafts per bank of cylinders driven by a train of gears from the nose of the crankshaft, twin-plug ignition, power output of approximately 400bhp at 7,500rpm.

Transmission: Multi-plate clutch and 5-speed gearbox in unit with and in front of the final drive. Cars also raced with supplementary 2-speed gearbox mounted between clutch and normal gearbox and giving ranges of lower and high ratios.

Chassis: Multi-tubular, independent front suspension by unequal-length wishbones and coil springs, de Dion rear axle with tube running in front of final drive/gearbox and suspended on transverse semi-elliptic leaf spring.

Dimensions: Wheelbase: 7ft 10.5in (2,400mm). Front track: 4ft 5.1in (1,350mm). Rear track: 4ft 3in (1,300mm). Dry weight: 1,711lb (786kg).

THE 'BIRD-CAGE' CARS

Tipo 60, 1959 onwards

Engine: In-line 4-cylinder, 1,994cc (92 x 75mm), twin overhead camshafts driven by a train of gears from the front of the engine, twin-plug ignition, power output approximately 195bhp at 8,000rpm.

Transmission: Multi-plate clutch and 5-speed gearbox in unit with the final drive.

Chassis: Multi-tubular space-frame construction from very small-section tubing, engine inclined in the chassis at an angle of 45°, independent front suspension by unequal-length wishbones and coil spring/

damper units, rear suspension by de Dion axle suspended on transverse leaf spring, Dunlop disc brakes.

Dimensions: Wheelbase: 7ft 2.6in (2,200mm). Front track: 4ft 1.2in (1,250mm). Rear track: 3ft 11.2in (1,200mm). Dry weight: 1,257lb (570kg).

Tipo 61, late 1959 onwards

Engine: As Tipo 60 above, except 2,890cc (100 x 92mm), power output approximately 250bhp at 6,500rpm.

Transmission and Chassis: As for Tipo 60 above.

Dimensions: As for Tipo 60 above except for dry weight of 1,323lb (600kg).

Tipo 63, 1961 onwards

Engine: In-line 4-cylinder engine as for Tipo 61 above, except for power output approximately 260bhp at 7,000rpm. Also fitted with 60° V12 engines as Tipo 58 above, but of varying cylinder dimensions: 2,989cc (70.4 x 64mm), 290bhp at 7,500rpm. Also engines installed in these cars with 75 x 56mm engine.

Transmission: Multi-plate clutch and 5-speed gearbox in unit with the final drive.

Chassis: Multi-tubular space-frame construction from very small-diameter tubing, engine rear-mounted, independent front suspension by unequal-length wishbones and coil spring/damper units, rear suspension by de Dion axle or fully independent.

Dimensions: Wheelbase: 7ft 2.6in (2,200mm). Front track: 4ft 0.2in (1,225mm). Rear track: 3ft 11.2in (1,200mm). Dry weight: 1,411lb (640kg).

Tipo 64, late 1961 onwards

Engine: 60° V12, 2,989cc (70.4 x 64mm), twin overhead camshafts per bank of cylinders driven from the nose of the crankshaft, twin-plug ignition, power output approximately 320bhp at 8,500rpm.

Transmission: Multi-plate clutch and 5-speed gearbox in unit with the final drive.

Chassis: Multi-tubular space-frame construction from very small-diameter tubing, engine rear-mounted, independent front suspension by unequal-length wishbones and coil spring/damper units, rear suspension fully independent.

Dimensions: Wheelbase: 7ft 2.6in (2,200mm). Front track: 3ft 11.2in (1,200mm). Rear track: 3ft 11.2in (1,200mm). Dry weight: 1,411lb (640kg).

Tipo 65, 1965

Engine: 90° V8 5,046cc (95 x 89mm), twin overhead camshafts per bank of cylinders driven from the nose of the crankshaft, Lucas fuel injection, power output approximately 430bhp at 7,000rpm.

Transmission: Multi-plate clutch and 5-speed gearbox in unit with the final drive.

Chassis: Multi-tubular space-frame construction from very small-diameter tubing, engine rear-mounted, independent front suspension by unequal-length double wishbones and coil spring/damper units, independent rear suspension by double wishbones and longitudinal torsion bars.

Dimensions: Wheelbase: 7ft 10.4in (2,400mm). Front track: 4ft 7.1in (1,400mm). Rear track: 4ft 5.9in (1,370mm). Dry weight: 2,117lb (960kg).

THE FRONT-ENGINED GT PROTOTYPES, 1962 ONWARDS

Tipo 151

Engine: 90° V8, 3,943cc (91 x 75.8mm), twin overhead camshafts per bank of cylinders driven from the nose of the crankshaft, four twin-choke Weber carburetors, twin-plug ignition, power output approximately 360bhp at 7,000rpm.

Transmission: Multi-plate clutch and 5-speed gearbox in unit with the final drive.

Chassis: Constructed from large-section tubes, engine front-mounted, front suspension by unequal-length wishbones and coil spring/damper units, independent rear suspension by de Dion axle, twin trailing arms and coil spring/damper units.

Dimensions: Wheelbase: 7ft 6.5in (2,300mm). Front track: 4ft 1.2in (1,250mm). Rear track: 4ft 2.4in (1,280mm). Dry weight: 2,160lb (895kg).

Note: The Tipo 151/1 of 1963 onwards had V8 4,941cc (94 x 89mm) engine with fuel injection and with a power output of approximately 430bhp at 7,000rpm.

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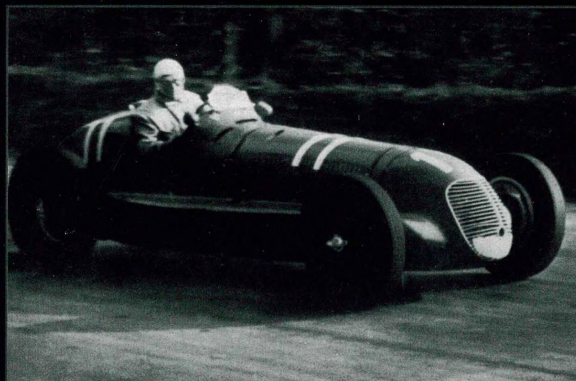
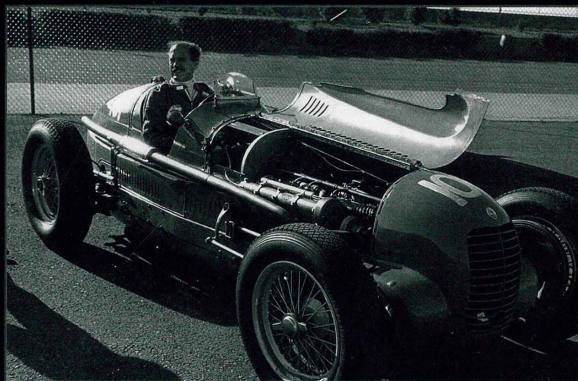
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 British Grand Prix at Aintree (J.C. Maserati/Martini)
 Back (top left, clockwise): Giuseppe Neri in Maserati 250F (Pirelli)
 Luigi Villone in Maserati 250F, 1958 Devonian Grand Prix, Exminster
 on Leyburne L. Maserati 250F, 1959 Devonian Grand Prix, Exminster
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