

REBUILDS, SEBRING STYLE



Although works prepared sports cars were based on production models, they were highly modified bodily and mechanically. Here we show you how a tired Frogeye Sprite and an MGB GT were rebuilt as Sebring replicas.

TEXT: JOHN BAGGOTT RESTORED CAR PHOTOS: CHRIS GRAHAM

Kent surveyor Martin Ingall is no stranger to classic cars. He has rebuilt a written-off Midget, founded the Gilbern Owners Club and then went on to race a self-built Modsports Midget. He has put together and raced a Frogeye and more recently he restored an MG PB in which he entered some classic trials.

However, he decided that pre-war cars were not for him and he began to look around for another form of motor sport to pursue.

He had the remains of a 1960 Frogeye Sprite lurking in his garage, so when he read in a magazine that a chap called Brian Archer, was going to re-manufacture the bodywork for the Sebring Sprite, the seed was sown for him to build up one for historic rallying.



Having played around with Spridgets for 25 years, Martin had a loft full of spare parts and a wealth of knowledge of the marque.

Although a few similar bodies were built by Peel, only six of the Sprinzel-designed coupé-bodied

cars were built by Williams and Pritchard and three are known to have survived. It is from one of these that Brian Archer has taken moulds and patterns to create his replica.

With aluminium today proving such an expensive medium to

work in and repair, the body is now all in fibreglass, though Kevlar and Diolen are available to special order.

The donor car needed considerable structural work and having had his fill of welding corroded shells, Martin left this job to Archers Garage, whose bread and butter work is restoration. They were also entrusted with the job of fitting the new bodywork.

The rear end of the body is bonded on with glassfibre matting, retaining the original boot floor and strengthening pieces for rigidity. Martin preferred to retain the original steel tail section on his car, this was in fact how the original rally Sebrings were built.

The hard top, which incorporated a specially made windscreen, is then rivetted and bonded to this and attached to the front scuttle in the same way. The

forward tilting bonnet is fitted with a large hinge which bolts to the H-frame.

Whilst the body was being done, the owner busied himself with sorting out the running gear and interior. He started with the back axle. It was intended to run the car on wire wheels, a problem as wire wheel back axles were never made for the Mk I. However, the ever-helpful Brian Archer was able to supply a set of period bolt-on splined hubs.

The Sprite had Lockheed 7in. rear drum brakes, but the Sebring utilised the 8in. Girling item from the Riley One-Point-Five. Martin did a swap with a set he had for a Midget. The Sprite handbrake operating levers had to be altered before the system could be mated to the back axle.

The original Frogeye's leaf springs appeared good and were retained but had to be reset later as the car sat too high. New bearings, stronger half shafts and a 4.2

differential completed work on the axle, which was fitted with a pair of authentic Armstrong Adjustable adjustable lever arm shock absorbers.

To dummy build the front suspension ready for the arrival of the shell, Martin used an old Sprite H-frame which had been lying around. The suspension was built up with new kingpins, bearings, exchange wishbones and re-bushed stub axles. A set of 360lb. slightly lowered coil springs were used. The lever arm shock absorbers, were replaced with uprated exchange units.

Midget discs

The original Sebring front brakes, were 8 1/2in. Girling discs, which Donald Healey had specially made to replace the rather inadequate 7in. drums. These special items are almost impossible to obtain so the later Midget 8in. discs and matching calipers have been used. These



will not fit on a Mk I Sprite stub axle, so have to be mounted on the later Spridget item.

Moving now to the engine, which was to be based on the original 948cc unit. This was stripped and the block sent away to be pressure cleaned and bored, plus 40 thou, which is the maximum permitted under the historic rally regulations.

At the same time, the crank, rods and flywheel were checked and balanced. The flywheel was also lightened. The stronger nine spring Mk I Spitfire clutch had been recommended by the historic racing fraternity and this bolts straight on to the flywheel.

Tuning comprised a Special Tuning 2A 948 cam and a pair of 1.5in. SUs from an MGA. The pièce de résistance is a beautiful original Speedwell alloy head which Martin bought and had polished by his old racing partner, Clive Cherry, at Blossom Reproductions in Weybridge.

The mechanical petrol pump hole has been blanked off, as a Facet silver top electric unit is more up to the job of keeping those big carburettors supplied with fuel.

The Sebring had a unique exhaust manifold and fortunately,



a few of these have now been re-manufactured for Jonathan Bird, by Mike the Pipe. Enthusiast Peter Seaman has fabricated, in his own home workshop, the special aluminium framed Perspex side windows and the modified pedal box. This has separate cylinders for brake and clutch, unlike the Frog's original all-in-one unit. He has also had the special steering wheels copied by a specialist. All these items are now available from Archers Garage.

The early Sprites, along with their A35 and Morris 1000 stablemates of the era, all had what is known as a smooth cased gearbox. In other words it does not have the ribbed reinforcing in the casting like the 1088cc and 1275cc boxes.

The original box was rebuilt in its smooth case but making use of the baulk ring internals from the

THE FLORIDA CONNECTION

'Sebring' is usually accepted as a description of the BMC works racers of the 1960s. In the case of the Austin Healey Sprite Donald Healey was running works cars in 1959 and made the speed equipment available to customers to homologate them. This highly tuned model became known as the Sebring Sprite, taking its name from the Sebring circuit in Florida. In 1961 John Sprinzel unveiled a rebodied coupé version, the body being made by Williams and Pritchard. Three survive and the replica we feature is a meticulous copy.

In the case of the MGB, a 2 litre model won its class in the 1967 Sebring 12-hour race and glassfibre kits are available to recreate replicas.

Sebring Sprite DIY Rebuild



Above: Martin Ingall at the wheel of his Sebring Sprite replica.

Right: Attention to detail - the 948cc engine painted the original shade of BMC green. The unit is set off by the superb original Speedwell cylinder head. Duplex timing gear was fitted for added reliability.



The stripped out shell, with outer sills removed.



Gritblasting revealed the full extent of the corrosion damage.



Time to assemble the jigsaw. The shell, engine, gearbox, front and rear suspension ready to be bolted together. The body is mounted on a trolley Martin made.



Just like the Mk I Sprite, there is no external bootlid, so the roll cage was constructed to allow room for the removal of the spare wheel.



later model. This gives a stronger set-up with better ratios. However, the modification does require a certain amount of specialist machining to make it all fit.

At this stage the H-frame, now mounted on castors in Martin's garage, had been fitted with radiator, engine, gearbox and the front suspension.

Whilst awaiting the shell's return, Martin set about getting together all the brackets, clips, pipes and bolts that would be needed to put the car together. He also stripped down the dashboard and welded up all the extra holes it had gained over the last 33 years.

He then planned the layout for the Sebring with its extra switches and gauges and the Halda Twin-master and Speedpilot.

After the shell had been

returned, it was decided that the first job would be to install the plumbing and wiring.

The front suspension was simply transferred over from the rolling H-frame. The engine, gearbox and propshaft were lowered in as one unit, using a block and tackle. Unfortunately, it had come out again, as the gearbox selectors proved to be very stiff. Following a few minor adjustments, this was cured.

Custom made

The roll cage was now holding things up and in order to get an exact fit, the car was taken to Roll Centre's premises near Cambridge. Here, one was custom made to the 1994 F.I.A. specifications. This was painted then bolted into the shell.

Because of the limited space it

was necessary to cut the dash to allow it to fit around the cage. This necessitated re-locating the petrol gauge.

The most striking thing about the cockpit is obviously the seats: a pair of Autostorica's leather trimmed items, with matching black four point harnesses. Martin had to buy a pair of alloy racing seat subframes and substantially alter them to accommodate his 6ft.3in. frame within the roof line.

After a few leaks had been dealt with the engine ran well, but wouldn't tick over. Eventually, this was traced to an air leak resulting from the re-bushing of the carburettor spindles. The carbs were returned to Martin's engineer friend, who made a special tool and managed to press the bushes further into the body - problem cured.

PARTS AND SERVICES

- ARCHERS GARAGE LIMITED, Birmingham (021 236 9101): Bodywork.
- AUTOSTORICA, Woking, Surrey, (0539 734313): Rally equipment.
- BENSLEY BEADBLASTING, Banham, Norfolk. (0953 860855): Beadblasting.
- BLOSSOM REPRODUCTIONS, Addlestone, Surrey (0932 859840): Metal polishing.
- HALDA AGENT: Martin Jubb, Bristol. (0272 425779): Rally equipment.
- HISTORIC RALLY CAR REGISTER, Tibberton, Glos. (0452 790648).
- J.E.M. CLASSIC CAR CONSULTANTS, Hinckley, Leics. (0455 230626): Brake parts.
- KENT CLASSICS, Tonbridge, Kent. (0732 773330): Spares suppliers.
- PETER MAY ENGINEERING, Lye, W. Midlands. (0384 422424): Competition spares.
- JON MOWATT ROLLING ROAD, Wickford, Essex. (0268 726225): Tuning and machining.
- NAMRICK LTD, Hove, Sussex. (0273 779864): Fasteners.
- PWB SPRIDGET SPECIALISTS, Birmingham. (021 236 4861): Mechanical parts.
- RECONDITIONED ENGINE CO., Langton Green, Kent. (0892 863600): Crankshaft and machining.



The rear section, halfway through the restoration.

The original style aluminium framed side screens are expensive, but really do set the car off. The Speedwell external door handles are period items which have been rechromed. Locks have been fitted, as the early Sprites had no way of securing the doors.



The Sebring bodywork has just been fitted. Doors, sills, rear wing and shroud are steel Froggye panels, whilst the one piece front and hardtop, with its screen, surround and scuttle, are the parts Brian Archer supplied.

The cockpit, complete with Haldas, map light, clock and stopwatch. The cut down gear lever, makes for a more positive change.



TRANSFORMING AN MGB GT

Jim Scott shows how he gave his derelict 1972 MGB GT an aggressive look with a Sebring styling kit.



Virtually all parts are available for the MGB, making just about any such home restoration viable. My rosey 1972 chrome-bumpered GT was rebuilt with Sebring-style bodywork to create an aggressively different MG, setting it apart from the thousands of ordinary MGBs on the road.

The car had been standing for two years and was in a truly derelict state. To my surprise, the engine could be coaxed into life and ran sweetly. Bodywork was poor and painted a ghastly yellow shade. The interior trim had nourished a family of rodents.

Removal of the rotten front wings displayed the full extent of structural corrosion and the first priority was to replace inner/outer sills, castle sections and side members (a complex job on the MGB). Underneath, the main crossmember was renewed and the floor tidied. All new parts were given liberal coats of Hammerite to slow down future deterioration.

The rear spring hangers had crumbled away. Replacement is a tricky welding job which was entrusted to a professional who made a superb, if expensive, job of the repair. The opportunity was taken to reburbish the petrol tank.

MGC bonnet

It was decided to finish the car as a Sebring replica using glassfibre flared front and rear wings. The damaged bonnet was also to be replaced with GRP MGC bonnet.

We had restored another MGB in Sebring style previously for a friend and the result was very pleasing and certainly different. This time the bumpers were to be retained. A new nearside doortrim was fitted. GRP panels were ordered from an MG specialist. Most of the old rear wings were cut away leaving a margin of good, strong metal which was perforated with a drill. The GRP panels were bonded to this with fibreglass matting soaked in resin to form a strong structure.

Front wings bolted on and were bonded to the A-post area.



The rusty tailgate was replaced, minor bodywork blemishes rectified, and many coats of primer applied. The bodywork was finished in midnight blue cellulose but despite a lot of hard work, a suitable result was not obtained. Later the car was professionally re-painted in lovely, shiny two-pack, although the high gloss does emphasise the rippled surface of the GRP panels.

Engine condition was good, only needing normal servicing and some new electrical components including two six-volt batteries. The engine compartment was painted with Hammerite.

Brakes and suspension were checked over and the usual items renewed. The overdrive gearbox was in excellent order.

The remains of the interior had been stripped out and was now refurbished with new seat covers, doortrims and carpets - an easy, pleasant and satisfying task. The dashboard was removed and repainted with crackle-finish paint. New speedometer and dual purpose (oil pressure/water temperature) gauges were fitted.

Standard Rostyle wheels were widened by 1.5in. by a local engineering company and fitted with new 195/70 tyres.

Minor bits and pieces completed this MGB Sebring. It would look even better without bumpers but in today's car parks they are probably essential.

The MGB sounds great and drives superbly. The suspension is quite harsh but the roadholding on smooth corners is excellent. ■

PARTS SUPPLIERS

■ JOHN HILL LTD, Redditch (0527 20730): Front and rear wings, bonnet, headlamp cowls.

■ M&G INTERNATIONAL, Birkenhead (051 666 1666): Regular body panels, interior trim, mechanical parts, gauges.

■ CROSSFELL GARAGE, Kimblesworth Co Durham (091 371 1714): Final paintwork.

■ PRO-TUNE, Durham (0388 764925): Tyres.

MGB GT DIY Rebuild



The engine compartment was a mess, but the engine proved to be sound.



The dashboard removed for refurbishment.



Corrosion hidden by the outer sills and front wings.



New rear spring hangers neatly welded in and protected.



Liberal anti-corrosion protection was applied before the glassfibre rear wings were fitted.



New wings, bonnet and door skin in place before the initial priming.



The body at primer stage.



The refurbished interior.