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Volkswagen

Leading the way – The new Touareg

International vehicle presentation in Austria

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Key aspects

Exterior design – Tailor-made for freedom

Modular longitudinal matrix. The design of the new Touareg is based on the modular longitudinal matrix (MLM) of the Group. It includes models starting from the top mid-class with engines and gearboxes installed longitudinally. Compared with its predecessor, the third generation became moderately wider and longer, making it flatter. The new dimensions: 4,878 mm length (+77 mm), 1,984 mm width (+44 mm) and 1,702 mm height (-7 mm). The increase in length and width in conjunction with the slightly reduced height led to significantly more dynamic proportions.

Alternative to the establishment. Volkswagen head designer Klaus Bischoff and his team transferred the design of the Touareg to a new time and dimension. Design and technology correspond perfectly. With the third generation Touareg, Volkswagen has refined the positioning of its flagship - an exclusive allrounder that forms an alternative to the establishment with its pioneering, innovative technology, its versatility as well as its excellent comfort and dynamic properties. The expressive design of the Touareg reflects the new positioning. Klaus Bischoff: "We had the opportunity to realise our ideal concept of a large, exclusive SUV from Volkswagen. And we have resolutely made use of this opportunity."

Superior flagship. While the first generation SUV was characterised by a dominant offroad DNA, this direction increasingly changed from the second generation to the new Touareg towards a progressive, modern and exclusive allrounder - but always still ready to master the dirt tracks of the planet and to reach any destination. Bischoff: "The design of the new Touareg makes it unmistakably clear that it is the superior flagship of our brand. The power of this Volkswagen lies in its affability and elegance - this car does not have to be forceful."

Front end. The expressive front end of the Touareg is particularly distinctive. The chromed solid grille appears to be machined from solid metal and



seamlessly interwoven with the continuous lines of the signature light. Klaus Bischoff: "We wanted to create something with this front end that had never been seen before. In an intensive process, we combined the chrome elements of the front end and the new LED light system of the Touareg so that the transition between design and technology blended into a new entity." Innovative, expressive and impossible to imitate. "This front end makes the new Touareg one of the most distinctive SUVs on the global market", says Bischoff. "A tailor-made solution for freedom. Our goal was nothing more and nothing less.

Silhouette. The sides of the Touareg body look like a stretched sail blown by a tailwind. Accentuated front wheel housings and well formed rear shoulder edges highlight the superiority of the Touareg on any terrain. And this was the goal - to design the most superior SUV of its class. The opposing window lines and character lines at the side are stylish. And the roof line is striking. It seamlessly extends on the striking side line and dynamically concludes with the C-pillar that is angled towards the front.

- **New range of rims.** The increase in dynamics is also reflected in the new range of Touareg rims. Each rim design harmonises with the design of the silhouette. The size of the alloy wheels now starts at 18 inches instead of 17 inches and ends with the 21 inch format. The wheels available include the 18 inch alloy wheels "Cascade" (series wheel V6), "Concordia" and "Cordova", the 19 inch alloy wheels "Esperance", "Osarno", "Sebring" and "Tirano", the 20 inch alloy wheels "Braga", "Montero" and "Nevada" and the 21 inch alloy wheel "Suzuka".

Rear end. The wide shoulder above the rear wheels and the resulting indented greenhouse form a rear end with a strong presence. This superiority is emphasised by the LED tail light clusters. They not only highlight the large total width of the Touareg but also the LED graphic of the front end with its L-shaped signature light. The aesthetics of the shape is by no means detrimental to functionality. To the contrary, almost the entire

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width is filled out by the boot lid – but it can hardly be seen. What remains in your memory is therefore unique and solely the dynamics of the Touareg.



Interior concept – A new era of vehicle interiors

“Innovision Cockpit” as the centre. The interior designers have completely redesigned the vehicle interior of the Touareg and consistently customised it for the digital age. Wherever it makes sense, digital surfaces replace conventional displays and controls. The dominant centre of the vehicle interior is formed by the wide, exquisite dash panel with the optional integrated “Innovision Cockpit” – an alliance of the digital instruments (12-inch “Digital Cockpit”) and the infotainment system “Discover Premium” (with a 15-inch TFT touchscreen). It is the control centre of a new era – an interactive interface for the Touareg where the information and settings of all essential comfort, assist and infotainment systems converge in one matrix. Thanks to a separate eSIM (initially in 13 European countries), the new SUV is also “always on”. The “Innovision Cockpit” is a departure from the conventional – never before has a Volkswagen interior of this type been digitalised and extensively linked to the vehicle functions and outside world to such an extent.

The highest level of comfort, quality and exclusivity. Regardless of how rough and demanding the onroad and offroad terrain of the new Touareg may sometimes be, the vehicle interior of the Volkswagen SUV always remains a luxurious comfort zone. The screens of the “Innovision Cockpit” with their glass covered surfaces, exquisite wood applications (porous real wood), vegetable tanned leathers as well as the aluminium and chrome details allow the extraordinarily high quality to be seen and felt. A narrow wing made of “curved beam wood” extends over the entire width of the dash panel in conjunction with the new “Atmosphere” trim line – a wood application curved as one part and made of ash that follows the shape of the dash panel. The individualisation of the interior is achieved with three trim lines: “Atmosphere”, “Elegance” and “R-Line”. “Atmosphere” is a new lounge-type world where wood and natural tones prevail. “Elegance” stands for a new, technical world dominated by metal and matching colours. In contrast, the “R-Line” has a sporty design.



New massage seats and variable rear seat system. The optional electrically adjustable front seats offer a new, pneumatic massage function – it is the first time they have been used in a Touareg. Eight programs can be chosen here. They are implemented pneumatically and the intensity of the massage functions can be continuously adjusted via individual air cushions. The length of the rear seat system can also be shifted by 160 mm to create more space in the rear. The angle adjustment of the rear seat backrest is another comfort feature (three-stage up to 21 degrees). The term "long-distance vehicle" gets a completely new quality with the Touareg and its seating system. For five persons to have adequate space for their luggage on long trips or on a short trip to the nearest airport, the storage volume of the new Touareg was increased by 113 litres to 810 litres compared with its predecessor.

Largest Volkswagen panoramic sliding roof. Natural light comes in through the largest panoramic sliding roof that Volkswagen has ever realised in the vehicle interior. The transparent roof section is 1,270 mm long and 825 mm wide (inner dimension). The front half of the roof can be continuously opened and electrically moved back by 495 mm and raised. An electrically activated cloth roller blind reduces the sun rays.

Ambient light in 30 colours. Night rides are now more pleasant thanks to a newly developed LED ambient light. Using the ambient light, the atmosphere on board the Touareg can also be personalised. Here, 30 light colours whose brightness can be continuously adjusted are available as an option. An overview of the ambient light zones:



Standard

- Front and rear door openers
- Front and rear door pullers
- Glove compartment
- Reading light and roof module
- Footwell and luggage compartment
- Door trays
- Stowage area of the centre console and cup holder

Optional

- Indirect illumination – illuminated decorations in the dash panel and the door trim
- Illuminated sill panel trim
- Additional direct light line in the trim strips (wood/aluminium)



“Innovision Cockpit” in detail – The future has arrived

One screen design. The “Innovision Cockpit” celebrates its world première in the third generation Touareg. The majority of all buttons is integrated in the 15.0 inch (1,920 x 1,020 pixel) screen of the top infotainment system “Discover Premium” that is curved towards the driver. This also includes the control of the 2-zone air conditioning system (or the optional 4-zone air conditioning system) as well as the activation of seat heating, seat ventilation and seat massage. Intuitive and frequently used switches such as the volume control have a deliberate analogue design (alternatively the volume can also be changed using a touch function on the screen of the infotainment system). The glass-covered display of the “Discover Premium” to the side of the driver is visually connected to the “Digital Cockpit” that is also covered in glass – the 12.0 inch high resolution digital instruments (1,920 x 720 pixel) of the Touareg. Both displays produce a consistent digital landscape in a so-called one screen design on one viewing and operating axis. The “Innovision Cockpit” includes the following additional features: “comfort telephony” function, an inductive charging function for smartphones, “App Connect” (integrated “MirrorLink[®]”, “Apple CarPlay[™]”, “Android Auto[™]” and all common Apple and Android smartphones), “Media Control” (integration of tablets), four USB ports (two at the front as interfaces for the infotainment system including charging function and two at the rear only with a charging function) and a WLAN hotspot for up to eight devices. The “Innovision Cockpit” can be enhanced with a “head-up display” that virtually projects important information in the space in front of the driver on the windscreen.

“Discover Premium” in detail

Infotainment system based on “MIM2+ High”. At the centre of the “Innovision Cockpit” is the top infotainment system “Discover Premium” – a radio navigation system, telephone, information centre and interface for



configuring various vehicle functions at the same time. A functional and visual highlight is the display that for the first time is designed as a curved sheet of glass. This is operated with "Discover Premium" equipped with a proximity sensor via the touchscreen and by means of gesture and voice control depending on the function. The equipment includes 10 GB usable memory, two SD card slots, an AUX-IN socket, four USB ports as well as a Bluetooth mobile phone interface. "Discover Premium" is a system based on "MIM2+ High". MIM stand for Modular Infotainment Matrix. The "Discover Premium" of the "MIM2+ High" offered in the Touareg includes the following innovations:

- **"Connected Navigation"**: In navigation mode, extended 3D city models can be called up and displayed that greatly simplify orientation in a strange environment. Together with the 3D city models, the traditional map view as well as a satellite map are also available.
- **"Nav-Gen4-Routing"**: Here a perfected alternative route is calculated online on a server including predictive models (while considering route profiles and topography and recurring traffic situations) that leads to a stress-free and faster trip to your destination.
- **Self-learning navigation**: Volkswagen navigation systems have been learning frequently used routes and saving them for a long time to point out the status and alternative routes even for inactive navigation. In the Touareg, the self-learning navigation is now also used to simplify the destination entry. Using usage profiles, "Discover Premium" recognises where the driver most probably wants to drive to and suggests routes accordingly.
- **Hybrid radio**: Terrestrial radio reception and Internet radio merge in "MIM2+ High". As a result, reception is realised in the best possible quality regardless of the transmission route. Title information



for the song currently playing can also be called up online when listening to FM stations.

- **Mobile online services:** As the system in the Touareg has an eSIM (initially in 13 European countries), the new SUV is also always on even without a connected smartphone. This means online functions such as hybrid radio are possible, for example. At the same time the range of mobile online services is growing. This includes reading out the news and "Gracenote online" (enhancement of song info that can be saved locally and then called up online later). Online info such as the latest weather forecast can also be displayed on the home screen.

Home screen is multi-functional and can be personalised. The digital layout of the home screen includes a status bar that can be operated and personalised (top of screen), the controllable air conditioning block (for Climatronic and seat functions), function tiles (a large central tile and two smaller freely assignable tiles), freely assignable favourite buttons (left on screen), selectable clock designs as well as a 3D model representation of the vehicle and the seats. The all-wheel and plug-in hybrid drive can also be visualised (the latter initially in China). The menu navigation has an intuitive design. For example, the home button – a virtual button at the bottom edge of the display like on a smartphone – can be activated from each menu to go back to the top level of the home screen. The "Digital Cockpit" can also be personalised via the home screen of the infotainment system".



“Digital Cockpit” in detail

Interactive instruments. The “Digital Cockpit” is a completely digitalised alternative to the standard analogue instruments of the Touareg and a central component of the “Innovision Cockpit”. The layout of the 12.0 inch display can be personalised by the driver via the home screen or using the multi-function steering wheel. The layout as well as the type and range of displays can be varied depending on your taste. If less is preferred, it can be reduced to just the navigation or the media centre (as well as the digital speed and selector lever display), for example. The daily and total number of kilometres display is always active and remains at the same position at the bottom. Different system displays can also be integrated in the “Digital Cockpit”:

- Active Cruise Control
- Cruise control system
- Speed limiter
- “Front Assist” (front assist monitoring system)
- “Night Vision” (night vision system)
- “Driver Alert System”
- “Dynamic Road Sign Display”
- Tyre monitoring system
- Navigation function
- Offroad display (including slope angle)
- Selector lever display (always on display but at different positions depending on the layout)
- Speed (always on display but at different positions depending on the layout)
- Consumption
- Fuel range
- Distance covered
- Information for destination arrival
- Acceleration



- Altitude (topographic)
- Compass
- Audio functions

Head-up display in detail

Perfectly in the driver's field of vision. The information of the head-up display (windshield head-up display) is projected directly on the windscreen. The display is in the direct field of vision of the driver – he can therefore obtain all the main info without looking away from the road. The head-up display has a virtual screen size of 217 x 88 mm making it the largest display of this type offered by Volkswagen to date. The driver can vary the range of displays in the head-up display. The following information can be shown:

- Current speed
- Dynamic Road Sign Display
- Warning signs (e.g. exceeding the permitted speed)
- Speed limiter
- Intersection detailed map
- Navigation information
- Automatic distance control ("ACC")
- Cruise control system
- "Lane Assist"
- "Side Assist" (lane change assistant)

Personalisation Personal settings – including those of the "Innovision Cockpit" and the "Head-up Display" – are saved in the vehicle system and automatically called up using the personal vehicle key. This is particularly practical when the Touareg has been driven with another key by colleagues or family members. Alternatively the settings can be activated when starting using a menu that opens automatically. A total of seven profiles of different drivers can be saved in the Touareg.



“Discover Pro” in detail (standard navigation system)

“Discover Pro” is used as the series system. The glass-covered TFT touchscreen of the radio navigation system is 9.2 inch in size. As for the optional “Discover Premium”, “Discover Pro” also has a proximity sensor system and the innovative gesture control, usable 10GB memory, two SD card slots as well as a Bluetooth mobile phone interface. Smartphones can also be integrated and charged via two USB ports.

Sound systems in detail

Optional Dynaudio sound system with 730 Watt. The new Touareg is fitted with an 80 Watt power amplifier that is integrated in the central computer of the infotainment system. The sound is transmitted via four treble loudspeakers (two in the A-pillars, two in the front door panel) each with a 65 mm diameter as well as four 200 mm bass loudspeakers in the front and back doors. As an option there is a high-end sound system that was specifically tailored for use in the new Touareg together with Danish audio specialists Dynaudio. The system uses a Dolby 7.1 power amplifier with a power of 730 Watt to power a total of 14 loudspeakers - four treble loudspeakers in the A-pillars and the front door panel (each with a diameter of 65 mm), two mid-range loudspeakers in the front doors (each 100 mm) and four mid-range loudspeakers in the rear doors (each 200 mm), two effect loudspeakers in the D-pillars (each 100 mm), a centre speaker in the dash panel as well as a subwoofer under the luggage compartment floor.



Series and optional equipment – Individual worlds of style

Three optional equipment worlds. Along with the basic equipment, three optional equipment lines are available for the Touareg: "Atmosphere", "Elegance" and "R-Line". "Atmosphere" is a warm interior world where wood and natural tones prevail. "Elegance" stands for a technical interior world dominated by metal and matching colours. In contrast, the "R-Line" has a sporty design. In conjunction with the "Atmosphere", "Elegance" and "R-Line" equipment lines, the spoilers and side sills have the same colour as the car (the "R-Line" also has wheel housing extensions in the car colour). In addition chrome trim in the area of the bumpers, windows, radiator grille and exclusive tail pipes of the exhaust system (trapezoidal design / V8 TDI series) add refinements to the exterior. The "Black Style" design package with black exterior elements as well as an ambient package with multicoloured ambient lighting and illuminated stainless steel sill panel trim is available as an option. An overview of the important features of the basic equipment and the three equipment lines "Atmosphere", "Elegance" and "R-Line":

Basic equipment of the Touareg V6 model (excerpt, Germany)

Exterior equipment

- Rear tailpipe (standard)
- Windscreen made of heat-reflecting glass
- Fuel tank with 75 l capacity
- LED tail light clusters
- LED headlight with LED daytime running lights
- Alloy wheels "Cascade" 8 J x 18
- Tyres 235/65 R 18



Interior equipment

- Luggage compartment cover
- Centre armrest, front
- Multi-function steering wheel in leather, with paddle for standard seat, front
- Centre seat panel in "Graphite" cloth
- Decorative trim in aluminium "Cortina Silver"
- Textile floor mats, front and rear
- Tyre Mobility Set: 12 Volt compressor and tyre sealant
- Front seat with height adjuster

Functional equipment

- Exterior mirror, can be electrically adjusted, pivoted and heated
- Dual tone horn
- Headlight activation, automatic
- Driving profile selection
- Suspension/damping, standard
- Pedestrian protection system, enhanced
- Cruise control system incl. speed limiter
- "Air Care Climatronic" air conditioning system with 2-zone air conditioning
- Loudspeaker (8)
- Make-up mirror illuminates in the sun visor
- "Premium" multi-function display
- Multi-function camera
- "Discover Pro" navigation system
- Emergency Call Service, 10 year duration; no registration necessary, service is activated when delivered
- Press & Drive without safelock
- "Lane Assist" lane departure warning system



- Mobile phone interface
- USB port also for iPod/iPhone
- Dynamic Road Sign Display

Safety

- Three-point automatic seat belt at front with height adjuster and belt tensioner, curtain airbag system for front and rear passengers incl. side airbags.
- Three-point automatic seat belt with belt tensioner for the outer rear seats.
- Poor weather light
- Whiplash-optimised head restraint, front
- "Front Assist" area monitoring system
- First aid kit, warning triangle and high-visibility waistcoat
- Acoustic warning and lights for unbuckled belts, front and rear

Standard paintwork / colours

- "Pure White"
- "Black"

Optional paintwork / colours

- "Aquamarine blue, metallic" (new)
- "Tamarind brown, metallic" (new)
- "Juniper green metallic" (new)
- "Antimony silver, metallic"
- "Sand gold, metallic"
- "Quartz grey, metallic"
- "Reef blue, metallic"
- "Moonlight blue, metallic"
- "Malbec red, metallic"



- "Deep black pearl effect"
- "Oryx white pearl effect"

Atmosphere / warm world (optional)

- Decorative trim of the dash panel and door trim in precious wood (porous ash, optional shaped precious wood "porous walnut")
- Trim panel of centre console in "black matt" and "silver" (optionally in "high gloss black" and "silver")
- "Vienna" leather for basic seats
- "Vienna" leather for comfort seats
- "Savona" leather with design perforation
- Load sill guards in stainless steel
- Bumpers and bottom parts of the door in the car colour, with chrome strips; air intake with fins in chrome
- Sill panel trims in stainless steel
- Ambient lighting, white
- Window trim strips, shiny
- Design tailpipe, trapezoidal, integrated in bumper

Elegance / technical world (optional)

- Decorative trim of the dash panel and door trim in "aluminium, brushed 45°" (optionally in grey coloured stainless steel "Silver Birch")
- Trim panel of centre console in "black matt" and "silver" (optionally in "high gloss black" and "silver")
- "Vienna" leather for basic seats
- "Vienna" leather for comfort seats
- "Savona" leather with design perforation
- Load sill guards in stainless steel
- Bumpers and bottom parts of the door in the car colour, with chrome strips; air intake with fins in chrome



- Sill panel trims in stainless steel
- Ambient lighting, white
- Window trim strips, shiny
- Design tailpipe, trapezoidal, integrated in bumper

R-line (optional)

- Decorative trim of dash panel and door inserts in aluminium "Silver Wave"
- Trim of centre console in "High Gloss Black" and "Silver Look"
- "Vienna" leather for comfort seats, "R-line"
- "Savona" leather for comfort seats, "R-line"
- Load sill guards in stainless steel
- Multi-function steering wheel in leather, heatable and with paddles
- Bumper in "R"-styling, bottom parts of bumper and door in car colour
- Radiator grille with "R-line" logo
- "R-line" streaker, side
- Sill panel trim in stainless steel, with "R-line" logo at front
- Pedals in brushed stainless steel
- Ambient lighting, white
- Window trim strips, shiny
- Wheel housing extension in car colour
- Wheel trim car colour (19 inch)
- Design tailpipe, trapezoidal, integrated in bumper



Driver assist systems – Fusion of the latest technologies

Safety and comfort automated. The new Touareg is one of the safest and most comfortable cars in the world. The broad range of its driver assist system contributes to this. The "Traffic Jam Assist including Roadwork Lane Assist" allows for partly automated driving functions. It is also the first time that "Night Vision" is on board a Volkswagen. The driver benefits from the interaction of the assist systems in the Touareg more than ever. As a result, comfort and safety reach a new level. An overview of the driver assist systems:

Driving dynamics and warnings

- "Traffic Jam Assist including Roadwork Lane Assist" (partly automated driving up to 60 km/h)
- "Front Assist with City Emergency Braking System and Pedestrian Monitoring"
- "Intersection Assist" (warning of cross traffic from front)
- "Lane Assist" (lane departure warning system)
- "Side Assist" (Lane Change and Turn-off Assist)"

Parking and manoeuvring

- "Trailer Assist" (trailer manoeuvring system)
- "Park Assist" (partly automated driving in and out of parking space)

Safety

- "Emergency Assist" (emergency assist if driver fails)
- "Automatic Post-Collision Braking System" (automatic braking after accident)
- "Proactive occupant protection system" (conditioning of the safety system as well as closing of windows and panorama roof before a potential accident)



Information and display

- "Driver Alert System" (warning of fatigue)
- "Night Vision" (night vision system)
- "Rear View" (rear view camera)
- "Dynamic Road Sign Display" (showing road signs such as speed information and no overtaking)
- Windshield head-up display

New driver assist systems in detail

"Night Vision". The new Touareg is the first Volkswagen available with a night vision system. "Night Vision". A thermal image camera (infrared camera) registers infrared radiation coming from a living being. Any persons or animals detected are marked yellow or red, depending on the risk, in a black and white image. The image itself is transmitted to the "Digital Cockpit". If "Night Vision" registers a risk, it actively warns the driver (via information in the "Digital Cockpit" and optional head-up display). At the same time the brakes and the brake assist system are preconditioned to provide the highest deceleration rate if required. Thanks to the new, interactive "IQ.Light - LED headlights", people in a potential danger area are briefly flashed to make them more visible for the driver and as a warning. This spotlight is exclusively offered in conjunction with "Night Vision". With the combination of "Night Vision" and "IQ.Light - LED matrix headlights", dangerous situations can be recognised significantly earlier and alleviated.

"Front Cross Traffic Assist" The new "Front Cross Traffic Assist" is a system enhancement of the "Rear Traffic Alert". Today the "Rear Traffic Alert" already gives warnings in many Volkswagen vehicles when driving backwards out of a parking space in front of cars that approach at a 90° angle behind the reversing car – the classic situation when driving out of a parking space that is arranged at right angles to the road. The system is active via an emergency brake intervention if the driver does not respond himself when the risk is detected. The new "Front Cross Traffic Assist" of the



Touareg now also warns of vehicles that approach the vehicle front end at intersections, exits or parking spaces. For this purpose, two radar sensors are integrated in the front bumper with an alignment of 55 degrees to the vehicle axis that monitor the side traffic. An emergency brake intervention also occurs here when a danger is detected and the driver does not respond in order to prevent an accident as far as technically possible or at least to reduce the severity of the accident.

“Proactive occupant protection system” The “proactive occupant protection system” was further developed for use in the new Touareg. It combines all pre-crash functions into an overall action concept and detects even more types of accidents. The basic function: If the proactive occupant protection system registers a potential accident situation, by introducing a brake hard by means of activated brake assist systems, the seat belts for the driver and passenger are automatically pre-tensioned and the electric seat functions are adjusted so that the best possible protection is achieved by the airbag and seat belt systems. If there is a highly critical unstable driving situation such as oversteering or understeering with ESC intervention, the side windows and panorama sliding roof are also closed (up to a remaining gap) This is because when the window panes and roofs are almost closed, the head and side airbags can provide optimum support and have the best possible effect. The automatic door lock and hazard warning lights are also activated. The “proactive occupant protection system now combines these pre-crash basic functions as outlined with the parameters “PreCrash Front”, “PreCrash Side”, “PreCrash Rear”, “Rollover” and “Multi-collision”. For this purpose, the system uses the existing sensors to detect possible accidents in advance as best as possible.

“Traffic Jam Assist including Roadwork Lane Assist”. The Touareg is being launched with the optional “Plus” driver assist package. This consists of the “Traffic Jam Assist including Roadwork Lane Assist”, the “Lane Assist” lane departure warning system (series in Europe), the Adaptive Cruise Control “ACC” (with stop-and-go function), “Emergency Assist” (controlled stop



when the driver fails), the new "Front Cross Traffic Assist", the "Side Assist" lane departure warning with "Rear Traffic Alert" as well as the "Proactive occupant protection system". As a result of this fusion of the different systems, the "Traffic Jam Assist including Roadwork Lane Assist" automatically takes over the longitudinal and lateral control (brakes, acceleration, steering) at speeds up to 60 km/h when the steering wheel is released.

"Trailer Assist" "Trailer Assist" allows the driver to no longer have to think about the complex task of having to turn the steering wheel to the left so that trailer turns to the right (and vice versa) when manoeuvring in reverse with a car and trailer. The following components and assist systems are combined to make the innovative "Trailer Assist":

- **"Park Assist"**. The Park Assist system uses ultrasound sensors in the area of the front and rear side as well as sensors in the wheels to measure the parking space. The control unit of "Park Assist" gives the steering system precise commands concerning how the car is to be directed into the parking space. If a trailer is coupled, the control unit of the "Park Assist" changes to the "Trailer Assist" mode and provides the steering system with appropriate information about which direction it must drive so that the trailer is perfectly directed.
- **"Rear View"**. As an electronic eye, the rear view camera system is focused on the tow bar of the trailer. It views the tow bar as a compass needle - in this way, the camera recognises the current angle of the trailer to the rear of the car. The control unit of "Park Assist" converts this angle into the current steering angle of the trailer.
- **Mirror setting**. The rotary knob of the electric adjustment of exterior mirrors on the driver's side acts as a multi-function joystick with which the articulation angle of the trailer is determined.
- **Display in the cockpit**. The multi-function display between the speedometer and rev counter or "Digital Cockpit" displays which articulation angle of the trailer is set when "Trailer Assist" is activated.



- **Electromechanical power steering.** The necessary steering angle can be automatically adjusted by the car just using the electromechanical power steering. Because unlike classic hydraulic power steering (as for the Touareg predecessor), it makes it possible to be controlled by the vehicle electronics and thus moved in a controlled manner.
- **How to manoeuvre.** To manoeuvre a car and trailer in reverse, the driver stops behind the bay for the space for the trailer and shifts to reverse gear. The system is activated by pressing the "Park Assist" button. Now the mirror adjustment switch is displayed on the display. The driver gets information on how he can set the desired steering angle. As soon as he moves the switch, a symbol with trailer appears on the display. Here the current articulation angle and the articulation angle of the trailer newly set by the driver is displayed. With the aid of the external mirror switch, the driver sets the desired direction of travel of his car and trailer. "Trailer Assist" takes over the specified steering angle. The car and trailer is automatically aligned using the control unit of "Park Assist" and using the electromechanical power steering. In the first manoeuvring phase, the driver selects the articulation angle (up to 75°) to turn in reverse in a certain direction or to drive on a curve. If the trailer is then in the direction of the destination, the driver finally simply draws the mirror adjustment switch back. The car and trailer now drive precisely in reverse in the trailer direction without having to still make manual corrections.

"Multicollision brake". Around 25 percent of all accidents with personal injury are collisions that take place after the actual first accident. Such further collisions can be possibly prevented or their severity at least reduced using the standard "multicollision brake". After a collision and as part of the limits of the system, the "multicollision brake" automatically introduces braking before the driver can respond. The second generation of "multicollision brake" is now used in the Touareg. Braking now takes place until standstill. At the same time the preventive safety measures of the "proac-



tive occupant protection system" are activated. In addition the intensity of the stabilising brake hard are increased up to 1g.

Light systems – As bright as day at night with the LED matrix

"IQ.Light – LED matrix headlight". For the third Touareg generation, one of the world's best headlight systems was developed together with HELLA, the German automobile supplier: the optional "IQ.Light LED matrix headlight". It is impressive with an interactive light control that makes night rides more comfortable and safer. The Volkswagen designers and engineers together with the team from HELLA succeeded in completely merging the LED light system with a three dimensional design consisting of the headlights, daytime running lights, blinker and cornering light with the superior and charismatic front end of the Touareg and designing an distinctive daytime and night light design.

128 LEDs per headlight. The LED headlights use a matrix made of light spots – individual LEDs that can be activated. The matrix of the dipped beam is made up of a printed circuit with 48 LEDs while the circuit board of the main beam is fitted with 27 LEDs. The LEDs in the dipped and main beam module are arranged similar to a chessboard. There are various LEDs in addition to the total of 75 LEDs of the dipped and main beam. Including the surround lighting as well as the so-called signal functions (daytime running light and elevated side light as well as animated turn signal), there are a total of 128 LEDs per headlight. The Touareg therefore uses the power of a total of 256 LEDs in the various segments of the left and right headlights at the front to make the night safe and as bright as day.

Intelligent light functions. Various intelligent light functions from the electronics of the Touareg are activated using the 75 LEDs of the dipped and main beam as well as seven 75 front end LEDs (in five reflection chambers) and three cornering light LEDs. The corresponding computer uses the signals of the front camera, the digital card data of the navigation system, the



GPS signals, the steering wheel angle as well as the current speed to precisely activate the individual LEDs for the best light in a split second. The driver switches on the main beam headlight via "Dynamic Light Assist". The Touareg manages the rest itself – dim, turn up, city lighting, optimum motorway light or offroad light. As the new matrix headlights operate with the highest light output, people, objects, other vehicles and animals are made visible that would be less recognisable and less visible earlier on with conventional headlight systems in night-time darkness. The increase in light output and optimised illumination is clearly noticeable. An interesting point: The comparison between the very good xenon headlights of the predecessor and the new Touareg LED system results in a range increase of more than 100 metres for the "IQ.Light – LED matrix headlights" for the main beam. The interactive headlights already operate similar to those in a car with an autonomous driving mode. For example, the front camera registers brightly illuminated areas as "residential". In this case the Touareg automatically switches from main beam to low beam. Using the digital card data and GPS signals of the navigation system, the Touareg with "IQ.Light – LED matrix headlights" also recognises a change from right-hand to left-hand traffic. If a trip starts at Dover in England and ends in Calais in France, the system automatically adapts the light distribution when the mainland is reached. Details of the light functions of the "IQ.Light – LED matrix headlight":

- **City lighting:** A particularly wide light beam with a focus on the sides; active up to 50 km/h
- **Dipped headlight:** Dipped beam with wide light distribution in the direction of the kerbside
- **Side light:** Permanent main beam on country roads without blinding other road users.
- **Motorway dipped beam:** Narrower light beam focussed on a wide reach for high speeds



- **Motorway light:** Narrower light beam focussed on a wide reach for high speeds if no other road users are blinded
- **Overtaking light:** Precise main beam for overtaking procedures without blinding road users. The system recognises that the Touareg pulls out to the side. This side area is now illuminated more intensely.
- **Main beam:** Manually activated main beam to deliberately use all 75 LEDs of the headlight for maximum illumination. In contrast to the motorway light, the light beam is wider.
- **Poor weather light:** Reduces blinding for the driver and other road users on wet roads. It is activated when the rain sensor detects rainfall. The annoying reflections of the headlight on the wet, reflective road surface directly in front of the driver are reduced by the "IQ.Light" reducing illumination intensity in this area
- **Sign glare control:** Precise suppression of the main beam on signs so that the reflected light of the headlight does not blind the driver.
- **Offroad light:** A particularly powerful dipped beam focussed on the width to be able to recognise obstacles on terrain.
- **Spotlight (for "Night Vision"):** Focussed illumination of people detected by "Night Vision" (infrared camera) without dazzling to make them easier to see for the driver

LED tail light clusters. LED technology is also used for the tail light clusters. The design and the LED contours gives the rear area a distinctive nightlight signature. Prominently visible in daytime and at night and equipped with an optional signal effect: the brake light with distinctive changeover of the LED areas ("click-click effect"). The rear turn signals also have an animated design ("wiping") in the top version.



Drive systems – Efficiency for business and adventure

V6, V8 and plug-in hybrid drive. Volkswagen will initially offer the new Touareg with efficient and superior V6 turbo engines (3.0 litre capacity). They are all designed on board the SUV for maximum trailer weights of 3.5 tonnes (braked up to a gradient of 8 percent). The range of engines for the start phase in Europe: Here there will be two V6 diesel engines with 170 kW / 231 hp¹ and 210 kW / 286 hp² (TDI / each EU6 AG) as well as a 250 kW / 340 hp¹ V6 petrol engine (TSI / EU6 AJ). The 231-hp-TDI generates a maximum torque of 500 Nm; this is 600 Nm for the 286-hp-TDI. The TSI has a maximum torque of 450 Nm. This will also be followed by a 4.0 litre V8 turbo diesel engine (EU6 AG) with a power of 310 kW / 421 hp¹ and a substantial maximum torque of 900 Nm. This range of performance and torque guarantees the highest maximum trailer weights in the segment. In addition a plug-in hybrid drive with a system power of 270 kW / 367 hp¹ is first planned for China. The exact launch date of the Touareg with plug-in hybrid drive in Europe has currently not yet been set.

Start of engine launch in Europe. The first Touareg engine offered for market entry in Europe is the V6 TDI with 210 kW / 286 hp. This has the following driving performances and consumption values: The Touareg V6 TDI SCR 4MOTION (weight: 1,995 kg) accelerates to 100 km/h in 6.1 seconds with this engine. The SUV reaches the maximum speed of 235 km/h or 238 km/h with the optional air suspension. This compares with an average fuel consumption of 6.9 l/100 km (NEDC); the corresponding CO₂- emission value is 182 g/km. The driving performances and consumption values of the other Touareg versions will follow.

All-wheel drive 4MOTION. The new third generation of Touareg is also equipped with a permanent all-wheel drive (4MOTION) as standard. The all-wheel drive is coupled with an 8-gear automatic gearbox (gear shift by "Shift by Wire", gear display in the handle and on the instruments) as standard that can transmit drive torques of up to 1,000 Nm. A centre dif-



ferential lock with asymmetric dynamic torque distribution acts as a transfer box for the flow of forces between the front and rear axle. A maximum of 70 percent of the drive force reaches the front axle and up to 80 percent to the rear axle.

4MOTION Active Control. The standard all-wheel drive Touareg is equipped with 4MOTION Active Control with driving profile selection. The system is operated via a so-called operating unit for driving mode selection in the centre console. The driver uses it to activate four higher-level modes and different pop-up menus. If the driver turns the round switch to the left, he accesses the road profile. If the switch is turned to the right, the offroad profile opens. 4MOTION Active Control can be used to adapt all relevant assist systems to the drive situation in seconds. The driving profile selection is also standard. Here the driver can individually control the parameters for the automatic gearbox, the automatic air conditioner, the steering system, the different assist systems, the 4-Corner air suspension as well as the Adaptive Cruise Control (ACC) and the response behaviour of the engine depending on the series and optional equipment.

Details of the driving profile selection. The five standard and four optional driving profiles can be selected via a corresponding menu in the infotainment system and/or the 4MOTION Active Control.

Overview of the onroad driving profile

- "Eco" (optimised for consumption)
- "Comfort" (optimised for comfort on long trips)
- "Normal" (balanced standard)
- "Sport" (increased dynamics)
- "Individual" (parameters can be individually selected)



Overview of the offroad driving profile

- "Snow" (optimised for slippery roads)
- "Offroad Auto" (optional with "Offroad package" / optimised for general offroad situations)
- "Sand" (optional with "offroad package" / adapted for deep sand, without Hill Descent Control)
- "Gravel" (optional with "Offroad package" / for light terrain such as dirt roads)
- "Offroad Expert" (optional with "Offroad package" / offroad parameters can be individually selected)

Offroad package. The optional driving profiles of the Touareg are available in conjunction with the Offroad Package that is available as special equipment. In parallel with the additional driving profiles, it includes two towing eyes, a fuel tank increase from 75 to 90 litres as well as an underseal system with radiator grille, a reinforced underbody guard, a protective part for the 12V battery, particularly robust aerodynamic fairing as well as a tank guard and a stone deflector.

3.5 tonne maximum trailer weight and new towing bracket. The new Touareg is one of the few passenger cars designed for maximum trailer weights up to 3.5 tonne (braked, up to twelve percent gradient). Due to its running gear configuration, permanent all-wheel drive and high-torque V6 and V8 engines, the Touareg masters these trailer weights effortlessly. Like its predecessor, a high percentage of new Touaregs are expected to be configured and ordered with a towing bracket. It was newly developed and now offers a maximum level of comfort as the ball neck of the towing bracket is electrically retracted out and extended from the underbody with a press of a button. Thanks to the new system of the towing bracket, bicycle carriers for up to four instead of three bicycles can now be mounted



Running gear systems – A new level of performance

Light aluminium for the running gear. The running gear of the new Touareg was largely newly developed to further perfect the comfort and dynamic properties. Volkswagen is once again offering a 4-Corner air suspension with electronic damping control for the Touareg as an option. It has been significantly enhanced. A complete new development is the active roll compensation with electromechanical adjustable anti-roll bars. An all-wheel steering system that makes the large SUV agile and manoeuvrable similar to a compact SUV has also been newly developed. Generally five-link suspensions with a light aluminium/steel design are used. An overview of the individual elements shows where aluminium is used for the axles.

The front axle consists of the following elements

- Shock absorber (dual tube shock absorber)
- Steel springs (with linear characteristics)
- Suspension struts (aluminium-cast construction)
- Ball joints and transverse link/wheel bearing housing
- Connecting rod, top level (aluminium-forged construction)
- Wheel bearing housing (aluminium-forged construction)
- Coupling rods (aluminium housing with rubber-metal bearings)
- Guide link (aluminium-forged construction)
- Cross brace in steel design (with bolted subframe)
- Track control link (aluminium-forged construction)
- Anti-roll bar

The rear axle consists of the following elements

- Top and bottom transverse link (steel construction; designed as aluminium-forged construction in the case of air suspension running gear and all-wheel steering system)
- Shock absorber (dual tube shock absorber)



- Steel springs (with linear characteristics)
- Track guide (steel construction)
- Coupling rods (aluminium-extrusions)
- Subframe (steel construction)
- Spring link (aluminium-extrusions)
- Aerodynamic trim (attached to spring link)
- Hub carrier (aluminium-cast frame)
- Anti-roll bar

Active roll compensation. The adaptive roll compensation is a new development as outlined. From now on it is referred to as “electromechanical active roll stabilisation” (“eAWS”) due to its structural design. The two most important components of the eAWS are the anti-roll bars at the front and rear axle. Conventional running gears are equipped with a steel anti-roll bar at the front and rear that stretches from one axle side to the other. The two sides of the anti-roll bar twist against each other on curves (or when driving over larger bumps with only one side of the vehicle). The kinematics cause the roll angle of the car to be reduced on curves. This works even better with the active roll compensation “eAWS”:

Electromechanical anti-roll bars. To extend the limits of driving physics, the Touareg equipped with eAWS has electromechanical anti-roll bars at the front and rear axle. A central control unit coordinates its use. The two sides of the relevant anti-roll bar are connected to each other via a control motor in this case. Depending on the driving situation, the two halves of the anti-roll bar are either twisted against each other (stiffened) or decoupled using an electric motor. The necessary high voltage of 48 volt to activate the powerful electric motors is briefly established using so-called “Super Caps” (capacity accumulators). The side inclination of the Touareg is significantly reduced on curves due to the active anti-roll bars. The directional stability is also significantly increased on roads where one side is uneven. On terrain, the interlacing of the axles and therefore the traction



can be improved due to the electromechanical decoupling of the anti-roll bars.

All-wheel steering system. Another innovation on board the Volkswagen is the optional all-wheel steering system. This is because all four wheels are driven at the same time depending on the driving situation. The all-wheel steering system helps the Touareg to be the most agile large SUV. The all-wheel steering system essentially affects two driving states: Speeds below 37 km/h and speeds over 37 km/h. Up to 37 km/h, the rear wheels drive automatically at an opposing angle to the front wheels. As a result, agility and manoeuvrability is improved. Particularly when manoeuvring the turning circle, reduced by one metre from 12.19 m to 11.19 m with all-wheel steering, is noticeable. If the speed increases to more than 37 km/h, the rear wheels automatically drive in the same direction when steering in the same way as the front wheels. As a result, the driving behaviour is significantly smoother as the all-wheel steering stabilises the lane change – when overtaking quickly. The same applies for sudden evasive manoeuvres.

Enhanced 4-Corner air suspension. The new generation 4-Corner air suspension not only perfects the level of comfort, but also the aerodynamics and trips on rough terrain. The new open air suspension system operates quickly and silently and is insensitive to temperature and outside pressure fluctuations (as in the mountains). The air suspension is at the "Normal level" or "Comfort level" as standard. In addition a "Terrain level" increased by 25 mm and a "Special terrain level" by 70 mm are also available. At speeds from 120 km/h, the running gear is automatically lowered by 15 to 25 mm using the air suspension (deep level) to reduce the air resistance and adjust the driving behaviour. Last but not least, there is a "Load level" (minus 40 mm) available that simplifies loading and unloading the luggage compartment.

Air suspension optimises offroad parameters. The offroad parameters change depending on the suspension. The maximum climbing capability (60 percent) and transverse gradient (35 degrees) are identical with steel



and air suspension. The front and rear ramp angle increases with air suspension from 25 to 31 degrees. The breakover angle also increases from 18.5 to 25 degrees. As the ground clearance can be increased with air suspension, the maximum wading depth also increases (from 490 to 570 mm). The manually adjustable level of the air suspension is activated using rotary pushbutton switches in the centre console.



Feature

The first 15 years – Globetrotters and world records

2002

Touareg V10

Some legends are better told with numbers than words. Ten cylinders, 230 kW / 313 hp, 0 to 100 km/h in 6.9 seconds and above all: 750 Nm torque! The Touareg with a 5.0 litre V10 TDI and two turbo chargers under the powerful front hood pushes the limits of 2002 to the very top.

2004

Limited Edition Touareg W12 Sport

In 2004, the developers think that the masterpiece of engine construction at Volkswagen also belongs in the Touareg. And they implemented the 331 kW / 450 hp and 6.0 litre W12 powertrain in the successful SUV. The Touareg W12 Sport sprints to 100 km/h in 5.9 seconds. Customers also have to be fast: This pleasure is limited to 500 cars.

2005

Touareg Kong

Literally one of the biggest Hollywood heroes is the godfather of this special model. In 2005, the Touareg took part in the filming of "King Kong" as the official crew vehicle while appearing as an advertising star in front of the camera on the original film set. Like its namesake, the Touareg "Kong" appeared confident, powerful and completely in black – only the "white woman" was missing at the wheel.



Once around the world

The dream of a round-the-world trip as one of the last big adventures was fulfilled by ten globetrotters – journalists, guests and professional drivers – in five standard Touareg TDIs with 128 kW / 174 hp. The Touareg experience 360° covered more than 77,000 kilometres and five continents through the most fascinating, beautiful and spectacular landscapes on the planet.

Driverless through California

Autonomous driving is still pure science fiction for ordinary people in 2005. However the researchers of Stanford University have long been making this technology feasible. And to prove that it works: with a Touareg – one of the first truly intelligent vehicles in automobile history – they win the Grand Challenge of the American DARPA (Defense Advanced Research Projects Agency) for autonomous vehicles in which only four of the 23 who started the race reach the finish line.

Team Zietlow in the Touareg

Adventurer Rainer Zietlow breaks a total of four world records with different Touareg models. The first is an altitude world record at 6,081 metres in Chile in 2005 (15 to 29 January 2005). In the years afterwards, he breaks three long-distance world records. At the Panamericana (23,000 km in eleven days and 17 hours, 2 to 13 July 2011), Cape to Cape from the North Cape in Norway to Cape Agulhas in South Africa (despite an accident and a 13-day pause for repairs in Ethiopia, 17,000 km in 21 days and 16 hours, October 2014) and Cape to Cape 2.0 from Cape Agulhas to the North Cape (17,568 km in 9 days and 4 hours).



2006

Touareg pulls a Boeing 747, otherwise known as the jumbo jet

Follow me! A Volkswagen Touareg pulls a 155 tonne Boeing 747 from the hangar in November 2006 – a world record. The Air France plane previously played a part in the Bond film "Casino Royale". In 2014, the magazine "Fifth Gear" repeats the test. Once again the Touareg hooks up a jumbo jet and pulls it over the runway.

2007

Touareg R50

As one of the most powerful offroad vehicles in the world, the Touareg R50 makes history in 2007. Its V10 TDI engine delivers 258 kW / 350 hp and a superior torque of 850 Nm. 21 inch rims with 295 series tyres, air spring sports running gear, blue painted brake caliper, discreet wheel housing extensions and exclusive equipment characterise the R50.

2008

With Buggy technology to the Baja

The Baja 1000 is a crazy desert race where the most intense obstacles are also overcome at full speed. VW Buggys based on VW Beetles dominated the spectacle in the early days. In 2008, Volkswagen takes part with a modern Touareg Trophy Truck, in principle a breakneck steel cage with powerful wheels and carbon fibre body.



2009

Tuning Touareg "Silk Way Rally"

Before Volkswagen took motorsport to the great Dakar triumphs, the Race Touareg II Events such as the "Silk Way Rally" through Russia, Turkmenistan and Kazakhstan dominated. For this reason, the Swabian automobile finisher, Hoefele, applies a conversion kit with newly designed front and rear bumpers, bull bar and side running boards made of stainless steel. The target is the markets in Russia and Asia.

The sons of the desert

"Dakar" is considered to be the hardest rally in the world – a Race Touareg dominates it three years in a row. The acclaimed double win of 2009 is surpassed by Volkswagen in 2010 and 2011 with a triple win. The desert racer is a genuine prototype with a five-cylinder mid-mounted engine, grid tubular frame, carbon body and powerful spring deflections.

2010

Meeting of the Dakar legends

In January 2010 Volkswagen wins the merciless Dakar rally for the second time in succession. Three all-wheel drive Race Touareg 2 share the winner's podium. Exactly 30 years before, three all-wheel drive VW Race Iltis achieved the same triumph. The driving presentation of the Touareg 2 led to the summit meeting of the Dakar legends.



2011

Race Touareg Qatar

Finest racing technology on the road or better still: Desert approval. The Race Touareg 3 Qatar took the exquisite capabilities of the three-time Dakar winner into a small-series study. The concept car presented in Qatar combines uncompromising technology with high-quality materials – such as carbon and the finest nubuck and nappa leather. An all-terrain vehicle for connoisseurs.

Touareg Gold Edition

With this Touareg, all that glitters is gold. For the Qatar Motor Show 2011, Volkswagen finished a unique model in 24 carat gold. The 22 inch rims, roof railing, ram-protections, window frames, mirror caps and parts of the air intake grille, the "Touareg V8 emblem and the boot-edge protection are coated in the precious metal.

2017

On the Silk Road

For the 15th birthday of the successful model, a fleet of 30 Touaregs started an expedition along the historic Silk Road. They covered 5,200 kilometres on roads and paths of immensely varying quality. The route from Luoyang in central China to Horgos, the border town in northwest Xinjiang Uygur, was covered by the convoy within 15 days.



Technical data of the new Touareg

	Touareg V6 TDI
Engine	3.0 V6 TDI
Power	210 kW / 286 hp
Torque (max)	600 Nm
Gearbox	8-gear automatic
All-wheel drive	4MOTION
Vmax steel spring suspension	235 km/h
Vmax air suspension	238 km/h
0-100 km/h	6.1 seconds
Consumption	6.9 l/100 km
CO ₂ emissions	182 g/km
Weight	1,995 kg
Length	4,878 mm
Width	1,984 mm
Height	1,702 mm
Wheelbase	2,894 mm
Cw value	0.32
Luggage compartment	810 litre
Wheel sizes	18, 19, 20, 21 inch
Turning radius	12.19 m
Turning radius (all-wheel ste	11.19 m