Peugeot 308 SW Allure THP 110

Published: March 4, 2015

Author: Kim Henson

Online version: https://www.wheels-alive.co.uk/peugeot-308-sw-1-2-allure/

Big-hearted, but powered by a compact 1.2 litre three cylinder petrol engine, Peugeot’s stylish 308 estate is assessed by Kim Henson…

The latest Peugeots feature a revised, very smooth frontal styling approach, including new grilles and well-integrated sloping lamp units.

On ‘our‘ 308 SW, the bright surround encompassing all the side windows, and the body lines which rise towards the rear, combine to give a sporty look.

About a year ago as I write (4th March 2015) Peugeot’s 308 was crowned ‘European Car of the Year’ at the 2014 Geneva Motor Show. It won the award by a handsome margin too, scoring 307 points, compared with the runner-up BMW i3’s 223 points, and the third-placed Tesla Model S, with 216 points (with both the BMW and the Tesla being electrically-powered).
The judges were impressed by many aspects of the newcomer 308 (vastly different to the competent model that it replaced, but bearing the same numerical designation), and the 2014 car showed the way in terms of current design thinking at Peugeot, marking a new approach across the company’s range.

Notable aspects incorporated within the fresh-faced 308 – offered in five door hatchback and SW estate forms – were completely revised styling, a new body platform (the car was shorter than its predecessor, but with a larger luggage compartment), and deliberately lightweight construction.

In fact the new 308 was said to have weighed in at up to 140 kg or approximately 309 lb less than the previous model, and of course weight reduction is good news for owners, with corresponding improvements in emissions and fuel consumption throughout the life of the vehicle. The weight reductions include: The use of innovative steels, composite materials and aluminium, saving 27 kg (approximately 59.5 lb), optimised design (including the use of a thermo-plastic tailgate), reducing weight by 33 kg (about 72.75 lb), and new assembly processes, saving a further 10 kg (22 lb).

This approach, together with repositioning the major mechanical units and the overall lower height of the car, has resulted in a centre of gravity 22mm (almost one inch) lower than was

the case with the previous 308. This aids dynamic performance.

The truly innovative interior design of the new 308 has drawn widespread praise. Notably it incorporates user-friendly touchscreen controls, a relatively compact steering wheel, and instrumentation mounted high up within the facia, for instant assimilation by the driver, without the need for he or she to take their eyes off the road.

The touchscreen set-up is used for control of the air conditioning, driver assistance systems, vehicle settings, multimedia, navigation and telephone operation. Seven buttons are divided between the left and right sides of the screen, and allow easy switching between them.

A range of state-of-the-art, latest ‘Euro 6’ compliant naturally-aspirated and turbocharged three cylinder ‘Pure Tech’ petrol engines and high efficiency ‘BlueHDi’ diesels was offered from launch.

Incidentally, although not the subject of this particular road test, the BlueHDi 1.6 litre, 120 bhp diesel version, with a six speed manual gearbox, has an official ‘Combined’ mpg figure of 88.3 mpg and an emissions rating of 85g/km – said to provide a record in this sector.

The 308 SW’s revised suspension incorporates a ‘pseudo’ Macpherson strut set-up at the front, plus a deformable beam at the rear. The rear suspension has the dampers positioned above the suspension arms, to improve ride and handling. The car’s low centre of gravity and long wheelbase combine to improve weight distribution – especially important when the vehicle is heavily laden.

Ventilated disc brakes are employed at both the front and rear, and provided excellent, progressive retardation on the example I drove.
The compact turning circle has been improved by comparison with the previous 308.

308 SW Allure THP 110 on test

For this feature I have recently sampled the SW (estate) version of the new 308, powered by

the 110 bhp version of the turbocharged three cylinder ‘Pure Tech’ petrol engine and driving through a five speed manual gearbox – there’s also a more powerful turbo variant, developing 130 bhp and with a six speed gearbox. (Note: In some versions there’s a new, highly-efficient six speed automatic transmission).

The SW estates share the widely-admired attributes of the hatchbacks, including the ‘i-Cockpit’ interior design, complete with a large (9.7 inch) touch screen in the centre of the dash. The estates are also built on Peugeot’s lightweight ‘EMP2’ (‘Efficient Modular Platform 2’) platform, used for the hatchback versions.

Instrumentation is positioned higher than is usually the case, just below the windscreen, and an unmistakable digital readout of the speed is also incorporated.

The state-of-the-art dashboard incorporates a multi-function display screen; in this shot indicating computer ‘trip’ information, average mpg and speed, etc.

The touch-screen display is used for a variety of

functions, including individual operation of the heating system for front seat occupants.

However, estate cars are all about carrying people AND ‘things’, and the load compartment of the SW versions has been built with everyday practicality in mind – more about this later.

Peugeot has a long history of building highly-respected family estate cars, and interestingly, ever since the launch of the 304 back in 1969, every generation of the company’s 300 series has included a popular estate version (typically representing about 10 per cent of the total numbers sold).

The smooth, stylish looks of the 308 SW were much-admired during my time with the test car. Personally I too feel that the vehicle looks dynamic and modern, without being over-ostentatious. The flutes built-in along the body sides catch the light in varying ways and add interest, as do the bright trims which fully encompass all the side windows. The frontal design matches that of the hatchback.

It was therefore no surprise to me to learn that the estate was designed at the same time as the hatchback, and by the same people, resulting in an ‘integrated’ family look.

Of course, there are differences, notably at the rear of the vehicle, where the load compartment lives.

For a start, the wheelbase and rear overhang on the SW are, respectively, 11 cm (approximately 4.33 in.) and 22 cm (8.66 in.) longer than on the hatchback. The longer wheelbase is used exclusively for improving space within the rear of the vehicle, especially in terms of rear seat knee room, and luggage accommodation. The rear seats are positioned 29mm (1.14in.) further back than in the hatchback, and the rear doors are longer, allowing easy entry to and exit from the seats.

Smart, comfortable, modern… The driving compartment is welcoming. We found the front seats, despite various adjustments, felt very low down in the car.

The rear seats provided plenty of head room and reasonable leg room for up to three adults. Handy elasticated pockets are built into the backs of the front seats.

The rear lamp clusters, incorporating up to 48 LEDs, are ‘wrap-around’ units (a good safety feature), which ‘continue’ onto the tailgate. (LEDs are also used in the front headlamps, on higher specification versions).

The SW is also fitted with low profile aluminium roof bars.

The smooth appearance of the vehicle is underlined by its impressive aerodynamic performance, with a Cd figure of 0.28 – said to be among the best of any current estate.

The tailgate opens from bumper-level, aiding the loading and unloading of heavy/large items. The rear lamp units run around the rear corners of the car.

The lengthened platform of the 308 SW helps give the car generous space for load-carrying, with 660 litres boot capacity beneath the parcel shelf (this figure including 70 litres of under-floor storage). With Peugeot’s ‘Magic Flat’ rear seats folded, there’s an unobstructed, level load floor and 1,660 litres of luggage space.

Those clever rear seats are worthy of special mention… They are designed to fold forwards (and back again, when required) at the touch of a lever (one on each side of the boot, permitting independent folding of the smaller and larger ‘split’ sections of the rear seat), instantly and easily. This allows both the base and backrest sections of the seat to be moved forwards/folded completely flat, in tandem. I found this system particularly easy to operate; well done Peugeot!

The luggage compartment benefits from having minimal wheel arch intrusion from the vertical side walls, and among the lowest rear (load) sill of any estate car produced today. The ‘boot’ is both wide (up to 106 cm or approximately 41.7 in.) and long (the length to the rear seat backs is 107 cm or approximately 42.1 in.).

The good news doesn't end there though, for the built-in load compartment dividers/tethering points/lashing hooks can be moved to different positions according to need (twin floor rails to which these are attached are provided), so that loads can be safely secured. An elastic strap is provided on the left side of the compartment, to hold smaller objects in position.

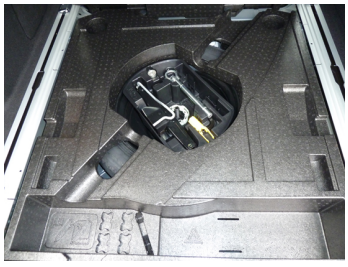
Dedicated housings beneath the main floor of the boot accommodate the luggage cover and the removable lashing hooks. On the test car, I also appreciated the useful 12 volt socket, located above the top of the left-hand side of the rear seat.

Our test car came with a 'space saver' spare wheel – so much better than the 'inflation kits' provided with many new vehicles today.

I was very impressed by the layout and design of the load compartment. It's long, wide and flat-floored, and the rear seats fold completely flat when required.

Especially helpful is the ultra-rapid 'one touch' folding arrangement for the rear seat backs, instantly converting the car to van-like load-carrying mode.

Another excellent feature of the load space is the employment of high quality, movable 'tether' points, which fold flat when not in use.



Well done Peugeot for retaining a spare

wheel (albeit a space-saver ‘emergency’ type) on this 308, mounted beneath the load compartment floor.

THREE CYLINDER ‘PURE TECH’ ENGINE

Hidden beneath the covers is a three cylinder, 1.2 litre petrol engine developing 110 bhp and providing very willing performance.

To start with, what is a ‘Pure Tech’ engine? This is the name applied to Peugeot’s recent line-up of three cylinder engines, both naturally-aspirated ad turbocharged (in 1.0 and 1.2 litre forms).

Peugeot’s aim with the turbocharged engine in our test 308 SW was to provide, from a three cylinder, 1.2 litre petrol-powered motor,

the power, torque and driveability more usually developed by a four cylinder, 1.6 cylinder unit, but with major benefits in CO2 emissions and petrol consumption. The company claims an improvement in petrol consumption of 18 per cent across the 108, 208, 2008 and 308 models (from March 2014). At the same time, the firm has sought to retain the ‘fun to drive’ aspect of its models.

The 1.2 litre turbocharged direct, high pressure (200 bar) fuel injection units (as used in the 308 test car) are the first such engines to be developed solely by Peugeot (and the motors

cover the range from 68 bhp to 130 bhp). The engines are produced at the firm's plant in Douvrin, Northern France.

Much of the improvement in all respects is due to the use of a new generation, high efficiency turbocharger (which operates at speeds up to 240,000 rpm!!!). In addition, variable timing of both the inlet and exhaust valves helps to optimise combustion.

Peugeot says that some 95 per cent of maximum torque is available from 1,500 to 3,500 rpm, thereby ensuring that the car will pull strongly, virtually regardless of engine rpm.

In arriving at the production engine, Peugeot engineers have redesigned the combustion process, to optimise the technologies applied. Aspects considered include injector position, fuel spray shape, injection speed management (up to three injections per combustion cycle), and injection pressure (up to 200 bar).

Another important feature of the PureTech engines is the use of an aluminium cylinder block with integral cast iron liners. This set-up is claimed to be light and strong, and allows the quickest possible warm-up from cold.

Peugeot says that three cylinders, of 400cc capacity each, represents the optimum efficient combustion configuration. Furthermore, direct injection delivers petrol straight into each combustion chamber, making sure that no fuel is wasted and that a greater proportion of it is converted to power to drive the wheels. In addition, the turbocharger is forcing the air/fuel mixture into the engine (as opposed to it being drawn into the unit).

Interestingly too, it is said that the use of three cylinders, rather than four, results in less power loss due to friction (which accounts for approximately 20 per cent of the power consumed) and 25 per cent less air is needed to be displaced by the pistons. The use of a 'lubricated' timing (cam) belt is just one of the measures adopted to reduce friction. In addition, a diamond-like carbon ('DLC') coating was applied to the piston pins, rings and pushrods.

It is claimed that the combined results of these measures have reduced friction by 30 per cent, compared with the previous top performance four cylinder power unit. It is said too that the electronically-controlled, variable volume oil pump is better at controlling the amount of engine oil distributed into the engine, thus reducing power losses.

Further Pure Tech engine features include:
Cooling system control, restricting coolant circulation during the warm-up period, to ensure that the most efficient operating temperature is reached as soon as possible from a cold start.

An offset flywheel, which generates counter-balancing vibrations to ensure smooth, quiet operation.

An 'instant', re-start facility… In fuel-saving 'stop-start' conditions, the electronics incorporated within the engine management system allow the engine to re-start within 400 milli-seconds (in other words, not long at all!).

The modular design of the engine means that 40 per cent of the components used in the turbocharged motors are as also used in the naturally-aspirated units.

The 1.2 litre version of this engine has been subjected to comprehensive testing, with over 25,000 hours of bench assessment, plus more than one million miles of on-road testing.

All the above benefits are helped by the efficient aerodynamic design of the vehicle, and the gear ratios have been addressed to ensure that fewer gearchanges are required in everyday driving.

ON THE ROAD

The comprehensively-equipped, mid-range 'Allure' specification on the car that 'Wheels-Alive' tested incorporated such niceties as 17 inch aluminium alloy road wheels, front fog lamps, full LED headlamps plus LED daytime running lights, a reversing camera and front

parking sensors, electrically-operated door mirrors and ‘courtesy’ approach lighting, plus aluminium boot rails. (Note: The range starts with entry-level ‘Access’ versions, moving upwards through ‘Active’ and ‘Allure’ variants, with ‘GT Line’ and ultimately ‘GT’ models topping the designation tree).

I found that the test car performed eagerly in all situations, and under hard acceleration the three cylinder engine sounded particularly sporty (but not excessively loud). I was especially impressed by its eager ‘on the move’ acceleration, its very quiet, smooth cruising (70 mph in top – fifth – gear equated to just 2,200 rpm), and its competent handling. The car loved twisting routes, and felt safe and composed at all times.

As already mentioned, I very much liked the luggage compartment layout and design; evidently much serious thought has gone into this. Mention should also be made of the wealth of storage compartments provided throughout the interior, including long bins in the front doors (with shorter ones in the rears), a lidded storage box at the rear of the centre console, and elasticated pockets built into the rear of the front seats.

‘Wheels-Alive’ comments…

The side doors cleverly incorporate fluted sections, highlighted by the sunshine in this shot. Note the long rear doors – helpful for easy entry and exit.

The five spoke aluminium alloy road wheels on our test car looked attractive and proved to be easy to clean when I washed the car by hand.

One aspect of recent Peugeots on which I'm not keen is the siting of the bonnet release handle – only accessible when the left-hand front door is open.

VERDICT

A thoroughly modern family estate, designed and built with everyday practicality and economy of use in mind.

I liked this car's excellent performance and – notably – the superb luggage compartment, also the uncluttered dash design and genuinely intuitive touchscreen control system.

Personally I wasn't so keen on the electrically-operated handbrake, the positioning of the bonnet release handle on the left-hand 'A' post (so the front passenger door has to be opened in order to reach the handle), and the very low mounting within the car's body of the front seats (passengers also commented on this aspect).

In addition, I was disappointed that my actually achieved 'real world' fuel consumption figure of a little over 42 mpg was well short of the 'Combined' figure of 58.9 mph – and for most of the test period I wasn't driving the car hard. However, to be fair, at the start of our evaluation the test car had covered fewer than 1,000 miles (so the engine was still 'tight') – and fuel consumption should be expected to improve as mileage builds.

This 308 SW will appeal to people (and especially families) in need of estate car versatility and economy of operation. At the moment it represents ‘state of the art’ thinking in so many respects; a genuinely innovative, attractive new car.

WHEELS-ALIVE TECH. SPEC. IN BRIEF

(AS APPLICABLE TO VERSION TESTED)

Peugeot 308 SW 1.2 Pure Tech 110 Stop Start Allure

Drivetrain: Front wheel drive; five speed manual transmission

Engine: 1198cc overhead camshaft, 12 valve three cylinder, turbocharged (petrol)

Power: 110 bhp @ 5,550 rpm

Torque: 205 Nm (151 lb.ft.) @ 1,750 rpm

0–62 mph: 13.6 seconds

Top speed: 117 mph

Fuel consumption official figures:

Urban, 47.1 mpg

Extra-urban, 68.9 mpg

Combined, 58.9 mpg

Actual overall figure achieved during road test (mixed driving): 42.2 mpg

CO2 emissions: 111 g/km

(Road tax, first year, zero; subsequently £30 per year)

PRICE (‘On The Road’): £20,045