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# **Economic Commission for Europe**

Inland Transport Committee

## World Forum for Harmonization of Vehicle Regulations

175th session
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Item 4.6.3 of the provisional agenda
1958 Agreement:
Consideration of draft amendments
to existing UN Regulations submitted by GRSP

# **Proposal for Supplement 14 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-second session (ECE/TRANS/WP.29/GRSP/62, paras. 21, 22 and 23). It is based on ECE/TRANS/WP.29/GRSP/2017/20, as amended by Annex VI to the report, ECE/TRANS/WP.29/GRSP/2017/28, not amended, ECE/TRANS/WP.29/GRSP/2017/33 as amended by para. 22 to the report, ECE/TRANS/WP.29/GRSP/2017/37, not amended and on ECE/TRANS/WP.29/GRSP/2017/38, as amended by Annex VI to the report. 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 June 2018 sessions.

<sup>\*</sup> In accordance with the programme of work of the Inland Transport Committee for 2018–2019 (ECE/TRANS/274, para. 123 and ECE/TRANS/2018/21/Add.1, cluster 3.1), the World Forum will develop, harmonize and update UN Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.

# Supplement 14 to the 04 series of amendments to UN Regulation No. 44 (Child Restraint Systems)

Paragraph 5.4.2.3., shall be deleted

Paragraph 5.2.4. (former), renumber as paragraph 5.4.2.3.

Paragraph 6.1.3., amend to read:

"6.1.3. According to the category which it belongs to, the child restraint shall be secured to the vehicle structure or to the seat structure.

# Possible configurations for approval Groups / categories table

		Universal <sup>(1)</sup> Semi-universal <sup>(2)</sup> Restricted		Specific vehicle					
Gro	up category	CRS	ISOFIXCRS	CRS	ISOFIXCRS	CRS	ISOFIXCRS	CRS	ISOFIXCR
0	Carry-cot	А	NA	А	A(3)	А	NA	А	A(3)
0	Rearward facing	А	NA	А	A (3)	А	NA	CRS	A(3)
+	Rearward facing	A	NA	А	A(3)	А	NA	А	A(3)
I	Rearward facing	А	NA	А	A(3)	А	NA	А	A(3)
	Forward facing (integral)	А	A (3)	A	A(3)	A	NA	А	A(3)
	Forward facing (non-integral)	NA	NA	NA	NA	NA	NA	NA	NA
	Forward facing (non-integral – see paragraph 6.1.12.)	A	NA	A	NA	A	NA	A	A(3)
II	Rearward facing	А	NA	А	NA	Α	NA	Α	А
	Forward facing (integral)	А	NA	A	NA	А	NA	А	А
	Forward facing (non integral)	A(4)	NA	A(4)	NA	A(4)	NA	A(4)	A(4)
III	Rearward facing	А	NA	А	NA	А	NA	А	А
	Forward facing (integral)	А	NA	A	NA	А	NA	A	А
	Forward facing (non integral)	А	NA	A	NA	A	NA	A	А

CRS: Child restraint system

A: Applicable

NA: Not Applicable

(1) ISOFIX universal CRS means forward facing restraints for use in vehicles with positions equipped with

	Unive	Universal <sup>(1)</sup>		Semi-universal (2)		Restricted		Specific vehicle	
Group category	CRS	ISOFIXCRS	CRS	ISOFIXCRS	CRS	ISOFIXCRS	CRS	ISOFIXCRS	
ISOFIX anchorages sy	stem and a top	tether anchora	ige.						
(2) ISOFIX semi un	iversal CRS m	eans:							
<ul> <li>Forward facing res</li> </ul>	traints equipped	d with support	leg or						
• Rearward facing equipped with IS					-		cles with	n positions	
<ul> <li>Or rearward fac equipped with I</li> </ul>	ing restraints, s	upported by th		U			issengei	r seat	
Or lateral facing positions equipp								nicles with	
<sup>(3)</sup> New approvals		Ų	•	-		0			
<sup>(4)</sup> New approvals	and extensions	will be granted	1 in acc	ordance with i	baragrat	ohs 17.18, and	17.19.		

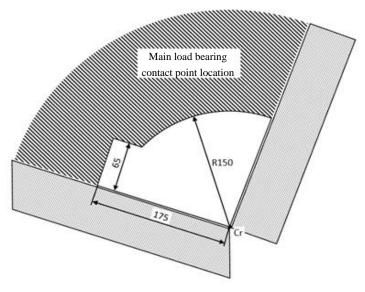
<sup>(4)</sup> New approvals and extensions will be granted in accordance with paragraphs 17.18. and 17.1

Paragraph 6.1.8., amend to read:

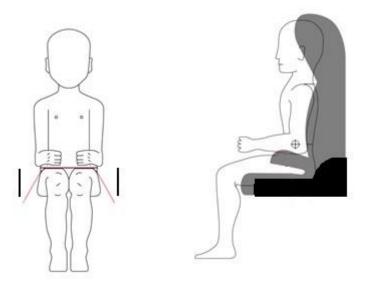
"6.1.8. Integral child restraint systems of the "universal" category, except ISOFIX universal child restraint systems, shall have a main load-bearing contact point, between the child restraint and the webbing of the adult safety-belt. This point shall not be less than a radius of 150mm from the Cr axis when measured with the child restraint as indicated in figures below, 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 a radius of 150mm from the Cr axis when measured with the child restraint as indicated in figures below, on the dynamic test bench installed in accordance with Annex 21 to this Regulation without a dummy.

#### Figures for the explanation of the measurement procedure



(all dimensions in millimetres)



The check shall be done at both sides of the CRS and along a longitudinal plane parallel to the median plane of the CRS.

Additional alternative belt routes are allowed. Where an alternative belt route exists, the manufacturer shall make specific reference to the alternative route in the user instructions, as required in paragraph 15. When tested, using such alternative belt route(s), the restraint shall comply with all the requirements of this Regulation."

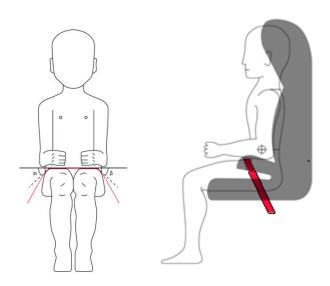
Paragraph 6.2.2., amend to read:

"6.2.2. All restraint devices utilizing a "lap strap" shall positively guide the "lap strap" equilateral on both sides to ensure that the load 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 equilateral 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  $10^\circ."$ 

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#### Figures of Strapped child



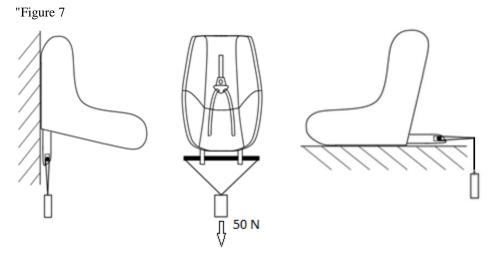
Paragraph 7.2.1.1., amend to read:

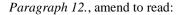
"7.2.1.1. The buckle shall be so designed as to preclude any possibility of incorrect manipulation. This means, inter/alia, that it shall not be possible for the buckle to be left in a partially closed position; it shall not be possible to exchange the buckle parts inadvertently when the buckle is being 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 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."

Paragraph 8.2.9., amend to read:

"8.2.9. The complete seat, or the component fitted with ISOFIX attachments (e.g. ISOFIX base) if it has a release button, is attached rigidly to a test rig in such a way that ISOFIX connectors are aligned as shown in Figure 7. A 6 mm diameter bar, 350 mm long, shall be attached to the ISOFIX connectors. A force of  $50 \pm 1$  N shall be applied to the extremities of the bar."

Figure 7, amend to read:





# "12. Conformity of production and routine tests

The conformity of production procedures shall comply with those set out in the Agreement, Schedule 1 (E/ECE/TRANS/505/Rev.3), with the following requirements:

...."

Paragraphs 15.2.2. and 15.2., amend to read:

"15.2.2. For "restricted" and "semi-universal" category child restraints the following information, in at least a physical version, shall be clearly visible at the point of sale without removing the packing:

This Child Restraint is classified for "(Restricted/Semi-universal)" use and is suitable for fixing into the seat positions of the following cars:

CAR	FRONT	RE	REAR			
	Outer	Cer	ntre			
(Model)	Yes	Yes	No			

Seat positions in other cars may also be suitable to accept this child restraint. If in doubt, consult either the child restraint manufacturer or the retailer.

Paragraph 15.2.5., amend to read:

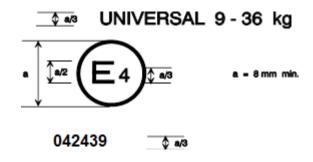
"15.2.5. The child restraint manufacturer shall provide information on the packing box as to the address in a physical or a digital version to which the customer can write to obtain further information on fitting the child restraint in specific cars." Insert new paragraphs 17.18. and 17.19., to read:

- "17.18. As from 1 September 2019, no new approvals shall be granted under this Regulation to non-integral class forward facing child restraint systems of group 2 or group 2/3, unless they form part of a multi-group child restraint system that will also be approved for group 1 and above.
- 17.19. As from 1 September 2023, no extensions shall be granted under this Regulation to non-integral class forward facing child restraint systems of group 2 or group 2/3, unless they form part of a multi-group child restraint system that will also be approved for group 1 and above."

Annex 2, amend to read:

### "Annex 2

Arrangements of the approval marks



The child restraint system bearing the above approval mark is a device capable ...

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The child restraint system bearing the above approval mark is a device not capable of being fitted in every vehicle and of being used for the 9 kg-25 kg mass range (Groups I and II); it is approved in the Netherlands (E 4) under the number 042450. The approval number indicates that the approval was granted in accordance with the requirements of the Regulation concerning the approval of restraining devices for child occupants of power-driven vehicles ("child restraint system") as amended by the 04 series of amendments.

Note: The ..."