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**Economic Commission for Europe**

Inland Transport Committee

**World Forum for Harmonization of Vehicle Regulations**

Working Party on Passive Safety

**Forty-seventh session**

Geneva, 17–21 May 2010

Item 10 of the provisional agenda

**Regulation No. 14 (Safety-belt anchorages)****Proposal for Supplement 2 to the 07 series of amendments to  
Regulation No. 14****Submitted by the experts from Belgium and Germany\***

The text reproduced below was prepared by the experts from Belgium and Germany in order to introduce prescriptions for side-facing seats in vehicles of category M<sub>3</sub> (Class II, III and B). This proposal supersedes GRSP-46-14, distributed during the forty-sixth session of the Working Party on Passive Safety (GRSP). The modifications to the current text of the Regulation are marked in bold or strikethrough characters.

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\* In accordance with the programme of work of the Inland Transport Committee for 2006–2010 (ECE/TRANS/166/Add.1, programme activity 02.4), the World Forum will develop, harmonize and update Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.

## I. Proposal

Paragraph 1, amend to read:

“1. SCOPE

This Regulation applies to:

- (a) Vehicles of categories M and N 1/ with regard to their anchorages for safety belts intended for adult occupants of forward-facing or rearward-facing **or side-facing** seats.
- (b) Vehicles of category M<sub>1</sub> ...provisions of this Regulation.”

Insert new paragraphs 2.6.2. to 2.6.4., to read:

“2.6.2. **“Forward-facing seat”** means a seat which can be used whilst the vehicle is in motion and which faces towards the front of the vehicle in such a manner that the vertical plane of symmetry of the seat forms an angle of less than + 10° or - 10° with the vertical plane of symmetry of the vehicle.

2.6.3. **“Rearward-facing seat”** means a seat which can be used whilst the vehicle is in motion and which faces towards the rear of the vehicle in such a manner that the vertical plane of symmetry of the seat forms an angle of less than + 10° or – 10° with the vertical plane of symmetry of the vehicle.

2.6.4. **“Side-facing seat”** means a seat which can be used whilst the vehicle is in motion and which faces towards the side of the vehicle in such a manner that the vertical plane of symmetry of the seat forms an angle of 90° ( $\pm 10^\circ$ ) with the vertical plane of symmetry of the vehicle.”

Paragraph 5.3.2., amend to read:

“5.3.2. The minimum number of safety-belt anchorages for each forward, ~~and~~ rearward **and side-facing** ~~directed~~ seating position shall be those specified in Annex 6.”

Paragraph 6.3.2., amend to read:

“6.3.2. The tractive force shall be applied ~~in a direction corresponding to the seating position~~ at an angle of 10 degrees  $\pm 5^\circ$  above the horizontal, in a plane **either parallel to the median longitudinal plane of the vehicle (for forward-facing or rearward-facing seats) or transverse to the median longitudinal plane of the vehicle (for side-facing seats).**

A preload of 10 per cent with a tolerance of  $\pm 30$  per cent of the target load shall be applied; the load shall be increased to 100 per cent of the relevant target load.”

Insert new paragraphs 6.4.7. to 6.4.8.3., to read:

“6.4.7. **Test in the case of side-facing seats**

6.4.7.1. **The anchorage points shall be tested according to the forces prescribed in paragraph 6.4.3. for M<sub>3</sub> vehicles.**

6.4.7.2. **The test load shall be directed forward in relation to the vehicle, corresponding to the procedure prescribed in paragraph 6.3. In the case that side facing seats are grouped together on a basic structure, the seat**

belt anchorage points of each seating position in the group shall be tested separately. In addition the basic structure has to be tested as described in paragraph 6.4.8.

- 6.4.7.3. Traction device adapted for the test of side-facing seats is shown in Annex 5 Figure 1b.
- 6.4.8 Test of the basic structure of side-facing seats
  - 6.4.8.1. The basic structure of a side-facing seat or a group of side-facing seats shall be tested according to the forces as prescribed in paragraph 6.4.3. for M<sub>3</sub> vehicles.
  - 6.4.8.2. The test load shall be directed forward in relation to the vehicle, corresponding to the procedure prescribed in paragraph 6.3. In the case that side-facing seats are grouped together the basic structure shall be tested simultaneously for each seating position in the group.
  - 6.4.8.3. The point of application of the forces prescribed in paragraphs 6.4.3. and 6.4.4. shall be as close as possible to the H-Point and on the line defined by a horizontal plane and a vertical transverse plane through the relevant H-Point of each seating position.”

Annex 5,

Insert a new Figure 1b, to read:

“Annex 5

...

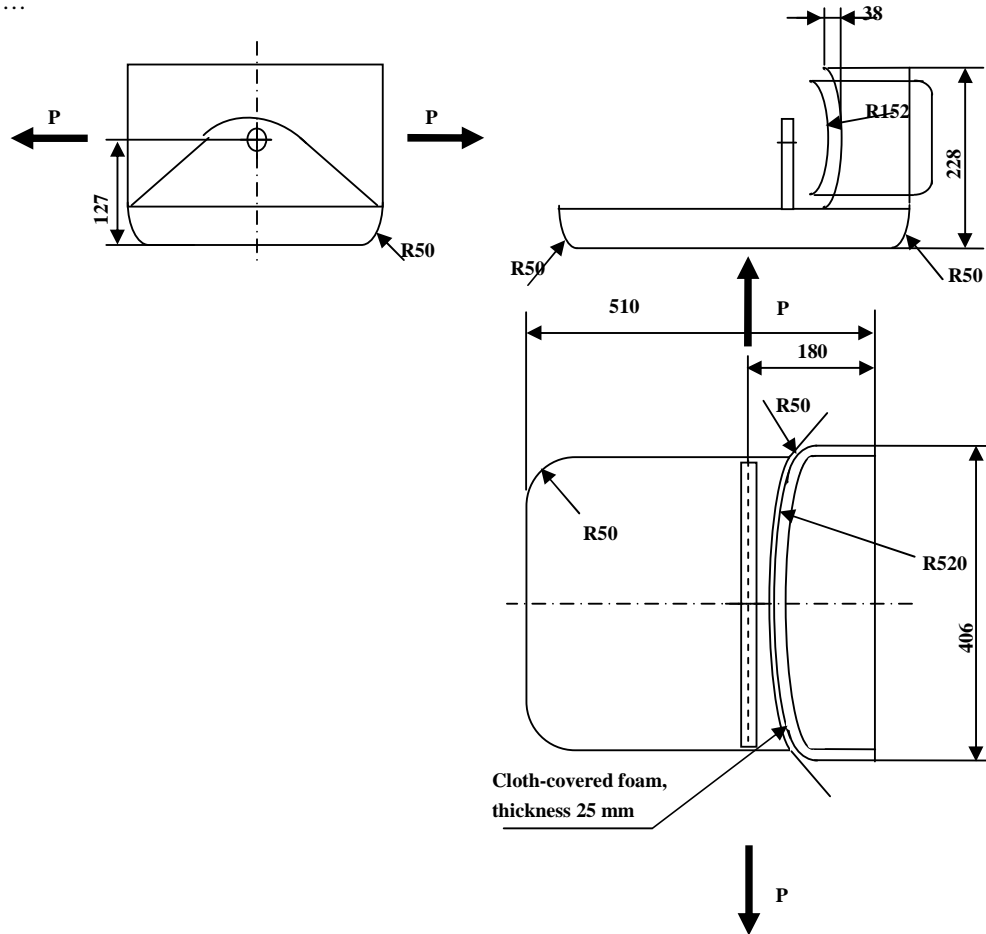


Figure 1b

...”

Annex 6,

The table, amend to read:

“Annex 6

...

VEHICLE CATEGORY	FORWARD FACING SEATING POSITIONS				REAR FACING	SIDE FACING
	OUTBOARD		CENTRE			
	FRONT	OTHER	FRONT	OTHER		
M <sub>1</sub>	3	3	3	3	2	
M <sub>2</sub> ≤ 3.5 tonnes	3	3	3	3	2	
M <sub>3</sub> & M <sub>2</sub> > 3.5 tonnes	3 ⊕	3 or 2 †	3 or 2 †	3 or 2 †	2	
M <sub>3</sub>	3 ⊕	3 or 2 †	3 or 2 †	3 or 2 †	2	<b>2</b>
N <sub>1</sub>	3	3 or 2 ∅	3 or 2 *	2	2	
N <sub>2</sub> & N <sub>3</sub>	3	2	3 or 2 *	2	2	

...”

## II. Justification

This proposal introduces the necessary requirements to take into account the installation of side-facing seats under certain conditions.