

## **Alec Alexander Constantine Issigonis**

### **Designer of the Mini.**

#### **Biography**

Alec Arnold Constantine Issigonis was born in Smyrna, a Greek community in the Ottoman Empire. His grandfather Demosthenis migrated to Smyrna in the 1830's and worked on the British railway that was getting built to link Smyrna to Aydin. Through Alec's grandfather's engineering work when building the railway he gained British nationality. Alec's father Constantine was born in Smyrna in 1872 with British nationality. Alec's mother was called Hulda and can be traced back to Wurttemberg which is now part of Germany. The love of English things was passed down the family and because the family was now British they had to be evacuated from Smyrna because of the Greco-Turkish War. The family was evacuated to Malta in the September of 1922. After Alec's father died in 1922, Alec and his mother moved to Britain in 1923.

Alec started off at Battersea Polytechnic in London, but failed his Maths exams three times in a row! Alec then decided to go to the University of London External Programme to finish his education.

The big step in his life was going into the motor industry because of course he would become famous after he designed the Mini for BMC.

Anyway he started off his career in the motor industry at Humber. He went on to doing some motor racing in the 1930's and the years before the war in the 1940's. He didn't stay for too long at Humber as in 1936 he moved on to go to the Morris Motor Company. He worked on many different projects during the war but near the end of the war he was given the design brief for the post war car named, at first, the Mosquito. The name later changed from the Mosquito to the Morris Minor which was produced in the years between 1948 and 1971. In 1952 he moved just before Austin Motor Company and Morris joined up to form BMC or **British Motor Company**. He moved to Alvis Cars. He didn't go on to much at Alvis designing some things but they are not really notable. By 1955 he was back at the BMC and straight into work. Alec's boss, Leonard Lord wanted him to design a small economical car as soon as possible following the outbreak of the Suez Crisis in 1956 when fuel rationing was brought in.

The car he designed was eventually to be known as the Mini.

Alec played a key part in the development and success of the famous Original Mini Cooper which was launched in 1959. The Mini still looks as great as it did when it was first drawn on a restaurant table cloth by Alec Alexander Constantine Issigonis nearly fifty years ago.

#### **Functionality.**

The Mini is probably one of the most loved and popular car ever built because of its functionality and size, nobody really hates a Mini. In terms of functionality the Mini was a class leader. At this time there was a new craze,

bubble cars were beginning to pop up all over Britain, mainly because of the Suez crisis leading to a shortage of petrol this then leading to petrol rationing. This is the reason why the BMC, British Motor Company, introduced the Mini. It was there answer to the bubble car. The boss of the British Motor Company Leonard Lord hated the design and everything else about bubble cars and so instructed the company's best designer to create a car that would drive the bubble car off the road. His best designer of course was Alec Issigonis, who had previously designed the very popular Morris Minor for the same company.

### **How was it made?**

Since the car was so small, only 10 feet in length. Alec had to think where he was going to fit 4 seats and an engine into such a small space. Alec put 80% of the space to passengers and luggage therefore only leaving 18 inches to fit in the engine and the gearbox. He came up with a solution. He put the engine in sideways and squeezed both the gearbox and the engine into a tiny space which was an amazing feat. The Mini is famous for its agility and this is because Alec put most of the weight of the Mini over the two front wheels giving the car great handling and stability going round bends. The Mini's drive shaft based on the idea of a submarine periscope. There were a couple of technical difficulties during the design and manufacture of the Mini Cooper just like any other car. The first thing was that BMC who made the Mini asked the oil companies to set to work in finding an oil that could be shared between both the engine and the gearbox. The second thing was the tyre problem. The British Motor Company asked Dunlop Tyre Company if they could develop a tyre that would last more than 5,000 miles that they could put on the Mini. 5,000 miles must have been a good life for a tyre at the time but nowadays that is nothing for a car tyre because the technology has come on so far.



### **What was the Minis purpose?**

The main purpose of the Mini was to break in to the market of the bubble car. At the time the bubble car in Britain was like the Ford Focus is nowadays. Extremely popular and liked by most. The bubble car was so popular because it was fuel efficient and cheap to run. People wanted fuel efficient cars at the time because of the Suez Crisis and petrol rationing in Britain at the time. Leonard Lord, the man in charge of BMC, saw the chance of breaking into this market and wanted to design a car that would not only compete with the bubble car but run it off the road. Luckily for Lord his plan worked and a while after launch, the Mini really took off and has been a great success financially. The unique thing about the Mini is that it is one of the longest running models of car ever still ongoing today. That really is a great achievement.

### **Market Audience**

The market audience for the Mini is single people or couples. The great thing about the Mini though is that people any age can own and use the Mini. The small size of the Mini is perfect for older people to manoeuvre and park while the newer sportier versions have the handling and power to satisfy and impress any younger person or couples looking for a small car with a bit of power. This is quite a niche market with there only being a few hatchbacks having the power and handling to match the Mini Cooper S's.

### **Was there a design brief given to the designer?**

There was a design brief given to Alec Issigonis when he was chosen to design the Mini for the British Motor Company. There was various points he had to fulfil when designing the Mini. The first and most important thing was that it had to compete in the bubble car market. So it had to be smaller than anything the BMC had designed before. The second point on the design brief was that it had to have four seats unlike any bubble car which had three wheels and only two seats. Alec was faced with the challenge of fitting four seats into a car that was only 10 feet long bearing in mind that they had to fit the engine and all the other workings of the car into the car as well. The BMC boss Leonard Lord told Alec Issigonis that 80% of the car had to be dedicated to passenger space and the other 20% to luggage space and the workings of the car.

### **Was the product/design a financial success and how has it developed over time?**

The Mini wasn't a great success in the early days because people thought that it wasn't cool and it just looked a bit silly but it really took off when people like John Lennon started driving them and they sold millions. The Mini has since then been a huge success story. It has come on hugely since the original Mini, or Morris Minor/Austin Seven as it was called then, was released in 1959. There has been many different versions since that first Mini came out of the factory 48 years ago. The modern Mini Cooper is made by BMW Motors. There are three variations of Mini, the Mini One, the Mini Cooper and sporty version the Mini Cooper S.

### **Ergonomics.**

The standard of ergonomics in the Mini is very high. It is a simple layout and you can imagine that it would be either one of the most or the most easy to use cars in the history of the automobile. There is not much to write about the old Mini in terms of ergonomics. Old cars had very little switches and other workings. In terms of interior it had a steering wheel, speedometer and a couple of other important switches on the dashboard. The Mini was an extremely well built hand made car made by highly skilled engineers in England.

### **What do you think of the product/design, would you buy it and why?**

I think the Mini is a great car and the design of it is unique. No other car is like a Mini.

Two years and one month after the prototype was first driven by boss Leonard Lord the car was given the thumbs up. The car was launched in two versions and at first was not called the Mini. The two versions were the Morris Minor and the Austin Se7en, (seven). Soon after it was coming off the production line and has been a great success story ever since. It has also been a great success on the racing front as has won many medals and other awards. Especially in rally style racing where it has been a class leader and still is, although today it is not used anymore in professional rally many people choose to buy a Mini if they want to start amateur rallying. This just shows how versatile the Mini was and how the car is still going today. I like the Mini very much and if I had enough money and I was old enough I would probably buy one because they are cool, sporty and small. Great for all ages.

