

Proposal for amendment to ECE/TRANS/WP.29/GRSP/2013/23 (Draft 01 series of amendments (Phase 2 of the Regulation))

Note: The modifications to ECE/TRANS/WP.29/GRSP/2013/23 are marked in bold and strikethrough characters.

I. Proposal

Paragraph 2.3.2., amend to read:

2.3.2. "Universal Booster" (Non-Integral Universal Child Restraint System) is a category of Child Restraint System for use in all seating positions of a vehicle **suitable for child restraints of the "universal" category**, as defined and approved according to **Table 1 of Annex 17 appendix 3** of Regulation No 16.

This category is separated in two subcategories:

- (a) "Universal Booster Seat" with integrated backrest, **and compatible with the gabarit described in annex [xx]**
- (b) "Universal Booster Cushion" without backrest

Paragraph 5.4.2.2., amend to read:

5.4.2.2. The size range for which the Child Restraint System has been designed;

ECRS which can be converted into another configuration for taller children must accommodate an uninterrupted range of child statures.

NB: As an example a booster shall not have a range of 0.90 to 1.3m and then an "interruption" before accommodating children from 1.4 to 1.5m.

Paragraph 6.1.3.2., amend to read:

6.1.3.2. For "Specific Vehicle Booster" category; this shall be by means of the adult safety seat belt and possibly with attachments designed by the manufacturer of the Child Restraint System, secured to anchorages as designed by the vehicle manufacturer.

Paragraph 6.6.4.5.1., amend to read:

6.6.4.5.1. Main injury assessment criterion — Head containment

During the loading phase of lateral impact testing, up to 80 ms, side protection shall always be positioned at the level at the dummy's head

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centre of gravity perpendicular to the direction of the door intrusion.
Head containment will be assessed by the following criteria:

- (a) No head contact with the door panel;
- (b) Head shall not exceed a vertical plane identified by a red line on top of the door (top view camera). This vertical plane is identified by a line on the impacted door as defined in Annex 6, Appendix 3, Figure 1 to a radius of 3 mm. The centre of impact of the pendulum coincides with the centre of gravity of the pyramid. The energy of the pendulum at the moment of impact with each of the five marked areas on the container is 30 J. The container is secured in place during pendulum impacts and not under pressure. **This criteria is for monitoring purpose only for tests with Q10 dummy.**

Paragraph 6.6.4.5.1. , amend to read:

6.6.4.5.2. Additional Injury assessment criteria for lateral impact

Criterion	Abbreviation	Unit	Q0	Q1	Q1.5	Q3	Q6	Q10
Head performance criterion	HPC (15)		600	600	600	800	800	For monitoring purpose only
Head acceleration 3 ms	A head 3 ms	g	75	75	75	80	80	
Upper neck tension force	Fz	N	For monitoring purpose only*					
Upper neck flexion moment	Mx	Nm	For monitoring purpose only**					

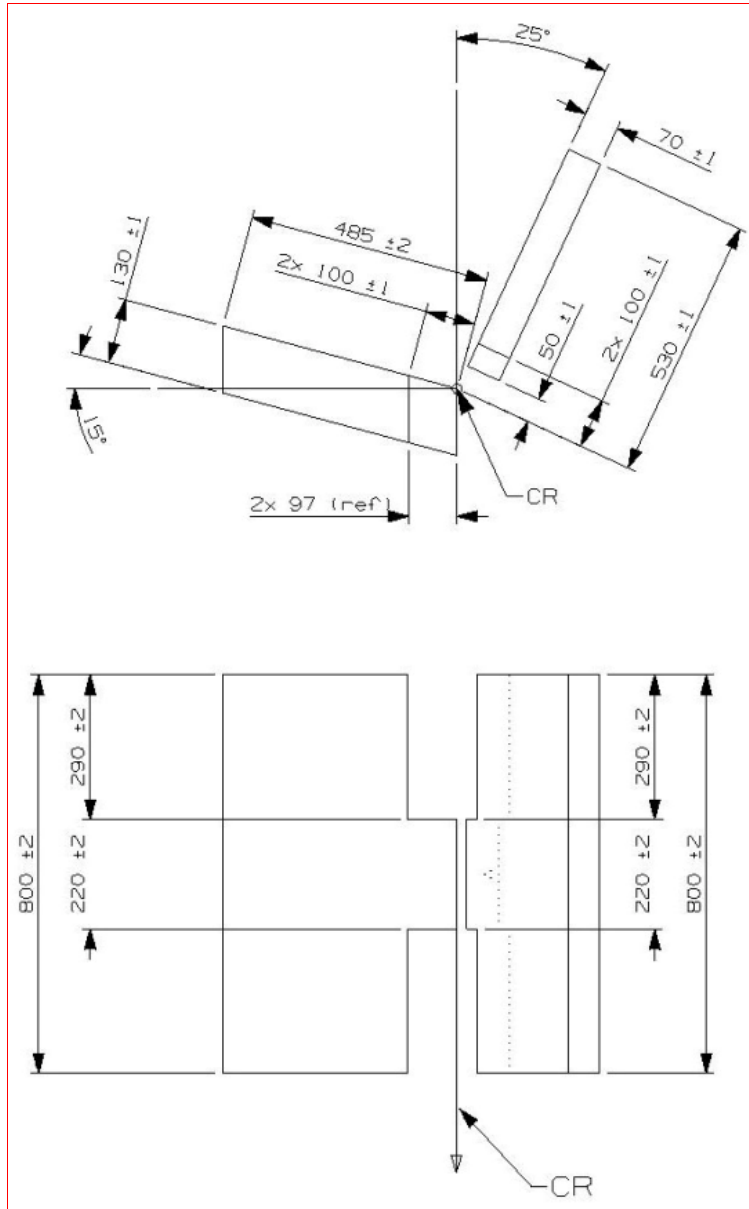
* To be reviewed within 3 years following entry into force of this Regulation.

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In Annex 6 Appendix 1, Replace Figure 1 by the following:

Dimensions in mm



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In Annex 18, Figure 1, amend to read:

When measured under a contact force of 50 N with the device described in Figure 2 of this annex the following tolerances will be applied to the dimensions:

Minimum Sitting height:

- From 40 to 87 cm B - 5 percent
- From 87 cm and up B - 10 percent,

Minimum shoulder breadth: C -0+2 cm

Minimum hip breadth: D -0+2 cm

Minimum shoulder height (5 percentile): E1 -2+0 cm

Maximum shoulder height (95 percentile): E2 -0+2 cm

The mass of the device described in Figure 2 of this annex must be 10 kg +/- 1 kg

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II. Justification

After the submission of the document for ECE/TRANS/WP.29/GRSP/2013/23, a few errors are found and thus corrected as above.

The amendments to Paragraph 2.3.2. align the text of this regulation with the text used in Regulation No 16 and include a new reference ISO gabarit to limit the size of universal booster seats.

The amendments to Paragraph 5.4.2.2. clarify the concept of size range.

The amendments to Paragraph 6.1.3.2. are for consistency within the document.

The amendments to Paragraphs 6.6.4.5.1 and 6.6.4.5.2 add the possibility to perform tests with the Q10 dummy notwithstanding the lack of recognised biomechanical criteria on this dummy.

Figure 1 of Annex 6 Appendix 1 includes a gap between the backrest and the seating cushions and a reference to the Cr point.

Figure 2 of Annex 18 describes a measuring device. The mass of this tool must be defined with tolerances.