Grenzen des Down-Sizing von Pkw unter Package- und Sicherheitsaspekten

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The growing impacts of the road traffic in urban areas require the introduction of lightweight compact and mini-compact cars, so called city-cars. These cars have to provide extreme low emissions and fuel consumption as well as low operation costs. They save parking space but offer only restricted transportation capacities.
The drawback of such city-cars is the low level of crashworthiness. As computer simulations show at least a frontal crush length of about 0,3 m is necessary to handle the 50 km/h fixed barrier impact as well as the car-to-car collision at a closing speed of 100 km/h with a double-weight car. Depending on the number of seats and the arrangement of engine and power train the minimum overall lengths of city-cars are 2,05 m for a two-seater and 3,27 m for a four-seater. Open questions up to now are the mass ratio and the closing speed to be covered in car-to-car collisions.

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Inhaltsverzeichnis

Zitat

Appel, H.; Deter, T.; Meißner, T.; Rasenack, W.: Grenzen des Down-Sizing von Pkw unter Package- und Sicherheitsaspekten. Verkehrsunfall und Fahrzeugtechnik 33 (1995), pp. 49 – 53 (#2) & pp. 92 – 94 (#4) & pp. 167 – 170 (#6)

Inhaltsangabe

Hier geht es nicht um das Downsizing hinsichtlich des Hubraums von Verbrennungsmotoren, sondern um das Downsizing von Deformationselementen an Front und Heck eines PKW, um den Bauraum bzw. den Platzbedarf eines Fahrzeuges im dicht besiedelten, städtischen Umfeld zu minimieren.

Weitere Beiträge zum Thema im VuF

Weitere Infos zum Thema