= Sunbeam Tiger =

The Sunbeam Tiger is a high @-@ performance V8 version of the British Rootes Group 's Sunbeam Alpine roadster , designed in part by American car designer and racing driver Carroll Shelby and produced from 1964 until 1967 . Shelby had carried out a similar V8 conversion on the AC Cobra , and hoped to be offered the contract to produce the Tiger at his facility in America . Rootes decided instead to contract the assembly work to Jensen at West Bromwich in England , and pay Shelby a royalty on every car produced .

Two major versions of the Tiger were built : the Mark I (1964 ? 67) was fitted with the 260 cu in (4 @.@ 3 L) Ford V8 ; the Mark II , of which only 633 were built in the final year of Tiger production , was fitted with the larger Ford 289 cu in (4 @.@ 7 L) engine . Two prototype and extensively modified versions of the Mark I competed in the 1964 24 Hours of Le Mans , but neither completed the race . Rootes also entered the Tiger in European rallies with some success , and for two years it was the American Hot Rod Association 's national record holder over a quarter @-@ mile drag strip .

Production ended in 1967 soon after the Rootes Group was taken over by Chrysler , which did not have a suitable engine to replace the Ford V8 . Owing to the ease and affordability of modifying the Tiger , there are few surviving cars in standard form .

= = Background = =

The Sunbeam Tiger was a development of the Sunbeam Alpine series I , introduced by the British manufacturer Rootes in 1959 . Rootes realised that the Alpine needed more power if it was to compete successfully in world markets , but lacked a suitable engine and the resources to develop one . The company therefore approached Ferrari to redesign the standard inline @-@ four cylinder engine , recognising the sales cachet that " powered by Ferrari " would be likely to bring . Negotiations initially seemed to go well , but ultimately broke down .

In 1962 racing driver and Formula 1 champion Jack Brabham proposed to Rootes competition manager Norman Garrad the idea of fitting the Alpine with a Ford V8 engine , which Garrad relayed to his son Ian , then the West Coast Sales Manager of Rootes American Motors Inc . Ian Garrad lived close to where Carroll Shelby had his Shelby American operation , which had done a similar V8 conversion for the British AC Cobra .

= = Initial prototypes = =

According to journalist William Carroll , after measuring the Alpine 's engine bay with " a ' precision ' instrument of questionable antecedents " ? a wooden yardstick ? Ian Garrad despatched his service manager Walter McKenzie to visit the local new car dealerships , looking for a V8 engine that might fit . McKenzie returned with the news that the Ford 260 V8 engine appeared to be suitable , which apart from its size advantage was relatively light at 440 lb (200 kg) . Ian Garrad asked Shelby for an idea of the timescale and cost to build a prototype , which Shelby estimated to be eight weeks and $ 10 @,@ 000 . He then approached Brian Rootes , head of sales for the Rootes Group , for funding and authorisation to build a prototype , to which Brian Rootes agreed .

Ian Garrad , impatient to establish whether the conversion was feasible , commissioned racing driver and fabricator Ken Miles to build another prototype as quickly as he could . Miles was provided with a budget of $ 800 , a Series II Alpine , a Ford V8 engine and a 2 @-@ speed automatic transmission , and in about a week he had a running V8 conversion , thus proving the concept .

Shelby began work on his prototype , the white car as it came to be known , in April 1963 , and by the end of the month it was ready for trial runs around Los Angeles . Ian Garrad and John Panks , director of Rootes Motors Inc. of North America , tested an early version of the car and were so impressed that Panks wrote a glowing report to Brian Rootes : " we have a tremendously exciting sports car which handles extremely well and has a performance equivalent to an XX @-@ K Jaguar

... it is quite apparent that we have a most successful experiment that can now be developed into a production car . "

Provisionally known as the Thunderbolt , the Shelby prototype was more polished than the Miles version , and used a Ford 4 @-@ speed manual transmission . The Ford V8 was only 3 @.@ 5 inches longer than the Alpine 's 4 @-@ cylinder engine it replaced , so the primary concern was the engine 's width . Like Miles , Shelby found that the Ford V8 would only just fit into the Alpine engine bay : " I think that if the figure of speech about the shoehorn ever applied to anything , it surely did to the tight squeak in getting that 260 Ford mill into the Sunbeam engine compartment . There was a place for everything and a space for everything , but positively not an inch to spare . "

= = Development = =

All Rootes products had to be approved by Lord Rootes , who was reportedly " very grumpy " when he learned of the work that had gone into the Tiger project without his knowledge . But he agreed to have the Shelby prototype shipped over from America in July 1963 for him and his team to assess . He insisted on driving the car himself , and was so impressed that shortly after returning from his test drive he contacted Henry Ford II directly to negotiate a deal for the supply of Ford V8 engines . Rootes placed an initial order for 3000 , the number of Tigers it expected to sell in the first year , the largest single order Ford had ever received for its engines from an automobile manufacturer . Not only did Lord Rootes agree that the car would go into production , but he decided that it should be launched at the 1964 New York Motor Show , only eight months away , despite the company 's normal development cycle from " good idea " to delivery of the final product being three to four years .

Installing such a large engine in a relatively small vehicle required some modifications , although the exterior sheet metal remained essentially the same as the Alpine 's . Necessary chassis modifications included moving from the Burman recirculating ball steering mechanism to a more modern rack and pinion system .

Although twice as powerful as the Alpine , the Tiger is only about twenty per cent heavier , but the extra weight of the larger engine required some minor suspension modifications . Nevertheless , the Tiger 's front @-@ to @-@ back weight ratio is substantially similar to the Alpine 's , at 51 @.@ 7 / 48 @.@ 3 front / rear .

Shortly before its public unveiling at the New York Motor Show in April 1964 the car was renamed from Thunderbolt to Tiger , inspired by Sunbeam 's 1925 land @-@ speed @-@ record holder .

= = Production = =

Shelby had hoped to be given the contract to produce the Tiger in America , but Rootes was somewhat uneasy about the closeness of his relationship with Ford , so it was decided to build the car in England . The Rootes factory at Ryton did not have the capacity to build the Tiger , so the company contracted the job to Jensen in West Bromwich . Any disappointment Shelby may have felt was tempered by an offer from Rootes to pay him an undisclosed royalty on every Tiger built .

Jensen was able to take on production of the Tiger because its assembly contract for the Volvo P1800 had recently been cancelled . An additional factor in the decision was that Jensen 's chief engineer Kevin Beattie and his assistant Mike Jones had previously worked for Rootes , and understood how the company operated . The first of 14 Jensen @-@ built prototypes were based on the Series IV body shell , which became available at the end of 1963 .

The Tiger went into production in June 1964 , little more than a year after the completion of the Shelby prototype . Painted and trimmed bodies were supplied by Pressed Steel in Oxfordshire , and the engines and gearboxes directly from Ford in America . Installing the engine required some unusual manufacturing methods , including using a sledgehammer to bash in part of the already primed and painted bulkhead to allow the engine to be slid into place . Jensen was soon able to assemble up to 300 Tigers a month , which were initially offered for sale only in North America . The first few Tigers assembled had to be fitted with a Borg @-@ Warner 4 @-@ speed all @-@

synchromesh manual gearbox , until Ford resolved its supply problems and was able to provide an equivalent unit as used in the Ford Mustang .

Several performance modifications were available from dealers . The original 260 CID engine was considered only mildly tuned at 164 hp (122 kW) , and some dealers offered modified versions with up to 245 hp (183 kW) for an additional $ 250 . These modifications were particularly noticeable to the driver above 60 mph (97 km / h) , although they proved problematic for the standard suspension and tyres , which were perfectly tuned for the stock engine . A 1965 report in the British magazine Motor Sport concluded that " No combination of an American V8 and a British chassis could be happier . "

= = Versions = =

Production reached 7128 cars over three distinct series . The factory only ever designated two , the Mark I and Mark II , but as the official Mark I production spanned the change in body style from the Series IV Alpine panels to the Series V panels , the later Mark I cars are generally designated Mark IA by Sunbeam Tiger enthusiasts . The Mark II Tiger , fitted with the larger Ford 289 cu in (4 @.@ 7 L) , was intended exclusively for export to America and was never marketed in the UK , although six right @-@ hand drive models were sold to the Metropolitan Police for use in traffic patrols and high @-@ speed pursuits ; four more went to the owners of important Rootes dealerships .

All Tigers were fitted with a single Ford twin @-@ choke carburettor . The compression ratio of the larger Mark II engine was increased from the 8 @.@ 8 : 1 of the smaller block to 9 @.@ 3 : 1 . Other differences between the versions included upgraded valve springs (the 260 had developed a reputation for self @-@ destructing if pushed beyond 5000 rpm) , an engine @-@ oil cooler , an alternator instead of a dynamo , a larger single dry plate hydraulically operated clutch , wider ratio transmission , and some rear @-@ axle modifications . There were also cosmetic changes : speed stripes instead of chrome strips down the side of the car , a modified radiator grille , and removal of the headlamp cowls . All Tigers were fitted with the same 4 @.@ 5 in (110 mm) wide steel disc bolt @-@ on wheels as the Alpine IV , and Dunlop RS5 4 @.@ 90 in × 13 in (124 mm × 330 mm) cross @-@ ply tyres . The lack of space in the Tiger 's engine bay causes a few maintenance problems ; the left bank of spark plugs is only accessible through a hole in the bulkhead for instance , normally sealed with a rubber bung , and the oil filter had to be relocated from the lower left on the block to a higher position on the right @-@ hand side , behind the generator .

= = = Mark I = = =

The Ford V8 as fitted to the Tiger produced 164 bhp (122 kW) @ 4400 rpm , sufficient to give the car a 0 ? 60 mph (97 km / h) time of 8 @.@ 6 seconds and a top speed of 120 mph (190 km / h) .

The Girling @-@ manufactured brakes used 9 @.@ 85 in (250 mm) discs at the front and 9 in (229 mm) drums at the rear . The suspension was independent at the front , using coil springs , and at the rear had a live axle and semi @-@ elliptic springs . Apart from the addition of a Panhard rod to better locate the rear axle , and stiffer front springs to cope with the weight of the V8 engine , the Tiger 's suspension and braking systems are identical to that of the standard Alpine . The fitting points for the Panhard rod interfered with the upright spare wheel in the boot , which was repositioned to lie horizontally beneath a false floor ; the battery was moved from beneath the rear seat to the boot at the same time . The kerb weight of the car increased from the 2 @,@ 220 lb (1 @,@ 010 kg) of the standard Alpine to 2 @,@ 653 lb (1 @,@ 203 kg) .

In 1964 , its first year of production , all but 56 of the 1649 Mark I Tigers assembled were shipped to North America , where it was priced at $ 3499 . In an effort to increase its marketability to American buyers the car was fitted with " Powered by Ford 260 " badges on each front wing beneath the Tiger logo . The Mark I was unavailable in the UK until March 1965 , when it was priced at £ 1446 . It was also sold in South Africa for R3350 , badged as the Sunbeam Alpine 260 .

= = = Mark II = = =

Priced at $ 3842 , the Mark II Tiger was little more than a re @-@ engined Mark IA ; by comparison , a contemporary V8 Ford Mustang sold for $ 2898 . The larger 289 cu in (4 @.@ 7 L) Ford engine improved the Tiger 's 0 ? 60 mph (97 km / h) time to 7 @.@ 5 seconds , and increased the top speed to 122 mph (196 km / h) . Officially the Mark II Tiger was only available in the US , where it was called the Tiger II . By the time the Mark II car went into production Chrysler was firmly in charge of Rootes , and the " Powered by Ford " shields were replaced by " Sunbeam V @-@ 8 " badges .

= = Demise = =

Rootes had always been insufficiently capitalised , and losses resulting from a damaging thirteen @-@ week strike at one of its subsidiaries , British & Light Steel Pressings , coupled with the expense of launching the Hillman Imp , meant that by 1964 the company was in serious financial difficulties . At the same time , Chrysler was looking to boost its presence in Europe , and so a deal was struck in June 1964 in which Chrysler paid £ 12 @.@ 3 million ($ 34 @.@ 44 million) for a large stake in Rootes , although not a controlling one . As part of the agreement Chrysler committed not to acquire a majority of Rootes voting shares without the approval of the UK government , which was keen not to see any further American ownership of the UK motor industry . In 1967 Minister of Technology Anthony Wedgewood Benn approached BMH and Leyland to see if they would buy out Chrysler and Rootes and keep the company British , but neither had the resources to do so . Later that year Chrysler was allowed to acquire a controlling interest in Rootes for a further investment of £ 20 million .

Manufacturing a car powered by a competitor 's engine was unacceptable to the new owner , but Chrysler 's own 273 small @-@ block V @-@ 8 was too large to fit under the Tiger 's bonnet without major modifications . Compounding the problem , the company 's small @-@ block V8 engines had the distributor positioned at the rear , unlike the front @-@ mounted distributor of the Ford V8 . Chrysler 's big @-@ block V8 had a front @-@ mounted distributor but was significantly larger . Shortly after the takeover Chrysler ordered that production of the Tiger was to end when Rootes ' stock of Ford V8 engines was exhausted ; Jensen assembled the last Tiger on 27 June 1967 . Chrysler added its pentastar logo to the car 's badging , and in its marketing literature de @-@ emphasised the Ford connection , simply describing the Tiger as having " an American V @-@ 8 power train " .

Rootes ' design director Roy Axe commented later that " The Alpine and Tiger were always oddballs in the [Rootes] range . I think they [Chrysler] didn 't understand it , or have the same interest in it as the family cars ? I think it was as simple as that . "

The Tiger name was resurrected in 1972 when Chrysler introduced the Avenger Tiger , a limited @-@ edition modified Hillman Avenger intended primarily for rallying .

= = Competition history = =

Three racing Tigers were constructed for the 1964 24 Hours of Le Mans , a prototype and two that were entered in the race . Costing $ 45 @,@ 000 each , they were highly modified versions of the production cars , fitted with fastback coupe bodies produced by Lister . But they were still steel monocoques , and made the Le Mans Tigers 66 lb (30 kg) heavier than a road @-@ going Tiger at 2 @,@ 615 lb (1 @,@ 186 kg) , almost 600 lb (270 kg) more than the winning Ferrari . The standard Ford four @-@ speed manual transmission was replaced with a BorgWarner T10 close @-@ ratio racing transmission , which allowed for a top speed of 140 miles per hour (230 km / h) .

Both Tigers suffered early mechanical failures , and neither finished the race . The engines had been prepared by Shelby but had not been properly developed , and as a result overheated ; Shelby eventually refunded the development cost to Rootes . All three of the Le Mans Tigers have survived .

Once Rootes had made the decision to put the Tiger into production an Alpine IV minus engine and

transmission was shipped to Shelby , who was asked to transform the car into a racing Tiger . Shelby 's competition Tiger made an early appearance in the B Production Class of Pacific Coast Division SCCA races , which resulted in some " highly successful " publicity for the new car . But Shelby was becoming increasingly preoccupied with development work for Ford , and so the racing project was transferred to the Hollywood Sports Car dealership , whose driver Jim Adams achieved a third @-@ place finish in the Pacific Coast Division in 1965 . A Tiger driven by Peter Boulton and Jim Latta finished twelfth overall and first in the small GT class at the 1965 Dayton Continental . The Tiger was also raced on quarter @-@ mile drag strips , and for two years was the American Hot Rod Association 's national record holder in its class , reaching a speed of 108 mph (174 km / h) in 12 @.@ 95 seconds .

Rootes entered the Tiger in European rallies , taking first , second and third places in the 1964 Geneva Rally . Two Tigers took part in the 1965 Monte Carlo Rally , one finishing fourth overall , the highest placing by a front @-@ engined rear @-@ wheel drive car , and the other eleventh . After finally having sorted out the engine overheating problem by fitting a forward @-@ facing air scoop to the bonnet , Rootes entered three Tigers in the 1965 Alpine Rally , one of which crossed the finishing line as outright winner . Scrutineers later disqualified the car however , because it had been fitted with undersized cylinder head valves . By the end of the 1966 Acropolis Rally though , it had become clear that low @-@ slung sports cars such as the Tiger were unsuited to the increasingly rough @-@ terrain rally stages , and the car was withdrawn from competition soon after . In the words of Ian Hall , who drove the Tiger in the Acropolis Rally , " I felt that the Tiger had just had it ? it was an out of date leviathan " .

= = In popular media = =

The 1965 Tiger Mark I gained some exposure on American television as the car of choice for Maxwell Smart in the spoof spy series Get Smart . The Tiger was used for the first two seasons in the opening credits , in which Smart screeched to a halt outside his headquarters , and was used through the remainder of the series in several episodes . Some of the scenes featured unusual modifications such as a retractable James Bond @-@ style machine gun that could not have fitted under the Tiger 's bonnet , so rebadged Alpine models were used instead .

Don Adams , who played the protagonist Maxwell Smart , gained possession of the Tiger after the series ended and later gave it to his daughters ; it is reportedly on display at the Playboy Mansion in Los Angeles . During its early years Rootes advertised the car extensively in Playboy magazine and lent a pink Tiger with matching interior to 1965 Playmate of the Year Jo Collins for a year .

The Tiger also featured in the 2008 film adaptation of the Get Smart TV series . A replica Tiger had to be constructed using a stock Sunbeam Alpine and re @-@ created Tiger badging as no available Tiger could be found in Canada , where the film was produced . The production team recorded the sound of an authentic Tiger owned by a collector in Los Angeles and edited it into the film .