Peugeot 406

What's new?
A plethora of interior enhancements, affecting creature comfort and control.
New and revised two-litre engines for both petrol and diesel buyers

Facelifted versions, halfway through a model’s life, are frequently more impressive, more rounded in their appeal than all-new designs. When a completely new or significantly revised engine is launched at the same time, this only adds to the attraction.

The latest 406 qualifies on all counts. Subtle exterior cosmetic tweaks are accompanied by interior trim and equipment changes that enhance the model’s ambience, to give a real quality feel to our wood-veneered GTX.

Underbonnet changes to the two-litre petrol version are far-reaching, improving economy, Peugeot claims, by 10 per cent – we averaged 32½mpg when we tested the earlier version. But the real interest is in the new HDi diesel, complete with “common-rail” fuel delivery under very high pressure. This augments the switch to direct injection that Peugeot has been slower to adopt than VW and Vauxhall/Opel.

Perhaps Peugeot’s procrastination was due to its anxiety about DI’s inherent proneness to harshness and low-speed vibration, compared with indirect injection – its previous diesels have always been regarded as the most civilised around. Now that it has made the switch, it’s undoubtedly paid off in terms of enhanced acceleration, a 6mpg fuel economy gain and, especially, lower emissions – necessary to meet the political tightening of the screw. However, despite a special flywheel damper for this 110bhp version, the NVH problem, below 1500rpm, is still only too evident.

Because they produce lashings of lovely low-rev torque (pulling power), turbo-diesels’ gearing is always high and long-striding, so it’s 45mph before the engine is doing more than 1500rpm in top (and 35 in fourth). This

Continued on page 3
PERFORMANCE

<table>
<thead>
<tr>
<th>mph</th>
<th>30</th>
<th>40</th>
<th>50</th>
<th>60</th>
<th>70</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>THROUGH THE GEARS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 mph</td>
<td>40</td>
<td>50</td>
<td>60</td>
<td>70</td>
<td></td>
</tr>
<tr>
<td>5TH/4TH SPEED RANGES</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

Maximum speeds

<table>
<thead>
<tr>
<th>REVS</th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
<th>5th</th>
<th>6th</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4500*</td>
<td>4500*</td>
<td>4000</td>
<td>117</td>
<td>117</td>
<td>117</td>
</tr>
</tbody>
</table>

* for best acceleration

SAFETY AND SECURITY FEATURES

Assessed on their effectiveness and convenience (the more black blobs the better)

- Seatbelts
  - front ●●●●●
  - rear ●●●●
- Door locking
  - central locking?
  - remote control?
- Head restraints
  - front ●●●●●
  - rear ●●●
- Interior
  - safety padding ●●●●
  - driver's airbag? ✓
  - other airbags?
  - side impact protection ●●●●
- Luggage
  - secure from interior/hidden from view ●●●●
- Fuel anti-spillage ●●●●
  - engine immobilised?

BRAKES

Dry road stopping distance from 50mph (with standard ABS)
A good-to-average best stop is about 26m at 15-20kg pedal load)

<table>
<thead>
<tr>
<th>Pedal load</th>
<th>8kg</th>
<th>11kg</th>
<th>16kg</th>
<th>22kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance</td>
<td>34m</td>
<td>31m ABS just working</td>
<td>29m (.87g - best stop)</td>
<td>29½m</td>
</tr>
</tbody>
</table>

Fade test: pedal load required for a moderate (34m/.75g) stop: 8kg at start of test, 10kg at end of test (Ideal brakes show no change)

MEASUREMENTS

<table>
<thead>
<tr>
<th>Centimetres</th>
<th>37</th>
<th>42</th>
<th>53</th>
<th>84-103</th>
</tr>
</thead>
<tbody>
<tr>
<td>T: typical back seat space behind medium-sized front occupants</td>
<td>180 with mirrors folded</td>
<td>98</td>
<td>75</td>
<td>95-97</td>
</tr>
</tbody>
</table>

FOR THE TECHNICAL

ENGINE

- Type: transverse four cylinder with iron block and alloy head; five main bearings
- Size: 86 x 86mm = 1997cc
- Power: 110bhp at 4000rpm
- Torque: 188 lb ft at 1750rpm
- Valves: belt-driven overhead camshaft actuating two valves per cylinder via hydraulic tappets
- Fuel/ignition: direct-injection diesel with electronically controlled mechanical injection pump and high pressure common-rail delivery - turbocharged with intercooler and exhaust catalyst, 70-litre tank, with low-level warning lamp

CHASSIS

- Suspension: front: independent damper strut with integral coil springs and lower wishbones. Rear: independent triple transverse links, single trailing arms and coil springs. Telescopic dampers and anti-roll bars all round
- Steering: rack and pinion with hydraulic (variable-rate) power assistance; 3.1 turns between locks. Turning circles average 11.25m between kerbs, with 16.4m circle for one turn of the wheel
- Wheels: 6in steel (alloy on GLX up) with 195/16R15H tyres (Dunlop on test car). Full-size steel spare on all saloons
- Brakes: ventilated discs front, solid discs rear with servo. Electronic anti-lock (ABS) and brake force distribution standard on all versions
diesel is vigorous but vibrant in low-speed acceleration, while our standard 20-40mph acceleration test proved out of the question.

In the 1500-4000+ rpm band it goes a treat, cruising unobtrusively and producing an even more impressive ability to overtake in fourth than when you work the gearbox. Gears are delightfully smooth and precise, with a new hydraulic clutch possessing equal finesse.

Handling and steering are an inspiration to the keener driver – there’s a poise and an alertness of response which only the Mondeo can match at this price and in this class, especially if passengers are demanding a reasonably comfortable time as well. The 406 is maybe a shade firmer than the old 405 and lacks the suppleness of an Avensis, but taken together (as they must be), its ability to deliver both ride and cornering prowess is very convincing.

Of course, this four-door is blatant about giving preference to people in the cosy back seats, rather than cargo in the boot. As a concession, the rear backrests tilt forwards, but their release latches are inside the boot, so enhancing security. There isn’t as much rear leg-stretching space as in some rivals, but it’s (unusually) apportioned evenly from side to side – the passenger sitting behind an average-sized driver gets more than usual.

Lots of oddments spaces plus really effective door sill protection and illumination were welcome features on our GTX – they should be provided lower down the range, as well.

Anti-lock brakes are now standard on all versions, however, as are twin airbags; the side airbags are a £175 option on GLX and below. The ABS works well, although we didn’t achieve as impressive an emergency stop as on some cars we’ve tested, and the handbrake is heavy going.

The air conditioning settings, together with ambient temperature, oil level and service reminders, are graphically displayed in a repositioned location in the facia centre and the minor controls have been tidied – most are now on stalks, including one for the radio-cassette.

A good driving position for all is now more likely, thanks to reprofiled seats using longer cushions with tilt and height adjustment, to augment the same dual (reach and rake) adjustments for the wheel; melodic horns are controlled by the full-width centre pad, surmounting its airbag. These may be mere details, but they all add up to ensure satisfaction in daily use.

VERDICT
We resurrected a 10-year-old report on the 405 turbo-diesel – its statistics are included in our comparison table. At first glance, one may glibly question whether all the research and complexity to produce today’s 406 were worth the effort.

It has no more space inside (although it’s bigger outside), only minor improvements to performance and economy, and over 240kg added to its weight. But this is to ignore the fact that today’s cars have to meet much more stringent pollution, safety and durability criteria – not to mention the whole host of creature comforts that we now like to have as standard.

The 406 runs better than ever, and at last is as nicely finished as we hope the new 206 will be in a year or two. Although this new diesel’s fuel economy doesn’t quite match that of a Passat or a Vectra, existing Peugeot/Citroën diesel owners can expect a 15 per cent improvement, with acceleration gains to match.

HOW THE 406 HDi COMPARES

<table>
<thead>
<tr>
<th>Make and Model</th>
<th>Engine cap/power (cc/bhp)</th>
<th>Revs at 70mph (rpm)</th>
<th>30-70mph through gears (sec)</th>
<th>30-70mph in 5th/4th gears (sec)</th>
<th>Fuel economy (mpg)</th>
<th>Brakes best stop (m/kg)</th>
<th>Maximum legroom - front (cm)</th>
<th>Typical legroom - rear (cm)</th>
<th>Steering turns (p)</th>
<th>Overall length (cm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEUGEOT 406 2.0 HDi</td>
<td>1997/110</td>
<td>2400</td>
<td>12.0</td>
<td>23.1/15.6</td>
<td>48½</td>
<td>29½/16*</td>
<td>113</td>
<td>98/75</td>
<td>3.1/11.25</td>
<td>460</td>
</tr>
<tr>
<td>Vauxhall Vectra 2.0 DTi</td>
<td>1994/100</td>
<td>2630</td>
<td>11.0</td>
<td>24.7/16.5</td>
<td>52½</td>
<td>24½/28*</td>
<td>111</td>
<td>103/75</td>
<td>3.0/10.9</td>
<td>450</td>
</tr>
<tr>
<td>VW Passat 1.9TDi</td>
<td>1896/110</td>
<td>2450</td>
<td>11.1</td>
<td>21.4/15.9</td>
<td>53</td>
<td>24½/18*</td>
<td>110</td>
<td>102/74</td>
<td>2.8/10.9</td>
<td>468</td>
</tr>
<tr>
<td>Rover 420 SDi (Saloon)</td>
<td>1994/105</td>
<td>2640</td>
<td>11.3</td>
<td>26.6/16.2</td>
<td>47½</td>
<td>25½/20*</td>
<td>110</td>
<td>99/71</td>
<td>3.2/11.4</td>
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<tr>
<td>Peugeot 405 1.8 GTDT (1989)</td>
<td>1769/91</td>
<td>2770</td>
<td>13.4</td>
<td>26.6/17.5</td>
<td>47</td>
<td>28½/18*</td>
<td>109</td>
<td>101/80</td>
<td>3.2/10.8</td>
<td>441</td>
</tr>
</tbody>
</table>

* with ABS

(W) all power assisted

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