

Distr.  
GENERAL

TRANS/WP.29/GRSP/2000/15  
15 September 2000

Original: ENGLISH

ECONOMIC COMMISSION FOR EUROPE

INLAND TRANSPORT COMMITTEE

World Forum for Harmonization of Vehicle Regulations (WP.29)

Working Party on Passive Safety (GRSP)

(Twenty-eighth session, 27 November-1 December 2000,  
agenda item 2.6.)

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 in order to incorporate into the test the rebound movement, as a result of an impact.

---

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

GE.00-23722

**A. PROPOSAL**

Paragraph 7.1.4.2.1., amend to read (the cursive text has been added):

"7.1.4.2.1. The resultant chest acceleration shall not exceed 55 g except during periods whose sum does not exceed 3 ms; *this shall be judged up to the moment that the manikin has come to a definitive standstill.*"

Paragraph 7.1.4.2.2., amend to read (the cursive text has been added):

"7.1.4.2.2. The vertical component of the acceleration from the abdomen towards the head shall not exceed 30 g except during periods whose sum does not exceed 3 ms; *this shall be judged up to the moment that the manikin has come to a definitive standstill.*"

Paragraph 7.1.4.4.1.1., amend to read (the cursive text has been added):

"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 the moment that the manikin has come to a definitive standstill.*

Dimensions in mm

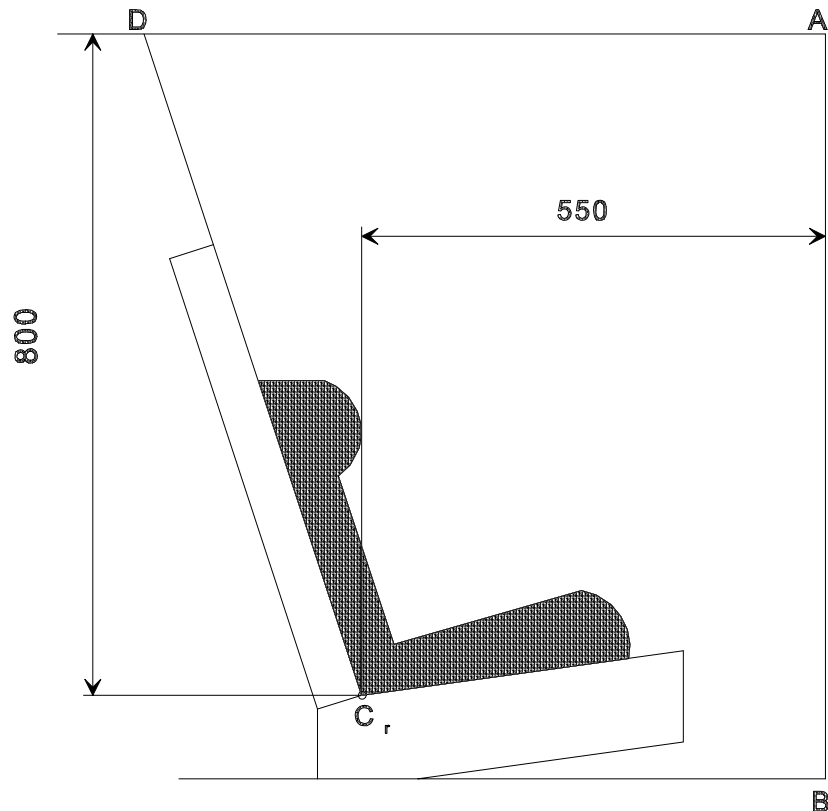
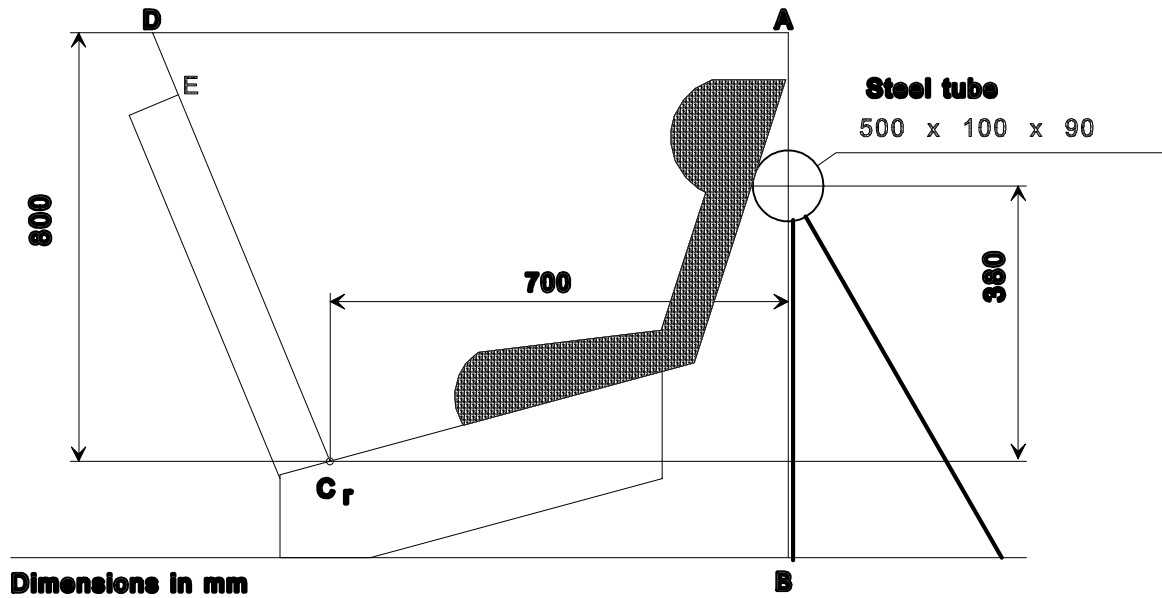


Figure 1  
Arrangement for testing a forward-facing device"

Paragraph 7.1.4.4.1.2.1., amend to read (the cursive text has been added):

"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 the moment that the manikin has come to a definitive standstill.*



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

Paragraph 7.1.4.4.1.2.2., amend to read (the cursive text has been added):

"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 the moment that the manikin has come to a definitive standstill.*

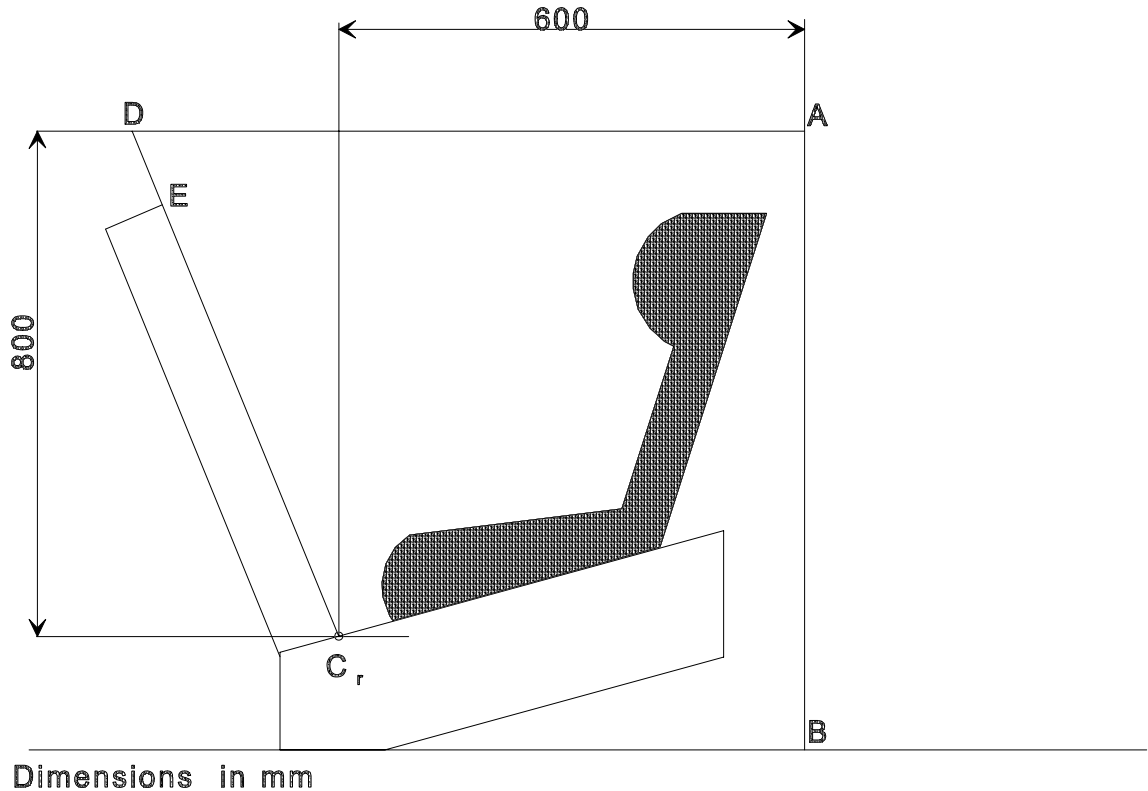


Figure 3

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

Paragraph 7.1.4.4.1.2.3., amend to read (the cursive text has been added):

"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 the moment that the manikin has come to a definitive standstill.*

In the case ..."

\* \* \*

**B. JUSTIFICATION**

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, it is our opinion that, 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.

---