## AUSTIN HEALEY SPRITE LE MANS

**Ian Polley**

During the period 1961 to 1968 a series of specially bodied Austin Healey Sprites were designed, built and raced by the Healey Motor Company at Warwick for competition at Le Mans, Sebring and Targa Florio.

The car being raced today is the last of that series to race at Le Mans. Built in 1965 it was raced at Le Mans in 1967 and 1968, finishing 14th overall on both occasions and winning the 'MOTOR' Trophy both years for the first British entry home. The car was driven by Clive Baker and Andrew Hedges in 1967, and Roger Enever and Alec Poole in 1968, averaging 109.8 mph for the 24 hours and a timed speed of 154 mph down the Mulsanne Straight.

Renovated some 2 years ago, the car is virtually original in every respect, including the engine block which still bears the RAC scrutineering stamp.

Backbone of the car is a completely standard Sprite chassis/platform with a dipped floor pan to enable the seat to be lowered to give the lowest possible roof line. The suspension too is basically standard Sprite, slightly stronger coil springs being fitted at the front while the Armstrong shock absorbers are fitted with competition valves. A Healey 3000 anti-roll bar further stiffens the front end. At the rear the standard layout is supplemented by angled telescopic dampers to relieve the working load on the conventionally positioned level arm hydraulic dampers and provide better axle location for long distance racing. Anti tramp bars are also fitted.

The braking system is far from standard. By modifying the rear hubs an all round disc system has been fitted with dual-line hydraulic system tandem master cylinders in compliance with international sports racing car regulations. The large disc brakes have special Girling aluminium lightweight calipers.

The wheels are bolt on 13 × 5 inch magnesium alloy wheels custom manufactured for the Healey Le Mans Sprite. Healey ingenuity provided two mounting positions for the obligatory spare wheel. A full rearward mounting was provided for scrutineering, while an alternative forward position gave better weight distribution after scrutineering.

The power pack is a full race tuned 1293c.c. version of the BMC 'A' series 1275c.c. Mark IV Sprite/Midget engine. The Healey version is bored +.020in. to a 2.80in. bore and 3.20in. stroke (1293cc) and is fitted with forged positions, nitrided crankshaft plus a high lift camshaft with 95 degree overlap. The head is machined and gas-flowed to give a compression ratio of 12:1.

Lubrication is by a dry sump system, oil being driven by the standard gear-type concentric pump off the camshaft. An additional separate scavenger pump is fitted and driven via what was the original mechanical fuel pump drive on earlier production Sprites. The total sump capacity including oil cooler is 2½ gallons.

Carburation is by a single twin choke 45 DCOE Weber carburettor fed by twin SU electric fuel pumps from a large 16 gallon tank. The original engine output was 110 bhp at 7000 rpm and the current output is comparable.

The engine is fitted with a 3 barrel exhaust manifold terminating in a single large bore pipe which passes through a so-called silencer to humour the Le Mans scrutineers.

Transmission is via a special close ratio five speed version of the 'MGB' gearbox with the fifth 0.81 'overdrive' gear being incorporated in box to overcome the otherwise weight penalty of an overdrive unit. With 3.9:1 differential a top speed of 154 mph was achieved down the Mulsanne straight. For club racing this final drive ratio has been drastically modified to improve off-the-line acceleration.

The sleek, purposeful hand-beaten aluminium bodywork was designed by Geoff Healey and the shape optimised in a wind tunnel at Longbridge. The final shape was the culmination of four years' development, stemming from a first coupe built in 1961 for Le Mans with a Sebrig type front-end. A number of these bodies were built on this style, including two cars for Targa Florio and another for the 1963 Le Mans. The first of the sleeker Le Mans cars appeared in 1964 with a big wrap-around rear window and top opening bonnet. These were further modified for the 1965 Sebring with dual iodine vapour headlamps and adjustable air scoop in the nose.

The final Le Mans design was intended as the basis of a limited production road going version. Although one steel bodied prototype was produced, the project was curtailed as part of the Stokes rationalisation planning.

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