

Proposal for Supplement 14 to the 04 series of amendments to UN Regulation No. 44 (Child restraint systems)

Submitted by the expert from the Netherlands

The text reproduced below was prepared by the expert from the Netherlands, to improve paragraph 6.2.12. of UN Regulation No. 44. It is based on ECE/TRANS/WP.29/GRSP/2017/13 distributed during the sixty-first session of the Working Party on Passive Safety (GRSP) (ECE/TRANS/WP.29/GRSP/61, para. 29). The modifications to the current text of the UN Regulation are marked in bold for new or strikethrough for deleted characters.

I. Proposal

Paragraph 6.2.12., amend to read:

"6.2.12. In ~~the~~ case of ~~booster cushions~~ **non-integral child restraint systems**, the ease with which the straps and tongue of an adult belt pass through the fixture points shall be examined. ~~This goes particularly for booster cushions which are designed for the front seats of cars, which may have long semi-rigid stalks.~~

The ~~fixed~~ **simulated** buckle ~~and the tongue~~, **when installed on the bench, prior to all dynamic tests, shall** ~~should not be allowed:~~

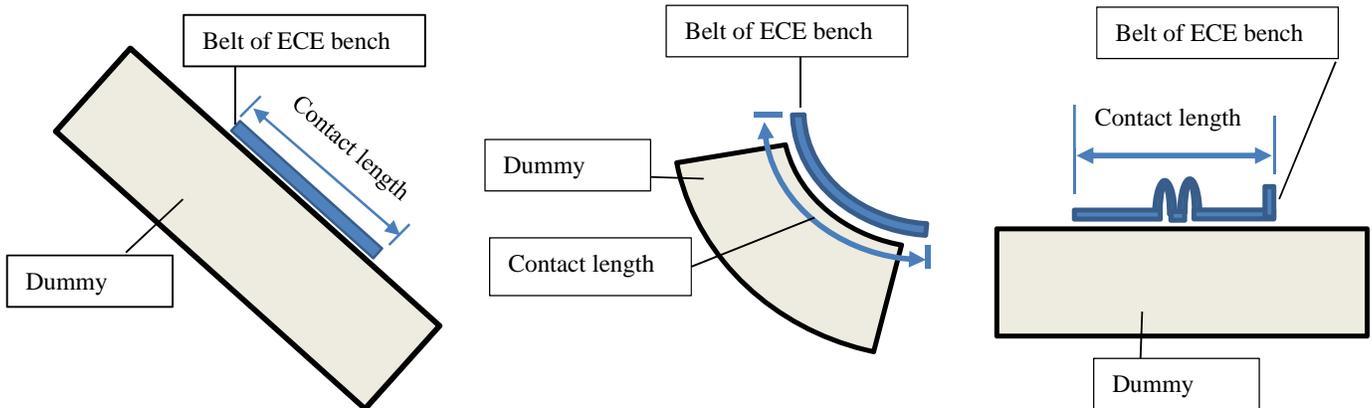
- (a) ~~to~~ pass through the fixture points **or belt guides** of ~~booster seats~~ **non-integral child restraint systems**, or
- (b) ~~to~~ permit a lie of ~~the~~ belt ~~completely different from that of the test trolley~~ **that leads to any contact narrower than 38 mm between the adult belt or simulated buckle or tongue and the child.**

Measurement method:

The width of the contact between the belt and the dummy shall be assessed by measuring the minimum length between the effective sides of the belt. If the belt, as seen in a cross section, takes the shape of a curve, the outside contour of the curve is measured. If the belt in cross section has folds, the contact length is defined from side to side of the belt (see figure xx below).

~~This contact shall also be tested using the Standard Safety-belt with all dummies needed to have the mass range approved, pictures as evidence of this part of the testing shall make part of the test report."~~

Figure xx



Paragraph 9.1., amend to read:

"9.1. The test report shall record the results of all test and measurement including the following test data:

.....

(f) The place occupied by the buckle during the tests, ~~if it can be varied,~~ **and/or pictures of the simulated buckle in case of testing of non-integral child restraint systems,** and:

..."

II. Justification

1. Injury to the human body as a result of strong local pressure shall be prevented. Such injuries can be caused by twisted buckles and belts and also by twisted tongues.
2. UN Regulation No. 16 set provisions to check injuries caused by narrow contact with buckle and safety-belt (paragraphs. 6.2.2.1. and 6.3.1.1.).
3. During the previous sessions of GRSP, the provisions of UN Regulation No. 44, paragraph 7.2.1.1. had been improved by adding the tongue to prevent these injuries. However, paragraph. 7.2. was eventually intended only for individual components of integral child restraints!
4. Therefore UN Regulation No. 44 should be improved by also checking non-integral child restraints (e.g. booster!).
5. In the previous GRSP session the expert from the Netherlands attempted to improve paragraph. 6.2.12. by means of a generic buckle. However, the above proposal improved

the test provisions by using the original Standard Safety-belt of UN Regulation No. 44, which is also better documented in the test report.
