

Peugeot 405 1.6GLi



IN THE PAST WE'VE FOUND THAT THE best 405s were the bigger-engined, plusher-trimmed ones. However, a lot of development work has gone on behind the 405 1.6GL's unchanged exterior styling – and it shows on the road.

This report embraces two 1991 models – one with a catalyser (that will take over completely from the cheaper carburettor version next year) and one without. At present, nearly £600 separates them.

Our tests reveal a surprise. The cat car uses less petrol and has much smoother, gulp-free accelerator response, especially in the warm-up period. Of course, our mpg tests include cold starts that the 'official' figures disregard, so unless you use your car non-stop, you'll get the same results as us!

Both versions are quieter when cruising nowadays, and tyre noise is the most prominent sound at mid-range speeds. Where the non-cat version pulls ahead is in overtaking ability, as our

tables show; a 30–70mph time that's $1\frac{1}{2}$ sec slower puts the catalysed version at a disadvantage, compared with the competition.

Where the 405 reigns supreme is in matters of comfort. Its unflurried ride and excellent back seat will win the approval of disinterested passengers, while the driver enjoys the car's stable handling qualities at the same time. The cat version runs on wider tyres and, without the now-optional power assistance, parking and enthusiastic cornering are spoilt by its unwieldiness. The brakes are on the heavy side, too.

Of course, this is a conventional four-door saloon with a boot, with no clever tricks to convert or fold anything – except for a ski-hatch which would just about allow you to poke through a bit of four-by-two.

The GL's interior is much nicer nowadays and the equipment list is longer, as well. Most of the

Living with the 405 . . .

equipment works very considerably – the central locking and courtesy lamps merit special praise and the heating and ventilating work well. Drivers should make sure they're comfortable with the slightly unusual driving position but otherwise, the 405 feels very civilised.

In a closely contested market sector with several impressive cars, the 405 certainly doesn't come top for performance, economy, adaptability or even sheer space. But it does offer something special with its handling and comfort that needs mileage and familiarity to appreciate.

The revisions in production have obviously sharpened its competitiveness in terms of interior trim and equipment. However, it's a more well-mannered performer these days, with less noise and fewer irritating mechanical foibles, that previously obscured the excellence of its fine chassis.

The 405 is now a much better saloon than mere statistics might suggest.

At the Wheel

Driving position

There's something peculiarly Peugeot about the relationship of wheel to seat that old 504 and 505 owners will recognise. It's not uncomfortable, but you do have more of your weight tipped on to the small of the back, and the lumbar adjuster aims its attentions a bit too high up the spine. More rearward seat travel would be appreciated by the lanky, and although the steering wheel can be adjusted for height, the seat can't.

Controls and displays

A year or so ago, some minor mods fixed our grouses about muddled instruments and the tacky plastic facia mouldings in cheaper

405s. Things are a lot better now, with new dial graphics on clear view through a restyled steering wheel. The speedo's more accurate, too, reading 2–3mph high. The facia still rattled on our car, though. The gearshift doesn't get top marks, but the lever moves more freely these days and the medium-weight clutch engages progressively – all very workmanlike. A low-level lamp enhances the excellent realistic range of the fuel tank.

Vision

The interior mirror is very stiff to dip, but the manual door mirrors are easier to adjust nowadays – they don't fold completely flush with the door flanks, though. The wipers have washers that emerge at several points along the blades, so improving aim, and the headlamp beams can be reset with finger-screws under the bonnet. Vision for reversing isn't too bad, but the manual steering is formidably heavy when parking.

Driver satisfaction

Because of its weight, the manual steering puts a damper on the 405's cornering prowess – especially on the wider-section rubber used on the cat version. The nicely weighted powered option allows the 405's fine chassis design to emerge more distinctly.

The model's handling and ride are clearly a cut above the class average and put many posher executive sector saloons to shame. It corners with unflurried precision and even the manual steering gives good feel and accuracy – if your wrists are strong enough.

The catalysed version finally deals with the carburation jerkiness and fuel profligacy in the warm-up phase, that have always marred the 1.6's driveability. Both versions are also quieter than formerly, providing good cruising refinement up to illegal speeds. The engine becomes harsher and

raucous when revved hard for best acceleration, however.

Space & Comfort

Getting in and out

There are some nice details, such as a powerful remote control for the central locking that simultaneously operates both front and rear roof lamps. The fuel filler and boot are also covered.

Seating and ride comfort

Passengers love the 405 – not only does the suspension make cats'-eyes and familiar road faults virtually disappear, but the back seat draws high praise for its comfort. Space is a respectable class average, but it's the angling and support that Peugeot has got right.

Heating and ventilation

Easy-to-understand rotary controls, including one for progressive fan boost, make precise temperature and directional output easy and quick. Screen and facia ventilators can deliver simultaneously and the latter also have independent, individual controls. The vents gradually turn warm as the wick is turned up, but not too prematurely to create a stuffy atmosphere.

Although the vents are lacking in throughput in warm weather, there's an electric tilt and slide sunroof to deal with that contingency; it's not as buffet-free as a Cavalier's, however.

Interior trim and equipment

This aspect was criticised in our first GL report in 1988, but things have improved recently. The seat fabric is particularly sensible yet plush, and the Lego-like look of the facia mouldings has improved. The radio/cassette player works well now, although the aerial mast on a rear wing isn't a good idea.

Luggage and oddments stowage

The conventional fixed back seat

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405 1.6GL (with catalyser)

PERFORMANCE

Acceleration time in seconds

STANDING START	0-30mph	4.0	0-60mph	12.6	1/4 mile	19.1
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mph	30	40	50	60	70
THROUGH THE GEARS	2.4 5.1 8.6 13.3				
IN 5TH GEAR	7.7 14.9 22.5 31.3				
IN 4TH GEAR	5.0 10.0 15.5 21.5				

20 mph	30	40	50	60	70
5TH/4TH SPEED RANGES	15.8/10.5 14.8/10.5 14.9/10.0 16.4/11.5				

Maximum speeds

REVS PER MINUTE	1st	2nd	3rd	4th	5th	1	3	5
		6500*		6250	4850	31	83	105
						58	106	
						2	4	
						mph		

*for best acceleration

FUEL CONSUMPTION

Fuel grade for tests: unleaded Premium, 95 octane

Normal range	mpg
Hard driving, heavy traffic	28 ¹ / ₂
Short journeys in the suburbs	27 ¹ / ₂
Motorway – 70mph cruising	38 ¹ / ₂
Brisk driving, mixed roads	36 ¹ / ₂
Gentle driving – rural roads	42 ¹ / ₂
Typical mpg overall	36¹/₂
Realistic tank range*	62 litres/500 miles

*based on gauge/warning lamp and filling station experience

405 1.6GL (without catalyser)

PERFORMANCE

Acceleration time in seconds

STANDING START	0-30mph	3.8	0-60mph	11.6	1/4 mile	18.6
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mph	30	40	50	60	70
THROUGH THE GEARS	2.2 4.5 7.8 11.8				
IN 5TH GEAR	6.7 13.3 19.5 27.2				
IN 4TH GEAR	4.6 8.9 13.7 19.0				

20 mph	30	40	50	60	70
5TH/4TH SPEED RANGES	13.6/9.3 12.8/9.1 13.3/8.9 13.9/10.1				

Maximum speeds

REVS PER MINUTE	1st	2nd	3rd	4th	5th	1	3	5
		6500*		6500	5140	30	81	110
						56	108	
						2	4	
						mph		

*for best acceleration

FUEL CONSUMPTION

Fuel grade for tests: unleaded Premium, 95 octane

Normal range	mpg
Hard driving, heavy traffic	28 ¹ / ₂
Short journeys in the suburbs	24 ¹ / ₂
Motorway – 70mph cruising	37 ¹ / ₂
Brisk driving, mixed roads	34
Gentle driving – rural roads	39 ¹ / ₂
Typical mpg overall	34¹/₂
Realistic tank range*	62 litres/470 miles

*based on gauge/warning lamp and filling station experience

HOW IT COMPARES

	Engine cap/power (cc/bhp)	Max speed (mph)	30-70mph through gears (sec)	30-70mph in 5th/4th gears (sec)	Fuel economy (mpg)	Brakes best stop (%g/lb)	Maximum legroom – front (in)	Typical leg/kneeroom – rear (in)	Steering turns/ circle (ft)	Overall length (in)
Peugeot 405 1.6GLi (Catalyst)	1580/89	106	13.3	31.3/21.5	36 ¹ / ₂	93/85	42 ¹ / ₄	39 ¹ / ₂ /28 ¹ / ₂	4.2/35	173 ¹ / ₂
VW Passat 1.8L (Catalyst)	1781/90	111	12.6	25.1/19.0	35 ¹ / ₂	95/37	42	42/31 ¹ / ₄	4.2/33	180
Vauxhall Cavalier 1.8L	1796/90	111	11.1	27.3/18.8	38 ¹ / ₂	102/50	42	38 ³ / ₄ /28 ³ / ₄	3.5/34 ¹ / ₂ (p)	174 ¹ / ₂
Fiat Tempra 1.6SX	1581/86	110	13.7	24.7/19.2	35	90/60	41 ¹ / ₂	40/28 ³ / ₄	3.0/35 ¹ / ₂ (p)	171 ¹ / ₂
Nissan Primera 1.6LS	1597/95	112	11.5	30.4/20.7	36 ¹ / ₂	100/50	43	39 ¹ / ₄ /28	3.1/35 ¹ / ₂ (p)	173 ¹ / ₄

(p) = power assisted

has just a 'ski-hatch' behind the centre armrest – in the 405 range, you need the commodious estate car if you want to carry lots of gear around. Mind you, the saloon's boot floor is flat and well shaped, but the load height is limited and the sill is high. There are useful oddments spaces up front, but not much in the rear and none is lined to prevent rattles.

Money Matters

Value for money

Peugeot 405 prices rise steeply as

the trim level improves; as the GL or even the Style is now much better turned out, it pays to look long and hard before venturing towards the GR and GTX.

Depreciation over the last two or three years has been heavier than for the Peugeot's relative, the Citroën BX, which uses the same engine. The Cavalier has kept its value better, too.

In service

The 405 is, of course, UK built and is competing in the lucrative fleet market. Parts' prices are very competitive and the servicing

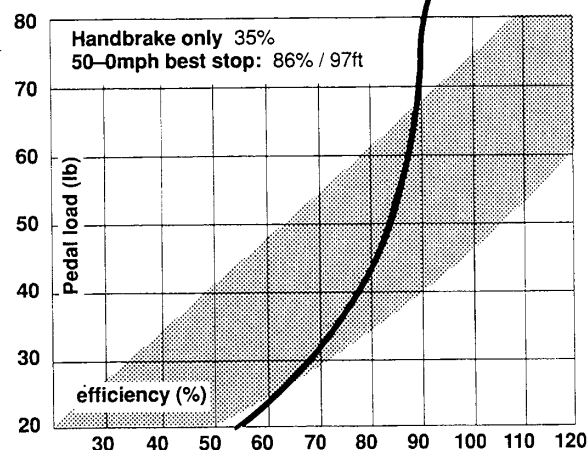
schedule isn't too onerous, but the warranty terms insists that a franchised dealer performs it. There are also chargeable checks to keep the anti-rust warranty valid – two hours labour for each of two checks, even if nothing needs to be done.

The bonnet is heavy to raise, and if you venture into DIY, the handbook won't be much use. The oil dipstick is a funny spindly affair and the pressure cap must be removed to inspect the coolant. Most other details, such as the distributor, are too daunting for non-specialised attention.

SAFETY

Brakes

How pedal loads affect braking



Braking efficiency shown as a percentage of gravity (ie 100% = 1.0g)

Ideally the braking curve should fall within the shaded zone of this graph. If it's above, the brakes are too heavy; if it's below, they are too light – particularly on cars without ABS. When the curve becomes broken, the wheels are skidding.

Fade test

How hard use or water affects braking. (Ideal brakes show no change.)

Pedal load needed for 75% stop (lb)

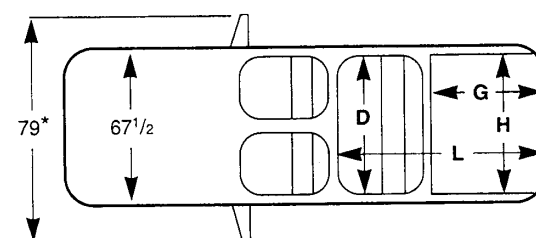
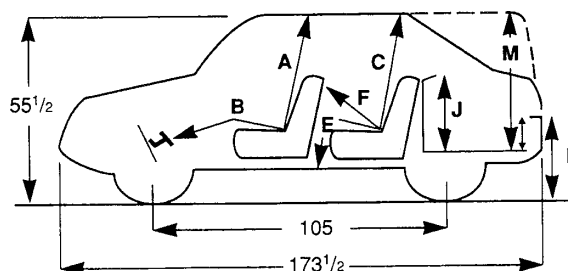
35	At start of test
45	After constant use
57	After severe use
NA	After watersplash
NA	Number of stops to recover

Safety check list

Steering	true 'feel' of the road?	☒
Brakes	powerful?	☒
	sensible effort?	☒
	fade resistant?	☒
Seatbelts	front – effective?	☒
	convenient?	☒
	rears – effective?	☒
	convenient?	☒
Head restraints	front – effective?	☒
	rear – effective?	☒
Interior	thoroughly padded?	☒
Fuel	shielded filler?	☒
	protected tank?	☒

MEASUREMENTS

Dimensions (inches)



*74 with mirrors folded

Inside (inches)

A Front headroom (with sunroof)	37 (35)	G Load length	38
B Front legroom (min - max)	34-42 1/4	H Load floor width (min - max)	44-52 1/2
C Rear headroom	36	J Load height	18 1/2
D Back seat width (between armrests)	52	K Sill height (inner/outer)	13 1/2/33
E Typical rear legroom	39 1/2	L Load length	—
F Typical rear kneeroom	28 1/2	M Load height (to tailgate hinge)	—

Kerb weight in lb (full of fuel)

2400

*'Typical' represents the mean measurement behind the driver's seat set at 39in legroom and the passenger's seat set at 41in

Fuel economy

You expect a small but discernible increase in consumption with a catalysed version, but our tests reveal that the 1.6GLi's more accurate fuelling results in a 2-3mpg improvement over the carburettored car's poor results. There's no pinking or jerky hesitance on light throttle, either. It's a slower car, however, so the old mechanical rule 'you don't get owt for nowt', again applies. What you do get is an outstanding range between forecourt visits, although you can't pump fuel in too rapidly for fear of it spraying back over your hand on the nozzle.

Safety

Accident avoidance

The 405's brakes feel OK in everyday situations, but the high pedal load required for emergency

stops is unusual these days. The good thing is that it really is easy to avoid skidding, but the problem is being able to summon up the strength. Our non-catalysed version on 165-section tyres needed slightly less effort than the brake chart shows for the cat car. It peaked at 60-70 lb load, at the same 93 per cent of gravity – not an outstanding result, as our rivals table reveals; the Cavalier and Primera do better. Fade is a problem, too, especially in view of the firm footwork required even before it sets in.

Injury prevention

Occupants liked the light tension of the seatbelts and the adjustable front shoulder mounts; buckles are not so easy to find – or avoid – in the back, however.

Security

The fixed back seat and the

powerful remote control for central locking (that includes the boot), add up to better-than-usual luggage security. The radio aerial is not listed and the electric roof and windows don't shut with the central locking.

Durability

Build quality

You don't get shiny paint inside the boot or under the bonnet in a 405, but there's chip-resistant paint on the lower door sills, and wheelarch liners are fitted. The bumper shields are part-painted, which compromises their protective value in the cause of glamour.

We had several faults and failures with our test car's fittings and equipment; we don't find the model's reliability totally reassuring.

TECHNICAL SPECIFICATION FOR 1.6GLi CAT

ENGINE

Type and size front-mounted, transverse 4 in line, inclined 30 degrees rearwards; water-cooled. 83mm bore x 73mm stroke = 1580cc. Aluminium alloy block and head; 5 main bearings

Compression ratio 8.9:1

Valve gear belt-driven overhead camshaft, actuating two valves per cylinder via bucket tappets (shim adjustment)

Fuel system single-point fuel injection and three-way regulated catalyser, linked by Lambda sensor. 70-litre (15½-gallon) tank, with low-level warning lamp. Fuel required: unleaded only, 95 octane minimum

Ignition system fully programmed electronic

Maximum power (DIN-net) 89bhp at 6400rpm

Maximum torque(DIN-net) 97½ lb ft at 3000rpm

TRANSMISSION

Clutch 8in diaphragm-spring, dry-plate; cable-operated. Pedal load/travel: 27 lb/5in

Gearbox 5-speed (all synchromesh) and reverse.

Ratios: first 3.45, second 1.85, third 1.28, fourth 0.97, fifth 0.76 and reverse 3.33:1

Final drive 4.19:1 to front wheels

Mph per 1000rpm 21.7 in top, 17.0 in 4th

Rpm at 70mph 3230 in top gear

CHASSIS

Suspension front: independent by MacPherson damper/struts with coil springs and an anti-roll bar. Rear: independent by trailing arms with transverse torsion bars and an anti-roll bar. Dampers: telescopic all round

Steering unassisted rack and pinion standard (power assisted steering optional extra) with 4.2 turns between full locks (3.5 turns with PAS). Turning circles average 35ft between kerbs, with 71ft circle (54ft with PAS) for one turn of the wheel

Wheels 5J steel with 175/70R14 85T tyres (Goodyear GT70 on test car).

Brakes 10½in solid discs front, 9in drums rear, with vacuum servo