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### **Economic Commission for Europe**

**Inland Transport Committee** 

**World Forum for Harmonization of Vehicle Regulations** 

**Working Party on Passive Safety** 

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Item 17 of the provisional agenda
UN Regulation No. 129 (Lateral collision)

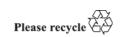
# Proposal for Supplement 4 to the 01 series of amendments to UN Regulation No. 129 (Enhanced Child Restraint Systems)

#### Submitted by the expert from France\*

The text reproduced below was prepared by the expert from France. It introduces the Supplement 4 to the 01 series of amendments to UN Regulation No. 129 (Enhanced Child Restraint Systems (ECRS)) that were agreed upon by the experts of the Informal Working Group on Child Restraint Systems (IWG CRS) up to the last two meetings of the group. The modifications to the existing text of the UN Regulation No. 129, including ECE/TRANS/WP.29/2017/125 (Proposal for supplement 3 to the 01 series of amendments), are marked in bold for new or strikethrough for deleted characters.

GE.17-20853(E)







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.

#### I. Proposal

Paragraph 1., amend to read:

### "1. Scope

This UN Regulation applies (in its Phase 1) to the following Child Restraint Systems Integral Universal ISOFIX Enhanced Child Restraint Systems (i-Size) and, to Integral Specific vehicle ISOFIX Enhanced Child Restraint Systems for child occupants of power driven vehicles:

- (a) Integral Universal ISOFIX Enhanced Child Restraint Systems (i-Size);
- (b) Integral Specific vehicle ISOFIX Enhanced Child Restraint Systems;"

Paragraph 2.12., amend to read:

"2.12. "Anti-rotation device"

Means a device intended to limit the rotation of the Enhanced Child Restraint System during a vehicle impact and consisting of:

- (a) A top-tether strap; or
- (b) A support-leg.

Meeting the requirements of this **UN R**egulation and fitted to an ISOFIX anchorage system and ISOFIX top tether anchorages or vehicle floor contact surface meeting the requirements of **UN R**egulation No. 14 or **UN R**egulation No XX.

An "Anti-rotation device" for a "specific vehicle ISOFIX" Enhanced Child Restraint System may comprise a top tether, a support-leg or any other means capable of limiting the rotation only for Rearward facing Enhanced Child Restraint System, a dashboard."

Paragraph 2.17.1., amend to read:

"2.17.1. "ISOFIX Vehicle seat fixture" means a fixture, according to ISOFIX size envelopes whose dimensions are given in Figures 1 to 7 of Appendix 2 to Annex 17 to UN Regulation No. 16, used by an Enhanced Child Restraint System manufacturer to determine the appropriate dimensions of an ISOFIX Enhanced Child Restraint System and-including the location of its ISOFIX attachments."

Paragraph 2.26., amend to read:

"2.26. "Infant carrier" means an Integral Enhanced Child Restraint System restraining a child up to 15 months old and up to 83 cm in stature intended to accommodate the child in a rearward-facing semi-recumbent position. It is so designed as to distribute the restraining forces over the child's head and body excluding its limbs in the event of the frontal collision. It is designed to be removed from the vehicle with the child inside and without opening any harness, and to be carried outside of the vehicle."

Paragraph 2.56., amend to read:

"2.56. "Module", is a part of an Enhanced Child Restraint System that is separate from the ISOFIX attachments and is hosting and restraining the child, in direct contact with the child. A module can be used in combination with one or more a base whether or, not and if allowed in this regulation, as a standalone to restrain a child in a car. A base is allowed to accept more than one module (Module A, Module B, etc.)."

Insert new paragraph 2.57., to read:

"2.57. "Base", is a part of an Enhanced Child Restraint System that forms an interface between the vehicle and the module of an Enhanced Child Restraint System and has no direct contact with the child. A base is connected to the vehicle using ISOFIX anchorages or vehicle belt and an anti-rotation device if applicable.

A base is allowed to accept more than one module (Module A can be replaced by Module B, etc.)."

Insert new paragraph 2.58., to read:

"2.58. "Built in", is an Enhanced Child Restraint System made as an integral part or incorporated as an add-on part of a vehicle. The vehicle manufacturer shall be the applicant for approval."

Insert new paragraphs 2.59. and 2.60., to read:

- "2.59. "Belt route", means the trajectory of the adult safety-belt to be used to fasten the ECRS (integral ECRS) or to restrain the child (non integral ECRS). Trajectories for symmetrical installation of the ECRS are considered as a single belt route.
- 2.60. "Webbing path", means the defined points on the ECRS where the webbing of the adult safety-belt has to pass to conform the belt route as specified by the ECRS manufacturer."

Paragraph 3.2.2., amend to read:

- "3.2.2. The applicant shall indicate the kind of application:
  - (a) Application for an i-Size Enhanced Child Restraint Systems; or
  - (b) Application for a specific vehicle ISOFIX **Enhanced Child Restraint System**; or
  - (c) Or any combination of (a) and (b) as long as they fulfil paragraph 5.4.2.2. and **6.1.2**. **provided there is only one belt route.**"

Paragraph 4.3., amend to read:

- "4.3. The following information shall be clearly indicated on the product:
  - (a) The orientation of the Enhanced Child Restraint System relative to the vehicle;
  - **(b)** The size range(s) of the Enhanced Child Restraint System in centimetres;
  - (c) \$\footnote{T}\$ The maximum occupant mass allowed for the Integral Enhanced Child Restraint System in kilograms shall be clearly indicated on the product part hosting the child.

The marking defined in this paragraph shall be visible with the Enhanced Child Restraint System in the vehicle, with the child in the Enhanced Child Restraint System."

*Insert new paragraphs 4.6. to 4.6.1.*, to read:

#### "4.6. Webbing path

The markings defined in this paragraph shall be permanently and durably attached and visible on the Enhanced Child Restraint System installed in the vehicle, and with the child seated in the Restraint System. The markings shall be placed on both sides of the Enhanced Child Restraint System. The vehicle seat illustrated on the marking shall face the same direction as the real vehicle seat.

There shall be a clear differentiation between the intended paths for the lap section and the diagonal section of the safety-belt. Indication such as colour coding, words, shapes, etc. shall distinguish between sections of the adult safety-belt.

4.6.1. The adult safety-belt route markings shall be placed on all belt guides and lock off devices. The adult safety-belt route markings shall be at least the width of the adult belt path."

Paragraphs 4.6. to 4.7.2.(former), renumber as paragraphs 4.7. to 4.8.2.

Paragraph 4.7.3.(former), shall be deleted.

Paragraph 4.8. (former), renumber as paragraph 4.11.

Paragraph 6.2.1.9., amend to read:

"6.2.1.9. At least the worst case <del>configuration</del> of the dynamic test for the Enhanced Child Restraint System shall be performed after conditioning according to paragraph 7.2.6."

Paragraph 6.2.3., amend to read:

"6.2.3. It shall not be possible to remove or detach without the use of specific tools, any components not designed to be removable or detachable for maintenance or change of configuration purpose. Any components that are designed to be removable or detachable for maintenance or adjustment purpose shall be so designed as to avoid any risk of incorrect assembly and use, as the assembly and disassembly processes shall be explained in detail in the restraint user guides. For integral Enhanced Child Restraint Systems Aany harness belt or impact shield shall be capable of its full range of adjustment without disassembly,"

Paragraph 6.3.2.2.1., amend to read:

"6.3.2.2.1. Integral Class Enhanced Child Restraint Systems

The maximum external dimensions for the width, height and depth of the Enhanced Child Restraint System and **if fitted**, the locations of the ISOFIX anchorages system, with which its attachments shall engage, shall be defined by the ISOFIX Vehicle Seat Fixture as defined in paragraph 2.17.1. of this Regulation.

(a) i-Size Forward facing Enhanced Child Restraint Systems shall fit within the ISO/F2x size envelope for a reduced-height forward-facing toddler CRS;

- (b) i-Size Rearward facing Enhanced Child Restraint Systems shall fit within the ISO/R2 size envelope for a reduced-size rearward-facing toddler CRS;
- (c) Specific vehicle ISOFIX Enhanced Child Restraint Systems shall fit:
  - (i) in vehicle(s) specified in a list or
- (ii) at least in one of the ISO (R1,R2X, R2, R3, F2X, F2, F3, L1, L2) size envelopes as described in Annex 17 Appendix 2 of **UN R**egulation No. 16.

When conducting this assessment, the Integral Enhanced Child Restraint System shall be adjusted to the largest size of its declared stature range (height, depth and width dimensions as defined in Annex 18). If the Enhanced Child Restraint System is capable of being adjusted to different positions of seat surface inclination, the fitting assessment shall be done in at least one position. If other positions of inclination are outside the limits of the applicable size envelope, the user manual shall indicate that the child restraint may not fit in all approved vehicles when used in one of these positions."

Paragraph 6.6.4.1.2., amend to read:

"6.6.4.1.2. Enhanced Child Restraint Systems of the specific vehicle categories shall be assessed for fit with each vehicle model for which the Enhanced Child Restraint System is intended. The Technical Service responsible for conducting the test may reduce the number of vehicle configurations arrangements tested if they do not differ greatly in the aspects listed in paragraph 6.6.4.1.2.3. of this Regulation. This Enhanced Child Restraint System shall be dynamically tested in one of the following ways: ..."

Paragraph 6.6.4.3.1., Table 5 amend to read:

"…

Head acceleration 3 ms	A head Cum 3 ms***	g	75	75	75	80	80	[80]
Upper neck tension Force	Fz	N	N For monitoring purpose only**					
Upper neck flexion moment	My	Nm	For monitoring purpose only					
Chest acceleration 3 ms	A chest <b>Cum</b> 3 ms***	g	55	55	55	55	55	[55]
Chest deflection	TBC	mm	NA	NA For monitoring purpose only**				
Abdominal pressure****	P	Bar	NA	NA	1.2	1.0	1.0	1.2

Paragraph 6.6.4.4.1.1.1., amend to read:

"6.6.4.4.1.1.1. Where a test is conducted in accordance with paragraphs 6.6.4.1.6.1.1.2., 6.6.4.1.6.1.2. or paragraph 6.6.4.1.8.2. above, a tolerance of +10 per cent shall be applicable to the head excursion value distance between Cr point and plane AB."

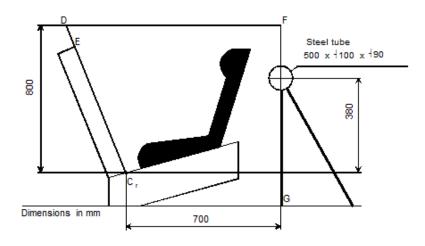
Paragraph 6.6.4.4.1.2.1, amend to read:

"6.6.4.4.1.2.1. Head excursion: no part of the head of the dummy shall pass beyond the planes FD, FG and DE, as shown in figure 2 below. This shall be judged up to 300 ms or the moment that the dummy has come to a definitive standstill whatever occurs first.

Except when testing using Q6 or Q3 dummy where the value in relation to the FD plane is 840 mm.

Where a test is conducted with paragraphs 6.6.4.1.6.1.1.2., 6.6.4.1.6.1.2. or paragraph 6.6.4.1.8.2. above, only the second <del>configuration</del> test results without 100 mm diameter bar will be considered.

Figure 2 Arrangement for testing a rearward-facing device, not supported by the dashboard



Paragraph 7.1.2.7., amend to read:

"7.1.2.7. These tests shall be carried out using both the smallest and the largest appropriate dummy of the size range for which the restraining device is intended. Any adjustment of the dummy or Enhanced ehild Child restraint Restraint systems Systems during the complete test cycle is not allowed."

Paragraph 7.1.3., amend to read:

"7.1.3. ...

<sup>\*</sup> HPC: see Annex 17.

<sup>\*\*</sup> To be reviewed within 3 years following entry into force of the series 01 of this Regulation.

<sup>\*\*\*</sup> Cum 3ms means cumulative 3ms value.

<sup>\*\*\*\*</sup> Abdominal pressure, the highest recorded value is applicable for injury assessment (i.e. when the right hand sensors record 1.3 bar and the left hand sensor 1.0 bar, the recorded 1.3 bar is to be used for injury assessment)"

(e) The lateral dynamic test(s) will be performed in this(ese) configuration-arrangement(s);

...'

Paragraph 7.1.3.6.2., amend to read:

"7.1.3.6.2. If the <u>i Size</u> Enhanced Child Restraint System uses a top tether, one test shall be carried out with the smallest dummy with the shorter distance of the top tether (anchorage point G1). A second test shall be carried out with the heavier dummy with the longer distance of the top tether (anchorage point G2). Adjust the top tether to achieve a tension load of 50 ± 5 N. For side lateral impact the ISOFIX Enhanced child restraint shall be tested with only the shorter distance of the top tether."

Paragraph 7.1.3.6.3., amend to read:

- "7.1.3.6.2. If the <u>i-Size-Enhanced Child Restraint System uses a support-leg</u>, as an antirotation device the hereafter mentioned dynamic tests shall be carried out as follows:
  - (a) The tests for frontal impact shall be conducted with the support-leg adjusted to its maximum adjustment compatible with the positioning of the trolley floor pan. The tests for rear impact shall be conducted with the worst case position selected by the Technical Service. During the tests the support-leg shall be supported by the trolley floor pan as described in Annex 6, Appendix 2, figure 2;
  - (b) In the case of support-legs out of the plane of symmetry, the worst case shall be selected by the Technical Service for the test;
  - (c) In the case of "specific vehicle ISOFIX" category, the support-leg shall be adjusted as specified by the Enhanced Child Restraint System manufacturer;
  - (d) The leg length of a support-leg shall be adjustable in such a way that it is able to cover the complete span of floor pan levels that are allowed for in **UN Regulation** No. 16, Annex 17 for car seats to be approved for the installation i-Size Enhanced Child Restraints Systems."

*Insert new paragraphs 7.1.3.6.5. to 7.1.3.6.5.2.*, to read:

- "7.1.3.6.5. The test specified in 6.6.4.1.8. above is a requirement only for:
- 7.1.3.6.5.1. The smallest dummy for which the Enhanced Child Restraint System is designed, if the means of restraint is an impact shield.
- 7.1.3.6.5.2. The largest dummy for which the Enhanced Child Restraint System is designed, if the means of restraint is a harness."

Paragraph 7.2.3.2., amend to read:

"7.2.3.2. The free end of the strap shall be arranged in the same configuration-way as when the device is in use in the vehicle, and shall not be attached to any other part."

Paragraph 7.2.5.2.6.2., amend to read:

"7.2.5.2.6.2. The table below sets out the general conditions for each test:

Table 8

	Load (N)	Cycles per minute	Cycles (No.)
Type 1 procedure	10 maximum 60 ± 0.15	30 ± 10	1 000 ± 5
Type 2 procedure		30 ± 10	5 000 ± 5

Where there is insufficient strap to test over 300 mm of shift, the test may be applied over a shorter length subject to a minimum of 100 mm."

Paragraphs 7.2.5.2.6.3. to 7.2.5.2.6.3.2., amend to read:

"7.2.5.2.6.3. Particular test conditions

7.2.5.2.6.3.1. Type 1 procedure: for cases where the strap slides through the quick adjusting device. The 10 N load shall be vertically and permanently applied on one of the straps. The other strap, set horizontally, Apply a load of 10 N, if necessary the load may be increased by 10 N steps so as to permit correct sliding, but limited to a maximum of 60 N. This load shall be vertically and permanently applied on the straps. The part of the strap set horizontally shall pass through the quick adjuster it is fitted to and shall be attached to a device, giving the webbing a back and forth motion. The quick adjusting device shall be so placed that the horizontal strap of the webbing remains under tension (see Annex 5, figure 1). Activate the quick adjuster while pulling the straps in the direction to slacken the harness and deactivate it while pulling the straps in the direction to tighten the harness.

7.2.5.2.6.3.2. Type 2 procedure: for cases where the strap changes direction in passing through a rigid part. During this test, the angles of both webbing straps shall be as shown in webbing shall pass through the rigid part it is intended for and the test set up shall reproduce the angles as in the real installation (in three dimensions), see Annex 5, figure 2 for examples. The 5-N 10N load shall be permanently applied. For cases where the strap changes direction more than once in passing through a rigid part, the load of 5-N 10N may be increased so as to by 10 N steps so as to permit correct sliding and achieve the prescribed 300 mm of strap movement through that rigid part."

Paragraph 8.1., amend to read:

- "8.1. The test report shall record the results of all tests and measurements including the following test data:
  - (a) The type of device used for the test (acceleration or deceleration device),
  - (b) The total velocity change,
  - (c) The trolley speed immediately before impact only for deceleration sleds,
  - (d) The acceleration or deceleration curve during all the velocity change of the trolley and at least 300 ms,
  - (e) The time (in ms) when the head of the manikin reaches its maximum displacement during the performance of the dynamic test,

- (f) The place occupied by the buckle during the tests, if it can be varied, and
- (g) The name and address of the laboratory where tests have been performed,
- (h) And any failure or breakage,
- (i) The following dummy criteria: HPC, Head acceleration Cum3ms, Upper neck tension force, Upper neck moment, Chest acceleration Cum3ms, Chest deflection; Abdominal Pressure (in frontal and rear impact)."

Paragraph 9.2.1.1., amend to read:

"9.2.1.1. Five Enhanced Child Restraint Systems shall be subjected to the dynamic test described in paragraph 7.1.3. above. The Technical Service that conducted the type approval tests shall choose the conditions that produced the maximum horizontal head excursion during the type approval dynamic tests, excluding the conditions described in paragraphs 6.6.4.1.6.21.1., 6.6.4.1.6.1.2. and 6.6.4.1.8.2. above. All the five Enhanced Child Restraint Systems shall be tested under the same conditions.

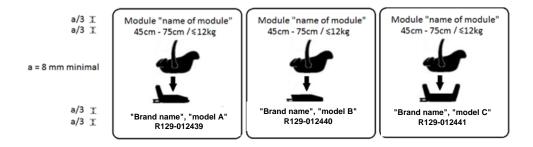
Annex 2, replace current Annex 2 by the following to read:

#### "Annex 2

1. Arrangements of the approval mark

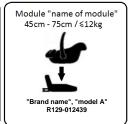
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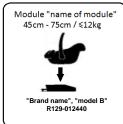
- 2. Arrangements of the approval mark in combination with a module mark ...
- 2.1. Arrangements of the module mark in combination with an approval mark
- 2.1.1. Where a module is approved for use with more than one base, the individual base and module combinations shall be indicated on the module in separate module marks, each bearing their applicable size ranges.

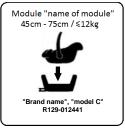


An Enhanced Child Restraint System that bears an approval mark for the stand-alone mode of use and a module mark for its use on three different bases, shall carry the following arrangement of approval and module marks:









The Enhanced Child Restraint System bearing the above marks is capable of being used as an Infant Carrier Module with a vehicle belt for the 45 cm - 75 cm size range; it is approved according to UN Regulation No. 129-01 under the number 012348.

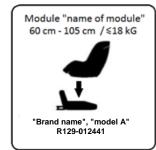
The Enhanced Child Restraint System can also be used as a module in combination with the base "brand name and model A", for the 45 cm - 75 cm size range and mass limit of 12 kg; approved according to UN Regulation No. 129-01 under the number 012439.

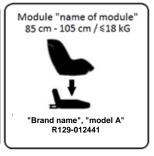
The Enhanced Child Restraint System can also be used as a module in combination with the base "brand name and model B", for the 45 cm - 75 cm size range and mass limit of 12 kg; approved according to UN Regulation No. 129-01 under the number 012440.

The Enhanced Child Restraint System can also be used as a module in combination with the base "brand name and model C", for the 45 cm - 75 cm size range and mass limit of 12 kg; approved according to UN Regulation No. 129-01 under the number 012441.

The approval numbers indicate that the approval was granted in accordance with the requirements of the Regulation concerning the approval of Enhanced Child Restraint Systems used on board of motor vehicles as amended by the 01 series of amendments.

2.1.2. Where a module is capable of being installed in different orientations, separate module marks shall be indicated on the module, each bearing their applicable size ranges.



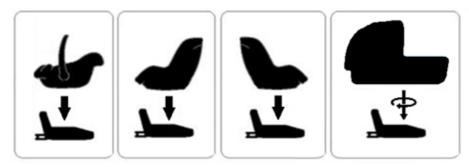


The Enhanced Child Restraint System bearing the above marks is capable of being used in a rearward facing mode with the base "brand name and model A", for the 60 cm - 105 cm size range and with a mass limit of 18 kg; approved according to UN Regulation No. 129-01 under the number 012441.

The Enhanced Child Restraint System bearing the above marks is also capable of being used in a forward facing mode with the base "brand name and model A", for the 85 cm - 105 cm size range and with a mass limit of 18 kg; approved according to UN Regulation No. 129-01 under the same number 012441.

The approval number indicates that the approval was granted in accordance with the requirements of the UN Regulation on the approval of Enhanced Child Restraint Systems used on-board motor vehicles as amended by the 01 series of amendments.

2.2 Examples of the symbols to be used on the module mark are given in the figures below. As chosen by the Enhanced Child Restraint Systems manufacturer, one of the symbols or an equivalent shall be used on the module mark.

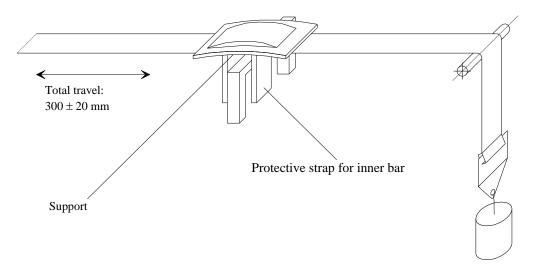


Annex 5, Figures 1 and 2, amend to read:

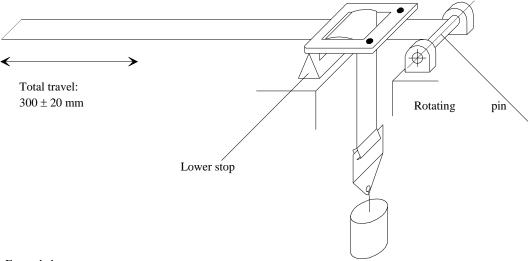
#### "Annex 5

## Abrasion and microslip test

Figure 1 **Procedure type 1** 



 $F=10\pm0.1~N, \mbox{ can be increased up to } F=60\pm0.5~N~(\mbox{see table 8,}$  Example a  $\mbox{paragraph 7.2.5.2.6.2.})$ 



Example b

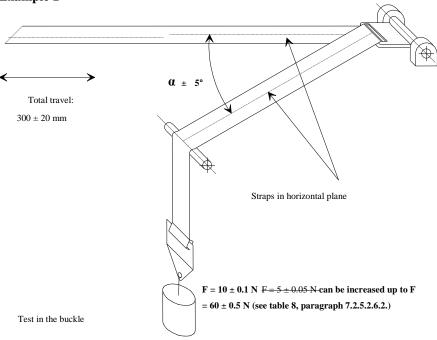
Examples of test arrangements corresponding

to the type of adjusting device

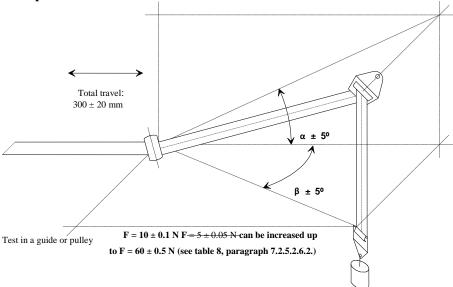
 $F=10\pm0.1$  N, can be increased up to F = 60  $\pm$  0.5 N (see table 8, paragraph 7.2.5.2.6.2.)

Figure 2
Procedure type 2
Following two examples of test set up

#### Example 1



#### Example 2



## Where $\alpha$ and $\beta$ reproduce the angles as in the real installation (in three dimensions)

Annex 8, paragraph 4.1., Note of Table 1, amend to read:

"4.1. Mass

. . .

The installation of Abdominal Pressure Twin Sensors (APTS) in frontal **and rear** impact may add up 0.2 kg to the Q1.5 and 0.5kg to the Q3, Q6 and Q10 dummies."

Annex 8, Table 2, amend to read:

"Table 2

**Q-dummy dimensions** 

No.		Q0	Q1	Q1.5	<i>Q3</i>	Q6	Q10 (design targets)		
						Dimensions in mm			
17	Seating height (head tilted forward)	355 ± 9	479 ± 9	499 ± 9	544 ± 9	601 ± 9	$\frac{< 748 \pm 9}{733.7 \pm 9}$		
18	Shoulder height (sitting)	$\frac{225 \pm 7}{255 \pm 5}$	298 ± 7	309 ± 7	329 ± 7	$362 \pm 7$	$473 \pm 7$ < 1443 ± 9		
5	Stature (head tilted forward)	-	740 ± 9	800 ± 9	985 ± 9	1143 ± 9	1453.2 ± 12		
	Chest depth	-	114 ± 5	113 ± 5	$146\pm5$	141 ± 5	$171 \pm 5$		
15	Shoulder width	$\frac{230 \pm 7}{145 \pm 5}$	227 ± 7	227 ± 7	259 ± 7	$305 \pm 7$	338 ± 7		
12	Hip width	-	191 ± 7	194 ± 7	200 ± 7	223 ± 7	$270 \pm 7$ $488 \pm 5$		
	Back of buttocks to front of knees	$130\pm5$	211 ± 5	235 ± 5	305 ± 5	366 ± 5	485.4 ± 6		
2	Back of buttocks to popliteus	-	161 ± 5	185 ± 5	253 ± 5	299 ± 5	$418 \pm 5 \\ 414,9 \pm 6$		
21	Thigh height, sitting Height of spacer		69	72	79	92	114 ± <b>3</b>		
	device for positioning of dummy <sup>1</sup>		$229 \pm 2$	$237 \pm 2$	250 ± 2	$270\pm2$	359 ± 2		

Annex 12, paragraph 2.2.1.4., Notes, amend to read:

MH means harder <del>configuration</del> **condition** (the least good results obtained in approval or extension of approval)

LH signifies a less hard configuration condition."

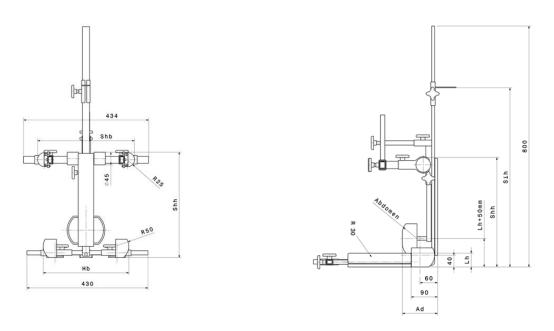
<sup>&</sup>quot;Notes:

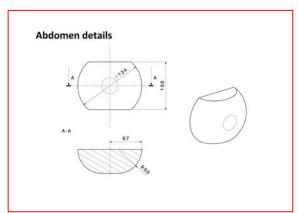
Annex 18, amend to read:

### **"Annex 18**

# **Geometrical dimensions of Enhanced Child Restraint Systems**

Figure 3
Side and Front View of the measuring device for measurements applicable to Enhanced Child Restraint Systems that feature an impact shield





All dimensions in mm"

*Internal geometry assessment method*, replace in the whole paragraph ECRS by Enhanced Child Restraint System.

Annex 18, insert new paragraph 3, to read:

#### "3. Stature Calculation

The measurements taken in Section 1 and 2 shall then be compared to the values shown in Annex 18, Table 1.

Interpolation between the values shown in the table is allowed in one-centimetre intervals

For each measurement, the corresponding stature at the nearest whole lower centimetre shall be calculated.

#### **Maximum stature**

For the measurements B, C, D, E2, F2 and G2, the measured value must be greater or equal to the value shown in the table to meet the stature requirement.

For example to declare a stature of 105 cm the measured sitting height after applying tolerances must be greater or equal to 61.8 cm.

The maximum stature is the smallest stature calculated from the measurements B, C, D, E2, F2 and G2.

#### Minimum stature

For the measurements E1, F1 and G1, the measured value must be less than or equal to the value shown in the table to meet the stature requirement.

e.g. To declare a stature of 100 cm, the measured shoulder height after applying tolerances must be less than or equal to 32.4 cm.

The minimum stature is the largest stature calculated from the measurements E1, F1 and G1."

Annex 23, amend to read:

"1. The safety-belt for the dynamic test and for the maximum length requirements shall be made according to the configuration definition shown in Figure 1. These are a three-point retracting belt system.

..."

#### II. Justification

- 1. This proposal introduces Supplement 4 to the 01 series of amendments (Phase 1) to UN Regulation No. 129. The text includes mainly correction of wording or chapter references, clarification of test procedures and new definitions.
- 2. The text includes all modifications proposed by GRSP up to and including its sixty-first (8-12 May 2017) as well as those of the Informal Working Group on Child Restraint Systems up to and including its sixty-seventh session (Brussels, 31 August 2017).
- 3. This proposal refers to the series 01 of amendments to UN Regulation No. 129, including the following amendments:
  - (a) Supplement 1 to the 01 series of amendments Date of entry into force: 22 June 2017;
  - (b) Proposal for Supplement 2 to the 01 series of amendments ECE/TRANS/WP.29/2017/62;

(c) Proposal for Supplement 3 to the 01 series of amendments - ECE/TRANS/WP.29/2017/125.