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## Classic Profile – Alvis 3 litre

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Elegant, competent and well-respected, 4.5 litre models are fine classics, as Dave Moss explains...

The history of the Alvis company dates back to 1919, and the firm's models have long been loved by enthusiasts, with some of the 1930s designs being especially attractive; these cars are much sought-after today. The photographs below illustrate just how stylish these models were...



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Alvis Speed 20 SC Tourer.





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Alvis Speed 25 Charlesworth saloon.

## **Alvis Speed Twenty Five Drop Head Coupe exhibited at the 1937 Earls Court Motor Show**



The post war Alvis 3 litre model line's roots lie in the company's mid-30s six-cylinder designs undertaken by George Lanchester, which saw pre-war production as the Silver Crest and Seventeen. The four-cylinder relative of these cars, the 12/70, spawned the TA14, the first post war production Alvis, after which came experiments with a larger, steel-shelled and ultimately stillborn prototype bearing a remarkable resemblance to the later Jaguar Mk VII. It was 1950 before the next (and last) completely new Alvis emerged, as the new six-cylinder, three litre TA21. This was a move upmarket, with less emphasis on sporting performance than previous bigger-engined Alvis cars. Little beyond the gearbox had been seen before, yet mechanically, familiar themes abounded. Built on a lighter but larger, stiffer box-section chassis than the TA14, it featured coil spring independent front suspension, and rear leaf springs carrying a hypoid axle. There was worm and nut steering,



along with hydraulically operated brakes, but interest really centred on the car's new engine.

This was a six-cylinder 2993cc unit with rear chain driven camshaft for the pushrod operated overhead valves in the best Alvis tradition, and unusually for its time, it featured a seven-bearing crankshaft. First run as a prototype during 1948, early examples used a single Solex carburettor and produced 86 horsepower.

By 1951, claimed output had risen to 93 horsepower, following fitment of twin SU H4 instruments and several compression ratio increases. The engine quickly developed a reputation for smoothness, strength and good mid-range flexibility – helped along by two separate exhaust systems, each with two silencers. Less welcome in service was the absence of an external oil filter, and early cars showed a tendency towards overheating – neither problem being completely solved until many years later.

Initially most TA 21 saloon bodywork was built by Mulliner, with a Tickford-supplied drophead coupé also offered. Unfortunately, as car body styling trends evolved after 1950, the saloon's upright, four door, four-light design soon appeared rather old-fashioned, though it was undeniably well finished, featuring a polished wood dashboard, leather seat trim and standard sliding sunroof. Yet, though the TA21's new chassis was 10 inches longer than the superseded TA14 – and included a longer wheelbase, the body provided limited extra interior space.

With an eye on the American market, between 1951 and 1953 Alvis offered the TB 21, a sporting 2 seater touring version, bodied by AP Metalcraft. This was expediently created by modifying the older TB14 body to fit the newer TA21 chassis, though mechanical changes slightly improved performance, and both single and twin carburettor variants were built. Most of the few that were made were exported.

At the 1953 Motor Show the newly announced TC21 variant incorporated various revisions, including more elegant windscreen pillars, and “invisible” door hinges. Aluminium was more



widely used for body components, and various mechanical changes filtered through. Sales, already slow, remained in the doldrums, so Alvis indulged in what might today be called a makeover and marketing exercise. A raised compression ratio and higher final drive were introduced, with wire wheels, bonnet air intakes and ventilation louvres added to some but not all versions. At this point the car adopted the famous 'Grey Lady' title, though officially it was designated the altogether less romantic TC21/100 – after its newly uprated 100 horsepower engine, and its ability to (just) achieve 100 mph.

By 1954, with Britain's specialist independent coachbuilding business in deepening decline, Alvis, as a low volume car producer, was facing steadily increasing body supply problems. Things became critical for the company when, within months of each other, both Tickford and Mulliner were taken over by larger motor-industry concerns. Contracted supplies of bodies dried up, bringing production to a virtual standstill – followed by mounting speculation about the future of Alvis cars. There was also another worry: More modern styling was now urgently required.





### [Project Barn Find...](#)

A solution to both problems was eventually found through a trading link established earlier with the Swiss-based *Carosserie* run by Herman Graber. Since the war, this specialist concern had built very small numbers of striking, widely praised bodies on the 3-Litre chassis, which Alvis now considered importing into Britain. However, Graber's production capacity was limited, and in any case British list prices would have been too high after import duty payment. Instead, Alvis decided to have an existing Graber design built under licence in Britain. Jigs were obtained, and after agonising over suppliers, a contract was awarded to the Loughborough based bus and coach body building firm of Willowbrook.

The resulting car was based on 'Grey Lady' mechanicals, and designated the TC108G. It gained encouraging reviews, despite suffering from limited space for rear passengers and





luggage. Yet behind the scenes, quality problems and desperately slow supplies of bodies were combined with high prices, discouraging buyers. By 1958, with only a handful of cars built, Alvis had lost patience with Willowbrook, and, with the encouragement of Hermann Graber, they enlisted Mulliner Park Ward to develop an updated prototype from Graber's design. From this evolved what proved to be the final Alvis bodystyle, with agreement reached for production of two-door saloon and drophead coupé bodies - at lower cost than Willowbrook had ever achieved.



Graber Super Coupé.

Late in 1958 the new car emerged, built on a newly strengthened but otherwise very familiar chassis. The new TD 21 was luxuriously trimmed, with improved rear passenger and luggage space than its predecessor. There was a one piece rear window, suspension changes - and a BMC-sourced manual gearbox, replacing the previous unique Alvis component. List prices were reduced by almost £500, and options included a three-speed



Borg-Warner automatic gearbox, Lockheed front disc brakes (later fitted as standard) wire wheels, and reclining front seats. Laycock overdrive became optional during 1960.

An external oil filter was finally provided during 1959, and at the same time the water pump and cylinder head designs were revised, resolving the cooling and cracking problems which had long afflicted the engine under continued hard use. The compression ratio was raised, and new, non-siamesed inlet ports combined with a pair of SU HD6 carburettors allowed Alvis the (seemingly optimistic) claim of a 20% improvement over the earlier engine's 104 horsepower.

A series II TD21 was announced in Spring 1962, as a result of some further development - and attention to niggling door-shutting problems afflicting some Series I cars. Aluminium replaced much steel and wood in the new series, in a bid to lighten the doors and rigidise their frames - with the original wooden door pillars reinforced by use of a composite based material. There were detail styling changes front and rear, and a Dunlop all-disc braking system was now fitted. Borg Warner automatic transmission remained optional, but the BMC gearbox gave way to a five speed ZF unit.

Despite very low production volumes, for 1964 the car received a major - some might say overdue - facelift. The new TE21 featured the latest Graber innovation - distinctive, twin, vertically stacked headlights, which brought a revised wing line carried the length of the car, along with various front and rear alterations. There were interior changes too, and another engine upgrade, increased valve sizes and exhaust system alterations raising output to a claimed 130 horsepower. ZF-sourced power steering belatedly became optional during 1965, reducing wheel twirling and improving the turning circle.

The final range development was the TF model, first seen at the Geneva Motor show in Spring 1966. This last car in the lengthy Alvis line benefited from a host of mechanical changes, running from an electric cooling fan, through a heated inlet manifold, to a different ZF gearbox. A third SU carburettor was also added, hoisting the faithful 3 litre engine's claimed output to the magic 150 horsepower. There were few external alterations, though



the interior was rather plusher, with the instrument panel moved from its longstanding central position and placed immediately ahead of the driver.

By the mid 1960s, events were conspiring to point Alvis in a new direction. Rover took over the company in 1965 – and in the next couple of years Alvis completed a long drawn out transformation into a military vehicle and aeronautical equipment supplier – in which passenger cars played no relevant part. Yet even so, had it not been for the formation of British Leyland, Rover's plans to groom certain of its models to continue the marque might have borne interesting fruit. Several prototype Rover projects might ultimately have carried an Alvis badge, one of the most likely candidates being a stillborn coupé version of Rover's acclaimed P6 saloon, styled by David Bache – and affectionately referred to inside Rover at the time as 'Gladys.' Lingering rumour suggests this car was prepared as a TF21 successor, a dream which died when British Leyland was created, effectively ensuring, it was thought, that the Alvis red triangle would never again grace a passenger car...

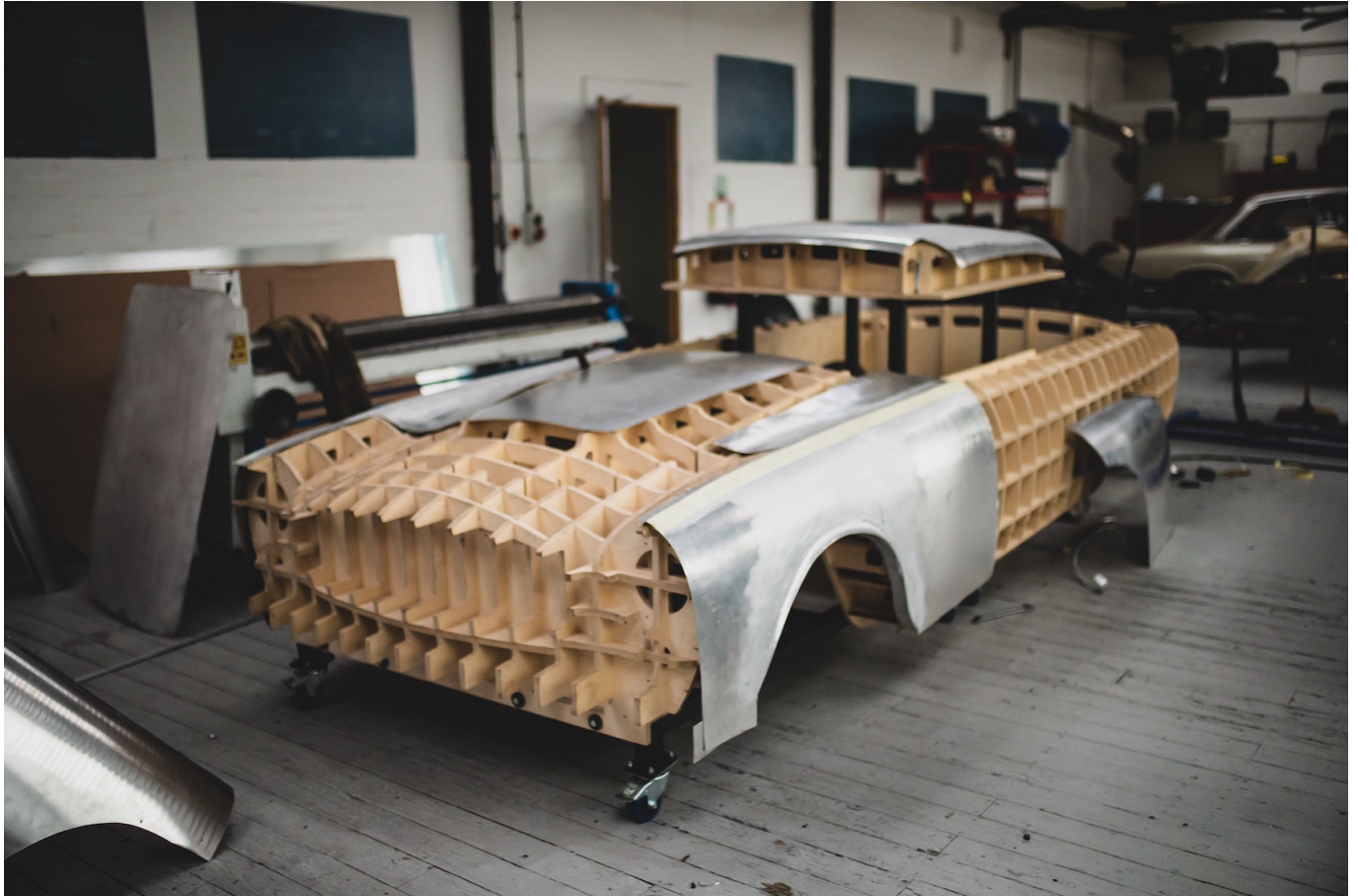
## 21st Century

Fast-forward to today and the Alvis Car Company is manufacturing to special order a limited number of famous Alvis models. The firm's website advises that these models... "...are faithful to the original design and by using our Works Drawings from the period they retain all their traditional character and quality, yet are emission compliant. The cars carry Alvis chassis numbers and engine numbers which follow on from the last in the model sequence, which is why they have been designated the Continuation Series".



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Metal Shaping 3 Litre...

For further information please go to: <https://www.thealviscarcompany.co.uk/>

In April 2020, Wheels-Alive reported that Alvis is supporting owners by providing technical information to help them work on their cars at home. Please see:

<https://www.wheels-alive.co.uk/alvis-helps-owners-of-their-cars-to-work-on-them-at-home-providing-technical-support/>





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For further information about Alvis history, please go to: <https://alvisarchive.com>

Organisations to help enthusiasts:

Alvis Owner Club: <https://www.alvisoc.org/>

Alvis Register: <http://www.alvisregister.co.uk/>