Informal document GRSP-66-30 (66<sup>th</sup> GRSP, 10-13 December 2019, agenda item 13)



6.1.1.	The " <b>universal</b> ", " <b>semi-universal</b> " and " <b>restricted</b> " categories are permitted in the front and rear seat positions.	ok
6.1.2.	The use of child restraints in the " <b>specific vehicle</b> " category is permitted in all seat positions and also in the luggage area if the restraints are fitted in conformity with the manufacturer's instructions.	N/A
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.	ok
6.1.3.1.	For the " <b>universal</b> " and " <b>restricted</b> " categories, by means of an adult safety-belt meeting the requirements of Regulation No. 16 fitted to anchorages meeting the requirements of Regulation No. 14.	ok
6.1.3.2.	For <b>ISOFIX "universal"</b> 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 Regulation No. 14.	N/A
6.1.3.3.	For the " <b>semi-universal</b> " category: by means of the lower anchorages prescribed in Regulation No. 14	N/A
6.1.3.4.	For <b>ISOFIX "semi-universal"</b> 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 Regulation No. 14.	N/A
6.1.3.5.	For the " <b>specific vehicle</b> " category: by means of the anchorages designed by the manufacturer of the vehicle or the manufacturer of the child restraint.	N/A
6.1.3.6.	In the case of child restraining straps or child restraint attachment strap utilizing belt anchorages to which are already fitted an adult belt or belts, the Technical Service shall check that: The effective adult anchorage under Regulation No. 14 or equivalent; The buckles of the adult and additional system shall not be interchangeable. The child restraining devices utilizing bars, or extra devices attached to the anchorage approved under Regulation No. 14, which move the effective anchorage position outside the field of Regulation No. 14, some points have to be checked.	ok
6.1.3.7	Child restraints utilizing a <b>support leg</b> shall only be approved under the " <b>semi-universal</b> " or the " <b>specific vehicle</b> " category.	N/A
6.1.4.	A <b>booster cushion</b> shall be restrained by either an adult belt or by separate means.	N/A
6.1.5./ 6.1.6.	The child restraint manufacturer has to declare in written form that the toxicity and flammability of materials used in the manufacture of restraint systems.	No informatior
6.1.7.	In the case of <b>rearward-facing child restraints</b> supported by the vehicle dashboard, dashboard is assumed to be sufficiently rigid.	N/A
6.1.8.	Child restraint systems of the " <b>universa</b> l" category, except ISOFIX universal child restraint systems, shall have a main load-bearing contact point, between the child restraint and the adult safety-belt. This point shall not be less than 150 mm from the Cr axis without a dummy. When tested, using such alternative belt route(s), the restraint shall comply with all the requirements of the Regulation	NOT OK
6.1.9.	If the adult belt is required to secure a "universal" category child	ok



	restraint, its maximum length to be used on the dynamic test bench is $2,820 \pm 5$ mm.	
6.1.10	Child restraints of groups 0 and 0+ shall not be used forward facing.	N/A
6.1.11	Child restraint systems of <b>groups 0 and 0+</b> , with the exception of carry cots shall belong to the integral class.	N/A
6.1.12	Child restraint systems of <b>group I</b> shall belong to the integral class unless they are fitted with an impact shield	N/A
Configu	ration	
6.2.1.1.	The restraint gives the required protection in any intended position of the restraint system.	NOT OK
6.2.1.2.	The child is easily and quickly installed and removed.	ok
6.2.1.3.	If it is possible to change the inclination of the restraint, this change in inclination shall not require manual readjustment of the straps. A deliberate hand-action is required in order to change the inclination of the restraint.	N/A
6.2.1.4.	The groups <b>0</b> , <b>0+</b> and <b>I</b> restraint systems shall keep the child so positioned as to give the required protection even when the child is asleep.	N/A
6.2.1.5.	For <b>forward-facing group I</b> restraints incorporating an <b>integral harness belt</b> system to prevent submarining, either by impact or through restlessness, a crotch strap shall be required.	N/A
6.2.2.	For <b>groups I, II and III</b> , all restraint devices utilizing a "lap strap" shall positively guide the "lap strap" to ensure that the loads transmitted by the "lap strap" are transmitted through the pelvis.	NOT OK
6.2.2.1.	With the crotch strap attached and in its longest position if adjustable, it shall not be possible to adjust the lap strap to lie above the pelvis of both the smallest and largest dummy within the mass groups covered by the approval.	N/A
6.2.3.	All straps of the restraint shall be so placed that they cannot cause discomfort to the wearer in normal use or assume a dangerous configuration.	ΝΟΤΟΚ
6.2.4.	The design shall be such that compression loads shall not be imposed on the crown of the child's head in the event of a collision	NOT OK
6.2.4.1.	Y-shaped belts may only be used in <b>rearward facing</b> and lateral facing child restraint systems (carrycots)	N/A
6.2.5.1.	The child restraint shall be so designed and installed as to minimize the danger of injury to the child or to other occupants of the vehicle through sharp edges or protrusions.	ok
6.2.5.2.	The child restraint shall be so designed and installed as not to exhibit sharp edges or protrusions liable to cause damage to vehicle-seat covers or to occupant's clothing.	ok
6.2.5.3.	The child restraint shall be so designed and installed as not to subject weak parts of the child's body (abdomen, crotch, etc.) to supplementary inertial forces it sets up.	NOT OK
6.2.5.4.	The child restraint shall be so designed and installed as to ensure that its rigid parts do not, at points where they are in contact with straps, exhibit sharp edges capable of abrading the straps.	ok
6.2.6.	Any part made separable to enable components to be fixed and detached shall be so designed as to avoid any risk of incorrect assembly and use so far as possible.	ok
6.2.7.	Where the child restraint intended for <b>group I, group II and groups I</b> and II combined includes a chair back, the internal height of the latter shall be not less than 500 mm.	N/A



6.2.8.	Only automatically-locking retractors or emergency-locking retractors may be used.	N/A
6.2.9.	For devices intended for use in <b>Group I</b> it shall not be possible for the child to easily slacken that part of the system that restrains the pelvis after the child has been installed.	N/A
6.2.10.	A child restraint in the " <b>universal</b> " category shall meet the requirements of that category for all mass groups for which it has been approved.	No information
6.2.12.	In case of <b>booster cushions</b> , the ease with which the straps and tongue of an adult belt pass through the fixture points shall be examined.	ok
6.2.13.	If the child restraint is designed for more than one child, each restraint system shall be fully independent with regard to load transfer and adjustments.	N/A
6.3.1.1.	The maximum lateral, downward, and rearward dimensions for the <b>ISOFIX</b> child restraint system and the locations of the ISOFIX anchorages system with which its attachments shall engage are defined for the ISOFIX child restraint system manufacturer by the Vehicle Seat Fixture (VSF).	N/A
6.3.1.2.	The mass of an <b>ISOFIX</b> Child Restraint System of universal and semi- universal categories and of <b>mass group 0, 0+,</b> 1 shall not exceed 15 kg.	N/A
6.3.2.1.	ISOFIX attachments type	N/A
6.3.2.2.	ISOFIX attachments dimensions	N/A
6.3.2.3.	Indication that both of the <b>ISOFIX</b> attachments are completely latched with the corresponding ISOFIX lower anchorages.	N/A
6.3.3.1.	ISOFIX Top tether connector	N/A
6.3.3.2.1.	ISOFIX top tether strap length.	N/A
6.3.3.2.2.	ISOFIX Top tether no-slack indicator.	N/A
6.3.3.2.3.	ISOFIX Top tether dimensions.	N/A





En esta fotografía se puede identificar claramente que el cinturón pasa por las zonas blandas del niño, abdomen, y no por la pelvis, incumpliendo el punto 6.2.2 del Reglamento 44.04.

## Acplus<sup>⊕</sup>



En esta fotografía se puede identificar como el hombro no queda bien retenido.



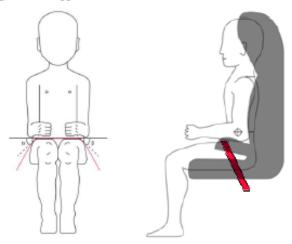
A partir del 19 de Julio de 2018, entra en vigor el suplemento 13 de la serie 04 del Reglamento 44.04, en el cual se realizan entre otras modificaciones, la modificación del punto 6.2.2 para clarificar los requisitos que debe cumplir la ruta del cinturón de la parte abdominal.

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°.

Figures of Strapped child



Se puede consultar el documento en el siguiente enlace:

https://www.unece.org/fileadmin/DAM/trans/doc/2017/wp29/ECE-TRANS-WP29-2017-123e.pdf

Con este documento se puede identificar claramente que el sistema de retención SmartKidbelt, no cumple con los requisitos del Reglamento 44.04 de Sistemas de Retención Infantil.