Driving

Diesel Fun

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It’s just as dynamic as a Porsche and it drives like a Porsche: The new Cayenne Diesel is a very sporty SUV, and a joy to drive. Even better—it uses less fuel.

From the outside it looks the same. On the inside you notice no difference. Everything feels the same. Only when your right foot has overcome a sense of natural hesitation, relaxes, and pushes the pedal to the metal do you experience your first "Aha!" moment. Even at just 2,000 rpm, you feel how 405 lb.-ft. of torque can push you back into the seat. The new powerplant and the Cayenne go together so perfectly that you immediately get used to them: this is a real Porsche! Somehow, that's both astonishing and reassuring. Because—let's be honest—after everything we have learned in the past several decades, we'd be likely to suspect this combination to lead to some unexpected results. A Porsche with an, er, um, with a diesel—yes! And it runs like a Porsche, too.

Strong low-end: 550 Nm (405 lb.-ft.) of peak torque ensure very sporty driving performance for the Cayenne Diesel

Even during the first few yards, the Cayenne dispels misconceptions. You cast a remorseful look at the rearview mirror and scold yourself: "I should have known better!" It would have been best just to trust the Porsche engineers. They are committed to endowing every Porsche model, from the Boxster to the Panamera, with stunning performance, extraordinary response characteristics, and optimized active and passive safety features. As befitting a Porsche, the new Cayenne Diesel provides a high specific output—that is, a high ratio of power for the cylinder displacement. Advanced fuel injection helps ensure a high level of combustion efficiency to boost performance while reducing fuel consumption and emissions.

The engineers have been developing this diesel for years, tweaking more power out of the engine in each evolutionary stage. Other manufacturers are also beginning to look more closely at using diesel engines in SUVs. For both its performance and economy, a diesel is well suited for this type of vehicle.

The connection between Porsche and diesel engines isn't all that new. In the 1930s, design engineer Ferdinand Porsche developed the "Volkstraktor" with a diesel engine that, however, never made it into production. But after the war, the Allgaier firm produced a somewhat different Porsche under license: the Porsche-Diesel-Schlepper. Starting in 1956, these tractors were produced by Porsche-Diesel-Motorenbau GmbH. By 1963, 120,000 had been built. With 22,000 unit sales, the model "Junior" was a hot seller, surpassing every other agricultural vehicle even in its styling. In Europe, Porsche tractors have their own collector following, and there is even a Porsche Diesel Club Europe.

Granted, the "Junior" had only 15 plucky horsepower to work with, so it's hardly comparable to the Cayenne powerplant. The sporty 2009 Cayenne is energized by a 3.0-liter V6 turbo diesel engine supplied by Volkswagen subsidiary Audi. With its 240 hp, it can move the Cayenne Diesel to a top track speed of 214 km/h (133 mph). With the Tiptronic-S transmission as standard equipment, the Cayenne Diesel needs only 8.3 seconds to accelerate from zero to 100 km/h (62 mph). The Cayenne Diesel can average about 100 kilometers for every 9.3 liters (or 24 miles per gallon). That means its 26-gallon fuel tank allows one to drive about 1,000 kilometers (600 miles) on one fill-up.

High power output, ample torque, low fuel consumption, quiet operation, high reliability, low emissions. The new Diesel V6 features high-tech to help make the Cayenne fun to drive, as a Porsche customer would expect. Take the common-rail direct fuel injection that employs piezo injectors, for example. These can handle up to five high-precision injections per cycle and ensure quieter engine operation and lower fuel consumption. Then there's the turbocharger with variable turbine geometry (VTG) and a downstream intercooler. As in the 911 Turbo, the turbocharger is equipped with adjustable guide blades to optimize the exhaust gas flow to the turbine wheel at different engine speeds.

Porsche engineers worked in collaboration with their colleagues from VW and Audi to optimize the new diesel engine for the Cayenne. "To give everybody a crack at it," as Cayenne model series head Klaus-Gerhard Wolpert puts it. It took a great deal of refined engineering know-how to further improve the operation of the diesel engine. Among other variables, the injection sequence and quantity were optimized. The air-conditioning compressor is automatically ▸

Röhrl and the Diesel

The Tractor "Junior": A Star in Sankt Englmar

As an official Porsche representative and rally legend, Walter Röhrl knows all Porsche models inside out. Whether it's a 911 or a Carrera GT, a Boxster or a Cayenne—he navigates the vehicles almost instinctively, with supreme confidence and expert flair right to the edge of their capabilities. Röhrl has impressively convinced many journalists from around the globe of a Porsche's advantages.

Two worlds, one world champion: Rally legend Walter Röhrl between the new Cayenne Diesel and his 1963 "Junior" Porsche Diesel Tractor

And Röhrl is a Porsche Diesel fan. His assessment of the new Cayenne Diesel: "That's exactly the right engine for this vehicle." He could say the same of his own Porsche diesel: the tractor "Junior," built in 1963. "This is one of the last ones they ever built," Röhrl says proudly. This neat machine used to be an exhibit in the old Porsche Museum. Then this "Junior" was acquired by Anton Hunger, head of communications at Porsche SE. Röhrl bought it a few years ago. His first related task: "I got myself a matching trailer—bright red with cream-colored wheels."

Like most classic Porsche vehicles, this "Junior" still gets into the action. In his hometown of Sankt Englmar in the Bavarian Forest region, Röhrl still uses his oldie tractor for "light tasks," including transporting firewood. "Because of my job I often bring great-looking Porsches home. But what all the kids in the village love best is to watch me driving that tractor."

Filling up:
The Cayenne Diesel, taking in energy

deactivated for a maximum of five seconds when the vehicle starts up to ensure smooth start-up response. In addition, fuel consumption was reduced by another 0.8 miles per gallon.

The Cayenne itself was modified to accommodate the diesel engine. This began with modifications to all pipes, hoses, and cables, continued with adjustments to the Tiptronic-S transmission and to the entirely new fuel system, and ended with a unique exhaust system with diesel particulate filters and sensing systems. There were even changes to the instrument cluster. Because even though you may not hear or feel the diesel, you've got to be able to see it on the readout.

The Cayenne Diesel can now confidently occupy its rightful place as number seven in this model family, which already ranges from the six-cylinder gasoline version to the Cayenne Turbo S. The Cayenne Diesel became available in Europe in February. Porsche is studying other markets for viability.

The Cayenne Diesel fits perfectly in the Porsche lineup of performance vehicles. Yet it won't surprise anyone if some drivers take a while to get used to the idea. "Are you with a TV station filming a sitcom or something?" asked a man walking past the Cayenne Diesel at the filling station, shaking his head. "A Cayenne at the diesel pump. Who are you trying to kid?"

What's your destination? One full tank in the Cayenne Diesel is enough for more than 1,000 km (600 miles)

Technical Data*

Cayenne Diesel

Displacement:	**2,967 cc**
Power output:	**176 kW (240 hp) at 4,000–4,400 rpm**
Max. torque:	**550 Nm (405 lb.-ft.) at 2,000–2,250 rpm**
Max. engine speed:	**4,800 rpm**
Acceleration (0–62 mph):	**8.3 sec**
Top track speed:	**214 km/h (133 mph)**

* Technical details may vary from country to country.