



Press Release

The Volkswagen Touareg Southern Highlands, NSW, July 2007

To the Point

- Summary Page 2

Key Aspects

- New Technologies: From ABSplus to roll-over sensor Page 5
- Design: The new look of the Touareg Page 9
- Body: Properties, dimensions and safety Page 11
- Interior: Comfort, functionality and aesthetics Page 15
- Engines: FSI and TDI power Page 18
- Chassis: Double wishbone axles, steel and air suspension Page 20
- All-Wheel Drive: 4XMOTION for all of the earth's peaks Page 23

Note:

All data and equipment contained in this press release apply to models offered in Germany. They may differ in other countries. All information is subject to change or correction.

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Summary

2007 Touareg visually identifiable by entirely new front end and standard ABSplus for shorter off-road braking distance

TOUAREG PROVES ITS QUALITIES IN EXPEDITIONS AROUND THE WORLD

Globetrotter. On countless expeditions the automotive globetrotter has circled the world, setting numerous records along the way. In Chile for example the Touareg climbed to the highest volcano on earth at 6,080 meters altitude, the highest peak ever climbed by any production car. And as a service vehicle in the legendary "Dakar" rally race, the production model Touareg sweeps thousands of kilometers across the Sahara, year after year, to support the "Touareg Race". No other SUV has won the hearts of such a large community of car fans in such a comparably short period of time as the Touareg. Now this is being followed up by an advanced, newly developed generation.

2,300 NEW PARTS

New front end. The Touareg, featuring more than 2,300 newly developed parts, has a different look than the previous model that includes a completely modified front end with insignia grille in chrome and very distinctive headlights as well as new wheels and colours. In addition, the interior has been refined by two seating systems with new visual and ergonomic designs.



ENGINES

Strong petrol engine. The 3.6 litre V6 FSI which produces 206 kW / 280 HP is the petrol engine available in the Touareg range.

Powerful diesel. As one of the leading producers of diesel engines worldwide, Volkswagen is naturally also offering innovative TDI engines for the new Touareg. All TDIs for the SUV are equipped with a standard diesel particulate filter (DPF). The three turbo-diesel direct-injection engines offer power outputs of 128 kW / 174 HP (R5 TDI), 165 kW / 225 HP (V6 TDI) and 230 kW / 313 HP (V10 TDI).

HIGH-END TECHNOLOGIES FOR OPTIMIZED SAFETY

ABSplus. One innovation is the ABSplus system developed and patented by Volkswagen. The standard system can shorten the Touareg's braking distance on loose surfaces – i.e. especially in off-road duty – by up to 20 percent! A clear gain in safety.

Dynaudio sound system. High quality in the entertainment area too. Touareg can be equipped with a powerful 600 Watt sound system from the Danish hi-fi specialist Dynaudio. The sound system was developed jointly by Volkswagen and Dynaudio.

Instruments. A new instrument cluster with a large multifunctional display provides a clearer, more detailed and now multicolour display of information.



ALL-WHEEL DRIVE AND SIX-SPEED GEARBOX

Power distribution. The Touareg is shifted by a six-speed automatic gearbox. Power is transmitted to the 4XMOTION all wheel drive via a transfer case with switched extra low off road gearing. There the power is transmitted through front axle, rear axle and center differentials. The center differential has a standard lock. In the normal case, under balanced power and roadway conditions, the power distribution is 50:50. Depending on the driving situation up to 100 percent of the propulsive power may be transmitted to just one of the two axles. An Electronic Differential Lock (EDL) acting on all four wheels enables fine distribution of propulsive power.

CHASSIS WITH STEEL OR AIR SUSPENSION

Comfortable and sporty. The double wishbone configurations at the front and rear axles with subframes for acoustic isolation guarantee the noise and comfort levels of a luxury sedan. Additionally, precise wheel location delivers remarkably good driving precision. Air suspension that is standard on the Touareg V10 TDI offers an extraordinarily high level of ride comfort with its continuous, speed-dependent electronic damping control. Off-road, the air suspension also provides for exceptional ground clearance. Air suspension is also available on six cylinder models as an option.



New Technologies

ABSplus Shortens Braking Distance by Up to 20 Percent Off-Road

The 2007 Touareg has been modified intensively in many areas. The extent of this model makeover becomes especially clear when its numerous completely new technologies are considered. For example, the Touareg is the first SUV to have the Volkswagen developed ABSplus system as standard equipment.

ABSplus.

This system can reduce the braking distance of the Touareg on loose surfaces by up to 20 percent! Thanks to the innovative anti-slip control of ABSplus the Touareg pushes pieces of the road surface material in front of the wheels that are briefly blocking. This produces a type of braking wedge. The result: Braking force is significantly boosted – without negative effects on steerability – and braking distance is reduced accordingly.

With the new system it is possible to use off-road ABS functionality automatically, both in Low Gear mode (off-road driving with low gear ratios) and in High Gear mode (faster on-road driving). Until now off-road ABS was only available in the low-gear range with significantly lower performance. To reduce braking distance on a loose surface the ABS must recognize its composition and independently select the optimal control strategy via ESP sensors – and this is highly complex.



Loose surfaces exhibit a friction value in the range $\mu = 0.4$ to $\mu = 0.65$. On these loose surfaces the maximum deceleration is achieved at 100 percent braking slip (blocked wheels). But blocked wheels severely impair steerability. That is where ABSplus intervenes: Besides large slip, it repeatedly permits phases of low slip (brief blocking); this results in an optimal balance of braking distance and braking stability, because a wedge of loose material builds up in front of the repeatedly and briefly blocked wheel, and as a braking wedge it significantly reinforces the braking effect and reduces braking distance accordingly.

Optional rearview camera.

Another optional system covers the space behind the Touareg: The rearview camera. This wide-angle camera is located on the rear tailgate to the upper right of the license plate, and it transmits a real-time image to the navigation system display. This makes it easy to recognize even small obstacles in the displayed area below normal visual limits. To make the ranging process easier the vehicle direction selected by steering input is also shown in the display.



ESP innovations.

The ESP (Electronic Stabilisation Program) has new functions. Specifically, these functions now include a hydraulic instead of pneumatic Braking Assistant, preventative brake pressure buildup in response to sudden release of the gas pedal, Active Rollover Protection (ARP) to improve rollover stability, ESP dry braking function, Fading Brake Support (supplemental pressure boost optimizes strong follow-up brake activations) and Understeer Control Logic (improves behavior when steering into corners with understeering).

Details of ESP dry braking function.

A new ESP feature is the so-called dry braking function. It optimizes active safety in wet, stormy conditions. The brake linings are repeatedly engaged lightly at specific intervals. This “wipes away” the water film that can potentially form when the roadway is wet, thereby reducing braking distance.

Roll-over sensor.

In the area of passive safety a new roll-over sensor has been added to acquire the vehicle's roll angle and roll angle rates. It determines whether the vehicle is entering a rollover situation. The sensor data and computed parameters of the accelerometers found on every Volkswagen are inputs to the airbag control module. The data are compared and processed there, and if risk of rollover is found the belt tensioners and head airbags are automatically activated to reduce the risk of injury.



Dynaudio sound system.

Touareg is the first German SUV to offer a sound system from the Danish hi-fi specialist Dynaudio as an option. The sound system was specially adapted to the Touareg by Dynaudio in close cooperation with Volkswagen Individual and provides superb distortion-free sound, ten high-end loudspeakers, digital 10-channel amplifier and 600 Watt output power.

Instruments.

A new, larger instrument cluster for multifunctional display, navigation and driver assistance systems provides detailed representation of information. The display is organized very clearly and now also shows navigational pictograms in a 3D representation.

Optional electric rear tailgate.

An electrically actuated rear tailgate is offered on the Touareg as a special equipment option. One way to open it is by RF remote key. The hatch is closed by pressing a button inside the vehicle or outside on the hatch. Besides offering the convenience of electric control, another benefit of the system is that the opening angle of the rear hatch is user-programmable and can be customized to the height of the Touareg user.



Design

New Front End for a SUV Design Icon

Touareg with insignia grille in chrome, new headlamps and bumpers

New rear tailgate spoiler, modified tail lamps and new colours

The Touareg unites the world of off-road vehicles with the comfortable dimensions of a luxury sedan and the dynamic attributes of a sports car. This positioning is also reflected in the new design of the vehicle. The Touareg symbolizes a completely new generation of contemporary SUVs. Power and robustness are only demonstrated where required by functionality. All other design elements of the body radiate contemporary elegance and self-assured dynamics.

Front end design.

The front end of the Touareg was completely redesigned. No part was left untouched here, right up to the engine hood. The Touareg is immediately recognizable as a new generation car by its insignia radiator grille in chrome look that is typical of a Volkswagen. Although it assumes an individual character depending on car model, it has become an unmistakable stylistic feature of the brand.

The second identifying feature of the new Touareg generation is the organically shaped headlamp housing (either halogen or bi-xenon with curve and turn lighting). Similar to today's Volkswagens like the Eos, the lower areas of the housings exhibit a round curvature. A look at the headlamps and the insignia radiator grille confirms that the front bumper has also been completely redesigned.



The V10 TDI sees a chrome cross strut in the exterior air inlets of the bumper. Brightness in inclement weather: The round, very deeply set and yet protected integrated fog lamps (optional on 5 and 6 cylinder models). Aerodynamic: The outside mirrors were also redesigned and are now more aerodynamic.

Rear end design.

Modifications were also made at the rear end, where a new roof edge spoiler improves aerodynamics. Tail and brake lights were modified and now have a new LED visual effect. Upscale here is the new dark “glazing” of the tail lights. The impact of these changes: A remarkable presence of the lights. Designers also redesigned the exhaust system tailpipes.

Side profile design.

In profile there are new alloy wheels and the more aerodynamic mirrors that identify the Touareg as new generation. Also new to the program: The paint colours “Atacama Grey Metallic”, “Silver Leaf Metallic” and “Galapagos Anthracite Metallic”.

The option list for the new wheels and their dimensions: 17-inch (“Maine” type), 19-inch (“Terra” type), 20-inch (“Mountain” type).



Body

Short Overhangs, High Torsional Rigidity, Galvanized Sheetmetal

At 4,754 millimeters length, 1,928 millimeters width, 1,726 millimeters height and a wheelbase of 2,855 millimeters the Touareg is a SUV of the luxury class. In this design, and this is indicative of the overall concept, the Touareg too is built substantially lower to the ground than most other SUVs of the luxury class. The ratios of dimensions convey an especially dynamic and elegant image. Nonetheless, the interior height of the Touareg is in keeping with its class. The passenger space provided is of the highest caliber, and the cargo area offers high variability when it comes to loading cargo with its 555 to 1,570 litre capacity (V10 TDI: 500 litres to 1,525 litres).

Furthermore, the large tailgate (with optional electric actuation) and separately opening rear window guarantee optimal access. When the two-part tailgate is opened it also exhibits a high level of technical aesthetics with its hidden gas springs. The hatch is unlatched electromechanically, and as an option it can be closed with an electric pull-down assist.

Few overhangs, optimal overhang angle.

Yet it is not just its classical dimensions and functions that distinguish a SUV body. Just as important for good off-road characteristics are the front and rear overhangs. Each measured from the middle of the axle, the front overhang is 926 millimeters, and the rear is 973 millimeters.



This yields overhang angles of 28.4 degrees in front and 28.1 degrees in rear (air suspension: 33.2** degrees in front, 33.6** degrees in rear), which is good for a contemporary variable-use SUV.

By means of a complex triple door sealing system designed to prevent the ingress of water and waterproof headlamps (as well as waterproof plug connectors, special routing of inlet air, engine venting and sealed propshaft) it was possible to achieve a fording depth of 500 millimeters (with air suspension: 580 millimeters).

** = Data referenced to air suspension at the X`tra Level.

Galvanized body and high-tech plastics.

In its mechanical design the fully galvanized Touareg body exhibits especially high static and dynamic rigidity. With regard to static rigidity, the car's excellent torsional rigidity and its uniform distribution over the entire body structure must be emphasized. These are criteria that contribute to ideal preconditions for achieving an optimal configuration of chassis properties.

Dynamic torsional rigidity of the galvanized steel body is also extremely high at greater than 40 Hz. It represents the basis for the favorable vibration behavior and exceptional ride comfort of the Touareg. Contributing to this are the latest joining processes used in production, such as laser welding and laser soldering. The innovative body structure allowed engineers to achieve a maximum roof load of 100 kilograms, 25 kilograms more than most competitors.



However not everything with glistening paint on the Touareg is made of steel. Take the example of the front fenders, they consist of a plastic with flexible material and mechanical properties. Due to their clamshell design structure they offer a very high degree of dimensional stability.

Another example: A highly temperature-resistant and extremely tough plastic is used on the bumper. It is resistant to heat radiated from the engine compartment and the exhaust system heat shields; a special ingredient also makes them flexible, which protects them from dents in parking or off-road jostling. The engine hood example: It is made of aluminum and is therefore not only light but simultaneously offers very good deformation behavior in case of a crash.

Roof carrier and trailer loads.

So-called C-rails made of aluminum profiles are built into the roof as standard equipment for transporting sports equipment, roof boxes and other loads that are mounted using a roof mounting system specially developed for the Touareg. When they are not being used, besides being able to detach the two crossbars of the aerodynamically optimized system, it is also possible to slide them together and to the back, which presents a visually harmonious unit with the roof line. The Touareg can also be ordered with optional silver roof rails.

Far greater transportation tasks can be mastered by the trailering systems – every Touareg can tow up to 3,500 kilograms (with trailer brakes).



Xenon headlamps with adaptive curve lighting.

The Touareg V10 TDI is equipped with standard bi-xenon headlamps, dynamic headlamp leveling control and headlamp washer system. An integral component here is the dynamic and static curve lighting feature. For all other Touareg models the bi-xenon headlamps are available as a factory option.



Interior

Greater Comfort, Functional Aesthetics and Up to 1,570 Liters Cargo Space

New seat systems with perfected ergonomics and new design

Audio and climate control systems standard; 2- and 4-zone Climatronic options

Two different seating systems are available on the Touareg: The 'normal' seats and optional, or model dependent, 'comfort' seats. The comfort seats were newly designed for the updated Touareg. They are similar to their counterparts in the Phaeton and were further perfected in ergonomics and lateral support.

In addition, two leather versions, "Cricket" and "Napa", are offered on the Touareg. "Cricket leather" and refined "Napa leather" are available on the comfort seats. The R5 TDI comes with seat covers in the high-grade "Trail" fabric.

Furthermore, the rear bench seat was fundamentally reworked in all versions. It weighs less and is now easier to operate. A new colour called "Sioux" is offered for interiors of Touareg versions with comfort seats.



General interior features.

The interior of the multivariable Touareg is a masterpiece of functional aesthetics, providing a high level of comfort and very good roominess. Its quality of materials and progressive design create an ambiance that combines the robustness of a high-end SUV with the elegance of a luxury sedan and dynamics of a custom sports car.

The attention to detail conveys an impression of high quality and an ideal balance between function and aesthetics. One example is the comparatively large control knobs of the Climatronic, drivetrain and chassis controls. Ergonomically they are easy to operate, and their gripping surfaces are made of premium, durable metal.

This applies to the use of all materials. Even the plastics give the impression of natural materials due to their refined high-tech surfaces. Standard on V6 and V10, and otherwise available as a special option, decorative wood trim can be selected to upgrade the instrument panel, center console, door trim and steering wheel.

Instruments.

A new, larger instrument cluster incorporating the multifunctional display, navigation and provides detailed and now multicolour representation of information. The display is laid out very clearly and now shows navigation pictograms in 3D representation too. The instrumentation itself is conveniently arranged and its operation is both functional and intuitive.



Cargo space.

The Touareg offers space in luxury class proportions for driver and front passenger as well as in the rear. In the rear there is a maximum of 898 millimeters of leg room; the so-called leg room is a maximum for the driver at 1,057 millimeters. 1,504 millimeters elbow room in front and 1,505 millimeters in the rear also deliver impressive space for passengers. Cargo space of 555 litres to 1,570 litres (V10 TDI: 500 to 1,525 liter) also makes the Touareg the ideal touring car for five persons.

Climate control.

In keeping with the standard of its class, Volkswagen equips the Touareg with standard air conditioning with climate control. Two automatic climate control systems are available: The 2-zone Climatronic (standard with all models except V10) and the optional 4-zone Climatronic (standard with V10). Cooling and heating performance and innovative expansion levels lie significantly above the standard for the class – because they set new peak performance values and add certain unique technologies to the SUV segment such as individual climate control in the rear.

Keyless Access.

A Keyless Access system is standard with V10 TDI. The key equipped with a transponder stays in the car driver's pocket. The Touareg recognizes its driver via the transponder; when the door handle is touched the car unlocks the door, and the engine is started by a start button on the center console that is now illuminated.



Engines

As one of the leading producers of diesel engines in the world, Volkswagen naturally also offers innovative TDI engines for the new Touareg.

All TDIs of the SUV are combined with a diesel particulate filter (DPF) as standard equipment. The three diesel engines offer power levels of 128 kW / 174 HP (R5 TDI), 165 kW / 225 HP (V6 TDI) and 230 kW / 313 HP (V10 TDI).

There is also one petrol engine, the V6 FSI offering 206kW/280 HP.

V6 FSI (206 kW / 280 HP).

The direct-injection petrol engine offered on the new Touareg is a V6 FSI. Displacement: 3,580 cm³. Maximum torque: 360 Newton-meter at 2,500 to 5,000 rpm. The powerful 280 HP 24-valve six cylinder engine (max. power at 6,200 rpm) accelerates the Touareg to 100 km/h in just 8.6 seconds. The Touareg V6 FSI, topping out at 227 km/h with optional air suspension, is shifted by a standard six-speed automatic transmission (top speed with steel suspension: 218 km/h). Average consumption: 13.6 litres per 100 kilometers.

R5 TDI (128 kW / 174 HP).

Even this "small" direct-injection diesel engine delivers extremely agile driving performance. The new Touareg R5 TDI completes its acceleration from 0 to 100 km/h in just 11.6 seconds. The in-line five-cylinder engine develops its maximum torque of 400 Newtonmeters at 2,250 rpm. Consumption is a low 10.4 litres per 100 kilometers.



V6 TDI (165 kW / 225 HP).

Direct-injection diesel technology with third generation common rail technology characterizes the Touareg's 24-valve six cylinder engine. Its injection pressures reach up to 1,600 bar thanks to piezo injectors. Its maximum torque of 500 Newton-meter already kicks in at 1,500 rpm. The Touareg V6 TDI sprints from a standstill to 100 km/h in just 9.2 seconds. Its top speed is 202 km/h (steel suspension); equipped with the optional air suspension it can go 209 km/h. Average fuel consumption in this case is 10.7 litre/100 km.

V10 TDI (230 kW / 313 HP)

With its impressive torque of 750 Newton-meter available at a low 2,000 rpm, the Touareg's V10 TDI delivers commanding driving performance. Top speed: 231 km/h. 0 to 100 km/h from standstill: 7.4 seconds. Like all other Touareg TDIs with standard diesel particulate filter, the direct-injection engine equipped with pump nozzle has a factory installed six-speed automatic transmission and air suspension. Over 100 kilometers it consumes an average of 12.6 litres of diesel.



Chassis

High-Performance Chassis with Independent Suspension

Double wishbone axles as basis for top on-road and off-road characteristics

Touareg V10 TDI is equipped with standard air suspension

The Touareg has a high-performance chassis with independent suspension. The meticulously designed system forms the basis for excellent on-road and off-road driving characteristics. In front a double wishbone axle is used with aluminum upper links and steel lower links. In the rear the Touareg also has a twin control-arm axle; it features forged aluminum links above and steel wishbones below. Track width is 1,649 millimeters in front, and 1,661 millimeters in the rear. The Touareg with steel suspension has a maximum ground clearance of 237 millimeters.

Innovative air suspension.

As an option, and standard on the Touareg V10 TDI, Volkswagen also offers the SUV with air suspension including automatic ride height control and electronic damping control. In this case maximum ground clearance increases to 300 millimeters. The air suspension guarantees an exceptionally high level of comfort when driving on paved roads – by automatic, speed-dependent, two stage chassis lowering – with the dynamic properties of a very sporty automobile. Off-road the air suspension once again improves off road characteristics with extraordinarily good ride comfort too, because of its variable chassis height.



In the “Auto Level” mode used primarily on-road, the air-sprung Touareg automatically lowers and lifts itself in adaptation to the vehicle’s speed. To optimize drivability, at 125 km/h the chassis lowers from 215 millimeters to 190 millimeters. When it reaches 180 km/h the system automatically sets a ride height of 180 millimeters. Other ride heights may be manually set independent of these conditions. Automatic lifting and lowering also occurs in the “Off-Road Level” mode that is primarily used off-road. To summarize the stages:

Load level: Fixed and at the same time lowest level,

Street level: Automatic speed-dependent control
(Standard setting for conventional roads),

Off-road level: Automatic speed-dependent control
(Standard off-road setting),

X’tra level: Fixed and at the same time highest level
(for special off-road situations).



Brakes.

Confident braking of the Touareg is ensured by standard internally vented fixed-caliper disc brakes all around the vehicle plus ESP, trailer stabilisation (integrated in ESP) and Electronic Brake Pressure Distribution (EBD). The ESP (Electronic Stabilisation Program) has new functions. Specifically, these functions now include a hydraulic instead of pneumatic Braking Assistant, preventative brake pressure buildup in response to sudden release of the gas pedal, Active Rollover Protection (ARP) to improve rollover stability, ESP dry braking function, Fading Brake Support (supplemental pressure boost optimizes strong follow-up brake activations) and Understeer Control Logic (improves behavior when steering into corners with understeering).



All-Wheel Drive

4XMOTION all-wheel drive for confident on-road and off-road performance

Power from the Touareg engines is transferred to the wheels via the permanent 4XMOTION all-wheel drive. This all-wheel drive system not only enables impressive off road properties, but a high level of safety and dynamic potential on the road. The Volkswagen SUV philosophy comes to fruition here of utilizing authentic off-road characteristics to extend the safety and dynamic attributes of luxury sedans and sports cars.

Power distribution to the car's wheels is achieved via a transfer case equipped with standard off-road gearing via a front axle differential, centre differential and rear axle differential. The centre differential has standard locking. The variable control multi-plate clutch of the centre lock differential is automatically controlled by the chassis electronics. Depending on conditions up to 100 percent of the driving force may be transferred to one of the two axles (the differential lock is controlled primarily based on detected engine torque and secondarily by detected slip). A control knob on the centre console lets the driver manually activate the differential lock up to 100 percent; this temporarily deactivates automatic control of the differential lock. A standard 4-wheel EDL supports fine distribution of the propulsive power.

**On-road.**

The Touareg's 4XMOTION all-wheel drive offers enormous advantages even on paved roads. Under normal situations – dry street, uniform grip and constant engine power – the all-wheel drive is characterized by symmetrical power distribution of 50:50 to the front and rear axles. As soon as one wheel exhibits slip, e.g. due to aquaplaning or a roadway that is wet on one side, the flow of power (up to 100 percent) is increased to the axle with more grip via the multi-plate, limited-slip central differential. This modified power distribution is additionally supported by a 4-wheel EDL (EDL = Electronic Differential Lock by brake intervention).

As a result the all-wheel drive has a uniformly positive effect on driving dynamics as well as on active safety. The Touareg exhibits the handling characteristics of a luxury sedan; its driving behavior is extremely safe and controlled; stability in curves is excellent even under unfavorable road conditions.

Off-road.

On unpaved surfaces the described 4XMOTION all-wheel drive with its basic configuration of front and rear axle differentials and transfer case flanged onto the back of the transmission with central differential provides for confident propulsion. Also standard equipment on the Touareg is a central lock differential and a gear reduction stage. Equipped like this the Touareg can conquer the steepest slopes with its 100 percent (45 degree) climbing capability.



To electrically activate the gear reduction stage the car driver simply turns the “Auto Diff” switch located in the lower area of the center console from the “High” street mode toward the right to “Low”. In case of traction loss at one axle, the central differential lock is continuously applied. The lock can also be activated manually by a rotary knob (up to 100 percent), and automatic control of the differential lock is temporarily deactivated.