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BMC'S MIDGETS:
Track-Testing
The Lightweight
and How The
Road Car Shapes Up



THE GREEN MONSTER

The Editor rides alongside Brian Foley for some impressions of the shattering little BMC car that nearly made a name for itself at the Surfers Paradise 12-Hour. This car is about to return to the tracks and this time it will really fly.

OUR track test of BMC's Lightweight MG Midget seemed doomed from the start. Competitions manager Alan Kemp and his boys only finished tacking the car together pre-Surfers on the Friday afternoon and just made it up there in time for practice, so we didn't get a chance for a wholesale shot at it before the race.

What happened during the 12-Hour is history but we should repeat here that the car actually reached second overall before the oil pump drive expired. This caused enough havoc in the gutsy little engine to put it out of the race and Kemp only found the full extent of the damage when he got the car back to Sydney and pulled it down.

New parts had to be flown out from England since BMC hadn't started production of 1275 cc engines for its Australian Midgets at that stage. They were ordered and we waited breathlessly for them to arrive to enable us to complete the track test. Meantime we scheduled the cover of the magazine and committed ourselves to a deadline on the track test.

Then the bomb hit (literally). The parts for the Midget, together with the engines the overseas drivers had ordered for the Total Rally, were off-loaded at Bombay because of a bomb scare.

Midget in action. The Lightweight got to second overall at one stage in Surfers 12-Hours but retired with engine troubles.

The result was a completely immobilised Midget and little chance of a test before our magazine deadlines finally expired.

But in our wisdom we had taken the precaution of a beside-the-driver ride around Surfers Paradise in a special practice session before the race.

Working on the theory that they could handle the ignominy of a prang by a team driver but not by an outsider, we declined their offer of a few very slow impression laps and settled for some super-fast ones alongside Brian Foley. This turned out for the better, because it was in practice that the car's co-drivers, Brian Foley and John French, set fastest laps — 1 min 29 secs. Consider that the winning Ferrari lapped the circuit at an average only some 6.7 secs a lap faster than that and you get an idea of the performance of this little flier. Add to that the fact that the car was then far from its developmental limits — Brian Foley believes with a full preparation, times 3.4 secs a lap faster than that could have been recorded.

What do you have to do to a car like an ordinary old Midget to make it turn in Ferrari-type performances? Kemp started with a stock MG Midget body and a Group Two tuned engine — all imported from England. The engine was the 1275 cc mill out to 1330 cc with Cooper S type bottom end and head, 12 to 1 compression and the factory rally cam — No 648. The engine was dry-sumped although Kemp converted it to wet sump system in a frantic bid to get the car mobile. Although no one got a chance to dyno the engine it was probably pouring out some 105 bhp against the standard engine's 65 bhp. When the tuning is completed the engine will be worth more like 120-125 bhp and will have 13.5 to 1 compression.

While the engine was being mated to an MGA gearbox and a suitable tailshaft found, the body modifications were made. The rough fibreglass fastback shape was whipped up in emergency fashion by J. and S. Industries and fibreglass replacement doors were fitted. Special alloy front





Frantic pitwork at the 12-Hour as the mechanics convert to normal wet-sump after discovering broken oil pump drive.

guards were made up in a new flared-arch style to accept the huge 13 in. - 7 in. rim magnesium wheels to be fitted. There was some filleting of metal around the floorpan area but the rear guard sections were retained in steel. Time didn't permit a new bonnet being made and the steel one was retained. Even the seats were standard Midget although the trim was gutted from the interior.

This is how Brian Foley described the car to us. Before moving off he pointed out the uncomfortable driving position. The wheel was too close, the seat wouldn't go back far enough and the gearlever was about level with your back as you sat in the driving position. This meant the driver had to sit splay-legged and slightly sideways to reach for the gearlever. He couldn't heel and toe because of the awkward position and as the seats were standard they didn't give enough support, even when teamed with a full harness — so the driver ended up doing half his hanging-on with the steering wheel. All these things were intended for correction but time hadn't permitted. Foley estimates they were worth at least a second a lap just through lack of comfort.

Accelerating away from the pits it was obvious the car had absolutely nothing below 3500 rpm. Below that, getting moving even in first required clutch slipping; but as soon as that mark was passed the cam came in like an axe and everything seemed to work at once. The car pulled hard and strong right up to a peak 7000 in each gear. The noise in the hollow-resonating cockpit was deafening — even with a fairly good crash helmet in place — and I would have chosen earplugs if I'd been doing any of the driving.

Foley described the steering sensation on a few slow laps:

"The steering is hyper-critical and you have to drive absolutely smoothly at all times or you'll quickly get out of shape. This is undoubtedly because of the huge tyre sections and the exaggerating effect they have on the normally

Only thing adorning the gutted interior was little tab sign that read: "Please Sound Horn When Passing Ferrari".



Car has 7 in. magnesium rims, responsible for most of the good roadholding.

very direct Midget steering (same ratio as the Sprite). If you do get a bit sideways there is a tendency to over-correct which you counter with an opposite over-correction and set up a big see-saw motion which is very tricky."

Most of the Midget's handling problems came through lifting wheels. In the early stages of practice the drivers soon found that a back wheel would lift in a corner, setting up a very severe axle hop. This was experienced while the car was still running on a very soft damper setting. The adjustable shocks were fiddled with until the rear ones were set full hard. This didn't help the overall handling a lot but cut out the axle tramp.

"The car will drift under extreme conditions," Brian said, "but you have to understand that the handling was all tyres. There was no time for suspension sorting and the whole thing wants lowering as far as it will go. As it is, you just have to go as smoothly as possible everywhere."

"The rear end also needs some attention although the front seems okay. Because of the semi-elliptic springs the location is fairly good, but a single tramp rod running forward from the diff housing would do the trick. We had a special A-bar for the rear end as well, but there was no time to fit and sort that. With all the good gear on and properly sorted this would be a screamer on any circuit — especially the Farm."

BMC still has big things planned for the Lightweight. Alan Kemp plans some simulated aerodynamics tests to try to get a better fastback shape than the rough one fitted and there will be considerable additional body modifications and lightening to combine with the engine changes, which should transform the car. It'll probably be back on the tracks soon after this issue hits the bookstands, so watch for it. #

