

Proposal to amend Regulation nr 17 Partitioning systems

Consideration

The status of the partitioning system in the vehicle is somewhat confusing at this moment. Partitioning systems are only added in the Regulation nr 17, which controls the strength of seat backs.

A vehicle may be granted homologation when the seats are tested with a partitioning system fitted, if this system is supplied as OE equipment. However, there are no separate specifications as to the strength of the partitioning system or its anchorages. The partitioning system that is used during homologation must be identical in all future production.

Furthermore, where a partitioning system is fitted as an option or as an after market addition to a vehicle, there is no way that the user can be sure that the product will perform as required.

A practical concern is that the manufacturers of partitioning systems can only prove the conformity of their systems to the Regulation by a full dynamic test on the vehicle, complete with seats. Besides the fact that it is almost impossible for a supplier to arrange a full scale dynamic vehicle test, this supplier does not have any control on the body attachments in the vehicle to secure the partitioning system.

All this considered means that we are of the opinion that there is a need to prepare separate static specifications for partitioning systems as an addition to Regulation nr 17. If GRSP agrees with this principle, a detailed proposal to amend regulation 17 will be submitted at 30th GRSP. Only main outline is given below.

Justification

We justify our proposal to amend Regulation nr 17 as follows:

1. there is no doubt that the installation of partitioning systems, between the luggage area and the passengers in motor vehicles, with seatbacks up-right or folded down, reduces or eliminates injuries, caused by displaced luggage during a frontal impact.
2. according to the actual Regulation nr 17, partitioning systems will only be tested in case the vehicle manufacturer supplies such a system as OE equipment.
3. In the majority of vehicles however the vehicle manufacturer provides for attachment points for a partitioning system, but, mainly for commercial reasons, partitioning systems are not always supplied as OE equipment.
4. this means that the users who want to buy a partitioning system as an accessory or as an option, will not be assured of the technical abilities (safety) of such a system, since there is no need to comply with any specification.

5. In our opinion the user of a vehicle should have the possibility to purchase and install a (safe) partitioning system at any point during the lifetime of a vehicle.
6. the only way to assure the user that he installs a safe product, is to subject this product to comparable technical requirements as required by regulation (addition of static component requirements to Regulation 17)

Proposal for amendment

Below, we like to explore the basis for a draft amendment.

- a. Static component tests on stand-alone partitioning systems.

Two systems to be considered:

- top-to-seatback system,
a partition from the top of the car to the top of the seatback.
Static test to simulate high mounted weight block of 10 kg

- top-to-bottom system,
a partition from the top to the bottom of the car.
Static test to simulate high mounted weight block of 10 kg and two weight blocks of 18 kg, placed on the floor

- b. For stand-alone testing, partitioning systems should be mounted in a rigid frame with fixation points to simulate the position and shape of the vehicle attachments.

- c. To add a static test with (one or two) upper and (one or two) bottom panels to be pressed into a fitted partitioning system with a speed of 100 mm/min

- the panel(s) representing the upper weight block, dimension 500 x 125 mm.
Force to be applied up to 400 kg

- the panel(s) representing the bottom weight block(s), dimension 600 x 3000 mm.
Force to be applied 1440 kg

The protrusion of the upper panel(s), beyond the point where it (they) first contacted the partitioning system, should not be more than 200 mm.

The partitioning system should not break away from its attachment points.
Individual strands, netting or mesh can fracture, but the panels cannot pass through the system.

After the test no sharp edges of rigid parts may be contactable.

Recommendation

Why implementation of static tests?

From in depth analysis of the results of many dynamic tests on partitioning systems, both with the car-industry and with independent laboratories (TNO, TUV, etc), the industry has evolved its own, in house, test requirements for the strength of such systems. Investigations have proven a close relationship between dynamic and static tests on the protrusion results and the damage to the system.
