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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 2 of the provisional agenda

UN Global Technical Regulation No. 7 (Head Restraints)**Proposal for Amendment 1 (Phase 2) to UN Global Technical Regulation No. 7 (Head Restraints)****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 proposal of amendment 1 of UN Global Technical Regulation No. 7 submitted by the Informal Working Group on the Phase 2 of UN GTR No. 7 (ECE/TRANS/GRSP/2018/27). It is based on informal document GRSP-64-44 distributed at the sixty-fourth session of the Working Party on Passive Safety (GRSP). The modifications to ECE/TRANS/GRSP/2018/27, 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.19-03061(E)



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Please recycle The recycling symbol, consisting of three chasing arrows forming a triangle.



I. Proposal

Paragraph 3.17., amend to read:

"3.17. "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 3.18., to read:

"3.18. "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 5.3.3.2., amend to read:

5.3.3.2. Evaluation Criteria

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

AISI ± 50% Value

<Equivalence>

WAD2 ± 82.9% Value

Injury Criteria

IV-NIC=1.1

NIC Max		28 m ² /s ²
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 9, 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(end)** - T₀."

II. Justification

1. CLEPA believes that GRSP shall chose injury risk limits based on the only 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 corrects also the definition of T(end) which is different from T-HRC(end).
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