TECHNICAL REPORT: SPRITE GT

It will rarely be seen in this country, unfortunately.

TEXT & PHOTOS: PETE BIRO

RIGHT NOW, thanks mainly to the efforts of Ford and Cobra, GT racing is reaching an all-time high in popularity, both with the fans and the manufacturers. It's really great to be able to root for a particular marque, and to see cars that closely resemble what you yourself might be driving to and from work.

The emphasis has been on the big, quick machinery lately, but the little boys have been just as active as ever, developing their products.

One such "little fellow" is the new lightweight GT Austin Healey Sprite that showed its teeth at Sebring. Built by Geoffrey Healey at the Donald Healey Motor Works in Warwick, England, this little 1300-cc bomb showed its tail to many many much larger displacement machines in both the Prototype and GT categories. This particular car, owing to its 1300 cc's did run, however as a Prototype, but its twin, with an 1100-cc powerplant, wasn't that much slower!

The basic chassis is a standard Sprite platform unit with an aluminum body shell. Overall weight in this form is about 1230, 220 pounds less than a standard Sprite.

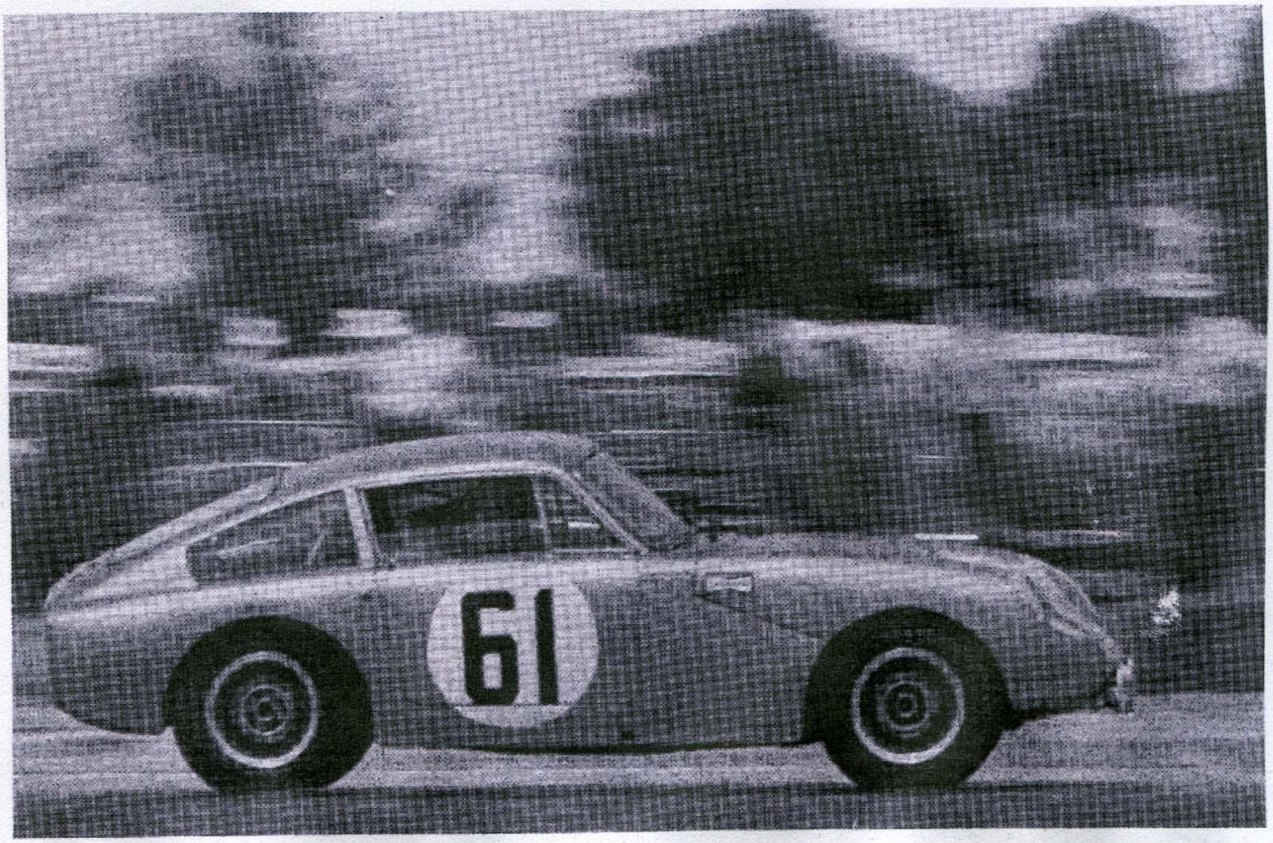
The entire car, body, chassis and powerplant is built in the Healey works racing department, which employs about 10 persons including coachbuilders. About six people built this car in two months time. Three such cars have been made, plus one roadster. This is the third version of the coupe which has undergone just slight detail changes. You might remember previous Healey efforts having sculptured side panels. The windscreen is stock Mini.

During tests at Le Mans the 1100-cc car exceeded 130 mph — and at Sebring the 1300-cc car was 10 seconds per lap quicker than the 1100-cc version.

Suspension details reveal half-elliptic springs instead of the standard quarters at the rear. Coil springs with lever-type Armstrong shocks are fitted on front. Sway bars from ½ to ⅝-inch diameter are being used.

A very interesting development in braking has found Geoff using a size smaller rear brake cylinder to decrease rear braking. He's using a Mark-I master cylinder with ⅞-inch diameter, instead of the ¾-inch Mark-II. Pedal pressure required is heavier, but there is less travel, giving a much greater period of use

Exhibiting good streamlining in the body design, the light-weight Sprite streaks out of the Esses and heads for the Hairpin during '63 Sebring.



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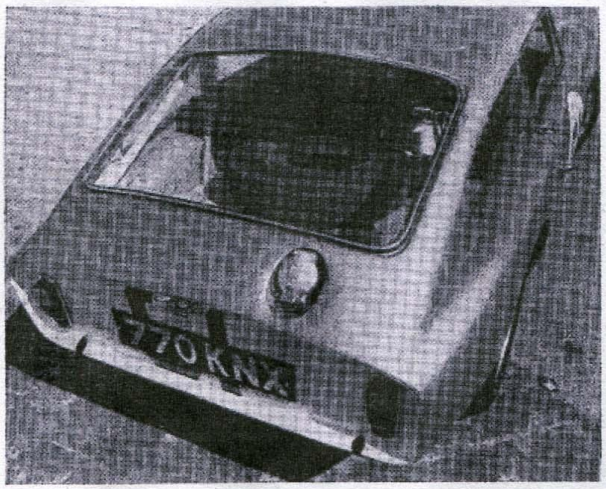

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SPRITE GT

without adjustment needed.

Final drive ratio for the 1300-cc car is 4.22:1, while the final drive for the 1100-cc car is 4.55:1. A close ratio gear box is fitted, with 1st at 2.93:1, 2nd at 1.754:1, 3rd at 1.242:1, and 4th at 1.1:1.

The 1300-cc engine is actually 1280 cubic centimeters, with a stroke of 3.296 inches and a 68 mm bore. It started its life as a basic Mark III 1100. A nitrited crank is fitted; main bearings are two inches.

The factory competition camshaft that is fitted has the following specifications.

Inlet opens	50° BTDC
Exhaust opens	75° BBDC
Inlet closes	70° ABDC
Exhaust closes	45° ATDC

Overlap is 95 degrees, with 8.01 mm maximum lift.

A 45 DCOE Weber carburetor supplies the fuel-air mixture, through 32.5 mm intake valves. Exhaust gases exit via 29.3 mm valves (intake 1 9/32 inches — exhaust 1 1/8 inches).

A 7000 rpm red line exists for the 1300, while the slightly smaller 1100 engine can take an extra 500 revs. Compression ratio is 10.8:1. Solid skirt four ring alloy pistons are used.

Power is transmitted to a stock rear end and new "Healey Mag wheels" through a special diaphragm-spring Borg and Beck racing clutch.

About his creation Geoff Healey had this to say — "It's such a pity SCCA regulations aren't the same as the FIA — a car we produce for International competition is of no use for racing in America, where the majority of the cars we produce are sold.

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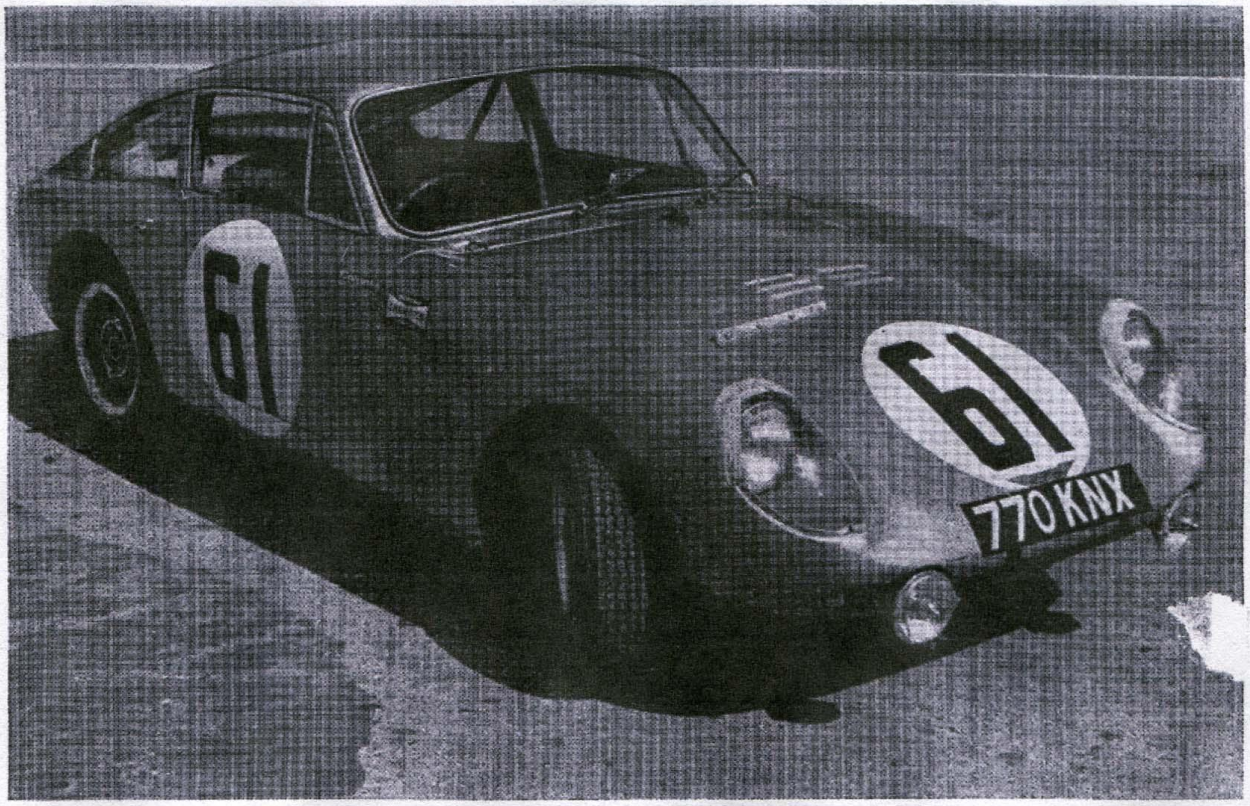
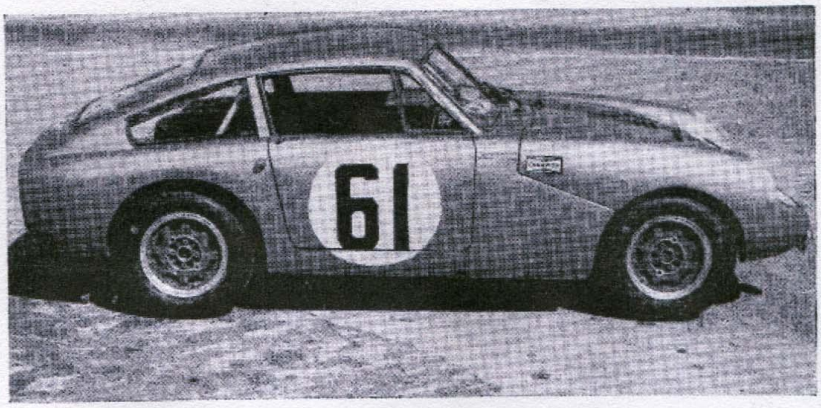


1—Hood is forward-hinged with plug-in wiring.
2—Healey has developed own light-alloy wheels.
3—Blunt tail end has Kamm-effect designed in.
4—Doesn't look much like a "bug-eye", does it?
5—Rear visibility is good despite the fast-back.
6—The 1.3-liter engine uses single 45D0E Weber.



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