## SPRITES the TARGA FLORIO

By JIM DOUGHERTY Reprinted from AHCA "Chatter" March 1984.

It's narrow, twisting, mountainous, and treacherous. the Targa Florio. Nestled in the heart of Sicily, the Targa Florio has a nasty reputation for destroying cars, and ferreting out the less experienced and less talented drivers from those who have learned to respect the challenges of this unique road course. Not a race track at all, but rather the actual country roads of Sicily, the Targa Florio, unlike LeMans or Nurburgring, favours the small agile car and punishes the unwieldy. Practically the private domain of the Ferrari, this annual event brings the locals to near fever pitch, a kind of moveable Mardi Gras. While the local constabulary go to great lengths to post signs at the most dangerous points on the circuit to warn the spectators, these signs are more often than not completely disregarded with fans running across and even positioning themselves on the course. The weather is fine, the atmosphere friendly and the climate a perfect place for Donald and Geoff Healey to bring their Sprite for developmental work.

After studying the developmental history of the Sprite and com-paring it to the "big Healeys", it is interesting to note some fundamental differences. After the introduction and success of the 100 and subsequent successes of the 100S, development at Warwick with regard to the 6 cylinder cars was severely curtailed. The six cylinder cars were being built at Abingdon and most competition preparation was also undertaken there. In a way, it seems as though Austin took away some developmental responsibilities and privileges from the Healeys with the advent of the 6 cylinder cars or Donald and Geoff preferred working with the four cylinder interior. After a quick clean-up

is unclear. The advent of the Sprite, however, saw a recommitment of Donald and Geoff, particularly Geoff, to some really serious continuous developmental work. The Sprite was given some advantages the 6 cylinder cars were never treated to. Most notable among these is a seemingly endless stream of custom or one-off bodies and chassis developed for particular events such as the Targa Florio, finally culminating in not only specially designed body-chassis combinations, but fuel injection.

A Healey was first seen at the Targa Florio in 1948 when Johnny Luriani and Dorino Serefini drove a 2.4 litre coupe to a 13th overall finish and a 1st in the unlimited touring car category. Next, in 1949, Tommy Wisdom and Tony Hume drove a factory Silverstone to a 16th overall and a 4th in class. In both 1948 and 1949, the Healeys were the first British finishers.

Ten years later, in 1959, the Healeys were once again to return to the Targa Florio in a new car, the Austin-Healey Sprite, or Bugeye. That year their entry would be very close to stock specification with the exception of the camshaft, carbs, and larger brakes.

The course is 45 miles long with each of the drivers, Tommy Wisdom and Douglas Johns, each The five taking two turns. The five gallon fuel tank didn't leave much margin after two laps, so an additional plastic five-gallon container was placed in the rear of the car and filled with gas. On race day, Tommy Wisdom took the car out early in the event with Doug Johns and then returned after 50 minutes to report that the plastic container had burst and soaked the

cars. Precisely what happened of the interior, Tommy Wisdom took off for his last lap and the throttle cable decided to pack it in. In the best "stiff upper lip" tradition, Tommy wired the throttle open and turned the ignition key on an off to control acceleration, finishing seventeenth overall and sixth in Despite the heroic class. efforts, the Healeys were not thrilled with the results.

> After a four year hiatus away from the Targa Florio a special, the first Targa Florio special, given number TFR2 was constructed. The relatively stock Bugeye that ran in 1959 was The basis code named TFR1. for the TFR2 was a standard Sprite chassis and floor pan fitted with half elliptic rather than the usual quarter elliptic Around this rear springs. chassis a hand formed aluminium open two-seater body was built including a much larger fuel tank to ensure the car's ability to circumvent the course without running dry. Geoff and his wife, Margot, drove the car from England via several ferries to Sicily for the event. Paddy Hopkirk of Mini Cooper fame, and Tommy Wisdom were to pilot TFR2 in this event. During his first turn at the wheel, Paddy broke one of the halfshafts. It seems that BMC began using a lower grade of alloy for all the halfshafts on car equipped with the BMC "A" series engine. Fortunately the Healeys were able to correct this on the production Sprites, but TFR2 was out of the running for 1964.

For 1965, a completely rebodied Sprite with some subtle differences in the body design was Some changes in the built. chassis included reducing the inclination of the rear springs which effectively reduced the effects of roll understeer. With these modifications and painted light green, Geoff considered this to be the finest of all the Sprites; good street manners, practical, and yet eminently well suited to take on the challenge of the Targa Florio.

As luck would have it, Castrol was planning to complete a very comprehensive film about the 1965 event so Geoff would have a terrific opportunity to get some really worthwhile publicity. Practice for the event went very well with the Sprite turning in one of the ten fastest times. The two drivers selected for the event were Rauno Aaltonen and Clive Baker, with Rauno doing the first three laps, Clive the next four if they didn't use too much fuel, and then Rauno would finish the final three laps.

Aaltonen came in after his three laps bitterly complaining that the left front brake was locking up and after Geoff and John Harris pulled the wheel it was obvious that the pistons were freezing up in the caliper. The pistons were frozen in the extended position and had to be forced to retract so that the pads wouldn't run hard against the rotor. After having to spend fifteen minutes they couldn't afford to spend. Baker and Aaltonen drove the car to a 15th overall finish and second in class.

The brake caliper failure was caused by manufacturing tolerances at Lockheed. John Moore of Lockheed gave the problem a very high priority and was subsequently able to eliminate the problem on production versions of the disc brake assembly. By the way, Castrol did complete their film entitled "Mountain Legend", and Geoff has nothing but high praise for it saying, "it captures the atmosphere of the Targa Florio completely".

TFR3 then saw use as a daily car, being taken on fishing trips

by Geoff and occasionally being lent out to other individuals. This term of more mundane duty allowed Geoff to further evaluate the car's strengths and weaknesses, making or proposing improvements as time went on.

For 1966, TFR3 was converted to TFR4 with the addition of a fixed fast-back roof. While Geoff preferred an open car, Rauno Aaltonen claimed that a coupe body would make the car safer in the event of an accident. 1966 brought a Healey Team to the Targa Florio for the sixth time, this instance also being the 50th Anniversary of the running of the event. Two very unusual things marked this Targa Florio; first, before the event started, the spectators were treated to watching vintage cars from the previous 50 years run the course, and second, it rained. The rain should have given the Sprite an advantage but Rauno somehow slid into a rock formation, breaking a wheel and knocking the rear axle completely out of alignment. The car was quickly refuelled after changing the wheel and tyre and Clive Baker took his turn at the wheel only to break a halfshaft. On the course, Clive, with the help of some English spectators who travelled there to see the event, replaced the halfshaft. After the 1964 race, a spare halfshaft was always carried on board. Clive managed to bring the Sprite home in sixteenth overall and third in class.

An all new Sprite, TFR5, was built for 1967 using Girling lightweight calipers and rotors as well as two additional rear shock absorbers. The overall profile of the car was lower giving a more aerodynamic and efficient quality to the car. During Clive Baker's turn at the wheel, one of the local Sicilians decided to cross the road in

front of the Sprite. Despite his best efforts, Clive hit the man then rammed into the guardrail, tearing up the front end. Almost immediately, the police locked up Baker, not in an effort to take punitive measures, but rather to safeguard him from any locals who may have wanted to take revenge. Eventually Geoff did manage to collect the car and Clive and head home.

For 1968 a production bodied Sprite was prepared. TFR6 was equipped with a 1293cc engine with dry sump, a 5-speed gearbox, and Minilite knock off magnesium wheels. Fully capable of winning its class, the car unfortunately overheated and in an effort to reach the pit area, Clive blew the engine. So much for 1968.

1969 was to be THE year. After having bad luck tag along after the Sprites for years, all the knowledge gained from previous Targas as well as some important lessons learned from LeMans were to be integrated into TFR7. An all new car, the body was constructed entirely of aluminium alloy as an open two Based on a Sprite seater. chassis and floorpan, the tunnel was cut away to make room for the 5-speed gearbox and extensions were welded onto the rear to accommodate the larger fuel tank and spring hangers. Barry Bilbie and Geoff developed the body style so that it would comply with current FIA prototype sports car regulations. The engine for this car was the last of the engines developed and constructed for use at LeMans. This engine and its development had been kept under wraps for quite some time. Winning races sold cars, so an attempt was made to make the race car engines seem as close to stock configurations as possible. If the public had known that these engines bore

little or no resemblance to the stock units, it was thought, perhaps they wouldn't have been so eager to purchase a production model. The LeMans blocks were specially cast with thick main bearing webs and special bearing caps were fitted. The cylinders were bored .20 over and the special alloy crankshaft was Moving on to the nitrided. cylinder head, these engines utilized a crossflow design and special combustion chamber design. The head was also tuft-Direct port Lucas fuel rided. injection breathing through cast aluminium ram trumpets provided motivation. These engines were also given the benefit of dry sump lubrication. It's too bad that the suspension modifications and the LeMans engine were never offered as options for the Sprite, there would have been quite a few extremely embar-

rassed XKEs running around. Of course this would probably have nudged the price of the price up considerably to the \$12,000 neighbourhood, but I somehow think there would have been some takers.

The front suspension followed the basic Sprite geometry but utilized the 3000's front sway bar, while the rear suspension utilized half elliptic springs with adjustable torque rods and four the delight of the locals. shocks.

Unbelievably, this car was not permitted by British Leyland to compete at Targa Florio. A new cars for everyone. clampdown policy on competition meant that BL would not furnish any funds for the entry of the car. The Healeys knew that Sprite production was about to end so BL saw little point in funding a Sprite racing

Geoff refused a expedition. request to use the car that year at the Targa Florio by a couple of talented Italian drivers, but instead sold the car to Ed Bussey, the MG and Austin distributor for Florida.

Due to safety requirements the officials of the Targa Florio were unwilling to comply with, the event is no longer sanctioned for international points, but is still held every year to

This kind of development work made the production Sprites more durable and more enjoyable