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Economic Commission for Europe**Inland Transport Committee****World Forum for Harmonization of Vehicle Regulations****Working Party on Passive Safety****Sixty-fifth session**

Geneva, 13-17 May 2019

Item 9 of the provisional agenda

UN Regulation No. 17 (Strength of seats)**Proposal for the 10 series of amendments to UN Regulation No. 17 (Strength of seats)****Submitted by the expert from the European Association of Automotive Suppliers ***

The text reproduced below was prepared by the expert from the European Association of Automotive Suppliers (CLEPA) to amend the dynamic option of the draft 10 series of amendments submitted by the experts from Japan and the European Commission (ECE/TRANS/GRSP/2018/34). It is based on informal document GRSP-64-44 presented during the sixty-fourth session of the Working Party on General Safety (GRSP). The modifications to ECE/TRANS/GRSP/2018/34, are marked in bold or strikethrough characters.

* In accordance with the programme of work of the Inland Transport Committee for 2018–2019 (ECE/TRANS/274, para. 123 and ECE/TRANS/2018/21/Add.1, Cluster 3.1), the World Forum will develop, harmonize and update UN regulations to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.

GE.19-03058(E)



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I. Proposal

Paragraph 2.28., amend to read:

"2.28. "Rebound" means ~~that the head bounced back after contacting the head restraint.~~ **the movement of the head after leaving contact with the head restraint at times greater than T-HRC(end).**"

Insert a new paragraph 2.30., to read:

"2.30. "Side bolster" means **adjustable seat elements on the sides of the seat cushion and / or of the seat back in order to allow a lateral retention of the occupant.**"

Paragraph 5.9.2., amend to read:

5.9.2. Evaluation Criteria

Each head restraint shall control the movement of the head and neck within the following limits:

**Table 1
Injury criteria**

<i>AISI+ : 50% Value</i>		
<i><Equivalence></i>		
<i>WAD2+ : 82.9% Value</i>		
IV-NIC=1.1		
NIC Max		28 m²/s²
Upper Neck	FX (Backward) FX+ upper	790 N
	MY+/- upper	37.8 Nm
Lower Neck	FX (Backward) FX- lower	790 N
	MY+/- lower	37.8 Nm

Note: Does not include rebound phase (excluded) measures both negative and positive FX figures.

Annex 14, paragraphs 4.2.1.3 and 4.2.1.4., amend to read:

"4.2.1.3. ~~T-[HRC]_(end)~~ **T(end)** definition

The time when the CFC60 filtered sled acceleration for the first time is < 0g shall be called ~~T-[HRC]_(end)~~ **T(end)**.

4.2.1.4. Time span definition

The time span for sled pulse corridor shall be defined as $dT = T-[HRC]_(end) - T_0$.

II. Justification

1. CLEPA believes that GRSP should chose injury risk limits based not only on the injury risk curves which were presented, but also consider the technical feasibility based on the measurement variations of the tool which is the Biomechanical Rear Impact Dummy (BioRID).
 2. The rationale of CLEPA has been presented in informal document GRSP-64-44 at the December 2018 session of GRSP and uses the outcome of the repeatability and reproducibility of the BioRID II dummy as presented in the informal working group document GTR-16-02 HIS.
 3. CLEPA also corrects the definition of T(end) which is different from T-HRC(end).
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