FORD
VERSUS
FERRARI

The battle for supremacy at Le Mans 1966

JOHN STARKEY

VELOCE

FORD VERSUS FERRARI

The battle for supremacy at Le Mans 1966

JOHN STARKEY

VELOCE

First printed in paperback format in August 2019.

First published in ebook format September 2019 by Veloce Publishing Limited, Veloce House, Parkway Farm Business Park, Middle Farm Way, Poundbury, Dorchester, Dorset, DT1 3AR, England – Fax 01305 250479 – e-mail info@veloce.co.uk – web www.veloce.co.uk or digital.veloce.co.uk.

Ebook edition ISBN: 978-1-787116-18-4
Paperback edition ISBN: 978-1-787115-72-9

Readers with ideas for automotive books, or books on other transport or related hobby subjects, are invited to write to the editorial director of Veloce Publishing at the above address.

All ebook design and code produced in-house by Veloce Publishing.

Contents

Acknowledgments

The events described in this book took place over fifty years ago. Not many of the main players of this drama are still with us. Jacky Ickx, Brian Redman, David Hobbs are all, thankfully, still here, and all four wrote books that described their part in this drama. But Enzo Ferrari, Henry Ford II, Lee Iacocca, Leo Beebe, Carroll Shelby, Ken Miles, Denny Hulme, John Surtees, Dan Gurney, Mark Donohue, Walt Hansgen, Leo Beebe, John Wyer, Eric Broadley, Roy Lunn and many others involved in this period of motor racing have all passed on.

To write this book, I read many others in which the events of the Ford/Ferrari battle were described, and, having myself written several books about Lola, particularly the Lola T70, the successor to Eric Broadley's Lola Mark VI and the GT40, I had long ago interviewed some of the men from those early years, who had worked on the Mark VI at Lola's little workshop in Bromley. I was already very familiar with the story of how and why Ford had chosen Eric Broadley to help design the GT40.

In truth, when studying the GT40 itself, it doesn't take long to see that, apart from the chassis being made of steel, the car was very much a 'Mark II' version of Lola's Mark VI sports-prototype, sharing the same mid-engine position, the Ford V8 engine, and even the somewhat-lacking Colotti transaxle.

I'm lucky that, having been around during this period, and always being racing car mad, I took a very keen interest in everything that was going on in the racing world in the 1960s, and had more than a passing interest in exactly who was doing what with what – or even who …

The books that I used for research are as follows, in alphabetical order:

Can-Am by Pete Lyons

Daring Drivers, Deadly Tracks by Brian Redman

Ford: The Dust and the Glory by Leo Levine

Forghieri on Ferrari by Mauro Forghieri

Go like Hell by A J Baime

Hobbo by David Hobbs and Steve Matchett

Lola T70, The Design, Development and Racing History by John Starkey and Franco Varani

Racing in the Rain by John Horsman, Chief Engineer at JWAE

That Certain Sound By John Wyer, head of FAV, then JWAE

The Anatomy and Development of the Sports Prototype Racing Car by Ian Bamsey

The Unfair Advantage by Mark Donohue, Driver

Foreword

Enzo Ferrari probably had no idea what he would start in 1962 when he put out tentative feelers through a third party to Ford in Dearborn, Michigan, to see if it might be interested in a 'collaboration.'

To Ford, this meant that Ferrari was interested in selling his prestigious company to Ford; not what Ferrari had in mind. Yes, he was willing to sell that part of his company that made street cars, but he was not willing to sell the part that made and ran his racecars.

Enzo probably never foresaw just how upset Henry Ford II would be when he found his offer to Ferrari rebuffed; indeed, in the great scheme of things Ferrari may have been reaching out to Ford to elicit help from Fiat, which sat up, took notice and shortly thereafter came to Ferrari's aid.

Ford had been involved in USAC Indianapolis oval track type events and also in NASCAR. In Europe it was not so involved, although Lotus' entry in the Indianapolis 500 saw Ford supplying Lotus with engines: initially in the shape of an aluminum version of the V8 engine that went in the Ford Fairlane car, and then with a purpose-built four camshaft V8 engine.

In 1963, when the order went out from Henry Ford II to build a sports-prototype car that would beat Ferrari at the Le Mans 24 Hours, no such vehicle existed, and there was a mad scramble by Ford executives and their engineers to design and build a car that would embarrass Ferrari on a race track it had virtually made its own over the past few years.

This is the story of what transpired …

John Starkey

Chapter **1**

A successful team is born by a succession of people coming together at the right time. Such a team came together to win the Le Mans 24 Hour race in 1966: that of Ford. One of the unsung heroes of the Ford works team was Ken Miles.

Ken had been born on November 1 1918 into a working-class family in Sutton Coldfield, near the city of Birmingham in England. When he was 15 he tried to run away to America, but failed in his attempt. As he liked cars, he became an apprentice to the Wolseley Motor Car Company in Coventry. At that point in the 1930s, the company was producing middle-class cars for middle-class people, and Ken was sent to technical college in Birmingham to study and learn engineering.

Ken Miles, (left) and Lloyd Ruby, seen here after winning the Sebring 12 Hours race, held in March 1966.
(Courtesy Historic Images)

In September 1939 the Second World War broke out and Ken enlisted in the army. Due to his mechanical experience, he was swiftly moved to the Royal Tank Regiment and promoted to Sergeant. He became a tank commander and survived the war. Ken was 26 when the war ended, and he wanted nothing more than to be a racing driver. Unfortunately, he did not have the means to achieve this.

Undaunted, Ken fitted a Ford V8-60 engine in an old Frazer Nash chassis, and won some local hillclimbs and club races. He also tried building front wheel drive F3 cars but, by 1951, his money had run out and he was broke. Luckily, his friend, John Beasley, also from Sutton Coldfield,

managed to get him a job in California as a service manager.

The Gough Company was a distributor for MGs, and realized that racing helped sell cars. Ken designed and built his first racing car with the aid of friends after a year of racing the stock MG TD cars: he called it the R1.

The R1 had a chassis made of steel tubing. Steering was by rack and pinion from a Morris Minor, and front suspension springing was by torsion bars. The rear suspension came from an MG TC, and the engine was from an MG TD. The skimpy bodywork was in aluminum.

Driving the R1, Ken Miles won many races in 1952. For 1954, Ken designed and built a lighter and more powerful car, which came to be known as the 'Flying Shingle.' Ken left Gough's shop and moved to Clem Atwater's MG and Austin Healey shop, which was in the San Fernando Valley. Here, he set up his own shop, specializing in race car preparation.

Such was Ken Miles' reputation by this time that he was invited to drive a prototype MGA at Le Mans in 1955. Johnny Lockett was his co-driver, and the pair finished well ahead of the factory Triumph TR2 entry. After this, Ken visited England, and went to meet with Colin Chapman of Lotus. He tried to obtain a distributorship to sell Lotus cars in America, but could not come up with the money required.

Back in America in 1955, Ken drove a 4.5-liter Ferrari in two races, and found himself racing against a certain Carroll Shelby in a similar car. This was somebody who would figure heavily in the GT 40 story later on.

Carroll Shelby had been a pilot in WW2; both a test pilot and a flight instructor. After the war was over, Shelby took various jobs: a prospector for oil and also a chicken farmer. He began racing MGs and then Allards in America, and it's probable that the American V8s in the English Allard chassis inspired him to produce the AC Cobra in the early '60s. Shelby also raced Formula One Aston Martins in Europe in 1958 and '59, but his greatest achievement was winning the 24 Hours of Le Mans in 1959 with Roy Salvadori.

Carroll Shelby retired from racing shortly after this, to concentrate on establishing his Cobra venture in California.

Ford backed Carroll Shelby in this venture, supplying first of all 260in3 and then 289in3 engines for installation in AC Ace chassis, that turned them into the Cobras Shelby sold. He was certainly one of Ford's 'go to' guys when it came to sports car racing.

Johnny Von Neumann, who owned Competition Motors, and who had himself raced competition Ferraris, then employed Ken Miles to race Porsches and work for him. Driving a 550 Spyder in January 1956, Ken won his first race in that car at Torrey Pines in January. For the next three years Ken drove Porches – mainly 550 spyders – and won many events. One of his best results was finishing second in class at Sebring in the 1957 12 Hour race, together with Jean-Pierre Kunstle.

Enzo Ferrari in 1984. (Author's collection)

In 1958 Ken moved to the Estes-Zipper precision motors race team, headed up by another racer, Otto Zipper. Again, Ken finished second in class at the Sebring 12 Hours race with another Porsche 550 spyder.

In 1961 Ken drove for Frank Zillner in the USAC professional road racing

series, and took the title.

He also drove a Sunbeam Alpine for the Rootes Group in the Californian sports car club series, and won the F-production class. By 1963 Ken Miles had won 38 of the 44 races he entered in Porsches supplied by Estes-Zipper.

During this time, Ken belonged to the Californian chapter of the SCCA, and became President of the club. He had the reputation of being a no-nonsense authoritarian, and it was 'my way or the highway' with Ken. He was charming with it, and had an enviable grasp of the English language, with which he would use sarcasm to further his goals. Apparently, he made enemies, too. Who knew what being a tank Commander in France and Germany in 1944/45 would do to a man's psyche?

Ken loved racing; so much so that he heard about, and repeated to several friends, a famous English racing driver, Archie Scott-Brown, saying that he: "Fully expected to die in a racing car." And Scott-Brown did, in 1958 at Spa, in Belgium, a fearsomely fast and long racetrack that claimed many lives. Better that than fading away in ill health when old, he said.

Henry Ford II. (Courtesy Ford, the John S Allen Collection)

At Riverside in October 1962, Carrol Shelby's Cobra first raced. It was fast but needed development, and Ken was hired for the job, together with Dave McDonald and Bob Holbert. In USRRC Club events in 1963, these three drivers showed the Corvettes the way home many times.

Our story now moves to Germany. Ford management in Cologne received a letter in early February 1963. It came from the German consul in Milan, and described the recent conversation between the Consul and a man representing a small but important, and world-renowned, factory in Italy. This company was seeking to make a cooperative agreement with a larger company in the automotive world.

Robert G Layton, who was the director of finance of Ford in Cologne, passed this information to the parent company in Dearborn, Michigan. By

this time Layton had discovered that the Italian company was Ferrari. The reply that Layton received from Ford's business management in Dearborn was that they were not interested, and he duly passed on this information to the German consul.

Almost simultaneously, Lee Iacocca, then in charge of Ford's performance department, was contacting Filmer M Paradise, who headed up Ford's factory in Italy. Iacocca wanted to know whether Ferrari might be interested in some sort of cooperation that would enhance Ford's reputation in the performance field. Iacocca did not know that Ford's management had already turned down Ferrari's offer of a deal between the two companies. Enzo Ferrari agreed to open negotiations between himself and Ford.

Enzo Anselmo Giuseppe Maria Ferrari had been born on February 20, 1898 in Modena, Italy: he and his brother, Dino, were the sons of a grocer from Capri, who started a workshop making parts in his home. Enzo had little formal education, and both his father and brother died of influenza in 1916. Enzo himself, then serving in the 3rd Mountain Artillery Regiment, fighting the Germans, nearly died of the Spanish flu in 1918.

Following this, and the collapse of the business that his father had started, Ferrari found himself a job as a test driver with the CMN company in Milan. He was soon promoted to the position of racecar driver, his first race being in 1919 in a local hillclimb. In 1920, Enzo went to the Alfa Romeo racing department – again as a driver – and in 1924 he won the Coppa Acerbo at Pescara. His son was born in 1932 and Enzo named him Alfredo (Dino), after his father and brother.

In 1929 Ferrari realized that his future lay in organization, which he was good at, and he founded the Scuderia Ferrari in Modena that year, effectively the racing division of Alfa Romeo. The Scuderia's emblem, painted each side of the scuttle of the Alfa Romeo P2s and P3s that the team raced, was a prancing horse, the emblem that Francesco Baracca, an Italian flying ace, had had painted on each side of the fuselage of the SPAD fighter he usually flew.

By 1937, the new German teams from Mercedes and Auto Union were beating the older Alfa Romeo P3s, and Scuderia Ferrari was wound up. Ferrari was transferred to head a new factory team racing Alfa Romeo's

cars, now called Alfa Corse.

Ferrari left Alfa in 1939 and started his own company, Auto Avia Costruzioni, or AAC. This was a machine shop, and Ferrari used it to make and supply parts to other racing teams. He also began making milling machines, which proved a profitable exercise. By the end of WW2, Ferrari had relocated his factory to Maranello, to try and escape bombing by the Allies.

By 1947 Ferrari had started his own racing car program, specializing in V12-engined single seat and sports cars, which became very successful, a Ferrari first winning the Le Mans 24 Hour race in France in 1949. In 1952, Ferrari claimed its first Formula One Championship; ironically, defeating Alfa Romeo in the process. Ferrari won Le Mans nine times, including six consecutive victories from 1960 to 1965, and also several F1 World Championships. To pay for the racing cars, Ferrari began selling road car derivatives of his racing sports cars, but this was not his first love: racing was.

During April 1963, a team of accountants and lawyers from Ford descended on the Ferrari factory in Maranello. They took a complete inventory of all of Ferrari's assets, which still exists in Ford's archives, and also closely inspected the factory. Ferrari proposed to Ford a deal, as follows –

- Ford would get exclusive rights and control of the Ferrari name and trademark
- Ford would get the rights to all patents and technical developments owned by Mr Ferrari and his company
- Ford would get 90% of all of SEFAC Ferrari's stock, the parent manufacturing and development company
- The name of the company would be changed to Ford-Ferrari

Another company called Ferrari-Ford would be formed to manage the racing side of things, headed by Enzo Ferrari who would own 90% of the stock with Ford owning 10%. Ford would dictate exactly what racing series Ferrari could take part in, and it would be Enzo Ferrari's responsibility to carry this out. Ford would pay the bills.

Enzo Ferrari at his core was only interested in racing. To pay the bills, he built street cars for wealthy clients but he regarded this as an onerous task and, by 1963, wanted to return to his first love, unloading the road

car side of the business onto another company. The recommendation from Iacocca, upon his return to Dearborn, was that Ford should buy Ferrari.

Accordingly, more teams of lawyers and accountants descended on Maranello to begin negotiations with Enzo Ferrari. The asking price was 18 million dollars; within a week, this had dropped to $10 million.

Don Frey, then assistant general manager of the Ford division, flew to Maranello on May 13 to close the deal but, unfortunately, by this time Enzo Ferrari had had enough of Ford's negotiating tactics. Frey managed to calm down Enzo Ferrari, and indeed, Ferrari gave him a guided tour of the factory, and also took him for several hair-raising rides around the local countryside.

Henry Ford II (left) gives Keith Duckworth of Cosworth, a trophy for designing and producing the Cosworth DFV engine, which can be seen on the far left.

One of Ferrari's employees in the technical department at this time was Mauro Forghieri, who became Ferrari's top designer of the racecars, that the Ferrari team fielded in international competition. In his book *Forghieri on Ferrari*, he wrote –

“Every year, the most important event to Ferrari was the 24 Hours of Le Mans, which had become internationally famous. And Ford, which had attempted to acquire Ferrari in 1963, wanted to beat us in all the endurance races we entered, both sports prototypes and Grand Tourers. It was a clash that became legendary in time, and started with Enzo Ferrari’s refusal in April 1963 to allow the Americans to acquire his company after long negotiations.

“It all started because of the financial difficulties Ferrari faced, especially due to its motor sport program. The factory grew, the brand was established, and the number of road cars produced each year increased. But that wasn’t enough to pay for Maranello’s involvement in the Formula One World Championship and sports car racing. Inside the organization, we didn’t exactly realize what the situation was like, even though all expenditure, no matter how small, had to be approved by the Commendatore himself. So Ferrari could have accepted a partner that committed itself to his company financially, but at the same time giving him a certain freedom, especially in racing.

“Faced with a significant Ford offer the Commendatore agreed to negotiate, but he would never have sold his company to the Americans as one often reads. As Enzo Ferrari explained, it was an agreement, not a sale: perhaps an informal one, assuaging our anxiety caused by the comings and goings of Ford men to Maranello, in the spring of 1963. Even after the transaction, Ferrari would have kept his job.

“But on the day everything was to be tied up, when he was still doubtful, he was told he would be free to make any decision he thought fit to an expenditure limit of 450 million lire a year for racing. Above that, the Detroit executives would have to give their approval. That brought everything to an abrupt halt.”

One of the other problems that arose during this negotiation was that Ferrari did not want Ford to use any other racing team but his own. This would have stopped Ford dealing with Carroll Shelby, and, as it was fully committed to Shelby’s AC Cobra, this would have been a difficulty. As well, Ferrari was becoming very dispirited with the number of lawyers and the amount of paperwork he realized he would have to contend with if he signed the deal with Ford. On May 21, Enzo Ferrari broke off negotiations with Ford; Henry Ford II, or ‘the Deuce,’ as he was known at

Ford, was incensed. His attitude became “if we can’t join them, we will beat them.”

Accordingly, the orders were given …

Henry Ford II was born on September 4 1917. The son of Edsel Ford, and grandson of Henry Ford, who had founded the Ford Motor Company that built the Ford Model T, Henry Ford II was raised against a background of almost unbelievable wealth.

He went to school but left without a diploma as he was caught when he tried to cheat at an exam; he went to Yale University, where he failed to pass his chosen subject, Engineering. He joined the navy in 1941 and was later sent to the Great Lakes Naval Station, which kept him out of seeing any fighting.

Leo Beebe was also in the navy during the war, helping to keep men physically fit in the Gene Tunney physical fitness program. He was posted to Dearborn and, with several other chief petty officers, assigned to a block, to a certain ensign whose name was Henry Ford II.

After the war, Beebe joined the Ford Motor Company, and Henry used him first of all to set up the company’s employee recreation program, and act as a troubleshooter. Helping to close down the Edsel division of the company was one of his tasks.

During his time at Ford, Beebe took leave of absence to look after several public service assignments. First, he became executive vice chairman of President Dwight D Eisenhower’s Committee for Hungarian Refugees. Working out of Camp Kilmer in northern New Jersey in 1956-57, Beebe was in charge of the relocation and resettlement of 33,000 Hungarian refugees in the United States after the Hungarian Revolution of 1956. He then organized the US Center for Cuban Refugees in Miami, Florida.

Later on, in 1969, Ford ‘loaned’ Beebe to head the National Alliance of Businessmen in 1959-1960, at the request of President Lyndon B Johnson. Beebe was asked to find, within six months, 140,000 jobs for the unemployed. Leo Beebe was in charge of a team of 8000 people, and they secured nearly 200,000 job pledges. Beebe was given a Gold Plate Award for service to the nation by The American Academy of Achievement for succeeding in this task.

Previous to this, in April 1964, Leo Beebe had been in Switzerland visiting a Ford dealership. Whilst there, Harold Jones, the European Group Director, called him, and put him on to Lee Iacocca.

At this time, Lee Iacocca was Vice President and General Manager of the Ford division of Ford Corporation. He had achieved this position through his skill in marketing, most notably for his '56 for 56' slogan, whereby, in 1956, he arranged that a customer could buy a new car for 20% down, and then $56 per month for three years. Iacocca had seen that in the early 1960s, Ford's passenger cars had become somewhat staid, and he pushed the idea of a new 'sporty car,' to encourage people to buy Fords rather than imported European cars such as Jaguar and Mercedes. The first new model, known as the 'Mustang,' was introduced nationwide on April 17 1964, and dealerships sold 22,000 examples in the first week following its announcement.

Leo Beebe was offered the position of Special Vehicles Manager at Ford on the telephone, whilst in Switzerland. Iacocca told him the job would include overseeing Ford's involvement in racing, and "some personal relations." Beebe said yes and flew home to Dearborn.

By the end of May, Iacocca had a written proposal in place to start a group whose purpose was to sell high performance cars through a racing program. This became the special vehicles department, and Frank Zimmerman was its first manager.

One of the first people to be attached to this group, probably in view of his previous job with Aston Martin, was Roy Lunn. He had been one of the engineers who had visited the Ferrari factory whilst negotiations to buy that entity had been taking place, and he probably would have headed up the Ford-Ferrari factory if Ford had purchased the Ferrari company.

At the beginning of June, Ray Geddes, who looked after the Cobra program for Ford, Carroll Shelby, Roy Lunn and Hal Sperlich flew to Europe in search of someone who would be able to build a Le Mans contender for them. They visited Charles and John Cooper at their factory in Surbiton, Colin Chapman at his factory in Norfolk, and the Lola 'factory' in Bromley, Kent.

Cooper was soon out of the picture for its single seater racecars were being eclipsed by newer designs by both Lola and Lotus. Colin Chapman was known to have an ego, and Ford didn't want a re-run of the Ferrari

debacle, but Eric Broadley of Lola Cars Ltd was more than happy to enter into a two-year contract with Ford.

Eric Broadley had recently designed a car that he called the Lola Mark VI, and, for an engine, the mid-engined coupe had used a Ford of America-supplied V8 of 4.2 liters. This had proved a good choice, and so the experience necessary to design a 'Ford GT' was already in place in Bromley, Kent.

Furthermore, during talks with Eric, it turned out that he was quite happy that the car would be a Ford, not needing the Lola name to be associated with the proposed new Ford racer, although this would be inevitable once the collaboration was announced. The men from Ford had what they had come to England for, and so departed for Dearborn.

So it was that a short time later, Don Frey, Ray Geddes and Roy Lunn returned to England, signed Eric Broadley to a contract, and also signed up John Wyer, who had headed-up Aston Martin Racing until recently. Aston Martin Racing had won Le Mans, with Carroll Shelby as one of the drivers, in 1959. The other driver with Shelby was Roy Salvadori.

In subsequent discussions between Ray Geddes and John Wyer, Wyer was signed to a three-year contract, his new job being to oversee all Ford racing in Europe, and deal with parts suppliers when the street version of the new Ford GT was announced.

The game was afoot ...

Chapter **2**

The story of the design of the Ford GT40 really starts with the Lola Mark VI GT of 1963, and progresses to the Ford GT40 of 1964. The common thread in both cars was their designer, Eric Broadley.

As Eric never wrote his own biography, a few background facts of his life are useful. He began his working life by training as an architect, and took a job as a quantity surveyor, although he was very keen on motor racing. Like Colin Chapman of Lotus fame, Eric and his brother commenced their careers in this field in 1956 by building, in their spare time, an Austin 7 special (the 'Broadley Special'), powered by the ubiquitous Ford 1172cc engine.

It was immediately successful, and Eric set about building the Lola Mark I, a front-engined sports racing car, the production of which really established Lola Cars as a manufacturer to watch. This car, with a spaceframe chassis and Coventry Climax 1098cc engine, was produced as thirty-five examples over four years. The Lola Marks I to V were single seat cars, ranging from front-engined Formula Junior to mid-engined Formula One cars, fitted with Coventry Climax V8 engines of 1.5 liters.

All of these racecars were produced in a little workshop situated in Bromley, Kent, behind a row of terraced houses. About once every four houses, there was an archway to allow access and, situated over the archway nearest to the Lola 'factory' was hand-painted 'Lola Cars Ltd.'

Frank Lugg, who worked at Lola Cars Ltd in the 'early days' of 1959 remembered –

"Eric Broadley had just the right qualities and temperament to do what he did. Apart from his design ability he was a meticulous craftsman, doing a job quickly to a high standard, but never fussing unnecessarily.

"The old Amos and Rushbrook workshop was a more or less square corrugated iron shed, that had been a garage since 1904. It was bitterly cold in the workshop; seemingly even colder than outside: sometimes, our hands would stick to the chassis tubes in the early morning. Rob Rushbrook employed one or two garage mechanics who often had to work outside in dreadful conditions during this period before the new

workshop was built. We worked at anything that was required; in my case mainly making up chassis components that were then nickel-bronze welded together in the very accurate jigs that Eric made.

"Working for Eric Broadley was really very civilized: he and Rob Rushbrook were even-tempered with a sense of humour (rather sharp in Eric's case). They always asked rather than gave orders, and nobody swore – not even the mechanics.

"We were not paid a lot and had to work extra time, Eric sending me up to Birmingham and Coventry in his Ford van after lunch one day, which meant that I didn't return home until 8pm. I was hungry and anxious to get back, and Eric said his van was never the same again!"

During the latter part of 1962, noticing the trend from front- to mid-engined sports racing cars, Eric designed his ground breaking mid-engined Mark VI coupe, and this debuted at the 1963 Racing Car Show at Olympia.

To try and get the new Lola to the show, Eric is said to have gone 52 hours without sleep, and also suffered a power failure at his workshop. This resulted in the new Mark VI arriving two days after the show opened, and it was far from complete, having a wooden mock-up of the Ford engine installed, minus drive shafts, and with a ground clearance two inches lower than intended in race trim.

Eric Broadley, right, standing alongside John Surtees in the then new Lola factory on the Slough Industrial Estate. (Courtesy Lola Archives)

The body had been designed by John Grayling, and that, together with Lola's track record, saw to it that the new Mark VI GT was declared the star of the show. After the Olympia show, Eric intended that the Lola GT should prove itself on the track as quickly as possible, and the car was readied for a first outing at Goodwood for the Easter Monday race, with Hugh Dibley down to drive it. Time ran out, however, as too much work was required to ready the Mark VI for this date.

The prototype Lola Mark VI GT coupe (chassis number GT/P), featured a monocoque chassis built mainly of steel, the floor having two 'D'-shaped containers to hold on the fuel tanks each side (30 gallons total capacity), and a front tube frame to support the front suspension and radiator. Inside each fuel tank/sill were four formers cast of magnesium, that took the roof structure and door frame attachment bolts. The joints were sealed with a rubber compound to make them fuel-tight.

A tubular frame to support the roof and provide roll-over protection was mounted above the monocoque center section. It was hidden by a fiberglass skin above and another one below it. The Lola Mark VI GT coupe had a very spacious cockpit, capable of accommodating drivers of

up to six feet five inches in height.

At the rear, the engine was supported by extensions to the side panniers, and the rear suspension and Colotti gearbox were hung off the rear cross member/transverse bridge structure. Suspension was by upper and lower wishbones at the front, and top link, reversed lower wishbone and radius arms at the rear. The uprights were cast in magnesium. Koni dampers/coil spring units were fitted.

A Lola Mark I being loaded outside the old Lola works, circa 1959. Eric Broadley is third from the left. (Courtesy Frank Lugg)

The entrance to the original Lola factory in Bromley, Kent: really just an old workshop, behind a terraced house. (Courtesy Frank Lugg)

The outboard-mounted eleven inch diameter Girling disc brakes, with aluminum calipers, were covered by fifteen inch diameter magnesium wheels mounted on center lock hubs. These were 6.5 inches wide at the front and eight inches wide at the rear.

Steering was by rack and pinion from a Saab, with just two-and-a-half turns taking the front wheels from lock-to-lock; the glass reinforced plastic (GRP) bodywork was designed by Andrew Frayling, (designer of the Lotus Elite), and made by Peter Jackson's Specialised Mouldings, based in Upper Norwood. Both front and rear body sections were removable for easy access to the suspension, spare wheel and steering at the front, and the suspension, engine and gearbox at the rear.

The roof was deeply cut away on each side, with the doors, although hinged at the front, providing the ease of entry that normally went with a 'gullwing' arrangement. Between the roof cutaways was a neat little NACA duct that led air into the carburetors.

The new Lola Mark VI on show at the Racing Car Show in 1963, at Olympia. (Courtesy Lola Archives)

In the engine bay nestled the Carroll Shelby-tuned Ford 265in3 (4262cc) engine, that received its fuel/air mixture via twin Bendix fuel pumps to its four downdraft Weber carburetors. This engine's 260bhp was transmitted to the rear wheels via an Italian-made Colotti-Francis type 37 four-speed gearbox, with center-mounted gearshift in the cockpit. This central gearlever selected the gears via Bowden cables, rather than the usual metal rod: an arrangement that was to prove troublesome during the Mark VI's career.

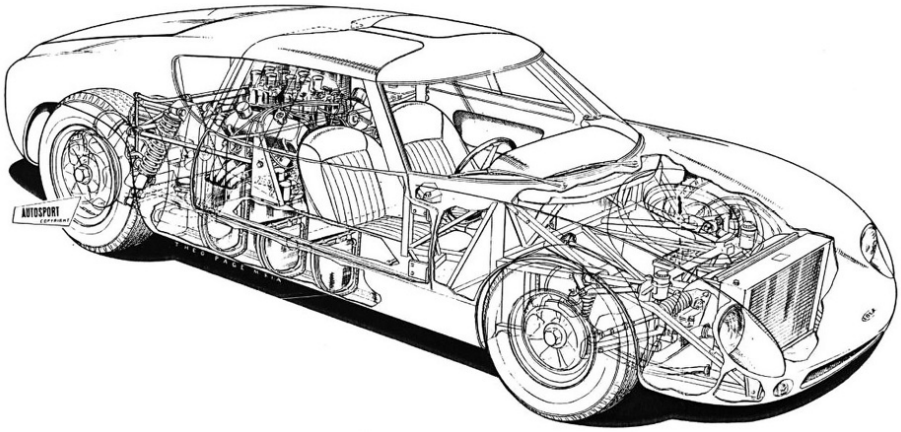
The clutch was a Borg and Beck twin-plate diaphragm type.

With an expected 350bhp at 7000rpm from more highly-tuned versions, performance was considered sensational by the standards of the time.

Height was just 40 inches, exactly that of the later, also Eric Broadley-designed, Ford GT40. Wheelbase was 92 inches; track was 52 inches.

All-up weight was quoted at just 675kg – a mere 1485lb – but the Lola GT weighed in at racetracks at 1550lb. The rules specified a minimum of 1923lb for a car of 3001 to 5000cc, so it must be assumed that the quoted weight was without tires, driver and fuel. Either that, or ballast would have had to be carried!

The shapely rear of the new Lola Mark VI GT at the Racing Car Show at Olympia. (Courtesy Lola Archives)



The Lola GT cutaway drawing by Theo Page.

Almost immediately, the new Lola Mark VI GT showed promise by finishing on the same lap as the leaders at its first race at Silverstone on May 10, 1963, despite having started from the back of the grid. Incidentally, Eric Broadley proved the worth of the Mark VI as a road car by driving it from Bromley, Kent, to Silverstone, in Northamptonshire, and back again after the race.

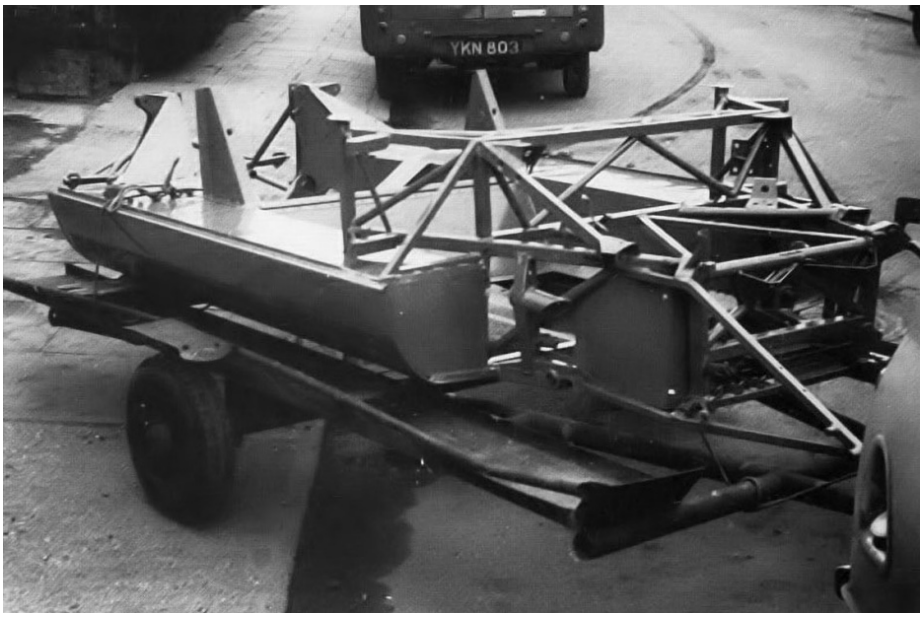
Tony Maggs first drove the new Lola in this race at Silverstone. Maggs

was a last-minute substitute, as John Surtees had been meaning to drive the car, but the Ferrari team manager, Eugenio Dragoni, forbade him to do so at the last moment. Surtees had lapped the car in practice at 1.50:2 the previous day. Due to a lack of practice, Maggs started from the back of the grid, but still managed to finish in fifth overall.

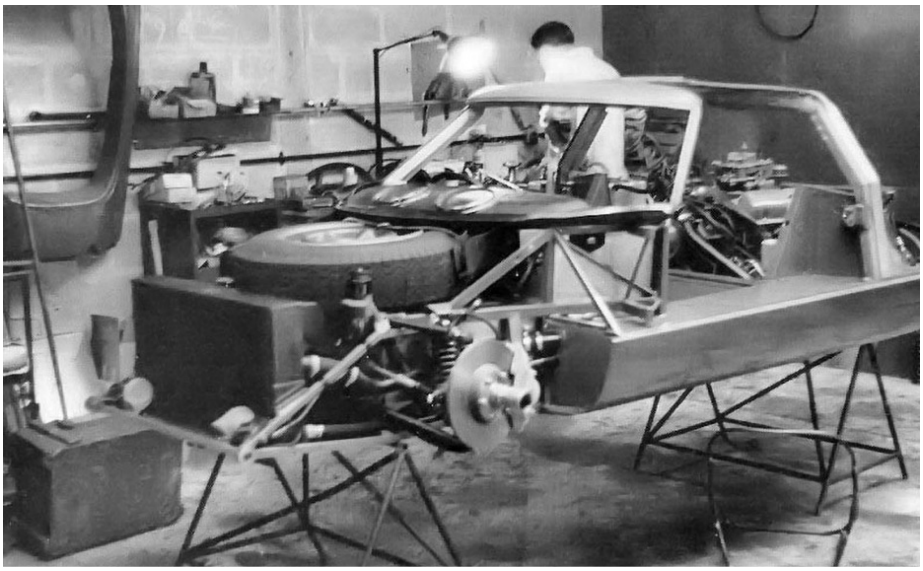
At Nürburgring for the 1000km, showing great promise, Maggs and Bob Olthoff were forced to retire when the wheel nuts loosened and a wheel fell off; then the distributor drive sheared. In-between practice and the race, holes were cut at the front of the rear fenders to allow more air to get to the carburettors. After the car stopped, in the end, Bob Olthoff had to hit a policeman to be allowed to climb the spectator fence, so that he could walk back to the pits!

Afterwards, chassis number GT/P was 'pensioned off' and went to Ford, where it sat around doing nothing until bought by Cobra driver Allen Grant in 1965. He commenced a restoration in 2008 to return the car to 'as new' condition.

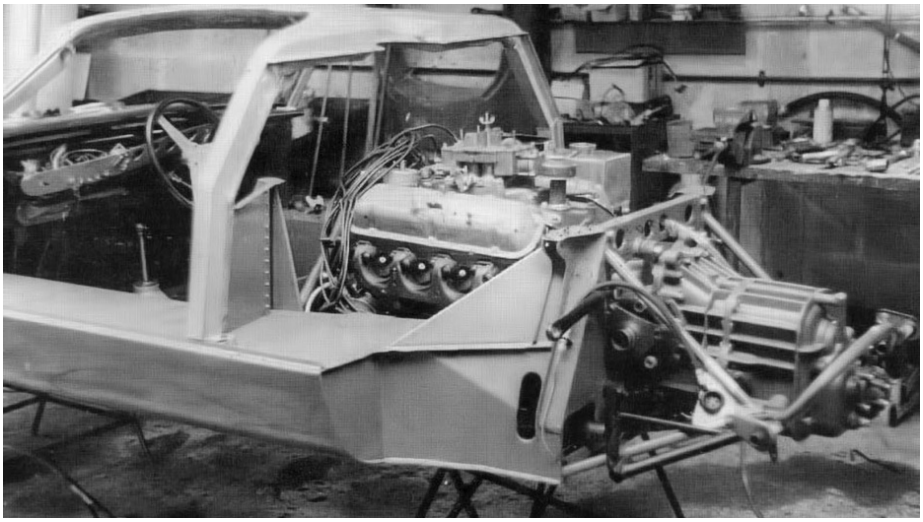
When Eric Broadley drove the next Mark VI to Le Mans, Richard Attwood was to race the car with David Hobbs.



The prototype Lola Mark VI chassis. (Courtesy Lola Archives)



The Lola Mark VI GT being built up in the factory at Bromley, Kent, England. (Courtesy Lola Archives)



The 4.2-liter aluminum engine and Colotti gearbox installed. (Courtesy Lola Archives)

This first production car featured many development changes over the prototype. The fuel-holding sponsons on each side were now formed of aluminum, and the engine was fitted with four downdraft Weber IDA 48s on the 289 (4.7-liter) Ford V8. The engine weighed 506lb, but when you consider the Jaguar XK engine, which had been heavily used by the sports car racers in the late 1950s/early 1960s, that engine had weighed 600lb,

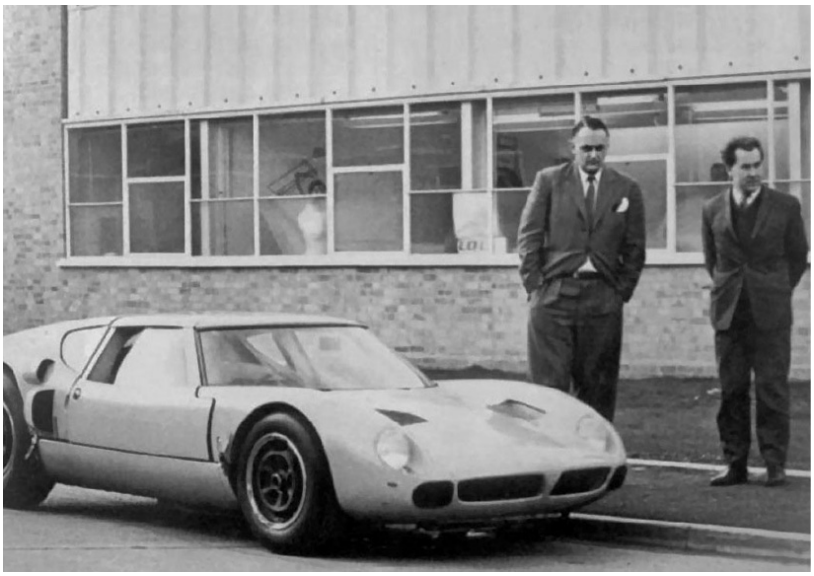
and probably produced no more than a ‘real’ 240bhp in racing form. Even in ‘standard’ tune, the 289 produced 271bhp, and in racing tune it started out at 350bhp …

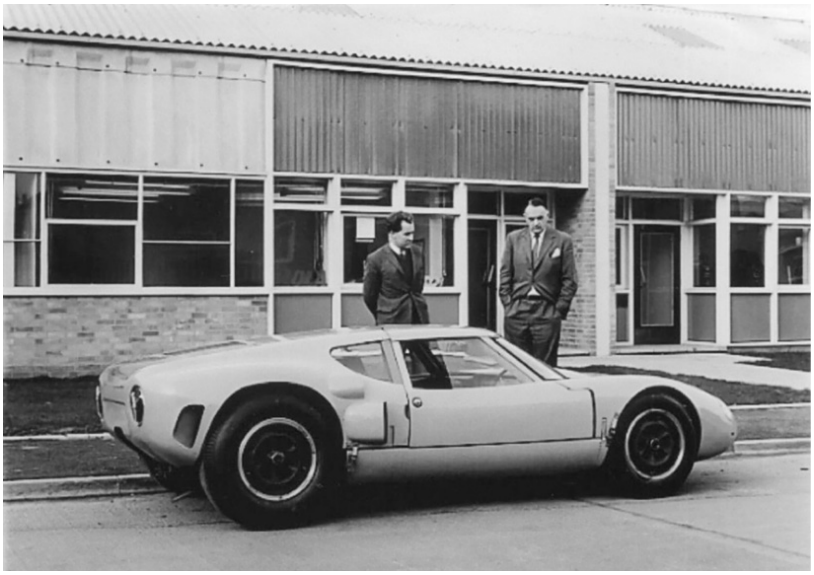
The suspension had also been developed because of what the team had learned at the Nürburgring, and the bodywork redesigned by Peter Jackson’s Specialised Mouldings to meet FIA regulations concerning windscreen and front bodywork height.

However, there had been no time to change the Mark VI GT’s weak point: the Colotti-Francis gearbox. Time had run out for the team, and incorrect gear ratios for the Le Mans circuit were installed. Despite this, and the resultant low top speed down the Mulsanne Straight, lap times were good.

Back at Slough, Laurie Bray installed what became the later GT40’s suspension on the next Mark VI. He recalled this development work, as well as work on the engine, the radiator position, new cooling ducts, a exhaust system and more. Finally, the car had been painted British Racing Green.

For the trip to France, a race car builder from South Africa by the name of Donald Parker offered to lend Eric a hand. This was Lola’s first trip to Le Mans, and Eric later admitted that he had little idea of what was required. Thankfully, Donald spoke French, and a quick call to Le Mans confirmed the basic requirements of a Le Mans race team: food, electric lighting and a marquee to work under. It was decided that Donald would leave for Le Mans ahead of the team, and so with a newly-acquired old Ford Thames van, a marquee, tools, lights and numerous provisions, he set off for the circuit.





Two views of the Lola Mark VI GT outside the new Lola factory on the Slough Industrial Estate. Eric Broadley (on the left in the right-hand photo above), and John Wyer stand behind it. (Courtesy Lola Archives)

Scrutineering was the following day (Tuesday), but the Lola was not yet there, and therefore missing its scheduled slot of early afternoon. That night, Eric sent a telegram to Donald to advise of the problem – Eric, Tony Southgate and the team were still working long into the night to get the car finished – so Donald checked out the lie of the land and struck up a good relationship with the Secretary of the Le Mans race, Raymond

Accat. Raymond advised Donald that he wanted the Lola to enter, and would make concessions to allow it to do so. Donald's good French, and the fact that Raymond knew one of Donald's relatives, helped the situation. Under the Le Mans rules, all cars should have passed scrutineering by 4pm on Wednesday June 12.

That morning, after Tony Southgate had finished hacksawing the front wheelarches, Eric loaded the car onto the Midland Racing Partnership transporter for the team to take across the English Channel between Ramsgate and Dunkirk. However, fog delayed the crossing, and the transporter was severely delayed.

To get around the delay, while the transporter had no alternative but to go by sea, Eric decided to take the Lola entry by air ferry. Heart in mouth, Eric watched as a ferry employee drove the Lola onto the plane, mastering the Colotti box and parking it with precision. Eric later said: "We should have taken him on as a race driver on the spot!"

From Dunkirk, Eric himself drove the Lola entry a further 280 miles to Le Mans, with team mechanic Don Beresford in the passenger seat, and a toolkit on Don's lap. On the French leg of the journey, there were problems with the gear change, which did not bode well for the race, and Eric and Don had to undertake running repairs when the suspension they had adjusted for the road came loose, further delaying their arrival.

The Mark VI appeared made for the Nürburgring, but teething troubles forced it out. (Courtesy Lola Archives)

4pm arrived and still the Lola had not shown up. Donald negotiated numerous extensions every half- hour, and early on Thursday morning Eric and Don finally arrived with LGT1. Getting the GT to Le Mans was one thing, but the scrutineering, let alone the race, was still to come. Late on Thursday morning, two days after the scheduled time, Eric drove Lola's own car to the scrutineering bay.

The Lola had never been through such a process, and this was an anxious time for all. A while later, a dejected and sleep-deprived Eric Broadley returned to the team. According to Don Beresford, Eric said nothing, but ordered a stiff drink, which was unusual for him. Downing the drink, he at last spoke: "The car's failed scrutineering; it's all over."

The list of 'failures' was not long, but looked as final as Eric's words had sounded. The main problems were lack of rear vision because of the huge central funnel intake, inadequate rear bodywork around the rear wheels, and fuel tanks that were too large.

Enter Lola volunteer Donald Parker again, who, with the blessing of Raymond Accat and Jacques Finance, head of the ACO, gained the team an extension of three hours. This was not much time, but the team was now used to achieving the impossible.

The Lola Mark VI GT at Le Mans. Note the painted-on 'trade plates.'
(Courtesy Lola Archives)

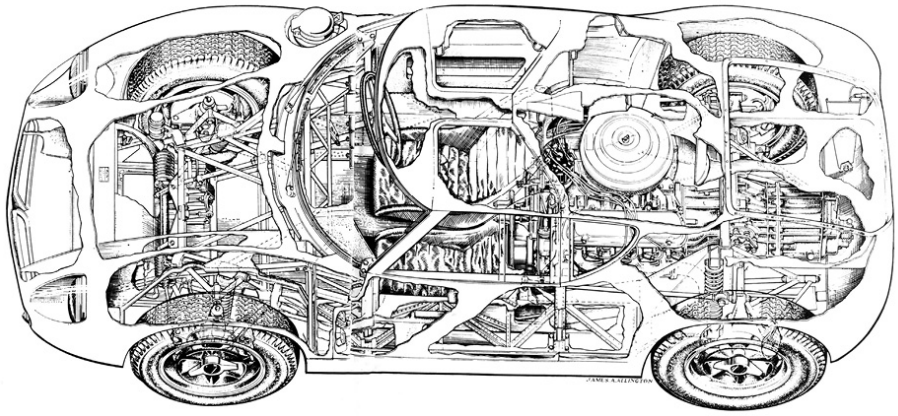
Key to overcoming the problems was Specialised Moulding's Peter Jackson. If Eric had not invited Peter along as part of the team, he would have just packed up and gone home. But Peter was there, and he soon set to work with his expert use of fiberglass mat and resin.

The team removed the central tunnel, and they and Peter set about fabricating a lower collection box in fiberglass and aluminum. Instead of feeding air to the carburetors from the roof, this box would now be fed by air piped from a vent on the left rear of the car, resulting in significantly improved rearward vision. At the same time, the two Dons began fabricating metal rear wheelarch extensions, which were bonded to the bodywork and were almost unnoticeable.

Finally, the fuel tank problem was overcome by inserting numerous plastic bottles through vents in each tank.

As it turned out, all of this work was not quite completed within the allotted three hours but, when the scrutineers visited the Lola marquee, they were so impressed by the progress made in such a short time, and the organizers so anxious to have a larger field of cars, that a little more time was granted in order to finish the job. Shortly afterwards, a tired and unshaven Eric Broadley was shaking hands with Jacques Finance, and Eric

even found time for a smile.



Cutaway of Lola Mark VI.

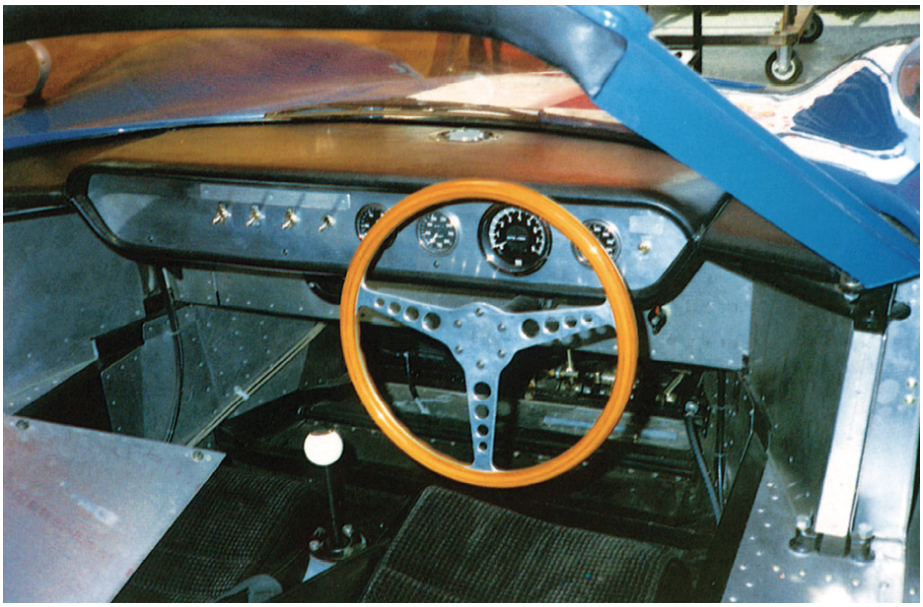
The Lola Mark VI GT, when raced by John Mecom's team in America. (Courtesy Lola Archives)

After a hectic round of changes, the Lola Mark VI made it just in time for the start of the 1963 24 Hours of Le Mans. (Courtesy Lola Archives)

The Lola GT of the Mecom Racing Team early in its career. (Courtesy Lola Archives)

After these frantic last-minute changes, the Lola took the start and was up to 12th by midnight. Sadly, it crashed out of the race after the drivers complained of difficult gear selection in the early morning hours. David Hobbs: “That Lola was fast! Certainly, no one passed us on the straights. Trouble was, the gear selection was a weak point and, at times, I could select only two gears. In the early morning, I missed a gear and spun, hitting a bank … and that was the end of our Le Mans.”

Chassis number GT/1 was later sent to Alf Francis in Italy to have the gearbox linkage converted to shift rod operation, thus doing away with the troublesome Bowden cable operation. Francis then sold the car to James Whitmer of Oklahoma in 1979. The car has survived and undergone restoration, and has been raced successfully in vintage events in recent years.



Interior of the Mecom Lola Mark VI GT when under restoration. (Author's collection)

The 'other' car intended for the 1963 Le Mans race, GT/2, had been sold to John Mecom, who became Lola's agent in America. Because of late completion, the car never actually ran at Le Mans (although it was in the Mecom transporter). Instead, it debuted at Brands Hatch for Mecom in the 1963 edition of the Guards Trophy in August, with Augie Pabst driving. The Ford engine blew up within four laps.

To Ford's disgust, Mecom replaced the 289 Ford with a bigger Chevrolet small block, a Traco 327in3 affair. Augie Pabst drove it again at Nassau and easily won two races (including the Tourist Trophy.

The Chevrolet Corvette 327in3 engine was always considered THE engine to insert in the Lola GT, being bigger and more powerful than the Ford 289. Indeed, John Mecom's car, that Augie Pabst later drove, had such a unit fitted. Augie Pabst: "The Ford 289 was a good engine, but a well-tuned Chevy was undoubtedly more powerful!"

John Mecom later recounted that he was summoned to a top secret meeting with Ford, when it learned he had bought the second Lola GT Coupe built. Ford had, by that time, contracted with Eric Broadley to build the GT40, and did not want any of the Mark VI coupes to go anywhere else except to Ford!

CONFIDENTIAL

Ford Motor Company — FORD DIVISION

OFFICE OF P. F. LORENZ
1963 SEP 12 PM 2:13

Intra-Company Communication — GENERAL OFFICE

September 12, 1963

To: Mr. P. F. Lorenz

cc: Mr. L. A. Iacocca

From: F. E. Zimmerman, Jr.

Subject: Mecom Racing Team

The purpose of this communication is to outline the current status of our discussions with John Mecom, Jr.

As you know, in early July the Division entered into an agreement with Eric Broadley, designer of the Lola Car, to work exclusively with us on the overall development of a Ford G.T. vehicle. Prior to this arrangement with him, Mr. Broadley had accepted an order for a Lola Car from John Mecom and was at the time in the process of completing this vehicle. Since this was the only Lola vehicle ever produced, it was felt that it would be beneficial to us to endeavor to make an arrangement with Mecom that would permit us to re-purchase this car to use in connection with our G.T. development work. Such an arrangement was discussed with Mr. Mecom at the time of the Milwaukee Lotus Race on August 18. Mr. Mecom seemed amenable to such an arrangement, providing:

1. That we would agree to sell him the first Ford G.T. to be placed in the hands of a private owner.

2. That we would arrange with Colin Chapman to accelerate delivery of a Lotus 19B which had been tentatively ordered by Mecom from Chapman with the vehicle to be powered by a Ford 289 high performance engine.

A firm agreement based on these terms was not reached in Milwaukee since we were in no position to commit Colin Chapman, producer of the Lotus 19B, to a firm delivery date. It subsequently developed that the 19B car requires a "dry sump" engine design which our Engine and Foundry Division is now working on. E & F plans to ship one 19B dry sump engine to Chapman for installation in the first Lotus (destined, we understand, for Dan Gurney) by October 1. On this basis, it was apparent that a dry sump 19B for Mecom would not be available until quite late this year and then only depending on Chapman's wishes. At the meeting in Milwaukee, Mr. Mecom was requested to develop the complete details of an agreement which he would like to enter into with us.

On August 30, the writer was contacted by Tom Tierney, Southwestern Regional Public Relations Manager, indicating that, if Mecom were to sell us the Lola, he would want the Ford G.T. in April or May of 1964 in order to have the car during a portion of the 1964 racing season (Mr. Tierney having been contacted by John Mecom on this point). Mr. Tierney was advised that we would talk with

Mr. Mecom directly and indicate to him that such a delivery was highly improbable since our own prototype testing would still be underway and that more than likely the Ford G.T. would not be able to reach him until much later in the year. At this point, I talked with Mr. Mecom and indicated this to him at which time he said that he felt Ford had interceded with Lola and was, in fact, delaying shipment of the Lola Car to him. We advised that this was not true and called England to ask them to expedite shipment of the Lola to Mecom since we could not reach agreement satisfactory to Mecom with respect to G.T. delivery date. We also conveyed that, while we had no firm control of a 19B delivery date, it was apparent that the 19B delivery to him with a dry sump Ford Engine would be delayed to possibly December of this year. As a result of our expediting shipment, the Lola was sent to Mecom in time for testing at the Elkhart, Wisconsin Sports Car Race.

On Monday, September 9, immediately following the Elkhart Race, Mr. Mecom contacted this office and asked the status of our negotiations. We stated that we had expedited shipment of the Lola to him in keeping with his desire to have the car on hand for Elkhart; we asked what his reaction would be to our providing a 289 high performance engine for installation in the Lola (it now has a Chevrolet engine) and we re-affirmed that, while we would not be purchasing the Lola from him, he would still be one of the first private sponsors to get a Ford G.T. when it is available. Mr. Mecom indicated that he would welcome a high performance 289 engine for installation in the car and steps have been taken to ship this engine to him with the engine to arrive within the next ten days. Mr. Mecom was also advised that I would discuss with Mr. Chapman expediting delivery of a Ford-powered 19B later this year for Mecom.

Following Mr. Jack Roach's call to Mr. Miller, I talked to Mr. Roach by phone, reviewed the background outlined above and was surprised to learn that Mr. Mecom had given Mr. Roach the impression that General Motors was planning to purchase the Lola. While this obviously cannot be verified, it seems surprising that Mr. Mecom would release the car since throughout our entire discussion the point of critical consideration seemed to be the question of having a car to race with. In fact, the point where our discussion broke down stemmed from our inability to "an acceptable delivery date" of the Ford G.T. to Mecom. If, in fact, General Motors is planning to purchase the Lola, it would be my recommendation to re-open discussions with Mr. Mecom and intercept the transaction by buying the car ourselves. Mr. Roach also indicated that Mr. Mecom expressed the desire to secure an aluminum block 1964 Indianapolis Ford engine. I advised Mr. Roach that these engines were in critical short supply and that we would not be able to make a commitment to Mr. Mecom along these lines.

I have endeavored to talk to Mr. Mecom by phone today, but have been unable to reach him as his wife is in the hospital. As soon as we can, we will talk with Mr. Mecom and restate our reasons for not being able to reach an

Ford Motor Company FORD DIVISION

Intra-Company Communication GENERAL OFFICE

- 3 -

agreement on the purchase of the Lola Car and offer further assistance in the form of providing Ford power plants for his racing cars with the exception of committing a 1964 Indianapolis Engine.

Frank E. Zimmerman Jr.
Frank E. Zimmerman, Jr.

The letter from Ford confirming the date of negotiations with Eric Broadley for design of the GT40, and of Ford's dealings with John Mecom over his Lola Mark VI GT, and his willingness to buy an early GT40. (Courtesy Lola Archives)

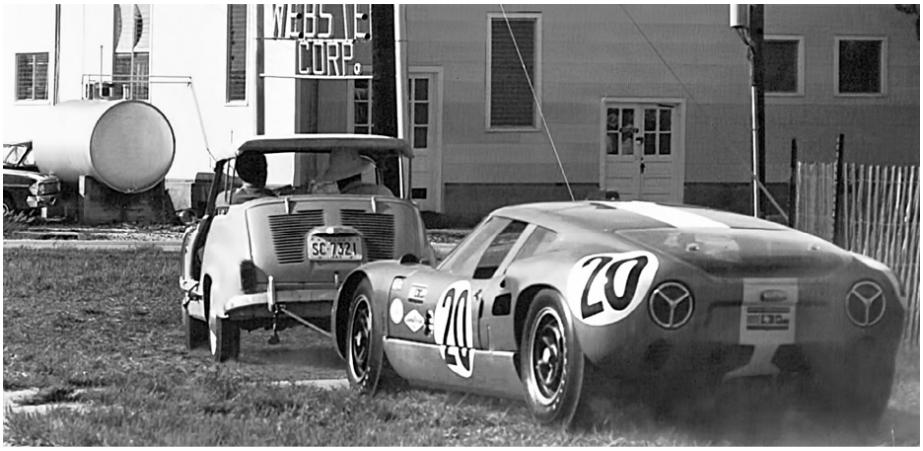
In 1964, Walt Hansgen and Augie Pabst took part in the Sebring 12 Hours with the little coupe, but the engine blew when the timing went out. Augie Pabst said: "We didn't do any testing with that Lola. If only we had! It was a great little car and its only real problems were with the engine, so if we'd had a spare weekend to sort the niggling problems, we'd have won a lot more races!"

As we have seen in the previous chapter, the Ford Motor Company of Dearborn, Michigan, after failing in its bid to buy Ferrari, had been looking for a way to win the Le Mans 24 hour race as a part of the 'total performance' program in the early 1960s. Seeing the Mark VI GT, Ford offered Eric Broadley a two-year contract to redesign the Lola Mark VI, with aid from Ford.

Ford sent over Roy Lunn and three other engineers – Ron Martin, Chuck Mountain, and Englishman Len Bailey – to work with Eric and Lola's few employees in early July 1963. The Lola Workshop in Napier Road, Bromley, was very small, and so John Wyer, who had been the manager of the Aston Martin racing team, and now worked with Ford, looked around and secured one of the new factory units on the Slough Trading Estate, to

be known as Ford Advanced Vehicles (FAV).

Roy Lunn was himself an Englishman who had been moved from Ford of Great Britain to Dearborn, after working at Ford GB for some time. He had been trained as a jig and toolmaker, and also took some design studies before becoming a pilot in the RAF.



How ignominious! The John Mecom team-run Lola Mark VI GT being towed away after Sebring. (Courtesy Lola Archives)

After the war, in 1946 he had gone to AC Cars of Thames Ditton, but left after a year and moved to Aston Martin, where he helped design the DB2 that John Wyer, as racing director, used to win several races with the team. In 1949, Lunn moved again, this time to Jowett, becoming chief designer, and was involved in the first plastic bodied cars. Next was the Ford Motor Company where Lunn started a research centre in Birmingham. There, the first prototype of the Ford 105E Anglia was designed, and Roy Lunn then moved to Ford's main plant in Dagenham, where he became the product planning manager on the Anglia's production line.

Lunn emigrated to America in 1962, and helped develop what became the Ford Mustang. Now, under orders from Ray Geddes and Don Frey, he was sent back to England to oversee the design of the new Ford Sports-prototype.

Laurie Bray, now long retired from his position as Workshop Development Manager, remembered: "I started working at Lola in September, 1963. Prior to that, I had worked at Aston Martin, on the

racing side under John Wyer. I looked after John Ogier's Aston Martin DB4GT Zagato that Jimmy Clark drove and also the John Coombs' car for Roy Salvadori. Jean Kerguen's car was also works-supported by us too. I helped with the development and maintenance of the 'Project' cars also: the 212, 214 and 215.

"When Aston Martin withdrew from racing, Don Beresford, who worked with Eric Broadley (as well as Rob Rushbrook), told him that I might be available to work for Lola, so Eric invited me to Bromley for a chat. When I went to Bromley (which was halfway across London from where I then lived, in Sunbury on Thames!), Eric asked me if I knew anyone else who might be available, and I mentioned Aston Martin racing mechanics Andy Prescott and Terry Hadley, who also came to Lola to work.

"In those days, Lola's workshop in Bromley was just big enough to hold two cars, and two to three machines. There was a single paraffin heater in the middle of the shop, a bucket of water to wash your hands in, and a toilet!"

The first GT40, X40-101. (Courtesy Ford Press, UK)

Ford of America had no corporate identity in Britain. Although Ford of England was a wholly owned subsidiary, it was established as a separate company, so its books, budgeting and registration couldn't be used by

Ford of America, unless it was a client and charged accordingly.

Ford of America's contract was with Lola Cars Ltd, and when Lola moved from Bromley to the new factory on the Slough Trading Estate, it was Lola Cars Ltd that occupied the building and not Ford of America. Ford also used Lola's accounts and banking facilities to finance whatever was purchased in the UK, and to pay the Lola workforce.

Laurie Bray: "When the Americans from Ford came over, they were, to put it mildly, astonished to find Eric operating from such a small base. Roy Lunn invited me and Andy and Terry to the Palace Tavern across the road from the shop, and apologized to us for having to operate from such a small place when working for Ford. Soon after that, we moved to Slough."

Where design of the Ford GT40 was concerned, Eric Broadley was the main man, assisting Len Bailey, who was to figure strongly in racing car design in the future, particularly with JWAE. There was also design input from Roy Lunn.

The X40 (as it was first known within the factory) was very much based on the Lola Mark VI.

As a basis, the steel monocoque was modeled on that of the Lola Mark VI GT, having a sub frame ahead of the front bulkhead, upon which was mounted the radiator and front suspension, composed of coil spring and damper units between the upper and lower wishbones/A-arms. These held the top and bottom of the uprights, to which were bolted the disc brakes. On each side of the cockpit, the rocker panels/sills were made up of rubber sealed box sections, which were the fuel tanks.

Behind the cockpit were fabricated sponsons on each side, and on these were mounted the rear suspension, that consisted of a single top link and lower wide-based wishbone, each connecting to the uprights that contained the 11.5 inch diameter Girling disc brakes, with driveshafts going to the four-speed and reverse Colotti transaxle. Coil spring/damper units and trailing arms completed the rear suspension. Borrani wire Wheels of 15 inch diameter were fitted, and the engine and transaxle were mounted in between these sponsons.

The engine was an aluminum version of the unit that powered the Ford Fairlane sedan, and was a 90 degree V8, with four downdraft Weber carburetors. It was claimed to develop 350bhp at 7200rpm.

Bodywork, somewhat different to that of the Lola Mark VI GT, was

again made in fiberglass, to a design evolved by Ford at Dearborn, using its computer.

Ron Martin built the first bodies, and then Phil Remington, a master fabricator, oversaw engine installation.

The first five Ford GTs were built by Lola Cars in the new premises on the Slough Trading Estate. These cars carried a very simple chassis tag, a metal strip stamped with just 'GT/101, GT/102,' etc. Unfortunately, shortly after the first cars were designed, Eric Broadley and Roy Lunn fell out over the latter's insistence on the car's monocoque chassis being built of steel, instead of aluminum, as well as Eric objecting to the shape proposed by Roy Lunn, believing that the car would be un-aerodynamic at speed, which would lead to dangerous instability at certain locations, such as the middle to end of the Mulsanne Straight at Le Mans.

Ford's computers had assured design staff that all was good in the aerodynamic department, but Eric simply did not believe these results, and he was proved right at the Le Mans test days … Eric was ready to walk out by May of 1964, barely a month after the first prototypes ran at Le Mans. But he had a two-year contract, and was but ten months into it. He agreed to stay until after Le Mans.

Eric didn't want to move out of 'his' new factory, but he had given up the old Lola works at Bromley, so what was he to do? John Wyer then secured the unit next door to him for the new 'Ford Advanced Vehicles' company and some equipment in August 1964, plus he also made sure that the Lola books had been straightened out by Ford, that, up until that point, had not put a lot of cash into the program. Instead, Ford had used all of Eric's money on a promise to make good.

On the subject of steel versus aluminum for the monocoque chassis, Eric Broadley could not understand why Roy Lunn wanted it made of steel: aluminum was a much lighter material, and weight was what counted in a race car. Roy Lunn saw things differently; he foresaw the GT40 – what the new car was called – being sold to the public, and steel was a much stronger material, able to withstand the vagaries of the various climates in which the car would run. '40' was the distance in inches from the ground to the top of the sleek coupe's roof.

The first five Ford GTs were built by Lola under contract to Ford in the period March to June '64.

Laurie Bray: “The Ford GT40 was … heavy. It did have a very nice engine, though, that aluminum 4.2-liter V8 was excellent. That went into all the early GT40s before Ford employed the Cobra’s 4.7-liter engine.

“After the GT40/Lola contract was finished, Ford did ask Terry, Andy and I to go and work for them, but we declined – Eric was a great Innovator, even if he sometimes didn’t understand how to make something work! That cable-operated gear change in the Mark VI is a case in point: it never worked properly.”

Where the engine was concerned it had been intended to use the four overhead camshaft Ford ‘Indy’ V8 engine. However, this was a bulky unit, and difficult to fit into the engine bay of the GT40. It had been designed for the Indianapolis 500, where it produced all its power at the top end of the rev range, therefore making it unsuitable for road racing, where torque, and the ability to pull through a wide rev range, would be an advantage. The aluminum 4.2-liter V8, based upon the engine used in the Ford Fairlane compact car, was a much better solution.

Back in California, Ken Miles had been promoted to Shelby’s Competition Manager for 1964. One of the new jobs that Carroll Shelby was to take on was to replace Ford Advanced Vehicles in England with development and racing of the new Ford GT40 later that year. Ken was in the right place at the right time.

Chapter 3

Testing by the new Ford regime began at Brands Hatch in August 1963, where 'shake down' laps were run to ensure that everything was properly tightened so that nothing would fall off. In reality, this was one of the three Lola Mark VIs built, modified with newly-designed suspension.

One week later the new team went to Goodwood, where Bruce McLaren drove the car, as Ford had hired him as a test driver. The fuel system malfunctioned, and Phil Remington remembered sitting in the car with Bruce, holding a tank of fuel, a pipe from it leading back to the carburetors ...

The team next went to Snetterton, and then, as winter approached, moved its operation to Monza, near to Maranello in Italy. There was talk of shadowy figures with stopwatches lurking under the trees at the Lesmo curves ...

The first new car was finished in April 1964, and was immediately flown to New York where it appeared at a press conference. Ten days later the second car was finished and taken immediately to the Le Mans circuit on April 16 for 'test day,' where every entrant had a chance to run at the track and sort out things such as correct gear ratios and suspension setup for the race itself.

At Le Mans, the two cars were driven by Jo Schlesser, a Formula One driver, and Roy Salvadori, a very accomplished English driver, who, together with Carroll Shelby, had won Le Mans in 1959, in an Aston Martin DBR1, run by the works team, then headed by John Wyer.

The main problem with the new GT40s turned out to be aerodynamic, just as Eric Broadley had predicted. At top speed on the four-mile long Mulsanne Straight, the rear of the car was lifted by the airflow, and rear tire grip was severely reduced as a result. So much so that the best lap time on that first morning of testing of a GT40 was 4:21: this, whilst John Surtees in a works-run Ferrari 330P of four liters posted a 3:45.9, and, later on, Ludovico Scarfiotti in a smaller capacity 275P of just 3.3 liters achieved 3:43.8 ...

John Surtees was, at the time, Ferrari's fastest driver. Born in February 1934, Surtees had been a race winner on motorcycles when younger,

becoming World Champion on 500s. He won the title four times: in 1956, then ’58, ’59 and 1960 with MV Agustas.

“Il Grande John,” as he came to be known by Enzo Ferrari, had then moved over to car racing in 1960, driving for Lotus, and was second overall in only his second F1 race. In 1961 and 1962 he was, respectively, in a Cooper and then a Lola F1 car before signing for Ferrari in 1964, and winning the World Championship in that year for the factory. As part of his agreement with Ferrari, he also drove the factory’s racing sports cars.

Ludovico Scarfiotti was the son of an Italian Member of Parliament, and nephew of the president of FIAT, Gianni Agnelli. He began racing in 1953, and won his class in the Mille Miglia of 1956. He joined the Ferrari works team in 1960, and in that year’s Targa Florio was fourth. He then left Ferrari and raced for OSCA and the Scuderia Serenissima but was back with Ferrari in 1962. By 1963 he was a star, having won the Le Mans 24 Hours in partnership with Lorenzo Bandini, as well as the Sebring 12 Hours.

Later on that morning at the Le Mans tests, it started to rain and Schlesser lost control of his GT40, crashing it hard at speed whilst going down the Mulsanne Straight. Schlesser walked away but the GT40 was very badly damaged. The next day, rain still falling, saw Roy Salvadori have an ‘off’ at the slow Mulsanne Corner at the end of the straight. Although damage was relatively slight, the team decided to call it a day and return to Slough.

The first GT40 just before it was flown to New York. Standing, from left-to-right, are John Wyer, Eric Broadley and Roy Lunn. (Courtesy Graham Robson)

One of the improvements that the team had managed to make to the new GT40s was to fit a 3 inch high spoiler across the back of the car that protruded above the tail, and this certainly helped to cure the car's waywardness when traveling at speed. Although it helped prevent lift at the rear end of the GT40, it did nothing to help do the same at the front axle of the car, and drivers certainly felt the steering lighten at top speed ...

It later turned out that Ford had tested a GT40 in the wind tunnel at Dearborn; with the original shape GT40, as tested at Le Mans in 1964, there was lift of 350lb on the front axle, and 320lb at the rear. By 1966, that spoiler had become four-and-a-half inches high, and a new, Len Bailey-designed nose had added 8mph to the top speed, making the car much more stable at high speed.

The GT40's first race was at the Nürburgring on May 31 1964. Just one

car was entered, to be driven by Phil Hill and Bruce McLaren, both experienced long-distance racers.

Phil Hill was a conundrum. He grew up as part of the hot rod craze in Southern California, but then went to England to serve his apprenticeship at the Jaguar factory, before returning to America and swiftly being recognized as the driving talent that he was. Not at all an aggressive man, he won the F1 World Championship for Ferrari in 1961, and also won the Le Mans 24 Hours and Sebring 12 Hours three times each. By 1964, he was a very experienced long-distance driver.

Bruce McLaren had been a cripple when young, suffering from Perthes disease and, as a boy, had spent months having a shortened leg stretched to match its companion. Overcoming these problems, Bruce had raced from the very early age of 14. His father owned a car repair shop in New Zealand, and built, with Bruce, a modified Austin 7 Ulster that Bruce raced with success before graduating to faster cars.

The first GT40, being shown to the press. (Courtesy Ford Motor Company, John S Allen collection)

Bruce made his way to England, and was the youngest F1 driver to start a race when he became a works driver for the Cooper Car Company in 1959. At age 22, he won the US Grand Prix. Leaving Cooper in 1965, Bruce

founded his own car building company, and went on to dominate the Can-Am series for racing sports cars.

The northern section of track at the 1920s-built Nürburgring circuit – the 'Nordschleife' – is 14.2 miles long. There is also a 'Südschleife,' a shorter southern section, but this was not used for the 1000 kilometer/620 mile race that counted towards the World Championship for sports cars that year.

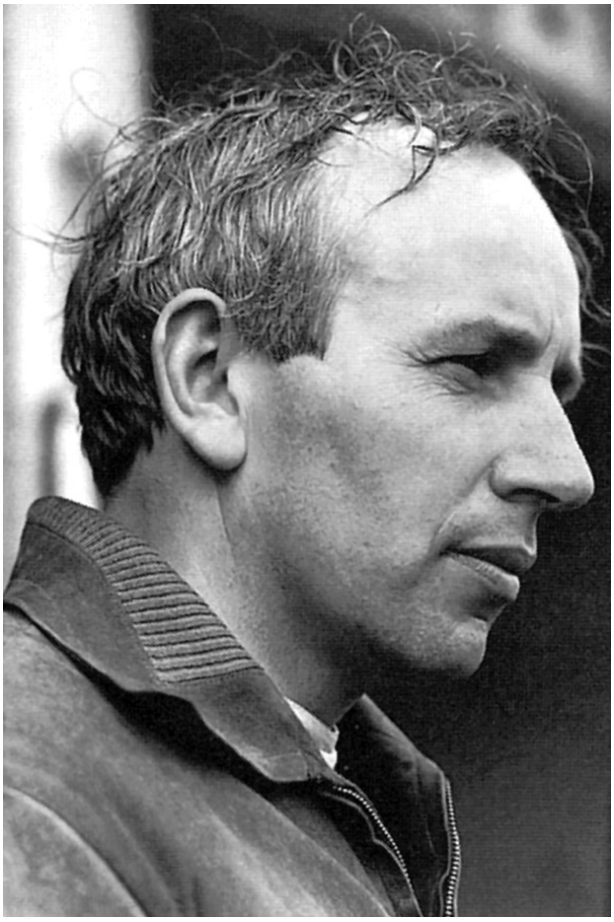
After sorting out and installing the proper gear ratios, Phil Hill posted a time of 9:04.7, second only to John Surtees who, in his works-entered Ferrari, had posted an 8:57.9. Hill got into the sleek coupe, fastened his safety belts and started.

Surtees was ahead of him at the end of the first lap by 21 seconds, but then the other works-supported Ferraris – those driven by Graham Hill and Ludovico Scarfiotti – overtook Phil Hill. After 11 laps, Phil Hill stopped to change with Bruce McLaren, still holding fourth place. Four laps later McLaren pulled into the pits to retire, a rear suspension mounting having failed.

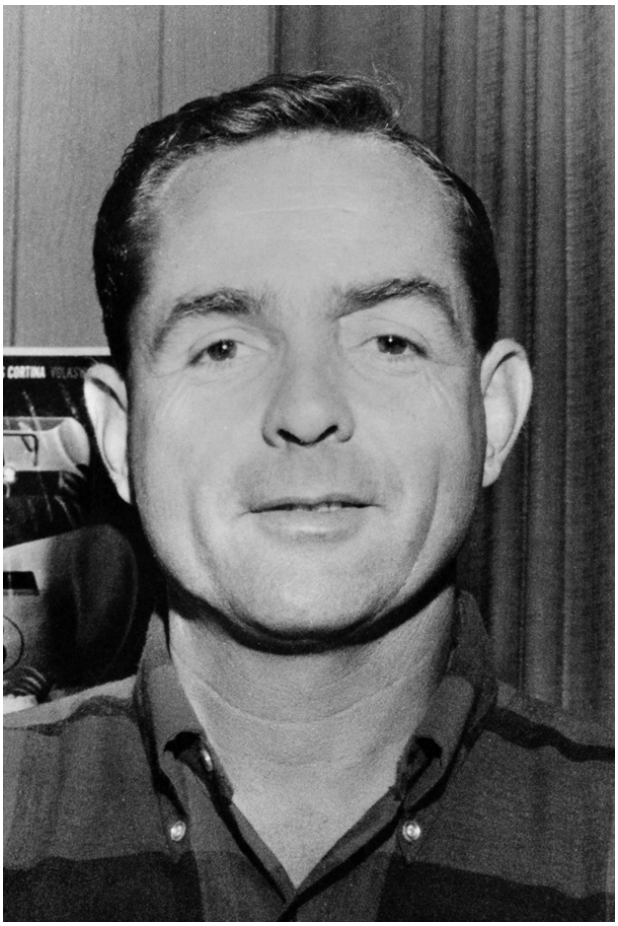
Graham Hill, (left), pictured whilst testing an early Ford GT40. (Courtesy Graham Robson)

The Le Mans 24 Hour race took place on June 30-31 1964, but cars had to be there by the beginning of the week for the tortuous process of scrutineering, to ensure that they met all the rules. This meant that John Wyer's team had to get back from Germany, ensure final preparation of three GT40s, then transport them across the channel again and on to Le Mans. This probably meant they had as little as ten days in which to prepare the cars.

The drivers chosen by Ford for this first works effort were Phil Hill/BruceMcLaren in one car, Jo Schlesser and Englishman Richard Attwood in the second, and Richie Ginther/Masten Gregory in the third. They drove GT40s numbers 102, 103 and 104: the second, third and fourth cars built.



John Surtees. (Courtesy Lola Archives)



Phil Hill. (Courtesy Historic Images Outlet)

The Ford drivers were up against four works Ferraris, driven by John Surtees and Lorenzo Bandini, in a 330P (for Prototypes); Umberto Maglioli and Giancarlo Baghetti, the only man to win his first Grand Prix (!); and Ludovico Scarfiotti and Englishman Mike Parkes. Parkes was the son of the Chairman of the Rootes Group in England, and had begun racing in the mid-1950s. He had raced MGs, Frazer Nashes, and Lotuses, before racing for the English Ferrari distributor Maranello Concessionaires in a Ferrari 250GT Berlinetta. In that year also, he had shared a 250 Testa Rossa at Le Mans with Willy Mairesse, and they had finished in second place. The final works Ferrari was driven by Jean Guichet, a wealthy and successful driver of several of his own Ferraris, and Nino Vaccarella, an expert in the Targa Florio of Sicily, where he lived. He was sometimes referred to in the press as a teacher and sometimes as a lawyer.

The latter three pairings were in 275Ps; a slightly smaller-engined

version of the 330P.

One of the two Ford Motor Company-entered GT40s at Le Mans in 1964. Although it didn't finish, this example, driven by Phil Hill and Bruce McLaren, led the race early on and showed its speed. (Courtesy Ford Motor Company, John S Allen collection)

The 330P had itself been developed from the 275P, by re-engining a 275P of 3.3-liters, with the larger 4-liter engine, hence the nomenclature 330P: 330cc being the volume of each of the V12's cylinders. These Ferrari sports-prototypes, whilst the class of the field in 1963-4, were actually quite basic in design. They used a chassis made of steel tubing, as compared to the GT40's monocoque chassis, so their torsional rigidity did not match the GT40's. However, they enjoyed great reliability, particularly in long-distance races, due to Ferrari's reliance, since 1947, on the V12 engine format, and also because of the experience that SEFAC, the factory Ferrari team, had in racing them over the years.

Ferrari's chief engineer during these Ferrari-Ford battles was Mauro Forghieri, a talented young engineer who worked at Ferrari's factory from 1960 to 1987 (his father had worked for Ferrari from the 1930s). Mauro Forghieri studied engineering at Bologna University, after graduating from the Alessandro Tassoni High School of Science.

Originally, he had intended to become a designer of aircraft engines, but, in 1957, became an intern at the Ferrari factory, studying tube frame construction in the car chassis. He graduated from university in February 1959, and went to teach at a school for technical experts in Reggio Emilia, which he enjoyed very much. Towards the end of 1959, Enzo Ferrari, via Forghieri's father, invited him to return to the factory, and Mauro Forghieri re-joined the Ferrari factory workforce in January 1960, under Carlo Chiti, the then head of the technical office.

Just 21 months later, Chiti, plus Giotto Bizzarini and five other top engineers at Ferrari, were fired and Forghieri was promoted to Chiti's role; he was now head of the racing department.

One of his first jobs was to develop the new rear engine 250P into the 250P initially, then the 275P, and then the 330P.

The winners at Le Mans in 1964 were Jean Guichet and Nino Vaccarella in this Ferrari 275P. (Courtesy Maranello-Literature)

Back at Le Mans in 1964, Graham Hill and Jo Bonnier were sharing another 330P for Maranello Concessionaires, the English Ferrari distributor. For NART (North American Racing Team) there was Pedro Rodriguez, sharing another 330P with Skip Hudson.

In the class for GT honors another eight Ferraris were entered, including three of the favored 250 GTOs. Two lightweight Jaguar E-Types,

an Aston Martin DP214, and three Cobras – two of them the new Daytona-bodied coupes – were also contenders.

Leo Beebe was with the contingent from Ford, Dearborn to watch the race. Leo knew nothing about racing: indeed, he had been coaching track, baseball and football until the Second World War intervened. He joined the navy at this point, and, as a Chief Petty Officer, was assigned to the Gene Tunney physical fitness program. He'd been posted to Dearborn, where he was made second-in-command to a certain officer by the name of Henry Ford …

After the war was over, Beebe joined the Ford Company, and was signed up to the employee recreation program. Over the following 20 years, he became the company's 'clearing up' officer; assigned, for instance, to close down the Edsel branch of the Ford Motor Company.

In 1963, Leo Beebe was in Switzerland inspecting a Ford dealership when he received a call from Harold Jones, the European Group Director, who offered him the job of manager of the Special Vehicles Department. Beebe accepted immediately, even though he had never seen a car race.

Upon his return to Dearborn, Lee Iacocca gave him his job remit: win at Indianapolis, Le Mans, and Daytona.

Lee Iacocca, in 1960, was Ford's General Manager, and had come up with the idea of a 'sporty car,' as he put it, to satisfy the yearnings of Baby Boomers. The Mustang was the result, and Iacocca's reputation was made. It was to him that Henry Ford II turned when he decided to take on Ferrari at Le Mans.

Leo Beebe attended his first car race at Charlotte on May 23, 1964, and was at Indianapolis for the 500 a week later. After this it was off to Le Mans to watch the race.

In a nutshell, all three GT40s were out after just over 12 hours of racing: two with gearbox failure, and one through a fire caused by a split in a fuel line. However, the car driven by Richie Ginther had led the race from very near the start until its first pitstop.

There was no doubt that the GT40s were fast; Phil Hill setting the fastest lap of the race, and the team could see the potential. But Leo Beebe alone realized that the cars experienced more problems than the team thought.

And it appeared he was correct when the GT40s participated in the

Rheims 12 Hour race just two weeks later. Two GT40s and two Cobras were entered. One of the GT40s had the ‘usual’ aluminum 4.2-liter engine, whilst the other was fitted with an iron block 4.7-liter unit, of the type that went into AC Cobras

Once again, the two GT40s showed their speed at the beginning of the race but, also once again, their Colotti gearboxes let them down.

In retrospect it does seem surprising that Ford in Dearborn, with all its vast resources, had not taken a Colotti gearbox, analyzed its weaknesses, and modified it accordingly.

It was the end of the sports car racing season in Europe, which gave Ford Advanced Vehicles in Slough, England, time to catch its breath and try to work out what to do to cure the GT40’s inherent problems.

The most prominent problem, of course, was the Colotti transaxle, in which the gearbox was combined with the differential. It simply couldn’t take the power of the Ford 289 engine. Germany’s ZF company had a similar, but stronger transaxle, but had none in stock: new ones would not be on the shelf until 1965. Nevertheless, John Wyer ordered them so that they could be fitted in the cars to be raced by FAV in 1965.

Lee Iacocca. (Courtesy Historic Images Outlet)

Hewland, the British gearbox maker, was even then in the throes of developing the LG500 (Large Gearbox-500HP) transaxle, which, in 1965, solved the problem of transmitting V8 power to the track from a mid-engined racecar. Another attribute of the Hewland transaxle was the fact that gear ratios could be quickly changed, which was not the case with the ZF transaxle replacement.

Another problem that the 289 engine suffered from was head gasket failure, but this only seemed to show up over long-distance races. Nevertheless, it was some time before Ford first of all investigated, and then cured this problem. The Shelby Cobras seemed immune to this problem (bigger radiators?), and Ford of Dearborn had handed over development of the GT40 program to Shelby American for 1965.

John Horsman recounts in his book, *Racing in the Rain*, that, in 1967, he resolved this problem by going to a local gasket maker on the Slough Trading Estate in England, which was near to FAV, and having special

sealing rings and peripheral gaskets made up.

Eric Broadley was asking to be let out of his contract and return to building Lola racecars. John Wyer had pulled strings and got him the factory unit next to FAV, as it became known, and here, Broadley was to produce one of his most iconic and successful designs, the Lola T70. Broadley had simply not been able to get on with Roy Lunn, and neither of them would speak to the other, using John Wyer as a conduit for their communications. On top of these problems, there was also the pervasive attitude of Ford hierarchy, who insisted they knew best when, patently, they didn't!

Leo Beebe, back in Dearborn, attempted to make decisions about how to turn the GT40 into a race winner. He swiftly summoned the heads of the various departments at Ford to a meeting to find a way to make the GT40 even faster and more reliable.

Beebe had a great advantage in his new job as manager of the Special Vehicles Department at Ford: he had no pre-conceived notions of what should or should not be done to turn the GT40 into a race winner, particularly at Le Mans. This gave him the opportunity to think logically, instead of being immersed in the racing game and following what everyone else did. He also listened to Roy Lunn.

Roy Lunn had developed what came to be known as the 'X' car; essentially designed along the lines of the GT40, but with a chassis made of honeycomb aluminum, and fitted with the Ford 427 engine. It was being completed as the meeting called by Beebe was in progress. At this point it was purely a concept, but he managed to persuade Leo Beebe that this was the way forward, telling him that the 289-engined GT40 Mark I was now obsolete.

Beebe looked at what engines and gearboxes were already available at Ford to fit into the GT40 and to make it a better racecar. One of the managers, Bill Innes, who had been in charge of the Ford four camshaft engine designed for the Indianapolis 500, wanted to use that unit as a base, and build a V12 engine that would out-perform Ferrari's V12 engines. Beebe saw this as a project that could stretch into years, plus add even more weight to the car and cost a lot of money, which he would rather allocate to the race team.

Looking at the specification sheets for the current range of Ford

engines, Beebe saw that the ‘big block’ 427 (7-liter), as promoted by Roy Lunn, and that powered the ‘full size’ Galaxy saloon/sedan, was available. In tuned form, this was also being used in Ford’s NASCAR racecars.

Leo Beebe decided to use this; a decision that caused howls of anguish from dyed-in-the-wool purists in the race department. What?! That engine weighed 675lb! Weight was the enemy of racecars: where would they find the brakes to haul down that weight at the end of the straight? Agreed, replied Beebe, but with 485 horsepower as a starting point, it had both the power and torque to win.

Leaving a corner, torque is what’s needed to get a race car down the next straight fast, where horsepower takes over for maximum speed. Gearbox? Build a new transaxle, but with the gear cluster that was already being used in the Galaxy street car.

John Wyer

To his credit, Bill Innes thought that his department could build 427in3

V8s, fitted with pushrod valve gear operation that would last 24 hours; maybe longer. Roy Lunn also thought that it could work, and his engineers set to modifying a GT40 to take the bigger engine.

The driving position was moved forward to accommodate the new, bigger engine, modifying the rear bulkhead to allow it to fit. Ventilated brake rotors/discs were fitted at the front, though the rears were still of solid cast iron. Behind the engine, a twin plate clutch was fitted, and the Ford T44 transaxle was now installed. This contained a self-locking limited slip differential.

At the front, the sub frame to which the front suspension and radiator was fitted, was extended, and a bigger radiator fitted, together with a front-mounted oil tank for the dry sump oiling system and new brake ducting.

Thus was born the Ford Mark II. The monocoque chassis of this new car was built in thicker gauge metal to increase torsional strength, in order to maintain its integrity when the 427 engine was fitted.

In some ways the decision to go for what was virtually a new car was a surprising one, given that the 289-engined GT40 had already been shown to be fast, and it was the gearbox, not the engine, that was preventing the Mark I version from finishing races.

Back at FAV in Slough, John Wyer's mechanics struggled on with the 289in3 engine GT40s, but in November, Ford told John that it wanted two cars sent to Nassau in the Bahamas for the annual 'speed week' races. John Wyer was against this, calling it "the final imbecility," considering that most of the entries would be lighter, open sports-racing cars, easily able to beat the GT40s in the sprint races at Nassau.

The course itself was not suited to the GT40's great advantage of being able to take fast bends at speed, having short straights and 90-degree corners. The FAV GT40s had been testing at Monza in September and October, with one car very badly damaged when the throttle stuck open, giving the mechanics little time to get them properly prepared.

An horrendously complex journey from Slough to the Bahamas, with both cars badly handled by airline ground crews, was not helped by threats of strikes from truck drivers, and the cars being left out in pouring rain at Miami airport ... Little wonder that Ford executives in Nassau complained about the state of both cars and mechanics when they finally

arrived.

John Horsman, then an engineer with FAV who attended the race meeting, thought that the whole thing was more of an expenses-paid junket for Ford executives and their wives to get some sunshine, away from Dearborn.

And things did not improve. Both cars went out early in the week, one of them because of incorrect preparation (the wrong-size washer had been fitted in the front suspension assembly), and the other when a head gasket failed. Even when they were running, it was obvious that the Lotus 19 of Dan Gurney, the Chapparals of Jim Hall and Hap Sharp, and the McLaren-Elva of Bruce McLaren were faster than the GT40s. Even a competition Corvette of Roger Penske and a 427 Cobra of Ken Miles were faster.

Leo Beebe had had enough. He had the two FAV GT40s sent to California, to Carroll Shelby's shop, not back to Slough, and appointed Carroll Shelby to take over the job of race preparing the cars. John Wyer, back in England, was left with the job of building and selling the 100 GT40s needed for private customers. Even then, he found himself in receipt one day of a order from Ford Hierarchy to cancel the program, although it was re-instated within hours.

In the end, just 50 examples were scheduled to be built, the first production car being finished on March 30 1965, and shipped immediately to the New York Motor Show, fitted with a dummy engine and gearbox.

Ken Miles was soon working on and developing the GT40s at Shelby American Racing. First of all, the GT40s got a Shelby paint job – dark blue with two white stripes – and then two of them went to the Riverside track, where Ken began driving them. He came back into the pits very soon after setting off, complaining that the handling was "atrocious." He and the Shelby mechanics spent the next few hours re-setting the suspension back to its original, factory settings.

The problem was that so many mechanics had worked on the cars since they were first built, that the settings had been changed and changed again to suit one driver or another, with the result being the bad handling that Miles found at Riverside. When this was rectified, the car began to handle to Ken Miles' liking. Being an engineer himself, with no little skill in building his own racecars, Ken Miles also pointed out to Shelby that

putting the GT40 into the Dearborn wind tunnel would also be advantageous in sorting out the car's aerodynamics.

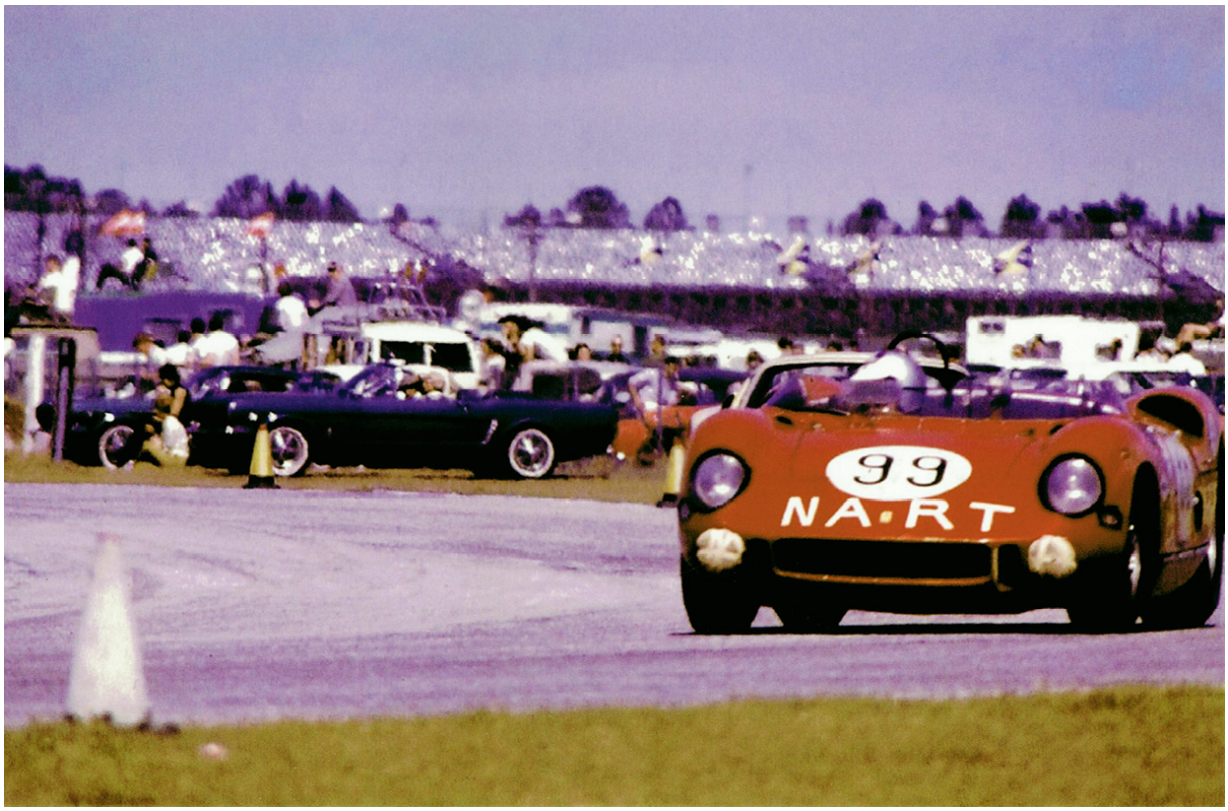
When this was done, it was quickly found that the ducts that funneled air into the radiators did not allow the air to escape, which therefore swallowed up large amounts of available power. Phil Remington was once again put to work to fabricate ducting that would work properly.

At this time, the original dry sump oiling system fitted to the racing 289 engine was replaced by a swinging trapdoor system, using the original wet sump-type system, saving some 60lb of weight. It worked well.

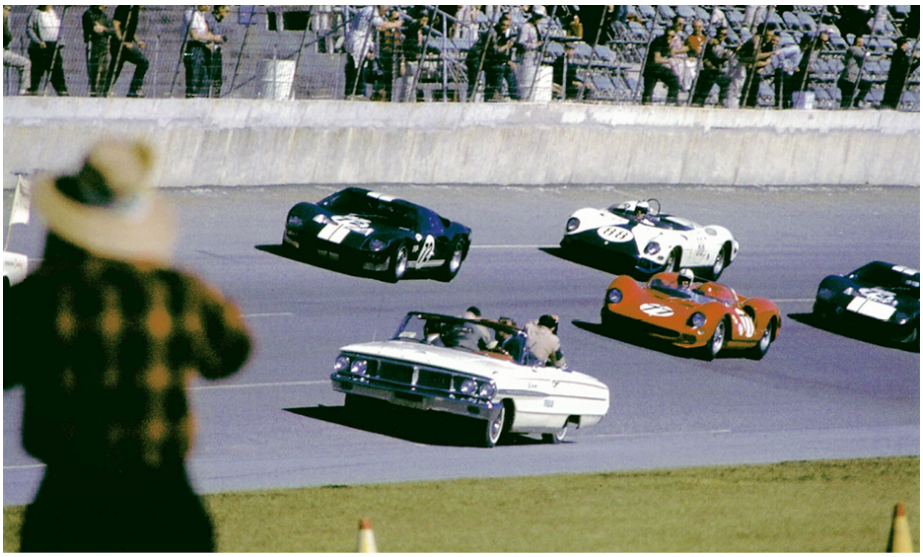
Chapter **4**

In 1965, the Daytona Continental of 2000km was run for the last time. In future years it became the Daytona 24 Hours. Ken Miles and Lloyd Ruby were in one GT40 with Richie Ginther and Bob Bondurant in the second car. Both of these GT40s were being run by the Shelby American team. As well, Shelby also entered Dan Gurney and Jerry Grant in Gurney's much modified Lotus 19, fitted with a 325 cubic inch Ford V8 – a very stretched 289.

Dan Gurney was the son of Jack Gurney, and his grandfather invented the Gurney ball bearing. Jack became an opera singer with the Metropolitan Opera Company in New York and, when he retired in 1947, the family moved to California, where Dan grew up. When he was 19, Dan designed and built a car that turned 138mph at the Bonneville Salt Flats. In 1957, Dan began his road-racing career, taking the Arciero Special to 2nd place in the Riverside Grand Prix.



Sharing this North American Racing Team-entered Ferrari 275P at Daytona, after their retirement, were David Piper, Pedro Rodriguez and Walt Hansgen, as well as the original driver Bob Grossman. (Courtesy Maranello-Literature.com)

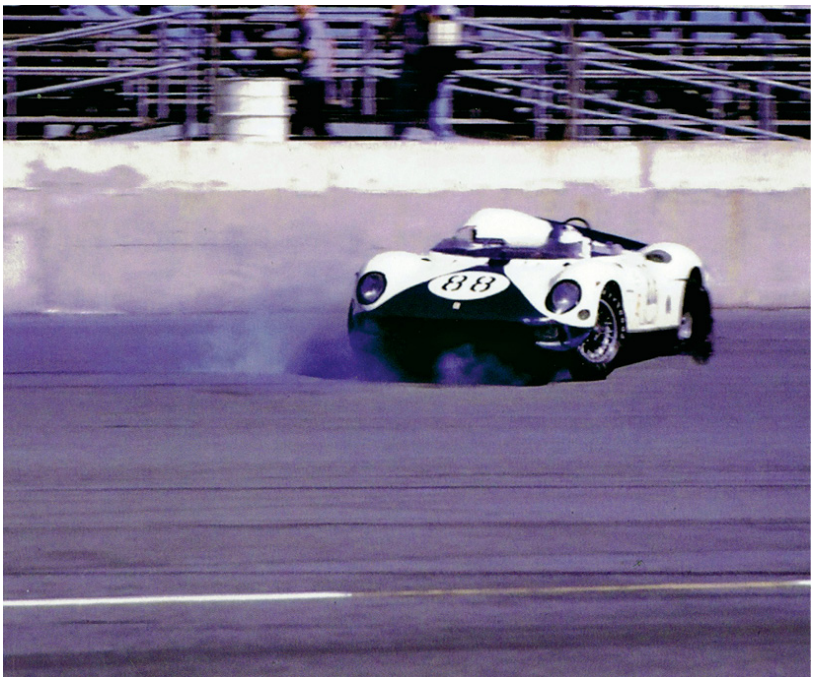


Daytona 1965. As the pace car brings the field around … two GT40s are visible in this photo, with the Walt Hansgen/David Piper NART-entered White Ferrari 330P (#88). #77 is the Ferrari 330P of John Surtees and Pedro Rodriguez. (Courtesy Maranello-Literature.com)

Carroll Shelby at Daytona in 1965. (Courtesy Ford, John S Allen collection)

Via a recommendation from Luigi Chinetti, Enzo Ferrari's American agent, Dan started his F1 career in 1959 with Ferrari, scoring good results straight away. In 1961 and 1962, he drove for Porsche in Formula One, achieving good results, but not the elusive victory that he sought. In 1963, Dan drove for Jack Brabham, and once again scored well in Formula One, but then left and started his own team, the Gurney Eagles, in California.

Jerry Grant was well over six feet tall, so he and Gurney were a good match when it came to sharing a car in a long-distance race. He, too, had begun his racing life in sports cars in California, and went on to drive for Dan Gurney's Eagles team for many years.



A wild ride, indeed. Walt Hansgen suffered a puncture on the steep Daytona banking and had several lurid spins. The damage to the suspension meant instant retirement. (Courtesy Maranello-Literature.com)

Against them was a NART-entered Ferrari with a 330P2, this variant having a new, four camshaft V12 engine. It was driven by John Surtees and Pedro Rodriguez. Rodriguez was already a very experienced driver in endurance racing, having driven racecars from a very early age.

NART (North American Racing Team) also entered a 1964 330P, with David Piper and Walt Hansgen at the wheel. David Piper, an Englishman, had raced successfully for many years, usually in his own privately-owned Ferraris, and Walt Hansgen was also an experienced racer, having won no fewer than four SCCA Championships, and driven for team owners Briggs Cunningham and John Mecom at Le Mans, Sebring and Daytona.

This NART entry was a thinly-disguised Ferrari works effort, the 330P2 being Ferrari's main weapon in the upcoming Le Mans 24 Hour race in June. John Surtees and Pedro Rodriguez were Ferrari works drivers.

In practice, Pedro Rodriguez lapped in 2.00.6 (this was before the days of the 'bus stop' chicane on the banking behind the pits, whilst Bob Bondurant returned a 2:01.8 and Miles a 2:03. Except for qualifying,

Shelby had limited his drivers to using not more than 6000rpm, which was also the rev limit for the Fords in the race. For qualifying, Shelby allowed his drivers to use 6500rpm.

The winning Ford GT40 in the pits at Daytona for a refueling stop. Driven by Ken Miles and Lloyd Ruby, it won the race. (Courtesy Ford, the John S Allen collection)

Sir John Whitmore, an extremely successful driver of GT, saloon and sports car in the 1960s. (Courtesy Graham Robson)

The engines were Shelby's Ford 289 units, virtually the same as was fitted to his Cobra roadster racecars. As this used a wet sump system of oil supply, the front-mounted oil tank previously used was removed. These 4736cc engines were claimed to produce 390bhp at 7000rpm.

For the first time, the Ford factory had taken apart the Colotti gearbox, made its own ring and pinion final drives, and re-spaced the gear sets, which had also been made to Ford's own specification. It was hoped that the gearboxes/final drives would last the 12 hours-plus duration of the race.

By the Le Mans 24 Hours in June, the gearboxes had been replaced by new ones from ZF in Germany. The only drawback of these gearboxes was that they contained syncromesh: by itself this was no drawback, except that it made stripping and rebuilding, or a change of gear ratios, almost impossibly long jobs. Hence, separate gearboxes were carried

around as spares in case a different axle ratio might be needed, and gearboxes/transaxles were changed, rather than ratios in the gearbox already installed in the GT40.

The new Kelsey Hayes brakes were showing cracks in their discs/rotors, and so were swapped for the old solid disc Girling setup. The wheels fitted were by Halibrand, made of cast magnesium with slots cut into them that directed cooling air onto the brake rotors.

Dan Gurney swiftly took the lead at the start of the race, his Lotus 19 being much lighter than the sports-prototype coupes. The Ferraris attempted to keep up, whilst the GT40s kept to their pre-arranged lap times of 2:06/07.

The Ford Mark II driven by Ken Miles and Bruce McLaren at Le Mans in 1965. Although fast, it retired when the gearbox failed. (Courtesy Ford Motor Company, the John S Allen collection)

The NART Ferrari was the first retirement, suffering a puncture on the banking that all but destroyed the left rear suspension, and giving

Hansgen a wild ride in the ensuing spin. Fortunately, he kept it off the wall, but it was instant retirement for the second string Ferrari.

The same type of blowout hit the SEFAC-entered Ferrari after two-and-a-half hours, and the subsequent repairs to its left rear suspension virtually put it out of contention. Shortly thereafter it retired, with non-fixable rear suspension problems. Prior to this, the Lotus 19 was 50 seconds ahead of the P2.

For a while, it looked as if the Lotus would win but at the 8-hour mark, it melted a piston and was out. The GT40s cruised home, Ken Miles and Lloyd Ruby taking the victory with Jo Schlesser/Howard Johnson/Keck placing second in a Cobra, whilst Bob Bondurant and Richie Ginther were third in the second GT40, that had been slowed in the last few hours by a bad starter motor after the pit-stops. Another Shelby Daytona Cobra was fourth, and the last one entered was sixth. Things were looking better ...

And then came Sebring ... Unlike other events in the World Championship, the organizers had allowed in sports-racing cars, of the type that would run in the Can-Am races that began in 1966 also. These cars were much lighter, by some 600lb, than the sports-prototypes, which were now ineligible for points in the World Championship. Only the GT cars were eligible for World Championship points, but Alec Ulmann, head organizer of the Sebring 12 Hours race, could see how many more of the public would come to see a genuine Ford-Chevrolet-Ferrari duel as Jim Hall's Chaparral team was supported by help from General Motors.

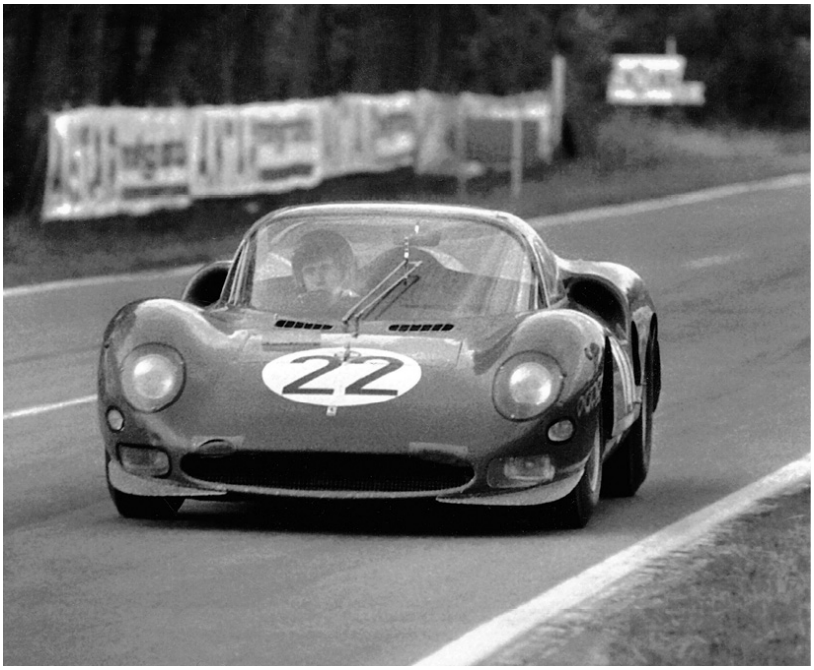
To ensure that his Chaparrals could last over the 12-hour length (USRRC races were of under two hours), Jim Hall sent a car and crew to Sebring in late February: the car exceeded twelve hours of hard running in one piece.

Enzo Ferrari was not at all happy to send his 330P2 sports-prototypes to such a race, knowing that in all likelihood they would be beaten. Ferraris had triumphed at Sebring for the previous four years, but after Daytona he had realized just how much faster the new Ford Mark IIs were. In the end, he allowed a car to be entered by John Mecom, a wealthy Texas oilman, to be driven by Graham Hill and Pedro Rodriguez.

John Mecom also entered one of the new Lola T70 sports-racing cars and a Ferrari 275LM, to be driven by up-and-coming driver, Mark Donohue, alongside Walt Hansgen. Although Mecom's American

mechanics looked after ‘their’ Ferrari and the Lola, the 330Ps were being serviced by mechanics who seemed to speak Italian only …

Mark Donohue had graduated from Brown University in Providence, Rhode Island, in 1959, with a degree in mechanical engineering, and he began racing his own Corvette shortly afterwards. He won the first hillclimb that he entered, at Belknap. Exchanging the Corvette for an Elva Courier, Donohue won the SCCA National Championship in his E production class in 1961.



Le Mans ‘65. Ferrari 330P2 of Lorenzo Bandini/Giampiero Biscaldi. It retired with valve problems at two-thirds distance. (Courtesy Maranello-Literature.com)

Rear view of the Bandini/Biscaldi 330P. (Courtesy Maranello-Literature.com)

Over the next three years, Donohue drove an Elva Formula Junior, a Daimler SP250, a strange device called a Cooper-Offy, and a Cobra. Shortly thereafter, Walt Hansgen, already an experienced driver who worked for Inskip Motors in New Jersey, persuaded Inskip to lend Donohue an MGB, that was race-prepared by the company. Donohue then used the MGB to win the 1964 Bridgehampton 500, an SCCA-sanctioned endurance race.

In qualifying, Jim Hall lapped in 2:57.6, whilst the Chaparral driven by Ronnie Hissom turned 3:00. The two GT40s driven by Ken Miles/Bruce McLaren and Richie Ginther/Phil Hill turned 3:07 and 3:08 respectively.

Raceday saw some 50,000 fans enter the circuit's grounds, and the organization was overwhelmed as a 12-mile queue formed at one point, and some fans didn't get into the circuit until the race had been going for several hours.

The GT40 driven by Richie Ginther led for the first lap, but then pitted with a "strange noise from the wheels," which turned out to be the new magnesium wheels scraping against the brake calipers. The wheels were changed for the old-style ones of aluminum. Two hours later this GT40 was out when a radius rod mounting pulled out of the chassis.

Whilst this was happening, the Jim Hall/Hap Sharp Chaparral was charging along in the lead, with the Lotus 19 of Dan Gurney second, and the other Chaparral in third place. The Hill/Rodriguez Ferrari 330P was fourth and Ken Miles was fifth, running to a pre-arranged time, and hoping that some or all of the cars in front would fail.

Then fate took an even stranger turn. A colossal deluge hit the circuit after seven hours of running. The rain was so intense, it flooded the course to such an extent that the leading Chaparral pitted to wait out the storm, and was stationary for ten minutes. It was a luxury it could afford, so far in front was it.

At the end of the race, the Chaparral was the victor and Miles and McLaren were second, the Ferrari having broken its gearbox. Third place was taken by the (genuinely!) private entry of David Piper and Tony Maggs. The Daytona Cobra coupes finished first, second and third in the GT class. Walt Hansgen and Mark Donohue, in the Mecom-entered Ferrari 275LM, finished in 11th place.

After Sebring, Shelby, FAV and the Ford France team headed to Le Mans for the April test days. FAV was running one coupe and an open GT40, both of them now fitted with the new ZF 5DS25 gearboxes in the quest for reliability. Ferrari sent two 330P2s, and Surtees in one posted the fastest time, a 3:35.1, this being over 140mph average speed. All the other Ferraris entered got under 3:40. An FAV GT40 posted the fastest Ford time, this one being driven by Richard Attwood, with a 3:40.9.

Ferrari posted an even stronger challenge at the Monza 1000km held on April 25 at the combined road and old banking track. Three of the new 330P2 were entered, this having been designed and built under the supervision of Ferrari's chief engineer, Mauro Forghieri. In practice, the 330P2 lapped some four seconds faster on the 6.2 mile circuit than the fastest GT40 (that of McLaren), and the Shelby-led crew could only hope that the Ferraris would break down. Only one did – that of Umberto Maglioli when its suspension failed. The other two P2s roared on to a one-two victory; the GT40 of Ken Miles and Bruce McLaren finished third.

FAV entered its open GT40 – GT40/111 – for Bob Bondurant and Sir John Whitmore in the Targa Florio in May, and, despite the vicissitudes of that circuit in Sicily – 44.74 miles in length with one long straight of 2.5 miles – the car acquitted itself well, despite losing a wheel at one point,

prior to which Bondurant and Sir John had been holding fourth place. Wheel and spinner recovered, after a long hunt, the GT40 was well down the field, and Bob Bondurant brought it back to ninth place. In attempting to make up more time, however, he slid on gravel laid across the road by another competitor, and finished up in a ditch. Nino Vaccarella, driving a Ferrari 330P2, won.

The next race in the Championship was the Nürburgring 1000km at the end of May. Here, FAV entered another open GT40, GT40/112 for Richard Attwood and Sir John Whitmore.

After practice, this GT40 placed sixth on the grid, just half a second behind the GT40/104 of the Shelby team driven by Bruce McLaren and Chris Amon. John Surtees and Ludovico Scarfiotti were on pole in their Ferrari 330P2, with the sister car of Graham Hill and Jackie Stewart in second. By lap 24, the Attwood/Whitmore GT40 was third behind the two Ferraris, but then an engine mounting broke and it was out. Previously, the GT40s driven by Phil Hill and Bruce McLaren went out with a broken half shaft, followed by the Ford-France entry at the halfway point.

The only GT40 to make it to the finish was the car driven by Chris Amon. Failing to spot a ‘pit in’ signal for fuel, he ran out a mile from the pits. Pluckily, he pushed the car to the pits and Bruce McLaren took over, as Amon was now completely exhausted, finally achieving an eighth place finish.

At Le Mans two of the new 7-liter GT40 Mark IIs were entered by the Shelby racing team: one for Ken Miles, paired with Bruce McLaren, and one for Phil Hill and Chris Amon.

The North American Racing Team entry of Pedro Rodriguez and Nino Vaccarella drove this Ferrari 330P2 into 7th place at Le Mans. (Courtesy Maranello-Literature.com)

The first car had been completed and tested by the middle of May. After an initial shakedown at the Ford track at Dearborn, the car was taken to Romeo, in Michigan, which had a test track of some five miles in length. Phil Remington and Ken Miles flew in from California, but acted strictly as observers at first. An SCCA driver, Tom Payne, had done the shakedown tests at Dearborn, and now was allowed to run the first tests at the five-mile, high-speed track. Quite quickly, Payne got the car up to a 180mph average speed, which onlookers believed a 'standard' 4.7-liter-engined GT40 would not be able to achieve.

Ken Miles now took over the driving and, after various changes to the suspension setup, posted a lap average of over 200mph. The decision was taken to use the GT40 Mark II, as it was now known, at Le Mans.

Another GT40 entered at Le Mans by Rob Walker and run by the Shelby American was driven by Bob Bondurant and Umberto Maglioli, a veteran Italian road racer. Swiss Ecurie Filipinetti entered yet another, driven by Herbert Muller and Ronnie Bucknum. These cars had the enlarged 325in3 smallblock engines.

The FAV entry was, as usual, driven by Sir John Whitmore, but this time he was accompanied by F1 driver Innes Ireland. The Ford France entry had

Guy Ligier and Jo Schlesser as drivers. Five Cobras were also entered, making a total of eleven Ford engine cars in the field.

They were matched by the same number of Ferraris; five of which were factory entries, and six private entries, most of these entered by Ferrari dealers.

Le Mans 1965. The Ferrari factory, under the guise of its official race team, SEFAC Ferrari, entered this 330P2 for Mike Parkes and Jean Guichet at Le Mans 19, but it was out after 315 laps after the gearbox failed. (Courtesy Maranello-Literature.com)

During practice, Phil Hill shattered the lap record by posting a time of 3:33.0, fully five seconds faster than the fastest Ferrari 330P2, driven by John Surtees. This was encouraging, but the poor mechanics had to perform yet another all-nighter before the race started, removing the suspect 325 engines and replacing them with 'standard' 289s. The trouble was, at this point Ford had not addressed the head gasket problem from which the 289 suffered.

It mattered little. When it came to the race proper, it was the same story as the year before: the Fords led initially but, after four hours, Ferraris were first, second, third and fourth. With the race five hours old, Whitmore and Ireland's GT40 was retired; the old problem with the head

gasket being the reason why.

The Ferraris finished first, second and third, but they were all private entries: the factory cars had already retired with bad brakes and gearboxes. The winning car was a 'little' Ferrari 275LM of NART, the 3.3-liter car being driven by F1 drivers Jochen Rindt and Masten Gregory who, the year before, had driven a GT40 at Le Mans. Gregory and Rindt had decided before the race that the 275LM was never going to last, and so had driven it flat out from the start, in the hope that it would break and they could get an early dinner and a decent night's sleep. It didn't, however.

The winning Ferrari 275LM of Masten Gregory and Jochen Rindt at Le Mans in 1965. (Courtesy Maranello-Literature.com)

The American Ford and Shelby crew flew home, exhausted, but soon rallied to begin planning next year's assault on Le Mans. However, the shock waves of the bad result spread to FAV, where production of GT40s for private entries was cancelled again. Luckily, John Wyer had now got

used to Ford management, and simply carried on with the program. Sure enough, within two weeks, he received a communication to tell him to carry on.

Finally, the engine and foundry division at Ford's factory at Dearborn was instructed to investigate the head gasket problems of the 289in3 engine, and in the autumn of 1965, FAV took a GT40 to Monza. In two separate tests, the modified engines performed well, all except for one, which broke a con rod after several hours' running: a rarity in the 289 engine. A total of 43 hours was run, although not all in one go, as the track was only open eight hours a day.

At the same tests, the ZF 5DS25/1 gearbox was used, which had been made by ZF to cure the second gear breakage problems one had suffered at Le Mans. It passed the tests with flying colors.

A new crossover fuel system was also tested and passed, allowing one fueler instead of the previous two.

By the end of 1965, FAV had delivered 25 production cars; 15 went to Shelby American, or the Ford factory, whilst seven went to customers. One went to Ford in England, whilst FAV kept one for testing, and also had the prototype street car.

Chapter **5**

On January 1, 1966, the Ford GT40 was homologated by the FIA as a production sports car, thus making it eligible for the World Championship of Makes.

FAV's role in 1966 was relegated further to keep on building the production cars, and supply parts to Shelby's racing team and also that of Holman and Moody, who had now joined the teams from America, and were charged with running the GT40s in racing worldwide.

The Ford Cortina (red) in this photograph was an Alan Mann-entered car; the Mustang is the Ford of Belgium car that Jacky Ickx drove; the white rally Cortina GT was run out of Ford UK at Boreham; the GT40 is a Mark III of Ford Advanced Vehicles, and the Shelby Cobra Daytona at the right rear is one of six built. (Courtesy Graham Robson)

FAV was also to support private owners of GT40s, both in street and racing form. Kar Kraft, a small shop in Dearborn that had been taken over by Ford's Special Vehicles Department, now built the 'big' GT40 Mark IIs that would be sent to Shelby in California for finishing and testing.

One other organization that came on board the Ford factory ship was Alan Mann Racing, which had headed-up Ford UK's racing effort, and been instrumental in the success of the Ford Cortina and Escort in racing in Europe.

Leo Beebe had come to the conclusion that no professional race team could look after more than three cars at any one race; particularly after seeing what happened at Le Mans in 1965 when Shelby had been looking after not only the two GT40s, but also three Daytona Cobras as well. Naturally, he turned to a team that had been running with Ford equipment in stock car racing since 1956: John Holman and Ralph Moody's shop at Charlotte in North Carolina. Although they were not experienced in road racing, mainly racing stock cars on oval tracks, Holman and Moody had a lot of experience in running the big 427in3 engines in racing conditions, and, as Dan Gurney once observed "A race is a race, whether it's on an oval or a road course."

As 1966 came in, Leo Beebe was to be seen in many meetings with his racing people; this time – the third time that Ford had competed at Le Mans – there were to be no mistakes. Ford had to win.

The first race of the season was the new-for-1966 Daytona 24 Hours. This would be a good test to see if the new batch of Ford Mark IIs could last 24 hours at racing speeds.

Carroll Shelby's team entered three Mark IIs, with Ken Miles and Lloyd Ruby sharing one car, Dan Gurney and Jerry Grant in another, and the third car driven by New Zealanders Bruce McLaren and Chris Amon.

Holman and Moody fielded Walt Hansgen and Mark Donohue in the first of their two entries, and Richie Ginther and Ronnie Bucknum in the second Mark II, equipped with an experimental automatic gearbox. It was not expected to last, but the 24-hour race would provide a good test. No factory Ferraris were entered, but NART entered a 1965 330P2 with an uprated '365' 4.4-liter single overhead camshaft per bank V12 engine for Pedro Rodriguez and rising star Mario Andretti. The Ecurie National Belge team entered a similar car, this one in yellow, for Lucien Bianchi, Gerald

Langlois van Ophem and Jean Blaton, ('Beurlys').

There were no fewer than ten privately-entered Ferrari 250LMs and four Ford GT40s, two of them by the Essex Wire team headed up in the pits by David Yorke, an old colleague of John Wyers. Jim Hall entered a single Chaparral coupe, the 2D, to be driven by Phil Hill and Jo Bonnier.

In qualifying, Ken Miles was the fastest, recording a 1:57.8, and said that he could have gone quicker. Pedro Rodriguez managed a 1:59.02, and Jo Bonnier in the Chaparral posted a 1:58.0.

Jo Bonnier led the first lap, probably due to the lighter weight of the Chaparral, but Ken Miles overtook him on the next, and this set the pattern of the race with Miles/Ruby winning, finishing no fewer than eight laps ahead of Gurney and Grant, with the Hansgen/Donohue pairing placing third. McLaren and Amon were fifth behind the Ferrari 365 P2 of Rodriguez and Andretti.

In his book *The Unfair Advantage*, written in 1975, Mark Donohue related how John Holman had quizzed him about his previous racing experience, and, upon learning that Donohue had never gone as fast as 200mph, went to Walt Hansgen and told him to "get another guy." Walt replied: "He'll be alright."

Rpm in the Holman team (and probably the Shelby one, too), was limited to 6000, with 6500 being the absolute maximum. Donohue also said: "I had never been so impressed with a car in my life … What was the most awesome, though, was to hold it flat out on the banking. It would easily do over 180mph, and that was the fastest I'd ever been in anything on wheels. It was one of the most enjoyable racecars I've ever driven, and I suspect that everyone else on the program would say the same thing. Miles and Ginther really did a great job [of testing and development]."

Carroll Shelby, on right, at Daytona in 1966. (Courtesy John S Allen)

Sebring was next and, despite the success of the big-engined Ford Mark IIs, Alan Mann, in particular, still believed in the original GT40 concept of the small block 289 engine in a (relatively) light chassis. He had two GT40s rebuilt with aluminum bodies by Williams and Pritchard in England. They came in at 2025lb as compared to the fiberglass-bodied cars of 2200lb. Alan Mann thought that with the bigger brakes of the Mark II and lighter weight, his cars would not need as many fuel stops as the bigger cars, and would be almost as fast. Drivers were to be Graham Hill and Jackie Stewart, with Sir John Whitmore and the laconic Australian Frank Gardner in the other. A total of nine 'small block' GT40s were entered.

Holman and Moody entered two Mark IIs, with Walt Hansgen and Mark Donohue sharing one, and another, with the automatic gearbox again, for

A J Foyt and Ronnie Bucknum. Shelby American also entered two Mark IIs: Dan Gurney and Jerry Grant in one of the cars that had run at Daytona, with Ken Miles and Lloyd Ruby sharing an open-topped 'X1' roadster that had been built with a collaboration of FAV, Kar Kraft and McLaren effort. This car also started the Sebring week with an automatic gearbox but, after three examples had been consumed in practice, the decision was made to fit a manual gearbox.

The winners at Daytona in 1966: Lloyd Ruby, on the left with partner Ken Miles on the right. Miss Firebird in the middle. (Courtesy Ford Motor Company, the John S Allen collection)

Graham Hill testing one of the Alan Mann GT40s, P1019 at Goodwood. (Courtesy Graham Robson)

Ferrari sent a new 330P3 to be driven by Mike Parkes and Bob Bondurant, and in the second day's practice, it set a time of 2:56.6 with Parkes driving.

Forghieri again: "A prototype Ferrari 330P2 was tested extensively by Mike Parkes in late 1965. He did a fine job, but the cubic capacity difference against the Fords was too great. This was the first warning shot that confirmed the American company's progress in motor racing. I could see that their cars had improved considerably, and that they would be extremely dangerous once they became sufficiently experienced.

"Naturally, I talked to Enzo Ferrari about the situation, and his pride became stimulated by the challenges, particularly those that were weighted against us. We agreed on a rather complex development of the 330P2, which was to become the P3. Helped in particular by Bussi, Rochi and Salvarini, I designed a new 4-liter engine with its sump in light alloy and of more general racing characteristics, starting with the structure of the combustion chamber. And for the first time we fitted a sports racer with Lucas indirect fuel injection instead of carburetors.

"Among the P3's new developments was its gearbox, which had the

same layout as the previous car, and a tubed chassis with the usual aluminum panels, which were replaced in some areas by plastic elements: an innovative system that made the car lighter and more robust.

"The open and closed versions of the body were new, with more advanced aerodynamics and a much accentuated tail. The P3 was an efficient and fascinating car; so much so that I remember on the day it was presented to the press in early February, 1966 Enzo Ferrari showed he was pleased with it, and he was a man who rarely expressed his feelings openly in relations with those who worked for him."

Jim Hall sent two Chaparral 2Ds, and it began to look like a dress rehearsal for Le Mans.

The surprise in practice was that Graham Hill, in one of the aluminum-bodied, Alan Mann-entered GT40s, posted a 2:57.4, with the big Mark IIs turning laps in the 2:58 range.

The race was run at a very high speed and, as usual, attrition took its toll. By the 90-minute mark, Dan Gurney, who had been left behind at the start, was leading, having lowered the lap record to 2:54.8. The two Chaparrals both retired shortly afterwards. The two lightweight GT40s were running well, but were just not quite as fast as the Mark IIs, and Hansgen and Foyt were having brake difficulties. The Ferrari ran second for a lot of the race but, after nine hours, its gearbox began to fail and it retired.

Towards the end, it was Fords in the top three positions: Gurney still leading, Ken Miles second and Hansgen third. It was reported that Ken Miles, in for his last pit-stop, was asked to slow up to relieve the strain on Gurney's car.

With minutes left to run, a con rod failed in the Mark II driven by Dan Gurney: to make matters worse, he pushed it the last 400 yards to the line, which earned him disqualification ... Whilst he was pushing his car, Ken Miles thundered past him, un-lapped himself and won. With the Gurney/Grant disqualification, Hansgen/Donohue finished second, whilst an Essex Wire 'small block' GT40 was third, this one being crewed by Skip Scott and Peter Revson.

Almost directly from Sebring the cars were airfreighted to Paris, and then trucked to Le Mans for the test days. Strangely, neither Ferrari nor Chaparral attended the weekend, which left the Ford teams in a

quandary. Exactly how fast at Le Mans could either of these two company's products go?

The weekend started out wet. Ford had sent two Mark IIs and two 289 GT40s. One more Ford also made the trip: the newly-completed J Car that had been designed and built with a monocoque chassis constructed by Roy Lunn's team at Kar Kraft out of honeycomb aluminum sandwich, which gave enormous torsional rigidity. Put forward as a successor to the Mark II in December 1965, it really did seem as if Lunn was not going to be content until the 289 GT40 was declared obsolete.

As the track was drying, Walt Hansgen went out to do some flying laps. He came into the pits twice to be asked to slow down. Walt went out again, got up to speed and lost control going into the long right-hand bend at the end of the pit straight. Walt tried to get down the escape road but a barrier had been placed across it since the previous year, and his car hit it. He died in hospital several days later without regaining consciousness.

Later on the same day Ken Miles also had an off, but a much less serious one than the accident that had befallen Walt Hansgen. Nevertheless, it filled the car's underbody with sand, which meant that, with the work needed, it couldn't run again until the next day.

In April, the factory-entered P3 proved its worth by winning the Monza 1000km race with Mike Parkes and John Surtees. Surtees had only just recovered from a bad crash he had suffered at Mosport in Canada whilst testing a Lola T70, in which the suspension broke. However, an Essex Wire GT40 finished second, driven by Sir John Whitmore and Masten Gregory.

Mark Donohue, Ken Miles, Marvin Panch and Dick Hucherson ran a 24-hour test in early May, over three 8-hour days. The drivers were able to tell Dearborn that the brakes were fine and the cars were looking good for Le Mans. Donohue wrote that they couldn't have been more wrong … The Mark II finished in good shape; the J Car didn't: there was obviously more work to be done on it.

On May 6, the Nürburgring 1000km was staged with a surprise result: the Chaparral 2D of Jo Bonnier and Phil Hill took outright victory, with Ferrari Dinos placing second and third. A Porsche 906 was fourth, and the first GT40s were the ones of Ford France and Red Rose Motors in England,

placing fifth and sixth respectively.

At the next race at the Spa-Francorchamps 1000km on May 22, Parkes and Scarfiotti again took the P3 to victory. However, the Alan Mann-entered Mark II of Sir John Whitmore and Frank Gardner was second, with three 289 GT40s placing third, fourth and fifth. On the points score, if Ford now won Le Mans, it would also win the Manufacturers' Championship ...

Back at Dearborn, the time between April and the race at Le Mans, midway through June, was employed by various engineering departments doing all they could to improve the already fast Mark IIs. The engine lost some 40lb in weight, with an aluminum water pump, a sump pan made from magnesium, cylinder heads cast in aluminum, a front cover made of the same material, and a lightened flywheel. The target was a racing life of 48 hours, and, at the end of May, the engineers achieved this with an engine that gave some 485 horsepower. The three teams, Alan Mann, Holman and Moody, and Shelby American, each received four engines for the Le Mans race.

Phil Remington invented a way to change the brake calipers in two to three minutes, and Holman and Moody did the same for the brake discs.

In 1966, Ford's various teams sent one hundred-plus people to Le Mans, plus the eight Mark IIs – three each for Holman and Moody and two for Alan Mann Racing. There was a mobile machine shop, and over 20 tons of parts and equipment.

In his book, *Forghieri on Ferrari*, Forghieri commented: "Ferrari and Ford clashed again at the 24 Hours of Le Mans, but we were fairly confident, even though we heard the Americans had invested something like $10 million in an effort to win at the Sarthe. However, Ford's logistical organization – with real rooms behind the pits, a restaurant and an incredible number of staff – was even more substantial than the previous year."

Ferrari fielded three new P3s: one each for John Surtees/Mike Parkes, Pedro Rodriguez/Richie Ginther, and Lorenzo Bandini and Jean Guichet.

As well as the new P3s, four uprated P2s were going to be driven by Willy Mairesse and Herbert Muller, Richard Attwood/David Piper, 'Beurlys' (Jean Blaton)/Pierre Dumay, and Masten Gregory with Bob Bondurant.

The Ferrari P3 of Mike Parkes and Ludovico Scarfiotti, that won at the Spa-Francorchamps 1000km. (Courtesy Maranello Literature)

One of the three Ferrari P3s entered at Le Mans in 1966. This one was intended to be driven by John Surtees and Mike Parkes but John Surtees left the team before the race after an argument with the team manager, Eugenio Dragoni. His place was taken by Ludovico Scarfiotti. In the race they were put out by an accident after 126 laps. (Courtesy Maranello Literature)

Three 275GTB/Cs were also entered in the GT class, but did not feature where the main result was concerned.

Facing them would be –

• Alan Mann Racing, with drivers Sir John Whitmore/Frank Gardner in one GT40, and Graham Hill/Dick Thompson in the other.

• Holman and Moody, their three Mark II drivers being Mark Donohue/Paul Hawkins, Mario Andretti/Lucien Bianchi, and Ronnie Bucknum/Dick Hucherson.

• Shelby American: Bruce McLaren/Chris Amon, Ken Miles/Denny Hulme, and Dan Gurney/Jerry Grant the driver pairings in their Mark IIs.

There was one reserve driver, Bob Grossman, a very experienced American sports car driver and dealer.

There were also five GT40s entered by private entrants: Peter Sutcliff and Dieter Spoerry for the Swiss Scuderia Filipinetti, the Essex Wire team ran Jochen Neerpasch and Jacky Ickx in one car and Skip Scott/Peter Revson in the other, and Jochen Rindt/Innes Ireland were in the

Comstock entry. Richard Holquist was in the Scuderia Bear GT40 but this car crashed in practice, so did not take the start.

A solitary Chaparral, that driven as usual by Phil Hill and Jo Bonnier, was also entered.

The start of the Le Mans 24 Hour race of 1966. (Courtesy Graham Robson)

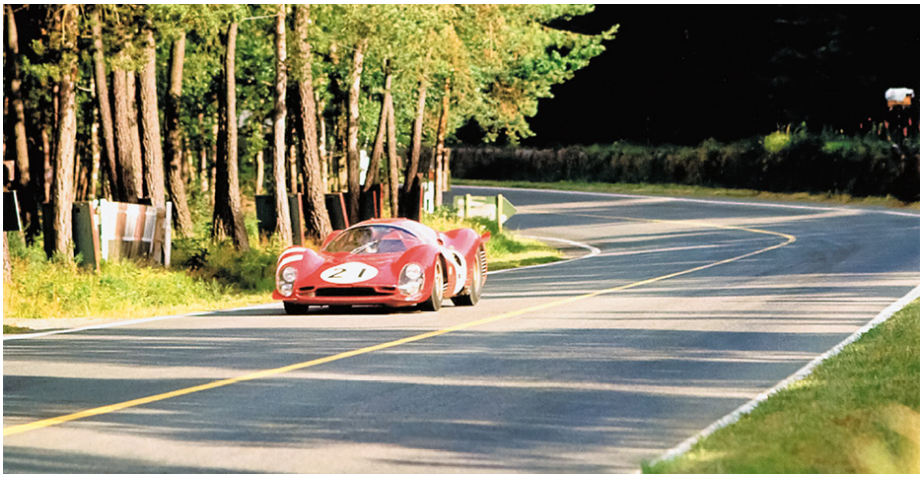
The first lap of Le Mans in 1966. Here, the uprated Ferrari P2 of David Piper and Richard Attwood leads a gaggle of cars, including a closely-following GT40. (Courtesy Maranello Literature)

Going into practice, John Surtees saw that Ludovico Scarfiotti had been listed as the third driver, with Mike Parkes, of his 330 P3. Surtees did not believe that Scarfiotti was as fast as either Mike Parkes or himself, and protested to team manager Dragoni, who essentially told him to "like it or lump it." John Surtees picked up his belongings and left for his hotel, and then went back to England. Ford was elated: Ferrari had scored a home goal by getting rid of its fastest driver.

Ford also suffered the loss of one of its drivers when, during the second night practice, Dick Thompson failed to avoid the GT40 of Dick Holquist, who was driving much slower than him, going into White House corner. Holquist's car was badly damaged in the ensuing accident. Thompson was able to reach the pits but was excluded by the ACO for "unsportsmanlike conduct," even though Leo Beebe protested the decision. Brian Muir, an Australian staying in England at the time, was contacted and agreed to fly to France to take part in the great race. When he arrived, he was allowed two practice laps, and the ACO officials then declared him competent to drive.

Right from the wet start the Fords dominated, running first, second and third, whilst Pedro Rodriguez's 330P3 Ferrari was fourth. Ken Miles had had to pit with a door that wouldn't close: this was fixed in seconds. Then Paul Hawkins brought his stricken car in: a half shaft had broken at the start and he'd had to limp all the way around the over 8-mile long circuit to get back to the pits. Mark Donohue, his co-driver, ground his teeth in frustration at the hour it took for the mechanics to replace the half shaft, realizing that this had cost him any chance of a good result.

Sir John Whitmore had also pitted, and lost over ten minutes whilst mechanics repaired a leaking brake line. Whitmore then had to make another long pit-stop with the GT40 suffering a slipping clutch.



Works Ferrari driver Lorenzo Bandini and talented 'Gentleman' driver Jean Guichet shared this works P3 at Le Mans in 1966. They lasted for 226 laps until the engine failed. (Courtesy Maranello Literature)

During the early hours, the Fords were first and second (Dan Gurney and Ken Miles), with Rodriguez in third. During this time, the fastest speed of a Mark II on the Mulsanne Straight was recorded – 206.1mph. Mark Donohue had climbed into his Mark II after Paul Hawkins had driven his first stint, but the tail had flown off almost immediately. Amazingly, he was able to recover it, tape and wire it back on and get back to the pits, though the car had by now lost so much time that it was withdrawn.

By 7pm Ken Miles was first but, three hours later, the Ferraris were first and second (Rodriguez/Scarfiotti), followed by four Fords. Then Mario

Andretti was forced into retirement when his engine failed. The Chaparral went out after some seven hours with what was described as a 'flat battery.'

This was about 11pm, and now Ken Miles was leading ahead of Dan Gurney. Scarfiotti, in one of the leading P3s, now had an accident when trying to avoid two cars that had crashed at the esses. He was okay but his Ferrari wasn't ... Then the Ford GT40 driven by Graham Hill and Brian Muir retired when a front upright failed.

It was now that the Ferrari team began to suffer real troubles. Pedro Rodriguez and Richie Ginther's P3 broke its gearbox in the early morning and retired. Out, too, went Masten Gregory and Bob Bondurant's uprated 330P2. Willy Mairesse and Herbert Muller retired their uprated P2 at this time, too.

Richard Attwood and David Piper showed strongly at the beginning of Le Mans in 1966 in their Maranello Concessionaires-entered uprated P2. Sadly for them, they were out after 33 laps with water pump failure. (Courtesy Maranello Literature)

As dawn approached, four works Fords led, with two private GT40s – those of the Essex Wire entry of Peter Revson/Skip Scott, and Peter Sutcliff in his open GT40 teamed with Dieter Spoerry, in fifth and sixth places. The GT40 of Skip Scott had retired by 8am, its gearbox having

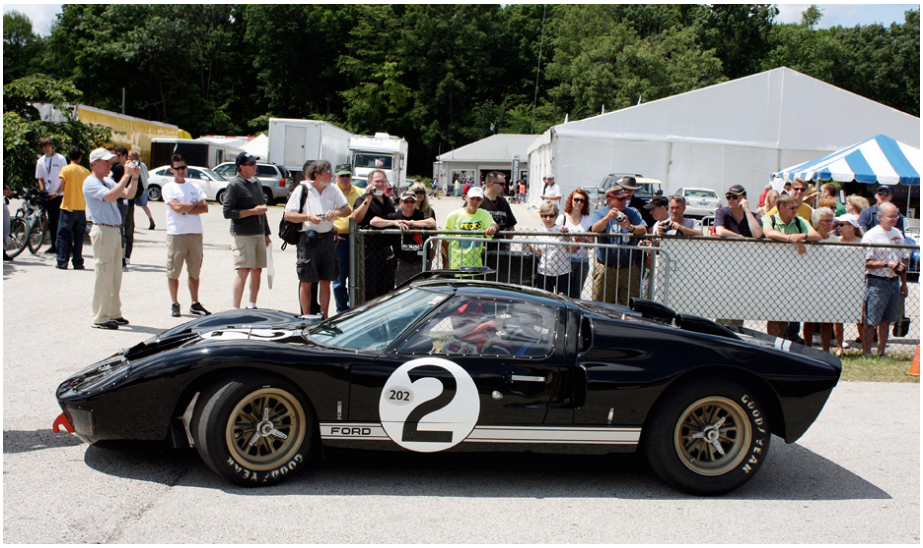
failed. By this time the leading four Fords had slackened their pace as the first Ferrari was in 11th place and was no threat to them.

Now the Ford Mark IIs suffered a loss, when Jerry Grant brought the car into the pits, saying that the engine was overheating. The mechanics did what they could, draining and refilling the radiator, and adding Bars Leak filler in the hope of stopping the leak, but in vain, and the car retired nearly an hour later with the coolant boiling.

As time wound down to the last two hours, the subject of just which Ford was going to take the win was discussed in the pits. The idea to have a dead heat was suggested, and the ACO organizers said that they would co-operate, but neither Bruce McLaren nor Ken Miles, both of whom were about to climb into their cars for the final laps, liked the idea. They agreed, however, and got on with the run to the flag.

But the ACO had the final say. After Ken Miles and Bruce McLaren set out, the ACO sent a message to tell Leo Beebe that a dead heat would not be possible after all. It had realized that the McLaren/Amon Ford had set off some sixty feet behind the Miles/Hulme car at the start, and if both cars crossed the line together, the McLaren/Amon Ford would have covered the greater distance. Without radio contact with the cars, there was nothing that Ford management could do as the two leading Mark IIs neared the finish.

The winning car of the 1966 Le Mans 24-hour event: the Mark II was driven to victory by Bruce McLaren and Chris Amon during the race … (Courtesy Ford Motor Company, the John S Allen collection)



... and in modern times. (Courtesy John S Allen)

As the three Ford Mark IIs were about to cross the finish line, Ken Miles dropped back so that Bruce McLaren would be the first to take the chequered flag. Dick Hucherson, behind the leading pair, held station so that the race finished with McLaren/Amon first and Ken Miles and Denny Hulme second. Afterwards, Ken Miles was bitter about the arranged finish, naturally enough, as he had won Daytona and Sebring, and had dearly wanted the hat trick of winning Le Mans, too, which he had led for so long.

Nevertheless, Ford, by winning the Daytona 24 Hours, the Sebring 12 Hours, and the Le Mans 24 Hours, had won the Manufacturers' Championship with the Mark II, and the GT40 had won the International Sports Car Championship.

Denny Hulme. (Courtesy Graham Robson)

The second-placed car from the 1966 Le Mans 24 Hour race, that of Ken Miles and Denny Hulme. (Courtesy John S Allen)

This is what the three Mark II Fords looked like as they approached the finish line in 1966. (Courtesy Ford Motor Company, the John S Allen collection)

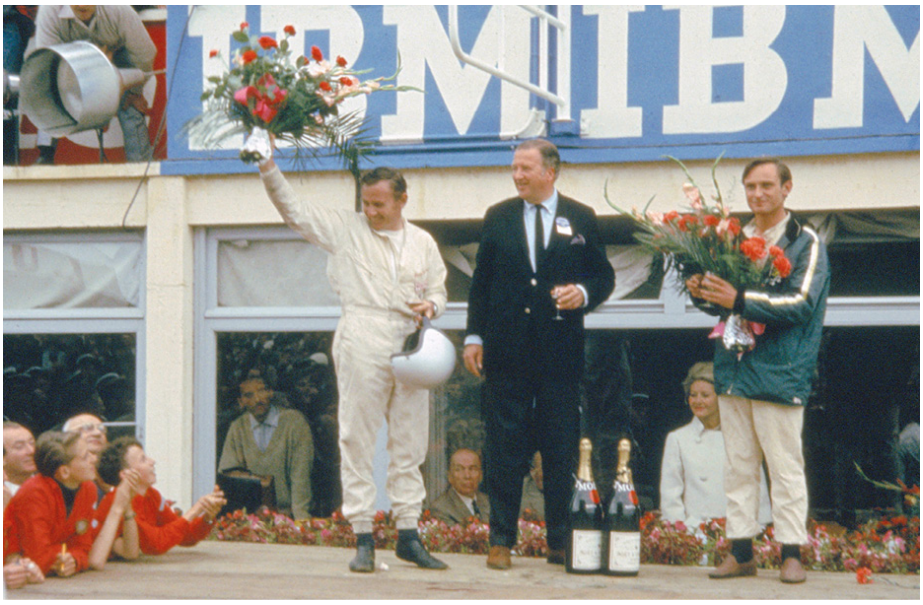
Another view of the finish of the Le Mans 24 Hour race of 1966. The dead heat wanted by Ford management failed to take place. (Courtesy Graham Robson)

Two months later, Ken Miles was killed whilst testing a J Car at Riverside on August 17. No one ever did determine the cause of the

accident, but the car had gone into the pits and changed to 16-inch diameter wheels, shod with new, low profile tires instead of the usual 15 inch diameter ones. The only person who witnessed the accident from the pits saw the J Car slew sideways under hard braking, and then somersault end-over-end. It's probable that something broke in the suspension, but what actually happened was never established, due to how badly the car was damaged in the accident.

When rescue vehicles arrived at the scene, personnel found Ken Miles' body some twelve feet away from the car, still wearing the safety harness, which had torn out of its mountings in the crash. He was quite dead from head injuries.

Hundreds of people came to Ken Miles' funeral a week later, which would probably have surprised the taciturn ex-Englishman, who was not noted for holding back when a concise opinion was asked for.



The winners! Bruce McLaren, left, and Chris Amon on the right with, between them, Henry Ford II, glass in hand.(Courtesy Ford Motor Company, the John S Allen collection)

Later life: A Ferrari P3, which belonged to David Piper, on display. (Courtesy Carl de Bickero)

Henry Ford II at Le Mans in 1966. (Courtesy Graham Robson)

Chapter **6**

The J Car crash at Riverside that had killed Ken Miles caused Ford management to worry about the car's inherent safety. Remember, this accident happened at the time when Ralph Nader's book *Unsafe at Any Speed* was becoming a bestseller, and suddenly a lot of people, particularly in America, were having their attention focused on just how many were killed in street car crashes.

FORD GT-40 PRODUCTION SPORTS CAR

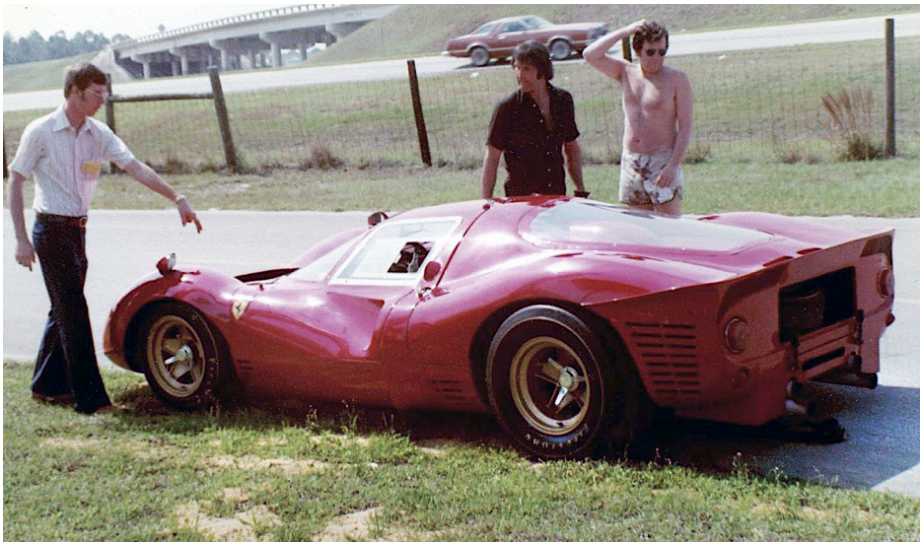
1966 – Ford captured the World Manufacturer's Championship for production sports cars. Following the 1965 season, 50 Mark I vehicles were manufactured to qualify them for the F.I.A. production sports car category as Ford GT-40s. These cars were sold to the public, and, in the hands of private race teams, won the world championship.

Original press release from Ford in 1967. (Courtesy Graham Robson)

This was also now reflected in the concerns that Ford executives had about safety in their racecars as well. Fortunately for Ford, the J Car program was not cancelled and the cars not scrapped, but stored whilst consideration was given as to what to do with them.

Ferrari had not given up on its hopes of beating Ford once again in the Sports-prototype class, where the outright winner of the forthcoming races would be found. Technical Director Mauro Forghieri had designed

one of the true greats of endurance racing, the Ferrari P4, during October and November of 1966, first seen in public as a three-car team at the Daytona 24 Hour race of January 1967.



Ferrari's new-for-1967 P4 was strikingly beautiful. It was also powerful (450bhp) – and fast. (Courtesy Carl de Bickero)

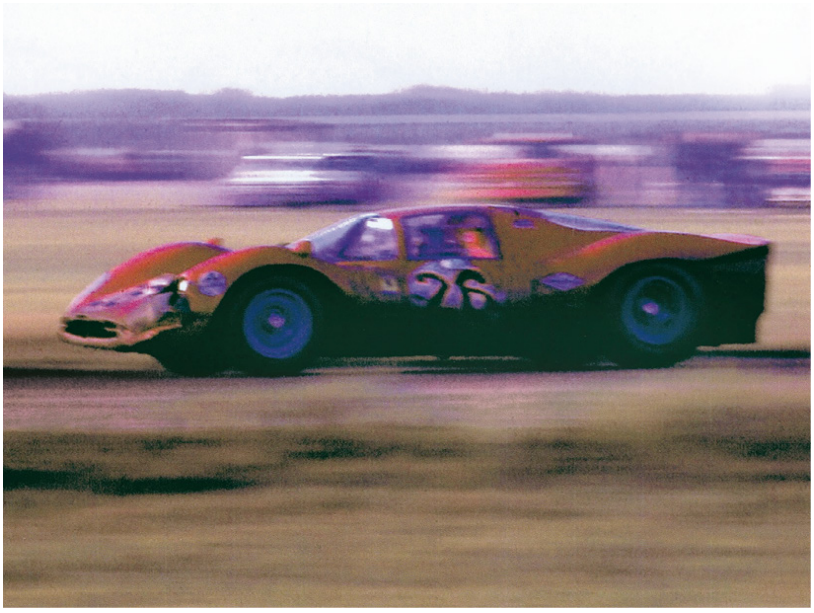
Although a development of the tried and tested P3, the P4 was lighter, with greater attention having been paid to aerodynamics. Forghieri: "We went to Daytona with the P4, the aerodynamics of which had been further developed. It had a new engine with three valves per cylinder, and fuel injection, and this put out 450 horsepower.

"We were all confident, me more than anyone, because I knew that the P4 was really fast and had become extremely reliable."

Meanwhile, Ford's other rival, the Chaparral team, had not been tardy in the development stakes. For 1967, Jim Hall's engineers had produced the 2F, a coupe development of the Can-Am 2E Spyder which had a wing mounted at the rear that operated through the struts that carried it through the bodywork; the struts were attached to the rear suspension's uprights. The driver was provided with what would have been the clutch pedal in a more usual manual gearbox car (there being an automatic gearbox in the Chaparral), and he would depress this when going along the straight. This would, via an hydraulic system, trim the wing parallel to the ground to give negative lift/downforce. When the driver took his foot off the pedal, when entering a corner, the wing would pitch down, creating downforce, and forcing the tires onto the tarmac.

At the nose (like the Ford Mark IV, now set low to the ground), to

prevent air from packing under it, the designer had set a trapdoor in the floor, set to open at 140mph, allowing air to bleed off and the springs to rise up slightly from their fully compressed position at speed. Finally, the car's 7-liter Chevrolet 'big block' engine almost certainly produced more power than the Ford engine of similar size, but Chaparral personnel were noticeably tightlipped about this. As with the Ford Mark IV, the sides of the bodywork were at ninety degrees to the ground, with no curve in the sills/rocker panels: again, in an attempt to prevent air from getting underneath the car.



The 412P of Pedro Rodriguez and Jean Guichet at Daytona in 1967. They placed third, behind two works-entered P4s. (Courtesy Maranello Literature)

Before the public had a chance to see the new Ferraris at the Daytona 24 Hours in January, the Italian team tested their new cars at the track on December 1. With Mike Parkes, Chris Amon, Ludovico Scarfiotti and Lorenzo Bandini sharing the driving, the new Ferraris looked very impressive and reliable as they screamed around the banking. They set impressive lap times, too.

As soon as the Ferrari team had departed for Maranello, the Ford team arrived at Daytona and started tests with their new J Car and the revised Mark IIs, with which they intended to compete in the 1967 season. They

soon ran into problems. The J Car did not handle well, oversteering in the slow turns, and the drivers complaining of the steering being too light on the banking. When wheels began cracking and a suspension part failed, the car was put away "for further development," and the Mark IIs took over.

But the Mark IIs, instead of being lightened where development was concerned, had actually put on weight – some 80lb. In a quest for more power, the engine designers at Ford had designed heads with bigger valves, and used iron instead of aluminum for the heads to give more strength. In addition, they gave the car a two, rather than one, carburetor setup, which also increased weight. They had however, now achieved some 530bhp, instead of the previous 485.

At the Daytona tests, Mark Donohue and Ronnie Bucknum were doing the driving. In his book, *The Unfair Advantage*, published in 1975, Donohue wrote: "Over the winter, Ford had worked out most of the brake problems we had in 1966, so they weren't nearly as weak as before. By going through materials like nodular iron, copper-coated faces, sintered this and Kryptonite that, and by using wider rotors (discs), and extensive cooling ducts, they could keep them from coming apart and going through the fenders. We still had to be careful, but at least they were usable, and we could concentrate on other development areas.

"We also tried a lot of different carburetion setups – one carb, two carbs, open-chamber manifolds, and tunnel manifolds. All of them had been run on the dynamometer at Ford, and they knew how much horsepower each would put out. But we had to learn how they responded in acceleration out of a corner. Two carbs on a huge, open-chambered manifold obviously produced the most power, but it was no good because we couldn't get it off the turns fast enough. When we went to wide-open throttle the accelerator pumps simply couldn't squirt out enough fuel for all that air. The engine would take a great gulp of air, the mixture would go lean and, poof! It would just stop running. Sometimes it would backfire through the carb and start a big fire, which we referred to as a 'flameout' or, more often, a 'bangout.' Finally, we settled on two carbs on the familiar over-and-under, runner-type manifold."

When it came to actual Daytona test days in January, the Ferrari team returned to Daytona, and were joined there by the Chaparral and Ford

teams.

Driving the three Ferrari P4s were Mike Parkes/Ludovico Scarfiotti, Lorenzo Bandini/Chris Amon, and Pedro Rodriguez/Jean Guichet, the latter an accomplished French long-distance driver. They proved just as fast as Ford had feared, Rodriguez quickly posting a 1:55.4, but then Phil Hill, driving the Chaparral, clocked 1:55.3. It wasn't until the dying moments of the test's last day that Dan Gurney managed to post the fastest time, a 1:55.1, using extra sticky qualifying tires and several hundred more revs than the Ford mechanics liked.

For the race, Dan Gurney was paired with A J Foyt, whilst Mark Donohue was driving with Peter Revson. Then there were Lloyd Ruby/Denny Hulme, Bruce McLaren/Lucien Bianchi, Frank Gardner /Ronnie Bucknum and, finally, Mario Andretti and Richie Ginther.

Come the race start, the Chaparral shot into the lead, with the Ferraris after him and the Fords behind them. Just half-an-hour into the race Ronnie Bucknum came in with a failing gearbox, which the mechanics did a mighty job of changing in 52 minutes. Then, Andretti called in twice to report bad handling. Already the Fords were in trouble, whilst the opposition looked very strong …

After four hours, the Chaparral was retired due to damage caused when lapping a slower car; a perennial problem at Daytona. But now it was the Mark II's gearboxes that were giving the mechanics fits. Back at the factory, the new output shafts had not been correctly heat-treated, and began breaking between third and fourth gears.

There were two Mark IIs acting as spares, which had the old style gearboxes, and these were swiftly stripped and, as more Fords dropped out of the race, their gearboxes went into the Mark II driven by Dan Gurney and A J Foyt, and that of Bruce McLaren and Lucien Bianchi.

Already a star in USAC Indycar racing, Mario Andretti was eagerly hired to drive a Ford at Le Mans in 1967. (Courtesy Ford Motor Company, the John S Allen collection)

This latter car was the only Ford Mark II to finish the Daytona 24 Hours, in seventh place. The Gurney/Foyt car had expired during the morning. To cap it all, the three leading Ferraris, in a deliberate snub to Ford, formed up and crossed the line together at the end of the race. Enzo Ferrari was so delighted at the news of this result that he named his upcoming 365GTB/4 road-going Berlinetta 'Daytona' in honor of this victory.

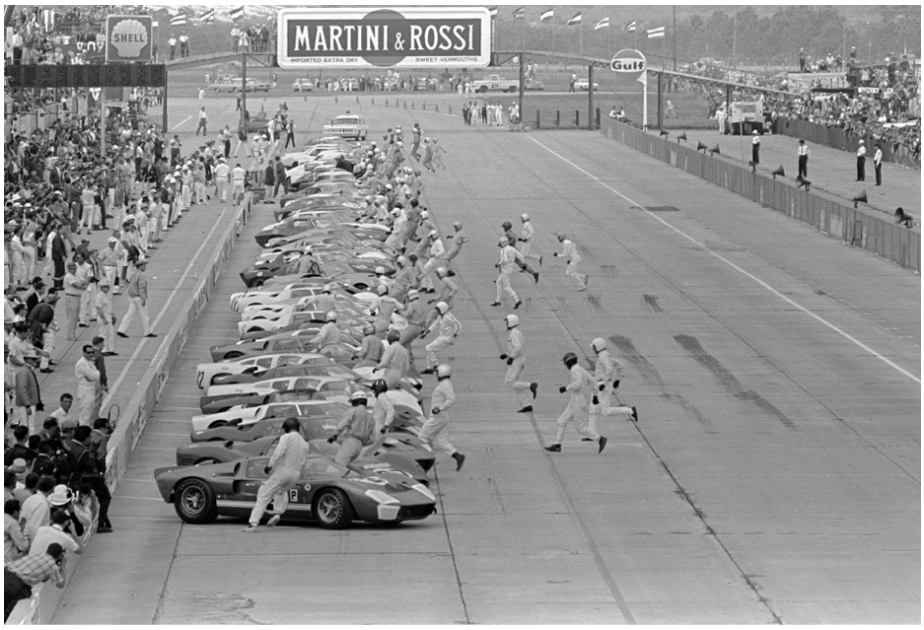
Mauro Forghieri: "There was no messing about at Daytona, and we staged the famous victory, in which the Ferraris paraded across the finish line three abreast – Franco Lini's, the team manager's idea – way ahead of the rest of the field as our reply to Ford's 1966 Le Mans success. The whole thing was an immense joy to us all.

“Race day was memorable, and a great victory for European industry. Nobody expected the P4 to be so fast and reliable, but it was well designed and developed, light, never caused tire problems, and boasted carefully-studied aerodynamics.

“But Ford made a big mistake with the reliability of its highly-modern 7-liter cars: in an effort to thwart our attack, they ordered their drivers to go flat out. The race became more interesting, but the Americans were massacred by breakdowns.

“Enzo Ferrari was rightly proud of that victory – I have rarely seen him so pleased but – in line with his style, he did not celebrate. Like all of us, he had had his revenge for the defeat at Le Mans.”

Immediately after Daytona, the somewhat surprising decision was taken at Ford headquarters to now concentrate on the J Car, and turn it into a race winner.



The traditional run and jump-in start of the 1967 Sebring 12 Hours. (Courtesy Ford Motor Company, the John S Allen collection)

The J Car had lower drag than the GT40-derived Mark II, mainly because the cockpit was narrower, as the regulations didn’t demand a full width windshield for 1967.

The problems with the car appeared mainly to emanate from the shape

of the body.

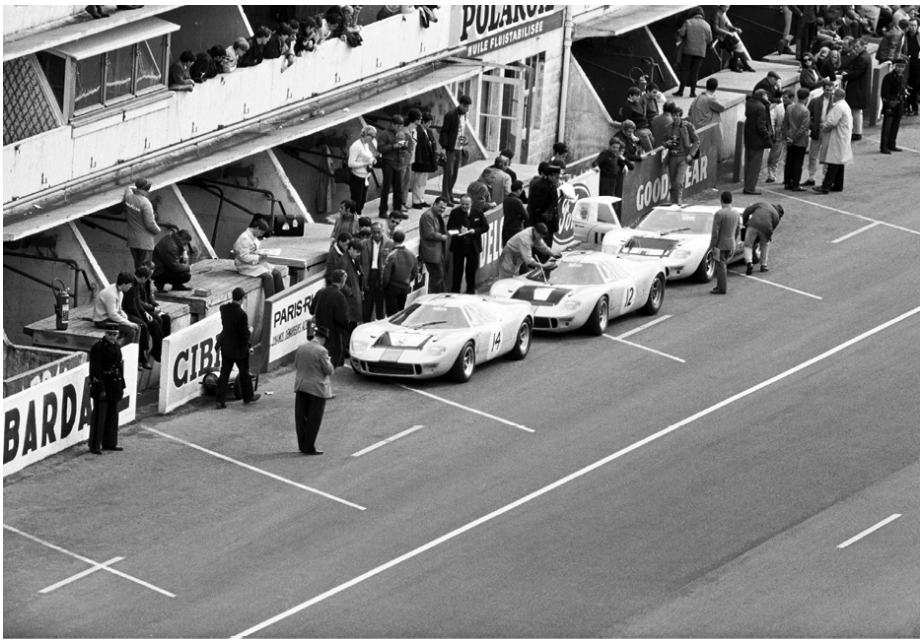
Accordingly, Kar-Kraft now had Phil Remington, and Bill Eaton and Dennis Gragg – Dan Gurney's two sheet metal men – fly over to them, and they modified the rear bodywork, taking that from an almost parallel to the ground line from cockpit to tail, to now give it a gentle slope towards the tail, culminating in the more usual spoiler. At the front, the nose was made narrower, thus modifying the headlight arrangement from a side-by-side format to one headlight diagonally above the other; still behind Perspex covers, of course.

The nose itself now descended almost to the ground at the very front in an attempt to prevent air packing under the nose and creating lift there.

Thus modified, and with a much smaller air intake to the front-mounted radiator, the car, when tested in a wind tunnel, immediately showed that it had less drag than with the previous body shape.

At 120mph the previous Mark II had produced 143lb of lift, whereas, at the same speed, the new car produced only 55lb of lift: almost inconsequential. The Mark IV was now also a very stable car: drivers reported that it could be driven almost 'hands-off' on the Mulsanne Straight, where it reached 213.1mph at its best.

At Kingman testing track in Arizona on March 4, the new Mark IV (the road-going GT40, built by FAV in England had been called the Mark III), ran at 215.8mph, 4mph faster than the best Mark II had. Mario Andretti lapped Daytona three seconds faster than a Mark II ever had.



The two JWAE-entered Mirages, seen here on pit row ahead of a GT40, at the test weekend at Le Mans in 1967. (Courtesy Ford Motor Company, the John S Allen collection)

The very next week the teams were at Sebring, but their only real opposition came from Chaparral. Enzo Ferrari did not enter, claiming he had nothing more to prove before Le Mans. Even then, he said, if he could score enough points in the races before Le Mans, which Ford had not yet entered, he might not even go to Le Mans …

At the start of the Sebring 12 Hours, Bruce McLaren took an immediate lead in the Mark IV, now able to go to 7000 revs through the gears and 6600rpm on the straights. The Chaparral took over 90 seconds to get going, but then charged off in pursuit and, over six hours later, was up with Mike Spence trying everything he could to get ahead of Bruce McLaren in the Ford. This continued for almost a quarter-of-an-hour, before grey smoke issuing from the Chaparral's automatic gearbox, signaled the end of the chase.

With half-an-hour to go before the end of the race – and the Mark IV having a big lead – A J Foyt, in the Mark II in second place, pulled into the pits to report engine trouble. The mechanics diagnosed that a con rod was failing, and predicted that the engine would shortly fail completely. The Porsche now sitting in a lonely third place was ten laps behind, and

could not make up the distance in time.

That's the way it worked out, and McLaren/Andretti won the Sebring 12 Hours race, incidentally showing Ferrari that its main challenge at Le Mans would not be last year's Mark II but this year's Mark IV.

April saw the Fords at the Le Mans test days, and here, too, was Ferrari with the P4s and also the Chaparral. There was another Lola, too: the T70 Mark III coupe with a new V8 engine by Aston Martin.

The first real major test of the Lola-Aston Martin, and its first appearance at an FIA international meeting, was over the weekend of April 10 for the traditional Le Mans Trials. Lola took chassis number SL73/101 to the Sarthe for John Surtees and David Hobbs, and pitted it against the rest of the new cars.

Ford, fresh from the win at Sebring with the Mark IV, arrived with chassis J3 for Bruce McLaren and Mark Donohue. Mark Donohue: "Bruce McLaren was there for Shelby's cars, and I was there for Holman and Moody. I considered it quite an honor to be sent to France for a weekend of testing.

"About the only thing we had time to try were some new anti-roll bars with serrated ends, that made it easier to change them in a hurry. Really, we only worried about that and the brakes. It rained most of the time, and we didn't get much practice on a dry track. Based on previous experience, we knew that the suspension was already proper for the track, and the aerodynamics had been worked out at Ford's proving ground at Kingman, Arizona. The cars had been around."

JWA had entered two of its GT40-derived Mirage M1s for David Piper and Richard Attwood. Ferrari had entered the new P4, both in coupe and open-topped spider spec for Lorenzo Bandini, Mike Parkes, and Ludovico Scarfiotti. Bandini set fastest time at 3:25.5; a new lap record. Mike Parkes in another P4 was second fastest in 3:27.6, both these times posted on Saturday, which was dry.

The only ones missing from the tests were Chaparral with its 2F, but it would be at the 24 Hours in June. John Surtees, driving the Lola T70 coupe, posted the third quickest time of the weekend behind the two Ferraris, but had been quicker than the Mark IV, even if by only a scant seven-tenths of a second.

This performance was despite the fact that the Aston Martin V8 engine

would not rev to more than 6000rpm, and could only 'just' reach 186mph on the Mulsanne, where the Fords and Ferraris were touching over 200mph. In the wet, on Sunday, Surtees headed the time sheets, posting a time six seconds ahead of the nearest competitor. Ominously, John Surtees pointed out to the Aston Martin engineers that the engine in the Lola ran hot.

Ford, naturally, was disappointed, expecting much more from its new challenger. However, its entries were well instrumented to tell the engineers just what was going on with the engines and gearboxes. Using this knowledge, Ford engineers were able to fit the best possible manifold and carburetor setup, although weren't able to properly test this new setup on the Sunday as it rained.

At the Monza 1000km on April 25, a race counting toward World Championship points, it was Ferrari versus the Chaparral, with Lorenzo Bandini and Chris Amon driving the Ferrari P4 to victory.

At Spa-Francorchamps in May, the new JWAE team, the old FAV team, still based at Slough in the old FAV building, but now renamed using the initials of its two founders, John Wyer/John Willment Automotive, entered the new Mirage M1, derived from a GT40.

Driven by Jacky Ickx and Dick Thompson, this led from start to finish. Ickx's driving in this rain-soaked race was spectacular, and the Mirage won by over a lap. To its dismay, Ford was unable to claim points towards the Championship from this result, however, as the Mirage was not entered as being of Ford manufacture.

The races at the Targa Florio and the Nürburgring were both won by Porsche, although the sports car class at the Targa Florio was won by Jean-Michel Giorgi and Henri Greder, driving a Ford of France-entered GT40.

The Championship result would all depend on what happened at Le Mans ...

One hundred staff from Ford, Shelby American Racing, Holman and Moody, plus timekeepers and signalers, went to Le Mans from America. This figure did not include the fourteen drivers (with two reserves), plus Henry Ford II, nor the wives of the various Ford executives who would be at the race. Al Dowd, responsible for shipping everything, organized the airfreight of the cars to Paris, then onto trailers to be transported to Le

Mans, plus all the crates of spares that were needed. Holman and Moody even sent its tractor-trailer that was a mobile machine shop. Nothing, it seemed, was being left to chance.

The Peugeot dealership at Le Mans had been commandeered to house the huge operation, and Dowd's planning was meticulous.

Driver pairings were as follows –

• Shelby American entered two Mark IVs, with Dan Gurney and A J Foyt driving one car, and Bruce McLaren and Mark Donohue the other

• Shelby's Mark II was to be driven by Australian Paul Hawkins and Ronnie Bucknum

• Holman and Moody also entered two Mark IVs and a Mark II. In the Mark II was England-domiciled Australian Frank Gardner, paired with Roger McCluskey. One Mark IV was allocated to Denny Hulme and Lloyd Ruby; the other to Mario Andretti and Lucian Bianchi

• Ford of France had a Mark II, to be driven by Guy Ligier and Jo Schlesser

The Fords had been prepared to be bulletproof. The exact cost of race preparation for the 1967 running of the Ford teams at Le Mans has never been released, but it must have run into millions of dollars. The head of the gearbox (transmission), department told Leo Beebe: "If it helps the gearboxes to last, I'll gold plate 'em!"

Bruce McLaren, seen here, driving the Ford Mark IV that he shared with Mario Andretti to win the Sebring 12 Hours of 1967. (Courtesy Ford Motor Company, the John S Allen collection)

Ferrari's preparation was equally as good. The weight and power of the Fords, Ferraris and Chaparrals make interesting reading. The Ferrari P4s weighed 2160lb and claimed 450 horsepower; the Chaparrals 2200lb, power unknown, but probably well in excess of 500bhp, and the Ford Mark IVs were 2580-2650lb with the Mark IIs at 2,00lb. Engine power was quoted as 530 horsepower.

Eugenio Dragoni, Ferrari's team manager until the end of 1966, had been succeeded by Franco Lini, a motor racing journalist, who had been to Le Mans many times, though this was his first time as manager of team he hoped would beat Ford this year. Ferrari's cars were superb, lighter than the Fords, which should give them better fuel mileage and make them more agile, and Lini's drivers were all accomplished long-distance professionals, with experience of the Le Mans 24 Hours.

Mike Parkes and Ludovico Scarfiotti shared one P3, Chris Amon and Nino Vaccarella another, and Gunther Klass and Peter Sutcliffe were in yet another. There was another P4, this being run by the Belgian Ecurie Francorchamps team, and crewed by the very experienced Willy Mairesse and 'Beurlys' (Jean Blaton). As usual, several other Ferraris were entered, but none had the performance and experience of the works-entered 330P4s.

Soon after night-time practice began on Wednesday, a fault showed itself in the Fords; the windshields began cracking, as they'd been over-hardened by the manufacturer, Dow-Corning in New York state, and were too brittle. Frantic calls were made and Dow set up an emergency shift to make and ship new windshields to Le Mans by Friday.

Thursday evening, despite the cracked windshields, the Ford effort grew serious. Denny Hulme clocked 3:25.5, Hawkins 3:25.8, Andretti 3:26.1, and Frank Gardner 3:26.4, but Phil Hill, in the Chaparral, had beaten them all at this point with a 3:24.7. He was later eclipsed by his competitor in the Can-Am series, Bruce McLaren, with 3:24.4, a new lap record. The Ferraris drivers were being conservative, Scarfiotti achieving 3:26.9, which the team was happy with.

The Mark II that was race number 57 at Le Mans in 1967 when, driven by Ronnie Bucknum and Paul Hawkins, it retired with valve problems when almost within sight of the finish. (Courtesy John S Allen)

Dan Gurney and A J Foyt had not been able to set up their Mark IV to suit either of them, despite being inveterate tinkerers of chassis settings. In the end, they gave their car the same settings as the McLaren/Donohue Mark IV, and left it at that.

As promised by Dow Corning, the new windshields were delivered Friday lunchtime, and the mechanics set about taking out the old,

cracked screens and fitting the new ones.

Preparations for the race itself were carried out by the mechanics on Friday, and, on Saturday, with hundreds of thousands of spectators watching, the 24 Hours of Le Mans, still with the old ‘run and jump’ type start by the drivers, began at 4pm.

Ronnie Bucknum had the honor of being the first Ford away and in the lead. He waited until after the end of the first lap to buckle his safety harness, and Dan Gurney, well up the field, waited until he was on the Mulsanne Straight to cinch his belts. Amongst the last to leave were the Chaparrals: Jim Hall insisted on the drivers’ belts being fully buckled by the time they let out the clutches.

After fifteen minutes, Fords were running first through fourth places – Bucknum, Gardner, Gurney, McLaren. Frank Gardner was soon in as a balance weight had flown off a tire, and the wheel was quickly replaced; Denny Hulme was suffering from a sticking throttle and called into the pits to have it adjusted. By 5pm, when the first pit-stops were made, the cars entered by Shelby American were in the first three positions.

Lucien Bianchi had also had to make an extra stop at the pits as, when lapping a slower car, a stone had been kicked up into his windshield, and a small hole was the result. The mechanics had okayed it and Bianchi was sent out again to join the other Fords of Frank Gardner, Denny Hulme, who had all suffered early pit-stops.

At the end of the 1967 Le Mans 24-hour race, A J Foyt turns to wave at the crowds. Dan Gurney is to his right. (Courtesy Graham Robson)

The first three of Dan Gurney, Ronnie Bucknum and Bruce McLaren were running fast, posting laps of 3:29. Thirty minutes after being refueled, Ronnie Bucknum pitted with an overheating engine. A pipe from the radiator had cracked, and this was quickly welded and refitted. The rules said that cars could not take on water before 25 laps had passed, and Bucknum had done 23, so he had to go back out and do two slow laps before he could come in again to take on a radiator-full and get back up to speed.

Denny Hulme set the lap record as night approached with a 3:23.6, and Mario Andretti quickly equaled this.

Lloyd Ruby brought his Ford into the pits at 7.45pm with a damaged nose, as a driving error had caused the car to go into the sandbank at Mulsanne corner. By the time the mechanics had finished repairing the damage, the car was some seventeen laps behind the leaders.

In first place, the Mark IV of Dan Gurney and A J Foyt roared on, the only problem that this car had occurred early on, at 8.05pm, when Foyt missed the 'in' pit sign for refueling and ran out of fuel on the next lap. He was in luck, however, as it happened as he approached the pits, and he was able to coast in to top up the fuel tank.

Just after 10pm, driving hard to make up time, Lloyd Ruby did it again,

going off into the Mulsanne sandbank, only this time the damage was serious enough to eliminate his and Denny Hulme's mount: a shame as Hulme had thought they were in with a chance of victory.

At around the same time Chris Amon's Ferrari P4 suffered a puncture, and he was forced to drive back to the pits as slowly as possible. He never made it. Sparks flying up from the wheel dragging on the ground started a fire, and Amon watched helplessly from the trackside as the P4 burned.

Mike Parkes and Ludovico Scarfiotti were second at midnight, running, as far as the Ferrari pit was concerned, just one lap adrift of the Ford Mark IV of Dan Gurney and A J Foyt. Then the race organizers informed Franco Lini that they were actually five laps back.

Mauro Forghieri, in his book, *Forghieri on Ferrari*, wrote: "But the most incredible episode, which cost us any hope of winning the race, was linked to the official communication of the cars' positions after each lap. IBM systematically distributed communications that corresponded with the results obtained by our timekeepers, who were highly experienced members of the Federazione Italiana Chronometristi, and mistake-proof.

"From around midnight, we no longer received communications, and were told the automatic timing system was momentarily out of action. Still, we were sure that our Scarfiotti/Parkes P4 was only a lap behind the leading Gurney/Foyt Ford, which was the 'hare.' I remember our satisfaction, and also a discussion with engineer Bussi, that we were forcing Ludovico and Mike to drive high pressure laps to keep up, despite our tire and fuel advantage.

"At a certain point, Scarfiotti became ill, and Parkes had to do a double stint. The Englishman lost a little ground but, according to our timekeepers' data, we were still just one lap down on the Ford. Yet, at dawn, we were bitterly disappointed when the IBM system began to function again, and they brought us a communication to say that Scarfiotti and Parkes were five laps down on the Ford! That was both incredible and inexplicable because there was no way our timekeepers could have made such a huge mistake.

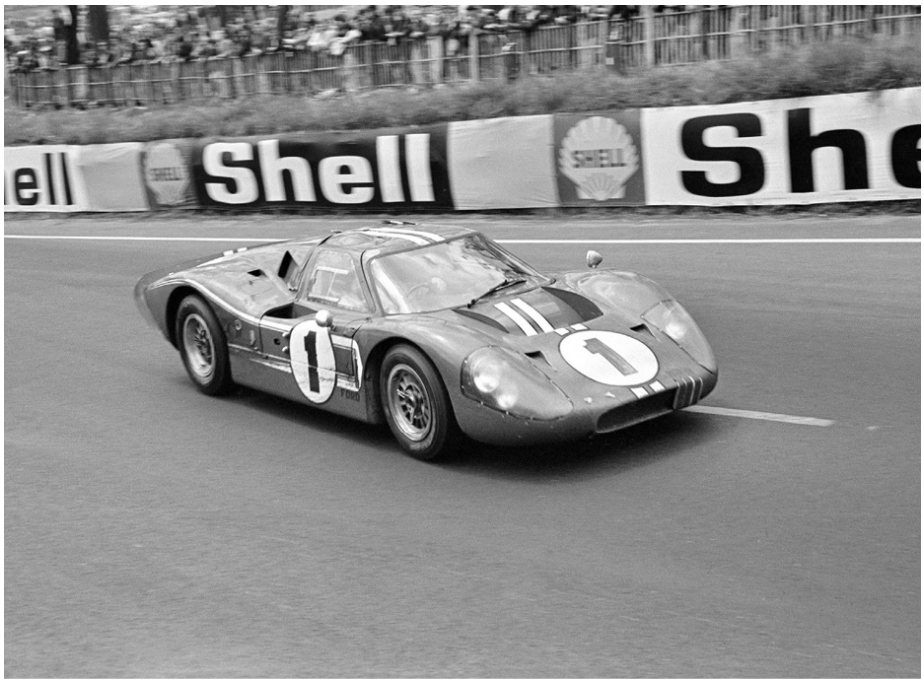
"Naturally, we reacted fast: Franco Lini made his protest and they assured us they had checked their lap counter, so there was nothing we could do. Later, Ludovico's health improved and he was able to pull something back from the Ford, but the P4 could only maintain second

place. And all this happened whilst the Ford was losing bits of its bodywork due to broken fixings. It was all held on by sticky tape, and there was a real chance that the huge rear end might fly off and injure spectators. On top of this the Le Mans regulations said the car had to cross the finish line with its body intact.

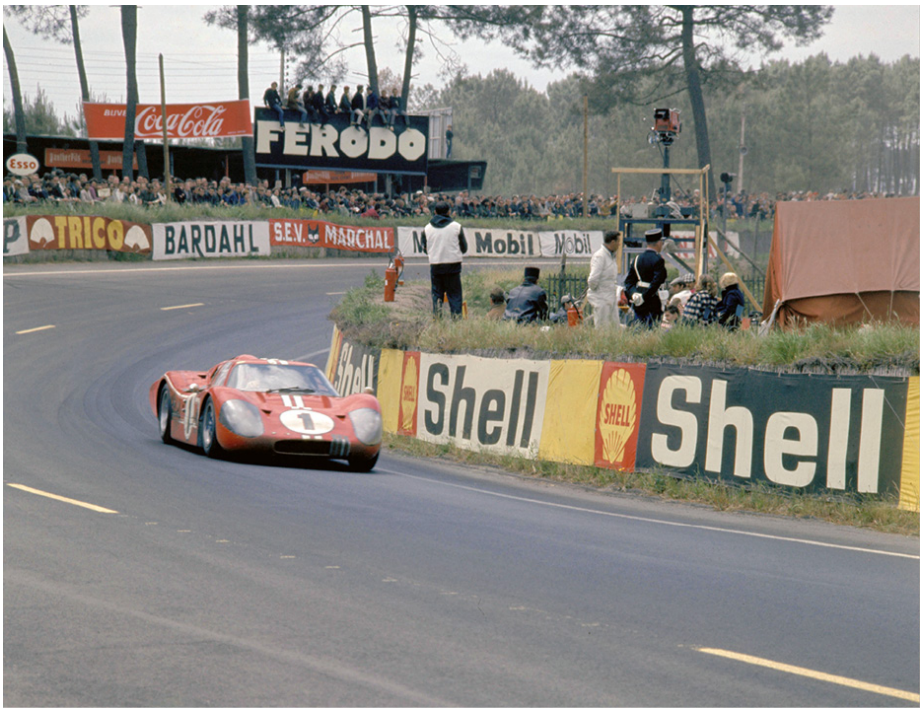
"Franco Lini was about to protest but, supported by Bussi, we were told we had to go to the powerful boss of the ACO, the Le Mans organizers, who had always been close to Ferrari and the Commendatore himself. He listened to me and then gave me a short, sharp answer. "Mauro, c'est l'argent" (Mauro, it is the money), after which I understood everything.

"It may have been a coincidence, but the track was modified for the following year by having the important and complex chicane before the finish line which, from that moment on, was called the 'Ford Chicane'..."

Just after 3am, Lucien Bianchi brought in the Mark IV that was in second place and Mario Andretti replaced him. The mechanics replaced the brake pads as was required on the maintenance sheets they had.



The Ford Mark IV of Dan Gurney and A J Foyt during the 1967 Le Mans race. (Courtesy Ford Motor Company, the John S Allen collection)



Le Mans 1967: victory is within sight for the A J Foyt- and Dan Gurney-driven Mark IV. (Courtesy Ford Motor Company, the John S Allen collection)

Andretti accelerated away and, thirty seconds later, as he was braking for the Esses, the car suddenly locked a front brake and the big Ford spun, going into first one barrier and then spinning back across the track to hit the opposite one. What was left of the car, with Mario still strapped into the driver's seat, came to rest in the middle of the track.

Henro Greder, right behind him, made it past the still-spinning car, and so did Chistian Poirot, driving a Porsche. Andretti managed to undo his belts, climb out, and stagger to the edge of the road as Roger McCluskey arrived in his Ford. Thinking that Andretti might still be in the cockpit, McCluskey spun into a barrier in his attempt to save Mario's life. Jo Schlesser, also in a Ford, was next to arrive, and piled into the first two wrecked Fords, fortunately without hurting himself.

As dawn broke, the Gurney/Foyt Mark IV was still in the lead, and, whether by one lap or five, the Ferrari P4 of Parkes and Scarfiotti was still in second place, with the Chaparral of Phil Hill and Mike Spence a lap behind. Then came the Ecurie Francorchamps P4, with the

Donohue/McLaren Mark IV fifth.

Mark Donohue, in his book, *The Unfair Advantage*, recounts: “When it was my turn to drive, I just got in and drove. Bruce and I hardly said a word to each other for the entire 24 hours. Still, we kept falling further and further behind because of failures, and it seemed as if everything was happening to Bruce. He had the rear body section fall off on him as it had on me the year before, only this time it got smashed up a lot worse, and by the end of the race it was half tape. Losing tails really plagued our lives.

“In spite of the failures, Bruce and I finished fourth behind Dan Gurney and A J Foyt in another Shelby Mark IV, and two Ferraris. Andretti had an accident that took out three Fords, and none of the Holman and Moody cars finished.”

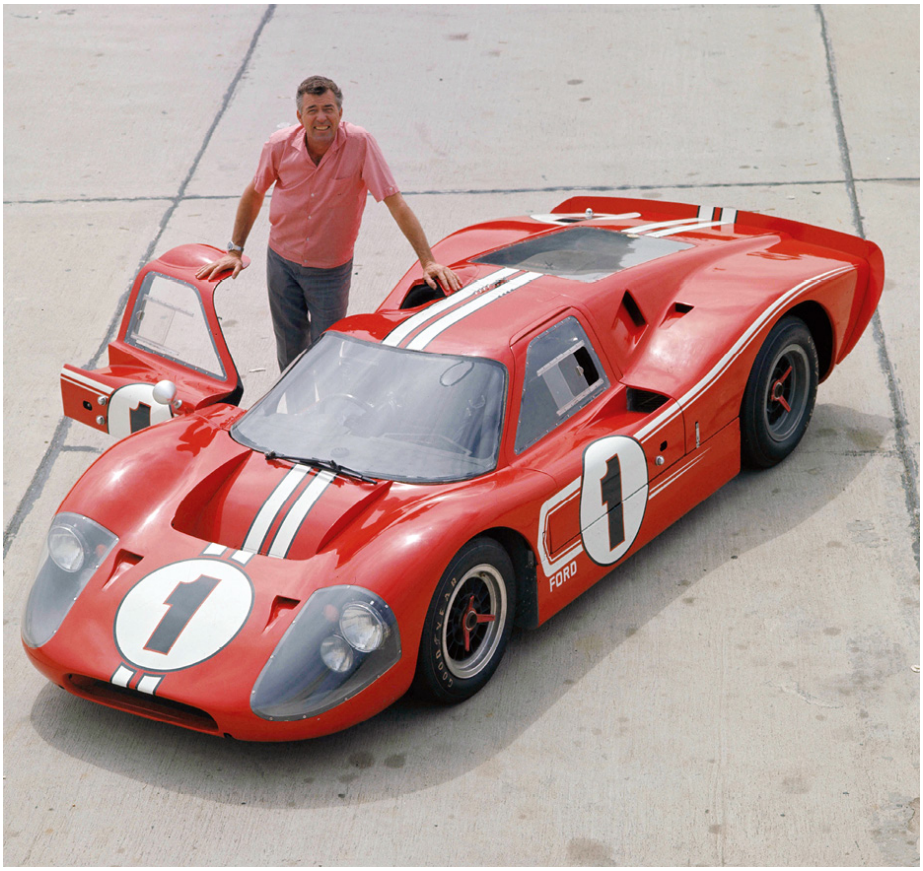
Dan Gurney, left, with the winning Ford Mark IV in victory lane at Le Mans, 1967. (Courtesy Ford Motor Company, the John S Allen collection)

In another nod to the possibility of the Fords failing, and knowing now that the Parkes/Scarfiotti Ferrari P4 was officially five laps behind, Jacques Passino ordered the surviving crews to slow down to around 3:50, but the Ford of Paul Hawkins and Ronnie Bucknum was ordered to go flat out in an attempt to menace the Ferrais in second and third, and

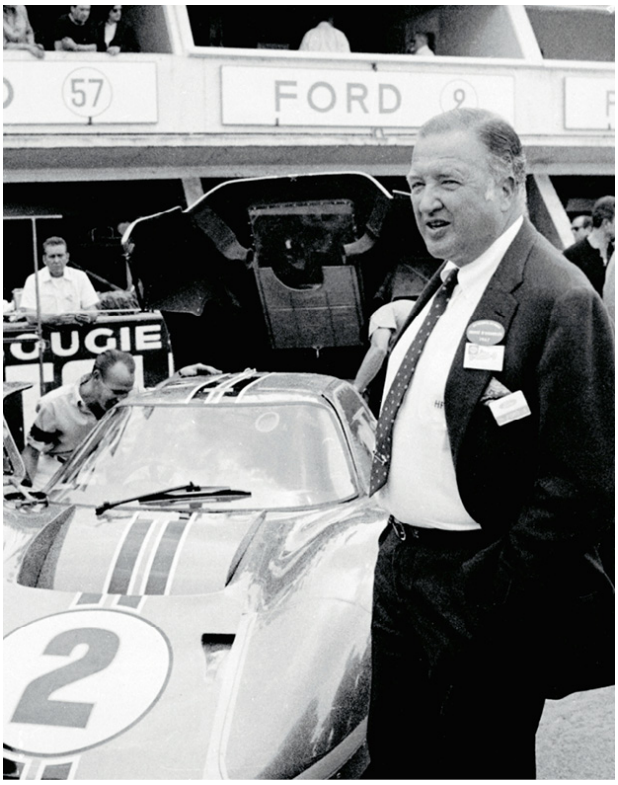
the Chaparral. Soon, this car was clocking laps in the 3:27 range and, by 7am, they were in sixth place, closing in on the McLaren/Donohue Mark IV.

The Chaparral went out between 5 and 5.20am, when, once again, its transmission failed, and now it was Ford-Ferrari-Ferrari-Ford-Ford. Gurney and Foyt had slackened off to turning laps at 3:40 to preserve the machinery, and it was another beautiful summer's day with no rain on the horizon. Franco Lini sped up the second-placed Ferrari P4 to lap at 3:30, but more in the hope of something failing on the leading Ford than of actually being able to catch it.

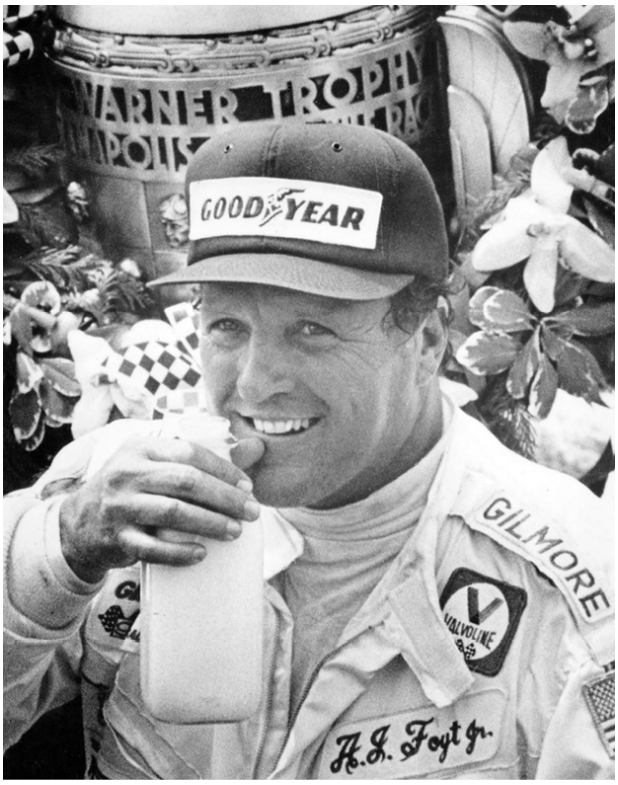
The remaining hours passed with the Bucknum/Hawkins Ford blowing its engine, and the Ford of McLaren/Donohue taking over fourth place when the Ferrari ahead retired with gearbox problems.



A proud Carroll Shelby stands with the winning Ford Mark IV that his Shelby American Racing Team ran at Le Mans in 1967. (Courtesy Ford Motor Company, the John S Allen collection)



Henry Ford II: proud owner of the winning car at Le Mans in 1967.
(Courtesy Ford Motor Company, the John S Allen collection)



A J Foyt. (Courtesy Graham Robson)

At 4pm the red Ford Mark IV of Dan Gurney and A J Foyt crossed the finish line, and were officially the winners. Despite the fastest Ferrari being driven flat out for 24 hours, it had again failed to beat Ford at the Le Mans 24 Hours. Ferrari withdrew from sports car racing at the end of 1967.

Before Ferrari withdrew, his team had won the Manufacturers' Championship, with Jackie Stewart driving a P4 in the last race of the season, the Brands Hatch 1000km, to take second place. The Ferrari did not lose to Ford, which did not enter the race, but the Chaparral, that, for once, lasted to take the win.

Ford as a company did not enter Le Mans again for many years. There was nothing left to prove, and Henry Ford II was satisfied, but, astonishingly, the 4.7 liter GT40, once regarded as a second string car to the 7 liter Mark II Fords, went on to win Le Mans twice more, in 1968 and 1969.

Chapter **7**

Although the Ford versus Ferrari struggle was over, the story of the Ford GT40 at Le Mans carried on after 1967, through 1968 and 1969, and the same GT40 won there both times. It is another amazing story and worth telling as a codicil to the Ford versus Ferrari battle from 1964-1967.

FAV, headed up by John Wyer, had been, as we have read, charged with building the 50 production models of the GT40, as both road and racecars. On January 1, 1967, the Ford Advanced Vehicles sign outside 714, Banbury Avenue, Slough Trading Estate, was removed and replaced with another, which read: 'J W Automotive Engineering Ltd.' The old FAV company had been wound up after John Wyer had negotiated with Ford in Dearborn to buy the assets of FAV at ten cents to the dollar. This included a license to continue producing the GT40. Ford agreed also to pay for JWAE to continue supplying parts and service to current and future GT40 owners; It was a good financial start for the new company.

John Wyer had, in the past, always worked for other companies. Sunbeam, where he served his engineering apprenticeship; Aston Martin, and then Ford. He was, naturally, somewhat daunted by the prospect of running his own business for the first time – and in middle age. He approached his old friend John Willment, who agreed to support him financially, and thus the new company, JWAE, was formed. Ironically, it turned out that John Wyer would never need the financial support that John Willment brought to the partnership.

During 1967, JWAE produced, to special order, a road-going version of the GT40. It differed from the racecar mainly in having a detuned engine, a four-headlight setup in a slightly different nose, and a tail that was two feet longer in order to allow some storage in a minimal-sized trunk. Only a few – perhaps seven – were built.

JWAE had come about because FAV had sold a semi-racing GT40 to a Mr Grady Davis in 1966, who turned out to be executive director of Gulf Oil. On his trip to tie up the closing of FAV, John Wyer had been asked to visit Grady Davis at his base in Pittsburgh, and, whilst there, Wyer had given the directors of Gulf Oil a presentation about what he thought an involvement in sports car racing could do for Gulf Oil.

The directors liked what they heard, and shortly thereafter, Wyer was asked to draw up a three-year contract, with Gulf Oil acting as sponsor to JWAE's efforts in sports car racing. It is recorded in Chief Engineer John Horsman's book *Racing in the Rain*, that, although John Wyer was generous with his figures in this contract, Grady Davis increased some of the proposed figures by 50 percent, "… not liking cost overruns."

As we have seen, for 1967, FIA regulations had been relaxed with regards to the width of windshields, and Len Bailey, still working for Ford at this time, had drawn up a narrower cockpit for the GT40.

JWAE converted two cars to this specification, calling them 'Mirage.' The first did a lot of testing, including going to Snetterton with Alan Rees driving. Despite improvements over the original GT40 shape, the new Mirage still could not match the times of John Surtees, who was there testing the prototype of the Lola T70 coupe.

At the end of 1966, FAV had been given, by Ford in Dearborn, 50 sets of 289 blocks with 4-bolt mains, and John Horsman used these to build engines of 4999cc, with a special crankshaft made by Laystall engineering in England to a design by Don Coleman of Ford in Dearborn. Horsman relates in his book that he now modified the nose of the Mirage to allow hot air exiting from the radiator to flow from a slot ahead of the windshield, à la Ford Mark II. Bodywork was still in fiberglass, but now reinforced with strands of carbon fiber: a first in sports cars.

Grady David had been having his own GT40, P/1049, raced by Dr Dick Thompson in SCCA events in America, where Thompson had won a great deal of the time. John Wyer wanted a young Jacky Ickx, a Belgian, who had shown tremendous talent in Europe in 1966.

Grady Davis wanted Dick Thompson to drive his GT40 at Daytona, as the new Mirage was not then ready, and so Thompson and Ickx were entered to race Davis' car in the Daytona 24 Hours of 1967. There, it was the first Ford home, in sixth place, ahead of the Ford GT Mark II of Bruce McLaren and Lucien Bianchi. It won the Group 4 Sports car class, too: a promising start to the season.

One of the JWAE Ford GT40s after being unloaded from its transporter in 1969. (Courtesy Ford Motor Company, the John S Allen collection)

The different nose shape of the Ford GT40 Mark III. (Courtesy Graham Robson)

Interior of the Mark III. Note that the gearshift has been moved from the right to the middle of the cockpit, as is usual for street cars. (Courtesy Graham Robson)

Ed Lowther replaced Jacky Ickx at the Sebring 12 Hours, due to a clash of dates, in partnering Dick Thompson, but the GT40 retired with its usual nemesis: head gasket failure of the 289 engine.

On April 25 two new Mirages appeared for the Monza 1000km. Fitted with the 305in3 engines (4999cc), and using a JWAE introduced method of head to block sealing, these were driven by Jacky Ickx and Alan Rees in one car, and Dick Thompson and David Piper in the other. In practice, they were over seven seconds slower than the fastest car, the Chaparral 2F. The Thompson/Piper car finished eighth; the Ickx/Rees car retired when an ignition amplifier burned out.

At Spa-Francorchamps the week afterwards, the Mirage of Jacky Ickx posted a time of 3:39.0: the second fastest, and only 3.4 seconds slower than the Chaparral 2F that headed the time sheets. In consequence of not being allowed enough time in the car, Alan Rees left the team and, come the race, Dick Thompson had to take over from Jacky Ickx after the latter had done a fantastic job in the first three-plus hours of the race, lapping the entire field in rainy conditions. Thompson drove for just an hour before handing back the Mirage to Jacky Ickx, who went on to win the race; again, lapping the entire field.

At the Nürburgring, on May 28, Dick Thompson destroyed Mirage

M1/10002 in practice, but Jacky Ickx was now partnered by Richard Attwood, a very experienced and accomplished English driver, who could be depended on to drive fast, without risking the machinery. In the race itself, Ickx and Attwood had the Mirage up to second place until Attwood ran over some debris, puncturing both tires on one side and forcing the car's retirement.

Mark III, chassis number 1107. (Courtesy Graham Robson)

For the Le Mans 24 Hours, held over the weekend of June 10-11, JWAE entered the two Mirages, M1/10001 and M1/10003, both now fitted with 5.75 liter (351in3) engines. In practice, one car holed a piston and the engines on both cars were changed back to the reliable 5.0 liter (305in3) units. In the race itself, one car was out in two hours when a head gasket failed, and the other in four hours, when an inlet valve broke: a very uncommon failure in these engines.

At Brands Hatch for the last Championship race of 1967, Dick Thompson crashed the only Mirage entered, after Pedro Rodriguez had driven it into fifth place.

Although they were non-Championship races in Sweden, at Skarpnack and Karlskoga the Mirages won both short races, with Jacky Ickx winning one and Jo Bonnier the other.

At the Paris 1000km, another non-Championship race, one Mirage, with a 351 engine, was entered for Paul Hawkins and Jacky Ickx. In

pouring rain, which delighted Jacky Ickx, who excelled in wet conditions, he and Paul Hawkins won.

The seven GT40 Mark IIIs built. (Courtesy Graham Robson)

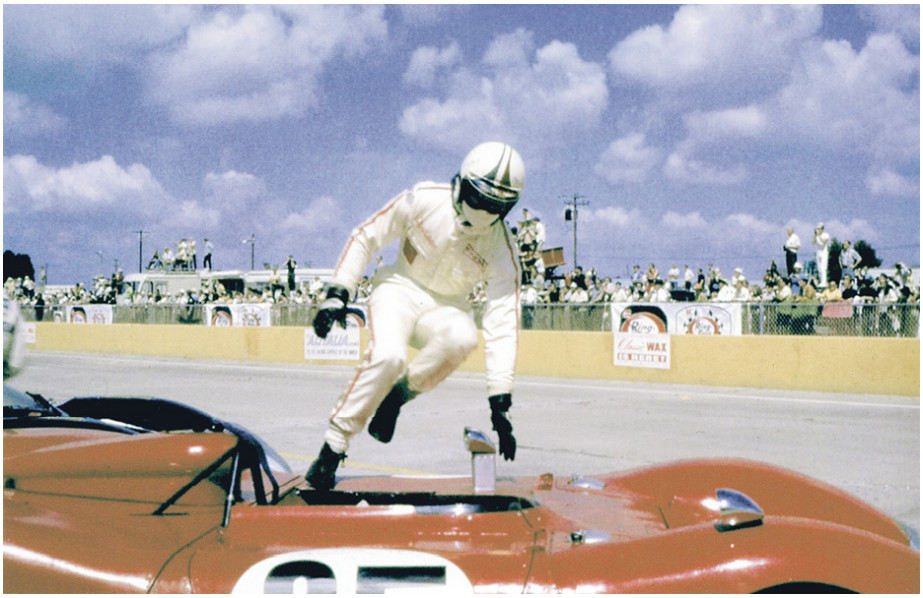
Jacky Ickx. (Courtesy Graham Robson)

In South Africa, at Kyalami for the nine-hour race, the last of the season in November, Jacky Ickx was teamed with Brian Redman, and they won this race, too, ending a fine and promising debut year for the new private team.

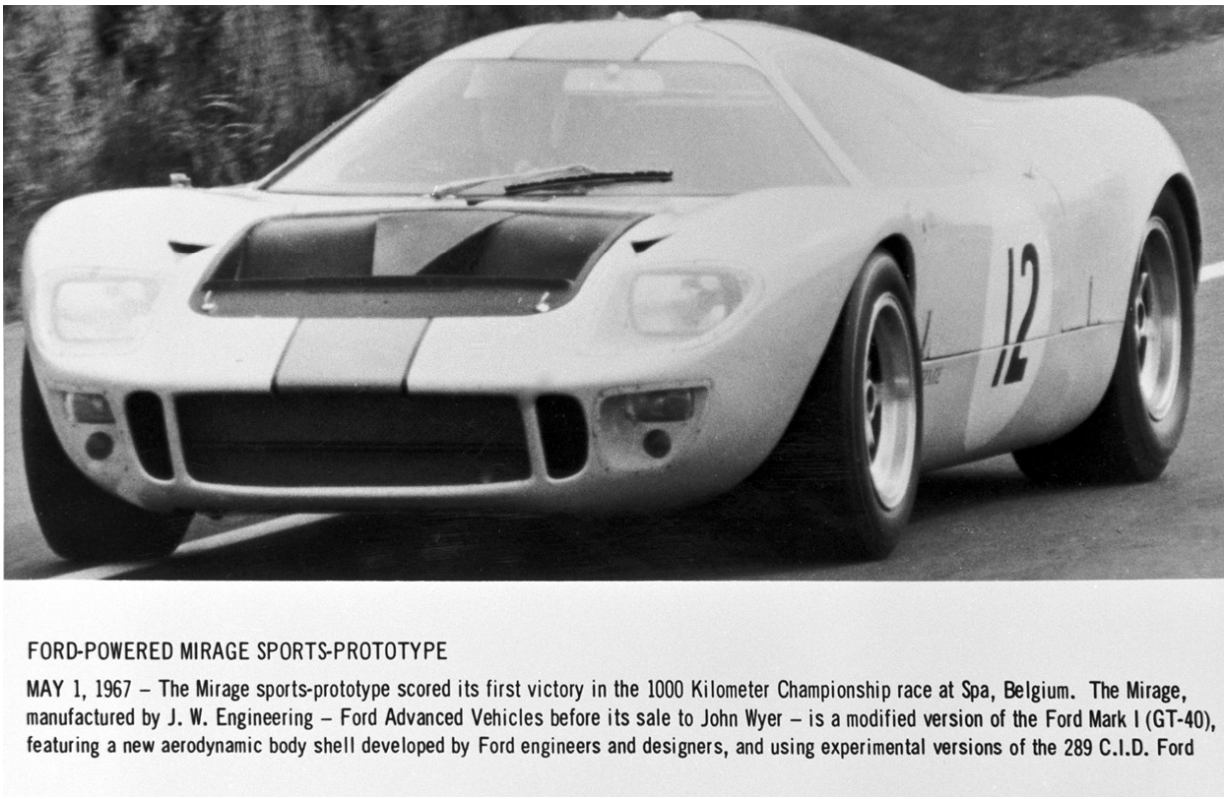
The FIA had been very concerned about the Sports-prototype cars' increasing speeds, particularly when they saw how fast the Ford Mark IIs and IVs were at Le Mans in 1966 and '67. From January 1, 1968, the FIA decreed that, for Group 6 cars – a prototype of which only one example need have been built, that is – an engine capacity limit of up to three liters would be imposed. For Group 4 cars, 50 of which had to have been built, engine capacity was to be no more than five liters.

Now that Ford had withdrawn from racing, John Wyer, as the owner of a private racing team, saw the opportunity to race the JWAE GT40 in the Group 4 class, rightly surmising that this would probably be from where the outright winners would come. Although Porsche had a very good Group 6 car with a light, six-cylinder engine, the 907, of 2.2 liters, its performance was not as good at this time as a well-sorted and run GT40. This was to change with the advent of the three-liter 908 unit, but not

until April 1968.



At Sebring, SEFAC Ferrari entered this 312P for Chris Amon and Mario Andretti. They finished second, just one lap behind the winning GT40 of Jacky Ickx and Jackie Oliver. (Courtesy Maranello Literature)



FORD-POWERED MIRAGE SPORTS-PROTOTYPE

MAY 1, 1967 – The Mirage sports-prototype scored its first victory in the 1000 Kilometer Championship race at Spa, Belgium. The Mirage, manufactured by J. W. Engineering – Ford Advanced Vehicles before its sale to John Wyer – is a modified version of the Ford Mark I (GT-40), featuring a new aerodynamic body shell developed by Ford engineers and designers, and using experimental versions of the 289 C.I.D. Ford

An original press release about the JWAE Mirage. (Courtesy Graham Robson)

JWAE, under the guidance of Chief Engineer John Horsman, began equipping its race GT40s with the aluminum heads commissioned by Dan Gurney from Harry Weslake. These were not only lighter than the old cast iron heads, but also had bigger valves: thus equipped, the 289in3 engine in the 1968 GT40s produced a deal more power than those fitted with the old iron heads. Additionally, Horsman had commissioned a new type of head-to-block sealing ring/gasket, and this cured what had been a problem with the 289 engine when used in long-distance races. (With 20/20 hindsight, it does seem astonishing that this weakness of the 289 engine had never before been tackled and overcome by the Ford engine department in Dearborn.)

As the Mirage did not fit in with JWAE's plans to field a group four car, having itself been spawned from a GT40, Mirage M1/10003 was converted back to GT40 specification, and race-prepared for the Daytona 24 Hours. It was re-numbered GT40P/1074. Another, now JWAE-owned, chassis, GT40P/1075, was also built in house.

Driver line-up for 1968 for the Gulf Oil-sponsored JWAE GT40s was Jacky Ickx and Brian Redman in GT40P/1075, and David Hobbs and Paul Hawkins in GT40P/1074.

At Daytona, Jacky Ickx took pole position, in a time half-a-second faster than the pole position time of Dan Gurney in 1967, in his 'works'-entered Ford Mark II. David Hobbs and Paul Hawkins were second on the grid, some two seconds slower than Ickx's time.

The new Ford F3L P68 being unloaded. (Courtesy Graham Robson)

In the race itself, Ickx led easily, only for Brian Redman having to retire the car before the 3-hour mark, when second gear stripped its teeth. GT40P/1074 continued for a further 12 hours, and was holding second place when the same problem, plus a leaking fuel tank, put it out of the race.

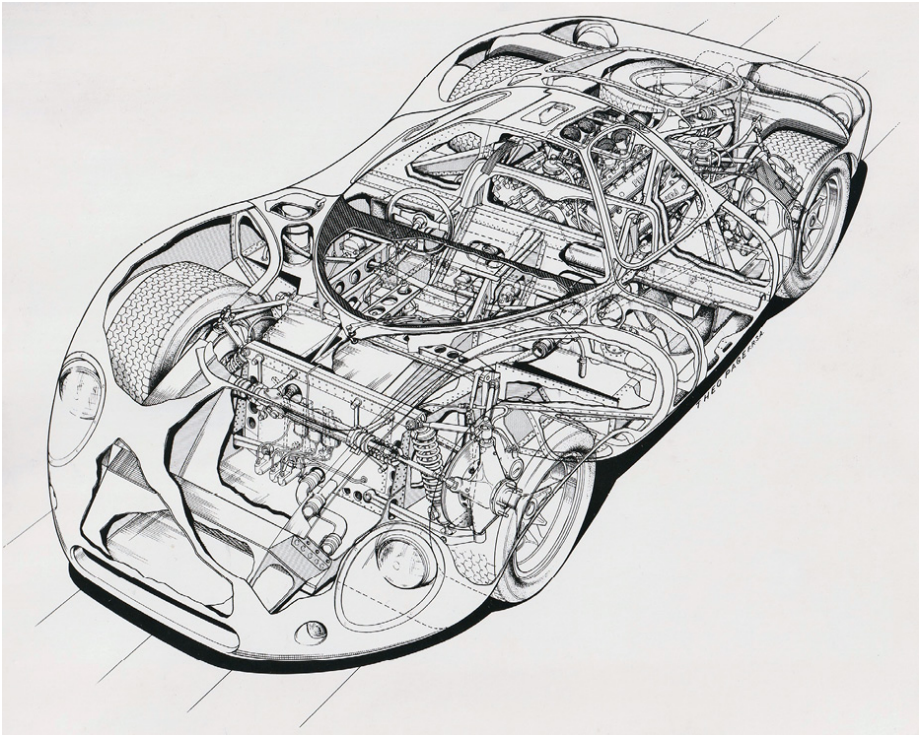
In his book, *Hobbo*, David Hobbs wrote: "Our GT40s qualified at the head of the field at Daytona, but were slower than the Works Porsche 907s in the race. Our sister car led initially, but was out after just a few hours.

"Paul and I, meanwhile, were doing well when the fuel tank sprang a leak at about two-thirds distance. Someone had neglected to tape over the rivets in the side of the monocoque before installing the fuel bags, and eventually the rivet heads wore a hole in one of them."

Porsche won the race, its 907s finishing first, second and third.

John Wyer and John Horsman went to the ZF factory to urgently request a stronger second gear, and a 2 millimeter wider second gear wheel pair was quickly made, and supplied in time for the Sebring 12 Hours in March.

There, Brian Redman spun under braking and let out the clutch when the car was going backwards, which ruined the clutch. Scratch one GT40. With the race five hours old, Paul Hawkins tried to avoid a very slow car but hit it hard. Although his car was quickly repaired, it went out later with suspension damage that had probably been initially caused by the earlier crash. Scratch second GT40. The Porsches won again ...



Cutaway view of the F3L P68 Group 6 car. (Courtesy Graham Robson)

The next race at which the GT40s were entered was the Brands Hatch 1000km, but this clashed with Le Mans test days. It was decided to enter GT40P/1074 at Le Mans and GT40P/1075 at Brands Hatch; Jacky Ickx to drive in both events.

Ickx practiced at Brands Hatch on Friday, April 5, and then he and John Horsman drove to Le Mans where, on the Saturday, he set fastest time,

turning a lap in 3:35.4, substantially faster than the 3-liter Porsche 908 that was making its debut.

Brian Redman had qualified GT40P/1075 in fifth place at Brands on the Saturday, going as fast as Jacky Ickx had on the Friday. As Paul Hawkins and David Hobbs had no JWAE GT40 to race, they were entered in Hawkins' own GT40. In his book, *Racing in the Rain*, John Horsman explained the rationale of entering just one car at Brands Hatch: "We had all assumed that the short and twisty Brands Hatch circuit would well suit the light and nimble Porsche 907s, and that Le Mans was more to the advantage of the GT40's character. That was the reason for entering only one car for the BOAC 500. It was most essential to gain experience on the Le Mans circuit with our 1968 version of the car, the only test session available before the big event in June. So we were quite satisfied to be fifth on the grid and ahead of the Lola-Chevrolets."

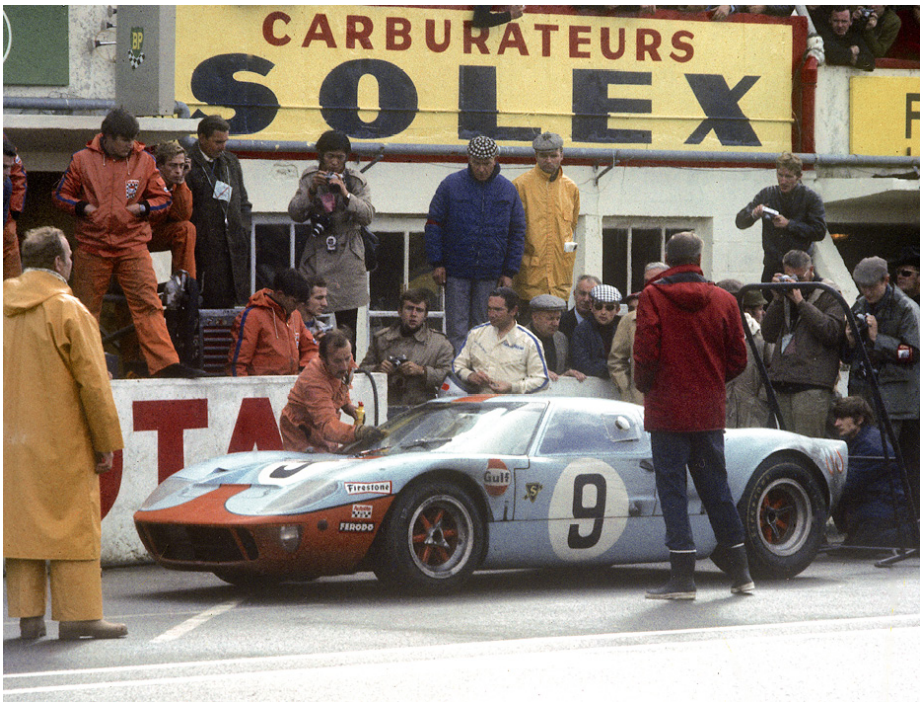
Indeed, a Porsche 907, driven by Jo Siffert and Hans Hermann, was on pole position, some 2.2 seconds faster than the GT40, but in the race …

The three works Porsches pulled away, as was expected, Ickx lying fourth. Bruce McLaren, driving the new Cosworth-engined P68 F3L, battled his way into the lead after a slow start, but then suffered an overlong pit-stop and slipped back in the field. Jacky Ickx came in for his first pit-stop and Brian Redman took over.

Whilst Redman was in the middle of his stint, the Ford F3L broke a driveshaft, and the three Porsche 907s ahead of Brian pitted for fuel and new brake pads. By the time they came out, Brian was leading the race.

At the second and last pit-stop, Jackie replaced Brian and went on to win the race, despite a las-minute challenge from Ludovico Scarfiotti in the second-placed Porsche. It was a momentous win, on a track where their opponents had theoretically held all the cards. To add to the team's joy, Hawkins and Hobbs finished fourth, despite not being in a team car.

Victory at Spa in 1968 for the Gulf-sponsored GT40 of Jacky Ickx/Brian Redman. (Courtesy Graham Robson)



Le Mans 1968. GT40P/1075 being refueled in the pits by Ermanno Cuoghi, Chief Mechanic for the JWAE team, with Pedro Rodriguez standing behind the cockpit in his white driving suit. (Courtesy John S Allen)

Back in a team GT40, Paul Hawkins and David Hobbs won the next

round, the Monza 1000km. Jacky Ickx/Brian Redman had taken pole position with a time of 2:57.0, with Hawkins/Hobbs in third at 2:59.7. The new Porsche 908 made its debut here and was second on the grid, although over two seconds slower than Ickx.

In the race, the GT40s and the 908s had a great dice in the early part of the race, before the car of David Hobbs and Paul Hawkins began to pull away. The Porsches began to suffer their own troubles, losing time in the pits.

Jacky Ickx pitted with a cracked exhaust pipe, and, in trying to make up time after the repair, Brian Redman spun and damaged it further. Realizing that they had lost too much time in repairs, JWAE withdrew the car. At the end of the 1000km race, David Hobbs drove the GT40 across the line, the victor. Again, a Porsche was second.

JWAE did not bother to go to Sicily for the Targa Florio, reasoning that the heavy GT40 would not stand much chance against either a Porsche 907 or 908. In the event, it was won by the 907 of Vic Elford and Umberto Maglioli.

At the Nürburgring 1000km, Porsches were first and second. The first JWAE GT40, that of Jacky Ickx and Paul Hawkins, finished third, and David Hobbs and Brian Redman fifth.

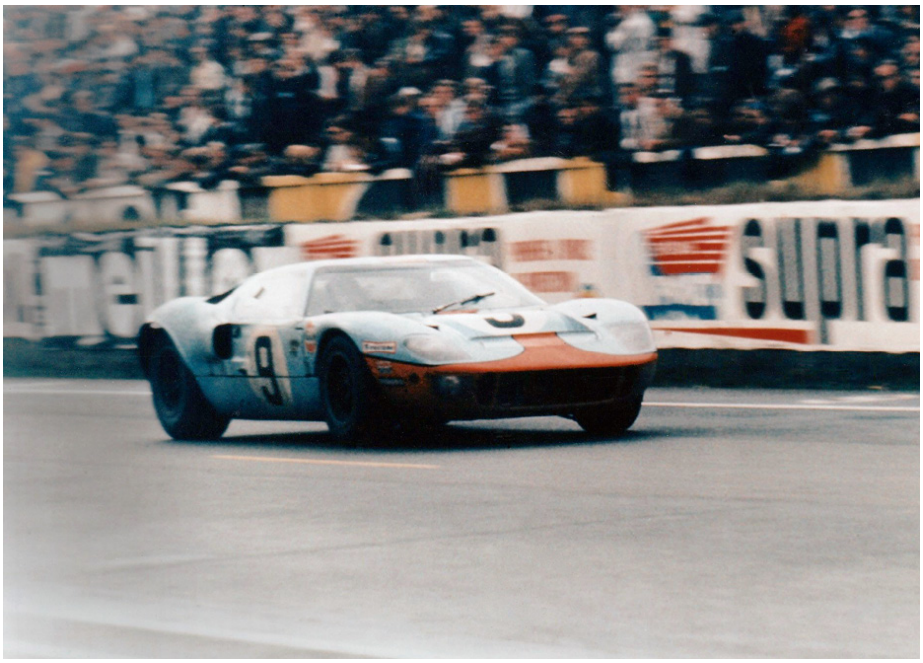
Le Mans 1968. The Ferrari Dino 206S of Chevalier/Lagier de Giuseppe, after being overtaken by the winning Gulf GT40 of Lucien Bianchi/Pedro Rodriguez. (Courtesy Graham Robson)

Just four days later the first practice was held at the nearby circuit of Spa-Francorchamps for the 1000km race there. A new car, GT40P/1004, which had gone to America in May 1965, and then been raced at Le Mans in 1965, had returned to FAV, and held in storage until being prepared for Paul Hawkins and David Hobbs for this race. The engine in this car was a Gurney-Weslake 302in3 V8, 4943cc. It was re-numbered as 1084, and, after testing the engine in practice, the car was re-engined with a 'standard' 289in3 V8 for the race, as the 302 engine had not yet been homologated.

Answering Jacky Ickx's prayers, it rained on race day. Jackie was entered in the saloon car race in a Ford Mustang in the morning, and won it going away for the third year in succession. Of course, this also gave

him an advantage in the main race in the GT40, as he now knew where the track was merely wet, and where water had gathered in deeper puddles.

At the start, the Ford F3L driven by Frank Gardner led, but suffered ignition problems and Jackie swept past. He came across the start/finish line, flew through Eau Rouge at the bottom of the hill, and could be heard sweeping through the turns at Les Combes, and on to Burnenville and the Masta Straight. By the time the next car came through, that of another Spa rainmaster, Willy Mairesse, Jacky Ickx had a lead of 39 seconds at the end of the first lap ... In his first stint, Jacky Ickx lapped the field, and when Brian Redman took over, he maintained that lead before handing back to Ickx for him to complete the 1000 kilometers, and take the chequered flag.



Victory at Le Mans! For the third year in a row, a Ford wins at Le Mans, only this time it is GT40P/1075, entered by JWAE and sponsored by Gulf Oil. (Courtesy Graham Robson)

Next should have been the Le Mans 24 Hours but, at the last minute, due to student riots in Paris, it was postponed until September 28-29.

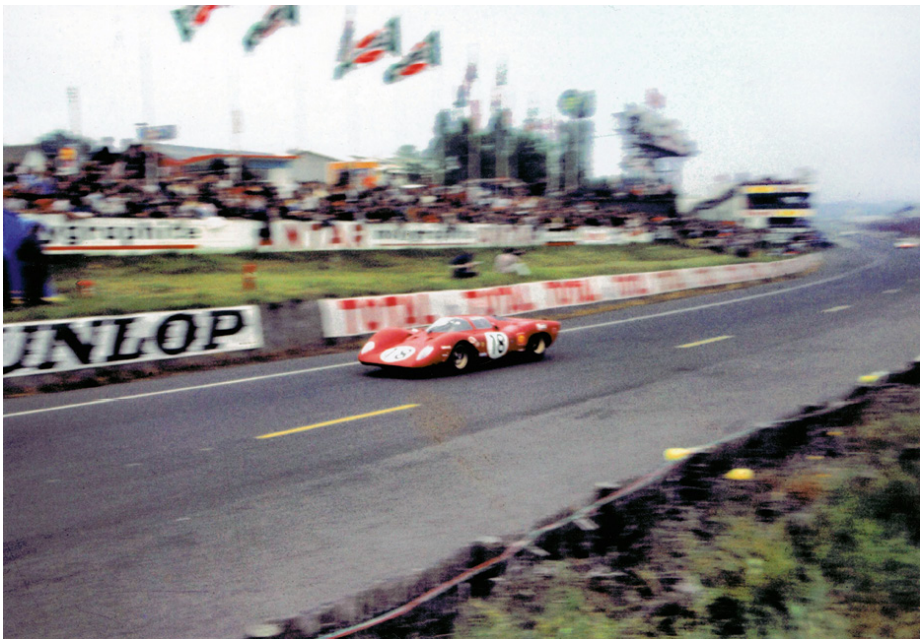
What had been due to be the last race of the Championship season, the Watkins Glen 6 Hours, now became JWAE's next race, which at least

allowed the hard-worked mechanics some respite.

At this time, Ford in Dearborn had also sent to JWAE its solution to the head gasket problems that occurred with the ‘small block’ 289in3 unit, as used in the Trans Am series for Sedans, in America. This was to completely seal off the joint between blocks and heads, and use outside pipes to transfer coolant from block to heads, and vice versa.

This was called the ‘dry deck’ system. John Horsman liked the system that JWAE was already using – a sealing ring fitted into a machined groove at the top of each cylinder and a peripheral gasket – but was overruled. So one car had this arrangement on its engine, and one GT40 used the dry deck system.

In the race itself, both GT40s finished the six hours in first and second places! Four Porsche 908s were entered and, although they were fast, their pit-stops were, as Horsman wrote, “… a shambles.” Towards the end of the race, the David Hobbs/Paul Hawkins car was leading, and was given the ‘SLOW’ sign from the pits, as they had such a huge lead over the third-placed Howmet turbine. But David Yorke, JWAE’s team manager gave the ‘FASTER’ sign to Jacky Ickx, whom he favored, and Jackie first closed in and then overtook David Hobbs to take the win.



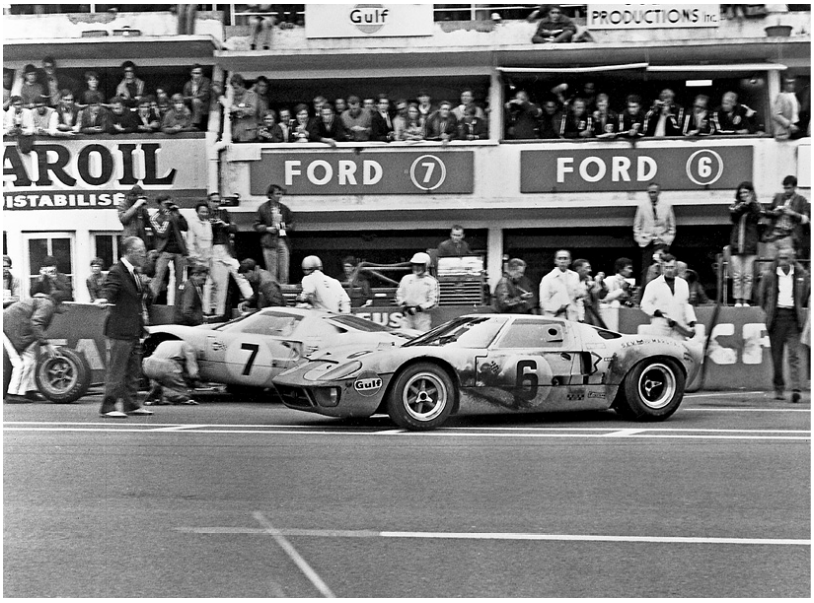
The Ferrari 312P of David Piper and Pedro Rofriguez at Le Mans in 1969. The #14 Porsche 917 was very fast, particularly in the hands of Rolf Stommelen and Kurt Ahrens, but it retired with an oil leak. The 312P also retired, but with gearbox problems. (Courtesy Maranello Literature)

Needless to say, neither David Hobbs nor Paul Hawkins were happy about this result. David Hobbs wrote: “Paul and I should have had our second victory. In the race the two Gulf GT40s were running 1-2 and we were leading, a lap ahead of our sister car, which Jacky Ickx was sharing with Lucien Bianchi …

“This was when David Yorke’s bias towards Ickx really reared its ugly head. He insisted we slow down to allow the Ickx/Bianchi car to pass us for the win. From the point of view of championship standings it made no difference to the team which order we finished, and there were no points for drivers back then.

“The Ickx car was low on oil pressure, and he should just have stroked it home for a finish, but Jackie was still driving like a man possessed, and it was a miracle that the engine did not let go. Yorke was getting more and more annoyed with me for not slowing down sufficiently, and every lap I was given more ‘slow down’ and ‘easy easy’ pit signals. Meanwhile, my co-driver, Paul Hawkins, had gone out to the first corner with Richard Attwood, and they were leaning over the fence urging me on!

“But, remember, after eight years of racing, this was the first really top team I had driven for, and I just did not want to jeopardize things by sticking my neck out and disobeying team orders. So I slowed up and was passed. Afterwards, Jacky Ickx said to me, ‘David, I like to win.’ I almost replied, “You don’t say …’”



Le Mans 1969. In the foreground is the winning GT40, 1075, in the pits with, behind it, being worked on, the David Hobbs/Mike Hailwood GT40. (Courtesy Graham Robson)

As Gulf Oil wanted another GT40 at Le Mans, Horsman and his mechanics built up GT40P/1076, and all three GT40s were now using the American ‘dry deck’ head/block sealing system.

When Le Mans finally came round in 1968, Jacky Ickx was unable to drive for JWAE as he had broken his leg in an accident at a Formula One race in Canada, and his place in the team was taken by Pedro Rodriguez. Rodriguez would partner Lucien Bianchi in 1075. For 1076 Australian driver Brian Muir and fast, single-seat driver Jackie Oliver were chosen, whilst David Hobbs and Paul Hawkins would drive their usual 1074.

The first three places on the grid were taken by the Porsche 908s of the works team, and then came the Rodriguez/Bianchi GT40. Next was a Matra, and then the Paul Hawkins/David Hobbs GT40. The new GT40 of Brian Muir and Jackie Oliver was ninth.

At the start it was all Porsches, particularly as the drivers for JWAE had been told to fasten their seatbelts before driving off. Brian Muir lasted only a short while before sliding into the sandbank at Mulsanne. He dug out the car after three hours, but then fried the clutch getting back to the pits, where the car was retired as it had lost too much time to continue after a clutch change.

By the third hour, the Rodrguez/Bianchi GT40 was third, with Siffert leading in his 908. Then his clutch failed and Rodriguez/Bianchi sailed into the lead. David Hobbs and Paul Hawkins had been experiencing what appeared to be an engine vibration, though leading at one point. After nearly six hours, the clutch failed completely, although the car got back to the pits where mechanics John Collins and Alan Hearn changed it in under two hours. It was all in vain, though, as the engine of this GT40 blew up so comprehensively that the cause of the vibration was never discovered.

Now, with sixteen hours left, it was fingers crossed that the third GT40 of Lucien Bianchi and Pedro Rodriguez would make it to the finish.

Despite various rainstorms requiring a change from dry tires to wets and back again several times, the car did, and, at 4pm on the Sunday, GT40P/1075 won the 24 Hours of Le Mans. By doing so, Ford also won the Manufacturers' Championship.

It was a great victory, rarely matched by any other small team. It also gave Ford the hat trick at Le Mans, having now claimed three victories in a row.

For a finale, John Horsman went back to South Africa with the sole surviving Mirage, M1/10001, fitted with a 351in3 Gurney Weslake engine, for the Kyalami 9 hours, that the team had won the previous year.

It was a storybook end to the season: Jacky Ickx, sharing the car with David Hobbs, won the race with hardly any drama. David Yorke sold the Mirage to Malcolm Guthrie on the docks, as the car was about to be loaded for its trip back to England.

The Gulf GT40s at Le Mans in 1969. Above: The two cars run together.

Jacky Ickx beats Hans Hermann in his Porsche 908 to make it four Ford victories in a row. (Courtesy Graham Robson)

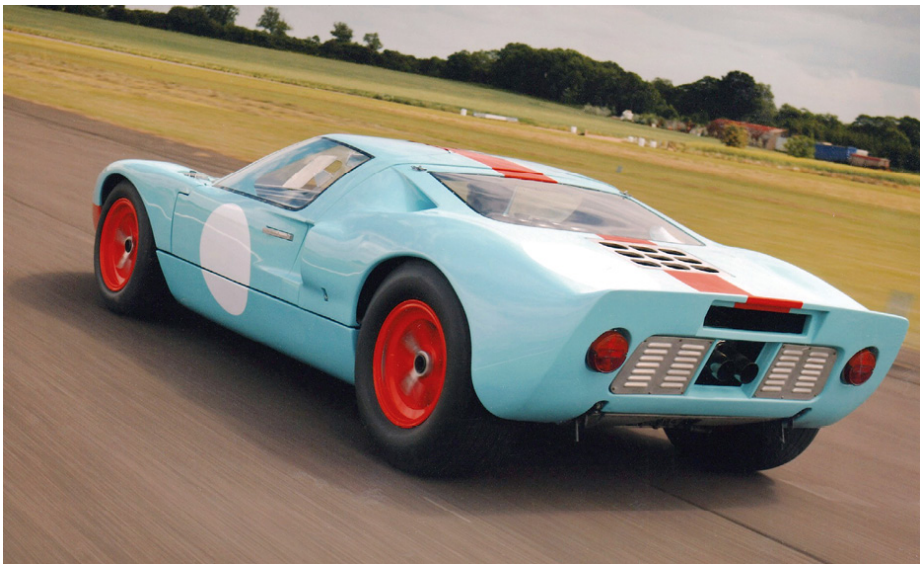
1969 loomed with more Gulf Oil sponsorship money, but the opposition was getting tougher ...

John Wyer had realized in 1968 that the JWAE team would need to have a Group 6 car, with a racing engine of three liters, if it were to win the World Championship of 1969. He had seen the Ford F3L and the

Porsche 908 in 1968, and they had provided, at times, formidable opposition to his GT40s.

So for 1969, John Wyer engaged Len Terry to design a BRM V12-engined Group 6 car, and the result was the Mirage M2, a pretty coupe that promised much but delivered little. Following this, Walter Hayes of Ford GB sold/gave/released to Ford Cosworth DFV engines to JWAE, and it produced the Mirage M3, that promised a better turn of speed but, again, this car was a failure, the DFV's vibration causing several parts on the car to break whilst it was running. The M3 did win one race, the Imola 500km in September 1969, where Jacky Ickx once again proved his dominance in wet conditions, and won the rain-curtailed race.

JWAE entered GT40s in 1969 at the Daytona 24 Hours, the Sebring 12 Hours, and the 24 Hours of Le Mans. Brian Redman had departed for a works drive at Porsche, and was replaced by Jackie Oliver, pairing with Jacky Ickx. Paul Hawkins left to drive his own GT40, and then the 'works' Lola T70 Mark IIIb coupe, and was replaced by Mike Hailwood, which made David Hobbs very happy.



GT40, chassis number P/1088, today. (Courtesy Graham Robson

At Daytona both GT40s retired with head/block sealing problems, despite David Hobbs having led at the 10-hour mark. The dry deck cooling system was not used again. The Roger Penske-entered Lola T70 Mark IIIb coupé of Mark Donohue/Chuck Parsons won the race.

At Sebring it was a different story, despite Ferrari now entering its Group 6 car, the 312P, which duly took pole position. The JWAE cars qualified twelfth and thirteenth. Time was catching up …

The track surface at Sebring was very rough in those days, and Hobbs and Hailwood were out after six hours when a ball joint broke in the front suspension. Ickx and Oliver won, defeating the new Ferrari and all the Porsches, in spite of an extra pit-stop to replace a punctured tire.

For Le Mans, Jacky Ickx and Jackie Olver had the faithful GT40P/1075, whilst David Hobbs and Mike Hailwood had the newer GT40P/1076. They were facing formidable opposition: two of the new Group 4 Porsche 917s being entered, plus four 908/2s, all works entries. There was also the quasi-factory entry of a Ferrari 312P, this to be driven by David Piper and Pedro Rodriguez, plus another 312P, plus four Matras and three other GT40s.

The JWAE GT40s lined up thirteenth and fourteenth on the grid, over fifteen seconds a lap slower than the pole-setting 917 longtail of Rolf Stommelen and Kurt Ahrens.

At the start, whilst other drivers ran to their cars, jumped in, started them and drove off, fastening their safety belts on the move, Jacky Ickx performed his own protest against this unsafe practice. Whilst other drivers ran to their cars, Ickx walked to his GT40, got in, started up, and did up his safety harness before he drove away to join the racing. Twenty-four hours later, this was to almost be the undoing of his GT40's success.

In the beginning, David Hobbs led Jacky Ickx by almost a lap, whilst Stommelen, in the 917, retired with a slipping clutch. Jo Siffert and Brian Redman also led the race, but they, too, would retire.

Hobbs lost his brakes at Mulsanne Corner but managed to get back to the pits to have his brake pads replaced. He tried to tell David Yorke that the problem was more than new pads would fix but was ignored. He drove out of the pits, realized that the brakes were still not working, drove another slow lap and came back in, when a broken brake pipe was discovered and replaced.

By twenty-one hours, the Ickx/Oliver GT40 was second behind the surviving Porsche 917 of Vic Elford/Richard Attwood, with the Willi Kauhsen/Rudy Lins Porsche 908 third. Hobbs and Hailwood were now fourth. Then the 917 went out with a cracked bellhousing and the Kauhsen/Lins 908 also retired. Hobbs pulled in for his last pit-stop and, whilst stationary, the Hans Hermann/Gerard Larrousse Porsche 908 swept past the pits to take second place.

With Hans Hermann at the wheel, it looked as if the 908 would win the race, but it was up against Jacky Ickx, and rarely had the Belgian's virtuosity behind the wheel been more evident than in this last titanic duel for the lead at Le Mans.

The two cars battled mightily for the last few laps, the 908 just having the slightly higher top speed but the GT40 braking better. How Jacky Ickx must have rued his tardy getaway 24 hours earlier, though he must have been too consumed with his battle with the nimble Porsche to give that much thought.

At the flag it was Jacky Ickx in the same GT40, 1075, that had won Le Mans the year before: he had won by 200 yards …

Carroll Shelby had once told Grady Davis that the GT40 was obsolete at the end of 1967, but superb preparation of the JWAE GT40s and the

driving skills of their drivers proved him wrong. Essentially, the Ford GT40, or one of its developments, had won Le Mans four times since its inception in 1964, besides also winning the World Championship for Manufacturers. From Lola Mark VI to Ford Mark IV, through the seminal GT40, the Ford effort to win had made the 1960s a great era in sports car racing.

Epilogue

I was born in 1944 and, as a car-mad kid growing up, I paid keen attention to the events described in this book. Indeed, I went to Le Mans in 1964, and well remember the sight and sound of the Ferraris and Porsches there. For me, the sensation of that race was the way that Phil Hill overtook the leading Ferraris, early on in the race.

It took the Ford Motor Company from 1964, when it first entered the GT40 at Le Mans, to 1966 to finally win the race. Three years. Par for the course, where a new entrant to motor racing is intent on winning the Championship.

After I had read various accounts of the programme, there remained some puzzles that I've never been able to work out, and I leave the reader with them. If anyone knows the answers, letters on a postcard to the author will be appreciated … Oh, sorry, no it's Facebook now, isn't it …

1: The GT40 first appeared in 1964. It was fitted with the Colotti gearbox that suffered reliability problems in Lola's Mark VI GT in 1963. In 1964, John Wyer ordered transaxles from ZF in Germany, for delivery in 1965. Why did he not order the Hewland LG500? That had easily, and quickly changeable gear ratios, so Ford mechanics would have had only to carry around spare gear pairs, instead of whole ZF gearboxes.

2: The Ford 289 'small block' engine nearly always suffered from a failure of the head to block sealing when used in long-distance racing (over 6 hours). The Shelby Cobras seemed immune to this problem (bigger radiators?), and Ford of Dearborn had handed over development of the GT40 program to Shelby American in 1965. John Horsman recounts, in his book *Racing in the Rain*, that, in 1967, he resolved this problem by going to a local gasket maker in Slough, England, and having special sealing rings and peripheral gaskets made up. Why wasn't this either done sooner, or Ford Dearborn instructed to fix the problem?

3: It does seem that Leo Beebe, in charge of racing at Ford, made a very peremptory decision to go straight to the Mark II, with its 7-liter engine in 1965, when the GT40, in its 4.7-liter, 289in3 form had already demonstrated it was a fast car, that just required development. But you can't argue with results …

Could it be that Ford's Roy Lunn, who had fallen out with Eric Broadley, wanted to remove the GT40 from the Ford Roster, thus not allowing Eric any credit in Ford's eventual victory? Lunn had presided over the design of the GT40, with its heavy steel monocoque chassis and the shape of the new bodywork, which made the car liable to take flight at speed. We shall never know, but Mr Lunn certainly had more access to Leo Beebe than Eric Broadley ever did.

Of course, I am looking at this with 20/20 hindsight, but the fact is that, with some thought, the problems with the GT40 could surely have been ironed out earlier than they were, and with a lot less money being spent …

4: And then there's a truly odd story about Ken Miles …

Sometime around 1986, a collector named Fred Jones, who had been a police officer, and who collected Cobras, and was also interested in Ford motorsport history, began looking for documents to complete his archives. When he inquired at the Riverside coroner's office about the death certificate for Ken Miles, he found that there were two. Strange, he thought, so, as an ex-police officer, he began investigating …

Fred soon found accounts about the crash that were at odds: some witnesses claimed that Miles was decapitated; others reported that he was still breathing as he was put into the ambulance. Peter Miles, son of Ken, said: "I remember seeing the car burning but I didn't see my dad."

Only one mechanic had witnessed the crash, and in his report it sounded as if part of the car's suspension or brakes had failed.

The information that Fred Jones uncovered led him to Scandinavia, a small town in Wisconsin. There, living in an abandoned school bus, he met a thin old man with a hooked nose who claimed to be Ken Miles, who used to be a racing driver. His driver's license, which he showed to Fred, was in the name Kenneth Henry Miles, born in 1918. He also seemed to know a lot about racing with the Shelby American team, and about Le Mans, Sebring, Riverside, and Daytona.

"But why are you living like this?" Fred asked him. The old man claimed that although he had survived his head injuries, Ford had not wanted any adverse publicity from this accident. This was the time when Ralph Nader's book, *Unsafe at any speed*, was making big waves with the public, scandalized at the casualty figures of Americans on the road. A death in a

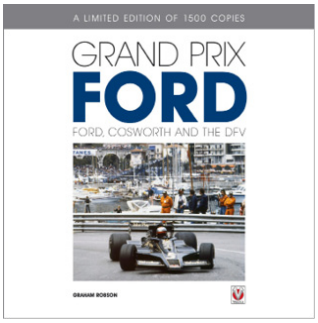
racing car crash or, perhaps even worse, a badly injured driver suing for failure of a car part was the last thing Ford needed.

So ‘Ken Miles’ said that Ford paid him $2 million to disappear. He had gone to Hawaii with his wife and son, but then had fallen out with them and they had taken all his money and left him, hence his impoverished circumstances.

Make of this tale what you will …

More great ebooks from Veloce Publishing

Grand Prix Ford – Ford, Cosworth and the DFV
Graham Robson



In 1965, Colin Chapman persuaded Ford to underwrite development of a V8 for the new 3000cc Grand Prix formula. Built by Cosworth, the new DFV engine won Lotus four World Championship Grands Prix in 1967. A year later, and now available to other constructors, the engine began its domination of Grand Prix racing.

Ebook ISBN – 978-1-787115-02-6
Print ISBN – 978-1-845846-24-4

digital.veloce.co.uk/ebooks/eV5502.html

Grand Prix Ferrari – The Years of Enzo Ferrari's Power, 1948-1980
Anthony Pritchard

Grand Prix Ferrari is a brilliantly comprehensive, accurate account of the most important team in the history of motor racing. The highly readable and informative text is supported by over 200 interesting, and often striking, photographs.

Ebook ISBN – 978-1-787114-99-9
Print ISBN – 978-1-845846-23-7

digital.veloce.co.uk/ebooks/eV5499.html