

# History : MG Metro 6R4 Group B

[January 30, 2014](#) · [Keith Adams](#) ·

**The MG Metro 6R4 was Austin-Rover's entry into Group B, the controversial rallying category that gave us a series of spectacular cars before being banned at the end of 1986.**

What made the MG rather special was its bespoke 3.0-litre V6, the only non-turbo'd car in its category, and its scintillating performance. Sadly, the Metro 6R4 was killed long before it reached its potential in rallying.

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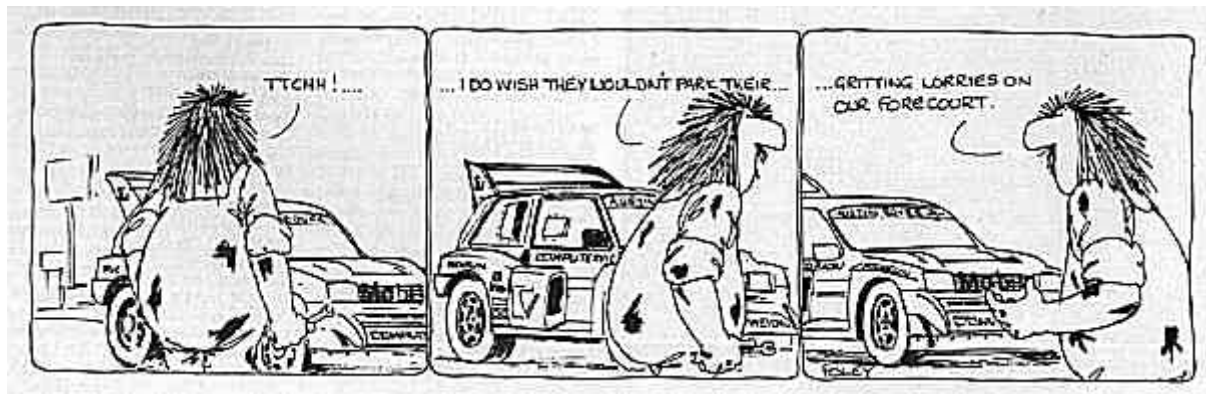
## The giant-killer that never was...



As far as Austin Rover and its parent company BL were concerned, 1981 had marked a sea change in the attitudes of company executives and dealer principals across the land. No longer were they apologetic for the state of their ageing range of cars, but shored up by the warm reception given to the Austin miniMetro and the fact that new models were in the pipeline, they felt as though there was now light at the end of a very dark and long tunnel.

It was in this climate of optimism that the then Austin Rover Motorsport chief John Davenport hatched a plan. The TR7 V8 and TR8 rally cars had hung up their competitive boots after the 1980 Lombard RAC Rally and Davenport wanted to replace them with

something more in the mould of the ill-fated Ford Escort RS 1700T – a ‘silhouette’ rally car, that employed the classic front engine and rear wheel drive transmission package.



Unlike the stubby Ford, Davenport soon decided to follow the lead of Audi and go with a permanent 4WD transmission. Funds were tight (as one can imagine) and it took some persuasion at board room level to obtain funding for the project. Davenport: ‘I managed to persuade our Director Tony Ball to part with £50,000 for a special NEC Show project car.’

Once the first hurdle was cleared, the next was the development of the car itself – something removed from the traditional art of producing a rally car based on an existing model. Davenport had no qualms about collaborating with the world of Formula 1 in order to get him the type of quick-thinking and focused Engineers in order to get the project off the ground in double quick time. The best team in the world in 1981 was Williams – and their Chief Engineer and Designer was Patrick Head – so logically, an approach was made.

‘We nipped down the road to see Patrick and said let’s see if we can design a rally car,’ as Davenport put it – of course, it was a easy decision to make as, at the time, the company was sponsoring the Williams team. The decision to base the new competition car on the Metro was also an easy one to make.

In 1982, Patrick Head and Williams Engineer, John Piper, got down to the task of actually building the car – and as Head himself estimates, he spent approximately forty per cent of his working hours on the MG. Patrick Head recalled: ‘It is clearly very difficult to do F1 on a full-time basis and get involved in any detail with another project in a different area, but I suppose we took on the Metro project through force of circumstances.

‘Austin Rover’s competitions boss John Davenport asked us whether we could shoe-horn a Rover V6 engine – which was literally the 3.5-litre V8 with two cylinders chopped off – into the front of a Metro. Williams GPE agreed to look at the project and soon it became quite clear that, to get the engine in, the driver would virtually have to sit in the back seat. Their team driver Tony Pond came down, tried it for size and immediately said, “there’s no way I could drive this thing quickly through a forest stage – I can’t see the front end from where I’d be sitting.” Clearly, we had to think again.’

Head continued: ‘So we turned the whole thing round with the engine at the back, the gearbox ahead of it with drive to both the front and rear wheels. We presented the concept to Rover and they said “This is great”, pushed the “go” button and off we went with the project. We finished it in about a year, delivered three prototypes to Rover in about November 1981 – six months’ development with Williams’ assistance.’



A new chassis was built from the ground up and it consisted of a floorpan fashioned into a seam welded tubular chassis – old hat in F1 terms of the day, but still a very effective solution. Williams designed the gearbox, which was produced by their own contractors; the differentials were produced by 4WD experts, Ferguson (of Jensen FF fame). The finished car was delivered to Austin Rover in Cowley as promised in December 1982 – and in-house development began.

The car arrived in kit-form and it was up to Austin Rover Motorsport to assemble it and test it in anger. For the purposes of comparison, they ran it against a Group A-spec Rover 3500 and an Audi quattro, *the* rally car of the time. Even in these early stages of development, the Metro turned in a more than competitive performance despite its underpowered(!) 240bhp development engine. What the first prototype lost in straight line speed, it made up for in agility.

In terms of an power unit, there was little consideration given to using an existing ARG engine (supercharged or turbocharged), but due to what they were likely to be up against, the brave decision was taken to produce a bespoke engine for the new car. Two engines were apparently tried in development prototypes during late 1983: the Honda V6, which was due to appear in the Rover 800 in 1986, and the Rover V8.

Needless to say, Patrick Head preferred something lighter and more compact – and pushed for an all-new V6 loosely based on the Rover V8. From the initial design of a V6 version of the ex-Buick engine, it was Development Engineer Cliff Humphreys at Cowley who managed to move the concept towards reality; making it work beautifully – thanks to a lot of hard work. From there, Stan Johnson and Rob Oldaker at Longbridge completed the transformation.



The initial versions of the 6R4 looked almost tame compared with the final, definitive version: As can be seen in this picture, the February 1984 version was based, cosmetically, around the original Metro. The front air dam and sidepods would grow significantly and the rear spoiler had yet to make an appearance. Here, Tony Pond is at the wheel – and he would perform the majority of the test and development driving

The MG Metro 6R4 (ie: **6**-cylinder, **R**ear engine, **4**-wheel-drive) made its first public appearance at the end of February 1984 in a hastily prepared press launch at the Excelsior Hotel, London Airport. The reason for this was that press speculation was mounting – and, in order to undergo a full development programme, Austin Rover could do without the added hassle of playing hide and seek with scoop photographers.

At the launch, Tony Pond drove the car onto stage and said of it, ‘It’s fantastic! You go into a corner deep, get the back end out under braking – and then drift through with the power on. If you go in too deep you simply use more power.’

The rest of 1984 was used to finalise the 6R4: a final engine needed to be developed and the aero package also needed more work.

The cut-and-shut Rover V8 engine of the development car was replaced by the specially-designed and built four-cam, 24-valve, normally aspirated 3-litre V6. The power output was quoted at 410bhp at 9000rpm at the car’s official launch in May, 1985 – and it was promised that this would soon be improved upon. The aero package was modified and took the rulebook to the extreme, stretching the credibility of the ‘silhouette racer’ ideal to breaking point. However, that did reflect the-then current Group B thinking also followed by Peugeot 205T16 and Lancia Delta S4 – looking back at it now, it is easy to see that the cars were becoming completely over the top for the task in hand.





## Specifications:

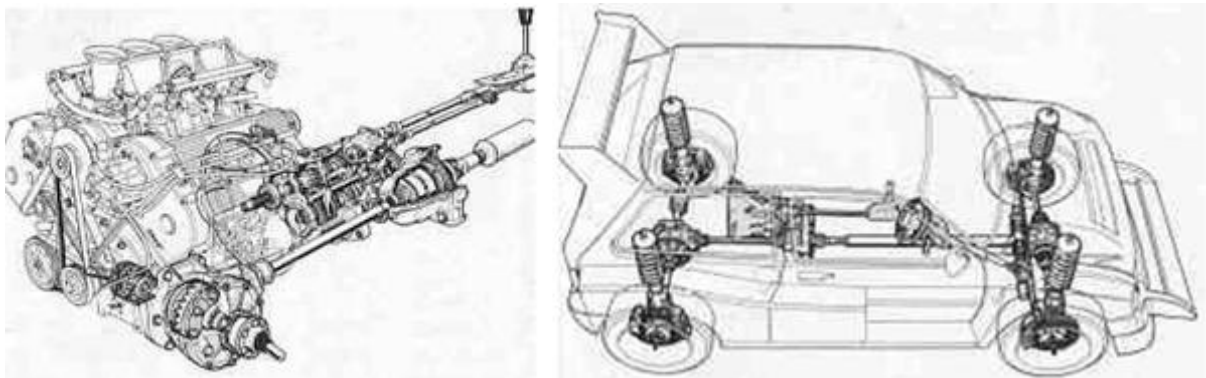
**Engine Capacity:** 2991cc, Bore: 92mm, Stroke: 75mm

**Valve Gear:** DOHC, 4 valves per cylinder, toothed belt camshaft drive

**Compression ratio:** 12:1, Lucas mapped electronic fuel injection

**Configuration:** Longways/mid mounted, 6 cylinders in 90 deg, V, dry liners, 4 main bearings, water cooled

**Maximum Power:** 410bhp at 9000rpm, Maximum torque: 270lb ft at 6500rpm



Austin Rover Motorsport announced at the time that the MG Metro 6R4 would be entered in the 1986 World Rally Championship – and would be competing against such definitive cars as the Audi quattro S1, Lancia Delta S4 and Ford RS200. Group B rallying had entered a truly exciting – and as we would soon see, terrifying – era.

*Autocar* magazine meanwhile strapped its timing gear to the Clubman (250bhp) and International (410bhp) versions of the 6R4 and produced some simply awesome acceleration figures (The figures for the International version are quoted):

<b>0-30mph</b>	<b>0-40mph</b>	<b>0-50mph</b>	<b>0-60mph</b>	<b>0-70mph</b>	<b>0-80mph</b>	<b>0-90mph</b>	<b>0-100mph</b>	<b>0-110mph</b>
1.2s	1.7s	2.4s	3.2s	4.0s	5.2s	6.5s	8.2s	10.0s

The magazine came away impressed (who wouldn't after turning in those figures) and it was John Davenport who, when asked by *Autocar* whether the MG Metro 6R4 would win rallies, summed up the company's optimism about the car's chances: 'Yes. I see no reason why it shouldn't. I think the car is quite capable of doing it, and I think my drivers are more than up to the job.'

Sadly, it was not to be: Henri Toivinen was involved in a fatal collision, when his car went over a cliff in the Corsican Rally. The FISA responded by ruling that Group B rally cars were simply too fast and therefore dangerous to drive and, as a result, banned them from competition effective from the end of that season. The international career of these Group B cars in international rallying was now over – and the book on the promising 6R4 was closed prematurely.

Austin Rover Motorsport gave up on rallying at this point – and it would not be until 2001 that we would see another factory-backed MG rally effort. The car lived on in a couple of ways: road versions were eventually sold off at a bargain £13,000 a piece, many entering private hands to be used to devastating effect in rallycross events across Europe.

The engine design was then sold to TWR (Tom Walkinshaw Racing) and, after some development work on the cambelts and plenums, the engine would make a re-appearance; initially in 3.5-litre form in the Group C Jaguar racing cars, but then in the back of the sensational 217mph Jaguar XJ220.

