Steering columns

The steering column is a key component of the vehicle’s steering system. It connects the steering wheel to the steering gear and transmits the driver’s steering movements to the wheels. It also performs important functions related to comfort and safety.

Function

The steering column transmits the rotational movement of the steering wheel to the steering gear. From there, the movement is transferred to the front wheels through other steering components.

Modern steering columns usually consist of several connected shafts, joints and mounting elements. This allows the steering column to be adapted to the installation requirements of the vehicle. It is also often adjustable for height and reach so that the driver can find an ergonomic seating position.

Depending on the vehicle design, additional functions may be integrated into the steering column. These can include steering wheel switches, sensors, an ignition lock, a steering angle sensor or components for driver assistance systems.

In vehicles with electric power steering, the steering column may also form part of the electromechanical steering system.

Safety

The steering column is important for vehicle safety. It must transmit steering movements reliably, precisely and without play. Even minor defects or excessive play can worsen steering feel and impair the driver’s control of the vehicle.

An important safety feature is the collapsible or crash- optimised steering column. It is designed to compress or deform in a controlled manner during an accident. This prevents the steering column from intruding too far into the passenger compartment and causing additional injury to the driver.

The connection to the airbag system is also safety- critical. The steering wheel with driver airbag is mounted directly on the steering column. The steering column, steering wheel, airbag and other components must therefore be precisely matched.

Unusual noises when steering, noticeable play in the steering wheel, stiff steering movements or vibrations can indicate a problem with the steering column. These symptoms should always be checked by a specialist workshop because the steering system is safety- critical.

Retaining vehicle value

An intact steering column is important for a vehicle’s technical condition and its retained value. It ensures precise steering feel, ease of operation and safe handling.

Defects in the steering column should not be left unattended. Play, knocking, notches or unusual noises can indicate worn joints, bearings or mountings. Detecting and repairing such problems properly at an early stage can prevent more serious damage to the steering system.

When repairs are carried out, high -quality branded replacement parts that fit the specific vehicle model should be used. Precise fit is particularly important for safety- critical components such as the steering column. Correct installation by a specialist workshop ensures that the steering, airbag system and other functions work together reliably.



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