

PEUGEOT 605 V6



Double Entendre

Peugeot's 605 shares its drivetrain with Citroen's XM and its styling themes with Alfa's 164. PETER ROBINSON found the blend pleasing





Cabin is roomy, rear seats useful. Engine for Australian models will be 12 valve version of the 3.0 litre V6



EVEN THE experts were fooled. Three years ago, before the release of the 405, ace scoop photographer Hans Lehmann caught a new Peugeot sedan on secret testing in France. His images of the handsome Pininfarina-styled car were sent to motoring magazines around the world to be examined in detail by a variety of journalists schooled in identifying new models. At the time, nobody realised the car they all called 405 was actually Peugeot's BMW challenger, the much bigger 605, which eventually made its public debut at the Frankfurt Motor Show last September.

You get the point. Peugeot's new sedan looks remarkably like the 405. The family resemblance is obvious. Too obvious, some would say. What nobody can deny is that it's also an attractive, stylish car. Efficient too, with a Cd factor of just 0.28 for the fours and 0.30 for the V6s. Yet, not only is the 605 closely related to the smaller Peugeot in appearance – to the point where they are difficult to distinguish at a glance – but there are distinct similarities in profile and general form with Alfa's sized 164, also designed by Pininfarina.

Peugeot is clearly aware of this assessment and responds by drawing a parallel with BMW's Five and Seven

series cars. The difference is that BMW began with the Seven and went down a class with the Five. Peugeot is trying to do the reverse, a much harder objective in the class-conscious luxury bracket where image and charisma count for a great deal. This is especially true when you're trying to break into a segment presently monopolised by the Germans and under attack from the Japanese.

Despite these daunting hurdles and the relative failure of the 604 – its previous entry in the upmarket luxury bracket – Peugeot remains confident its ambitions are perfectly realistic. During a seven year life span the 604 could only sell 150,000 units, the best year being 1977 when 36,000 were shifted. Today, Peugeot predicts it will sell 100,000-plus 605s in 1990 – a bold claim given the role prestige and tradition play in this market – and has the capacity to build up to 650 cars a day, if the demand is extremely strong.

Peugeot being Peugeot, the 605 doesn't replace the 505. The product planners from Automobiles Peugeot would like you to believe the new 605 is one full class further up the prestige ladder. Even so, the 505 model line-up has been reduced – the V6 version was dropped in June '89 – at the top end with the arrival of the new model. How-

ever, since Peugeot has no plans for a 605 wagon variant, the 505 wagon is expected to continue well into the 1990s, even if the range of sedans is severely cut as production of the 605 increases.

Peugeot sees the 605 blitzing the ground presently held by the BMW 525/535 and Mercedes 260E/300E models. And they're the models the Australian Peugeot importer, JRA Limited, will be aiming at when the car goes on sale down under in November at around \$80,000. While Europe has access to a wide variety of 605 models – two 2.0 litre fours and two 3.0 litre V6 engines, in four trim levels, to be joined by diesel versions early this year – Australia will see only one 605, with the 12 valve version of the V6 engine tied to ZF's 4HP18 automatic transmission and with a very high specification level.

JRA Limited has chosen wisely. The two four-cylinder 605s – despite Peugeot's denials, the true successors to the 505 – lack the refinement and performance necessary to compete at the upper end of the class JRA Limited is aiming at, while the 24 valve engine is a manual-only model (at least initially) and in some circumstances stretches the front drive chassis to its limits.

Under the skin the new 605 shares engines, transmissions, brakes and some floorpan and front suspension components with Citroen's new XM but the bodies are entirely different, the 605 being built on a slightly shorter wheelbase than its PSA relative. Still, it's a big car with a wheelbase of 2800 mm, an overall length of 4723 mm, a width of 1799 mm and weighing 1415 kg. That makes the 605 almost the same size as the Falcon, although its front drive layout means there is even more interior room.

As Europe turns increasingly green Peugeot has decided only to build the V6 engine in three-way catalyst form. This engine owes its origins to the old Peugeot/Renault/Volvo V6, but PSA's all-alloy ZPJ engine can almost be considered a new unit. Certainly it is far smoother, quieter and more powerful. Oversquare in bore and stroke, the single overhead cam engine now has a capacity of 2975 cm³ and develops 123



605 corners flat, has plenty of grip and poise

kW at 5600 rpm and 235 Nm of torque, at what appears to be a high 4600 rpm. With a 90 degree angle between the banks of cylinders, the engine lacks the perfect primary balance of a 60 degree V6, so Peugeot's engineers have fitted a chain-driven balance shaft above the overhead cam of the front bank of the transversely mounted engine.

There's more innovation on the ZPJ 4 24 valve V6, destined to make an appearance in the XM during 1990. As well as 12 extra valves – operated from the same single camshaft – there's a variable geometry intake system that uses three motorised butterflies to create three different length intake routes de-

pendent upon engine speed. Below 4000 rpm each cylinder bank has its own separate intake. From 4000 to 5000 rpm two valves open to link the intakes, while above 5000 rpm a central valve opens to link two arms of the long U-shaped manifold.

It's all about providing a flat and progressive torque curve from the multi-valve engine. Peugeot claims the torque remains above 250 Nm between 3200 and 5500 rpm and over 200 Nm between 1500 and 6000 rpm. It's eager and responsive at the top end and doesn't feel much stronger than the 12 valve engine in the mid range. It certainly needs at least 3000 rpm on the dial before it begins to perform, coming on strong and powerful from 4000 rpm to the cut-out at 6450 rpm. Only a sensitive driver will be aware of the engine's slight hesitation as it pulls through the 4000 to 5000 rpm intake change-over points. Peugeot says the 24 valve sedan will run to 235 km/h and cover the 400 metres in only 15.8 seconds. That's faster than a 535i BMW.

The base V6 certainly feels swift and smooth, once the crankshaft is spinning at over 3500 rpm. It's now a fine engine with a healthy mechanical, rather German note as revs rise. Not so the gearchange, for the cable shift is rubbery and slow. The big and extremely powerful disc brakes are rather sudden in their initial action, although the pedal does become spongy when braking

Peugeot claims the system is capable of giving the ride comfort of anything between a 505 and a 205 GTi, all in the space of 150 milliseconds. That's the theory. If my experience is typical I'd advise JRA Limited to ignore the manual operation for the expensive and complicated damping system and opt for automatic change-over. On soft the ride is excellent, supple and absorbent, the car gliding across any potholes and irregularities in the road surface in a fashion that reminds me of the Jaguar XJ6. There's a considerable difference between the two settings, so that if hard is selected permanently the ride becomes much firmer and there is a nerv-

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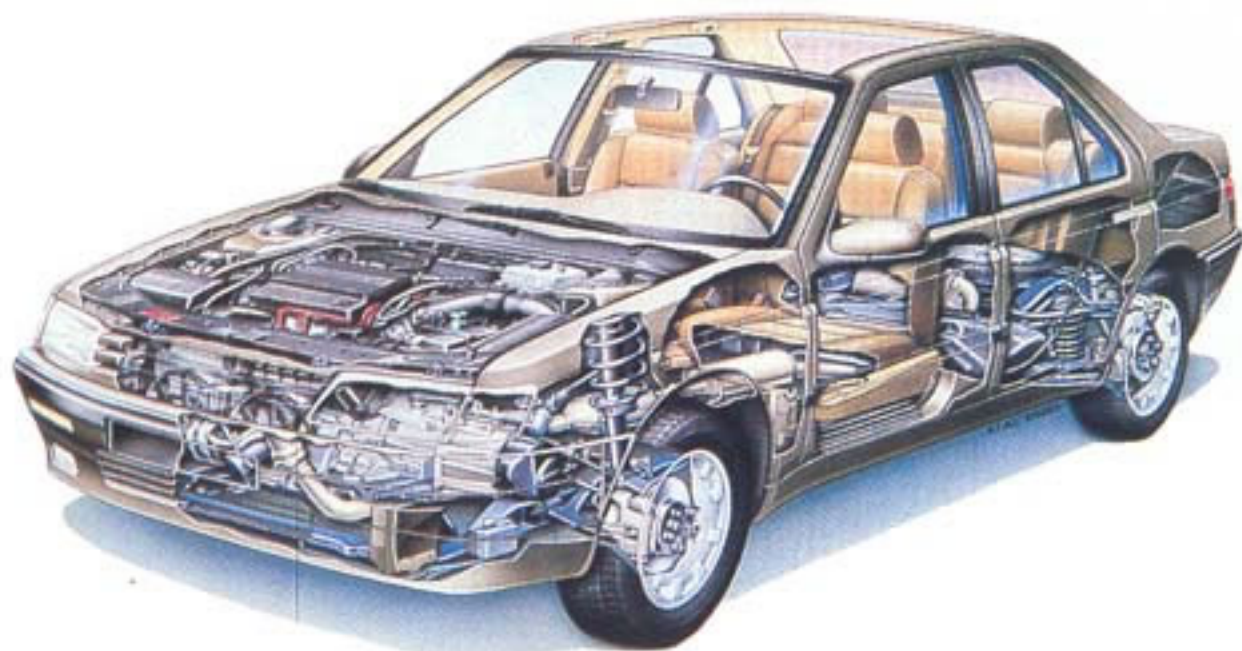


ous, jiggling motion that is out of character with the 605's purpose. Leave the system to decide for itself and on twisty or bumpy roads the suspension will stay on firm for as long as is deemed necessary by the sensors.

Even so, there's a clear deterioration in ride quality and road noise levels. The roadholding benefit is far less noticeable and brings into serious question the validity of Peugeot's damping system. Since the balance and poise of the four-cylinder car's chassis are close to flawless, maybe Peugeot's marketing department believes an automatic damping system is a necessary engineering innovation for a 1990s car. Perhaps the damping system came off the shelf from Japan at a very late stage in the car's development program. That's

hard. When I drove the 605, Peugeot still hadn't built any automatics – they're scheduled for launch at the same time as the diesel in March – so we were limited to the five-speed manuals.

In seeking to give the 605 a compliant ride with taut roadholding, Peugeot uses electronically controlled dampers on both V6 models. Surprisingly, in view of Peugeot's long tradition as one of the few car makers to build its own dampers, the engineers have been unable to find exactly the right combination in Europe. The 605 gets Japanese Kayaba dampers with a Nippondenso control system. There are five sensors monitoring steering wheel angle and turning speed, which position the front anti-roll bar is in, the rate of acceleration, braking pressure and road speed.



certainly the impression I get.

Cornering is flat and fast, with the merest trace of understeer and excellent roadholding from the 205/605VR15 MVX2 Michelins. Only in the 24 valve car is there more than a hint of torque steer. At speed the steering is brilliant. And it combines sharp turn-in with a relatively tight turning circle. Below 80 km/h, however, the steering's Bendix infinitely variable assistance is less impressive. The steering is very light at parking speeds and the consequent change in weight excessive. Peugeot says there's no increase in weight until 80 km/h, when it gradually builds up. At 180 km/h there is an absolute minimum of assistance. However, the change-over point seemed to be closer to 40 km/h on the cars I drove and, like the ZF Servotronic steering on the big BMWs, it's far too apparent. Since the system is controlled by computer it shouldn't be too difficult to re-program the level of assistance to provide a more consistent supply of feel.

Where the 605 really wins out is in its interior spaciousness. This is a big car with a very comfortable driving position – one lever controls both steering wheel reach and rake – and one of the finest and roomiest rear seats around. Anybody taller than 1.8 metres will find head room a little tight. If the exterior appearance resembles the Alfa 164, so does the design of the dashboard. But there has also been an obvious attempt at giving the car a German look and feel.

Finish is better than we have come to expect from Peugeot, but has yet to match the quality standards of Mercedes-Benz. The top of the dashboard is remarkably low, the base of the windscreen being a long way from the driver. You sit high on deep and supportive cushions. Instruments are few, but clear and legible, and there's an inbuilt trip computer. Equipment also includes remote control central locking, electric windows and mirrors, some restrained woodwork and, almost certainly in Australia, automatic air-conditioning.

Few, if any, cars are going to be as comfortable as the new Peugeot.

From the prominent, heavily recessed body crease that so effectively links both ends of this car, the Peugeot 605 strives to walk a tightrope between being too different and too conservative. If the 405 is successful in Australia then the 605 has a real chance to make its presence felt. It has all the right credentials, but JRA Limited knows only too well that this is often not enough to make a real impact. If the 405 fails to win a steady audience and reputation for quality, then the 605 is going to find cracking the hard-nosed Australian executive market tough indeed.

PEUGEOT 605 V6

GENERAL:

Transverse front engine, front wheel drive
List price \$65,000-\$75,000 (estimated)

ENGINE:

Type 90 degree V6, single overhead camshaft per bank, single balance shaft, variable geometry intake system
Bore x stroke 93 mm x 73 mm
Displacement 2975 cm³
Compression ratio 9.5:1
Fuel system electronic fuel injection
Power 123 kW @ 5600 rpm
Torque 235 Nm @ 4600

TRANSMISSION:

Five-speed manual
Gear ratios (I) 3.167 (II) 1.833 (III) 1.25 (IV) 0.968 (V) 0.767
Final drive ratio 4.066

MEASUREMENTS:

Wheelbase 2800 mm
Length 4723 mm
Width 1799 mm
Height 1415 mm
Kerb weight 1415 kg
Fuel tank capacity 80 litres

SUSPENSION:

Front: Independent, lower wishbones, coil spring strut, anti-roll bar
Rear: Independent, double wishbones, lateral link, coil springs, anti-roll bar

BRAKES:

Ventilated discs/solid discs, anti-lock optional

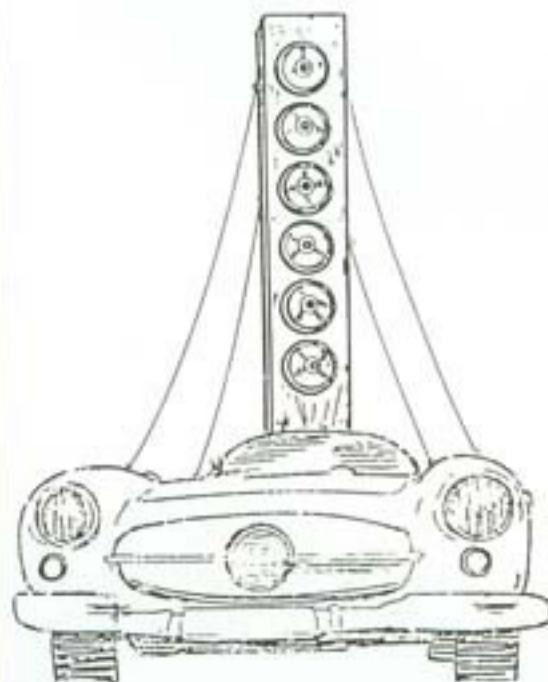
TYRES:

205/60VR15

PERFORMANCE: (Manufacturer's figures)

0-100 km/h 9.7 s
Standing 400 metres 16.7 s
Top speed 222 km/h

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automatic air conditioning and leather seats fitted to various 605s all seemed extremely worthwhile and the power steering, electric windows and central locking were necessary accessories for the 605's market sector.

Dynamically, the car felt quite like a scaled-up 405; however, the V6 engine offers far more performance than a basic 405 and the 605 misses the super-sporty suspension of the 405 Mi16.

What emerges is a car which could handle the worst of Australian roads, with Peugeot's famed long-travel suspension, with handling which still encourages the driver to enjoy a journey.

It is always tough — and dangerous — to draw conclusions from an overseas experience but Egyptian roads are sufficiently similar to Australia, apart from the donkeys et al, to assume that the 605 will do well here.

For Peugeot it is an important car, but the 605 has been well developed to help the company step up a class from its existing model lineup. In Australia it won't be a mainstream player, but will still be a significant and worthwhile addition which will make things even tougher in the luxury market.

CAR

MODEL	Peugeot 605
BODY	Sedan
SEATING CAPACITY	Five
WARRANTY	N/A
BASE PRICE	N/A
OPTIONS FITTED	N/A
PRICE AS TESTED	N/A

ENGINE:

Location.....	Front
Cylinders.....	V6
Capacity.....	2975cc
Bore/stroke.....	93x73mm
Block.....	Cast iron
Head.....	Alloy
Valve actuation.....	SOHC
Induction.....	Multi-point fuel injection
Compression ratio.....	9.5:1
Power.....	123kW at 5600rpm
Torque.....	235Nm at 9600rpm
Specific output.....	41.3kW per litre
Power/weight ratio.....	11.9Kg per kW

TRANSMISSION:

Gearbox.....	Four-speed automatic
Driving wheels.....	Front

BODY:

Kerb weight.....	1460kg
O/A length.....	4723mm
O/A width.....	1799mm
O/A height.....	1415mm
Wheelbase.....	2800mm

Front track.....	1527mm
Rear track.....	1527mm

SUSPENSION:

Front.....	MacPherson struts stabilizer bar
Rear.....	Independent, lower arms, coils, dampers

STEERING:

Type.....	Rack and pinion
Turning circle.....	11m
Turns lock to lock.....	3.3

BRAKES:

Front.....	Ventilated discs
Rear.....	Discs

WHEELS:

Material.....	Alloy
Diameter/width.....	N/A

TYRES:

Make/type.....	N/A
Diameter/width.....	N/A

PERFORMANCE:

WEATHER	N/A
ODOMETER READING	N/A

STANDING START: (claimed)

0-100km/h.....	10.9
400 metres.....	17.5