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.

* 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 6.2.12., amend to read:

"6.2.12. In 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 buckle and the tongue 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 belt completely different from that of the test trolley that leads to any contact narrower than 38 mm between the adult belt or buckle or tongue and the child.

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."

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.