Pedestrian Safety

Effects of Bumper Test Area Determination Using the Old vs. the New Method

Presented by the experts of OICA
Benefits of the Method Using Corner Gauges Only

• For most vehicles, the test area will be extended (as suggested by several authorities) and will at least remain unchanged for a very few

• For only very few vehicles, the bumper beam will continue to extend beyond the test area, as is the case today

• The new method:
  - Is feasible, repeatable, reproducible, less sensitive to specific design features
  - Can be performed without disassembling parts
  - Is suitable also in self certification framework

• OICA therefore supports this method
Comparison:
Old and New Method vs. Bumper Beam Width

Data were delivered by 9 OEM’s for 103 vehicles in total.
Thank you!

For detailed questions please refer to the authors, Mr. Thomas Kinsky / General Motors Europe Engineering, Mr. Winfried Schmitt / BMW and Mr. Jörg Kusche / Porsche, as representatives of the International Organization of Motor Vehicle Manufacturers OICA
• For the determination of the bumper corners, „current method“ or „old method“ refer to the method used today in gtr No. 9 and UN R127: vertical planes make angles of 60° with the vertical longitudinal plane of the vehicle and are tangential to the outer surface of the bumper, the contact points are the corners of bumper

• „New proposal“ or „new method“ refer to the method proposed by the Task Force Bumper Test Area (TF-BTA) in their documents: 236 x 236 mm corner gauges are moved parallel to vertical planes with angles of 60° to the vertical longitudinal center plane of the vehicle, the outermost points of contact are the corners of bumper

• „Bumper beam“ refers to the structural cross member under the bumper fascia protecting the front of the vehicle but does not include foam, cover support or any pedestrian protection devices