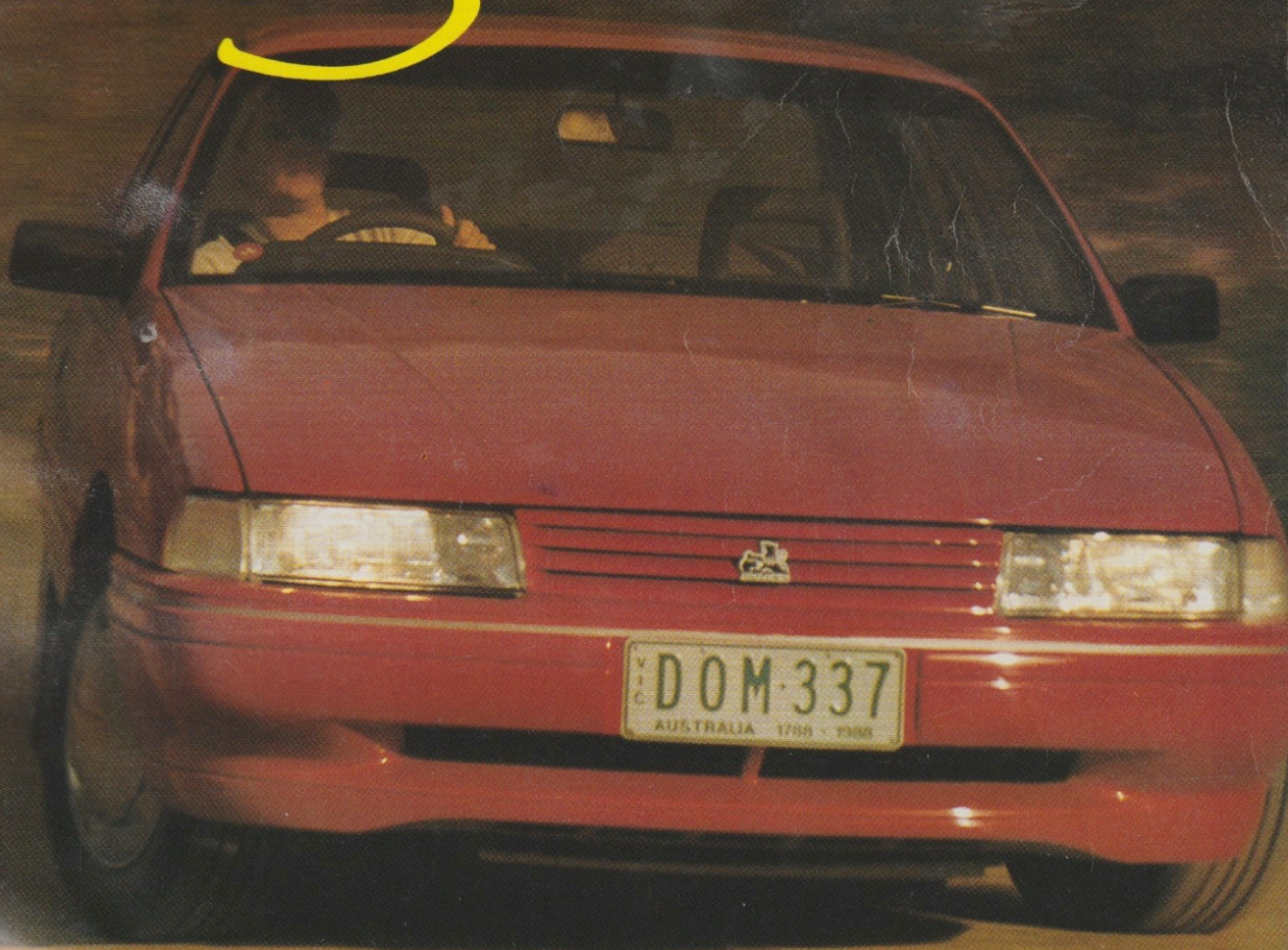


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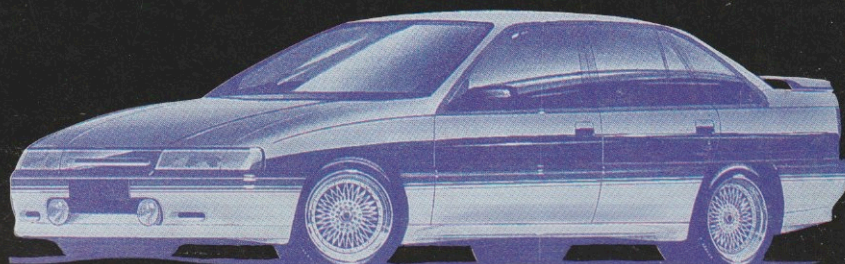
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# BERTONE X1-9



**R**emember the Fiat X1-9? It was introduced to the Australian market in June 1978, complete with a 1290cc engine and four-speed manual, and at \$9637 (enough for a five-litre HZ Monaro four-door) it was an expensive little car. Little was the operative word, especially if you were travelling with anything more than a toothbrush. But it was fun motoring being, basically, the first mid-engined car that didn't carry an exotic name (like Ferrari or Lamborghini) and an exotic price. It out-handled practically everything this side of a works Yamaha. And with the little 1290cc motor and the lack of an overdrive it had one unique quality. You could drive the hell out of it and not break any laws.

In August 1981 it went up to 1498ccs and an overdrive was added, but by 1983, when the price had climbed to well over \$15,000 (five-litre SL/X Commodore territory) it was quietly removed from the market, and Fiat tucked its tail between its legs and concentrated on selling the Superbrava and introducing the dreadful Argenta.

A lot of people lamented the passing of the X1-9. It was a genuine sports car in an age of plastic. It made no compromises at a time when cars were trying to be all things to all people. And like all sports cars should; it turned heads.

Well, the X1-9 is back again. In fact you can hardly pick the difference between the new one and the old one unless you have an eye for bumpers that can withstand US barrier tests. The surprising thing is that, a full 15 years after it was introduced to the European market in 1973, the car still looks terrific, still turns heads, and is still great fun to drive.

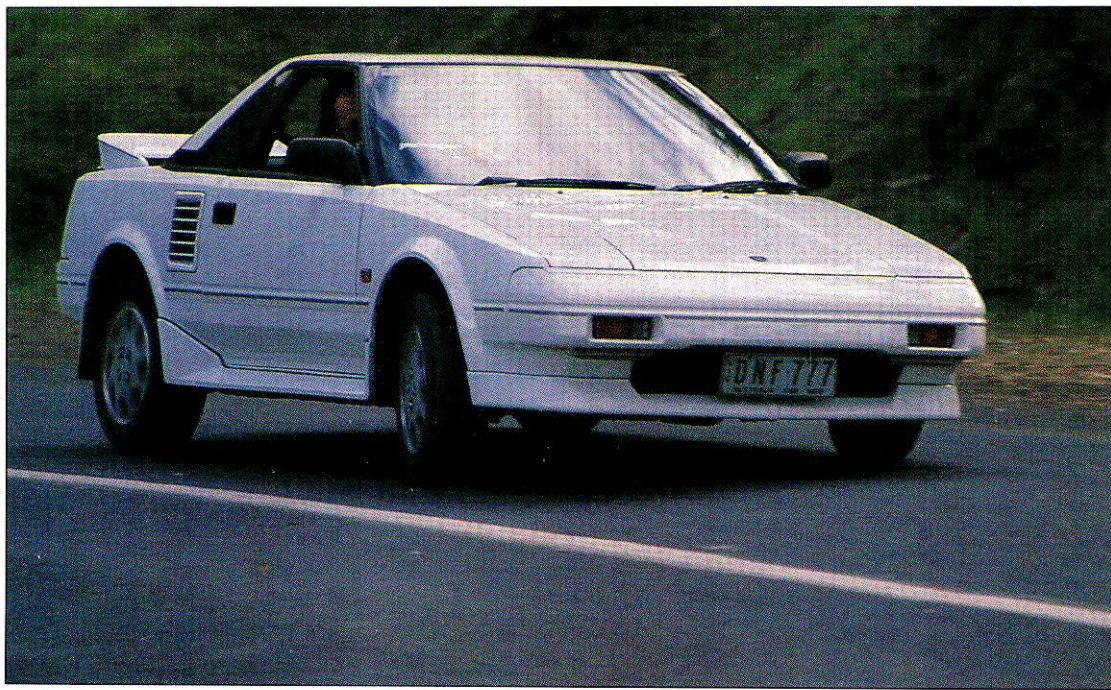
The only difference is that it now wears a new badge.

Just as the designers of the 124 Spider, Pininfarina, took over its production from Fiat in the early 80s, so the X1-9 design house, Bertone, has taken on its production. The sexy little two-seater now wears an angled B front and rear and has no Fiat identification at all (until you go hunting).

So how does an X1-9 shape up 15 years later? To find out we put one up against its most obvious competitor, the Toyota MR2. And it proved to be a most interesting exercise. Although the MR2 is a state of the art car there can be absolutely no doubt that its design roots lie squarely with the X1-9. But the people at Toyota have had a long time to consider the concept of a two-seater with a transverse four-cylinder mounted ahead of the rear wheels and astern of the driver, and it shows. The Toyota goes harder and is a far smoother car to drive, with a better gearshift

# COMPARISON

# TOYOTA MR2



and a far better cabin. But even 15 years down the road, the X1-9 outhandles the MR2.

And know what? When you swap from the MR2 to the X1-9 you're acutely conscious of the fact that you've just left a Japanese car and climbed into a sports car.

## PERFORMANCE, DYNAMICS

The first thing you must understand before driving either of these cars is that they demand far more than the average machine. They demand more in the way of attitude if they are to be kept in hand on twisty roads and they certainly require more skill if they are to give anything like their best.

Don't be misled, however, they never become as temperamental as a 911, nor are they difficult or even tricky to drive fast. Any driver of even average ability could hose off almost anything else on the road - it's just that they have so much more to offer on top.

It's the mid-engine layout more than the motor, the wheels and tyres or the steering that endows this pair with its finesse. Combined with suspension that has relatively short travel, but is well damped and controlled in both cases, the excellent weight distribution is the key to their inherent chuckability. Not for nothing does Ferrari mess about with such space-inefficient designs. And for the purist, losing a little luggage space is a tiny price to pay.

Where the extra concentration comes in is when cornering starts to get a little exuberant. What happens is that a slightly larger percentage of the sprung mass is placed at the rear. It's not as bad as a Volkswagen and nowhere near as severe as a 911, but it does serve to give both cars a final, tail-out attitude.

Never is this more in evidence than when tackling a sharp corner during a downhill grade. A wet road serves to amplify the ef-

fect, but basically weight shift causes the back end to step out of line long before the front end starts to wash wide through understeer.

Allowed to continue through to its logical, if somewhat hair-raising, conclusion, it's possible to imagine the back and front ends changing places completely. Of course, that will only ever happen if you've been particularly stupid or foolhardy because of the high levels of in-built roadholding and the communicative chassis.

With two such talkative chassis, one is soon able to choose the more hyperactive (as opposed to input-reactive). In this case it's the Toyota that will wag its tail first; nothing alarming or sudden, just a premeditated transfer from neutral to oversteer accompanied by a list of options for the driver to choose from.

The first is to slow things right down and counter the resulting slip angle with a few

**The X1-9 has been reborn.  
Question one: Will the MR2 kill it?**



**MODEL**..... Bertone X1/9  
**BODY**..... Coupe/targa  
**SEATING CAPACITY**..... Two  
**WARRANTY**..... 24 months/40,000 km  
**PRICE AS TESTED**..... \$32,250

**ENGINE:**  
 location..... Mid-mounted/transverse  
 cylinders..... Four  
 capacity..... 1498cc  
 bore/stroke..... 86.4 x 63.9mm  
 block..... Cast iron  
 head..... Alloy  
 valve actuation..... SOHC  
 induction..... Electronic fuel injection  
 compression ratio..... 8.5:1  
 power..... 56kW at 5500rpm  
 torque..... 109Nm at 3000rpm  
 specific output..... 37kW per litre  
 power/weight ratio..... 17.5Kg per kW

**TRANSMISSION:**  
 gearbox..... Five-speed manual  
 driving wheels..... Rear

Gear ratios	Calc. max speed	At redline
1st..... 4.09:1	45	7000
2nd..... 2.235:1	82	7000
3rd..... 1.461:1	125	7000
4th..... 1.033:1	178	7000
5th..... 0.863:1	N/A	7000
Final drive ratio.....		4.077:1

**BODY:**  
 Kerb weight..... 980kg  
 O/A length..... 3960mm  
 O/A width..... 1570mm  
 O/A height..... 1180mm  
 Wheelbase..... 2202mm  
 Front track..... 1355mm  
 Rear track..... 1350mm  
 Ground clearance..... N/A  
 Fuel tank capacity..... 47ℓ

**SUSPENSION:**  
 Front..... Independent, MacPherson struts, coils  
 Rear..... Independent, MacPherson struts, coils

**STEERING:**  
 Type..... Rack and pinion  
 Turning circle..... 9.9m  
 Turns lock to lock..... 3.05

**BRAKES:**  
 Front..... Disc  
 Rear..... Disc

**WHEELS:**  
 Material..... Alloy  
 Diameter/width..... 5J x 13

**TYRES:**  
 Make/type..... Pirelli P6  
 Diameter/width..... 185/70/R13

**PERFORMANCE:**  
**WEATHER**..... Cool  
**ODD METER READING**..... 2601  
**SPEEDOMETER ERROR AT:**  
 60km/h..... 58  
 80km/h..... 78  
 100km/h..... 97  
 120km/h..... 112

**STANDING START:**  
 0-60km/h..... 5.1  
 0-80km/h..... 8.2  
 0-100km/h..... 12.5  
 0-120km/h..... 18.1  
 400 metres..... 18.2  
 Terminal speed..... 113.2

**IN GEAR ACCELERATION**

	3rd	4th	5th
60-100km/h	7.3	10.6	15.4
80-120km/h	10.6	12.0	18.5

**BRAKING FROM 100KM/H**  
 Average of four tests..... 39 metres

**FUEL CONSUMPTION**  
 Claimed (AS2077)  
 city..... N/A  
 highway..... N/A  
 Car Australia average on test overall combination  
 city/highway driving 9.6 litres/100km

**MODEL**..... Toyota MR2  
**BODY**..... Coupe  
**SEATING CAPACITY**..... Two  
**WARRANTY**..... 12 months/20,000km  
**BASE PRICE**..... \$33,250  
**OPTIONS FITTED**..... Air-conditioning, sunroof  
**PRICE AS TESTED**..... \$36,005

**ENGINE:**  
 location..... Mid-mounted/transverse  
 cylinders..... Four  
 capacity..... 1587cc  
 bore/stroke..... 81 x 77mm  
 block..... Cast iron  
 head..... Alloy  
 valve actuation..... DOHC  
 induction..... Electronic fuel injection  
 compression ratio..... 9.4:1  
 power..... 88kW at 6600rpm  
 torque..... 139Nm at 5000rpm  
 specific output..... 55.5kW per litre  
 power/weight ratio..... 11.9Kg per kW

**TRANSMISSION:**  
 gearbox..... Five-speed manual  
 driving wheels..... Rear

Gear ratios	Calc. max speed	At redline
1st..... 3.166:1	58	7600
2nd..... 1.904:1	97	7600
3rd..... 1.310:1	142	7600
4th..... 0.969:1	191	7600
5th..... 0.815:1	N/A	N/A
Final drive ratio.....		4.312:1

**BODY:**  
 Kerb weight..... 1050kg  
 O/A length..... 3950mm  
 O/A width..... 1665mm  
 O/A height..... 1250mm  
 Wheelbase..... 2320mm  
 Front track..... 1440mm  
 Rear track..... 1440mm  
 Ground clearance..... 140mm  
 Fuel tank capacity..... 41ℓ

**SUSPENSION:**  
 Front..... Independent, MacPherson struts, coils, stabilizer bar  
 Rear..... Independent, struts, dual links, stabilizer bar

**STEERING:**  
 Type..... Rack and pinion  
 Turning circle..... 9.6m  
 Turns lock to lock..... 3.5

**BRAKES:**  
 Front..... Ventilated Discs  
 Rear..... Discs

**WHEELS:**  
 Material..... Alloy  
 Diameter/width..... 14 x 5.5J

**TYRES:**  
 Make/type..... Bridgestone Potenza RE88  
 Diameter/width..... 185/60 14

**PERFORMANCE:**  
**WEATHER**..... Cool  
**ODD METER READING**..... 3156  
**SPEEDOMETER ERROR AT:**  
 60km/h..... 57  
 80km/h..... 78  
 100km/h..... 98  
 120km/h..... 119

**STANDING START:**  
 0-60km/h..... 4.8  
 0-80km/h..... 6.9  
 0-100km/h..... 10.0  
 0-120km/h..... 13.5  
 400 metres..... 16.7  
 Terminal speed..... 133

**IN GEAR ACCELERATION**

	3rd	4th	5th
60-100km/h	6.8	9.7	13.1
80-120km/h	6.8	10.8	12.3

**BRAKING FROM 100KM/H**  
 Average of four tests..... 41 metres

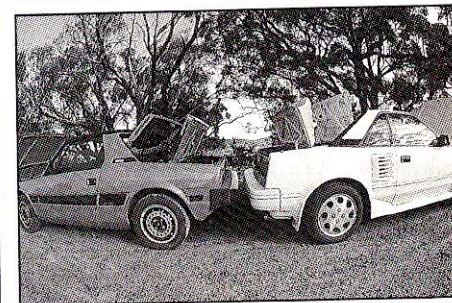
**FUEL CONSUMPTION**  
 Claimed (AS2077)  
 city..... 8.0 litres/100km  
 highway..... 6.4 litres/100km  
 Car Australia average on test overall combination  
 city/highway driving 10.1 litres/100km

well chosen dabs of opposite lock. The other is to apply some power and gently unwind a little lock for a smoother - and faster - exit. Neither of these choices requires too much in the way of bravado, particularly option B. The Toyota confuses the issue further by having a small measure of understeer at the ready if a corner is entered sharply under full power. The relative lack of weight over the front wheels means they can be pushed wide through sheer grunt.

The X1-9, on the other hand, exhibits the same basic tendencies but has a higher G-force tolerance and even more warning for the driver. Get the tail out in the X1-9 and you know you're really moving because that's the only way to make things step out of line. Not only that, within what feels like 10km/h of the speed at which the rear will move, the car starts giving warning signals which travel backwards and forwards through the driver's seat.

When it happens it's even easier to re-organise things and the car almost seems to think for you.

Applying throttle or lock in the Toyota is a reasonably accurate business with very little chance of overcooking things. In the X1-9,



the chances of over-reacting are virtually eliminated. Add some throttle to the equation and it will be the right amount, twirl the wheel and you've done the right thing.

The steering is the trick here; an almost perfectly weighted non-assisted system which borders on being foolproof. The small, leather clad wheel takes care of the driver's end while the workings allow for wonderful feel without a hint of bump steer or kickback. If there is a gripe (and it's certainly not a particularly valid one) turn in could be a little quicker. Not sharper, just quicker.

Then there's the supple ride which refuses to be jouncy at any speed and is equally reluctant to be thrown off line by even the biggest mid-corner bumps and holes. And that's where the all-important driver/car interface comes in.

From the moment you turn the key, the X1-9 is talking to you. You know when you've driven over a bump and you know exactly where the front wheels are pointing at all times. It's almost possible to gauge the amount of camber on the rear wheels at any given time. It's a very secure feeling, but it also lets you wring the absolute most from the car without working up a sweat.

The MR2 feels similar to the X1-9, but not quite the same. Every sensation is just that

# ◉ Bertone X1-9 ◉ Toyota MR2 ◉

little bit softer; every input that little bit more fluffy.

In any independent test, the Toyota would emerge as a stunning car - one of the very best. Even this time around, it could not be described as anything less than a fabulous device. The stagemate this time around was just a bit classier.

The one area in which the Toyota claws back some of the lost ground is under the engine cover. Even a visual inspection is enough to convince you of that. The X1-9's rather untidy looking single cam motor is no match for the twin cam channels and central spark plugs of the Toyota engine.

On the road, the differences are just as marked, but the end results are not polarised to the extent we might have imagined. It comes down to a difference in philosophy - the Toyota with its high-stepping, high-tech, high kW per litre monster and the X1-9's lump with an indecent amount of torque for a 1.5 litre.

The Japanese car is far and away the quickest with a 400m time of 16.5 seconds and superior in-gears times. Start the engine and select first with the beautiful little shifter and you're ready to blow away V8s in a traffic light drag.

Through the mountains too, the Toyota excels with carefully chosen ratios and an eagerness and smoothness that only this type of technology can bring. As such, however,

## OPINION:

**D**eciding which car I prefer when presented with a choice of Japanese and European product is not usually a difficult thing for me. I may sound biased, but have yet to be convinced that the Japanese - in a general sense - operate with genuine sincerity when designing cars.

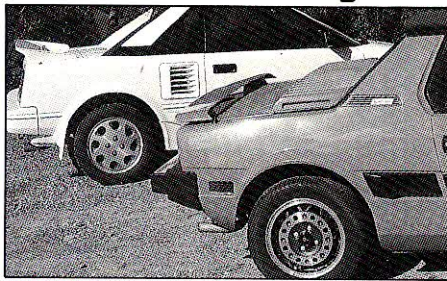
But when you line a Toyota MR2 alongside Bertone's X1-9 you can't honestly say the Europeans are offering the better deal.

For a start, I find I'm physically a size too big for the little Italian. I just can't fit into the thing properly and when it comes to attempting correct operation of the gearshift, or trying to read the instruments, comparisons with a kiddie pedal car become unavoidable.

I love the willingness and the sound of the little mid engine and of course there is still nothing that handles quite like an X1-9, but you just can't get around the fact that the car is more than 15 years old.

The MR2 on the other hand - even though it too is far from being fresh and new - is a product of the 80s with twin cams, 16 valves and fuel injection propelling a body that is noticeably roomier than the Italian product. I can take or leave the Toyota's piecemeal looks, but it's a hell of a car to drive and adds a genuine performance engine to the picture of a latter-day sports car for every man.

Tim Britten.



the MR2 shows a slightly two-stage side to its nature. Below 4000rpm not much is happening beneath that beautifully crafted cam cover and torque is at a premium. Wind it up though, and it fairly sings through to the 7600rpm redline without the slightest hint of drama.

The X1-9, despite a much more conservative specification, manages an equally useful rev-range thanks to its superior pulling power. Redline is an optimistic 7000rpm, but better acceleration is had if one shifts at 6000, just before the power starts to fall away. The torque is the clincher here, and even at freeway speeds the car will pull clean

## OPINION:

**L**ook, I've got this all worked out. Now, I am 180cm tall (a throwback for sure if you've ever seen my family) and the X1-9 offers enough space for somebody of around the 150cm mark. And as we all know, 180 into 150 won't go. I am not, however, prepared to allow such a relative triviality destroy my chances of ever owning an X1-9.

Here's what I'll do. (It's complicated, so pay attention).

The basic problem is one of obtaining the necessary legroom. Short of gas-axing the footwells and moving the pedal assembly forward, the solution lies in moving the seat back. The first step is to move the spare tyre to somewhere else (I'll get to the wheres later) to allow the seat to recline more.

Next, you'd have to slice away a little metal flap which protrudes across the outer chassis rail and move the seat belt reel back a couple of centimetres. From there, you could move the seat runners back almost 15cm. I'd need about eight.

Luckily, I drive with a fairly upright seat-back, but you'd still need to slice away the back of the head restraint to clear the back window.

So now I'm in, but the spare tyre is on the outer and can't be placed behind the passenger's seat because the bulkhead and plumbing won't allow it. It won't even nearly fit in the rear boot, so under the bonnet it must be. Now, that means that the wiper washer bottle needs to be moved so the spare can lie down-ish and still allow the roof to be stowed.

Once you've done all that, you've got a car that retains all the virtues and eliminates the one big failing. Best of all, I would fit.

Did I forget to mention I'd take the Fiat (sorry, Bertone) over the MR2? Sorry.

David Morley.

and relatively hard with a firm foot on the gas.

The gearshift is the major hassle with the X1-9; it's just not very good. Clunky and notchy, it makes hard work of one-two shifts and fourth-fifth can sometimes result in scoring the third ratio with a sickening lurch and a tacho full of big numbers.

Against the stopwatch, there's no comparison. The MR2 eats the X1-9 and is in fact almost two seconds quicker across the standing quarter. Surprisingly, though, the X1-9 feels almost as fast thanks to that lovely torque delivery and an exhaust note that makes the radio/cassette an indecent device.

Where the Toyota blasts along with a faintly apologetic hiss from the twin tailpipes, the Bertone alternately rumbles, wails, screams and blats as the driver switches cogs (usually for the sound rather than the acceleration it produces). If there is a more sensuous car this side of the established exotica, please tell us.

## PACKAGING, EQUIPMENT, PRICE

In terms of cabins, there is a clear winner in this comparison. The MR2 eats the X1-9 in everything but luggage space (where it falls well short). It's in the cabin more than any other area where the X1-9 shows its age.

The first thing you'll notice is the cramped driving position. Rod Easdown and David

## OPINION:

**I** was pretty sure about the winner of this comparison before we even picked up the cars. I'd driven X1-9s back in 1978, and again in 1981 when they got a bigger engine and an extra gear, and I enjoyed them a great deal. But I was fairly busting to drive the MR2, having heard and read so much about it. And on paper the Toyota looked a shoe in for the comparison with its high tech 1600. After all, what it was taking on was a car that was introduced in Europe when Australians were calling HQs 'the new Holden.'

We collected the MR2 first and I wasn't disappointed. It goes like hell and handles like nothing that's ever come out of Japan before. The gears are an absolute delight. Everything works and it's very well made.

Then I got into the X1-9 and first impressions were bad. I couldn't see the instruments properly, and the gears were finicky, and I was cramped. And an hour later I was in love all over again.

This is a car that makes you feel good. It makes you feel like Senna or Prost. It keeps on telling you what a good driver you are even if you aren't. And more than that, it feels like a sports car. You can develop the sort of rapport with the X1-9 that's only possible with genuine, no nonsense sports cars. Sports car like they used to make 'em - big Healeys and that sort of stuff.

No one who buys an MR2 will be disappointed, but the X1-9 owners will be having more fun.

Rod Easdown

Morley (177cm and 180cm respectively, or dead on the average height for Australian males), found things tight. Tim Britten - 185cm in his not insubstantial socks - didn't fit at all. We all found our left legs hard against the steering wheel when clutching, and even when it was doing no work at all it was hard, almost impossible, to get our fingers through the gap. What this means is that the six to eight o'clock area of the wheel is effectively out of bounds, and it's surprising how limiting this can be when you're fairly hoofing it through the bends. It's limiting, but it's not impossible to live with.

Headroom is very limited in both cars. Morley and Easdown were brushing the roof of each while Britten had to develop a kink in his neck. Removing the MR2's sun roof cover helped, but as long as the sun is shining the X1-9 has the best solution of the lot - the roof lifts off and stores in the forward luggage compartment. There's still good luggage space available underneath the stored roof, by the way.

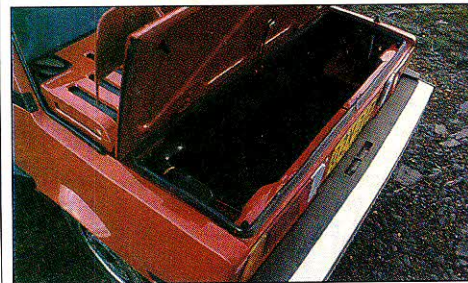
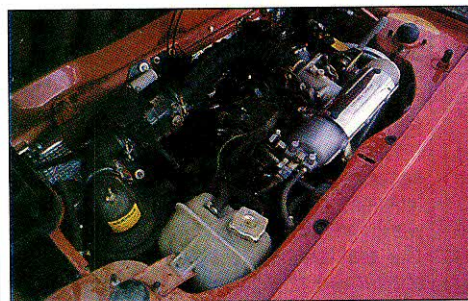
The other problem with the X1-9 is the instruments. The only one that is clearly visible at all times is the tachometer, and it operates in the reverse direction. The speedometer is only partially visible behind the wheel (again a lot depends on your height) and the minor instruments (apart from the centrally-located fuel gauge) can be forgotten entirely. In fact one of our testers took an hour in the car before he even realised it had battery and oil pressure gauges, so well hidden were they behind his hand on the wheel. Their lighting is also extremely poor.

Our other objection was the noise. At about 3500rpm a deep boom permeates the passenger cabin regardless of the gear you're in, and it can be most annoying. The problem is that 3500rpm is right on cruising speed in fifth gear.

The importers have added a number of features to the X1-9 to bring it into line with its competition - things like electric window lifts (which have to be the most arthritic we've used) and a good stereo. But the door mirrors remain manual and the fuel cap, mounted high on the deck just behind the passenger, doesn't even lock.

The Toyota is a very different story. There's good legroom and better range of seating positions, the comprehensive instrumentation is clearly visible and ergonomics are far and away superior. The fit and finish is also much better, with none of the rough edges of the older car (such as the horribly exposed bonnet opening mechanism in the passenger's footwell). The interior is dominated by the transmission tunnel, about the highest we've seen since the Lotus Europa. This means the gearshift is high, but a beautifully shaped handpiece quickly allays any doubts that arise about the layout. In practice the design works well, inviting shifts from an arm rested on the tunnel.

But even though the instruments are visible and clear, we still considered the



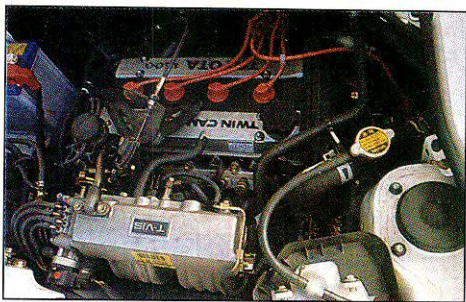
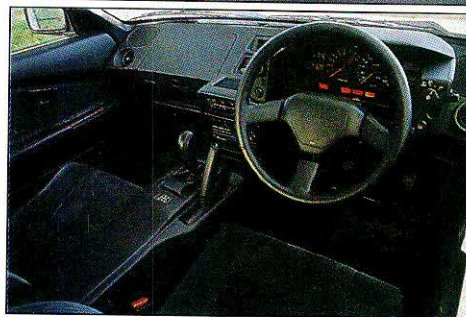
**While the X1-9 wins hands down on luggage space, the interior is very tight and the instruments are obscured by the wheel.**

*"Britten had to develop a kink in his neck."*

dash fussy. The Japanese have a real penchant for this sort of thing - a big rounded instrument cowl strutting self-importantly out of the dash, a console housing that's angled down, instead of up, and an oddments bin high between the seat backs that's difficult to use when you're driving. It may look impressive at first, but overall we'd take the X1-9's dash over the MR2's, impractical as it is.

Where the X1-9 wins hands down is with luggage space. Both cars have a small boot

# ◉ Bertone X1-9 ◉ Toyota MR2 ◉



**The MR2 has a far more practical cabin but the spare robs much of the luggage space. Its sunroof is no match for the X1-9's targa.**

behind the engine (the Toyota's is larger) which will take a couple of bags. The Toyota's will even take a soft suitcase. It's also better insulated from engine heat, although the current X1-9 is much improved in this respect - your bags will be mildly warm in the current model, as opposed to lightly baked.

The X1-9's big advantage is in the front. It has a deep and reasonably square cargo area which will take a compact suitcase or a lot of smaller items. The same space in the Toyota

is dominated by the spare wheel, leaving only enough space for a briefcase or a small, soft bag. This space was designed to accommodate a space-saver spare, hence Japanese and US-spec MR2s have far more space here. Australian standards demand a full-sized spare and your bags pay the price. The X1-9's spare tyre solution is placing it in its own firewall compartment immediately behind the driver's seat, something it can get away with because it doesn't have an engine with double overhead camshafts, four valves per cylinder etc etc.

The X1-9, at \$32,250 (still around the price of a top Holden) has a \$1000 price advantage on the MR2. And while the MR2 can justify the higher price in terms of equipment, cabin space and a bit more go, it nevertheless remains that the X1-9 has something the Toyota can't match - a lift-off roof. One person can convert the car to an open-air tourer in minutes. The Toyota's sun roof, which is front-hinged rather than removable, is no match.

## CONCLUSION

The MR2 is a superb car. Before we started this comparison we thought it would be the clear winner - the figures told us that. And, at the end of the day, it goes hard and handles brilliantly. It feels good to drive. And everything is in its place. It has taken the X1-9 theme and improved on it almost everywhere. And that being the case, one has to ask why the X1-9 is still faster through the corners and has the kind of rapport with its driver that most Toyota owners don't even know exists.

The X1-9 is certainly dated. It is a car with a bucketful of shortcomings (eccentricities?) including the driving position, the instruments, a fuel cap that won't lock and the lack of storage space in the cabin. And yet it's a car that grows on you just as an old Healey does, because like a Healey it's an uncompromising sports car designed by people who truly understand them. It feels right and it sounds right. It demands to be driven and it's a pleasure and a buzz to drive hard. It's exciting.

When we assessed these cars in cold, practical terms we knew that the MR2 was the winner. It was better made, far more comfortable and easier to drive. It was also faster and it handled very well indeed. And, to be blunt, it will probably last longer.

And yet a day or two later we found ourselves in the carpark gathered around the X1-9, figuring out ways to get a little more seat travel, and how to move the spare wheel so that we could squeeze in a 1600cc 131 engine. It's that sort of car. It had us in an emotional head lock and we liked being there.

Buying a car is an emotional business, never more so than when you're buying a sports car. And the X1-9 is a car to get silly about. So we'll take it, thanks, and have one of those little love affairs that make no sense.

*"It had us in an emotional head lock."*