

Remembering Roy

In 1987, John Pressnell interviewed Roy Brocklehurst about his experiences when he was Chief Draughtsman at Abingdon during the MGB design program. Pressnell recalled this interview in the April 2008 edition of *Enjoying MG*. Exerts quoted here are with permission.



Renault Floride, styling inspiration for the MGB?

I began by asking about the genesis of the 'B', and the decision to go for a monocoque shell. "It was decided for us, really," Roy said. "The MGA bodies were done at the Morris Bodies Branch in Coventry, but we were buying in chassis components and building chassis frames at Abingdon. Much more of the 'A' was done at Abingdon, which really did restrict production volume, and Pressed Steel Fisher's new Swindon body plant had just come on stream, with the facility there for building a mono-construction bodyshell."

Thus the most crucial decision regarding the design of the MGB, the choosing of monocoque construction, was as much a BMC [British Motor Corporation] decision made on economic grounds as one made on engineering grounds by MG. "But we fancied we could get better torsional strength out of the monocoque anyway - though having said that, the MGA was probably the

best separate chassis frame ever engineered..."

Once it was known that the new car would have integral construction, development proceeded very quickly. This swift progress was due in part to the considerable amount of preparatory styling work done in 1959 by Don Hayter, then chief body draughtsman. Working principally with quarter-scale models, he had as his starting point EX 214, the MGA experimentally rebodied in 1959 by Frua; by 1960 he had arrived at a shape which was, from the first prototype, almost exactly as the final production 'B'.

But what of accusations that the shape -or at the very least those scalloped headlamps - was pirated from the Renault Floride? Roy was cagey about this, although it has become common knowledge that Syd Enever actually traced an MG grille onto a photo of a Floride after he'd seen the girl-about-town Renault at a motor show, "No comment," Roy said with a smile. "Well, let's put it this way: it [the Renault] wasn't something you could ignore!"

The look of the MGB was given definition by the shallow alurniurn-pillar windscreen. "We were determined to have it detachable, for the people who wanted to go racing," Roy explained. "It was an expensive windscreen to manufacture. But strangely enough, when we started doing test work on it, for American regulations, it proved extremely strong. It virtually met the roof-strength requirements of the American regulations -the only windscreen to do so of those we tested on contemporary vehicles

BMC's economic and political considerations were heavily influential - not least when it came to any thought of giving the MGB independent rear suspension. "We were building live axles in great profusion and I think the old 'carry-over' syndrome came into play - we had to use components already in production." Did Abingdon never give an independent rear a whirl, then? "We did give it a whirl, and I turned over the car we gave it a whirl in, which was an MGA, not a MGB," Roy told me. "That was a chassis I did with a semi-swing, semi-trail configuration, much like on a Triumph 2000. I wrote it off [wreck it] at the bottom of Cumnor Hill [west of Oxford]"

If IRS was never a serious consideration for the MGB, a coil-sprung rigid axle was certainly evaluated - with radius arms, a Panhard rod and a Watt's linkage all being tried as means of location. "I recall one of the cars had a Panhard rod, and in order to mount it we

had the spare wheel positioned vertically in the boot so that the pan for the spare could be extended to one side to make the chassis-end fixing point for the Panhard rod. But all in all it was pretty poor layout for utilising the space.

"We looked at the leaf spring and said 'this does an awful lot for us'. It holds the car up, it pushes it along, it holds it back when you put the brakes on, it locates the axle transversely... it really does everything. It is a bit crude in some respects, but Syd used to spend an awful lot of time fiddling around with interleaving materials to make things durable and quiet, and to take out some of the friction..."

Turning to engines, it didn't take long for it to become clear that Abingdon would have to stick with the 'B' series. Initially, though, BMC's ultimately-aborted 2-litre V4 was a strong possibility, and Roy told me these were fitted to two, or maybe three, MGB prototypes. "They were quite a nice power unit... I'm sure that if that engine had gone into production we could have made a reasonable motor car around it... It was extremely smooth."

The only other engine, pre-BL, which was tried in the MGB was the 2433cc 'Blue Streak' in-line six, a 'B' series with two extra cylinders, built in Australia for the Austin Freeway and Wolseley 24/80, which were Oz-brewed six-pot derivatives of the A55/A60 Austin Cambridge and its Wolseley sister. These



The EX 214, design starting point for the MGB.

experiments took place after the MGB had entered production, at a time when Abingdon was looking at ways to give the car performance to rival that of the Big Healey. This they certainly achieved with the 'Blue Streak', Roy recalling being timed through a police radar trap at 127mph in an MGB fitted with the engine, "It was a very nice, desirable power unit... good and smooth, and quite energetic... the handling was a bit 'front-endy' with it fitted, but it wasn't desperate. It was better than with the MGC "

Unfortunately, the tooling for the engine apparently never made it back to Britain, so Abingdon was forced to use the distinctly unsatisfactory 2912cc unit developed from the old 'C series unit. The result was of course the MGC, and Roy was responsible for the new front suspension it used. "There was just no way you could get a beam under the engine capable of carrying coil springs, so that's why it had to have torsion bars... 7cwt of cast-iron in the front of your car wasn't the way to do things.,,"

The MGB GT V8 came into being after Ken Costello had begun to market his V8 conversions, Roy confirmed. "He was trying to buy engines direct and he wanted the company to give warranty on his product... and I was asked to do an appraisal on his vehicle with a view to the company agreeing or not to that proposition. There were some shortcomings - which were inevitable, really.

"Basically there was a challenge from Harry Webster, BL's Technical Director at the time, who said 'Well, if you can identify what's wrong with it, what about building one and putting things right?' So we agreed to do that, and I stuck my neck out and said we'd build a car in 28 days - which we did. John Barber [BL finance director and later deputy chairman] and his wife took the car for the weekend, the day after it was completed, and that's how we came to have access to the power-unit - in limited numbers, and eventually these were diminished to the point when the car wasn't viable any more.

The limited number of engines that Rover made available prevented Europe-wide sales, and made American certification out of the question for such limited production. Roy confirmed. But why, I had to ask him, wasn't a V8 roadster attempted?

"The roadster was always sensitive to wheel and tyre equipment, in terms of scuttle shake... and that, together with the limited power-unit availability, made our mind up that we would only go for the GT. To my recollection we never actually tried it, but that was certainly my recommendation, that we shouldn't put the V8 in the roadster." What about the MGB GT, conceived after the roadster had entered production: how was this arrived at by Abingdon? "It was John Thornley, who asked, in a classic expression, 'Couldn't we put a shed on it, fellows?'. That's how he always described the GT - as a roadster with a shed on it. He was looking to a 'businessman's express', the sort of thing Bristol and people like that were producing - a nice little niche market..."

The Pininfarina-styled GT came about after several abortive attempts by Abingdon, whose proposals looked not: unlike the Dick Jacobs racing Midget coupes, "Nobody was ever happy with what we achieved," Roy recalled. "We didn't know why, but we really didn't get it right... The car went out to Pininfarina and came back with a top on, and we could immediately see what we'd been doing wrong: we'd been persisting with the height of windscreen used on the roadster.'

With the success of cars such as the 240Z, why was the GT withdrawn from the USA - apart from out of a wish to give the TR7 an easier run? "The GT was a different emission class from the tourer, because the classes are based on weight... and we were getting into problems because of the GT's higher weight. You really had to watch the weight of the vehicle. If you slipped into the next weight class you could be penalised on your emissions test."

Such problems were typical of those facing Abingdon from the late sixties on: the limited investment allowed MG by a Triumph-biased and financially-strapped BL management was swallowed up simply in keeping abreast of the frequently crass American safety and emissions legislation. The prime illustration of this was the considerable money and engineering effort expended on the urethane impact-resistant bumpers fitted for the 1975 model year onwards.

"The American industry by and large went for metallic bumpers mounted on energy-absorbing capsules, a bit like telescopic dampers and called Menasco struts. The only alternative to the urethane bumper would have been to have had these moving bumpers with energy absorbers behind them, but that meant that you had to have a big gap between the bumper and the bodywork, and really there was no way we could tolerate sticking the bumpers out on stalks, as Volvo did," explained Roy.

"So we said we'd go for the 'cushion' approach. I thought it a bit of a disaster... the worst part of it was that the car had to be raised to reach the bumper height criterion, and the height criterion was [in safety terms] a very bad deal. The height requirement was based on the typical American car - and it was going to cream our radiator grille. The only way we could meet the regulations was to raise the car on its suspension."

After the dispiriting introduction of the rubber-bumper MGB, it was apparent that all that could be hoped for was to be able to keep the car going in a broadly unchanged form. There simply wasn't the time, or the engineering resources, to set in motion, in the latter half of the seventies, a programme for a replacement MGB -especially with every effort being thrown into making the TR7 less of a larnie duck; with the Triumph fighting MG for the same market, it's questionable, too, how viable such a new MG would have been unless the TR7 were discontinued - something definitely not, at that stage anyway, on the cards.

"We were spending more and more time in meetings and over regulations," said Roy, who by 1976 was Director of Vehicle Engineering for Austin-Morris. "We really had our work cut out... In fact, towards the end it was almost a diktat: just keep the thing in production and don't worry about next year, about changes; just meet all the legislative requirements. There were so many things we would have liked to have done, such as getting rid of the lever-arms for the front."

As we know, the MGB didn't even get the engine specifically designed for it. This was the '0' series, for which, Roy confirmed, a detoxing programme had been underway for some while: "There was a lot of 50,000-mile durability running to be done, but the basic emission standards had been met."

But in 1979, with the dollar exchange rate heavily against the pound, the profitability of BL's sports cars in the US was wiped out. In a 'throw everything overboard' panic, BL decided to end MG production at Abingdon - a move that probably suited the hard-faced men at the top of the ailing parent company. But was this a needlessly ruthless and short-sighted decision? Roy Brocklehurst certainly thought so.

"In the fullness of time, if we could have stayed in the market, particularly in the US, MG could have been another Jaguar. Obviously the car would have needed freshening up in some way, and ultimately replacing, but I think, with the sort of volume we were enjoying in the US - which was a damn good volume - if it had been possible to hang on in there, when the exchange rate went in Jaguar's favour it would have gone in MG's favour as well, and maybe we'd still be there..."