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### World Forum for Harmonization of Vehicle Regulations

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1958 Agreement:
Consideration of draft amendments
to existing UN Regulations submitted by GRSP

# Proposal for Supplement 13 to the 04 series of amendments to UN Regulation No. 44 (Child Restraint Systems)

#### Submitted by the Working Party on Passive Safety\*

The text reproduced below was adopted by the Working Party on Passive Safety (GRSP) at its sixty-first session (ECE/TRANS/WP.29/GRSP/61, paras. 28, 29, 30 and 44). It is based on ECE/TRANS/WP.29/GRSP/2017/10, not amended, ECE/TRANS/WP.29/GRSP/2017/13, as amended by Annex V to the report, on ECE/TRANS/WP.29/GRSP/2017/14, not amended and on ECE/TRANS/WP.29/GRSP/2017/4 not amended. It is submitted to the World Forum for Harmonization of Vehicle Regulations (WP.29) and to the Administrative Committee AC.1 for consideration at their November 2017 sessions.

<sup>\*</sup> In accordance with the programme of work of the Inland Transport Committee for 2016–2017 (ECE/TRANS/254, para. 159 and ECE/TRANS/2016/28/Add.1, cluster 3.1), 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.

### Proposal for Supplement 13 to the 08 series of amendments to UN Regulation No. 44 (Child Restraint Systems)

Paragraph 2.14.1., amend to read:

"2.14.1. "Additional anchorage" means a part of the vehicle structure or of the vehicle seat structure, or any other part of the vehicle, to which a child restraint is intended to be secured and which is additional to the anchorages approved under UN Regulation No. 14 or UN Regulation No. [XX]. This includes the trolley floor pan as described in Annex 6 or other structural features of a the specific vehicle(s) when loaded by a support leg."

Paragraph 2.14.3., amend to read:

"2.14.3. "*ISOFIX anchorages system*" means a system made up of two ISOFIX low anchorages fulfilling the requirements of UN Regulation No. 14 or UN Regulation No. [XX] which is designed for attaching an ISOFIX child restraint system in conjunction with an anti-rotation device."

Paragraph 2.14.5., amend to read:

"2.14.5. "*ISOFIX top tether anchorage*" means a feature fulfilling the requirements of UN Regulation No. 14 or UN Regulation No. [XX], such as a bar, located in a defined zone, designed to accept an ISOFIX top tether strap connector and transfer its restraint force to the vehicle structure."

Paragraph 2.29., amend to read:

"2.29. "*ISOFIX child restraint system*" means a child restraint system which has to be attached to an ISOFIX anchorage system fulfilling the requirement of UN Regulation No. 14 or UN Regulation No. [XX]."

Paragraph 2.33., amend to read:

"2.33. "*ISOFIX top tether hook*" means an ISOFIX top tether connector typically used to attach an ISOFIX top tether strap to an ISOFIX top tether anchorage as defined in Figure 3 of UN Regulation No. 14 or Figure 3 of UN Regulation No. [XX]."

*Insert new paragraphs 5.5.*, to read:

"5.5. The approval mark prescribed in paragraph 5.4. above may not be replaced by an Unique Identifyer (UI) as referred to in Schedule 5 of the 1958 Agreement."

Paragraphs 5.5., 5.6. and 5.7. (former), renumber as 5.6., 5.7. and 5.8. respectively."

Paragraphs 6.1.3.2. to 61.3.4., amend to read:

- "6.1.3.2. For ISOFIX "universal" child restraint systems by means of ISOFIX attachments and ISOFIX top tether strap meeting the requirements of this Regulation fitted to ISOFIX anchorages system and ISOFIX top tether anchorage meeting the requirements of UN Regulation No. 14 or UN Regulation No. [XX].
- 6.1.3.3. For the "semi-universal" category: by means of the lower anchorages prescribed in UN Regulation No. 14 or UN Regulation No. [XX] and additional anchorages meeting the recommendation of Annex 11 to this Regulation.

6.1.3.4. For ISOFIX "semi-universal" Child Restraint Systems by means of ISOFIX attachments and ISOFIX top tether strap or a support leg or vehicle dashboard, meeting the requirements of this Regulation fitted to ISOFIX anchorages and/or to ISOFIX top tether anchorage meeting the requirements of UN Regulation No. 14 or UN Regulation No. [XX]."

Paragraph 6.1.8., amend to read:

"6.1.8. Integral child restraint systems ... of the adult safety-belt. This point shall not be less than 150 mm from the Cr axis when measured with the child restraint on the dynamic test bench installed in accordance with Annex 21 to this Regulation without a dummy.

Non-integral child restraint systems of the "universal" category, shall have a main load-bearing contact point, between the child restraint and the webbing of the adult safety-belt. This point shall not be less than 65 mm vertically above the test bench cushion and not be less than 150 mm from the Cr axis when measured with the child restraint on the dynamic test bench installed in accordance with Annex 21 to this Regulation without a dummy.

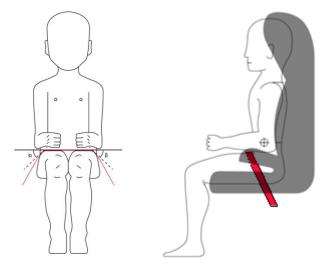
Additional alternative ... the requirements of the Regulation. "

Paragraph 6.2.2., amend to read:

"6.2.2. All restraint devices utilizing a "lap strap" shall positively guide the "lap strap" on both sides to ensure that the loads transmitted by the "lap strap" are transmitted through the pelvis. The assembly shall not subject weak parts of the child's body (abdomen, crotch, etc.) to excessive stresses.

In the case of booster cushions and booster seats , the lap portion of the adult seat belt shall be positively guided on both sides to ensure that the loads are transmitted by the adult lap belt are transmitted through the pelvis. The positive guidance of loads over the pelvis shall be realised from the moment that the child is installed; the lap belt shall pass over the top of the thigh, just touching the fold with the pelvis. The angles  $\alpha$  and  $\beta$  between the tangent line in which the belt touches the thighs and the horizontal shall be greater than  $10^{\circ}$ .

Figures of Strapped child



Paragraph 6.3.4., amend to read:

"6.3.4. Adjustment provisions

The ISOFIX attachments, or the ISOFIX child restraint system itself, shall be adjustable to accommodate the range of ISOFIX anchorage locations described in UN Regulation No. 14 or UN Regulation No. [XX]."

Paragraph 7.2.1.1., amend to read:

"7.2.1.1. The buckle shall be so designed as to preclude any possibility of incorrect manipulation. This means, inter/alia, that it shall not be possible for the buckle to be left in a partially closed position; it shall not be possible to exchange the buckle parts inadvertently when the buckle is being locked; the buckle shall only lock when all parts are engaged. Wherever the buckle and /or the tongue are in contact with the child, it shall not be narrower than the minimum width of strap as specified in paragraph 7.2.4.1.1. below. This paragraph is not applicable to belt assemblies already approved according to UN Regulation No. 16 or any equivalent standard in force. In the case of a "Special Needs Restraint" only the buckle on the primary means of restraint need comply with the requirements of this paragraph 7.2.1.1. to paragraph 7.2.1.9. inclusive."

Annex 8, Appendix 2, amend to read:

## "Annex 8 – Appendix 2

#### Description of the "new-born" manikins Q0 and P0

- 1. Manikin Q0<sup>-1</sup>
- 2. Manikin P0

The manikin P0 originates back from 1987 (Supplement 1 to the 02 Series of Amendments) and is described below.

It comprises a head, torso, arms and legs as a single unit. The torso, arms and legs are a single moulding of Sorbothane covered with a PVC skin and containing a steel spring spine. The head is a polyurethane foam moulding covered by a PVC skin and is permanently attached to the torso. The manikin is provided with a close fitting stretch cotton/polyester suit.

The dimensions and mass distribution of the manikin are based on those of a 50th percentile new-born baby and are given in Tables 1 and 2 and in Figure 1. ..."

<sup>&</sup>lt;sup>1</sup> The technical specifications and detailed drawings of the Q-dummy, including Q0, and the adjustments for the tests of this Regulation are transitory on the website of the Informal Working Group on Enhanced Child Restraint Systems (www2.unece.org/wiki/display/trans/Q-dummy+drawings) of the UNECE, Palais de Nations, Geneva, Switzerland. When the [Regulation] is adopted by the World Forum for Harmonization of Vehicle Regulations (WP.29), the text restricting the use of the drawings and technical specifications will be removed from the individual pages and they will be reloaded on the above-mentioned website. After a time period needed by the Informal Working Group to finalize the examination of the technical specifications and drawings of dummies, the final and agreed drawings will be relocated in the Mutual Resolution of the 1958 and 1998 Agreements and hosted in the website of the World Forum WP.29."