

Title (en)

VEHICLE ARRANGEMENT COMPRISING DEFORMATION BEAMS, AND A METHOD FOR CONTROL OF DEFORMATION

Title (de)

KRAFTFAHRZEUGANORDNUNG MIT VERFORMUNGSBALKEN, UND VERFAHREN ZUR VERFORMUNGSREGULATION

Title (fr)

DISPOSITIF DE VEHICULE COMPRENANT DES POUTRES DE DEFORMATION ET PROCEDE DE REGULATION DE DEFORMATION

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Application

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Abstract (en)

[origin: WO0185527A1] A vehicle arrangement comprising an active deformation beam for a vehicle, especially for the frontal structure of passenger cars and commercial vehicles, which beam during the entire collision course is able to adjust and change the energy absorption for different collision situations. At least two sensor devices, arranged along each deformation beam at known positions in relation to each other, are transmitting signals during the entire collision course to a control device, which calculates the collision location, the deformation speed, the change in deformation speed and available length of deformation zones. The control device can, when necessary, release organs for change of stiffness, arranged on the beams, such as gas generators or explosive charges. The beams are provided with folds, which make the beams changeable in shape and stiffness in several steps and can be effected by more than one organ for change of stiffness. The rigidity of the deformation zones can therefore be adjusted at different collision situations to be advantageous for the collision situation dependent on the collision speed, the weight of the vehicles, the collision location, more or less offset collision and oblique frontal collision. The invention relates furthermore to a method for adjusting the energy absorption of a vehicle to current collision situation.

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