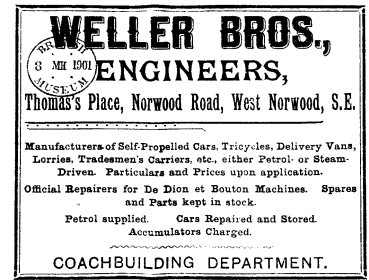


# AC CARS HISTORY

AC Cars is Britain's oldest vehicle manufacturer having been in continuous production since 1901.

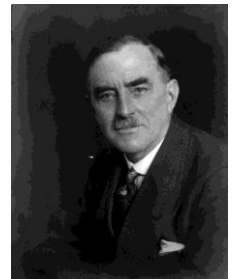
The three Weller brothers set up the company to repair, engineer and manufacture motor cars and motor cycles in West Norwood, London. They were appointed as repair agents for De Dion Bouton vehicles.



John Weller was an engineer and a prolific inventor; he applied for several patents but unfortunately allowed most of them to lapse.

The business continued to grow and Weller Bros. was appointed Official Repairer for the Automobile Club.

**1902** it became obvious that the company needed additional working capital to keep moving forward according to their plans. A local businessman named John Portwine was a great friend and fan of John Weller and his efforts. With his brothers, he operated 8 Butcher shops in the London Metropolitan area, trading under the name of 'London and Suburban Meat Stores, which family business is still trading today in Covent Garden



A new company - Weller Bros. Ltd, was formed with John Portwine and the Weller Brothers as shareholders and Directors. Weller Bros. Ltd agreed to buy the business for £1700 (a substantial sum in those days). This additional finance allowed the company to stay on track and time for some of John Weller's inventions to bear fruit.

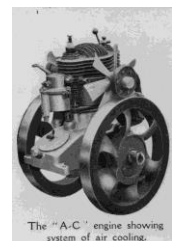
**1903** John Weller's first major work concluded with the launch of the 20 hp Weller Touring Car at the Crystal Palace Motor Show.

On June 6<sup>th</sup>, 1903 Autocar reported – 'We see a brilliant future for the Weller Car and its talented designer'

Within a year of the launch of the 20 hp Touring Car another of John Weller's inventions was to appear, his three wheel commercial delivery vehicle went into production.



This was to be called the Autocarrier (from which the AC name was later derived) and in 1904 the Company name changed to Autocar and Accessories Ltd. The Autocarrier was a great success with some of the purchasers including Boots the Chemist, Selfridges, Associated Newspapers, Carr' Biscuits, Maple and Co. Dickens and Jones and The Goodyear Tyre Co that had a fleet of more than 70 vehicles.



The success of the Autocarrier lead to the later design and production of a passenger vehicle based on the same basic design. 'The AC Passenger Machine' - The Sociable was an extremely successful vehicle and stayed in production up until 1915.

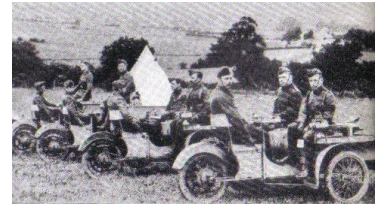


# AC CARS HISTORY



In November 1907 the abbreviation AC was used for the first time and a new company Autocarriers Ltd was formed with Portwine and the Weller Brothers still as directors.

Motor Cycling magazine for August 1911 shows the Autocarrier that had been adapted for Military application. The 25th London Cyclist Regiment was equipped with Autocarriers with Maxim guns mounted on the modified bodywork, other Autocarriers were adapted as ammunition carriers. It is recorded at the time that the Autocarrier was chosen by the military due to its quality, reliability, manoeuvrability and 'Lusty Performance'

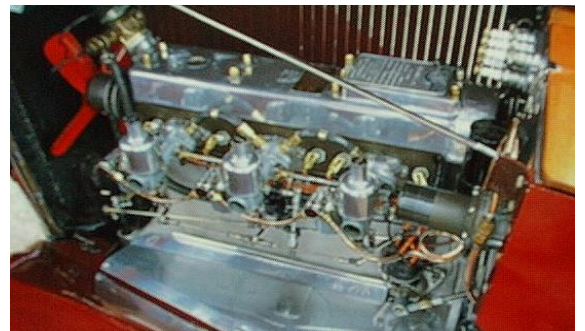


1911 the company moved manufacturing operations from West Norwood to the Ferry Works site in Thames Ditton where it was located for over 70 years.



As with many companies the World War I years took their toll on the company and much of the car production was replaced by the manufacture of shells and fuses for the war effort.

As AC moved into the 1920's John Weller's designs were there again, this time with a new engine. 'The Light Six', a straight 6 configuration with aluminium pistons, cylinder block and sump, chain driven overhead camshaft, finger followers with 4 valves per cylinder and a patented spring slipper chain tensioner. Initially the displacement was 1477 cc producing 40 hp, but this was soon increased to 1991 cc which produced 105 hp. The last example of this engine was manufactured in 1963 with a record run of the same engine design being manufactured by AC for 44 years.

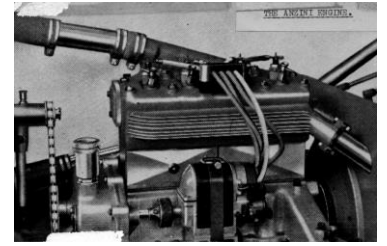


The beginning of the 1920's also saw the next major influence on the company, Selwyn Francis Edge, a prominent racing driver of Napier's in the early 1900's. Edge joined the company as the Governing Director in 1921, but his personality did not endear him to Weller and Portwine who left the company within a year and AC Cars Limited was formed.



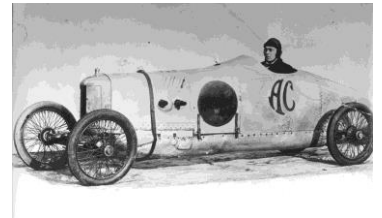
# AC CARS HISTORY

Until Weller's Light Six engine became available, most of the post war AC car models were powered by a more modest Anzani 4 cylinder engine.



AC cars were sporting in character, possessed amazing performance and were equipped with stylish bodies in a range of colours. In 1922 the 2 seat 12/24 sold for £575, £200 more than a Morris Cowley. They sold well and a strong reputation for quality and good handling was established.

Competition was important to Edge, he believed, as many manufacturers do today, that motor racing was the key to keeping the company name in the public eye. He did this with J.A Joyce in a car with a 4 cylinder version of the Light Six engine. Joyce was the first in a 1500 cc car to cover 100 miles in 1 hour, in fact over 104 miles in an hour. Later in 1924, Tom Gillett using the Light Six power set a new 24 hour record at over 82 mph and in 1926 Victor Bruce and William



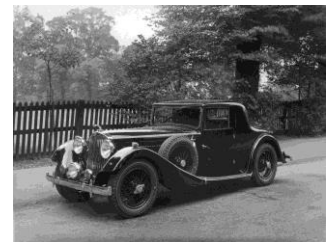
Brunell scored the first Monte Carlo Rally victory for a British car. A year later Bruce, and his wife Joyce, covered 15,000 miles in 9 days in France.

By 1928 AC was one of Britain's largest manufacturers producing 7 different models of vehicles, but the other manufacturers were catching up. Although many changes were introduced the international recession took its toll and in 1930 AC was forced into liquidation and Edge retired a poor man.



During the early 30's many low volume manufacturers were meeting a similar fate, never to return. AC's extra-ordinary ability to survive was about to be

demonstrated. The receiver sold off the remains of AC, cars were no longer being produced, but a lot of parts were left in the otherwise empty factory and the skilled workforce was still employed servicing existing customer's cars.



**1930** enter the Hurlock family, William and Charles, successful car and truck dealers in South London. They bought AC for its factory and profitable servicing business with no intention to manufacture cars.

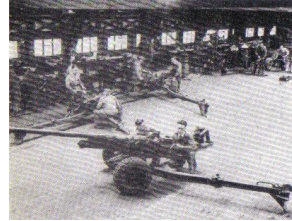
But the spirit of AC refused to die and William Hurlock wanted to develop a new car using available parts in store.

# CARS HISTORY

By 1933 AC was back at the London Motor Show with 5 car models on display. The following years saw many different body styles, saloons, drop-heads, tourers, coupes; all were handmade, very few identical, and all were the epitome of 1930 elegance. Equipment included built-in jacks, automatic chassis lubrication and adjustable shock absorbers.



World War II came and once again the war cause required the AC factory to be transformed for the manufacture of fire fighting equipment, aircraft parts, radar vans, flame throwers, guns and sights.



Following the end of the war, attention returned to car manufacturing, which grew steadily up until the 2 litre was being produced at the rate of 5 per week; again these were available in various body styles.

During the Hurlock years at Thames Ditton the AC Company survived due to the diversification practices that were introduced by the Hurlock's. This included the manufacturer of golf bag trolleys called 'Bagboys' and most notably the success in securing the contract to manufacture the electric trains used to carry holiday makers along the pier at Southend on Sea, all 34 carriages were entirely built by AC. These trains ran up until the late '70's when the pier was closed for major renovation work. AC also built 5 rail cars; one is currently on display at the Colne Valley rail museum.



**1954** the new AC Ace was introduced and put into production utilizing the Weller Light Six engine. This was a revolutionary car for its time, in terms of styling and chassis design. It used a 3" diameter tubular ladder chassis and quickly gained respect amongst the sporting motorists. It was highly successful in club racing, being the type of fast, tough car that a private owner could race and rally and still use for every day motoring. Little did the company realise what the Ace was to become.

**1955** saw the introduction of a Coupe version of the Ace, the Aceca, which was launched at the London Motor Show. The model was also produced as an Ace-Bristol version starting in 1956.



**1956** The Ace-Bristol was put into production and sold in Europe and the United States. It had the same chassis, suspension, body and interior as the Aces that were produced with the Light Six but it was fitted with the Bristol 2 L engine which had proven to be a very track worthy engine in other brands of sports cars in Europe and the United States. Both models were

# CARS HISTORY

available for the following 5 years but the Bristol version went on to surpass sales of the Light Six version and was the choice of most of the sports car racers.

The ACE continued its international racing successes and in 1957 an Ace-Bristol finished 10<sup>th</sup> overall, 2<sup>nd</sup> in the S2.0 Class at Le Mans and 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> in the SCCA EP Class Championship. In 1958 an Ace-Bristol finished 8<sup>th</sup> overall, 2<sup>nd</sup> in the S2.0 Class at Le Mans,



1<sup>st</sup> in the GT2.0 Class at Sebring and 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> in the SCCA EP Class Championship. In 1959 an Ace-Bristol finished 1<sup>st</sup> in the GT2.0 Class at both Le Mans and Sebring and 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> in the SCCA EP Class Championship. In 1960 an Ace-Bristol finished 1<sup>st</sup> and 2<sup>nd</sup> in the SCCA DP Class Championship and in 1961 an Ace-Bristol finished 1<sup>st</sup> in the GT2.0 Class at Le Mans and 1<sup>st</sup> in the SCCA CP Class Championship.

Again diversification was needed to keep moving forward and in 1957 it saw the successful negotiation of another manufacturing contract. This time it was with the Government to produce the light blue invalid carriage. Over 1200 were produced and were a common sight on the road for many years. This era also saw the manufacture of the 3 and 4 wheeled Petite.



**1961** The AC Ace 2.6 was developed with Ken Rudd and the engineers at AC and went straight into production. The Ace 2.6 utilized the Ford Zephyr 2.6 L six cylinder engine that had been tuned and tested by Ken Rudd and his Rudd Speed development company. The shorter block configuration allowed for the lowering of the hood line and changes to the radiator opening, which had been a setback to the Ace-Bristol. These changes combined with the additional horsepower of the 2.6 L engine made for the fastest Ace ever produced. Only 37 of this model were produced from 1961 through 1963 because a new V-8 version of the Ace was introduced in late 1962 in conjunction with Carroll Shelby, AC and the Ford Motor Company.



**1962** In the early 60's Carroll Shelby was trying to find car that would beat the Corvette. He had heard of the racing success of the AC Ace and went to England in 1961 to negotiate with AC Cars to manufacture an Ace to be powered by a Ford V-8. The AC Engineers designed modifications to the Ace chassis and suspension for the increased weight and horsepower and shortly thereafter the AC COBRA was born. Depending on if you are English or American there are many versions of what subsequently happened. The fact is that the AC records show that commencing 20th June 1963 AC manufactured approximately 1000 cars and shipped them to Carol Shelby in the USA where the engines and transmissions were installed and then delivered to customers by the Ford Motor Company. A number of AC Cobras were built complete at AC with engines and transmissions to similar specification as the US cars and sold in the European market place.



# AC CARS HISTORY

The Cobra continued to improve, from the original MK1, 260 through the 289 and up to the impressive and legendary 427 S/C (Street Competition) with its 4" diameter chassis tubes to handle the immense torque of the 427 V8 engine which produced over 500 hp, independent wishbone suspension front and rear and a beautiful body design.



At that time the Guinness Book of World Records listed the 427 AC Cobra as the fastest production car in the world, a title it held for many years. It is said that Carroll Shelby used to put a \$100 bill on the windscreen and challenged a potential customer to take it as he accelerated to a breath taking demonstration, no one got the \$100, but many placed an order for a car. By 1965 Cobra rolling chassis were being produced at the rate of 15 per week.

The 427 has become the most copied cars in the motor vehicle history, it is estimated that approximately 50,000 copies of the Cobra have been made by numerous companies around the world making it the most replicated car in the World.



In 1964 AC Cars was ready to re-enter Le Mans with a special 'Le Mans' Coupe built using the Cobra chassis and 289 engine.

It is widely reported that during preparations for Le Mans, a car was clocked at over 183mph at 4:30 in the morning on the newly built M1 motorway. Although the motorway was empty at the time the report caused uproar and questions were even asked in the House of Commons.



The next year, 1965 the 70 mph limit on the M1 was introduced.

In the racing world the Cobra was winning everything it was entered into in the USA, but when Ford and Shelby brought their teams to compete Europe they found the tracks to be much faster and the poor aero dynamics of the Cobra roadster could not compete on the fast straights with the likes of Ferrari. In 1965 Ferrari was to be beaten by a team lead by the legendary Bob Bondurant that went on to win the FIA World Championship with a Shelby designed 'Daytona Coupe' built on the AC designed 289 chassis and the 289 'FIA Roadsters' that were built by AC.



Frua of Turin designed a new steel body for the Cobra chassis, named the AC428. With bodies imported from Italy AC built 29 convertibles and 51 fastbacks up until 1973 when production ceased.



In the late 70's and early 80's a totally new mid-engine 2 seat sports-car was developed using a Ford 3.0 L V6 engine, the ME3000. It had a composite body on a steel chassis. Although relatively popular it was not a great success and suffered from reliability problems.



# CARS HISTORY



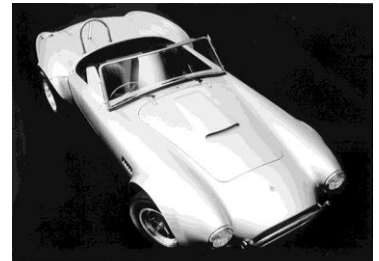
**1982** Brian Angliss started a company called Autokraft, he had acquired most of the original cobra production tooling and jigs and the rights to use the AC name under contract and put the Cobra back into production. The MK IV Cobra was certified for sale in the USA with a federalised 5.0 L V8 Mustang engine, roomier cockpit and modern instrumentation.

By 1986 most of the major motor manufacturers were buying up niche sports car companies – GM bought Lotus, Chrysler bought Lamborghini, Fiat bought Ferrari. Ford bought AC Cars. Derek Hurlock retired after a 56 year family ownership. The Thames Ditton factory was sold for redevelopment and Ford built a new 90,000 square foot factory on the then new Brooklands Industrial Park where AC was located up until 2001.



Ford Motor Company recognised the skills of the AC workforce and used the Brooklands site for prototype manufacture and the booted Scorpio prototype was produced there.

Ford and AC continued with the production of the MKIV Cobra but they recognised that AC needed more than just the Cobra and invested in the development of a new car, resurrecting the ACE name. It was a modern version of the AC Ace with air conditioning, electric windows and a new stainless steel chassis with an aluminium body.



Unfortunately the car was not fully developed for production and was too expensive to build so it ended with less than 100 cars produced. In the mid 90's Ford sold the company back to Brian Angliss who continued with the production of the new Ace and MKIV Cobra building approximately 480 through the late 80's and early 90's.

Angliss had many interests and moved the company into restoring vintage motor cycles, amassing over 200 examples; he also started to restore a World War II Hurricane and Tempest airplane. These activities drained AC's resources and in 1996 the receiver was called in.

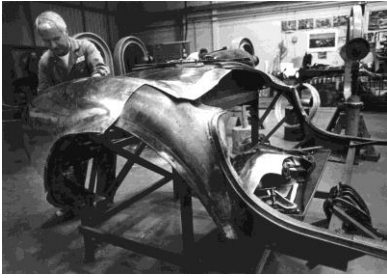
**1996** Alan Lubinsky, a South African entrepreneur stepped in and bought the company from the receiver.

He reviewed the AC product offerings and was soon aware that AC could not sell enough Cobras to stay afloat but the kit car and 'replica' business was selling over 500 component cars per year.



Lubinsky decided that AC must make a stand and compete with these replicas by producing authentic AC Cobras at an economic sales price as a component vehicles in the United States and abroad.

# **CARS HISTORY**



AC conducted an evaluation to optimise the production processes and thus enable them to build a car at a reduced sales price while maintaining the fit and finish quality of AC products. AC Cars had a highly skilled traditional craftsmen workforce of panel beaters, welders, fabricators and trimmers. The original Cobra's were all completely hand made at the factory and took approximately 6 to 9 months and over 3500 man hours per car, hence a price tag of approximately £150,000.

An aluminium body is hand beaten from approximately 40 pieces of aluminium gas welded into 2 body halves, front and back. It is then wrapped onto a steel the skeleton framework on the chassis. This process takes approximately 5 man months to complete a body ready for paint, an alternative process was required. The main cost saving opportunity was to change the body material and manufacturing process.

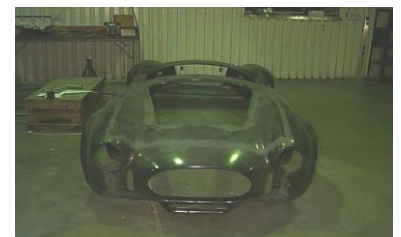


Carbon fiber was selected as glass fiber would have been too heavy, reduced finish quality and would play into the replica manufacturers' hands.



One of the main problems with composite panels is maintaining the shut gaps and surface integrity, carbon fibre is far more stable than glass fiber. As a result of welding of the separate panels the aluminium body becomes a one piece structure, the carbon fiber continued the trend, thus ensuring shut gap control and the overall quality was maintained.

The AC CRS, was launched at the 1999 London Motor Show.



**2001** AC Cars was 100 years old. AC celebrated its centenary at the Royal Hospital Chelsea, the home of the Chelsea Pensioners and Chelsea Flower Show, at the invitation of the Governor, General Sir Jeremy Mackenzie, now Chairman of AC Cars, in beautiful weather over a weekend at the end of July.

It was believed to be the largest gathering of AC cars in recent years with 30 cars on display along with over 70 visiting owner's cars from the AC Owner's Club.



To create an evolution of the legendary MKIII 427 Cobra the company linked with Lotus mating their new 3.5 L V8 engine with a 6 speed transmission, the AC 212 was born delivering 350 hp in a 900 kg car. Unfortunately Lotus had to cease production of the engine so only 2- 212's were built in the end



# CARS HISTORY

In 2002 AC continued production of the composite bodied cars but overhead and labor costs in the UK made the cost of production too high to make a profit. A major reduction in operating overheads and a new business model was required to stay afloat.

**2003** Re-enter the racer from Texas named Carroll Shelby along with his public company Shelby Automobiles. Shelby and AC entered into an agreement to build authentic 289 and 427 Shelby AC Cobras together again for the first time in 35 years. Shelby had been building 427 and 289 Shelby Cobras as component vehicles under a license agreement with the Ford Motor Company since 1997 but they too needed to get a premium sales price in order to make a profit. In the end 13 cars were produced as Shelby AC Cobra component vehicles from 2003 until 2006 when the relationship was ended, the 13 cars were the most expensive component vehicles sold by Shelby Automobiles to this day.



Meanwhile AC had been looking for an alternative manufacturing site which resulted in the decision to move the factory to the Mediterranean island of Malta.



A new model was developed, the AC MKV, composite bodied on the original design steel ladder chassis and fitted with a Ford 5 L 340 hp fuel injected engine and 5 speed manual transmission. Production of the new AC MKV commenced in 2004 and ceased in 2007.



AC then reviewed its future plans and concluded that the future of the company relied on establishing joint ventures to enable the historic brand to continue. The first relationship was established with AC Automotive GmbH and has commenced with the design and development of the new AC MKVI which continues the styling of the much loved AC Cobra of the 1960's but includes an emission compliant Corvette 6.2 L 437 hp V8 engine.

The second joint venture was established with Iconic Motors, LLC in the USA who have created the ultimate Cobra inspired vehicle, the Iconic AC Roadster, a highly technical advanced vehicle featuring an 800 hp engine, Formula 1 derived suspension, carbon fiber passenger tub and weighing just over 1000kg.



Another Joint Venture of AC Cars is in the UK with AC Heritage, based at the historic Brooklands Racing Circuit in Surrey where the aluminum bodied historic AC Ace and Cobra based models of the 1960's are produced. The AC Ace-Bristol, AC 289 MkII and AC 427 MkIII are being built to the original specifications from the original AC owned tooling for collectors, there is also be a living AC museum at this facility.



# CARS HISTORY

In 2012 AC Automotive Ltd was formed to develop and produce the AC 378 GT Zagato. The AC 378 GT Zagato has a 6.2 L 437 bhp engine and is a traditional front engine rear wheel drive vehicle. The body was designed by Zagato, the well-known Italian automotive designers.

