

Proposal for Supplement 4 to the 03 series of amendments to UN Regulation No. 129

Submitted by the expert from Spain

The text reproduced below was prepared by the expert from Spain on behalf of the Technical Services Group (TSG) on UN Regulation No. 129. The modifications to the current text of the UN Regulation are marked in bold for new or strikethrough for deleted characters.

I. Proposal

Paragraph 5.3., amend to read:

"5.3. Notice of approval or of extension or refusal of approval of an Enhanced Child Restraint Systems pursuant to this Regulation shall be communicated to the Parties to the Agreement which apply this Regulation by means of a form conforming to the model in Annex 1 to this Regulation.

~~If part of the enhanced child restraint systems system could be used as an infant carrier module and installed as defined in Annex 22, approvals according to this Regulation can only be granted if the infant carrier module complies with the requirements of this Annex."~~

Paragraph 6.7.4.3., amend to read:

"6.7.4.3. Strength after special conditioning

6.7.4.3.1. On two straps conditioned as prescribed in one of the provisions of Paragraph 7.2.5.2. below (except Paragraph 7.2.5.2.1. below), the breaking load of the strap shall be not less than 75 per cent of the average of the loads determined in the test referred to in Paragraph 7.2.5.1. below.

6.7.4.3.2. In addition, the breaking load shall be not less than: ~~3.6 kN for the restraints of i-Size enhanced child restraint systems.~~

(a) **3.6 kN for Integral Enhanced Child Restraint Systems with an upper stature limit less than or equal to 105 cm;**

(b) **5 kN for Integral Enhanced Child Restraint Systems with an upper stature limit greater than 105 cm but less than or equal to 125 cm;**

(c) **7.2 kN for Integral Enhanced Child Restraint Systems with an upper stature limit greater than 125 cm.**

6.7.4.3.3. The Type Approval Authority may dispense with one or more of these tests if the composition of the material used, or information already available, renders the test or tests superfluous.

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- 6.7.4.3.4. The abrasion conditioning procedure of type 1 defined in paragraph 7.2.5.2.6. below shall only be performed when the microslip test defined in paragraph 7.2.3. below gives a result above 50 per cent of the limit prescribed in paragraph 6.7.2.5.1. above.”

Paragraph 7.1.3., amend to read:

"7.1.3. Dynamic testing for frontal, rear and lateral impact:

- (a) Frontal impact tests shall be performed on **all Enhanced Child Restraint Systems within the scope of this regulation.:**
 - ~~(i) i Size Enhanced Child Restraint Systems;~~
 - ~~(ii) Specific vehicle ISOFIX Enhanced Child Restraint Systems;~~
 - ~~(iii) i Size booster seats Enhanced Child Restraint Systems;~~
 - ~~(iv) Specific vehicle booster seats Enhanced Child Restraint Systems;~~
 - ~~(v) Universal Belted Enhanced Child Restraint Systems;~~
 - ~~(vi) Specific vehicle Belted Enhanced Child Restraint Systems;~~
 - ~~(vii) Universal booster cushions Enhanced Child Restraint Systems;~~
 - ~~(viii) Specific vehicle booster cushions Enhanced Child Restraint Systems;~~
- (b) Rear impact tests shall be performed on **all ~~i Size and Specific Vehicle ISOFIX~~ Rearward and Lateral facing Enhanced Child Restraint Systems within the scope of this regulation;**
- (c) Lateral impact tests ~~are~~ **shall be** performed on **all Enhanced Child Restraint Systems within the scope of this regulation, except built-in systems and booster cushions only on the test bench for ~~i Size Integral Universal ISOFIX Enhanced Child Restraint Systems, Specific vehicle ISOFIX and for non integral Enhanced Child Restraint Systems i Size booster seats and specific vehicle booster seats;~~**
- (d) The ECRS shall be tested in its most upright used position. If this upright position falls outside the seat fixture, this position shall still to be chosen. However with width positions outside the seat fixture, for the lateral test the width position of lateral shock absorbers that still fit in the vehicle seat fixture shall be chosen;
- (e) The lateral dynamic test(s) will be performed in this(ese) arrangement(s);
- (f) For frontal and rear impacts, the tests shall be performed with the ECRS adjusted to the size of the dummy(ies) selected to cover the entire size range, in the child seating position representing the worst case for this dummy and impact orientation;
- (g) An anti-rebound device acting on the vehicle seatback shall stay inside the seat fixture in one position, but may protrude beyond the seat fixture in its adjusted position according to the user manual.”

II. Justification

1. The 03 series of amendments to UN Regulation No. 129 extended the regulation to enable the type-approval of belt-attached integral enhanced child restraint systems. At the same time, 'temporary' requirements for belt-attached infant carrier modules in Annex 22 were deleted. However, a reference to Annex 22 and infant carrier modules was missed and remains in the regulation in Paragraph 5.3. This proposal removes it.
2. A minimum breaking load is specified for the webbing straps of i-Size enhanced child restraint systems under the strength after special conditioning requirements of paragraph 6.7.4.3. However, a minimum breaking load should apply to the webbing straps of all categories of integral enhanced child restraint systems, not only i-Size. This proposal extends the requirements and applies different thresholds according to the upper stature limit of the enhanced child restraint system. The thresholds were derived from equivalent requirements in UN Regulation No. 44.
3. Paragraph 7.1.3. specifies which categories of enhanced child restraint systems must undergo each of the dynamic tests in UN Regulation No. 129. Unfortunately, this paragraph was not updated in the 03 series of amendments when Integral Universal Belted and Integral Specific vehicle Belted enhanced child restraint systems were added to the regulation. Supplement 3 to the 03 series corrected this oversight for the frontal impact test. However, these Integral Belted enhanced child restraint categories are still not explicitly required to undergo rear or lateral impact testing. This proposal corrects this oversight in full and simplifies the wording to avoid long lists of categories.