

CAR BODY PARTS

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A powerful and classic car is made up of several parts that function harmoniously to give you the right driving experience. If any of these vital parts get damaged, it will depreciate the performance of your vehicle, and make the car unsafe to use.

Purpose of the body. The car body is the most expensive part of the car. The car body can be either a carrier system or a separate element of it. The body of a modern passenger car consists of an engine compartment, passenger compartment and trunk.

The interior of the car is located in the body and the chassis, transmission, engine, control mechanisms, electrical and additional equipment are installed on the body. Basically, the car body is made of metal, but there are exceptions when used. The metal part of the body consists of the following body parts: the bottom of the body (treated with anti-corrosion materials to reduce corrosion); body roof; body wings (treated with anti-corrosion materials to reduce corrosion); body panels; body doors (attached to the body pillars by hinges, which are held by screws, with which the doors are adjusted vertically and horizontally); the locks on the doors (have a special design that prevents the door from opening even in case of an accident); body hood [1].

Bumpers are installed at the front and rear of the body. On modern cars, bumpers are made of plastic or other similar materials. In the event of an accident, it is the bumper of the car that first takes the blow.

Seats are installed in the passenger compartment to accommodate the driver and passengers. The car seats are installed on special sleds that allow you

to adjust the seat in the longitudinal direction. You can also adjust the seat tilt, which is provided by special handles on the sides of the seats. Seat tilt adjustment can be carried out up to the installation of a sleeping place.

Material and manufacturing technology

The body of a modern passenger car is made of high-strength steel, which goes through several stages of processing. The small thickness of the metal used makes it possible to significantly reduce the total weight of the machine, which has a positive effect on its dynamics and efficiency. Despite the small thickness of the steel, the body structure is designed in such a way that it is both lightweight and durable [2].

On most modern cars, body parts are bonded together by spot welding. This ensures the reliability of the connection of the elements and reduces the number of edges and sharp corners, which are most vulnerable to corrosion. In the future, the automotive industry will use laser welding of parts. This approach minimizes the presence of bulges and depressions at the seams, and the body structure will become simpler and more reliable.

Various types of steel are used in the manufacturing of elements of the load-bearing car body. Knowing the structural feature of the car, you can greatly simplify and speed up some bodywork

References

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