



Model Series, Innovation and Technology Communications

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Dynamic and emotional: the new Audi SQ5 3.0 TFSI

- **World premiere in Detroit: the pinnacle of the Q5 model series**
- **3.0 TFSI engine with 260 kW (354 hp) and 500 Nm (368.8 lb-ft)**
- **Sport SUV sprints 0 to 100 km/h (62.1 mph) in 5.4 seconds**

Ingolstadt/Detroit, January 9, 2017 – Audi presents the new Audi SQ5* at the North American International Auto Show (NAIAS) in Detroit. The sportiest member of the Q5 model series embodies more than ever the emotional concept of the practical SUV with the latest technology. It's turbocharged, 3.0 TFSI offers powerful performance combined with further enhanced efficiency.

The 3.0 TFSI

The Audi SQ5 has a 2,995 cc, V6 TFSI engine with an output of 260 kW (354 hp). The turbocharged, aluminum engine delivers a constant 500 Nm (368.8 lb-ft) of torque from 1,370 to 4,500 rpm. The sprint from zero to 100 km/h (62.1 mph) is completed in 5.4 seconds; top speed is an electronically governed 250 km/h (155.3 mph). In the NEDC, the new Audi SQ5 3.0 TFSI consumes just 8.3 liters of fuel per 100 kilometer (28.3 US mpg) – a CO₂ equivalent of 189 grams per kilometer (304.2 g/mi). Compared with its predecessor, this is a reduction of 13 grams per kilometer (20.9 g/mi).

New combustion process: higher efficiency

A new combustion process developed by Audi makes the 3.0 TFSI particularly efficient. It is based on the so-called "B cycle" process in combination with high-pressure injectors centrally located in the combustion chambers.

With its artificially shortened compression phase, the B cycle enables an engine process with a significantly higher base compression ratio. Combined with a power stroke that, while normal, is longer relative to the compression stroke, this allows for more efficient combustion and increased engine efficiency.

*The collective fuel consumption values of all models named and available on the German market can be found in the list provided at the end of this MediaInfo.



Under part load, the Audi valvelift system enables a very short intake aperture duration of 130 degrees of camshaft angle coupled with the early closure of the intake valve. This shortens the intake phase. At higher loads, the system switches to a camshaft contour with a longer opening time and a larger valve stroke. The engine then operates with a normal compression ratio and maximum throughput.

Turbocharger: separate exhaust gas flows

The turbocharger, which replaces the mechanical compressor of the previous engine, operates according to the twin-scroll principle. The exhaust branches of the two cylinder banks run separately in the exhaust manifold and in the turbocharger housing, and only merge before the turbine wheel. This technology improves the flow characteristics for more spontaneous turbine response, and is key factor behind the early and powerful development of torque.

The turbocharger is located within the 90-degree V of the cylinder banks. Accordingly, the exhaust side is on the inner side of the cylinder heads and the air intake on the outer side. This arrangement enables compact construction and short gas flow paths with minimal flow losses, thus the 3.0 TFSI responds extremely spontaneously and directly.

Less weight: 14 kilograms (30.9 lb) less

The V6 TFSI engine weighs just 172 kilograms (379.2 lb) and thus 14 kilograms (30.9 lb) less than the previous supercharged engine. Made with an aluminum alloy using the complex sand casting process, the cylinder crankcase features integrated, thin-walled cylinder liners of gray cast iron. In combination with the newly developed rings for the aluminum pistons, this reduces friction.

Another efficiency module: innovative thermal management

The crankcase and the cylinder head have separate coolant circuits. After a cold start, the switchable water pump controls the flow of coolant through the engine so that the oil comes up to its operating temperature as quickly as possible. The exhaust manifold is integrated into the cylinder head and bathed in coolant. This helps the engine to heat up quickly. When the engine is warm, the system reduces the exhaust temperature. The result is lower fuel consumption, particularly during sporty driving.

Driving dynamics

A fast and smooth-shifting, eight-speed tiptronic transmits the power in the new Audi SQ5. The lower gears feature short, sporty ratios, while the upper gears are long to reduce revs and fuel consumption. Provided that the function is activated in Audi drive select, the transmission automatically switches to freewheeling mode as soon as the driver lifts his foot off the accelerator at speeds between 55 and 160 km/h (34.2 and 99.4 mph) for even greater fuel efficiency.



The quattro permanent all-wheel drive contributes to the sporty handling. During normal driving, it distributes the engine power with a slight rear-axle bias. When necessary, the lion's share of the power is sent to the axle with the better traction. Wheel-selective torque control is active on all types of surfaces. During dynamic cornering, the software function slightly brakes the inside wheels. The car turns itself into the curve ever so slightly. Turn-in behavior remains neutral longer, and handling is stable, precise and agile.

The optional sport differential further optimizes handling by actively distributing torque between the rear wheels via two superposition stages. It sends more torque to the outside rear wheel when accelerating out of particularly tight radii, making the Audi SQ5 even more agile. The sport differential literally pushes the car into the curve, nipping understeer in the bud. Its management is integrated into the Audi drive select control system, and it runs over a central control unit, the electronic chassis platform.

A five-link suspension front and rear lays the foundation for the sporty driving characteristics of the new Audi SQ5. The complex design provides for greater stability at the limit and combines increased agility with significantly improved comfort. The standard damper control features a particularly wide spread between comfort and dynamic. The adaptive CDC dampers (continuous damping control) are integrated into the Audi drive select system along with the engine, steering, tiptronic and optional sport differential. This lets the driver control the characteristics of the engine and suspension over several modes. The S-specific adaptive air suspension is available as an option. This system allows the driver to adapt not just the damping, but also the ride height to the respective driving situation.

The new electromechanical power steering with S-specific tuning is an important contributor to the driving dynamics of the SQ5. Optionally available is the dynamic steering, which varies its gear ratio depending on the speed and steering angle.

255/45-series tires are mounted on the standard 20-inch, cast aluminum wheels. 21-inch wheels are available as an option. Audi Sport offers five exclusive 21-inch wheels for further differentiation. Up front the SQ5 sports black (option: red), six-piston, fixed-caliper brakes with an S logo and 350-millimeter (*13.8 in*) discs.

Driver assistance systems

The new Audi SQ5 also picks up the driver assistance systems from the broad, high-tech portfolio of the Audi Q5.

The predictive efficiency assistant provides specific driving tips to help the driver save fuel. Adaptive cruise control (ACC) including traffic jam assist can handle some of the steering work in slow-moving traffic. Audi active lane assist makes it easier to stay in lane. Distance warning alerts the driver when the distance to a vehicle drops below a safe distance.



Cross traffic assist rear, the exit warning system, collision avoidance assist and turn assist are other new features for safety in everyday traffic. The same is true for the pre-sense systems: Audi pre sense city is standard. The system warns the driver about pedestrians and vehicles, and initiates automatic emergency braking within system limits. Park assist, the camera-based recognition of traffic signs and hill descent control round out the features.

Infotainment and Audi connect

The top-of-the-line infotainment system in the SQ5 is MMI navigation plus with MMI all-in-touch and an 8.3-inch display, which is available in combination with the tiptronic. The system recognizes handwritten input as well as touch gestures familiar from consumer electronics, such as zoom. It also provides haptic feedback to input. One element is Audi connect, which connects the new SQ5 to the internet via LTE. Audi connect enables convenient roaming in Europe for many connected infotainment services with its permanently installed SIM card – the Audi connect SIM with a flat data rate. Users can also book data packages for the Wi-Fi hotspot, which also include EU roaming.

With the package “Audi connect safety & service including security & convenience” the SQ5 also offers Car2X services. In the event of an accident or breakdown, customers in an appropriately equipped vehicle receive help automatically or at the push of a button via the emergency call and online roadside assistance services.

Furthermore, the vehicle security & convenience services enable users to easily lock and unlock the SQ5 via the MMI connect app on their smartphones. Customers can also check vehicle’s status and use additional services such as Car Finder and information about the next service appointments or warning messages.

The MMI operating logic is based on the flat hierarchies used in today’s smartphones, and it offers such features as intelligent free-text search. The natural-language voice control function also recognizes inputs from everyday speech. Serving as an additional third operating level in the new Audi SQ5 is the leather-covered multifunction steering wheel. Audi can deliver a newly developed head-up display as an option. It projects relevant information onto the windshield – including from driver assistance systems – as symbols and numbers that can be perceived quickly.

One highlight of the display and control concept is the Audi virtual cockpit. It displays all key information in razor-sharp graphics on its 12.3-inch monitor. Views available to the driver include an S-specific sport mode centered around the rev counter.



The Audi phone box, another optional feature, connects the smartphone to the on-board antenna by near-field coupling and simultaneously charges it inductively using the Qi standard. The Bang & Olufsen Sound System with new 3D sound is available for hi-fi fans. The Audi smartphone interface brings Apple CarPlay and Android Auto into the car.

Body and exterior design

The new Audi SQ5 is 4,671 millimeters (15.3 ft) long, 1,893 millimeters (6.2 ft) wide and 1,635 millimeters (5.4 ft) tall. The wheelbase is 2,824 millimeters (*9.3 ft*). The SQ5 has a curb weight of 1,995 kilograms (*4,398.2 lb*), 35 kilograms (*77.2 lb*) less than its predecessor. The body features an intelligent material mix of aluminum and extremely high-tensile-strength steels.

Even when stationary, an array of details underline the dynamic characteristics of the new Audi SQ5. The bold, sporty bumpers up front and in the rear are complemented by more strongly contoured, S-specific air inlets and the diffuser with a honeycomb grille. Another S-specific feature is the radiator grille with double aluminum slats and contrasting trim elements in matt twilight gray. The S logo with red rhombus is used in numerous locations to set additional accents.

LED technology is standard for all lighting functions. The dynamic turn signals ensure a high recognition factor. On the sides of the vehicle, aluminum-look exterior mirrors gleam and door trim strips in the body color underscore the sporty character. The rear bumper houses the S-specific twin exhaust tailpipes of the dual-branch exhaust system and an aluminum diffuser clasp. The exterior color panther black is reserved exclusively for the new Audi SQ5.

Interior

The dark-toned interior welcomes the driver and passengers with illuminated door sills bearing exclusive S logos. Contrasting stitching on the leather steering wheel and sport seats create a dynamic and elegant ambiance. The S sport seats in Alcantara/leather can be upgraded to fine Nappa leather with diamond pattern and a pneumatic massage function. Brushed aluminum inlays are standard, with a variety of wood applications and an exclusive carbon inlay available as options. Aluminum-look shift paddles enable the driver to quickly shift the tiptronic's gears. The pedals and footrest are surfaced with stainless steel.

The rear seat bench plus in the new Audi SQ5 is split into three segments. Longitudinal and seat back angle adjustment are optional. Depending on the position of the rear seat bench, the luggage compartment has a standard capacity of 500 to 610 liters (*17.7 to 21.5 cu ft*). When the rear bench is folded down, this volume grows to 1,550 liters (*54.7 cu ft*).



Equipment

In Germany, the SQ5 comes with a comprehensive list of standard equipment, including 20-inch, cast aluminum wheels in a 5-twin-spoke star design, LED headlights and S-specific damper control. Also included are quattro permanent all-wheel drive, eight-speed tiptronic, sport seats in Alcantara/leather and a three-spoke, leather-covered multifunction steering wheel. The new Audi SQ5 3.0 TFSI will be available for sale in Germany from mid-2017. It is produced in the new factory in Mexico.

- End -

Fuel consumption of the models named above:

Audi SQ5 3.0 TFSI:

Combined fuel consumption in l/100 km: 8.5 – 8.3** (*27.7 – 28.3 US mpg*);

Combined CO₂ emissions in g/km: 195 – 189** (*313.8 – 304.2 g/mi*)

** Figures depend on the tire/wheel sets used.

The Audi Group, with its brands Audi, Ducati and Lamborghini, is one of the most successful manufacturers of automobiles and motorcycles in the premium segment. It is present in more than 100 markets worldwide and produces at 16 locations in twelve countries. 100-percent subsidiaries of AUDI AG include Audi Sport GmbH (Neckarsulm), Automobili Lamborghini S.p.A. (Sant'Agata Bolognese, Italy) and Ducati Motor Holding S.p.A. (Bologna, Italy).

In the 2015 financial year, AUDI AG achieved total revenue of €58.4 billion and an operating profit of €4.8 billion. At present, approximately 85,000 people work for the company all over the world, about 60,000 of them in Germany. Audi focuses on new products and sustainable technologies for the future of mobility.