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## Audi S7 Sportback – Suspension

The S sport suspension developed specially for the new S models comes with damping control as standard, highlighting these vehicles' sporty character. It lowers the body of the S6 by 20 millimeters (0.8 in), and by 10 millimeters (0.4 in) in the case of the S7. This gives both S models the same low ride height.

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For even sportier road behavior, quattro drive can be supplemented with the sport differential on the rear axle. On bends taken dynamically, the sport differential veritably pushes the car into the bend, producing a high level of agility. The driver can adapt the sport differential's control strategy via Audi drive select. The sporty road behavior is also aided by the five-link-design axles, which are made largely from aluminum. Two subframes connect the links with the vehicle body – the elastokinematics are firmly tuned.

All chassis components are controlled by the electronic chassis platform (ECP). It coordinates the shock absorbers' action at intervals of milliseconds. The ECP collects comprehensive information about the movement of the car and the data from the chassis control systems involved. From these, it calculates and precisely coordinates the optimal function of these components in an integrated handling controller. Drivers of the new S models experience this progress in the form of precise handling and high transverse dynamics. As well as the dampers, the EPC controls the dynamic all-wheel steering and sport differential. The driver can configure the effect of these modules in the Audi drive select dynamic handling system. It comes with an S-specific setup and offers the diverse modes "comfort", "auto", "dynamic", "efficiency" and "individual."

On request, Audi can supply dynamic all-wheel steering – this combines dynamic steering with a variable ratio of 9.5:1 and 16.5:1 at the front axle with separate rear-axle steering that is operated by spindle drive and track rods. At speeds up to 60 km/h (37.3 mph), the rear wheels turn as much as five degrees in the opposite direction to the front wheels. This reduces the turning circle by up to 1.1 meter (3.3 ft). At medium and high speeds above 60 km/h (37.3 mph), they are turned by as much as two degrees in the same direction as the front wheels. This makes the S models much more maneuverable and agile at low speeds, and provides more directional stability at high speeds and when changing lanes.

### **Strong support: the optional ceramic brake system**

The six-piston brakes on the new S models are big on performance. Their calipers are made from aluminum, painted black (or optionally red) and adorned with S logos. At the

front, six pistons on each wheel grip steel brake discs measuring 400 millimeters (15.7 in) in diameter; the rear discs measure 350 millimeters (13.8 in) across. As an option, Audi can fit a six-piston ceramic brake system made from light, abrasion-resistant carbon fiber ceramic with 400 millimeter (15.7 in) discs at the front and 370 mm (14.6 in) discs at the rear. The complete ceramic brake system weighs nine kilograms (19.8 lb) less than its steel counterpart, so it significantly reduces unsprung masses with the effect of further enhancing driving dynamics, especially when cornering. Electronic Stabilization Control ESC provides even more precise control than in the previous model. The driver can switch it to a Sport mode or shut it down completely.

The new Audi S6 Sedan, S6 Avant and S7 Sportback are fitted with 20-inch wheels with 255/40 tires as standard; 21-inch versions are optionally available. Torus absorbers – foam layers bonded into the tires – eliminate annoying droning frequencies so that these tires provide high acoustic comfort despite their size. In conjunction with the wheel range available from Audi Sport GmbH, 20-inch Performance tires can be ordered for even better grip and handling characteristics.

#### **Status 4/2019**

Audi S6 Sedan: Combined fuel consumption in l/100 km: 6.3 – 6.2(37.3 – 37.9 US mpg)\*;

Combined CO<sub>2</sub> emissions in g/km: 165 – 164 (265.5 – 263.9 g/mi)\*

Audi S6 Avant: Combined fuel consumption in l/100 km: 6.5(36.2 US mpg);

Combined CO<sub>2</sub> emissions in g/km: 171 (275.2 g/mi)

Audi S7 Sportback: Combined fuel consumption in l/100 km: 6.5(36.2 US mpg);

Combined CO<sub>2</sub> emissions in g/km: 170 (273.6 g/mi)