

Sir Alexander Arnold Constantine Issigonis

One-of-a-kind Automotive Genius

By Bob Vitrikas



Alec Issigonis with the first production Mini on his right and a new 1965 Morris Mini Minor Deluxe on his left. Photo courtesy of Birmingham Museum Trust.

Alec Issigonis was an automotive engineer and amateur race driver with a diversity of ethnic roots; British, Greek and German. His father was a wealthy shipbuilding engineer who emigrated to Izmir, Turkey where he built a very successful shipbuilding business. His mother's side of the family traced their origins to the German Kingdom of Wurttemberg. Coincidentally Alec was a first cousin once removed from BMW and VW director Bern Pischetsrieder who spearheaded the BMW acquisition of some very well know British marques; Rolls-Royce, Land Rover and the legendary Mini. Issigonis and Mini would be forever linked in the annals of iconic British brands.

Born on 18 November 1906 in Smyrna (now Izmir), Turkey, Alec and his family were evacuated by the Royal Navy to the island of Malta as a result of the horrific burning of Smyrna in September 1922. The burning of Smyrna is regarded as one of the most catastrophic urban fires in world history, as well as an act of Turkish genocide and a war crime against the Greek population that lived in Smyrna. Winston Churchill labeled

it an “infernal orgy” stating that “For a deliberately planned and methodically executed atrocity, Smyrna must...find few parallels in the history of human crime.” Sadly Alec’s father died shortly after they made their way to Malta and subsequently Alec and his mother emigrated to England where Alec enrolled in the Battersea Polytechnic in London. Turns out young Alec and mathematics didn’t see eye-to-eye, he failed his mathematics exams three times, declaring the subject “The most uncreative subject you can study.” and “The enemy of every truly creative man.” Can some of you readers relate? Alec wisely decided to complete his studies at the University of London External Program.

Despite all their unplanned moving about, the Issigonis family retained sufficient funds to live a luxurious life style and young Alec indulged his automotive interests by competing in racing during the 1930s and 40s. His first race car was a supercharged and greatly modified Austin Seven “Ulster” incorporating an independent front axle of his own design. Alec followed this with his own original race car design, the ‘Lightweight Special’. This clean sheet design had an innovative body of plywood covered with aluminum sheet. The suspension was also an Issigonis special featuring a trailing arm front attached to a steel cross-member. At the rear was a swing axle with rubber springs made of catapult elastic. You can’t make this stuff up! This combination of innovative suspension design and lightweight would be a hallmark of Issigonis’ designs going forward. Total car weight was a featherlight 587 lb of which the engine contributed 252 lb. The supercharged side-valve engine was supplied by Austin. All these innovative components worked well together and Alec usually won his sprint and circuit races, even when competing in 1100 cc class when there was no 750 cc class for him to race in. Wow, impressive, eh?



Issigonis’ ‘Lightweight Special’ in action.
Photo courtesy of Velocetoday.com.

Alec started his commercial career in 1936 as a suspension engineer at Morris Motors, perhaps due to his innovative race car suspension designs. He engineered an independent front suspension design for the Morris 10 but World War II prevented his design from seeing production. It was later used to good effect on the MG Y-Type which led to the IFS on the MG T-Type, MGA and MGB. I'd say that was a pretty good run for a junior designer in his early 30s! At the end of WWII Alec was part of the design team for the Morris Minor. Morris initially rejected it as too expensive and peculiar looking. With some major revisions, 1.6 million were produced from 1948 to 1971 and was the first British car to exceed 1 million in production.



After seventy-eight years, the Morris Minor still wins hearts among British car enthusiasts! Photo courtesy of Wikipedia.

Issigonis famously hated waste of any sort, wasted space, wasted metal, wasted opportunity. The Morris Minor would be Alec's manifesto and drove his designs from then onwards. He was described by his colleagues as "autocratic, imperious, and utterly intolerant of compromise." They snorted "He believed the public didn't know what it wanted, and it was his job to tell them. He dismissed market research as "bunk, " built uncomfortable seating and when asked why the Maxi lacked styling appeal, he showed no interest in the question." He was the "Poster Boy" for why brilliant engineers should not run car companies.

Issigonis left Morris to work for Alvis in 1952 where he designed an advanced saloon featuring an all-aluminum V8 engine driving thru two gearboxes and clutches. Always the suspension engineer, he experimented with an interconnected independent suspension system but the engine and suspension designs were too costly for Alvis to move into production and Alec was shown the door.



Family photo! From left to right, Austin 1800, Austin 1100 and the Mini. Photo courtesy aronline.co.uk

In 1955 Issigonis moved to the British Motor Corporation (BMC) where he was charged with designing three cars; a large comfortable car (Austin 1800) a medium-size family car (Austin 1100) and a small town car. I think he was probably most enthusiastic about the small town car, don't you? In 1956 the Suez Crisis triggered a fuel shortage and small cars that got exceptional mileage were in high demand. No doubt to Alec's delight, he was charged with bringing the small car design to production as quickly as possible. And quickly he did, having prototypes scurrying about within a year and in 1959 the Mini was launched. The Mini featured many innovative designs such as front wheel drive, transversely mounted engine, gearbox and differential housed in the engine sump (scarily sharing the same oil!), 10 inch wheels and amazing interior space. The suspension featured a novel, light weight rubber cone system designed by Alex Moulton. His rubber suspension designs were also used on such diverse applications as rail cars and bicycles. The Mini weighed in at just 1300 lb, delivered great gas mileage and cornered like it was on rails. Incredibly 80% of the Mini's 10' body was dedicated to people and luggage.

Priced to undercut the Ford Anglia, BMC lost about thirty pounds on every base model sold and the base model sold in the millions. Oh dear! The Mini went on to become the most successful British car of all time with 5.3 million produced from 1959 to 2000, influencing virtually every small front wheel drive economy car since. The Mini will forever be associated with the mini-skirted, British rock groups, Swinging Sixties. Blimey!



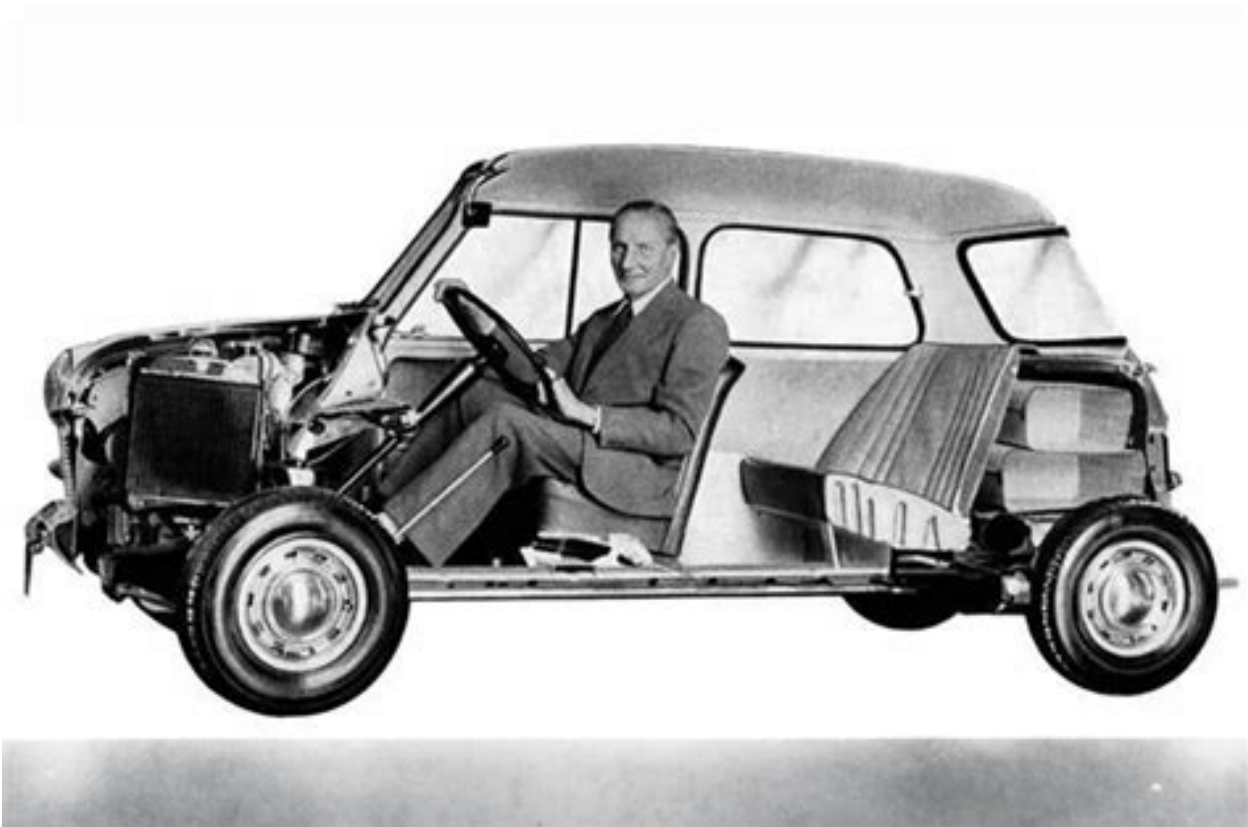
Twiggy and the Mini, two British icons from the 1960s. Photo courtesy of thisismoney.co.uk

Alec was promoted to BMC Technical Director in 1961. Under his direction, those three designs from 1955 resulted in the Morris 1100, Austin 1800 and the Austin Maxi all featuring the Alex Mouton inspired Hydrolastic interconnected suspension. Its comfortable ride and space efficient design enabled the 1100 to become the best selling British car of the 1960s with 2.1 million sold, 15% of the market. On the down side the driver suffered from an awkward driving position which Issigonis quipped “kept the drivers alert through induced backache.” Issigonis claimed the Austin 1800 was the design he was most proud of. No doubt it was an engineering tour de force with amazing interior space and won Car of the Year in 1965. Like the Mini before it, economically it was a disaster, probably losing money on every one sold. Ahem....

The creation of British Leyland (BL) in 1969 was the death knell of the British automotive industry resulting in the termination of such revered marques as MG and Triumph. Shortly after BL was created, Alec was sidelined as “Special Developments Director” and in 1971 he retired from the motor industry but continued working at his home, tinkering with miniature steam engines in his garage until his death at the age of 81 on 2 October 1988.

Among his many honors, Issigonis was knighted by Queen Elizabeth II, appointed a Commander of the Order of the British Empire (CBE) and inducted into the U.S. Automotive Hall of Fame. He brought joy and mobility to millions around the world with his out of the box designs.

A tip of the hat to Wikipedia, British Classics and Britannica for their research and photos of this implacable, one-of-a-kind British legend of automotive design.



Issigonis' masterpiece, the Mini, which featured amazing interior space for five and their luggage in a 10' long box with four 10" wheels! Photo courtesy of aronline.co.uk