

ROAD & TRACK'S

# ROAD TEST<sup>ICD</sup>

ANNUAL FOR 1965 \$1

TESTS CONDUCTED IN 1964



PORSCHE 904 ROAD TEST PAGE 91

AUTHORITATIVE ROAD TESTS OF CURRENT SPORTS CARS  
ECONOMY CARS FAMILY SEDANS LUXURY CARS GRAND TOURING CARS



# ROAD & TRACK

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Cover—Otto Zipper in the fast and exciting Porsche 904—test on page 91. Ektachrome photo by Scott Malcolm.

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# Sunbeam Tiger

*Performance, comfort and reliability at low cost—what more can one ask?*

 ADMITTEDLY, THE IDEA of taking a well-bred European chassis and inserting into it a good-sized American V-8 is not a new one. Sydney Allard did it with considerable competition success for several seasons, the Facel Vega built in France uses a big Chrysler engine, Iso in Italy is putting a 327-cu. in. Chevrolet into a nice 2-plus-2, Jensen and Bristol in England put other engines in their already established chassis and, without doubt, the most successful combination is the Carroll Shelby redesigned AC chassis and body into which he inserted the "small" Ford V-8 engine. Now it has been done again, with a Ford engine introduced into the chassis of the Series IV Sunbeam Alpine. And it is a combination that seems almost certain of finding favor wherever the new car, called the Sunbeam Tiger, is sold.

The idea for the new car came from West Coast Rootes manager Ian Garrard, a tall, native-born Britisher who came to the U.S. 13 years ago and learned his lessons well about the American market. Garrard was largely responsible for building a good competition image for the Sunbeam Alpine on the West Coast, giving meaningful support to drivers who campaigned the marque, and doing much to change the impression of the previ-

ous Sunbeam Alpine, which had been regarded more as a sporty car than a sports car.

It has been over two years since Garrard commissioned the insertion of Ford V-8s into a pair of Alpine chassis. Ken Miles did one of these jobs while he was still running his own shop and the other was done in the then-not-too-busy Cobra works of Carroll Shelby. The Shelby job had a 4-speed manual transmission, the Miles car a simple 2-speed automatic. These cars were pretty much hacked together, no real development work being done on them after the bit of shoving and squeezing required to insert the engine and gearbox. Garrard then took the Shelby-built car to England, handed it to his confreres at Rootes Group and said, in effect, "This is a car we can sell in America." If there was any skepticism about the suitability of the mating, and you know there must have been, driving the car quickly dispelled it and production plans went forward.

In appearance, the Tiger is indistinguishable from the Series IV Alpine (which we have reviewed on page 33) except for very discreet trim flashes ("Tiger" appears only in the spelled-out chrome trim strip in front of the doors), the little shields saying "260 Ford," and the distinctive wheel covers that are peculiar



to the Tiger and not used on the IV. The people package is also the same on the Tiger and it is still one of the most comfortable sports cars available today.

In body styles, the Tiger will be available as a pure roadster with foldaway top (stowed away with great neatness behind folding panels) and with the detachable hardtop. It will not be available with the permanent hardtop and the de luxe trim of the Sunbeam Alpine Grand Touring model. Other than these trim items, though, the Tiger comes with all those civilized appurtenances for which we have always praised the Alpine—roll-up windows, complete instrumentation, seats that are adjustable for leanback as well as fore and aft, adjustable steering wheel and so on.

In appearance, inside the passenger compartment, the only indication of there being something different about this Tiger is the stubby American-looking shift lever poking up out of the driveshaft hump. Otherwise everything looks very Alpiney.

A tug on the hood release and lifting the lid over the engine compartment never failed to bring appreciative oohs and ahhs wherever we practiced this. Yes, you could say that there is little waste around the engine. In fact, you could say further that it fits very snugly. And, no, we wouldn't like to try to change the plugs—especially while the engine was hot.

The standard engine for the Tiger is the 260-cu-in. Ford V-8 from the Fairlane. This engine, in standard form, has a bore and stroke of 3.80 x 2.87 and with a single 2-barrel carburetor puts out 164 hp at 4400 rpm. It has hydraulic lifters and is a nice, completely tractable, uncomplicated engine with a compression ratio of 8.8:1. For the Tiger installation there is no change made in the engine except that an additional header tank has been added for radiator water and a flat, low-restric-

tion paper air cleaner is used. A change was required in the steering to provide additional clearance and the car is now equipped with rack and pinion, with 3.2 turns lock-to-lock and a turning circle of just over 36 ft. The gearbox is the standard American 4-speed all-synchro that is awfully hard to beat. It is crisp, sharp, positive, accurate, a delight to use. Some drivers might prefer to add an inch or two extension on this handle, though, as the knob is slightly lower than the top of the central map box lid and reaching over it without dragging the wrist takes a bit of practice.

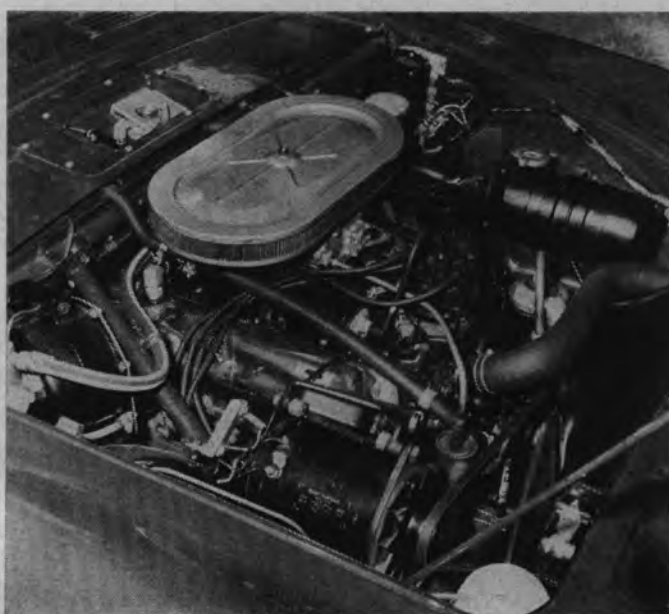
The suspension of the Tiger is the same as the Series IV Alpine, independent with unequal A-arms in front, live axle with semi-elliptic springs in the rear. The spring settings are ➡

## Sunbeam Tiger

### AT A GLANCE...

Price as tested	\$3598
Engine	V-8, ohv, 4262 cc, 164 bhp
Curb weight, lb.	2565
Top speed, mph	118
Acceleration, 0-60 mph, sec	7.8
Passing test, 50-70 mph, sec	4.4
Average fuel consumption, mpg	20





## Sunbeam Tiger

considerably stiffer than on the present Series IV Alpine, making the ride firm, well controlled and comfortable.


Due to similarity in the choice of engine and transmission, one tends to compare the Tiger with the Cobra. In our test of the Cobra (June 1964), we described it as "a squat, mean, and brutal piece of machinery," commented on its lack of creature comforts and minimal weather equipment, but noted that "one can forgive almost anything for the sheer exhilaration of its performance." In comparison, the Tiger is much more docile than its name suggests, it is hard to fault from the standpoint of comfort, and our impression was that the 164-bhp engine was entirely adequate for the car.

Of course, as with all Ford engines, there is an almost infinite variety of performance options, and we were able to sample a 245-bhp version of the car. The additional power was obtained mainly by a different cam, and a 4-barrel carburetor with appropriate manifold. Applying this power to the road presented a problem and resulted in a bad case of axle tramp if we engaged the clutch suddenly. However, this was cured by fitting Traction Masters, which will probably become standard equipment on the modified cars.

The price of the 245-bhp version has not yet been definitely

established, although it will be in the region of an additional \$250. Up to about 60 mph, the additional power does not really earn its money, but after 60 mph the modified car comes into its own and, as a glance at the acceleration curve will show, 90 mph comes up in 15 sec, as opposed to 19 sec for the standard version.

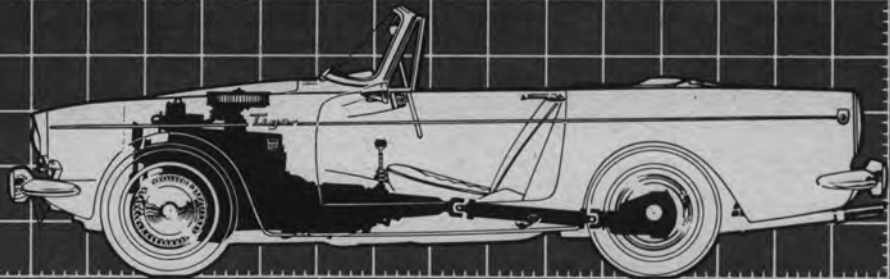
Despite the advantage of the additional top-end performance, we felt that the 245-bhp engine was unnecessary and unsuited to the general concept of the Sunbeam Tiger as a comfortable and refined sports/touring car. In 164-bhp form, the performance and handling of the car are just about ideal for the purpose for which it is intended. High cruising speeds can be maintained effortlessly over long periods, the suspension provides a satisfactory combination of comfort and good roadholding, the brakes are entirely adequate for emergency stops, and the car as a whole fulfills its purpose remarkably well. However, if one starts to use the full potential of the 245-bhp engine, the 590-13 tires seem inadequate, the suspension needs additional strengthening, and one gets the impression of imposing upon the car to an unnecessary degree.

We have registered our enthusiasm on several occasions in the past for the Ford V-8 engine and the superb all-synchro 4-speed transmission which goes with it. When these units are installed in a car such as the Alpine, which combines good sporting characteristics with all the comforts of home, the result cannot fail to please—particularly at only \$3500. 



# ROAD TEST

# Sunbeam Tiger



SCALE: 10" DIVISIONS

### PRICE

List price.....\$3499  
 Price as tested.....\$3598

### ENGINE

No. cylinders & type....V-8, ohv  
 Bore x stroke, in....3.80 x 2.87  
 Displacement, cc.....4262  
 Equivalent cu in.....260  
 Compression ratio.....8.8:1  
 Bhp @ rpm.....164 @ 4400  
 Equivalent mph.....107  
 Torque @ rpm, lb-ft..258 @ 2200  
 Equivalent mph.....53  
 Carburetors, no. & make...1 Ford  
 No. barrels & dia.....2-1.438  
 Type fuel required.....regular

### DRIVE TRAIN

Clutch type.....dry single plate  
 Diameter, in.....10.0  
 Gear ratios, 4th (1.00).....2.88:1  
 3rd (1.29).....3.72:1  
 2nd (1.69).....4.87:1  
 1st (2.32).....6.68:1  
 Sychromesh.....on all 4  
 Differential type.....hypoid  
 Ratio.....2.88:1  
 Optional ratios.....six

### CHASSIS & SUSPENSION

Frame type.....unit with body  
 Brake type, front/rear...disc/drum  
 Swept area, sq in.....295  
 Tire size.....5.90-13  
 Steering type.....rack & pinion  
 Turns, lock to lock.....3.2  
 Turning circle, ft.....35.6  
 Front suspension: independent with  
 A-arms, coil springs, tube shocks,  
 anti-roll bar.  
 Rear suspension: live axle, semi-  
 elliptical springs, tube shocks.

### ACCOMMODATION

Normal capacity, persons.....2  
 Seat width, front, in.....2 x 18  
 Head room.....39  
 Seat back adjustment, deg....30  
 Entrance height, in.....48  
 Step-over height.....16.5  
 Door width, front/rear.....40.5  
 Driver comfort rating:  
 For driver 69-in. tall.....90  
 For driver 72-in. tall.....85  
 For driver 75-in. tall.....85  
 (85-100, good; 70-85, fair;  
 under 70, poor)

### GENERAL

Curb weight, lb.....2565  
 Test weight.....2965  
 Weight distribution (with driver),  
 front/rear, %.....51/49  
 Wheelbase, in.....86  
 Track, front/rear.....51/48.5  
 Overall length, in.....156  
 Width.....60.5  
 Height.....51.5  
 Frontal area, sq ft.....17.3  
 Ground clearance, in.....4.5  
 Overhang, front/rear.....28/42  
 Departure angle (no load), deg..15  
 Usable trunk space, cu ft.....6.0  
 Fuel tank capacity, gal.....13.5

### INSTRUMENTATION

Instruments: 5000-rpm tachometer,  
 140-mph speedometer, oil pres-  
 sure, water temperature, fuel.  
 Warning lights: ignition, high beam,  
 turn indicator.

### MISCELLANEOUS

Body styles available: roadster (as  
 tested) and removable hardtop.

### ACCESSORIES

Included in list price: reclining  
 seats, windshield washers, seat-  
 belt anchors, adjustable steering  
 column.  
 Available at extra cost: tonneau  
 cover, heater, clock, lighter,  
 whitewalls, etc. Also numerous  
 performance options.

### CALCULATED DATA

Lb/hp (test weight).....18.1  
 Cu ft/ton mi.....125.2  
 Mph/1000 rpm (high gear)....24.3  
 Engine revs/mi.....2468  
 Piston travel, ft/mi.....1182  
 Rpm @ 2500 ft/min.....5217  
 Equivalent mph.....126  
 R&T wear index.....29.2

### MAINTENANCE

Crankcase capacity, qt.....5  
 Change interval, mi.....6000  
 Oil filter type.....paper  
 Change interval, mi.....6000  
 Chassis lube interval, mi.....6000  
 Tire pressure, psi.....31/31

## ROAD TEST RESULTS

### ACCELERATION

0-30 mph, sec.....3.1  
 0-40 mph.....4.3  
 0-50 mph.....5.8  
 0-60 mph.....7.8  
 0-70 mph.....10.7  
 0-80 mph.....14.4  
 0-100 mph.....23.7  
 Passing test, 50-70 mph.....4.4  
 Standing 1/4 mi.....16.0  
 Speed at end, mph.....84

### TOP SPEEDS

High gear (4850), mph.....118  
 3rd (5000).....92  
 2nd (5000).....72  
 1st (5000).....53

### GRADE CLIMBING

(Tapley data)

4th gear, max gradient, %.....16  
 3rd.....23  
 2nd.....29  
 1st.....off scale

### SPEEDOMETER ERROR

30 mph indicated.....actual 28.1  
 40 mph.....37.5  
 60 mph.....56.2  
 80 mph.....75.0  
 100 mph.....93.8

### FUEL CONSUMPTION

Normal driving, mpg.....18-22  
 Cruising range, mi.....240-295

### ACCELERATION & COASTING

