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HISTORY AND PERSPECTIVES OF BODY DEVELOPMENT IN CARS

A.M. Tonkonog, student,

National Technical University “Kharkiv Polytechnic Institute”, Kharkiv

The first motor car bodies and chassis frames, made between 1896 and 1910, were similar in design to horse-drawn carriages and, like the carriages, were made almost entirely of wood.

The frames were generally made from heavy ash, and the joints were reinforced by wrought iron brackets which were individually fitted. The panels were either cedar or Honduras mahogany about 9.5 mm thick, glued, pinned or screwed to the framework.

The tops, on cars which had them, were of rubberized canvas or other fabrics. Some bodies were built with closed cabs, and the tops were held in place by strips of wood bent to form a solid frame. About 1921 the Weymann construction was introduced, in which the floor structure carried all the weight of the seating, and the body shell, which was of very light construction, was attached to the floor unit. Each joint in the shell and between the shell and the floor was made by a pair of steel plates, one on each side of the joint and bolted through both pieces of timber, leaving a slight gap between the two pieces. The panelling was of fabric, first canvas, then a layer of wadding calico and finally a covering of leather cloth. This form of construction allowed flexibility in the framing and made a very light and quiet body frame, but the outer covering had a very short life.

Let's take a look at the historical dates for the development of car bodies: “Until 1930, the body on the chassis was the most popular type of configuration. Transport security, how to avenge the upper passenger body, mounted on the chassis, up to

which the transmission itself, the suspension, brake and steering mechanism " 1934 - the appearance of a load-bearing body along the path of integration of the chassis and the body by Citroen for the CV11 model. 1940 - appearance of a hard wedge-shaped design of the front part, the idea of which is “transformation of a frontal impact into a secondary one when two machines equipped with such attachments.

However, the wedge-shaped structure did not have a wide width through serious damages, occupied by a car without it when closed with a car equipped with a wedge-shaped structure. 1951 - Mercedes-Benz patents the concept of a safe car (patent DBP 854157), which is the fault of the mother salon and doors with over locks. Mustache interior elements can be deformed. 1952 – the appearance of an alternative design for opening doors, called the "gullwing" in the Mercedes-Benz W198 car. The purpose of the constructions is safe landing and disembarkation of the pilot in the courier, and also a change in the free space necessary for landing that landings of the water and the passenger at the clenched minds of the mind. The main lack consists in the impossibility of opening the door when it is thrown over. 1963 – the appearance of the car Rover 2000, the most famous a safe car of mass production in its own time. 1965 – Ford made the first crash tests of its cars, under an hour, 175 vehicles were ordered for some time.

The appearance of serial car model W 111, company «Mercedes-Benz» for the concept safe car. 1966 –release of the car model P 144 by Volvo. The body of the chosen car has a deformed zone in front and behind. The doors were broken in such a way as to protect opening under the hour of road traffic. 1967 – release of the Alfa Romeo 33 Stradale –the first car with a door constructions of the "blizzard wing" which rises uphill. 1968–Marcello Gandini designed and inspired the first car guillotine doors (Scissor doors, Lamborghini doors) Alfa Romeo Carabo, which open vertically. The main lack consists in impossibility open the doors when they are thrown over. In 1972, the English scholar and engineer Finch, having looked at the criteria accounting of the front part of the car, came to a conclusion, that the aim of accounting is to know the compromise between the hardness and the softness. Extra hardness is to bring to great uplifting water and passengers at the salon, and extra

softness is to great improvements in the steering column at the passenger compartment. 1997 – the appearance of EuroNCAP – the European Committee of the independent crash tests of cars with the method of assessment of active and passive security. Since 1997, rock has been actively working to complete all the elements cars that are recognized for active and passive safety, especially body structures.

Perspectives for the development in the XXI century of car bodies are motivated by the further development of the principle of progressive deformation of the body and structures, motivated by this principle, more and more usage of light materials, such as aluminum, high-quality steel, composite materials (sandwiches or multi-sphericals), various types of plastic, from which traces are seen in carbohydrate fiber or carbon, which can be seen today wider in the car promiscuity.

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TRANSPORT OF FUTURE

Tugay T., student

Gerasymchuk T.V., Associate Professor,

Kharkiv National Automobile and Highway University

Humans constantly look forward to the future with fear and hope. In fairy tales, fiction and non-fiction films and books, they invented a whole bunch of ways to look there, visit and satisfy your curiosity, drive away anxiety. The reality is completely different. We still need to invent a time machine or a magic crystal ball. So the future remains a mystery. But there is a way out. One day, William Gibson, a famous science fiction writer, suggested that the future is already here, but it is simply unevenly distributed across our planet. You can agree with that. So there are people among us who already live closer to the future.