

MGB Half Car Project



You could line up all the concept cars that manufacturers roll out in a year for motor shows, and still not be guaranteed to find anything quite so striking, clever and, indeed, as humorous as this chopped-in-half MGB from Maidstone Sports Cars. It's not uncommon for museums to display cars with opened up sections so that small boys, not yet enslaved by Sony or Nintendo, can fathom out the wonders of engines and gearboxes. British Motor Heritage at Gaydon has a lovely MGB GT with its pistons, con-rods and gearbox cogs exposed for all to see and, prior to auctioning it off in the summer, had a Midget with various bits opened up.

The big difference is that this one works!. You can get in and drive it!. The engine revs, the gears change, the car moves along the road. If it was street-legal you could take it out for a proper drive. It was created by MSC proprietor Andrew Marsh who well understands the benefits of publicity, and hence likes to build demo cars that are a little different. No, a lot different. Like the four-wheel-drive MGB of a decade ago or, more recently, the GT version of the RV8.

In February this year, with MSC planning to do some classic car shows the team were sitting in the MSC headquarters, on a farm near Maidstone, in Kent, wondering what car to build. The idea of half a car came up, as that would be a good way of showing the wide range of below-the-metal products that MSC offers, such as suspension, gearboxes, brakes and so on. 'But instead of just cutting it. We thought let's make it work says Andrew. 'Let's show we can make half a car work better than some people can a whole car.' As the mechanicals in the demo car were going to be virtually all new, all that was needed in a base car was a body that was, well, half decent!

So a 1968 Roadster was located that was doing nothing more than serving as a haven for small wildlife. The restoration, involving re-metalling and shot-blasting, was actually undertaken before the body was sliced open, as this was much easier while the monocoque still had structural strength. When the big tin snips were finally applied, the cut was, in fact, offset two inches to the nearside, thus allowing the innumerable central features to remain - such as the grille badge, bonnet and boot lock, gear-lever base and metal strut for the rear-view mirror. 'It seemed like madness, but we carried on,' Andrew says of the project.

The finish along the cut section is superb and, not surprisingly, was very time-consuming. 'You wouldn't believe the amount of thought that went into the bits you can't see,' claims

Andrew, 'and lots of the hinges had to be moved over a little.' Incidentally, that included moving those operating the heater flaps so that



the heater would still work. And, if you look closely, you'll spot some very neat styling details, such as the radio blanking plate and central speaker grille that are cut in the shape of a half octagon. The carpets, meanwhile, are edged in white along the cut line. There were, of course, some serious structural issues to address. The front and rear suspension could actually be secured with acceptable vertical location on the bisected subframes and half the body mounts, but there was nothing left to prevent any fore and aft movement. Thus, a slim but clearly very strong metal strut, braced to the body at intervals with hefty mounts, links the two axles. The engine was going to be a bit lop-sided in the absence of nearside mounts, so upright struts were engineered to mount onto the suspension assembly. The main strut also supports the exhaust which, almost comically, follows its original route under the non-existent nearside floor and, sensibly, carries 'caution, hot exhaust' warnings.

On the 'inside' of the car, MSC has inserted half of one of its body-colour-matched fascias, and used very red leather for the seats, doors cards (with a big 'MG' motif), instrument surround, speaker panel and the top of the fascia. 'It's a bit tarty; the trimmer got carried away, but that's his job,' laughs Andrew. That, in very simple terms, describes the body and chassis.

Now on to the mechanicals - the reason for building the car in the first place. The main point of interest has to be the independent suspension, the cure for the MGB's somewhat bumpy ride and almost endearing poor rear-end grip afforded by the live axle on cart springs.

It's a system developed and supplied by Epsom-based Hoyle Engineering (0208 393 2555). The front consists of a double wishbone assembly, with coil-over dampers to replace the original lever-arm items. This essentially bolts straight on, although a replacement cross-member (which carries the engine) is required. The cost of this supplied but not fitted is approximately £750. At the rear, the wishbones are mounted onto a new subframe which, amazingly, uses the same eight body fixing points as the original axle and suspension. This costs £1450, although you need a Ford Sierra differential (with modified ratio to suit your needs) and specialist propshaft, which would add about another £1000.

Besides the inherent benefit of a wishbone set-up - allowing good bump absorption without wheel camber change -the Hoyle system is fully adjustable, and so allows fine tuning of the chassis. The gearbox is the staple five-speed MGB conversion - a Sierra Type 9 item. It's the obvious candidate because it fits easily (with modified bell-housing), has a short and precise shift, is tough, easy to find and inexpensive - even if bought reconditioned. The front brakes have been uprated with Brembo discs of the standard size, along with four-pot Lockheed calipers. At the rear, the drums are replaced with discs and single-pot calipers. The chromed wire wheels are 15-rather than the original 14-inch, and run Fulda 185/70 tyres. The 1.8-litre MGB engine has been taken up to 1950cc, and given what is a fairly standard Stage 3 conversion - balanced, lightened, gas-flowed head and higher lift camshaft. It sucks through the standard pair of SU carburettors, but with K&N air filters, and blows out through a twin-pipe exhaust manifold. The engine's good for 110bhp at the wheels.

Road Test carried out by MG World

It is now time for your intrepid reporter to climb aboard and drive. A wave of naughtiness comes over me as I feel a temptation to drive off on the A274 towards Headcorn, just to see how far I can get before something happens. Fortunately, there is a long private farm road for our driving and photography, so the only disturbance we'll be creating is to cause visitors to risk driving off the Tarmac as they look at us in wonderment.

Viewed from the offside, the cream MGB looks virtually normal, with the proper opening door. But, perhaps, it would be more fun to climb in from the other side. Or maybe not. This would entail stretching the right leg over the various metalwork into the footwell, which would see the left trouser leg ride up to reveal an expanse of bare shin which, as I overbalanced on trying to haul myself in, would probably wobble into agonising contact with the hot exhaust.

Once seated, the immediate impression was how normal your side of the cabin seems - normal upgraded MGB seat, standard pedals, leather-rimmed steering-wheel, and all the instruments in place and working. Eyes left, and you're not sure whether to laugh or cry. The narrow tyres are fully visible and seemingly so



close to you, like a pre-war racing car. The ground isn't that far off, either. And that black, tubular suspension gear looks pretty menacing. Your sense of positioning is distorted, too, as with no body bulk on the left-hand side it's harder to work out where you should be on the road. The engine sounds vibrant and eager, hissing noisily through the cone air-filters. It's an irony not lost on Marsh or myself that this tweaked engine sounds healthier than many in rather more full-bodied MGBs. Moving away from rest is weird. The engine note becomes a bellow, because there's nothing to deaden the sound. Use too many revs, especially if left-hand lock is applied, and the nearside rear wheel spins and scuffs, spitting up stones. Independent rear suspension will improve traction, but there's a limit to what it can do if there's zero weight over one axle. Once moving, the front wheel becomes an object of fascination, as it bobs up and down on its coil spring and the wishbones jerk in unison to restrain it. The shiny spokes blur into invisibility. It then occurs to me that, theoretically, this car has demonic performance. It has a good 15bhp more than the best standard MGB, but weighs, let's say, a third less. Okay, aerodynamics will be a negative, but what a licence shredder. The deep growl that even a tentative prod on the throttle unleashes underlines its potential. The gearshift is nifty too - stiff but very direct, nonetheless. But we're doing about 25mph on a cambered, rutted road, and I've got other things to worry about. Like keeping the car as steady as possible so that the photographer Cusick, perched behind me for that over the shoulder shot isn't suddenly pitched into a pit of whirling mechanics, suffering 007 villain-style demise. The MGB does respond to the steering and brakes in a sort of normal way, despite its no doubt absurd weight distribution. But it bounces around like nobody's business. As far as body rigidity goes, it's not so much scuttle shake as shuttle clang. This is possibly one of the most ridiculous cars I have ever driven, yet I'm loathe to hand it back, because it's strangely good fun, and I know it'll be a long time, if ever, before I see or drive - it's like again.

Copied from>: <http://www.maidstonesportscars.co.uk/projects/half-car.html>





The things some people get up to!

The above article and photos demonstrate what can happen when a group of true enthusiasts, with great skills, get together and produce something completely out of the ordinary. I believe the above is a wonderful resource as it gives the reader a great insight into the structure of the MGB.

Many thanks to Andrew Marsh from Maidstone Sports Cars for permission to reprint this material. I would also suggest you have a look at what else these craftsmen get up to.

<http://www.maidstonesportscars.co.uk>

