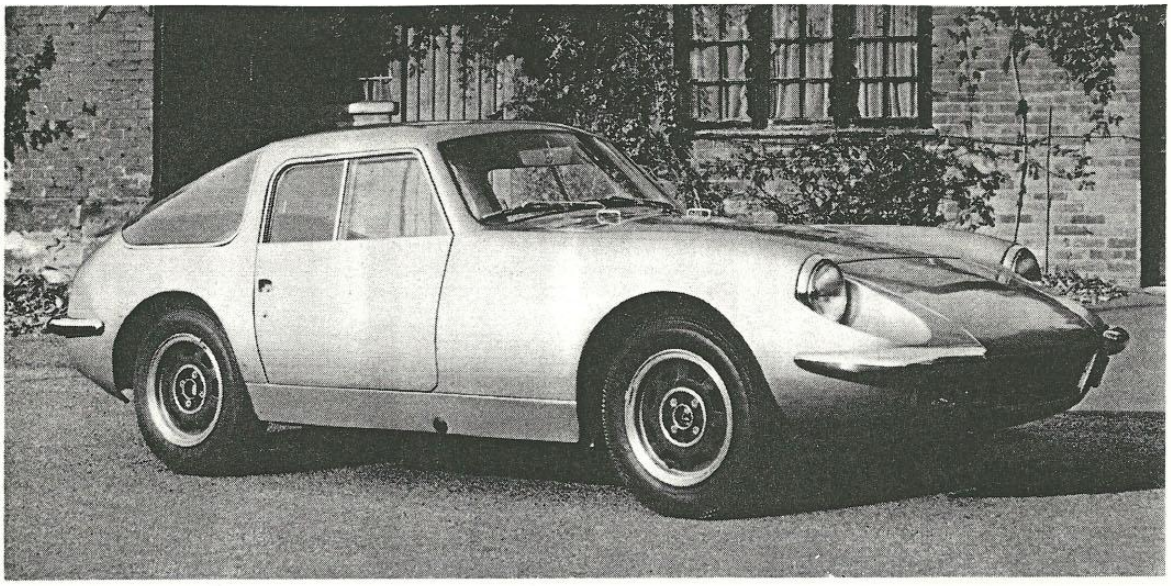


THOSE LE MANS SPRITES

PETER BROWNING reports on an exciting new road-going version of the Le Mans Sprite, recalls the background story of the Warwick-built racing coupes and road tests a works 1275 c.c. Sprite

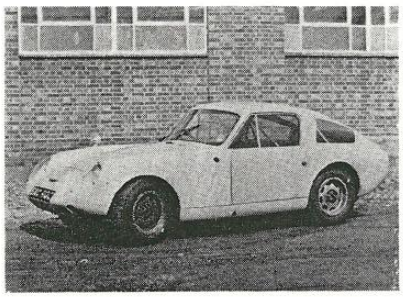
MAKING its first public appearance on the Austin-Healey Club's Stand at the Racing Car Show this month is a sleek blue coupé Sprite. Modelled closely on the lines of the class-winning Le Mans Sprites, this latest model from Donald Healey at Warwick is more than just a showpiece, for it is a new road-going version of those famous Le Mans coupés and, most significant, Healeys are going ahead with a limited production run for sale at home and overseas.

The new model will not, of course, be a catalogued production car that you can order through a BMC Dealer; the cars will be built strictly to order at Warwick and will be powered by a standard 1275-c.c. engine. Unfortunately supplies of the race-tuned 1275-c.c. engines are very hard to come by at the moment and Healeys themselves obviously have preference for their own works cars. However, if things improve, it may well be that later in the season the new car will also be offered with the full race-tuned motor. For those who wish to tune the standard 1275-c.c. engine the BMC Special Tuning Department at Abingdon can already offer quite a few special parts and later in the season, there will probably be as many special parts and tuning information available for the new Sprites and Midgets as are currently sold for the Mini-Cooper 'S'.

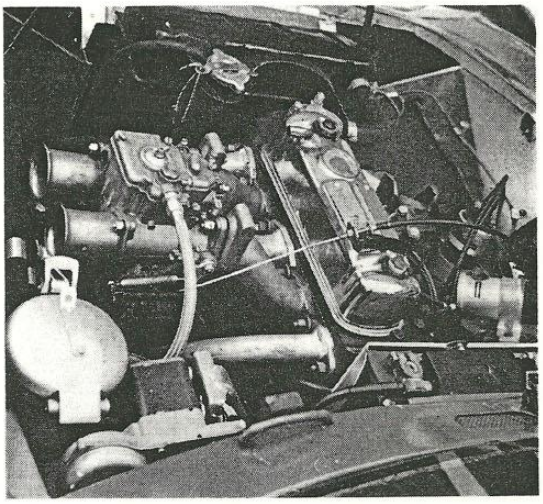
What will one of the new Sprites cost? Well, talking in round figures, Geoff Healey has quoted £1,240 plus Purchase Tax for the complete car with the standard engine. Production at Warwick will be on a one-at-a-time personal order basis (perhaps one car per month), so prices are bound to fluctuate with the times and be influenced by the customer's personal requirements.

continued overleaf

Latest from Donald Healey is the road-going version of the successful Le Mans Sprite (*above*) without doubt the most eye-catching model ever to come from Warwick. The interior (*left*) is beautifully trimmed, far more luxurious than the standard model



Left: the Targa Florio Sprites, the 1965 car is pictured above before it was fitted with a hard top for the 1966 race *(below)* This is the car road tested in this feature
Right: Under-bonnet view of the works race cars with Weber carburetter and big oil filler cap for the dry sump lubrication



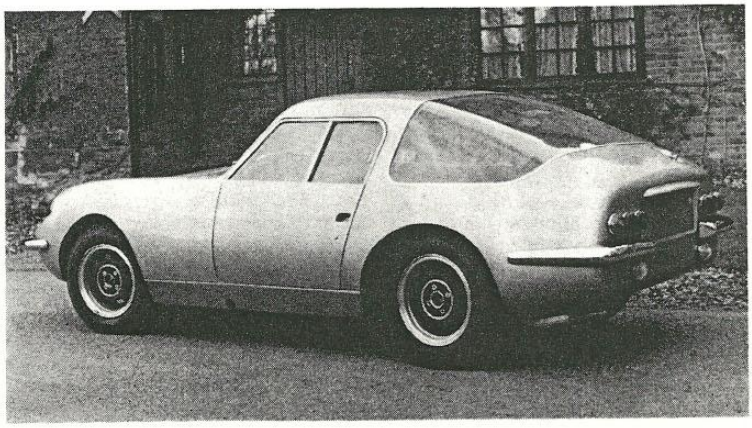
Whenever we've reported the successes of the works Sprites in these pages (and that's pretty often) there have been many requests for more pictures and technical information about these cars. So this seems an ideal opportunity to fill in the background story of these very successful little coupés from Warwick, particularly as the specification of the earlier works cars is basically identical to this new model being offered for sale.

Under the skin most people are very surprised to find just how near standard the works Sprites are compared with the production model. In their international sports racing class the Sprites are certainly one of the very few cars that utilize basically standard components. True enough, the excitingly different body shape bears little resemblance to the current Mark IV Sprite, but these bodies have been specifically designed to improve the top speed of the car down the long, long straight at Le Mans but at most other circuits they would perform equally well with standard coachwork.

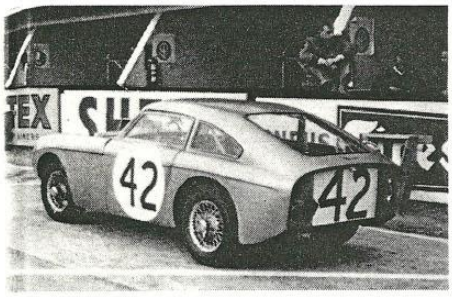
Backbone of the car is a completely standard Sprite chassis/platform, the only modifications being to the floor panels beneath the seats which are lowered at the rear so that the lowest possible seating level can be achieved, which in turn permits a low roof line. The suspension too is basically standard Sprite, slightly stronger coil springs being fitted at the front while the Armstrong shock absorbers are fitted with competition valves. An anti-roll bar of $\frac{5}{8}$ in. diameter is fitted. At the rear softer leaf springs are used with Armstrong lever arm hydraulic dampers. To provide better axle location on the rougher international circuits like the Targa Florio, Healeys have employed an unorthodox rear suspension set-up comprising angled telescopic dampers and an anti-tramp bracket, but the new road-going model has the more conventional rear suspension.

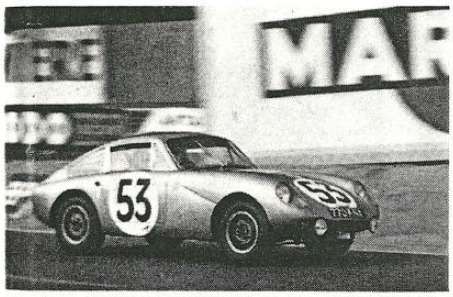
The brakes are Lockheed, standard $8\frac{1}{4}$-in. disc (Mintex XM48 pads) being used at the front with 8-in. drums at the rear. To comply with the international sports car regulations there's a dual-line braking system with tandem master cylinders. Four-stud hubs carry special bolt-on Healey 13 in. × 5 in. rim magnesium alloy wheels. Dunlop 500L —13 R7 green or yellow spot tyres are used.

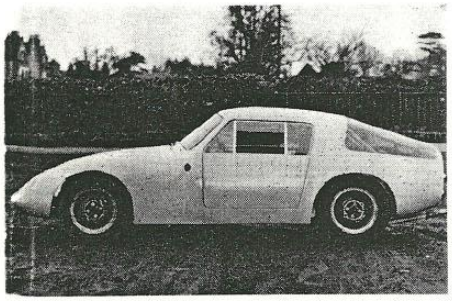
Power pack for the works Sprites has been a special 1293-c.c. version of the 'A'-series engine. When the 1098-c.c. engines were standard wear in the Sprite, these 1275-c.c. in-line units were extremely hard to come by, mainly because of the non-availability of the special crankshaft. Now, with the arrival of the 1275-c.c. Mark IV Sprite, and the likely supply of nitrided crankshafts for these engines, the Sprite owner can at last look forward to carrying out fuller engine tuning in line with the well-proven tuning recommendations for the Mini-Cooper 'S'.

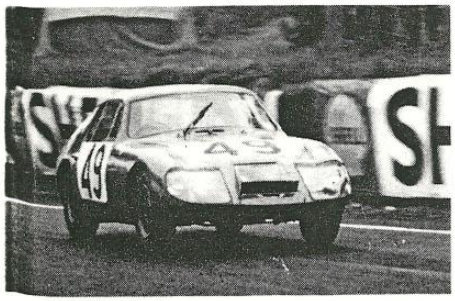


Pretty from any angle, this rear view of the new road-going car shows the neat way in which the tail has been modified to comply with the lighting and general vehicle regulations









Line-up of all the past coupé models that Healeys have built for Le Mans. *Top to bottom:* the 1961 car (later owned by Mike Garton), the 1963 car (no Healey entry in the 1963 race), the sleeker-nosed 1964 car, the razor-edged 1965 model, and at the bottom the 1966 car from which stems the new road-going model

Healeys' engine modifications for their works cars have included boring out the 1275 block by 0·020 in. to give a 2·80 in. bore and 3·20 in. stroke (1293 c.c.). The balanced nitrided crankshaft uses standard Mini-Cooper 'S' bearing shells; standard 'S'-type connecting rod bearings are also used. The competition high-lift camshaft (0·394 in.) has a 95 deg. overlap. The standard 'S'-type pistons are replaced by forged ones, the compression ratio being raised to 11·9 : 1 by machining the cylinder head and the block. The standard 1275 cylinder head is gas-flowed, the combustion chambers and the ports being carefully matched. Standard 'S'-type valves are used with matched push-rods and lightened rockers. The static ignition timing is 2 deg. B.T.D.C. Champion N-60Y plugs are used. Lubrication is by a dry sump system, oil being driven by a gear-type concentric pump off the camshaft to all working parts. There's a separate scavenger pump, the sump capacity being 2½ gallons including the oil cooler.

Carburation is by a single twin-choke 45 DCOE Weber carburetter upon a short manifold. There are twin S.U. electric fuel pumps and the tank capacity is 16 gallons. Healeys build their own three-branch exhaust manifold which terminates into a single big-bore pipe. On the racing cars there's a so-called silencer to humour the scrutineers, but the road-going model will have a more efficient silencing system!

For most events the standard Sprite gearbox has been used with close-ratio gears, competition linings being fitted to a 7½-in. diaphragm-spring clutch. In search of more top speed at Le Mans an 'MGB' close-ratio gearbox has been tried coupled to a 0·8 : 1 overdrive operating on third and top gears. With a 4·2 rear axle this gave the Sprite a top speed of around the 140-m.p.h. mark on the Mulsanne straight. At Sebring last year a special five-speed version of the 'MGB' gearbox was used, the fifth speed being incorporated in the box to overcome the additional weight of the overdrive unit. The new road-going Sprite will, however, be fitted with the normal four-speed close-ratio Sprite box. The power output of the fully race-tuned 1293-c.c. engine is 110 b.h.p. at 7,000 r.p.m., the maximum torque being 88 lb. ft. at 3,000 r.p.m.

The sleek and purposeful bodywork of the works Sprites has been designed by Geoff Healey although use was made of the wind tunnel at Longbridge to determine the contours of the 1965 Le Mans cars. The latest road-going version could well be named the Mark IV, for it is the latest in the line of four different body shapes to come from Warwick. The first coupé was built for the 1961 Le Mans race and is probably best identified as the car with which Mike Garton later scored so many successes. Quite a few bodies were built on this style including two cars for the Targa Florio (one closed car and one an open version) and one car which ran at Le Mans in 1963. The first of the sleeker Le Mans cars appeared in 1964 and these Mark II versions had the big wrap-around rear window and a modified front end with fixed wings and a top-opening bonnet. The Mark III version was built for Sebring in 1965 and can be identified by its dual iodine-vapour headlight system and the adjustable air scoop in the nose. Finally we have the Mark IV, the road-going version, which has been re-styled at the front and rear to comply with European and American vehicle and lighting regulations.

Despite these changes the Mark IV still remains a most attractive little car —a true competition car in appearance —and it must certainly be amongst the best-finished, limited production cars on the market today. The hand-beaten aluminium bodywork is a beautiful piece of work and in terms of finish and comfort it equals many a production model. The interior is fully trimmed in black leathercloth to match the snug-fitting bucket seats and there's deep pile carpeting on the floor, the gearbox tunnel, and covering the large rear luggage platform. The instruments (the same as those provided on the standard Sprite) are grouped together in a neat nacelle above the steering-column while the minor controls are neatly arrayed on the dashboard. There are proper sliding sidescreens, which can be locked, as can the recessed door handles. Luggage room on the back platform is adequate and there's a lot of spare room for small oddments alongside the spare wheel which is mounted vertically in the tail.

Although I have not yet had the opportunity of trying one of the latest cars from Warwick, Geoff Healey was brave enough to lend me the old Targa

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press, but if you write to the BMC Special Tuning Department at Abingdon, Berkshire, when you get your new car, full details of tuning will be forwarded together with the prices.

For owners of earlier models not fortunate enough to be able to buy one of the new models just yet, similar tuning information is available from Abingdon. Those parts marked * in the list can also be fitted to earlier models, as well as several parts now fitted as standard to the current models. Full details are given in the Special Tuning Data Sheets available free of charge but be sure you quote the full part number when ordering through your BMC Dealer or Distributor. If he does not have the part you require in stock, ask him to order it specially from the Factory for you. If your particular town does not have an active motor club, he may not have a lot of customers for these special parts, but will be pleased to get them for you.

Visitors to the Racing Car Show at Olympia in London from 4–14 January will be able to discuss tuning queries with the staff on the Austin-Healey Club and M.G. Car Club stands, where copies of the Special Tuning Data Sheets will also be available.

B. W.

LETTERS

The Editor welcomes letters suitable for this page, but does not necessarily agree with the opinions expressed in those published. Technical queries, if of a general interest, will be answered here, too

'MGB' Starter Jingle

I RECENTLY purchased a new 1966 GT Coupé ('MGB') and, except for one little item, I am thoroughly enjoying the car.

There is a jingling noise which appears to come from the starter area. The dealer's service manager squirted oil on the starter pinion and it disappeared for a while. It appears on the over-run, also when going from gear to gear in the period when the gear lever is momentarily going through the gate to the next gear. I've also notice it at 65–70. Is this a peculiarity of the breed? I remember that the starter handle on the old Austin Sevens used to jingle.

D. H. PENNOCK

This starter pinion jingle has been reported on some 'MGB's ever since the model appeared. The starter is a standard Lucas unit, used on a number of different cars, but it only jingles on 'MGB's and then only on a few of them. Some owners don't notice it even when it's there, while others are greatly irritated by it. The problem has defied protracted efforts to cure it—but at last, a cheap and effective cure has been found and all current production 'MGB's are jingle-free!

For jingle-owners, the simple cure is to replace the plain spring ring, Part No. 7H 8319, in the end of the barrel to which the starter pinion is attached, by a new, waved ring, which can put a spring end-loading on the drive assembly. The part number of the new ring is 27H 8258; it must be fitted with the ends pointing towards the pinion and the ends must not be visible in the slots in the barrel when assembled. Cars still under Warranty should have this modification made free of charge by any official BMC agent.—ED.

Those Le Mans Sprites

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Florio car for a week and I found the fully race-tuned 1275-c.c. Sprite quite exhilarating to say the least! Apart from the almost unbearable exhaust noise, this car was in complete contrast to some of the tuned cars that I've driven over the past months; it was a joy to drive on any sort of journey and was just as happy chugging along at low revs. in top gear in traffic as howling along the open road.

My immediate road impressions were of the 'tautness' one comes to associate with works cars, the whole car (although being so very light) feels so safe and solid. The steering was firm, nicely balanced, and with little kick-back. The combination of rock-steady suspension and the racing tyres gave that characteristic 'weavy' feeling at low speeds, but once you got your foot down the handling gave immense confidence. In fact I found it almost impossible to evaluate the roadholding of the car properly on the road and I had to retire to the seclusion of a local airfield to find out what really happened when the little Sprite was driven on the limit. When the car did break away it did so pretty quickly, but a flick of the small steering-wheel was all that was necessary to keep the car under complete control.

Weighing just about 12 cwt. (that's 2 cwt. lighter than the standard Mark IV) the performance of the 1275 race Sprites is really quite breath-taking, particularly when you realize that one of these cars could go straight out today and better the performance of the record-breaking Sprites which ran at Utah in 1959. The body shape is an important factor here, of course, and it's worth revealing that only 50 b.h.p. is required to propel the Le Mans body shape along at 100 m.p.h.!

On the road the beautifully balanced motor just revs. on and on and it's very easy to exceed the 7,000 r.p.m. maximum. The easy-revving engine, coupled with the close-ratio gearbox and quick, precise gear change, means that the car accelerates away through the gears so fast that, if you're making a quick getaway, you really have not got time to take your hand off the gear lever! Maximum in the gears (7,000 r.p.m.) gives 63 m.p.h. in second and a shattering 92 m.p.h. in third. With thoughts that Mrs. Castle might be lurking behind the hedge with a radar meter (not to mention Geoff Healey's wrath if I had broken his precious toy) I did not dare pursue my performance testing much further on the road, although I did once see the 'ton' come up at unruffled 6,300 r.p.m. in top. There's no doubt that the little 'flier' would have gone on happily into the 120 m.p.h. mark despite the fact that the Targa body is not particularly streamlined. A remarkable little car indeed!

The works racing Sprites are, of course, strictly competition cars built expressly for the purpose of taking part in the long-distance international motor races, which they do with unqualified success. The latest model from Warwick combines the sporting looks and the exhilarating performance of the competition car with the comfort and amenities of a production model. Based on standard and well-proven components, it must surely have a ready market amongst those who want an eye-catching road car, an unbeatable clubman's car for marque sports car racing, or a very competitive car for international events.