



Communications Model Lines, Innovation and Technology

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The new Audi SQ5 TDI: Instant performance thanks to electric powered compressor

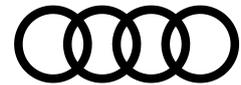
- **3.0 V6 TDI engine with 255 kW (347 hp), 700 Nm (516.3 lb-ft), electric powered compressor, classic turbocharger and 48 V mild hybrid technology**
- **Eight-speed tiptronic and quattro permanent all-wheel drive**
- **Suspension with damper control standard, optional air suspension**

Ingolstadt, February 21, 2019 – 700 Nm (516.3 lb-ft) of torque, output 255 kW (347 hp): The new Audi SQ5 TDI* once again has a powerful V6 engine under the hood, just like its successful predecessor of the first generation. An electric powered compressor ensures that maximum torque is available to the sporty SUV at just above idle; a mild hybrid system further enhances efficiency.

The 3.0 V6 TDI engine in the new Audi SQ5 TDI combines instant and supreme power with high efficiency. 255 kW (347 hp) output at 3,950 rpm and 700 Nm (516.3 lb-ft) of torque at 2,500 to 3,100 rpm. The V6 diesel accelerates the sports SUV to highway speed in 5.1 seconds on its way to an electrically limited top speed of 250 km/h (155.3 mph). In the NEDC it consumes between 6.6 – 6.8 liters of diesel per 100 kilometers (35.6 – 34.6 US mpg), corresponding to 172 – 177 grams of CO₂ per kilometer (276.8 – 284.9 g/mi). The SQ5 TDI is certified according to the Euro 6d-temp emission standard.

Audi has systematically refined the drive concept from the full-size SQ7 TDI* for the new SQ5 TDI. The 48-volt main electrical system includes an electric powered compressor (EPC) and a mild hybrid system. Energy is stored in a compact lithium-ion battery with an electrical capacity of 10 Ah located beneath the luggage compartment floor. An DC/DC converter connects the conventional 12-volt electrical system.

* 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.



New assistant for the turbocharger: the EPC

The electrically powered compressor is the ideal assistant for the turbocharger. It helps out whenever the exhaust gas flow provides too little energy to drive the turbocharger, i.e. when starting off and accelerating in the low-rev range up to 1,650 rpm. High torque is available immediately with no turbo lag whenever the driver needs it, whether starting off, passing or exiting a curve. In everyday driving situations, the early and rapid torque development made possible by the technology keeps revs and fuel consumption low.

The electric powered compressor is located in the intake air path downstream of the intercooler and close to the engine. If the load demand from the accelerator is high but there is still too little boost from the turbocharger, the EPC comes into play. A compact electric motor with an output of 7 kW accelerates the compressor wheel to 65,000 rpm in roughly 300 milliseconds, producing a relative boost pressure of 1.4 bar.

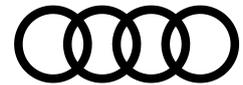
Recuperation, coasting and smooth starts: MHEV technology

The MHEV system (mild hybrid electric vehicle) in the new Audi SQ5 TDI can reduce real-world fuel consumption by as much as 0.4 liters per 100 kilometers. At its core is a belt alternator-starter (BAS) connected to the crankshaft. During deceleration, it can recuperate up to 8 kW of energy. This electrical energy is stored in the lithium-ion battery, from where it is dynamically distributed to the consumers in the electrical system.

If the driver lifts off the accelerator at a speed between 55 and 160 km/h (*34.2 and 99.4 mph*), the new Audi SQ5 TDI can, depending on Audi drive select setting and driving situation, either recuperate, roll at idle with the clutch disengaged or coast with the engine off for up to 40 seconds. The BAS restarts the engine the next time the accelerator is depressed, and that noticeably faster and more smoothly than a conventional starter. MHEV technology allows for start/stop operation at a speed of up to 22 km/h (*13.7 mph*). When stopped, the engine restarts while the brake pedal is still depressed as soon as the vehicle in front of the SQ5 TDI begins to move.

Optimized for supreme pulling power and maximum efficiency: the engine

This top output version of the 3.0 V6 TDI engine has been further developed and modified in numerous areas. Crankshaft, pistons, connecting rods and oil management have all been specially configured for the more stringent demands. The thermal management system is highly versatile. The crankcase and the cylinder heads have their own cooling circuits, allowing the engine oil to warm up quickly after a cold start. The coolant flow is directed to the oil cooler, the EPC, the BAS and the turbocharger as needed. The large exhaust gas turbocharger with variable turbine geometry (VTG) produces a relative boost pressure of up to 2.4 bar. A sound actuator in the exhaust system gives the TDI a sonorous sound.



Fast, smooth and efficient: the eight-speed tiptronic

A fast and smooth-shifting eight-speed tiptronic handles the power transmission. Its lower gears feature short, sporty ratios, while the upper gears are long to reduce revs and fuel consumption. New detailed solutions enable the tiptronic to work effectively with MHEV technology. If the sport SUV is rolling and the engine is idling or shut off entirely, a clutch in the central transmission opens and interrupts the power connection. An electric oil pump enables the tiptronic to engage the gear while coasting that will be needed at restart.

quattro and sport differential

Like every S model from Audi, the new SQ5 TDI comes standard with quattro permanent all-wheel drive. In normal driving conditions, its self-locking center differential distributes torque between the front and rear axle in a 40:60 ratio. When slip is detected, the majority of the power is directed to the axle with the better traction. Depending on the driving situation, a maximum of 70 percent can flow to the front or 85 percent to the rear.

Wheel-selective torque control, an intelligent software function complementing the quattro drive, is active on all kinds of surface. During dynamic cornering, it brakes the wheels on the inside of the curve minimally before they begin to slip. The power is thus directed via the differential to the wheel with the better traction. The sports SUV turns into the curve ever so slightly. Its self-steering behavior remains neutral for a long time, and handling remains stable, precise and agile.

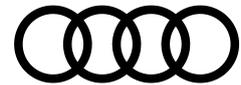
Customers can also order the SQ5 TDI with a sport differential on the rear axle. It actively distributes the power between the rear wheels during dynamic cornering. The sport differential literally pushes the car into the curve, nipping understeer in the bud. It sends more torque to the outside rear wheel when accelerating out of tight radii to further improve agility.

Sporty and precise: the chassis of the new SQ5 TDI

Sophisticated five-link suspension at the front and rear lays the foundation for the sporty driving characteristics of the new Audi SQ5 TDI. Audi also offers optional dynamic steering, which uses strain wave gearing to vary the steering ratio over a very wide range as a function of speed and steering angle. Suspension with damper control comes standard in the new SQ5 TDI. It lowers the body by 30 millimeters (*1.2 in*) compared to the Q5 with standard suspension. It offers a particularly wide spread between comfort and dynamics.

Along with the sport differential, engine, steering and tiptronic, the dampers are integrated into the Audi drive select dynamic handling system. With Audi drive select, the driver can vary the function of these systems via multiple profiles. Audi also offers the S-specific adaptive air suspension as another option. It adapts not just the damping but also the body's trim to the respective driving situation.

The new Audi SQ5 TDI comes standard with 20-inch cast aluminum wheels and 255/45-series tires. 21-inch wheels are available as an option. There is also a choice of three different 21-inch



wheel designs from Audi Sport GmbH. Aluminum six-piston calipers on the front axle grip steel discs with a diameter of 375 millimeters (*14.8 in*). The black calipers (red optional) sport S logos.

Convenient and safe: the driver assistance systems

The new Audi SQ5 TDI offers a broad portfolio of driver assistance systems. The predictive efficiency assistant provides specific 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 your lane, and the distance warning display alerts the driver when the distance to the vehicle ahead drops below a safe distance. These and other functions are brought together in the optional Tour assist package.

The optional functions rear cross traffic assist, exit warning, collision avoidance assist and turn assist also enhance safety in everyday driving. The same applies to the pre sense systems; Audi pre sense city comes as standard. It warns the driver about pedestrians and vehicles, and if necessary initiates automatic emergency braking within system limits. Park assist, camera-based traffic sign recognition and hill descent control round out the optional features.

Logical and intelligent: controls, infotainment and Audi connect

The MMI control concept in the Audi SQ5 TDI is easy to understand and features an intelligent free text search function. The natural-language voice control function also recognizes inputs from everyday speech. The third control level is the leather multifunction steering wheel, which is used to operate the driver information system or the optional Audi virtual cockpit. Depending on the setting, its 12.3-inch display shows an S-specific mode centered around the rev counter. Audi supplements this with a head-up display.

The infotainment lineup in the Audi SQ5 TDI follows a modular concept. At the top is MMI navigation plus with MMI all-in-touch and an 8.3-inch display. A standard component of the top system is Audi connect, which connects the SQ5 TDI to the internet via LTE and provides a WiFi hotspot for the passengers' mobile devices.

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



Sportily distinctive: the exterior design

Numerous exterior design details hint at the sporty character of the Audi SQ5 TDI. The bold bumpers feature strongly contoured air inlets up front and a diffuser insert with a honeycomb grille at the rear. The Singleframe grille features double aluminum slats and contrasting trim elements in twilight gray matt. The S logo with red rhombus is used in numerous locations to set additional accents.

The headlights and rear lights of the Audi SQ5 TDI come standard in LED technology; the dynamic turn signals at the front and rear send unmistakable signals. The exterior mirror housings and the clasp on the diffuser sport a shining, aluminum-look finish. Door trim strips in the body color underscore the sportiness. The exterior color panther black is reserved exclusively for the Audi SQ5 TDI.

Elegant ambiance: the 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 conveys a dynamic and elegant ambiance. The S sport seats in leather and Alcantara can be upgraded to fine Nappa leather with rhombus pattern and a pneumatic massage function. Brushed aluminum inlays are standard, with elegant wood applications or an exclusive carbon inlay available as options. The shift paddles on the steering wheel sport an aluminum-look finish; there are stainless steel applications on the pedals and footrest.

The rear seat bench plus in the new Audi SQ5 TDI is split into three segments. Longitudinal and seat back angle adjustment are optional. The luggage compartment has a basic capacity of 550 liters (*19.4 cu ft*), which can be increased to 1,550 liters (*54.7 cu ft*) by folding down the rear seat backrests.

Equipment

Standard equipment in Germany includes 20-inch cast aluminum wheels in a 5-twin-spoke star design, LED headlights and suspension with S-specific damper control. The eight-speed tiptronic transmission, quattro permanent all-wheel drive, sport seats in leather/Alcantara and a three-spoke, leather-covered multifunction steering wheel are also standard equipment. The new Audi SQ5 3.0 TDI will begin arriving at German dealerships in summer 2019 and have a base price of 67,750 euros.

– End –



Fuel consumption of the models named above

(Fuel consumption and CO₂ emission figures given in ranges depend on the equipment selected)

Audi SQ5 TDI

Combined fuel consumption in l/100 km: 6.8 – 6.6 (34.6 – 35.6 US mpg);

Combined CO₂ emissions in g/km: 177 – 172 (284.9 – 276.8 g/mi)

Audi SQ7 TDI

Combined fuel consumption in l/100 km: 7.6 – 7.2 (30.9 – 32.7 US mpg);

Combined CO₂ emissions in g/km: 199 – 189 (320.3 – 304.2 g/mi)

**Fuel consumption and CO₂ emissions figures given in ranges depend on the tires/wheels used and chosen equipment level. Further information on official fuel consumption figures and the official specific CO₂ emissions of new passenger cars can be found in the "Guide on the fuel economy, CO₂ emissions and power consumption of all new passenger car models," which is available free of charge at all sales dealerships and from DAT Deutsche Automobil Treuhand GmbH, Hellmuth-Hirth-Str. 1, 73760 Ostfildern-Scharnhausen, Germany (www.dat.de).*

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In 2018, the Audi Group delivered to customers about 1.812 million automobiles of the Audi brand, 5,750 sports cars of the Lamborghini brand and 53,004 motorcycles of the Ducati brand. In the 2017 fiscal year, AUDI AG achieved total revenue of €60.1 billion and an operating profit of €5.1 billion. At present, approximately 90,000 people work for the company all over the world, more than 60,000 of them in Germany. Audi focuses on sustainable products and technologies for the future of mobility.
