AN ANALYTICAL MODEL FOR DETERMINATION THE FORCES IN THE SEAT BELTS AT THE AUTOMOBILE'S FRONTAL IMPACT

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Abstract

The paperwork presents an analytical model with the help of it can be evaluated the forces in the seat belts, in the case of the automobile's frontal impact with a rigid barrier, from a certain initial speed before the impact. The knowing of these forces is necessary in order to calculate the injury criteria of the automobile's occupant's human body. There is presented the proposed model, the equations which describe the forces in the seat belts, as well as a numerical application.

Keywords

modeling, impact, seat belts, forces in the belts, injury criteria.