



New drive, familiar results:
Sporty driving dynamics for the Cayenne Diesel

Porsche Introduces the Cayenne Diesel for Europe

Familiar Porsche qualities with even lower fuel consumption

In February of 2009, the eagerly awaited diesel-powered Cayenne will be available. Porsche is responding to the wishes of European customers in particular for a more fuel-efficient version of this sports utility vehicle.

Porsche consistently seeks to reduce fuel consumption when developing new vehicles. Although the company's engines are becoming ever more powerful, their fuel usage is declining. With the introduction of the Cayenne Diesel, Porsche is resolutely pursuing its campaign to save energy. "We had evaluated the diesel option a number of times," says Dr. Heinz Jakob Neusser, the director of Drive Unit Development. "Now is the right time to do it. As far as the technology goes, it was relatively simple to put a diesel drive into the Cayenne." One advantage was Porsche's share in the Volkswagen Group, which is the world's largest producer

of modern diesel engines for passenger cars. This relationship opens up new opportunities to utilize diesel engines. As CEO Dr. Wendelin Wiedeking notes, "It makes sense for us to have these variants in our portfolio, and to take them out when certain markets would like to have this type of product." The decision to launch a diesel engine was also made in view of changed legal regulations, especially those in European countries that will offer tax incentives for vehicles with lower CO₂ emissions.

Porsche will equip the Cayenne with a 3.0-liter V6 turbo diesel engine with 240 hp, supplied

by Audi, a subsidiary of the VW Group. Average fuel consumption by the Cayenne Diesel is 9.3 liters per 100 kilometers, and CO₂ emissions are only 244 grams per kilometer.

One criterion in particular had to be met before adding a diesel engine to the Cayenne range. Like all Porsche cars, the Cayenne Diesel has to feature sporty driving dynamics, a strong sense of mastery, and inimitable driving pleasure. "We succeeded in doing this," says Neusser. An engineer at the Weissach Development Center, he singles out some engine characteristics to prove his point: quick throttle response, high revving

ability, and a hefty torque of up to 405 lb.-ft. (550 Nm). The Cayenne Diesel is a true Porsche.

The company is convinced that this new engine meets the spirit of the times. The V6 turbo diesel is designed to help ensure sustainable market success for the Cayenne series, of which some 45,478 (produced at the Leipzig plant) were sold in the 2007/08 fiscal year—a higher total than ever before in a single business year. The Cayenne Diesel will be offered only in Europe at first. Preparations are already underway for other countries as well. The proven Tiptronic S automatic transmission will be standard equipment in the Cayenne Diesel.

Introducing the Cayenne Diesel is a logical consequence of Porsche's quest for improved fuel efficiency. In the spring of 2007, Porsche equipped the new generation of the Cayenne with engines that use up to 15 percent less gas under real driving conditions thanks to direct fuel injection. The company is also working on a hybrid drive Cayenne that will consume fewer than nine liters of gas per 100 kilometers and will come on the market by the end of this decade.

Porsche impressed the industry in the summer of 2008 by introducing its latest 911 generation. The new engine with direct fuel injection in the 911 Carrera S features outstanding performance: 8.5 percent more power for 12.8 percent less fuel. These figures are causing quite a stir. "This type of big reduction in fuel consumption, combined with an increase in performance, doesn't happen very often," notes Neusser. But thriftiness is a tradition at Porsche. The 911 Carrera serves as an excellent example on this point: whether the 964, 993, 996, or 997, every new model and every new generation has needed less fuel for its stronger performance.

The new 911 engine is a masterpiece of engineering. A successful strategy pursued throughout the development process was to resolutely reduce losses due to mechanical friction. The new engine with direct fuel injection

New view: Open the Cayenne's engine compartment to find a 3.0-liter V6 turbo diesel engine with 240 hp

accounts for a large part of the fuel savings. An equally significant role is played by the Porsche double-clutch transmission (PDK). Combining the advantages of automatic and manual transmissions, PDK is a major reason why CO₂ emissions have dropped by as much as 15.2 percent. "We took an enormous step forward in technical terms," says Neusser. "And the real coup is that we also boosted acceleration at the same time, by a full second in the Carrera S with Sport Chrono Plus, for example, to 4.1 seconds for zero to 60 mph." (Or to 4.3 sec-

onds for zero to 100 km/h; compared to the previous Tiptronic S model.)

Despite these impressive results, the engineers will still have much to do in the future. "We'll continue to work on reducing fuel consumption and CO₂ emissions," says Neusser. There is always room for improvement. Thus far development efforts have always culminated in an extraordinary high-performance powertrain that invariably surpasses its predecessors. Things should continue this way—in every single model series. ◀

On target: The Cayenne Diesel will initially be available only in Europe

