



November 19, 2020

Well-balanced and sporty at the same time – the new ID.4¹ chassis

- **Complex axle construction, compact five-link suspension at the rear**
- **Aerodynamically optimized wheels, combination tires and powerful brakes**
- **Electronic Stability Control as central unit for more agility and stability**
- **Top model ID.4 Max with progressive steering and DCC adaptive chassis control**

Wolfsburg (D) – Nimble in the city, agile on country roads, relaxed on the highway: the new ID.4 from Volkswagen is an all-rounder that is effortless and easy to drive. Volkswagen has invested a great deal of know-how in the chassis of the E-SUV – in the mechanical components and the electronic control system.



The ID.4

“The purely electrically driven SUV ID.4 is great fun to drive, similar to the compact ID.3²,” explains Karsten Schebsdat, Head of Driving Dynamics, Steering and Control Systems at Volkswagen. “In its chassis, we have implemented numerous ideas and new control systems that further increase safety and driving pleasure.”

Sporty handling due to low center of gravity. The ID.4 already offers the best prerequisites for a great driving pleasure. The rear-wheel drive ensures strong traction – the driver experiences this already when they arrive at a set of traffic lights in the wet. The high-voltage battery is located between the axles at the lowest point of the car. This benefits the center of gravity and weight distribution: with all drive variants, it deviates from the ideal value by no more than one percent, 50:50.

The front axle of the ID.4 follows the MacPherson design, the steering is translated with a 15.9:1 ratio. For the first time at Volkswagen, the steering system is located in front of the center of the wheel, this position guarantees high stability during fast cornering. At the rear is a complex new development – a compact five-link suspension with a subframe that is elastically connected to the body. Parts of the suspension are made of lightweight aluminum to reduce weight.

Large wheels and powerful brakes. The range of wheels for the ID.4 starts with the 18-inch format, either in steel or aluminum. Starting with the ID.4 Life model, 19-inch wheels are standard; above that, there are only light-alloy wheels with 20- or 21-inch diameters. Although the large wheels in the wheel arches take up a corresponding amount of space, the ID.4 only requires a turning circle of 10.2 meters – extremely little for a car in its class.

The wheels are aerodynamically optimized by their flat design, the tires have low rolling resistance. In the ID.4 Pure and ID.4 City entry-level models, they are 235

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millimeters wide at the front and rear, with cross-sections varying according to wheel size. All other ID.4 models roll off the production line on combination tires – 235 millimeters wide at the front and 255 millimeters at the rear.

The robust E-SUV has powerful brakes – the discs on the front axle of the ID.4 models with the 77-kWh battery are 358 millimeters in diameter. Drum brakes operate on the rear wheels. Their pads are designed to last the lifespan of the car. Corrosion is impossible, although the brakes are rarely used in everyday driving. Most of the deceleration is performed by the electric motor, which recovers energy in the process.

Progressive steering, DCC chassis control and driving mode selection. With the “Plus” sports package (in the top model ID.4 Max), the ID.4’s chassis takes on a whole new form. One of its two components is the Progressive Steering, which works more and more directly as the steering angle increases – its ratio ranges from 15.9:1 to 14.5:1. The other component is the DCC adaptive chassis control, which works depending on the road surface and the driving situation. It regulates the characteristics of the damper on each wheel 200 times per second – this enables a high level of ride comfort or a tight connection to the road.

The DCC and Progressive Steering are coupled with Driving Profile Selection, which gives the driver a choice of four modes. Eco, Comfort and Sport are preconfigured. In Individual mode, the driver is given additional setting options on the central display: They can select fine intermediate levels between Comfort and Sport or make both modes even more extreme – in other words, even more comfortable or even more dynamic.

The Vehicle Dynamics Manager. When the driver wants to, the ID.4 takes corners very quickly, stably and almost naturally – also thanks to the electronic Vehicle Dynamics Manager, which works closely with the stability control ESC. Volkswagen has introduced it in the new Golf. The Driving Dynamics Manager controls the wheel-selective brake interventions of the XDS electronic transverse drive lock and the work of the DCC damper control. It uses a digital target model to achieve optimum driving and steering behavior in every situation. As soon as the vehicle turns into a corner, the ID.4 behaves more spontaneously, linearly and accurately.

The ESC in turn cooperates closely with the control units for the electric engine and the power electronics. Although a rear-wheel drive car tends to oversteer in principle, this networking ensures that the rear wheels of the ID.4 find stable grip in every situation – during full acceleration, when cornering fast and when decelerating by brake recuperation. This traction control – another innovation at Volkswagen – is speed-based. And it takes place automatically every millisecond, i.e. so fast and therefore so gently that the driver hardly feels it.

Start with eight models. The ID.4, Volkswagen’s first fully electric SUV and the brand’s first electric world car, will be launched after the 1ST Edition with eight preconfigured models. The high-voltage battery is available with 52 or 77 kWh energy capacity (net), the range is up to 520 kilometers (WLTP). The electric motor is available in three power levels between 109 kW (148 PS) and 150 kW (204 PS).

The future of mobility is electric. As part of the “Transform 2025+” strategy, the Volkswagen brand is investing eleven billion euros in electromobility by 2024. The ID.4



is the second model of the ID. family following the ID.3. This new product line has recently been added to the brand's traditional portfolio. The term ID. stands for intelligent design, identity and visionary technologies.

¹ID.4 – Power consumption in kWh/100 km (NEDC): 16.9 - 16.2 (combined); CO₂ emission in g/km: 0; efficiency class: A+.

²ID.3 – Power consumption in kWh/100 km (NEDC): 15.4 - 14.5 (combined); CO₂ emission in g/km: 0; efficiency class: A+.

About the Volkswagen brand:

The Volkswagen Passenger Cars brand is present in more than 150 markets throughout the world and produces vehicles at over 50 locations in 14 countries. In 2019, Volkswagen delivered 6.3 million vehicles including bestselling models such as the Golf, Tiguan, Jetta or Passat. Currently, 195,878 people work for Volkswagen across the globe. The brand also has over 10,000 dealerships with 86,000 employees. Volkswagen is forging ahead consistently with the further development of automobile production. E-mobility, smart mobility and the digital transformation of the brand are the key strategic topics for the future
