

CLASSIC SUPERCAR A-Z

Maserati Quattroporte 1975-present

Towards the end of Citroën's seven-year control of Maserati, the French company began to impose more of its own design ideas. This trend reached its height with the second version of Maserati's four-door saloon, the Quattroporte II.

Although the car was considerably larger than the Citroën SM, it was very closely based on the SM's running gear, with the same engine, transmission and suspension, and that made it rather underpowered. Like the SM, it was equipped with fully-powered steering and brakes and the same self-levelling hydro-pneumatic suspension system, interconnected front to rear.

The styling was by Bertone but it wasn't one of his better efforts. It was actually an update of a design Bertone had proposed to Jaguar for the XJ6. Only five were made before Maserati returned to a more conventional layout for

the next, third-series, Quattroporte. That used a V8 engine driving the rear wheels in traditional fashion.

Just as the front-wheel-drive Quattroporte II had used the SM chassis, the new Quattroporte also borrowed heavily from another model, in this case the De Tomaso Deauville (by this time Maserati had been acquired by De Tomaso). The body was styled by Itai Design and was imposing rather than beautiful. It did, however, offer generous accommodation and four-door convenience, allied to excellent performance with a top speed in the 140-mph region.

After the car had been in slow, steady production for some years, Maserati decided to upgrade the quad-cam V8 engine to a larger displacement, five-litre, unit with a larger bore and stroke and 280 bhp rather than the 255 bhp of the 4136-cc engine.



Above: The Bertone-designed Quattroporte II was a front-wheel-drive V6-engined model based very much on the Citroën Maserati SM.

Below: The Quattroporte looked bland but handled well, with 289 lb ft of torque from the alloy five-litre V8.



Above: Styled as a luxury family and executive express, the second-series Quattroporte had a five-litre V8 which gave a significant boost to performance. But the car looked tame compared with earlier Maseratis.

Specification (1980)

Engine: V8, twin overhead camshafts per bank of cylinders

Bore x stroke: 93.9 mm x 89 mm

Capacity: 4930 cc

Maximum power: 280 bhp

Transmission: five-speed manual or three-speed automatic

Chassis: steel unitary construction

Suspension: independent with double wishbones and coil springs front; transverse and longitudinal control arms and coil springs rear

Brakes: discs all round

Bodywork: steel four-door saloon

Maximum speed (approx): 140 mph (225 km/h)

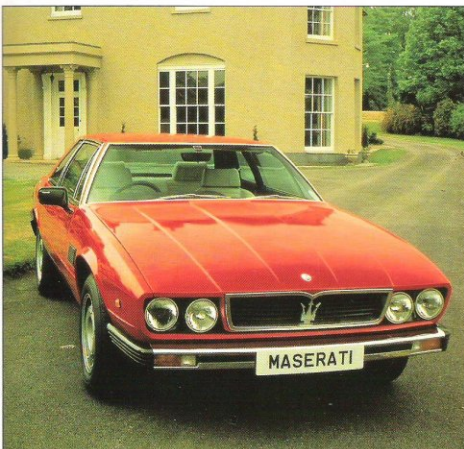
Maserati Quattroporte variants

Maserati Royale

In a deliberate echo of Bugatti's largest model, Maserati finally renamed the Quattroporte the Royale, but there was little mechanical change other than an increase in power to 300 bhp, which boosted top speed to 149 mph.



Maserati Kyalami 1976-83



Left: The Kyalami's styling was well balanced, with room for four in the two-door coupé bodywork, but the car attracted few buyers. The wheelbase was 102 inches and overall length 180.

After Citroën walked away from Maserati, the company was put on a life-support machine by the Italian government, who in turn passed the problem on to De Tommaso. In De Tommaso's view the logical move was to integrate the two companies, and the first fruit of that was the Kyalami, which could be considered a De Tommaso Longchamps with a Maserati engine.

The front-engined Longchamps was itself the shorter-wheelbase coupe version of the Deauville five-seater saloon with a workmanlike all-independent suspension system, rather angular Frua styling and a very capacious interior with more than adequate rear leg room and head room.

In its Maserati Kyalami guise, however, the model acquired a more distinguished nose along with the Maserati powerplant. Whereas the De Tommaso used an American Ford pushrod V8, the Kyalami was powered by Maserati's

customary quad-cam V8 engine, first in 4136-cc then in larger, bored and stroked, 4930-cc form.

The Kyalami's problem was that it was all too obviously a design 'rush job' and something of a mongrel. Although it was superior to the Longchamps, it did not sell well and by the end of the 1970s only 150 had been sold. Sales had dried up completely by 1983. It lived on in another form, however, in that its chassis was the foundation for the last in the line of Quattroportes, which were still on sale in the 1990s.

Specification (1976)

Engine: V8, twin overhead camshafts per bank of cylinders
Bore x stroke: 88 mm x 86 mm
Capacity: 4136 cc
Maximum power: 270 bhp
Transmission: five-speed manual or three-speed automatic
Chassis: steel unitary construction
Suspension: independent with double wishbones and coil springs front and rear
Brakes: discs all round
Bodywork: steel four-door coupé
Maximum speed (approx): 147 mph (237 km/h)

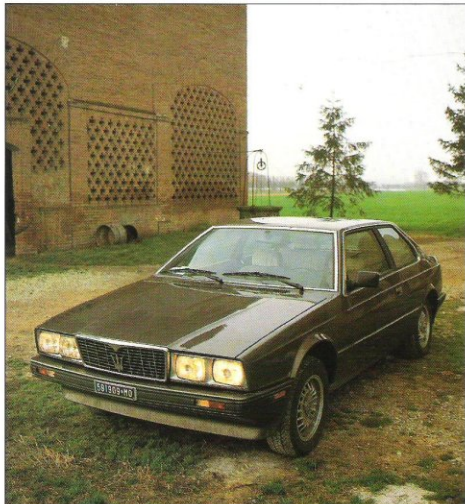
Maserati Biturbo 1981-present

Following the takeover of Maserati by De Tommaso in 1975, it took six years for a new generation of Maseratis to evolve. That time-span was understandable as the new cars, led by the first Biturbo, were completely different from previous Maseratis.

The chassis layout at least was conventional, with a front-mounted engine driving the rear wheels, but the engine itself was quite different. As the name Biturbo implies, it used twin turbochargers, one for each bank of cylinders on the V6 overhead-cam layout. Its displacement was far less than any Maserati since the days of the A6 range in the 1950s, being only 1996 cc. To make up for that, however, it did have three valves per cylinder (two inlets and one exhaust) to help its breathing and that, coupled with the two small turbochargers, gave an adequate amount of power. Its 180 bhp meant the small coupé could reach a maximum speed of 134 mph – fast, but not outstandingly so.

It was enough to boost Maserati sales, from a mere 550 in 1980, annual production had rocketed to no less than 3,500 by 1989. That was despite the car's overly conservative in-house styling, which made the model look anything but exotic. The Biturbo's looks, and sales, were helped by the development of the Spyder version in 1984, which was given a shorter wheelbase. That was just one of a number of models Maserati produced on the same basic platform. Lengthening the wheelbase allowed the production of a four-door variant, the 428, launched in 1983. That was soon followed by a four-seater coupé called the 228 which appeared very little different from the original Biturbo. The change of name was explained by the fact that it had a larger, bored and stroked 2.8-litre, version of the twin-turbo V6 engine producing 250 bhp at 5,500 rpm, with a torque output of 273 lb ft at 3,500 rpm.

By 1988 the original styling was looking even less exciting, and it was dressed up



Left: The Biturbo engine in stretched 2.8-litre form with, at left, the two pipes rising from the intercoolers and joining before entering the intake manifold over the V6. The finned sections on each side of the manifold are fuel injector rails.

Above: The Biturbo range has been continuously developed since its launch in 1981, but the broad look of the cars has remained much the same. The flat front end does little for the aerodynamics, but increased engine power has made them very fast saloons.



somewhat to produce the Karif, which was very much the mixture as before on a short wheelbase, and powered by the same engine as the Biturbo 228. There was even more to come from the basic design in 1990, when the Racing model appeared with power boosted to 282 bhp, thanks to new four-valve twin-cam heads being fitted to the V6 engine.

With four valves per cylinder, the two-litre Biturbo offered performance figures, according to *Motor Sport* in 1990, "that make Latin, British and Teutonic supercars flinch. In the 0-62 mph stakes it can hold its own with monsters like the Ferrari Testarossa . . ." Only in terms of top speed did the Maserati not fare so well, due in part to the uncompromising front-end aerodynamics.

An option included a four-setting adjustable suspension system, designed in conjunction with Konig, and the geometry of the MacPherson-strut front suspension was refined and improved to ensure a constant parallelism between the steering track rods and lower suspension arms.



On the road, the 24-valve car handled extremely well, as did all the Biturbos, and was very tractable in town. Said *Motor Sport's* tester: "The impression is

very like that of one of the large Japanese bikes . . . by the time the rest of the traffic has let their clutches out, you are already 100 yards down the road." Visually, the model was distinguished from its stablemates by new spoilers and skirts.

Above: In production terms, the Biturbo proved a very successful and adaptable design for what had been an ailing manufacturer; in 24-valve form it offered true supercar performance.



Left: Compared with other Italian supercar builders like Ferrari and Lamborghini, during the 1980s Maserati showed that, in styling terms at least, it preferred to follow the 'sensible' look established by, among others, Ford, BMW and Mercedes-Benz.

Below: Bringing the fun back into Maserati motoring, the two-litre Biturbo Spyder was introduced in 1984 and built by Zagato on a short, 94.5-in. wheelbase and offered luxury high-speed open-air performance. Overall length was a mere 159 inches. A variable-torque Sensitorik differential was optional.

Specification (1982)

- Engine:** V6, overhead-cam, twin-turbo
- Bore x stroke:** 82 mm x 63.5 mm
- Capacity:** 1996 cc
- Maximum power:** 190 bhp
- Transmission:** five-speed manual gearbox
- Chassis:** steel unitary construction
- Suspension:** independent with MacPherson struts and anti-roll bar front, semi-trailing arms and coil springs rear
- Brakes:** discs all round
- Bodywork:** steel two-door four-seater saloon
- Maximum speed (approx):** 134 mph (216 km/h)



Maserati Shamal 1989-present



The Shamal marked Maserati's return to V8 engines. In this case it was an all-alloy unit with wet cylinder liners, twin overhead cams per bank of cylinders and four valves per cylinder. Bore and stroke dimensions were perfectly 'square' at 80 mm x 80 mm and displacement was 3217 cc, which alone would have generated more power than the smaller V6 engines but, as the V8 followed the lead of the Biturbo range in having twin III turbochargers, maximum power was an excellent 326 bhp, allied to a very creditable 319 lb ft of torque. The presence of two turbos, each with its own air-to-air intercooler, helped engine response and there was no need for overall boost pressures to be that high to extract sufficient power, so the Shamal's engine ran in a maximum boost of 7 psi. In line with the 'green' concerns of the early 1990s, and with a view to making the model saleable in the lucrative North American market, the Shamal's twin-turbo V8 was equipped with a catalytic converter. That, allied to electronic engine management and injection, guaranteed low emissions.

The return to the use of a V8 engine was complemented by a resurrection of Maserati's habit of naming their cars after famous winds (Ghibli, Khamisn, Sora), but in this case a not so famous

wind, as Shamal indicated a 'hot and strong north-west summer wind from the Mesopotamian plains'. The car was hot and strong enough to live up to that name as its twin-turbo V8's over-300 bhp was enough to speed the car to nearly 170 mph, which was faster than the likes of bygone classic Maseratis such as the Ghibli. The 0-60 mph acceleration figure of just over five seconds was also enough to put previous Maseratis in the shade.

The twin-turbo's power and torque was fed to the rear wheels by a Getrag manual gearbox boasting no fewer than six forward ratios (fifth being a 1.12:1 ratio and sixth an 'overdrive' ratio of 0.8:1). That made it one of the very few cars in the world to have a six-speed manual transmission, the most famous other example being the Chevrolet Corvette with a ZF unit. The six-speeder is allied to a Torsen-type limited-slip differential.

Such performance and specification should have been enough to make the Shamal an instant classic but, curiously, demand was not enormous. That may well have had something to do with the styling. Sensibly, in developing the Shamal, Maserati had decided to retain as much of the Biturbo as possible rather than build something totally new. Although they employed Lamborghini Countach designer Marcello Gandini to

style the car, the end result was not that attractive, looking somewhat like a Biturbo on steroids thanks to the bulging wheel arches front and rear which were accentuated by doors in the standard Biturbo position. Gandini incorporated one of his Countach trademarks in the Shamal with the angled top to the rear wheel arches, but Maserati's basic shape could only be altered so far without resorting to a completely new model.

Under those big wheel arches the Shamal used MacPherson struts at the front, and a tubular trailing-arm rear suspension design in conjunction with an adjustable damper system developed by Koni. That was controlled via a button on the console that enabled the driver to choose one of four positions, from very soft to a setting hard enough to be "the perfect solution for drivers who like to get all the sporting soul from the car", as Maserati put it. The system, which was also offered as an option on some Biturbos, was designed automatically to choose setting number two to begin with as that was considered a reasonable compromise for speeds up to 100 mph. Deliveries for the UK were scheduled to begin in the late summer of 1992, at a projected price of £63,450, which put the Shamal squarely in the territory of the well-established Porsche 928.

Above: In 1989 Maserati attempted to revitalize the unadventurous, although clean, styling of the Biturbos in the Shamal, but retained enough of the panels to make it look like a body-kitted, muscle-Biturbo. The more aggressive shape clothed a new four-valves-per-cylinder V8 developed from the V6, which fed its 325 bhp and immense torque through a six-speed gearbox. Performance was well and truly in the supercar league, with just over five seconds needed to reach 60 mph and a maximum speed of over 160 mph.

Specification (1989)

Engine: V8, overhead-cam, twin-turbo
Bore x stroke: 80 mm x 80 mm
Capacity: 3217 cc
Maximum power: 326 bhp
Transmission: six-speed Getrag manual gearbox
Chassis: steel unitary construction
Suspension: independent with MacPherson struts and anti-roll bar front; semi-trailing arms and coil springs rear; electronically-controlled Koni dampers all round
Brakes: servo-assisted ventilated discs all round
Bodywork: steel two-door 2+2 coupé
Maximum speed (approx): 168 mph (270 km/h)