



The king of the exhaust gas recyclers is holding court again. While displaying power in Portugal, the new 911 Turbo proves more impressive than ever: Porsche turbocharger technology yields astounding performance with even higher efficiency.

By
Reiner Schloz

Photos by
Martin Grega

Driving

High Pressure Zone





Crossing bridges:
The new 911 Turbo is a perfect example of power and beauty at full throttle

Beyond the norm equals turbo. 911 Turbo. And as of late, the delay until this power zone is reached is hardly longer than the bat of an eyelash. Now the region where the spirit starts to boil begins down around 1,950 rpm. Then acceleration surges, and the world becomes but a blur rushing by. The 650 Nm (480 lb.-ft.) of peak torque catapults man and machine into a world of excitement, the effect of which on body and soul is difficult to describe. When the Turbo is unleashed, it's more than merely breathtaking.

The pavement of the Circuito do Estoril is the roadway for the impressive demonstration of previously unknown power. The locale is emblematic of Porsche achievements. In 1984, Niki Lauda won the last of his three Formula One world championships on this track, with a Porsche TAG Turbo engine. In the 1980s, rally legend Walter Röhrl roared at full throttle through the hill-climb stages in the nearby hills of Sintra—also with a Porsche turbo ▶





Five-hundred horsepower is available to push the speedometer needle still higher. But the straight very suddenly dips toward the end and turns sharply to the right. Brakes. No problem. Accelerate again. No problem. On into the next lap.

Make way: The new 911 Turbo takes the lead in acceleration, and in efficiency too; on the racetrack it shows off its high-performance genes

engine. And now, in the Portuguese late summer of 2009, the latest 911 Turbo model is showing its stuff, as aggressively as ever. It blasts through the nasty, slightly uphill chicane to emerge from the curve at over 150 km/h (90 mph) and accelerates into the final straight, reaching just over 260 km/h (160 mph). The tach shows 6,000 rpm, and the 500 horsepower and nearly 600 Nm (440 lb.-ft.) can push the speedometer needle still higher. But the straight very suddenly dips toward the end and turns sharply to the right. Brakes. No problem. Accelerate again. No problem. The driver just feels firmly hugged by the seat. On into the next lap.

What an automobile! Or is this kind of a sports car something beyond an automobile?

Well, no. But there are not many that could compare with it. Maybe there is only one really like it. That is the topmost 911, the most powerful and most fuel-efficient one ever. Even in its circle of exclusive competitors, the Turbo is different. Its performance is not the result of ganging more cylinders or spending lavishly on engine displacement. This new Porsche Turbo, generation seven, excels with a comparatively small but advanced, robust, and lightweight 3.8-liter six-cylinder engine. The new powerplant is both the car's core and its highlight. The Turbo flaunts its sophisticated bi-turbo system with variable turbine geometry (VTG). August Achleitner, as 911 product chief for Porsche also in charge of the Turbo, says, "We've always remained faithful to our engineering principle and achieve the maximum in efficiency by combining low weight with a small displacement."

With each new Turbo, Porsche unleashes greater excitement and higher adrenaline output. It's been that way for 35 years. "Turbo lag" used to make this technology somewhat intimidating. But Porsche engineers, and therefore Porsche drivers, long ago managed to control the delayed transition from a trickle to a torrent of power. The lag has been replaced by a ▶





Manual labor:
Speed is a fascinating phenomenon,
even when viewed from the inside

smooth boost to even more power. “It’s fabulous how that developed,” says Porsche representative Walter Röhrl. “Today’s turbocharged 911 lets you increase power steadily throughout the entire rpm range—responding promptly from idle speed all the way up.”

Röhrl’s positive opinion is based on personal experience. But his views are in total agreement with the Porsche development engineers. The engineering history of the Turbo generations confirms this test-driver’s assessment. The engine environment has been continually changed, and always for the better: 1977 brought the intercooler for the 3.3-liter engine, 1991 the increase to 3.6 liters and a new exhaust system. The bi-turbo setup and all-wheel drive arrived for 1995, while the 2000 model would evolve to a liquid-cooled engine and an optional five-speed Tiptronic automatic transmission. The 2006 Turbo introduced variable turbine geometry (VTG) and electronically controlled all-wheel drive. In the latest version, the 3.8-liter engine is combined with the seven-speed Porsche double-clutch transmission (PDK), the Porsche Torque Vectoring (PTV) dynamics system for even greater cornering performance, and dynamic engine mounts.

“The 911 Turbo, like no other car, bridges the gap between a sports car, a racing car, and an everyday car,” Röhrl tells us as we say goodbye. Of course, we take his word for it, but we’ll also check it out anyway, just for fun. On the 17-kilometer-long (11-miles) Ponte Vasco da Gama, the bridge to Lisbon, we try out the car’s swifter pace. In the Alfama, the old quarter of Portugal’s ▶



capital city with ancient trams and a maze of narrow streets, we seek out a bakery. And back on the modernized track at Estoril, we put the car through its upgraded Sport Program one more time. The optional Sport Chrono Package pushes the limit still a bit further, and in addition to featuring overboost with an increase in turbo pressure by 0.2 bars (2.9 psi), it also substantially improves acceleration and flexibility in the intermediate rpm range. Röhr's enthusiasm doesn't stop at these impressive characteristics, however. Direct fuel injection, which enables prompter response and noticeably enhanced power and torque, is one of his favorite subjects, as is the new Porsche double-clutch transmission, which provides uninterrupted power during gear changes. Röhr's conclusion: "The 911 Turbo is the best production sports car one can buy."

He considers optimized tuning of the all-wheel drive—a development in which he was actively involved—the perfect way to top off the Turbo package: "The car is steadier in the curves, and you can get into a neat power slide without understeering. This makes the Turbo easier to control and safer to drive, even in the upper limits." This expert considers the change

from rear drive to all-wheel drive a necessary step: "So much power has simply got to be delivered through all four wheels."

Thus the new 911 Turbo lives up to the colorful language of copywriters who refer to "the crowning of a proven conception," because, as they put it, "its superior technology and luxurious functionality leave nothing more to be desired." Actually, this promotional copy was written in 1974 for the first 911 Turbo. Times and technology have changed, but the point is still valid, and not just because of the nearly doubled power output: a celebrated achievement at that first Turbo model's debut was that it also was the first Porsche equipped with a stereo radio.

The seventh generation of the 911 Turbo still plays great music. It has stayed true to its principles. By the simple fact that it continues to evolve. ◀

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