



Greater comfort and sportiness at the same time

15/01/2025 Greater comfort and sportiness at the same time

The new Cayenne is equipped with steel spring suspension as standard, including Porsche Active Suspension Management (PASM) for the first time. The regulated vibration dampers for the front and rear axle used by Porsche Active Suspension Management are equipped with a new two-valve technology. Instead of one valve for damping the body and wheel movements, the damper now features two valves that allow the rebound and compression stages to be changed separately. The advantage of the new technology is a significant increase in comfort and in driving safety, thereby achieving an even broader range between the Comfort and Sport Plus suspension characteristics.

Compression and rebound when driving make different demands of the dampers positioned between the wheel and body. This means that any movements by the body must remain as smooth and comfortable for the passengers as possible. The wheel, which in contrast is considerably lighter in weight, still needs to exhibit good damping characteristics in even the worst road conditions to guarantee traction. The new two-valve technology goes a long way to resolving the conflict between

the goals of comfort for the passengers and optimal wheel suspension without compromising driving safety. Depending on the situation, the valve for the compression stage can set variable damping forces independently of the valve for the rebound stage, and vice versa. This enables the new Cayenne to offer a clearly noticeable increase in comfort with a smoother vehicle body, better handling performance and improved support for rolling and pitching movements as standard.

Optional new adaptive air suspension further enhances the driving experience. A variable spring rate outperforms the steel set-up and the previous air suspension system in combination with the new two-valve technology. The variable spring rate is implemented by means of two air chambers that can be connected or disconnected by a valve. When driving slowly and overcoming obstacles, it impresses with a particularly comfortable spring and damper characteristic and enables the new Cayenne to effectively glide over the road surface. At the same time, the more dynamic spring rate of the air suspension and the new two-valve technology significantly improves driving performance and precision while noticeably reducing body movements.

Compared to the previous model, the developers of the new two-chamber air suspension have also increased the spread of the spring rates. This allows both the firmly tuned spring rate of the Turbo GT (Cayenne Turbo GT: no offer in Europe) and the most comfortable spring rate of the previous model to be implemented in every new Cayenne with air suspension.

In the new Cayenne, the PASM is linked to the Sport Response Button on the steering wheel for the first time. Just as before, it prepares the engine and transmission for maximum responsiveness. In addition, it puts the suspension in Sport mode to get it ready for a dynamic driving situation. The function is available for 20 seconds in each case.

Wheels with a larger rolling circumference

With the use of new tyres with a larger diameter class of what is now 790 mm, Porsche has optimised rolling and edge characteristics. The increased wheel circumference allows a lower air pressure and therefore greater comfort. Thanks to their higher load capacity, the new tyres react more confidently to road damage. They also offer better performance on wet and dry surfaces as well as improved traction for all wheel sizes. The Cayenne achieves optimal driving values with the special performance tyres newly developed for the model. Their improved temperature resistance noticeably expands the vehicle's limits compared to the previous Cayenne. In addition, there are also now 22-inch winter and all-weather tyres available, developed specifically for the Cayenne.

Fundamentally upgraded suspension systems

For the revised model, Porsche engineers reworked the Cayenne's suspension systems and adapted them to the characteristics of the new tyres. A new configuration of the regulated differential lock of the Porsche Torque Vectoring Plus (PTV Plus) system significantly reduces the number of agile braking

interventions. Nevertheless, the vehicle's yaw response remains at the usual high level. This improves performance while maintaining agility. At low speeds, the steering interventions by the optional rear-axle steering are also more frequent and intensive. This leads to a more agile steering response when driving at low speeds.

The Cayenne E-Hybrid and the Cayenne S are equipped with a newly developed electric brake booster. The new hybrid model allows a smoother transition between the friction brakes and deceleration by means of energy recuperation. This leads to a consistent, natural pedal feel and ensures optimal delivery of braking power. The optimised brake control system takes the tyre temperature into account and adjusts the anti-lock brake system (ABS) accordingly, among other factors. This increases the efficiency of the braking process, especially in demanding situations, and improves the energy recovery (recuperation) from the braking process in the Hybrid model. The Cayenne S also features new brake discs with a larger diameter. They measure 410 mm at the front and 358 mm at the rear – an increase of 20 and 28 mm respectively compared to the previous car. These optimisations significantly boost the performance of the brakes in many situations and decrease braking distance in the process. The new Cayenne once again sets the standard as the sports car among SUVs.

Three optional Lightweight Sports Packages are available exclusively for the Cayenne Coupé. They reduce the weight of the vehicle by up to 33 kg and in doing so noticeably enhance driving dynamics. In addition to individual visual details and functional extras, all Lightweight Sports Packages include the carbon roof, eight-way sports seats and the 22-inch GT design wheels.

Consumption data

Cayenne Coupé (WLTP)*: Fuel consumption combined: 11.7 – 10.7 l/100 km; CO₂ emissions combined: 265 – 242 g/km; CO₂ class: G

Cayenne E-Hybrid (WLTP)*: Fuel consumption weighted combined: 4.4 – 3.9 l/100 km; Fuel consumption with depleted battery combined: 10.5 – 9.8 l/100 km; Electrical consumption weighted combined: 19.7 – 19.1 kWh/100 km; CO₂ emissions weighted combined: 101 – 90 g/km; CO₂ class weighted combined: C – B; CO₂ class with depleted battery: G

Cayenne E-Hybrid Coupé (WLTP)*: Fuel consumption weighted combined: 4.4 – 3.9 l/100 km; Fuel consumption with depleted battery combined: 10.5 – 9.8 l/100 km; Electrical consumption weighted combined: 19.7 – 19.0 kWh/100 km; CO₂ emissions weighted combined: 101 – 89 g/km; CO₂ class weighted combined: C – B; CO₂ class with depleted battery: G

Cayenne (WLTP)*: Fuel consumption combined: 11.7 – 10.6 l/100 km; CO₂ emissions combined: 266 – 242 g/km; CO₂ class: G

Cayenne S Coupé (WLTP)*: Fuel consumption combined: 12.6 – 12.0 l/100 km; CO₂ emissions combined: 288 – 273 g/km; CO₂ class: G

Cayenne S (WLTP)*: Fuel consumption combined: 12.6 – 12.0 l/100 km; CO₂ emissions combined: 287 – 272 g/km; CO₂ class: G

*Further information on the official fuel consumption and the official specific CO₂ emissions of new passenger cars can be found in the "Leitfaden über den Kraftstoffverbrauch, die CO₂-Emissionen und den Stromverbrauch neuer Personenkraftwagen" (Fuel Consumption, CO₂Emissions and Electricity Consumption Guide for New Passenger Cars), which is available free of charge at all sales outlets and from DAT (Deutsche Automobil Treuhand GmbH, Helmuth-Hirth-Str. 1, 73760 Ostfildern-Scharnhausen, www.dat.de).

Video

https://newstv.porsche.com/porschevideos/newstv.porsche.com_239219_en.mp4

Link Collection

Link to this article

<https://newsroom.porsche.com/en/press-kits/cayenne/fahrwerk-und-bremsen.html>

Media Package

<https://pmdb.porsche.de/newsroomzips/bdeb9644-be81-4fe2-a695-f3360fc16b4e.zip>