Shelby Prototype Sunbeam Tiger

Shelby Prototype Sunbeam Tiger, at the National Auto Museum, 2012.

This document is to provide an overview of the Shelby American built, "Prototype" Sunbeam Tiger.

Within the document, for clarity and accuracy, this car may be simply referred to as the "Shelby Prototype Tiger." Though there is a good amount of detail within this piece, it is only a brief synopsis of what has been collected by the past owners of this vehicle. Past owners, period and marque experts have assisted in an effort to provide the most accurate informational document. There is additional documentation and memorabilia that goes with this vehicle, but not all of it will fit into a single, somewhat concise document.

Original Idea and Construction at Shelby American

The early 1960s had shown that the Sunbeam Alpines had been enjoying reasonable success in the US, both as a competent production sports car, but also in competition against various other small bore adversaries in SCCA road racing. Rootes Group (Sunbeam's parent company) West Coast Sales Manager received a bit of feedback from Jack Brabham, after a race and win in a Sunbeam Alpine, to suggest a more powerful engine in the Alpine chassis. Garrad garnered sufficient interest from a few executives at Rootes Group (though not Lord Rootes himself), and approached Shelby about building a prototype.

Originally constructed in the Shelby American shop on Princeton Drive in Venice, in early 1963, this car became the model example that more than 7,000 production Sunbeam Tigers followed. The Princeton Drive location is where the Shelby Cobras, the Shelby Racing Cobras and first 20-odd GT350's were built, before Shelby moved to the larger warehouse at Los Angeles Intl. Airport (LAX).

Carroll Shelby put the very talented George Boskoff on the Shelby Prototype Tiger effort, with additional guidance and assistance provided by the incomparable, Phil Remington. Ken Miles did the shakedown and fine tuning of the car at Riverside Raceway, just prior to sending it off to England for review by Lord Rootes and other engineers and executives at Rootes/Sunbeam.

The Shelby Prototype Tiger received a bunch of modifications from it's Alpine base. The firewall was moved back more than four inches to allow for the engine to be placed further back. The Alpine's worm and sector steering was removed and replaced with a proper rack and pinion set-up. The rack and pinion steering provided great steering response, a lower mounting location, and more room for a properly placed Ford V8. The Prototype also received a larger radiator and Borg-Warner T10 transmission. Every one of these changes made their way into the first production Sunbeam Tigers.

Additionally, this car also received a number of additional parts from early Cobras. An early 260 Ford V8 as installed in the first several Cobras, a Harrison surge/overflow tank, and the Lucas generator that also drives the mechanical tachometer.

Lord Rootes and the others that tested the Shelby Prototype Tiger in England, just loved the car, and they immediately began the effort to source the right parts from Ford, and begin the efforts to build the production Sunbeam Tigers.

One additional bit of work that was carried out by Shelby American to the Shelby Prototype after the initial test in England was to fit the car with one of the High Performance (HiPo) 289s. This motor is still in the car today. An original HiPo 289 engine was never added to any production Sunbeam Tiger. Even the MkII Sunbeam Tigers built in 1967, which received 289 cu. In. motors, didn't receive the 271hp High Performance 289. Period Shelby American documentation, Rootes Group Purchase Orders and other documentation included in the photo section later in this document further note this work to have occurred in 1964.

Today, the Shelby Prototype Tiger remains in remarkably original spec and condition. Besides an exterior repaint in the 1990s and some undercar exhaust work, nearly everything is as it was installed by Shelby American in 1963.

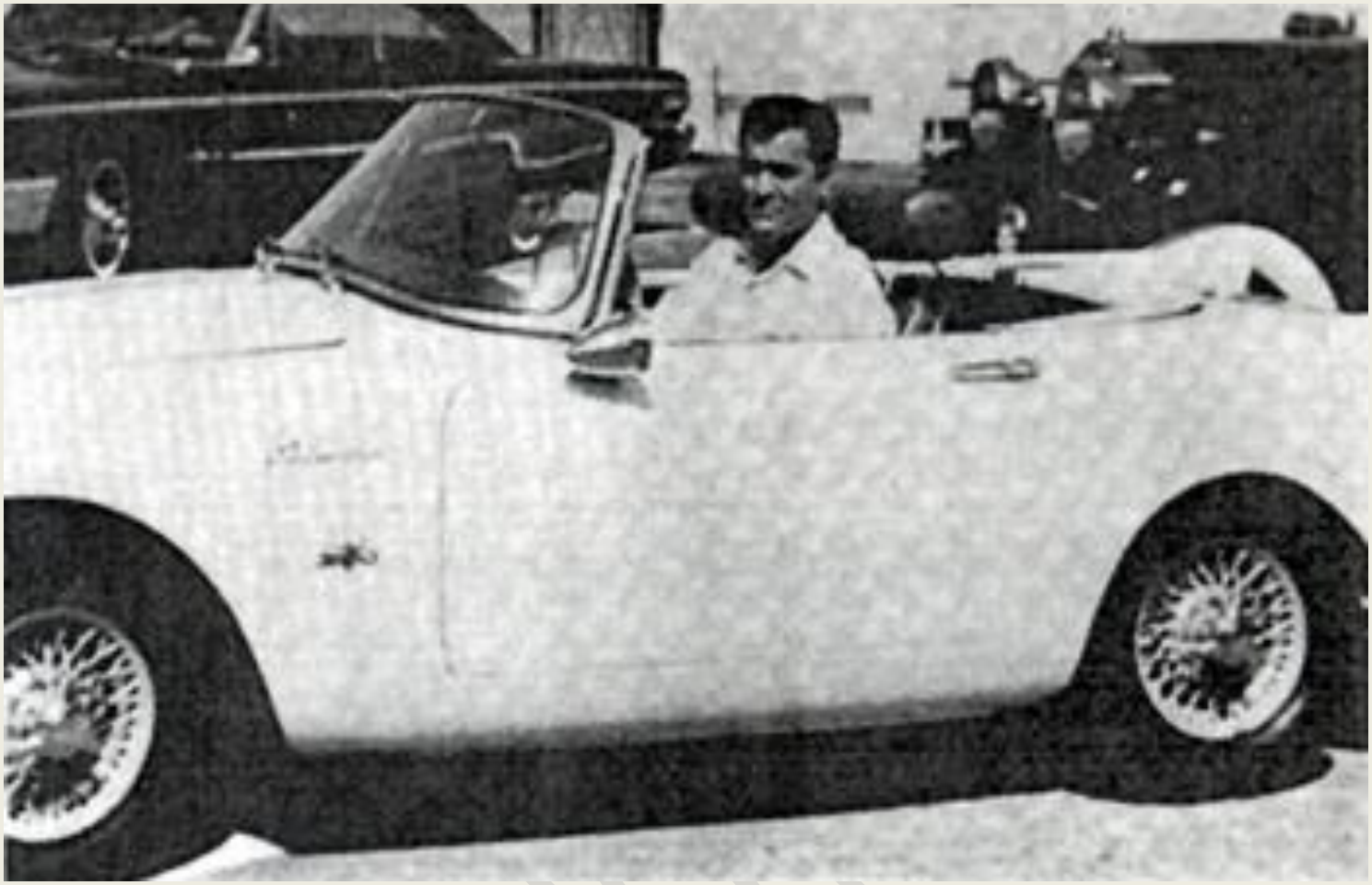
Helping to preserve this cars originality was marque expert, William "Bill" Carroll, Carroll owned this car from 1976 to 2006. Not only was Carroll an initial instigator in the creation of the Shelby Prototype Tiger, he also wrote one of the best books on the topic of Sunbeam Tigers (Tiger: An Exceptional Motorcar). Carroll sold the Prototype to the current owner, Doug Lyle, who has only further preserved the car "as it was."

Additionally, all the applicable experts on Sunbeam Tigers, like William "Bill" Carrol, Norm Miller and Paul Reisentz have confirmed this car is the Shelby Prototype Sunbeam Tiger.

Photos of the Shelby Prototype Tiger in Period

In this Allen Kuhn photo above, sits Miss California. Notice the center console and speedometer correction decal on the dash. You can also just barely see the headrest on the passenger seat. The Ken Miles Prototype sits in the background.

Photos of the Shelby Prototype Tiger in Period (continued)



Here's Tony Curtis getting ready to take the car for a spin. Notice the wire wheels. The 260 badges and three red stripes are visible on the top boot cover. Photo courtesy of Norm Miller.

Shelby American Documentation Outlining 289 Install in Period

WORK IN PROCESS - May 31, 1964 (continued)

ACCOUNT #323 - OTHER

Work Order No.	Description	Amount
1080	Build 12 Dry Sump Pump & Pan Assembly	$ 11,482.00
9064	Tour de Corsica (Ford of France)	1,842.55
10030	Craig Lang Expenses	24.00
11019	Fabricate 50 Dual Quad Kit Throttle	561.86
11026	Fabricate 100 Throttle Kits	1,274.00
11030	Fabricate Roll Bar Brackets	1,372.53
11031	Fabricate and Install Fuel Tanks for Goodyear	34.24
11032	Fabricate Weber Linkage	27.70
11034	Build ¼" Stoker	24.84
11036	Fabricate Header Tanks	130.86
11038	Build Sway Bars (50)	410.66
11039	Build Exhaust Tail Pipes	826.52
11040	Build Small Racing Wind Screens	31.68
11041	Build Quick Jacks (5 sets)	452.41
11042	Fabricate 1 - Weber Induction Kit	99.18
11044	Machine Heater Valves	97.20
11046	Modify "AC" Headers (50)	10.80
12010	Equipment and Storage for Racing Van	1,505.43
12012	Repair Body Damage on Cobra	402.38
12013	Move Goodyear Merchandise & Equipment	2,055.70
13005	Make Camshaft Check Fixture	265.48
13008	Repair Ship Damages - Cooper Cm 563	501.05
13021	Develop Sunbeam 260 Racing Car	8,169.84
13034	Prepare & Dyno Test Stock 289 CID HP Engine (Luhman)	112.08
13037	Repair Ed Leslie Car	1,158.69
13042	Exner Car - All Charges	2,366.18
13056	Ford Motor Co., Salt Lake City Division	387.49
13059	Repair PR Car, Yuma, Arizona - Charge Swift Ford Sales	125.13
13060	Goodyear Cooper Riverside Test	3,151.64
13062	Install 289" Engine in Sunbeam (Routes Group)	246.13
13063	Build 10 - 289" Race Engines	8,403.81
13064	Drag Racing & Making Chassis Ready - CSX 2357	1,269.70
13065	Prepare Ed Leslie Car - CSX	1,238.09
13067	Replacement of Defective Parts	109.21
13068	Build Modeling Table	514.74
13069	Build 10 "289" Race Engines	4,819.67
13071	Build Cooper Comstock Race Engine	142.07
13074	Demo's Ford Motor Company	604.04
13075	Mustang Dress-up Program	98.47
13078	Weber Manifold Development Program	692.00
14000	Painting Show Car for J.W.T., L.A.	84.56
14001	Show Car Labor - Straight Time	13,349.31
14002	Show Car Labor - Overtime	1,723.44
14003	Show Car Labor - Non-billable	1,664.28
14004	Show Car Per Diem, Mileage, etc.	742.78
14005	Show Car Misc. - Billable	2,402.66
14006	Show Car Misc. - Non-billable	746.14
14008	Premium Time - Show Car - Non-billable	1,410.60
15012	Develop Sunbeam Race Car	2,907.87
		$ 82,073.69
	TOTAL WORK IN PROCESS - May 31, 1964	$307,883.39

Rootes Group Purchase Order for 289 Install by Shelby American, in April, 1964

CARS
HUMBER
HILLMAN
SUNBEAM
SINGER

COMMERCIAL VEHICLES
COMMER
KARRIER

PURCHASE ORDER WO# 13068

ROOTES
MOTORS INCORPORATED
9830 WEST PICO BOULEVARD
LOS ANGELES 35, CALIFORNIA
CRestview 6-4161 • BRadshaw 2-8093

SHOW OUR PURCHASE ORDER NUMBER ON ALL PACKAGES, PACKING LISTS, INVOICES, BILLS OF LADING, AND OTHER DOCUMENTS.

No. 3569

TO
Shelby American, Inc.
1042 Princeton Dr.
Venice, Calif.

SHIP TO

REQ. NO.	ACCT. OR Racing Budget West Coast [redacted]	TERMS	DATE April 16, 1964
F.O.B. NO IBM ACTION CODE 4	SHIP VIA		DELIVERY DATE REQUIRED

ITEM NO.	ITEM	QUANTITY	UNIT PRICE	AMOUNT
	289 cu. in. V-8 engine	1	463.45	
	NOTE: 260 cu. in. engine traded in, in lieu of labor to remove and replace.			

INVOICE IN DUPLICATE RESALE ☐ NO ☐ YES

RESALE PERMIT NO. AS 74034 CONFIRMING ☐

[redacted] P.O.

AUTHORIZED SIGNATURE

NOTE: 260 cu. in. to be traded in, in lieu of labor to remove and replace.

Shelby Note Stapled to Rootes Group Purchase Order for 289 Install by Shelby American, in April, 1964

TO: Ken Grindley

PLEASE:

- ☐ Sign
- ☐ Approve
- ☐ Comment
- ☐ Handle
- ☐ See me
- ☐ Phone me
- ☐ Reply - my signature
- ☐ Reply - copy to me
- ☐ Type

Note and:

- ☐ File
- ☐ Discard
- ☐ Forward
- ☐ Return

ACTION REQUIRED BY (DATE) _____

Please bill Rootes, engine installed when old engine is sold it will be credited against labor on this W/O.

FROM: Peyton

DATE 4/27

Ford GENL ADM JUL 63 31 TRANSMITTAL

NOTE: Shelby note referencing that a credit for the 260 will be given when it is sold.

Current Photos of the Shelby Prototype Tiger

George Boskoff standing just to the right of his Shelby Prototype Tiger at Laguna Seca Celebration of Tigers.

George Boskoff standing in front of the Shelby Prototype Tiger he built.

The car was painted in the 90's but they left the three stripes and Moonstone paint untouched on the boot cover. These stripes may have extended on the trunk in its early life.

Parts that were taken off the car and replaced over the years have been kept with the car.

These are the same seats that Lord Rootes sat in during his test drive.

John Morton (also ex-Shelby American), and George Boskoff driving the Shelby Prototype Tiger.

The engine bay as of today, looking much the same as it did in 1964.

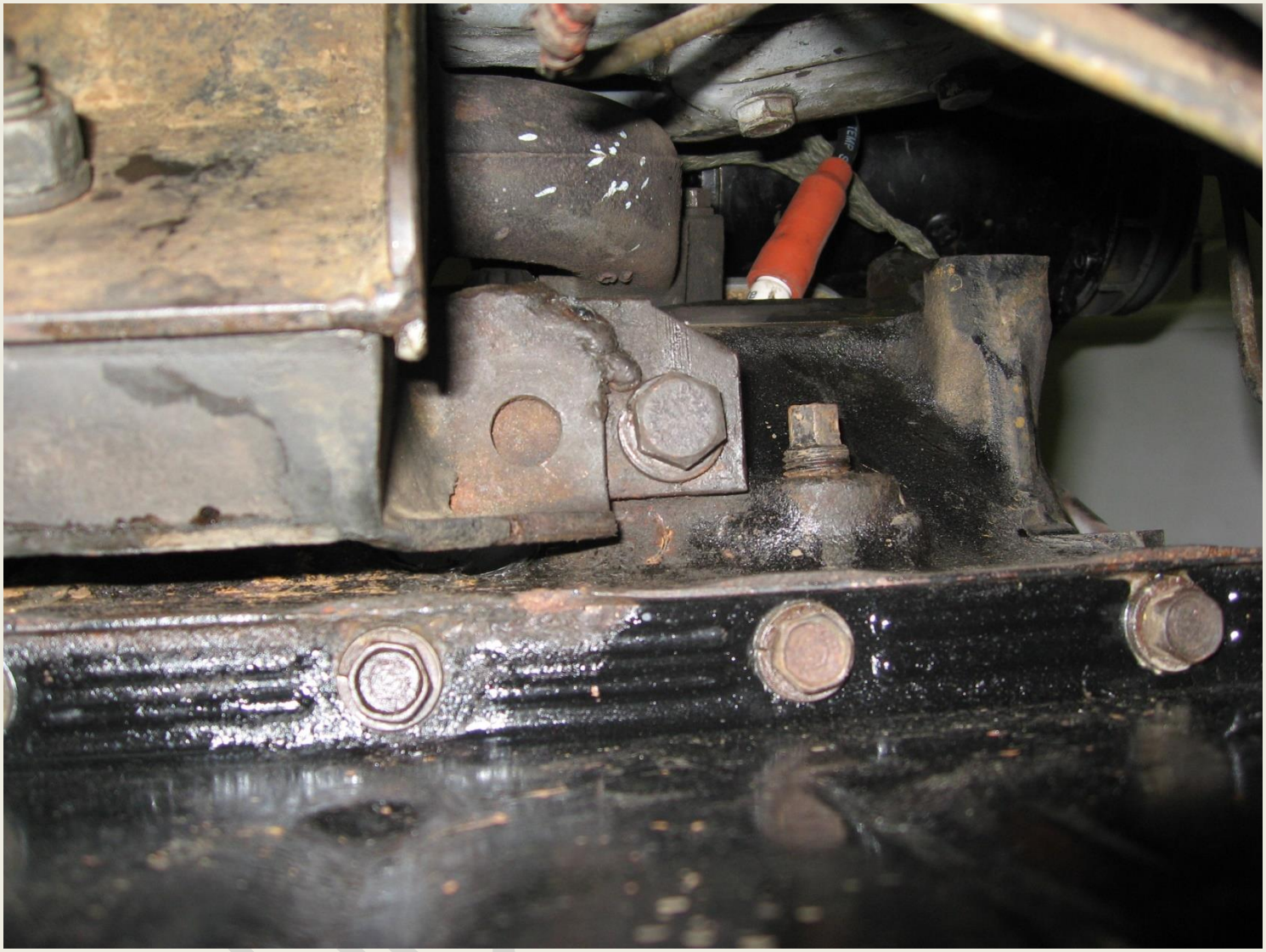
The car maintains its Harrison overflow tank, Cal Custom air cleaner, and Lucas generator with tach drive on the back.

The Prototype was originally constructed with a 260 cubic inch motor. As George Boskoff recounts he was sitting on the stairs in the Shelby workshop and Carroll Shelby came out of the office and informed George that he wanted him to put one of those cobra motors in the little white Alpine. George wasn't thrilled but he agreed to accept the challenge.

Rumor had it that Ian Garrad wanted a little more power so when the car returned from England it headed back to Shelby American for a High Performance 289 transplant.

Early 260 motors had 6" spacing on the motor mount holes while the later 260s and 289's had 7" spacing.. They didn't bother to change the motor mounts but instead just added tabs to extend the mount spacing to 7"

Picture below show the quickly executed additions to allow the 260 mounts to be used on the HiPo 289 installed in 1964.



At the 2015 Shelby employees reunion, the current owner met Jere Kirkpatrick, a Shelby American employee from 1963-1968.

Jere described in detail how he put a High Performance 289 in the Shelby Prototype. Jere worked in the production shop building street Cobras. Jere said that his boss Leonard Parsons had instructed him to put a High Performance 289 in the car that Boskoff had built. Jere described how he had to bash the firewall in order to get the carburetor to fit. When the current owner opened the hood, Jere pointed to the small dent in the firewall by the carburetor and proclaimed it was his handy work.

George has heard the stories about the Tiger firewalls and sledge hammers and wants nothing to do with them. George is a perfectionist and that's not the way he fabricates. George has even implored that the current owner fix the dent by the carburetor because he didn't want anyone thinking that was his work.

(ABOVE) Jere Kirkpatrick and the Shelby Prototype Tiger
(BELOW) Jere Kirkpatrick and George Boskoff Discussing the Shelby Prototype Tiger

Motor Trend Article on the Shelby Prototype Sunbeam Tiger

R E T R O

The Prototype Sunbeam Tiger

COINCIDENCE AND CARROLL SHELBY CREATE ANOTHER WINNER

by Dean Batchelor

PHOTOGRAPHY BY CHRISTY JEWELL

Some high-performance automobiles are created because one or more executives of a car company have some Grand Plan. Others, like the Sunbeam Tiger, happen because of a coincidental series of happy circumstances.

Sunbeam (which was part of the Rootes organization) introduced its Alpine two-seater sports model in 1960, but while the car received praise from almost everyone who drove it, all agreed it needed more power. The 1600cc OHV inline four was easily modified, but the car was still no match (in sales or performance) for its competitors, mainly the Jaguar XK-E, Chevrolet Corvette, and Austin-Healey 3000.

First coincidence: Jack Brabham and Stirling Moss co-drove an Alpine to second place in the Saturday production car race at the 1962 Times-Mirror Grand Prix at Riverside. After the real race, when the bench racing started, Brabham suggested to Rootes West Coast Sales Manager Ian Garrad that the car would really be nice with a V-8 engine. Garrad agreed, but the issue seemed dead and the conversation turned to other topics.

Things are not always what they seem, however, and the next morning Garrad and Rootes Western Service Manager Walter McKenzie went into the company's

S P E C T

showroom in West Los Angeles and, using a yardstick, measured the engine compartment of a Sunbeam Alpine.

Armed with these dimensions, McKenzie visited the showrooms of the nearest domestic car dealers (primarily Buick, Oldsmobile, Plymouth, and Ford) to measure as many V-8 engines as he could find. The last stop was the Ford agency, and whataya know, the new 260-horsepower thin-wall V-8 seemed about the right size, and if advertised figures were correct, it was also about the right weight.

Second coincidence: Author Bill Carroll, then West Coast Editor of *Automotive News*, called on Garrad as part of his regular routine of covering West Coast industry affairs for the magazine. The subject turned to the Alpine, and Bill suggested that what it really needed was an American V-8, and in his opinion, Carroll Shelby was just the man to make it fit.

Bill Carroll had been working on a book called *Cobra Guide* (Sports Car Press) at the time, and was seeing Shelby almost every day while doing research, so he *thought* Shelby might be interested in the project, and made a note to broach the subject to Shelby the next time they met.

Garrad didn't wait for Bill Carroll; the next morning he drove to Shelby's Venice, California, operation and asked point blank if Shelby would be interested in preparing a prototype Alpine-Ford V-8. Shelby was, but Garrad still had a few "political steps" to take within the company before approval could be given.

Third coincidence: Brian Rootes, international representative for the Rootes company and son of Sir William Rootes, was in San Francisco on company business, so Garrad caught a flight to San Francisco, where he pitched the idea to Rootes—who was very interested.

Okay, said Rootes, I'll raise the money for the prototype—if I have to take it out of my advertising budget. Then, as an admonition, Rootes said, "For God's sake, keep it quiet from Dad until you hear from me."

At a subsequent meeting at Shelby's with Ian, Brian, Carroll Shelby, Ford man Ray Geddes, and Shelby man Payton Cramer, the ground work was covered in about 20 minutes, and a $10,000 budget proposal was agreed on and confirmed with a handshake.

That Shelby's Cobra works went ahead with the Tiger prototype is common knowledge today. What may not be as well known is that a second prototype was created at the same time by Ken Miles. The cars differed considerably (and deliberately) in their development.

The Miles-built car also used a small-block Ford V-8, but coupled to a two-speed automatic transmission. This car, completed in only a week, was really the first Alpine V-8. Miles installed the engine without changing the steering or altering the firewall, which meant the engine was so far forward there was no room for a fan. Two Jaguar electric fans were fitted in front of the radiator and worked beautifully. To get the desired rear-axle gearing, Miles installed a Studebaker ring and pinion, which gave it a final-drive ratio of 3.07:1. Miles' bill for the project, including a candy-apple-red paint job, was $1200.

The Shelby-built Alpine V-8 (pictured on these pages) underwent a great deal more modification and took about three months to complete. George Boskoff did the major mechanical work, while Phil Remington supervised the engine installation. Modifications included cutting the firewall 4.5 inches to move the engine back and adding an oversize radiator, MG rack-and-pinion steering, Ford

Motor Trend Article on the Shelby Prototype Sunbeam Tiger (continued)

2.69:1 rear axle, and electric fuel pump. In spite of moving the engine back, passenger space was actually improved somewhat because the T-10 four-speed was smaller than the Alpine four-speed it replaced.

After chassis and suspension sorting out at Riverside Raceway by Ken Miles, the white prototype was shipped to England in July 1963. The car was driven by Norman Garrad (Ian's father and competition manager for Rootes), Bernard Winter (chief engineer), Peter Ware (assistant chief engineer), Peter Wilson (Ware's assistant), and finally, by Lord William Rootes.

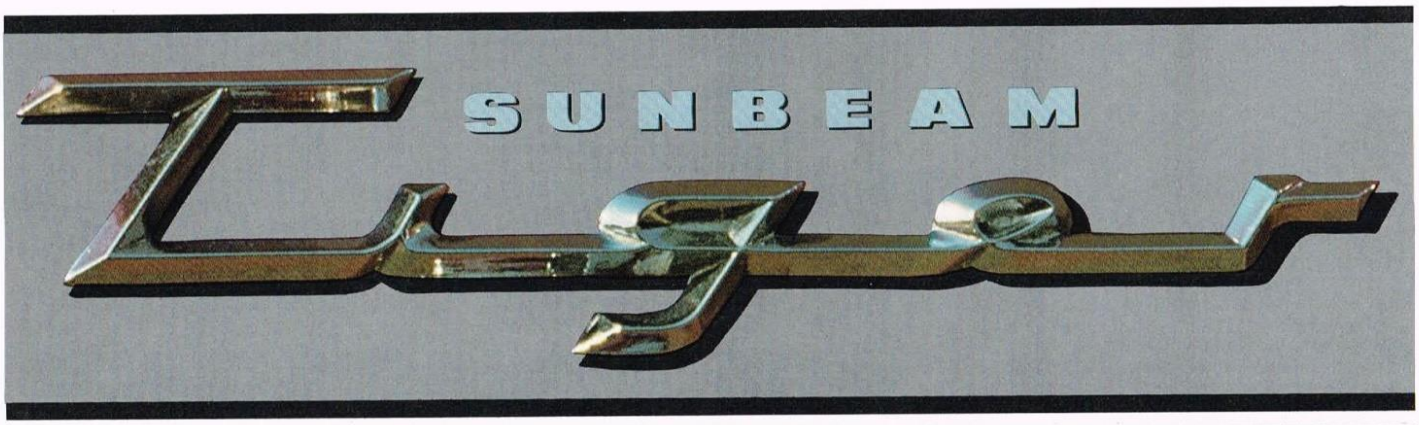
All were extremely impressed with both Shelby's installation and the car's performance, particularly its smoothness, the quiet, powerful engine, and the amazing Borg-Warner T-10, which was smoother than anything in the Rootes line of cars.

Although they had considered having Shelby assemble the Tiger in California, the Rootes group decided to do it "at home" to exercise the quality control they thought would be necessary. This suited Shelby, because he was occupied with Cobra production. The result was modification and assembly at the Jensen works in West Bromwich, Staffordshire, with Shelby getting a royalty for each car built.

Once Rootes was through with the prototype, they sold it to Hungerford's British Cars in Escondido, California. In May 1976, Bill Carroll (yes, the same Bill Carroll who brought Ian Garrad and Carroll Shelby together) spotted a small classified ad in his local paper, "Tiger Prototype with T-10 Transmission." The car had resurfaced in San Diego, California, after 12 years of obscurity.

This seemed almost too much coincidence, but Carroll checked it out, and even though he found the car in awful condition, he bought it (at the right price) and started the restoration process. It's been in Bill Carroll's garage for 14 years now, and he feels it should be in an auto museum somewhere. We couldn't agree more. MT

Automobile Quarterly Article Detail on Shelby Prototype Sunbeam Tiger



Success in the Shadow of the Cobra

by Mike Taylor

Without doubt, the early Sixties were the halcyon days of the modern sports car. All over Britain, Europe and America, enthusiasts were enjoying the pleasures and excitement of cars like the MG-TC, Porsche Speedster and Corvette Sting Ray. There was a car to suit almost any pocket. Emission and safety regulations had yet to take effect and engineers had virtually a free hand in their designs.

In Britain, one individual who quickly gained fame for making fast and highly competitive motor cars in the immediate postwar period was Sidney Allard. His formula was simple: produce a strong chassis with a lightweight sports body and drop in an American V-8 engine. Even with the old Ford side valve Ford and Mercury engines, Allard's cars, particularly the J2s, were very successful.

In America, another man to gain fame through fitting V8 engines into a British sports car was Carroll Shelby. Shelby benefitted directly from an intensive research program which had been mounted by all the major American automobile companies to develop more powerful engines using new "thin wall" foundry techniques. Today, Shelby's Cobras equipped with 260 cu. in., 289 cu. in. and the monstrous 427 cu. in. Ford engines are a legend.

Thus, the idea of blending American V8 performance with European chassis technology was hardly a new concept when Rootes decided to adopt just such a technique for their Sunbeam Alpine. The result—the Sunbeam Tiger—was a success. Although it was not the tire-burner of the Cobra's class, it offered impressive performance with far more creature comforts than the Cobra.

Rootes was run by William (later Sir William) Rootes as chairman and by his brother Reginald. They were automotive entrepreneurs, always looking for new markets and ways to export their models. The sons of a Kentish bicycle maker, the brothers had begun their careers in the motor car industry starting their own business in 1932; within seven years they were employing 17,000 people. (For more information on the history of Sunbeam and Rootes, see *Automobile Quarterly,* Volume III, Number 2).

Initially, in contrast to their hunger for increased growth and sales, the Rootes brothers were not interested in sports cars or competitive motor sport in any way, and it took a man of tremendous drive and enthusiasm to show them that it could have direct benefits to the company if Rootes could be seen with the checkered flag. That man was Norman Garrad.

On paper, the Rootes' cars were hardly outstanding, yet Garrad honed

Automobile Quarterly **Article Detail on Shelby Prototype Sunbeam Tiger (continued)**

1963 Sunbeam Alpine V8 Prototype by Shelby • William Carroll

Automobile Quarterly Article Detail on Shelby Prototype Sunbeam Tiger (continued)

Malcolm Freshney, managing director of Rootes Motors Inc., Ian Garrad and Carroll Shelby admire the 1965 Car and Driver *Reader's Choice award.*

The Tiger received more votes than any other car in the history of the award. It won the following year as well.

Automobile Quarterly Article Detail on Shelby Prototype Sunbeam Tiger (continued)

John Panks, director of Rootes Motors Inc. during the development of the Tiger, instigated its creation and helped tailor the car for the American market.

his team to such a degree that in 1952 they won three Coupes des Alpes and the team prize in the Alpine Rally driving Sunbeam Talbot 90s. Then, as the result of a suggestion from Rootes' agent George Hartwell, a two-seater version of the Talbot 90 appeared the following year, named the Sunbeam Talbot Alpine, and Rootes were in the sports car business—just.

The main drawback with the Alpine was that it was a "sporting" car rather than a sports car, unlike the taut little models being produced by MG and Triumph which were already gaining a strong following on both sides of the Atlantic. Indeed, the Talbot Alpine was to last a mere two years. Clearly Rootes had to think again. What they came up with was a startlingly attractive car based on the Hillman Husky floorpan and powered by an engine developed from the 1500cc Sunbeam Rapier unit which produced 83 bhp at 5300 rpm. It, too, was called the Sunbeam Alpine and was launched in 1959. Possibly its greatest attraction was its refined ride and interior. It had wind-up windows (rather than side screens) and wide opening doors for easy entry. Performance was reasonable and the ride more forgiving than the rock-hard suspension of its contemporaries.

Rootes entered the Sixties with a broad and attractive model lineup; the bread and butter Minx saloons, the luxury Humbers, the Rapier Coupes and the Alpine sports. And with the firm belief that their cars had extra attention to detail which their competitors lacked, Rootes and their range of cars looked certain to succeed.

Particularly popular in the States were the convertible models in the Rootes range, the Minx and the Rapier. William Rootes' enthusiasm for the American market always insured the prompt delivery of consignments—giving his American representatives a strong weapon with which to attack their competitors. But while European sports cars had undoubtedly had a dramatic effect on the American sports car market during the Fifties, American manufacturers were beginning to move into high gear with their own sporting image. The old adage "Win on Sunday, Sell on Monday" still held good, and Rootes representatives began to realize that their position in the market was eroding and if they were to save the situation, they would have to do something immediately.

In an effort to redress the balance of power, John Panks, president of Rootes' New York operation, contacted the factory, outlined the Alpine's position in the American market and asked whether it would be possible for it to be fitted with a bigger engine. As Panks was to say later, Rootes tried to fit the 2.3 litre four-cylinder Humber Hawk engine, but it was hardly an improvement. They also looked at the 2.5 litre V8 Daimler Dart/SP-250 unit, as well as the 1600cc DOHC Alfa Romeo unit. But they were under strict instructions from Rootes management that, whatever engine they fitted, it had to be installed with a minimum of surgery to the Alpine's body, and none of the engines that were tried fitted easily.

Race driver Jack Brabham made suggestions about possible ways of giving the Alpine an extra boost. Instead of using a four-cylinder engine, he proposed an American V8 unit as the most likely way of significantly improving the Alpine's performance. Since his London-based workshops were already gearing up for taking on tuning work, he offered his facilities for developing a V8-engined Alpine.

Meanwhile, Ian Garrad, Panks' manager in Los Angeles, was also thinking of ways in which the Alpine's performance could be improved. Garrad had several talks with his friend Doane Spencer of Hollywood Sports Cars, a large agency specializing in British models, idly musing over the simplest and most effective way in which to add muscle to the Alpine. "Ian was thinking of using the 3.5 litre [aluminum block Buick V8] engine," remembered Doane, "but I told him to forget it and use a Ford unit, probably thinking that we could have done the job in the Hollywood Sports Cars workshops. As it was, Ian 'got into bed' with Carroll Shelby."

The way in which—as Doane puts it—'Ian got into bed with Shelby' came about just prior to the October 1962 running of the Riverside Grand Prix. Garrad called Panks and invited him over, suggesting that he might like to come since a works Alpine, driven by Brabham and Stirling Moss, would be running in Class C.

Panks' acceptance turned out to be worthwhile, for the Alpine finished third. That night, over dinner, Garrad and Panks met up with Carroll Shelby and the conversation wound around to the subject of sports cars; the success of cars such as the MGA and how he, Shelby, had been able to take the AC Ace and transform it into the Cobra, making it not only highly attractive to American sports car enthusiasts but also a very competitive race car. Shelby's reply was that if it could be done with the Ace, then it surely could be done with the Alpine.

Next day, when Garrad got to his office, he took his service manager Walter McKenzie aside and outlined the idea of fitting a V8 engine into the Alpine. But which one? There and then, McKenzie was dispatched to several Los Angeles showrooms, armed with a yardstick, to measure as best he could the external dimensions of different V8 engines. Much to the chagrin of local Ford, Chrysler and General Motors agencies, McKenzie went round poking under the bonnets of their display models to ascertain which one had the most compact unit. The result? No contest. The 260 cu. in. Ford engine with its narrow exhaust manifolds and front-mounted distributor made it the most likely suitor.

Another of Garrad's friends was journalist Bill Carroll, who at the time was engaged in the preparation of a book on Shelby's cars. When Garrad mentioned to Carroll his proposals for giving the Alpine an increase in performance, Carroll's reaction was quick and to the point: drive a Cobra with the "small block" Ford engine and you'll soon see how the Alpine might behave if it was fitted with a similar engine.

Garrad then went up to Shelby's headquarters at Santa Fe Springs and had a drive. It proved to be both memorable and impressive. This must surely be the answer, thought Garrad. Since Shelby's initial discussion with Don Frey of Ford Detroit over the possibility of putting Ford engines into the AC Ace, the project had gathered momentum to the point at which ready trimmed AC bodies were arriving at Shelby's workshops where the engines and gearboxes were installed. Seventy-five Cobras had been made with the 260 cu. in. engine before Shelby American began fitting the more powerful 289 cu. in. unit. *Car and Driver* recorded 0–60 mph in 5.0 secs. with their test car, which was tuned to produce 260 bhp at 5800 rpm; it was further proof, if Garrad needed any, of the performance possible from an Alpine powered by a similar engine. But how much would such a conversion cost?

Shelby explained that, like the Ace, some alterations would have to be made to the Alpine's steering and body to allow sufficient clearance for the Ford engine and transmission. The rear axle would also have to be replaced with something capable of taking the increased power. After making a quick assessment, he quoted

$10,000 for the complete job. No doubt Shelby realized that this could be a second Cobra, with bodies already modified coming from England to be fitted with engines by his own production team. In the end, this was far from the truth.

Within two weeks of the Riverside Grand Prix, Panks was back in California and met Shelby and his chief development engineer and test driver, Ken Miles, for further discussion.

It so happened that Lord Rootes' son, Brian Rootes, was scheduled to visit San Francisco on a business trip and Garrad, thinking that this would be the ideal opportunity to involve a member of the Rootes Board and to gauge his reaction, flew up to San Francisco to plead his case. Eventually, after what turned into a rather liquid affair, Rootes and Garrad finally found themselves in a waterfront bar around 4:00 a.m. Garrad, freshening his glass and taking a deep breath, then began to describe his plans.

Luckily, young Rootes not only possessed his father's incisive mind and instinct for a marketable product, but was also a competent engineer and immediately saw the possibilities of how the V8 engine could be made to fit into the Alpine's engine bay. The point was, would Shelby do the job? No problem, replied Garrad.

Then, feeling somewhat the worse for wear, Garrad and Rootes jumped on a plane and flew to meet with Shelby and discuss the project. A deal was struck, hands were shaken and Shelby agreed to undertake the work, anticipating that the job would take about eight weeks. With a parting shot to Garrad of,"Don't tell Dad," Brian Rootes flew back to England.

Garrad arranged for an ex-Rootes demonstration Alpine (a white Mk. III car with about 9000 miles on the odometer) to be delivered to Shelby's workshops for work to begin. "Eight weeks," thought Garrad, "I can't wait that long." But, as Garrad now agrees, he was a little impatient and decided to have a second car modified. He asked Ken Miles, who had a workshop on Cahuenga Boulevard, if he would do a "quickie" job just to see if the whole idea would work. Miles agreed to do the second car for only $600 and a red Mk II demonstrator was delivered to him. Within a mere five days the old four cylinder Rootes engine and gearbox had been taken out and replaced by a 260 cu. in. Ford unit complete with a three-speed automatic transmission. The engine was mounted as far forward as possible to clear the Alpine's steering box, but this in turn meant that there was no room for a fan, so twin electric Jaguar fans were mounted in front of the radiator. Otherwise, the car was left completely stock, right down to its wire wheels.

The two men responsible for doing most of the work on the white Shelby Alpine were Phil Remington and George Boskoff. Housed in a special workshop out of the way of prying eyes, the Alpine's drive train was taken out (and put in Garrad's stores to save money) and the scuttle/firewall area modified to make room for the 260 cu. in. Ford engine and Warner T-10 manual gearbox. The Alpine steering box was dropped in favor of an MGA rack and pinion unit contributed by Doane Spencer and a Ford Galaxie rear axle was fitted to take the torque of the bigger engine.

Shelby was as good as his word and within two months the white Alpine was finished. By modifying the body shell to allow the engine and gearbox to be located far back in the chassis, Shelby's team had made sufficient space for the installation of the proper Ford cooling system, using an enlarged radiator. Externally, however, the Alpine looked amazingly standard since Garrad had stipulated that it should not at any cost look highly modified. The exhaust finished in one pipe extending from beneath the rear valance, and the speedo and rev counter had been changed to suit the engine and final drive. Knowing the minds of the Rootes board, Garrad was well aware that the car would stand a better chance of being accepted if it looked subtle and professional.

While Panks was in Los Angeles, he had the opportunity to drive both V8 Alpines, and before he left for New York he dictated a letter to Brian Rootes, outlining his thoughts on the cars and the possible production methods open to them. The first proposal involved contracting Carroll Shelby to take on the work; ready-modified Alpine bodies would be shipped to Los Angeles and New York where V8 engines and gearboxes would be installed. The second proposal featured Hollywood Sports Cars. The idea was that since they had considerable knowledge of the development and sales of sports cars, they could take on the project, adapt the Alpine bodies where necessary, and fit the new power units. The third proposal was for Rootes Motors Inc. to undertake the job, modifying the Alpines themselves using their own facilities. In a note from Brian Rootes to Panks, Rootes had commented that if the project was to succeed, the modification could only be handled in the States. In his reply, Panks agreed with Rootes' sentiments. As it turned out, of course, both men were entirely wrong.

During the next few months Garrad used the white Alpine as his own transport, putting in as many miles as he could and driving it in varied weather conditions—from crossing the Mojave Desert to running through uptown Los Angeles traffic. The car also spent several hours at Riverside Raceway, in the hands of Ken Miles, to test its handling characteristics. As a result, one modification was the change of the rear axle to one used by the Studebaker Champion. Some 30,000 miles were covered in an attempt to find the car's weak points before sending it to England and demonstrating it to the Rootes Board.

Since cash was still short, it was decided that the cheapest way of getting the car to England was by freighter out of New York and arrangements were made for it to go aboard a banana boat bound for Southampton. When the boat docked at Southampton the white Alpine was

hauled out of the hold where it nestled among the fruit (not even enough money had been available to provide a suitable shipping crate!) and dropped onto the quayside to await the arrival of Ian Garrad, who had flown over from Los Angeles with his brother Lewis. The car was driven up to Coventry and taken straight to Rootes' Competitions Department. Here it was cleaned and made ready for presentation to the Rootes Board the following Monday morning.

The first to drive the car was Peter Wilson, assistant to Rootes' engineering director, Peter Ware. Wilson, a motor sport enthusiast of considerable knowledge and experience (he had driven a replica Frazer Nash with Culpan in the 1950 Mille Miglia) came out and looked at the car. The standard of workmanship impressed him. He got in, started the engine and, with Garrad by his side, took the car for a test run. He returned enthusiastic about the whole project. Shelby's team had succeeded in producing a very presentable motor car which successfully demonstrated the viability of fitting a V8 into the Alpine's body.

By the time it came for William Rootes himself to have a drive, the car was beginning to create considerable interest around the factory. Rootes arrived, got in the car, started it up and took off down the road. Though much of his driving in recent years had been handled by a chauffeur, he nevertheless returned full of smiles. The car, however, was emitting a pungent burning smell because he had driven the entire time with the handbrake on!

Rootes invited Garrad, Wilson, Ware and his two sons, Brian and Geoffrey, into his office, where talks began on the possibility of a production V8 Alpine. He was, without doubt, impressed with the car's performance, particularly so since it had been achieved without making the Alpine in any way less refined—something which Rootes considered important. The conversion did involve more body surgery than Rootes had specified for the trial installations of engines done by his own development team, but here he felt that the amount of alterations could be justified by the impressive results. Also, he reasoned that if Rootes were to "productionize" the car, a large proportion would be sent to the States and the use of an American Ford engine neatly overcame any servicing and spares problems.

At this point, any thoughts that Panks (or Carroll Shelby, for that matter) may have had for getting in on the act of producing the Alpine V8s in the States quickly evaporated for it was clear that Billy Rootes was firmly in charge, and would remain so. He instructed his secretary to track down Henry Ford II so that negotiations could be started for supplies of engines to be sent to England. Even this proved a little difficult, but eventually Ford was located on his yacht, moored at the time off Cannes.

Ford's reaction to Rootes' request was to refer him to his assistant vice chairman, Lee Iacocca, who initially was not enamored of the scheme. In order to put the Rootes case into better perspective, Billy Rootes asked John Panks in New York if he would venture to Detroit and talk with Iacocca personally. As Panks said later: "As soon as Iacocca understood our position and requirements, he could not have been more helpful."

In retrospect, we can admire Billy Rootes' enthusiasm for even considering the V8 Alpine project, but wonder whether it was not just a little reckless since the company's finances were under considerable strain. To begin with, there had been a damaging strike at British Light Steel Pressings, a Rootes subsidiary. Then there were the company's commitments to new models (including the Super Minx range) which would slot between the Minx/Rapier/Singer and the luxury Humber and the new small car, the Imp. Just putting the Imp into production had been a major task, since the company had no room in its existing facilities and finally decided to build a new factory in Scotland.

The answer, of course, was to subcontract the work and Rootes chose Jensen Motors Limited of West Bromwich as the ideal company. Ideal, because Jensen's deputy chief engineer, Kevin Beattie, was well known to Rootes since he trained with the company just after the War. Also, Jensen had acquired a reputation in the automotive world as competent subcontract engineers, having already built Austin Healeys for BMC. In addition, Jensen's own CV-8 used a large American V8 engine so their development team already had first-hand knowledge of these power units.

By the fall of 1963 the Alpine V8 team had been brought together. Head of the project was Alec Gaine, a competent and extremely able man who had started his automotive career at Rolls-Royce and joined Rootes through the merger with Singer. The man in charge of development was Don Tarbun. Another competent engineer, Tarbun already knew Kevin Beattie and his assistant, Mike Jones.

Designated "Project 870," work began on the very first British prototype in October. Jensen's chief engineer, Eric Neale, started by producing a side elevation drawing and laying on top of this the dimensions of the Ford engine and gearbox. From this it could be seen where alterations would have to be made to the Alpine's body. As shown in Neale's drawing, the original firewall and transmission tunnel were cut away and a new transmission tunnel/firewall assembly was fabricated from sheet metal and welded into place. This then formed the basis on which production pressings would be made.

By November 1963 the first Jen-

Octane Article on the Shelby Prototype Sunbeam Tiger

» The Legend

Carroll Shelby

CARROLL SHELBY

Texan-born Shelby retired from racing in 1960 and went on to achieve immortality as the creator of the Shelby Cobra and Mustang. Never short of an opinion, he is still very much involved with the business of producing fast cars.

Carroll Shelby was speaking with William Edgar

The first Sunbeam Tiger sports car was born in our Shelby-American shop on Princeton Drive in Venice, California, across from the Pacific Ocean. It was early 1963 when we were working night and day on competition Cobras, trying to get to races on time and make a good showing. Right in the middle of this, Ian Garrad, the US West Coast rep for Rootes Group, felt if we could take a Sunbeam Alpine, remove its four-cylinder engine and stick in a small-block American V8, it would be a sports car that would out-perform Jaguars and be cheaper to buy than Cobras – and still have enough punch to blow your hair straight back.

We thought about this for a while. Our Cobras were running strong and taking all the manpower we had to get them built and race prepped, and rebuilt after a race; then we'd be working day and night again to make the next race on time. Once, after Joe Landaker and everybody got the Cobras loaded up to haul off to a track, it was already two in the morning before we could sit down. One of our engine men, George Boskoff, sat down with us; we'd had a white Sunbeam Alpine there in the back of the shop along with some Scarab stuff, just sitting there, and we asked George if he could take a Ford V8 and make it fit in that Alpine and get down the road as far as he could with it. So while everybody else went racing, that's what George did.

> **"A big boost was when Tigers finished first and second in class on the Monte Carlo Rally. We'd made a car that was quick and fun for a fraction of the cost of a Cobra"**

It was a small Ford '260' – one of the 164-horsepower, 4.2-litre engines built in Canada. To make it fit, George had to get rid of the stock steering box and its clutter and put in a rack-and-pinion instead. It was still a squeeze, but he knew how to get it done.

Meanwhile, Ian was trying to keep the project quiet so Lord Rootes wouldn't get into it and maybe cancel the whole thing. We had it all planned to have the conversion done and ready so when John Panks, director of Rootes Group America, came out from the east to California, he could test drive our little Tiger.

It was one of those crunches when you need extra hours to get everything finished, and when George admitted he was exhausted, we had Phil Remington do the final touches – so in the middle of the night before John was due to be there, Phil did the rest of the wiring and put carpet in the foot wells and gave it a spin to see if it ran right. We waited for George to show up after he got some sleep, because it was mostly his work that made the Tiger. With George riding passenger, John test drove the car and fell in love with it, and the next thing we're doing is sending it to England for Lord Rootes to have a look.

Rootes Group was a big company and his Lordship's time was valuable, so the Tiger almost had to be forced on him. But he got in and drove it around the parking lot, then headed out on the road with it and was gone a while. When he came back the thing was hot and smoke was coming out the back – he'd driven with the parking brake on all the time. But the car was a winner in his eyes and the rest is history.

Even though Chrysler took over Rootes, the Ford V8 stayed put in the Tiger because Chrysler didn't have anything that would replace it without serious modifications. That prototype got only minor changes before certified production started, and over 7000 Sunbeam Tigers got built in England from 1963 to June '67, including the works Tiger coupes that ran at Le Mans. A big boost was when Tigers finished first and second in class and fourth overall on the Monte Carlo Rally. We'd made a car that was quick and fun to drive for a fraction of the cost of a Cobra.

Plenty of Tigers are still running. We go to Tiger United meets in the States, and they're big in the UK and the rest of the world, too. Bill Carroll bought that prototype Tiger after it came back to America and got a bigger Ford 289 put in it. He kept the car for years, and not long ago a guy near San Francisco named Doug Lyle.

There's a whole Sunbeam Tiger world that centres around what George Boskoff built there alone in our shop while we were away racing Cobras. There're Tiger magazines, clubs, websites, message boards and Tiger rallies every year. And good ol' George – he's 82 now – is out in Hawaii living on Maui and swimming in the open ocean every day. He'd be riding his surf board, too, but he gave that up when he turned 80.

Chain of ownership for the Shelby Prototype Sunbeam Tiger

Rootes Group (Sunbeam, 1963-1965-ish)
Sold as a used car through Hungerford British Cars, Escondido, CA.
William (Bill) Carroll, 1976-2006
Doug Lyle, 2006-present