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Working Party on Passive Safety (GRSP)  
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agenda item B 1.6.)

PROPOSAL FOR DRAFT AMENDMENTS TO REGULATION No. 44

(Child restraints)

Transmitted by the Expert from the Netherlands

Note: The text reproduced below was prepared by the expert from the Netherlands following the request of GRSP.

Note: This document is distributed to the Experts on Passive Safety only.

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Insert a new par. 2.11.1., to read:

"2.11.1.        "support leg" means a permanent attachment to a child restraint creating a compressive load path between the child restraint and a vehicle structure *in order to by-pass seat cushion effects during deceleration*; a support leg may be adjustable."

Paragraph 2.14.1., amend to read:

2.14.1        " ... under Regulation No. 14. 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 2.23.2., correct the word "look" to read "lock"

Insert a new paragraph ~~2.28.~~ 2.37. to read

"2.37.        "Adult safety-belt webbing guide" means a device through which the adult belt passes for its correct routing, that allows free webbing movement."

Paragraph 4.4., should be deleted.

Paragraphs 4.5. to ~~4.8.~~ 4.9. (former), renumber as paragraphs 4.4. to ~~4.7.~~4.8.

Insert a new par. 6.1.3.5., to read:

"6.1.3.5.     *Child restraints utilising a support leg shall only be approved under the "semi-universal" or the "specific vehicle" category. and the requirements of annex 11 to this Regulation shall be applied. The manufacturer of the child restraint system shall take into account the needs of the support leg for their correct functioning in each vehicle and provide this information.*"

Insert a new paragraph 7.1.2.2., to read:

(was originally

"7.1.2.2.     In the case of child restraint systems with permanent mechanically attached adjustable head support devices, in which the height of either the adult safety-belt or of the child harness is directly controlled by the adjustable head support, it is not necessary to demand energy absorbing material in areas as defined in annex 18, which are not contactable by the manikin's head, i.e. behind the head support."

Paragraph 7.1.4.1.3., correct the word "preformed" to read "performed".

Paragraph 7.1.4.4.1.1., amend to read

"7.1.4.4.1.1. Forward facing child restraints: the head of the manikin shall not pass beyond the planes BA and DA as defined in Figure 1 below. This shall be judged up to 300 ms or the moment that the manikin has come to a definitive standstill whatever occurs first.

Dimensions in mm

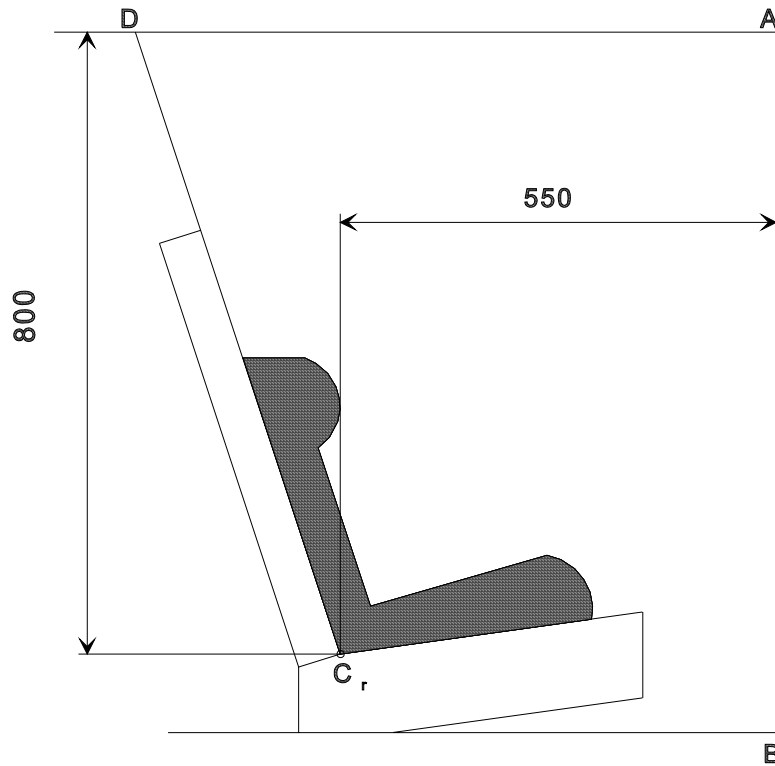
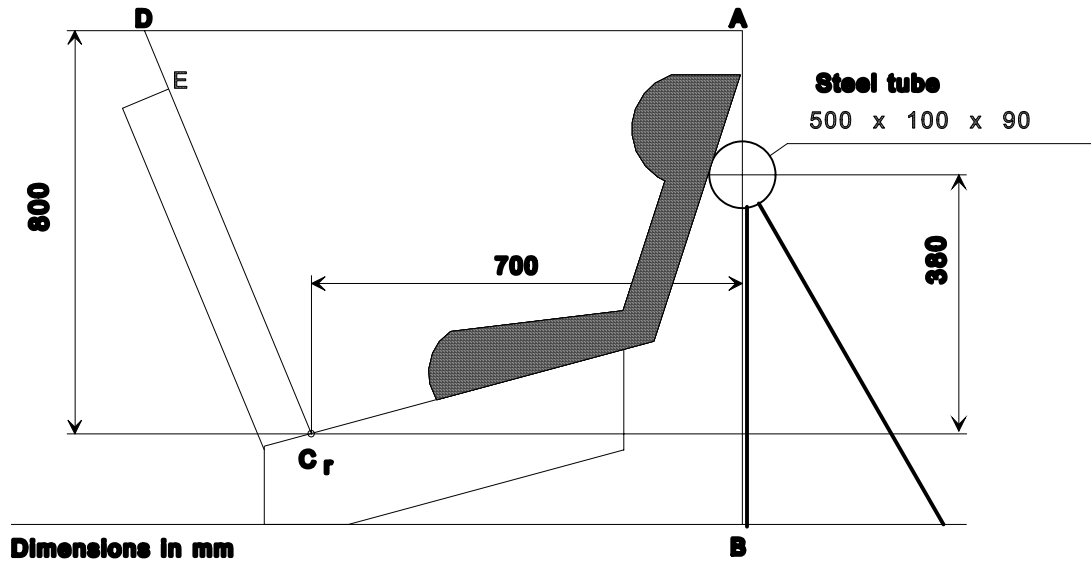


Figure 1  
Arrangement for testing a forward-facing device"

Paragraph 7.1.4.4.1.2.1., amend to read:

"7.1.4.4.1.2.1. Child restraints supported by dashboard: the head of the manikin shall not pass beyond the planes AD and DCr, as defined in Figure 2 below. This shall be judged up to 300 ms or the moment that the manikin has come to a definitive standstill whatever occurs first.



**Figure 2:**  
**Arrangement for testing**  
**a rearward-facing device**

"

Paragraph 7.1.4.4.1.2.1., insert the reference to the plane "AB" before to the reference to the plane "AD".

Paragraph 7.1.4.4.1.2.2., amend to read:

"7.1.4.4.1.2.2. Child restraints in group 0 not supported by the dashboard, and carrycots: the head of the manikin shall not pass the planes AB, AD and DE as shown in Figure 3 below. This shall be judged up to 300 ms or the moment that the manikin has come to a definitive standstill whatever occurs first.

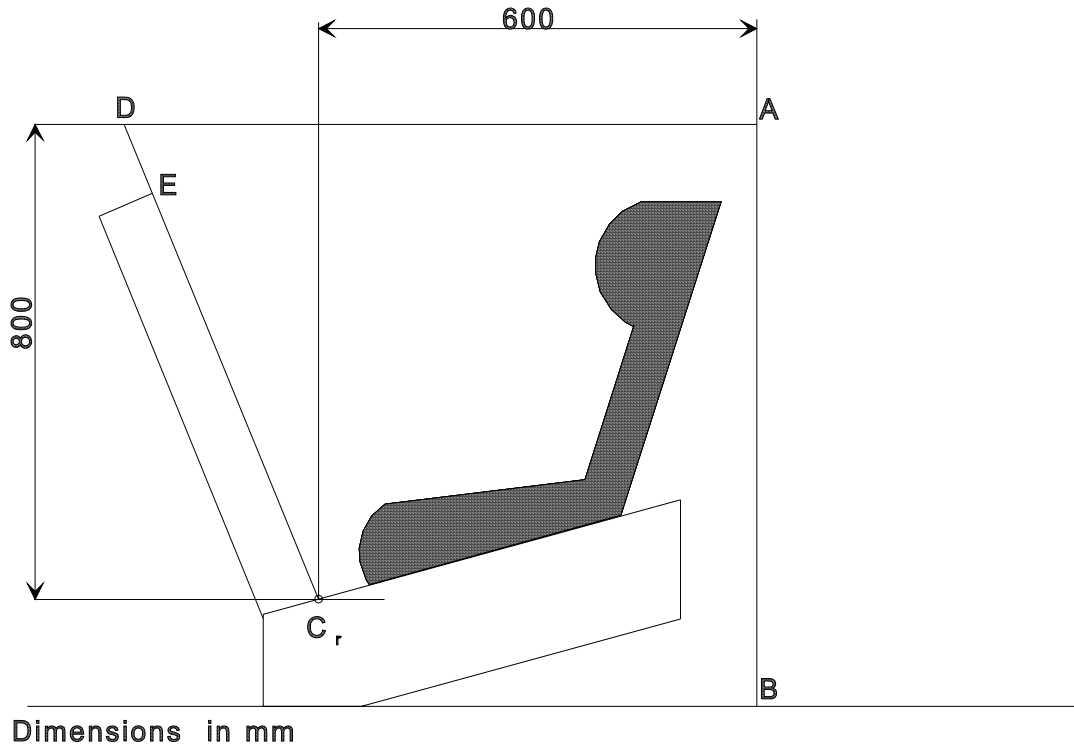


Figure 3

Arrangement for testing child restraint devices group 0,  
not supported by the dashboard"

Paragraph 7.1.4.4.1.2.3., amend to read:

"7.1.4.4.1.2.3. Child restraints other than group 0 not supported by the dashboard:

The head of the manikin shall not pass the planes FD, FG and DE, as shown in Figure 4 below. This shall be judged up to 300 ms or the moment that the manikin has come to a definitive standstill whatever occurs first.  
In the case ..... "

Paragraph 9.1., amend to read:

"9.1. The test report shall record the results of all tests and measurements (including the deceleration curve and the registration of the time (in msec) when the head of the manikin reaches its maximum displacement during the performance of the dynamic test), and the trolley speeds, the place occupied by the buckle during the tests, if it can be varied, and any failure of breakage.

Annex 18,

Paragraph 1., amend to read:

"..... of the child seat. In the case of carry cot devices where a symmetrical installation of the dummy is not possible according to the device and manufacturer instructions, the lower limit of area at which material complying with annex 17 shall be used, shall be all areas beyond dummy's shoulder in the head direction, when measured with this dummy in the carry cot in its worst position consistent with the manufactures instructions and the carry cot positioned on the test bench.

If a symmetrical installation of the dummy in the carry-cot may be possible, the whole inner surfaces shall be covered with material complying with annex 17; this material has to fulfil its purpose together with the inner side structure; the technical service may assess this aspect with further tests."

\* \* \*

#### **JUSTIFICATION**

Ref. paragraph 2.28.

The definition of a webbing guide is necessary for such mass groups where a lock-off device is not prescribed and where a webbing guide is only used which shall not be submitted to the lock-off test requirements. This revised proposal omits any test qualification because the upcoming lower limit of 1 N in Regulation No. 16 (adult safety-belts) for webbing roll-off force cannot be tested properly at such a webbing guide.

Ref. paragraph 4.4.

The new warning label inserted into the Regulation by Supplement 2 to the 03 series of amendments duplicates those warning labels. As it is the more stringent one, the less stringent old warning label of paragraph 4.4. seems to be superfluous.

Ref. paragraph 7.1.2.2.

In the described cases an unnecessary duplication of energy absorbing material shall be prevented.

Ref. paras. 7.1.4.2.1. to 7.1.4.4.1.2.3.

It has been noted that with regard to the dynamic behaviour of the manikin it is a (common) practice that Technical Services only judge the first movement as a result of the impact.

However with regard to the dynamic behaviour, not only the first movement, has to be judged as a result of the impact, but also the movement afterwards, being the result of the rebound.

The proposal takes the above into consideration, in order to limit dangers of a.o. excessive rotational acceleration.

Ref. annex 18, paragraph 1.

The respective specification in Supplement 3 to the 03 series of amendments to this Regulation took into account neither the rear impact nor the two orientation possibilities of a child in a carrycot. So the whole inner side surface was found to need energy absorbing material.

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