



Economic Commission for Europe

Inland Transport Committee

World Forum for Harmonization of Vehicle Regulations

Working Party on Passive Safety

Seventy-third session
 Geneva, 15–19 May 2023

Report of the Working Party on Passive Safety on its seventy-third session

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I. Attendance

1. The Working Party on Passive Safety (GRSP) held its seventy-third session from 15 to 19 May 2023 in Geneva. Chaired by Mr. M. Koubek (United States of America), experts from the following countries participated following Rule 1(a) of the Rules of Procedure of the World Forum for Harmonization of Vehicle Regulations (WP.29) (ECE/TRANS/WP.29/690/Rev.1): Australia, Austria, Canada, China, Czechia, Finland, France, Germany, India, Italy, Japan, Netherlands, Norway, Poland, Republic of Korea, Russian Federation, South Africa, Spain, Sweden, Switzerland, United Kingdom of Great Britain and Northern Ireland, United States of America. The European Commission (EC) and experts from the following non-governmental organizations participated: American Automotive Policy Council, Consumers International, European Association of Automotive Suppliers (CLEPA), International Motor Vehicle Inspection Committee (CITA), International Motorcycle Manufacturers Association, International Organization of Motor Vehicle Manufacturers (OICA), Society of Automotive Engineers International.
2. Annex I lists the informal documents of the session.

II. Adoption of the Agenda (agenda item 1)

Documentation: ECE/TRANS/WP.29/GRSP/2023/1
Informal documents GRSP-73-08-Rev.2 and GRSP-73-46

3. GRSP considered and adopted the agenda, the running order (GRSP-73-08-Rev.1) and the annotations (GRSP-73-46). GRSP informal working groups are listed in annex XIII.

III. UN Global Technical Regulation No. 9 (Pedestrian safety) (agenda item 2)

Proposal for Amendment 3

Documentation: ECE/TRANS/WP.29/2023/6
Informal documents GRSP-73-12-Rev.1, GRSP-73-13-Rev.1 and GRSP-73-59

4. The expert from the Republic of Korea, Chair of the Informal Working Group on Deployable Pedestrian Protection Systems (IWG DPPS), introduced the final progress report of the group (GRSP-73-13-Rev.1). He introduced ECE/TRANS/WP.29/2023/6 and GRSP-73-12-Rev.1 as the final proposal for Amendment 3 to the UN GTR. The expert from Austria, on behalf of IWG, explained that the proposal incorporated a numerical test as a prerequisite to the certification test of vehicle bonnets. She noted that GRSP-73-59, explained the numerical simulation concerning the Head Impact Time (HIT), based on Generic Vehicle Models (GVM). GRSP continued discussion on HIT and GVM under agenda item 19 (paragraph 46).
5. GRSP agreed that the final draft of Amendment 3 needed further discussion within IWG. Thus, GRSP agreed to seek endorsement from the Executive Committee of the 1998 Agreement (AC.3) to extend the IWG mandate until May 2024. GRSP agreed to resume discussion at its December 2023 session based on a revised: (a) consolidated text of the amendments (superseding ECE/TRANS/WP.29/2023/6 and GRSP-73-12-Rev.1), (b) final report of IWG DPPS (superseding GRSP-73-13-Rev.1)

IV. UN Global Technical Regulation No. 13 (Hydrogen and Fuel Cell Vehicles) (agenda item 3)

Documentation: ECE/TRANS/WP.29/2023/81
Informal documents GRSP-73-23-Rev.1, GRSP-73-26-Rev.1, GRSP-73-38 and GRSP-73-50-Rev.1

6. The expert from OICA, Secretary of IWG GTR13, Phase 2, introduced GRSP-73-50-Rev.1 to inform GRSP about editorial changes included in ECE/TRANS/WP.29/2023/81, following decision of GRSP to recommend Amendment 1 to the UN GTR at its December 2022 session. GRSP reconfirmed its agreement to recommend ECE/TRANS/WP.29/2023/81 as Amendment 1 to UN GTR No. 13 for consideration and vote to WP.29 and AC.3 at their June 2023 sessions.

7. GRSP also noted a proposal of corrigendum to Amendment 1 to UN GTR No. 13 for discussion at its December 2023 session, tabled by the IWG Secretary (GRSP-73-26-Rev.1). GRSP agreed to seek endorsement of AC.3 to extend the IWG mandate until December 2023 to complete above proposal of corrigendum. GRSP also noted that if a new replacement proposal was not received by the secretariat, GRSP-73-26-Rev.1 should be confirmed for submission as an official document before the deadline.

8. GRSP considered GRSP-73-23-Rev.1 on methods to shorten the verification test time for the expected on-road performance and performance durability of Compressed Hydrogen Storage Systems. GRSP also noted GRSP-73-38, on the post-crash safety of hydrogen-fuelled heavy-duty vehicles (HDV). It was agreed to resume discussion at the December 2023 session of GRSP as topics for Phase 3 of the UN GTR.

V. UN Global Technical Regulation No. 20 (Electric vehicle safety) (agenda item 4)

Informal document: GRSP-73-39

9. The IWG Chair, on behalf of the co-sponsors (China, Japan, United States of America, European Commission) and of the members of IWG GTR No. 20, Phase 2 reported on the progress (GRSP-73-39).

VI. UN Regulation No. 14 (Anchorages of safety-belts) (agenda item 5)

Informal documents: GRSP-70-06, GRSP-70-07, GRSP-73-05, GRSP-73-06, GRSP-73-09-Rev.1 and GRSP-73-36

10. The expert from Finland introduced GRSP-73-06 to propose a new series of amendments to UN Regulations Nos. 14 and 16 that remove the derogations for the two-point safety belts (GRSP-70-05). He recalled to GRSP that GRSP-70-07, introduced at the seventieth session of GRSP, showed evidence of an insufficient level of safety with two-point belts. He concluded that equipping buses with three-point safety belts was a cost-effective way to increase safety for passengers. The expert from the Netherlands in principle supported the proposal and asked a time reservation. The expert from Italy also requested time reservation. The expert from the United Kingdom informed GRSP of a low number of bus crash casualties in his country. The expert from OICA recalled GRSP-70-06 and GRSP-70-07 that were introduced by the expert from Finland at the seventieth session of GRSP, and requested clearer evidence of the benefit of three-point safety-belts, including for other countries. The expert from Germany also stated a low number of bus casualties in his country; GRSP noted that he would provide further statistics at its December session. The expert from Japan also informed of a low number of bus casualties and noted there was no evidence that three-point belts would be beneficial. GRSP agreed to resume discussion at its December 2023 session based on a revised proposal and requested its experts to provide further statistical data. GRSP noted that if a new replacement proposal was not received by the secretariat, GRSP-73-06 should be confirmed for submission as an official document.

11. The expert from Spain introduced GRSP-73-09-Rev.1, proposing the introduction of three-point safety-belts for buses and coaches (all M₂ and M₃ vehicle categories) on adult seats facing a built-in Child Restraint System (CRS). She explained that the proposal aimed to prevent impact between an adult and a child when the child was restrained in a built-in CRS installed on a seat back facing the adult. GRSP adopted GRSP-73-09-Rev.1, as reproduced by annex II. The secretariat was requested to submit the proposal as draft Supplement 3 to the 09 Series of Amendments to UN Regulation No. 14 for consideration and vote at the November 2023 sessions of WP.29 and to the Administrative Committee of the 1958 Agreement (AC.1).

12. GRSP noted GRSP-73-36 tabled by the expert from OICA. He clarified that the proposal aimed to allow occupants to use alternative seating positions only if this would not cause any conflict with the content of other UN Regulations. He added that the proposal should be considered as a first step. The expert from the Republic of Korea requested a time reservation to check the effects on other UN Regulations. The expert from the United Kingdom noted that the proposal introduced geometric criteria with possible effects on injury criteria. GRSP agreed to resume discussion at its December 2023 session and requested GRSP-73-36 with an official symbol for that session.

VII. UN Regulation No. 16 (Safety-belts) (agenda item 6)

Documentation: ECE/TRANS/WP.29/GRSP/2022/3
 ECE/TRANS/WP.29/GRSP/2022/12
 ECE/TRANS/WP.29/GRSP/2023/3
 ECE/TRANS/WP.29/GRSP/2023/9
 ECE/TRANS/WP.29/GRSP/2023/15
 ECE/TRANS/WP.29/GRSP/2023/17
 (ECE/TRANS/WP.29/GRSP/2022/13)
 (ECE/TRANS/WP.29/GRSP/2019/15)
 Informal documents GRSP-72-13, GRSP-73-05, GRSP-73-07, GRSP-73-15, GRSP-73-16-Rev.2, GRSP-73-24, GRSP-73-28-Rev.1, GRSP-73-29, GRSP-73-43 and GRSP-73-56

13. GRSP noted GRSP-73-07 that complements the proposal on safety-belt anchorages (paragraph 10) and removes derogations for two-point safety-belts on buses and coaches. GRSP agreed to resume discussion at its December 2023 session based on a revised proposal and requested its experts to provide further statistical data. GRSP noted that if a new replacement proposal was not received by the secretariat, GRSP-73-07 should be confirmed for submission as an official document before the deadline.

14. The expert from Japan outlined (with GRSP-73-29) the development of his proposal (GRSP-73-28-Rev.1 superseding ECE/TRANS/WP.29/GRSP/2022/3) to limit the slack of the safety-belt buckle in rear seats to improve occupant safety. He said that the group of interested experts had met twice and had agreed to further testing of: (a) the test method of the buckle strap assembly and of (b) the test of the effect of the pre-tensioner on the forward movement of the rear seat occupant. GRSP agreed to resume discussion at its December 2023 session based on a revised document. GRSP experts were requested to provide comments to the expert from Japan on GRSP-73-28-Rev.1, who would submit a revised official proposal by the deadline.

15. GRSP resumed discussion on ECE/TRANS/WP.29/GRSP/2022/12 that introduces an optional test procedure for frontal airbags in combination with rearward-facing child restraint systems in the rear seat. The experts from Italy and Sweden expressed concerns on possible misuse introduced by the proposal. Finally, the expert from OICA withdrew the proposal due to the lack of support from GRSP.

16. The expert from the Netherlands presented the status report of the Ad Hoc Group on CRS (GRSP-73-15) as an introduction to GRSP-73-16-Rev.2 (superseding ECE/TRANS/WP.29/GRSP/2023/9), which allows the use of Lower Tether Anchorages (LTA) as anti-rotation devices. He added that the proposal would not mandate the use of LTA, but would ensure that use be unambiguous, and that users be informed correctly. He also explained that the proposal would be accompanied by parallel proposals to UN Regulations Nos. 129 and 145. The expert from OICA introduced GRSP-73-24 to provide

consistency on transitional provisions with other proposals of amendments to the UN Regulation. GRSP adopted ECE/TRANS/WP.29/GRSP/2023/9, as amended by annex III. GRSP requested the secretariat to submit the proposal as the draft 09 Series of Amendments to UN Regulation No. 16 for consideration and vote at the November 2023 sessions of WP.29 and AC.1.

17. The expert from Spain introduced ECE/TRANS/WP.29/GRSP/2023/3, complementing her proposal of three-point safety-belts for buses and coaches (M₂ and M₃ vehicle categories of all classes) on adult seats facing built-in CRS (paragraph 11). GRSP adopted ECE/TRANS/WP.29/GRSP/2023/3, as amended below, and requested the secretariat to submit the proposal as draft Supplement 5 to the 08 Series of Amendments and to include it in the draft (paragraph 16) 09 Series of Amendments to UN Regulation No. 16 for consideration and vote at the November 2023 sessions of WP.29 and AC.1.

The title, amend to read:

"Proposal for Supplement 5 to 08 Series of Amendments **and 09 Series of Amendments** to UN Regulation No. 16 (Safety-belts)"*

18. The expert from CLEPA introduced ECE/TRANS/WP.29/GRSP/2023/15, proposing a text to prevent the approval mark from being replaced by a Unique Identifier (UI) in UN Regulation No. 16. GRSP adopted ECE/TRANS/WP.29/GRSP/2023/15, as amended below, and requested the secretariat to submit the proposal as part of (see paragraph 17) draft Supplement 5 to the 08 series of amendments and to include it in (paragraphs 16 and 17) the draft 09 Series of Amendments to UN Regulation No. 16 for consideration and vote at the November 2023 sessions of WP.29 and AC.1.

The title, amend to read:

"Proposal for Supplement 5 to 08 Series of Amendments **and 09 Series of Amendments** to UN Regulation No. 16 (Safety-belts)" *

19. The expert from the Republic of Korea introduced the status report (GRSP-73-43) of the Ad Hoc Group on Safety-Belt Reminders (SBR). He informed GRSP that the Group agreed to clarify and resolve three SBR issues introduced at the seventy-second session of GRSP (GRSP-72-13). He concluded that the Group planned to convene virtually at the end of May to seek basis for a proposal for discussion at the December 2023 session of GRSP. The expert from France introduced ECE/TRANS/WP.29/GRSP/2023/17, to clarify: (a) how to assess SBR connection in the case of removable seats and (b) test procedure of SBR. The expert from OICA reiterated that GRSP-73-24 also amends ECE/TRANS/WP.29/GRSP/2023/17. GRSP adopted ECE/TRANS/WP.29/GRSP/2023/17 as amended by annex III. GRSP requested the secretariat to submit the proposal as part of the draft 09 Series of Amendments (paragraphs 17 to 19) to UN Regulation No. 16 for consideration and vote at the November 2023 sessions of WP.29 and AC.1.

20. The expert from CLEPA introduced GRSP-73-56, to propose a fundamental restructuring of UN Regulation No. 16 and to start this activity with a group of interested experts led by the expert from the Netherlands. The expert from Japan, Ambassador of IWVTA, suggested informing IWVTA IWG about a possible splitting of the UN Regulation and its effect on UN Regulation No. 0. GRSP agreed in principle with the proposal, pending feedback from IWVTA IWG at its June 2023 session, and requested the secretariat, on behalf of the expert from the Netherlands to email all GRSP experts to query their availability for this activity.

* *Note by the secretariat:* The change of the title was agreed with the author of the proposal to include the text of the draft Supplement 5 to the 08 Series of Amendments into the draft 09 Series of Amendments to UN Regulation No. 16.

VIII. UN Regulation No. 17 (Strength of seats) (agenda item 7)

Documentation: ECE/TRANS/WP.29/GRSP/2023/4
ECE/TRANS/WP.29/GRSP/2023/5
Informal document GRSP-73-40

21. GRSP resumed discussion on two revised proposals tabled by the expert from Germany. He introduced ECE/TRANS/WP.29/GRSP/2023/4 to ensure that only safe head restraints would be fitted on seats in any seating position in all vehicle categories. Then he introduced ECE/TRANS/WP.29/GRSP/2023/5 that covers the same provisions of ECE/TRANS/WP.29/GRSP/2023/4 with additional new requirements in a new series of amendments. GRSP adopted ECE/TRANS/WP.29/GRSP/2023/4 not amended, and ECE/TRANS/WP.29/GRSP/2023/5 as amended by annex IV. The secretariat was requested to submit the proposals for consideration and vote at the November 2023 sessions of WP.29 and AC.1. as: (a) draft Supplement 1 to the 10 series of amendments (ECE/TRANS/WP.29/GRSP/2023/4) and (b) draft 11 Series of Amendments (ECE/TRANS/WP.29/GRSP/2023/5) to UN Regulation No. 17.

22. The expert from Germany also introduced GRSP-73-40, aiming to seek guidance from GRSP experts on the interpretation of the word "any" in relation to the height and the backset position of the head restraint in the UN Regulation. GRSP agreed to resume discussion at its December 2023 session and invited its experts to provide feedback to the expert from Germany.

IX. UN Regulation No. 94 (Frontal impact) (agenda item 8)

Documentation: ECE/TRANS/WP.29/GRSP/2023/22
Informal document GRSP-73-34

23. GRSP resumed discussion on a revised proposal tabled by the expert from OICA to incorporate provisions on hydrogen-fuelled vehicles into UN Regulation No. 94, to harmonize UN Regulation No. 94 with UN GTR No. 13, Amendment 1 (GRSP-73-34 superseding ECE/TRANS/WP.29/GRSP/2023/22). GRSP adopted ECE/TRANS/WP.29/GRSP/2023/22 as amended by annex V. The secretariat was requested to submit the proposal as the draft 05 Series of Amendments to UN Regulation No. 94 for consideration and vote at the November 2023 sessions of WP.29 and AC.1.

X. UN Regulation No. 95 (Lateral impact) (agenda item 9)

Documentation: ECE/TRANS/WP.29/GRSP/2023/18
Informal documents GRSP-73-35-Rev.1, GRSP-73-44 and GRSP-73-45

24. The expert from France introduced GRSP-73-44 and GRSP-73-45, to amend respectively the 04 and 05 series of amendments, to clarify the figures of Annex 5, Appendix 2 and to reintroduce legends which had been removed from the 02 Series of Amendments to the UN Regulation. GRSP adopted both proposals, as reproduced in annex VI, and requested the secretariat to submit GRSP-73-44 as draft Supplement 3 to the 04 Series of amendments, and GRSP-73-45 as draft Supplement 4 to the 05 Series of Amendments to UN Regulation No. 95 for consideration and vote at the November 2023 sessions of WP.29 and AC.1.

25. As per paragraph 23, the expert from the OICA introduced GRSP-73-35-Rev.1 (superseding ECE/TRANS/WP.29/GRSP/2023/18) to incorporate provisions on hydrogen-fuelled vehicles into UN Regulation No. 95. GRSP adopted ECE/TRANS/WP.29/GRSP/2023/18 as amended by annex VI. The secretariat was requested to submit the proposal as the draft 06 Series of Amendments to UN Regulation No. 95 for consideration and vote at the November 2023 sessions of WP.29 and AC.1.

XI. UN Regulation No. 100 (Electric power trained vehicles) (agenda item 10)

Documentation: ECE/TRANS/WP.29/GRSP/2023/10
ECE/TRANS/WP.29/GRSP/2023/16
ECE/TRANS/WP.29/GRSP/2023/23
Informal documents GRSP-72-18, GRSP-73-02, GRSP-73-17, GRSP-73-41, GRSP-73-47, GRSP-73-49, GRSP-73-51-Rev.1, GRSP-73-52-Rev.1 and GRSP-73-55

26. GRSP considered GRSP-73-17, (superseding ECE/TRANS/WP.29/GRSP/2023/10) by the expert from the Netherlands, aimed at identifying HDV equipped with an electric drivetrain. He added that the proposal of additional labelling would help emergency services to determine how to approach these vehicles in case of a fire. The expert from Japan agreed in principle with the proposal. He also introduced GRSP-73-49 to supplement it with the labelling of hydrogen- and fuel-cell vehicles, consistent with UN Regulation No. 134. The expert from the United Kingdom questioned the proposed colours of the labelling, which could conflict with those required by the 1968 Vienna Convention on Road Traffic and in national legislations. The expert from the Russian Federation presented GRSP-73-47 that introduced a proposal (GRSP-73-02) to extend the identification of vehicles to categories M and N with an electric drivetrain. He also informed GRSP that the lack of internet accessibility in numerous areas on the territory of his country would not allow viable solutions such as apps to identify electric vehicles. He added that for vehicles immersed in water (e.g. fallen from a bridge), quick response code reading (QR) would not be applicable. The expert from OICA, argued that buses already had numerous labelling and that electric vehicles with a labelling as such would come across as dangerous, creating excessive alarm for the public. The expert from the Netherland, clarified that passenger vehicles (M₁) and light duty vehicles were not a priority for labels because they were covered by the Euro New Car Assessment Programme (Euro NCAP). He added that few HDV were electric-power trained, and needed to be identified for emergency services.

27. GRSP agreed to resume discussion at its December 2023 session and invited concerned parties to liaise with the expert from the Netherlands to develop a comprehensive proposal of all point views (including ECE/TRANS/WP.29/GRSP/2023/10, GRSP-73-17 and GRSP-73-49). The expert from the Russian Federation withdrew GRSP-73-02 and announced a new proposal for the next session.

28. GRSP resumed discussion on two revised proposals tabled by the expert from France to clarify the direction of impact in the mechanical integrity test (ECE/TRANS/WP.29/GRSP/2023/16, as amended by GRSP-73-52-Rev.1, and ECE/TRANS/WP.29/GRSP/2023/23 as amended by GRSP-73-51-Rev.1). GRSP adopted ECE/TRANS/WP.29/GRSP/2023/16 and ECE/TRANS/WP.29/GRSP/2023/23, both as amended by annex VII. The secretariat was requested to submit the proposals as draft Supplement 5 to the 02 Series of Amendments (ECE/TRANS/WP.29/GRSP/2023/23) and as draft Supplement 3 to the 03 Series of Amendments (ECE/TRANS/WP.29/GRSP/2023/16) to UN Regulation No. 100 for consideration and vote at the November 2023 sessions of WP.29 and AC.1.

29. GRSP agreed to defer discussion to its December 2023 session on a proposal of amendment to introduce provisions for a type of electric axle in a trailer (ECE/TRANS/WP.29/GRSP/2022/14 and GRSP-72-18).

30. The expert from Germany introduced GRSP-73-41, requested guidance from GRSP on the meaning of the word "or" in paragraph 6.15.1.13. on the advance warning indication introduced by the 03 series of amendments of UN Regulation No. 100. The expert from the United States of America suggested consulting with IWG GTR No. 20, Phase 2 to maintain consistency. GRSP agreed to resume discussion on a proposal, submitted by the expert from Germany and, in agreement with IWG GTR No. 20, Phase 2.

31. GRSP considered and adopted GRSP-73-55 as reproduced in annex VII, on aligning the French translation with the English text on thermal propagation. GRSP requested the secretariat to submit the proposal as draft corrigendum 1 to the 03 series of amendments to

UN Regulation No. 100 for consideration and vote at the November 2023 sessions of WP.29 and AC.1.

XII. UN Regulation No. 127 (Pedestrian safety) (agenda item 11)

32. New information was not provided.

XIII. UN Regulation No. 129 (Enhanced Child Restraint Systems) (agenda item 12)

Documentation: ECE/TRANS/WP.29/GRSP/2023/11
ECE/TRANS/WP.29/GRSP/2023/13
ECE/TRANS/WP.29/GRSP/2023/14
Informal documents GRSP-73-14-Rev.1, GRSP-73-18-Rev.2, GRSP-73-42 and GRSP-73-53

33. As per paragraph 16, the expert from the Netherlands on behalf of the Ad Hoc Group on CRS introduced ECE/TRANS/WP.29/GRSP/2023/13 and GRSP-73-18-Rev.2 on allowing the use of LTA. GRSP noted that the additional sentence in paragraph 6.6.4.1.2.1., that clarifies how ISOFIX ECRS should be dynamically tested, was removed from GRSP-73-18-Rev.2. This would allow the new 04 series of amendments to UN Regulation No. 129 proposed in GRSP-73-18-Rev.2 to focus on provisions for Enhanced Child Restraint Systems (ECRS) with lower tethers. GRSP agreed with the principle of the sentence on ISOFIX ECRS, to clarify that an ISOFIX ECRS that relies on the vehicle seat as the sole anti-rotation device must be dynamically tested on each vehicle body shell specified on the CRS fitting list. However, GRSP noted that another amendment of paragraph 6.6.4.1.2. had been proposed by the expert from CLEPA in GRSP-73-42, and so agreed to resume discussion at its December 2023 session. GRSP also adopted ECE/TRANS/WP.29/GRSP/2023/13 as amended by annex VIII. The secretariat was requested to submit the proposal as draft 04 Series of Amendments to UN Regulation No. 129 to the November 2023 sessions of WP.29 and AC.1. The secretariat was also requested to distribute GRSP-73-42 with an official symbol at its next session. GRSP requested its experts to provide comments on GRSP-73-42 to the expert from CLEPA.

34. The expert from the Netherlands, on behalf of the Technical Services Group, introduced ECE/TRANS/WP.29/GRSP/2023/11 and GRSP-73-14-Rev.1 amending it, to clarify the single belt route principle in paragraph 3.2.2. of the UN Regulation. GRSP adopted ECE/TRANS/WP.29/GRSP/2023/11 as amended by annex VIII, and requested the secretariat to submit it as draft Supplement 10 to the 03 Series of Amendments and as part of (paragraph 33) the draft 04 series of amendments to UN Regulation No. 129 for consideration and vote at the November 2023 sessions of WP.29 and AC.1.

35. GRSP considered ECE/TRANS/WP.29/GRSP/2023/14 on prevention of green indicators suggesting a belt route outside the remit of the type-approval. GRSP adopted ECE/TRANS/WP.29/GRSP/2023/14, as amended below, and requested the secretariat to submit the proposal as part of (paragraphs 33 and 34 above) draft Supplement 10 to the 03 series of amendments and to include it into (paragraphs 33 and 34) the draft 04 Series of Amendments to UN Regulation No. 129 for consideration and vote at the November 2023 sessions of WP.29 and AC.1.

The title, amend to read:

"Proposal for Supplement 10 to 03 Series of Amendments **and 04 Series of Amendments** to UN Regulation No. 129 (Enhanced Child Restraint Systems)" **

36. The expert from France introduced GRSP-73-53 amending the UN Regulation to allow installation of a headrest on the bench in the dynamic frontal test of a universal booster cushion with a Q10 dummy. She clarified that this would allow testing of the universal

** *Note by the secretariat:* The change of the title was agreed with the author of the proposal to include the text of the draft Supplement 10 to the 03 Series of Amendments into the draft 04 Series of Amendments to UN Regulation No. 129.

booster cushion, without damaging the neck of the dummy. GRSP agreed to resume discussion based on a proposal submitted by the expert from France.

XIV. UN Regulation No. 134 (Hydrogen and Fuel Cells Vehicles) (agenda item 13)

Documentation: ECE/TRANS/WP.29/GRSP/2023/8
Informal document GRSP-73-54

37. The Secretary of the Task Force to transpose Amendment 1 of UN GTR No. 13 into UN Regulation No. 134 introduced GRSP-73-54, amending ECE/TRANS/WP.29/GRSP/2023/8: both were adopted by GRSP. The secretariat was requested to submit the proposal as draft 02 series of amendments to UN Regulation No. 134 for consideration and vote to the November 2023 sessions of WP.29 and AC.1.

XV. UN Regulation No. 135 (Pole Side Impact) (agenda item 14)

Documentation: ECE/TRANS/WP.29/GRSP/2023/19
ECE/TRANS/WP.29/GRSP/2023/24
Informal documents GRSP-73-32 and GRSP-73-33

38. As per paragraphs 23 and 25, GRSP resumed discussion on two revised proposals (ECE/TRANS/WP.29/GRSP/2023/19, amended by GRSP-73-33 and ECE/TRANS/WP.29/GRSP/2023/24, amended by GRSP-73-32) tabled by the expert from OICA to harmonize already existing provisions on hydrogen-fuelled vehicles in UN Regulation No. 135. GRSP adopted:

(a) ECE/TRANS/WP.29/GRSP/2023/24 amended by annex IX, as draft Supplement 3 to the Original Version and as draft Supplement 4 to the 01 Series of Amendments to UN Regulation No. 135;

(b) ECE/TRANS/WP.29/GRSP/2023/19 amended by annex IX, as draft Supplement 2 to the 02 Series of Amendments to UN Regulation No. 135.

XVI. UN Regulation No. 136 (Electric vehicle L) (agenda item 15)

39. New information was not provided.

XVII. UN Regulation No. 137 (Frontal impact with focus on restraint systems) (agenda item 16)

Documentation: ECE/TRANS/WP.29/GRSP/2023/20
Informal documents GRSP-73-27 and GRSP-73-30

40. As per paragraphs 23, 25 and 38, the expert from OICA introduced GRSP-73-30 (superseding ECE/TRANS/WP.29/GRSP/2023/20) to incorporate provisions on hydrogen-fuelled vehicles into UN Regulation No. 137. GRSP adopted ECE/TRANS/WP.29/GRSP/2023/20 as amended by annex X. The secretariat was requested to submit the proposal as draft 03 Series of Amendments to UN Regulation No. 137 for consideration and vote at the November 2023 sessions of WP.29 and AC.1.

41. The expert from Japan reiterated GRSP-73-27 on amending the requirement of the Thorax Compression Criterion (ThCC) of the 5th female dummy in vehicles of category N₁ with a maximum permissible mass not exceeding 2,800 kg. He provided the crash data evidence as requested at the December 2022 session of GRSP showing that elderly female passengers require protection in Japan when travelling in the front seats of N₁ vehicles. He announced an official proposal for the December 2023 session of GRSP that incorporates the protection of elderly people into N₁ vehicles, which currently apply only to M₁. The expert from the Republic of Korea expressed a time reservation to allow investigation at the national level. The expert from France suggested national data comparisons for the December 2023 session of GRSP. The expert from the Netherlands suggested that motorhomes could also be

included. The expert from OICA expressed a study reservation arguing that the issue was limited to Japan and suggested consideration of different markets. The expert from Austria stated that Japan was advanced in considering this issue. She also informed GRSP that the IWG on Equitable Protection of Occupants (EqOP) already considered the contribution of Japan for its future work. GRSP agreed to resume discussion at its December 2023 session based on an official proposal submitted by the expert from Japan. Meanwhile, GRSP requested its experts to provide national crash data to justify the proposal to Mr. Yoshinori TANAKA (NTSEL Japan, y-tanaka@ntsel.go.jp) and to Ms. Kazumi WATANABE (JASIC secretariat, watanabe@jasic.org).

XVIII. UN Regulation No. 145 (ISOFIX anchorage systems, ISOFIX top tether anchorages and i-Size) (agenda item 17)

Documentation: ECE/TRANS/WP.29/GRSP/2023/12
Informal documents GRSP-73-19-Rev.2 and GRSP-73-25-Rev.1

42. The expert from OICA introduced GRSP-73-25-Rev.1, aimed at amending the provisions for the number of ISOFIX positions if a built-in CRS is installed in that position. He added that the provision would be adapted to height stature according to UN Regulation No. 129 instead of the superseded mass group of UN Regulation No. 44. GRSP adopted the proposal as reproduced in annex XI. The secretariat was requested to submit the proposal as draft Supplement 3 to the Original Version of UN Regulation No. 145, for consideration and vote at the November 2023 sessions of WP.29 and AC.1.

43. As per paragraphs 16 and 33, the expert from the Netherlands on behalf of the Ad Hoc Group on CRS introduced ECE/TRANS/WP.29/GRSP/2023/12 and GRSP-73-19-Rev.2, to allow use of LTA. GRSP adopted ECE/TRANS/WP.29/GRSP/2023/12 as amended by annex XI. The secretariat was requested to submit the proposal as draft 01 Series of Amendments to UN Regulation No. 145, for consideration and vote at the November 2023 sessions of WP.29 and AC.1.

XIX. UN Regulation No. 153 (Fuel system integrity and electric power train safety at rear-end collision) (agenda item 18)

Documentation: ECE/TRANS/WP.29/GRSP/2023/21
Informal document GRSP-73-31

44. As per paragraphs 23, 25, 38 and 40, the expert from OICA introduced GRSP-73-31 (superseding ECE/TRANS/WP.29/GRSP/2023/21) to incorporate provisions on hydrogen-fuelled vehicles into UN Regulation No. 153. GRSP adopted ECE/TRANS/WP.29/GRSP/2023/21 as amended by annex XII. The secretariat was requested to submit the proposal as draft Supplement 4 to the Original Version of UN Regulation No. 153, for consideration and vote at the November 2023 sessions of WP.29 and AC.1.

XX. Mutual Resolution No. 1 (agenda item 19)

Documentation: ECE/TRANS/WP.29/GRSP/2023/7
Informal documents GRSP-73-03, GRSP-73-10-Rev.1, GRSP-73-11 and GRSP-73-48

45. As per paragraph 4, the experts from Austria and the Republic of Korea, on behalf of IWG, explained that validation of a reference of Human Body Models (HBM) was relevant for the evaluation of HIT (GRSP-73-03). She noted that validation consisted of simulations of HBM against a model representing a GVM frontend. She clarified that the procedure of validation of HBM was limited to pedestrian HIT. GRSP noted that two proposals of addendum to the Mutual Resolution No.1 (M.R.1) were submitted by the IWG to calculate HIT: (a) Addendum 5 on provisions for the DPPS GVM (ECE/TRANS/WP.29/GRSP/2023/7 as amended by GRSP-73-10-Rev.1); and (b) Addendum 6 on developing HBM qualification

corridors (GRSP-73-11). GRSP noted that the development of the two Addenda needed further study and agreed to resume discussion at its December 2023 session.

46. The expert from OICA introduced GRSP-73-48 to update the references to the ISO standards in M.R.1, Addendum 2 (World Side Impact Dummy). GRSP adopted GRSP-73-48 and requested the secretariat to submit it as draft Amendment 1, Addendum 2 to M.R.1 for consideration and vote at the November 2023 sessions of WP.29 and AC.3.

XXI. Equitable Occupant Protection (agenda item 20)

Informal document: GRSP-73-37-Rev.1

47. The expert from Sweden, Chair of IWG on Equitable Occupant Protection introduced the status report (GRSP-73-37-Rev.1). She informed GRSP that IWG met in Yokohama, Japan on 6 April 2023 in conjunction with the Enhanced Safety of Vehicles conference, and in Geneva prior of the May 2023 session of GRSP. She informed GRSP that the Group had agreed on two tasks for early December 2023: (a) a road map of any diversity issues (gender, weight, height and age), (b) a recommendation on using existing dummies in the UN crash safety regulations, to benefit the female population specifically. GRSP agreed to resume consideration at its December 2023 session.

XXII. Securing Children in Buses and Coaches (agenda item 21)

Documentation: ECE/TRANS/WP.29/GRSP/2023/2
Informal documents GRSP-73-01 and GRSP-73-04-Rev.1

48. The expert from Spain, Chair of IWG on safer transport of children in buses and coaches informed GRSP about GRSP-73-01 on developing the new UN Regulation. She confirmed that the Group had finalized the first phase on the use of ECRS approved according to UN Regulation No. 129 with three-point safety-belts and/or ISOFIX built-in systems. In Phase 2, she added that IWG would assess ECRS in combination with two-point belts. She added that the terms of references of Phase 2 of IWG would be prepared for comments from the Working Party on General Safety Provisions (GRSG), then for official adoption by GRSP at its December 2023 session. She then introduced GRSP-73-04-Rev.1, superseding ECE/TRANS/WP.29/GRSP/2023/2.

49. GRSP adopted ECE/TRANS/WP.29/GRSP/2023/2, as amended by GRSP-73-04-Rev.1. The secretariat was requested to submit the proposal as a draft new UN Regulation Concerning the Approval of Child Restraint Systems for Safer Transport of Children in Buses and Coaches for consideration and vote at the November 2023 sessions of WP.29 and AC.1.

XXIII. Exchange of Views on Vehicle Automation (agenda item 21)

Informal document: GRSP-73-57

50. The expert from Germany introduced GRSP-73-57 on the outcome of the Task Force on Autonomous Vehicles Regulatory Screening (TF AVRS) work. He explained that some of the findings can be solved by rewording UN Regulations under GRSP responsibility (e.g. references to "driver", "steering control", "Driver R-Point"). He added that some functions (e.g. tell-tales) and some situations like the transport of children on buses without a driver would need discussion in WP.29.

51. GRSP considered GRSP-73-57 to be final and agreed that the coordinated conclusions on TF AVRS in each Working Party be provided to the June 2023 session of WP.29.

XXIV. Strategy of the Inland Transport Committee (agenda item 22)

Informal document: GRSP-73-61

52. GRSP noted the decisions of the Inland Transport Committee (ITC) on climate change and confirmed its support for the development of an ambitious ITC strategy on the reduction of greenhouse gas emissions in inland transport until 2050, with priority actions for the ITC and its subsidiary bodies, and supported by a strong action plan with milestones. It took note of the draft outline (GRSP-73-61). Noting that the deadline for contributions and comments on the draft was Friday, 29 September 2023, GRSP invited delegations to send their contributions to the Chair before the beginning of September on (a) the ITC climate change mitigation strategy until 2050: reflections and considerations as to contributions and ambitious actions with milestones GRSP can make, (b) contributions by GRSP to the in-depth report on climate change and inland transport for the ITC's eighty-sixth session, on the basis of the preliminary work contained in ECE/TRANS/2023/21.

XXV. Other Business (agenda item 24)

A. Exchange of Information on National and International Requirements on Passive Safety

53. New information was not provided.

B. UN Regulation No. 0 (International Whole Vehicle Type Approval)

Informal documents: GRSP-72-07-Rev.1 and GRSP-73-58

54. The expert from Japan, Ambassador of IWVTA, informed GRSP that IWG was developing the 06 series of amendments to UN Regulation No. 0. He noted that this new series reflected the latest series of amendments to UN Regulations Nos. 12, 127 and 135, which had entered into force in January 2023. He added that the proposal would be submitted for approval to the June session of WP.29 after a review by the Technical Secretary of the Group. He reminded GRSP about GRSP-72-07-Rev.1 on interpreting the preceding series of amendments (singular or plural) mentioned in the transitional provisions of UN Regulations. He informed GRSP that no objection to the document had been received from experts, as requested at the December 2022 session of GRSP. He concluded that the document would be reviewed by the June 2023 session of WP.29.

55. GRSP resumed discussion on UI marking. The expert from CITA, introduced GRSP-73-58 (based on WP.29-188-20) listing all UN Regulations under GRSP purview and providing information that his organization deems relevant. He added that, in his opinion, none of the UN Regulations under GRSP needed UI. The expert from Germany stated that benefits would not be introduced by UI. The expert from Spain suggested that amending the 1958 Agreement would be more viable than amending each UN Regulations to prohibit UI. GRSP agreed to discuss its final position at its December 2023 session.

C. Highlights of the March 2023 Session of the World Forum for Harmonization of Vehicle Regulations

Informal document: GRSP-73-21

56. The Secretary reported (GRSP-73-21) on the 189th session (ECE/TRANS/WP.29/1171).

D. Three-dimensional H-point Machine

Informal document: GRSP-73-20

57. The expert from the Netherlands introduced the status report of the Ad Hoc Group on the 3D HPM. He informed GRSP that the Group had agreed that the first step would be update the Consolidated Resolution on the Construction of Vehicles (R.E.3) according to the standard J826 of November 2008, of the Society of Automotive Engineers. He announced an informal proposal of amendments to R.E.3. and to the UN Regulations for the October and December 2023 sessions of GRSG and GRSP. GRSP also noted that some UN GTRs should be updated and that placing specifications for 3D HPM into M.R.1 would be the easiest solution to update them. GRSP agreed to resume discussion at its December 2023 session.

E. Intelligent Transport Systems

58. New information was not provided.

F. Children Left in Cars

59. The expert from the Republic of Korea sensitized GRSP on this issue. He stated that GRSP was the most suitable group of experts to draft a solution for cars and buses. The expert from Australia reiterated this message and added that the loss of children was not economically quantifiable and urged a solution. The expert from Germany reminded GRSP about Euro NCAP protocols on this subject. GRSP agreed continue gathering global information and statistics for its next sessions as a first step.

G. Frontal Protection of Buses

Informal document: GRSP-73-22

60. The expert from Norway introduced GRSP-73-22, showing statistical evidence that a considerable number of accidents involved buses wherein the drivers had been seriously injured or killed in head-on collisions in Norway. The expert from the United Kingdom stated a lack of statistics from his country for this activity. The expert from the Netherland suggested that GRSP was the correct body to address this issue although merit needed to be verified. He also suggested considering UN Regulation No. 66 (Strength of superstructure (buses)) under the responsibility of GRSP to have a thorough approach to passive safety. The expert from Finland agreed with the concerns in GRSP-73-22 and added that the steering wheel function should be also investigated. GRSP agreed to resume discussion at its December 2023 session and requested experts to provide statistical data at that session.

H. Provisional Agenda for the Next Session

61. The seventy-fourth session of GRSP was scheduled for Geneva from 4 (2.30 p.m.) to 8 December (12.30 p.m.) 2023. GRSP noted the twelve-week deadline for the submission of official documents to the secretariat as 11 September 2023. GRSP is expected, based on the list of decisions taken (GRSP-73-60) to follow:

1. Adoption of the Agenda.
2. UN Global Technical Regulation No. 9 (Pedestrian safety):
Proposal for Amendment 3.
3. UN Global Technical Regulation No. 13 (Hydrogen and Fuel Cell Vehicles).
4. UN Global Technical Regulation No. 20 (Electric vehicle safety).
5. UN Regulation No. 14 (Anchorages of safety-belts).
6. UN Regulation No. 16 (Safety-belts).
7. UN Regulation No. 17 (Strength of seats).
8. UN Regulation No. 94 (Frontal impact).

9. UN Regulation No. 95 (Lateral impact).
10. UN Regulation No. 100 (Electric power trained vehicles).
11. UN Regulation No. 127 (Pedestrian safety).
12. UN Regulation No. 129 (Enhanced Child Restraint Systems).
13. UN Regulation No. 134 (Hydrogen and Fuel Cell Vehicles).
16. UN Regulation No. 137 (Frontal impact with focus on restraint systems).
17. UN Regulation No. 145 (ISOFIX anchorage systems, ISOFIX top tether anchorages and i-Size).
19. Mutual Resolution No. 1.
20. Equitable Occupant Protection.
21. Securing Children in Buses and Coaches.
22. Exchange of Views on Vehicle Automation.
23. Strategy of the Inland Transport Committee.
24. Children Left in Cars.
25. Election of officers.
26. Other Business:
 - (a) Exchange of Information on National and International Requirements on Passive Safety;
 - (b) UN Regulation No. 0 (International Whole Vehicle Type Approval);
 - (c) Highlights of the June and November 2023 Sessions of the World Forum for Harmonization of Vehicle Regulations;
 - (d) Three-dimensional H-point Machine;
 - (e) Intelligent Transport Systems;
 - (f) Frontal Protection of Buses.
 - (g) Exchange of Views on the Future Work of the Working Party on Passive Safety.

Annex I

[English only]

Informal Documents (GRSP-73-...)

<i>No.</i>	<i>Transmitted by</i>	<i>Agenda item</i>	<i>Language</i>	<i>Title</i>	<i>Follow-up</i>
01	Spain	21	E	Status Report of the Informal Working Group on Safer Transport of Children in Buses and Coaches (IWG-STCBC)	(a)
02	Russian Federation	10	E	Proposal for the 03 series of amendments to UN Regulation No. 100 (Electric power trained vehicles)	(a)
03	Republic of Korea	19	E	Background for validation of reference HBMs for Annex 2 of UN GTR No. 9-Amendment 3 proposal	(a)
04/ Rev.1	Spain	21	E	Proposal for a new UN Regulation concerning the Safer Transport of Children in Buses and Coaches	(d)
05	Finland	6	E	Proposal for new series of amendments to UN Regulations 16 and 14	(a)
06	Finland	5	E	Proposal for 10 series of amendments to UN Regulation No. 14	(a)
07	Finland	6	E	Proposal for 09 series of amendments to UN Regulation No. 16	(c)
08/ Rev.2	GRSP Chair	1	E	Running order of the provisional agenda of the 73rd session of GRSP	(b)
09/ Rev.1	Spain	5	E	Proposal for Supplement 03 of the 09 series of amendments to UN Regulation No. 14 (Safety-belts anchorages)	(d)
10/ Rev.1	Rep. of Korea	19	E	Proposal for Amendment 4 of the Mutual Resolution No. 1 (M.R.1) of the 1958 and the 1998 Agreements	(a)
11	Rep. of Korea	19	E	Proposal for Amendment 5 of the Mutual Resolution No. 1 (M.R.1) of the 1958 and the 1998 Agreements	(a)
12/ Rev.1	Rep. of Korea	2	E	Proposal for Amendment 3 of the GTR9	(a)
13/ Rev.1	Rep. of Korea	2	E	Draft Final Report on the Development of Amendment 3 to UN Global Technical Regulation No. 9 (Pedestrian Safety))	(a)
14/ Rev.1	Netherlands	12	E	Proposal for Supplement 10 to the 03 Series of Amendments to UN Regulation No. 129 (Enhanced Child Restraint Systems)	(d)
15	Netherlands	12	E	Status update GRSP-Ad-Hoc-group on CRS	(a)
16/ Rev.2	Netherlands	6	E	Proposal for the 09 Series of Amendments to UN Regulation No. 16 (Safety-belts)	(d)

<i>No.</i>	<i>Transmitted by</i>	<i>Agenda item</i>	<i>Language</i>	<i>Title</i>	<i>Follow-up</i>
17	Netherlands	10	E	Proposal for the 04 Series of Amendments to Regulation No. 100 (Electric power trained vehicles)	(a)
18/ Rev.2	Netherlands	12	E	Proposal for the 04 Series of Amendments to UN Regulation No. 129 (Enhanced Child Restraint Systems)	(d)
19/ Rev.2	Netherlands	17	E	Proposal for the 01 Series of Amendments to UN Regulation No. 145 (ISOFIX anchorage systems, ISOFIX top tether anchorages and i-Size)	(d)
20	Netherlands	24(d)	E	Status Report Ad-Hoc Group 3D H-point machine	(a)
21	Secretariat	24(c)	E	Highlights of WP.29 March 2023 session	(a)
22	Norway	24(g)	E	Frontal protection in buses	(a)
23/ Rev.1	Rep. of Korea	3	E	Proposing methods to shorten verification test time of expected on-road performance and performance durability for Compressed Hydrogen Storage System under GTR No.13	(a)
24	OICA	6	E	Proposal for the 09 Series of Amendments to UN Regulation No. 16 (Safety-belts)	(d)
25/ Rev.1	OICA	17	E	Proposal for draft Supplement 3 to UN Regulation No. 145 (ISOFIX anchorage systems, ISOFIX top tether anchorages and i-size)	(d)
26/ Rev.1	IWG GTR13	3	E	Proposal for the Corrigendum 1 to Amendment 1 to UN Global Technical Regulation No. 13 (Hydrogen and Fuel Cell Vehicles)	(a)
27	Japan	16	E	Frontal Collision Accident Study in Japan (Category N ₁)	(a)
28/ Rev.1	Japan	6	E	Proposal for the 09 series of amendments to UN Regulation No. 16	(a)
29	Japan	6	E	Outline of the Amendment of UN Regulation No. 16	(a)
30	OICA	16	E	Proposal for the supplement 3 to the original version, the supplement 4 to the 01 series of amendments and the supplement 1 to the 02 series of amendments to UN Regulation No. 135 (Pole side impact)	(d)
31	OICA	18	E	Proposal for the Supplement 4 to the Original Version of UN Regulation No. 153 (Fuel system integrity and electric power train safety at rear-end collision)	(d)
32	OICA	14	E	Proposal for Supplement 3 to the Original Version and Supplement 4 to the 01 Series of Amendments to UN Regulation No. 135 (Pole Side Impact)	(d)

<i>No.</i>	<i>Transmitted by</i>	<i>Agenda item</i>	<i>Language</i>	<i>Title</i>	<i>Follow-up</i>
33	OICA	14	E	Proposal for Supplement 2 to the 02 Series of Amendments to UN Regulation No. 135 (Pole Side Impact)	(d)
34	OICA	8	E	Proposal for the 05 series of amendments to UN Regulation No. 94 (Frontal collision)	(d)
35/ Rev.1	OICA	9	E	Proposal for the 06 Series of Amendments to UN Regulation No. 95 (Lateral impact)	(d)
36	OICA	5	E	Proposal for: Supplement 10 to the 07 Series of Amendments, Supplement 02 to the 08 Series of Amendments and Supplement 03 to the 09 Series of Amendments to UN Regulation No. 14	(b)
37/ Rev.1	EqOP	20	E	Equitable Occupant Protection -EqOP Status report of the subject informal working group of GRSP	(a)
38	Rep. of Korea	3	E	Post-crash Safety of Hydrogen HDV	(a)
39	IWG GTR20 PH2	4	E	Status Report by Chair of IWG for GTR 20 (Electrical Vehicle Safety) to the 73rd Meeting of GRSP, May 2023	(a)
40	Germany	7	E	Proposal of 10 series of amendments to UN Regulation No. 17	(d)
41	Germany	10	E	Proposal of 03 Series of Amendments to Regulation No. 100 (Electric power trained vehicles)	(a)
42	CLEPA	12	E	Proposal for Supplement 10 to the 03 Series of Amendments to UN Regulation No. 129 (Enhanced Child Restraint Systems)	(b)
43	Rep. of Korea	21	E	Status report of GRSP ad hoc group on SBR Issues	(b)
44	France	9	E	Proposal for Supplement 3 to the 04 Series of Amendments to UN Regulation No. 95 (Lateral impact)	(d)
45	France	19	E	Proposal for Supplement 4 to the 05 Series of Amendments to UN Regulation No. 95 (Lateral impact)	(d)
46	Secretariat	1	E	Annotated provisional agenda of 73rd session of GRSP	(a)
47	Russian Federation	10	E	EV identification	(a)
48	OICA	19	E	Draft amendments to Mutual Resolution M.R.1, Addendum 2 (specifications of WorldSID 50th male side impact dummy) -ECE/TRANS/WP.29/1101/Amend.1	(d)
49	Japan	10	E	Proposal for the 04 Series of Amendments to Regulation No. 100 (Electric power trained vehicles) - ECE/TRANS/WP.29/GRSP/2023/10 and GRSP-73-17	(a)

<i>No.</i>	<i>Transmitted by</i>	<i>Agenda item</i>	<i>Language</i>	<i>Title</i>	<i>Follow-up</i>
50/ Rev.1	IWG UN GTR 13 PH2	3	E	Explanation for the editorial changes to Amendment 1 to UN Global Technical Regulation No. 13 (Hydrogen and Fuel Cell Vehicles)	(a)
51/ Rev.1	France	10	E	Proposal for Supplement 5 to the 02 Series of Amendments to UN Regulation No. 100 (Electric power trained vehicles)	(d)
52/ Rev.1	France	10	E	Proposal for Supplement 3 to the 03 Series of Amendments to UN Regulation No. 100 (Electric power trained vehicles)	(d)
53	France	12	E	Testing Universal Booster Cushions with Q10 dummies	(a)
54	Secretariat	13	E	Proposal for the 02 series of amendments to the UN Regulation No. 134 with regard to the safety-related performance of hydrogen-fuelled vehicles (HFCV) – consolidated text	(a)
55	France	10	E	Proposal for a corrigendum 1 to the 03 series of amendments to UN Regulation No. 100 (Electric power trained vehicles)	(d)
56	CLEPA	6	E	Proposal for fundamental restructuring UN Regulation No. 16 to enhance on the readability and applicability of the different parts of the document	(a)
57	TF-AVRS	22	E	Status Report Task Force Automated Vehicles–Regulatory Screening (TF-AVRS) of UN Regulations and GTRs under responsibility of GRSP	(a)
58	CITA	24(b)	E	1958 Agreement - Unique Identifier Proposed actions for the IWG on DETA, GRs and WP.29	(a)
59	Rep. of Korea	19	E	Generic Vehicle Models for M.R.1	(a)
60	Secretariat	24(h)	E	Annotated Provisional Agenda for the Seventy-Fourth Session	(a)
61	Secretariat	23	E	Development of the ITC Strategy on reducing greenhouse gas emissions in inland transport	(a)

Notes:

- (a) Consideration completed or superseded.
- (b) Continue consideration at the next session with an official symbol.
- (c) Continue consideration at the next session as an informal document.
- (d) Adopted and to be submitted to WP.29.

Annex II

UN Regulation No. 14

Adopted text based on GRSP-73-09-Rev.1 (paragraph 11)

Annex 6, note a: amend to read:

"Annex 6

"...

Note a: For M₂ and M₃ vehicles of all classes, forward facing Seats facing Built-in Child Restraint Systems shall be equipped with at least two lower anchorages and one upper anchorage which allow the installation of three-point safety-belts type Ar."

Annex III

UN Regulation No. 16

Amendments adopted to ECE/TRANS/WP.29/GRSP/2023/9 (paragraph 16)

Paragraph 2.34., amend to read:

"Anti-rotation device"

(a) and (b) unamended

"(c) An anti-rotation device for an i-Size **Enhanced Child Restraint System** consists ... frontal impact;

(d) **An anti-rotation device for a "specific vehicle" (Enhanced) Child Restraint System may comprise a top tether, a support leg, lower tether strap(s) or, any other means capable of limiting the rotation**

~~(de)~~ For ISOFIX, i-Size, universal and semi-universal, **(Enhanced) Child Restraint Systems** the vehicle seat ... device."

Insert new paragraphs 15.6. to 15.6.4., to read:

"15.6. As from the official date of entry into force of the 09 series of amendments, no Contracting Party applying this Regulation shall refuse to grant or refuse to accept UN type approvals under this Regulation as amended by the 09 series of amendments.

15.6.1. As from 1 September 2026, Contracting Parties applying this Regulation shall not be obliged to accept UN type approvals to the preceding series of amendments that were first issued on or after 1 September 2026.

15.6.2. Contracting Parties applying this Regulation shall continue to accept type-approvals of vehicles, safety-belts, and restraint systems according to any of the preceding series of amendments, first issued before 1 September 2026, provided the transitional provisions in these respective previous series of amendments foresee this possibility.

15.6.3. Contracting Parties applying this Regulation may grant type-approvals according to any preceding series of amendments to this Regulation.

15.6.4. Contracting Parties applying this Regulation shall continue to grant extensions of existing approvals to any preceding series of amendments to this Regulation."

Annex 17, paragraph 1.1., subparagraphs (c) and (d); and paragraph 1.2.; amend to read:

"Annex 17

...

"" (c) If the seating position is suitable for child restraint systems equipped with lower tether **attachments**; and/or

(ed) If the seating position is suitable for child restraint systems other than those specified above (e.g. see paragraph 1.3. below).

...

- 1.2. A child restraint system of the universal category means a child restraint approved to the "universal" category of UN Regulation No. 44, **04** series of amendments **or to one of the universal categories of UN Regulation No. 129 (or subsequent amendments)**. Positions, ... Appendix 1 and Appendix 5 to this annex."

Amendments adopted to ECE/TRANS/WP.29/GRSP/2023/17 (paragraph 19)

Paragraph 8.4.4.3., amend to read:

"8.4.4.3. The colour ... may be cancellable by the driver **by a deliberate action.**"

Paragraph 15.5.7., shall be deleted:

Paragraphs 15.6. to 15.6.7., shall be deleted

Insert new paragraphs 15.6. to 15.6.4., to read:

- "15.6. As from the official date of entry into force of the **09** series of amendments, no Contracting Party applying this Regulation shall refuse to grant or refuse to accept UN type approvals under this Regulation as amended by the **9** series of amendments.
- 15.6.1. As from 1 September 2026, Contracting Parties applying this Regulation shall not be obliged to accept UN type approvals to the preceding series of amendments that were first issued on or after 1 September 2026.
- 15.6.2. Contracting Parties applying this Regulation shall continue to accept type-approvals of vehicles, safety-belts, and restraint systems according to any of the preceding series of amendments, first issued before 1 September 2026, provided the transitional provisions in these respective previous series of amendments foresee this possibility.
- 15.6.3. Contracting Parties applying this Regulation may grant type-approvals according to any preceding series of amendments to this Regulation.
- 15.6.4. Contracting Parties applying this Regulation shall continue to grant extensions of existing approvals to any preceding series of amendments to this Regulation."

Annex IV

UN Regulation No. 17

Amendments adopted to ECE/TRANS/WP.29/GRSP/2023/5 (paragraph 21)

Insert new paragraphs 13.14.1. to 13.14.4., to read:

- "13.14.1. As from 1 September **2026**, Contracting Parties... or after 1 September **2026**.
- 13.14.2. Until 1 September **2028**, Contracting Parties ... before 1 September **2026**.
- 13.14.3. As from 1 September **2028**, Contracting Parties ... issued to the preceding series of amendments to this Regulation.
- 13.14.4. Notwithstanding paragraph 13.14.3., Contracting Parties ... by the changes introduced by the 11 series of amendments."

Annex V

UN Regulation No. 94

Amendments adopted to ECE/TRANS/WP.29/GRSP/2023/22 (paragraph 23)

New paragraph 2.6.8., shall be deleted

Paragraphs 2.6. to 2.6.7., amend to read:

"2.6. "Vehicle type" means a category of power-driven vehicles which do not differ in such essential respects, **in so far as they have an adverse effect on the result of the impact test prescribed in this Regulation**, as:

- (a) The length and width of the **vehicle**;
- (b) The ... the driver's **seat**;
- (c) The ... protective **system**;
- (d) The ... the **engine**;
- (e) The unladen **mass**;
- (f) The ... the **manufacturer**;
- (g) The locations of the **REESS**¹;
- (h) **The basic configuration and main characteristics of the compressed hydrogen storage system.**"

Paragraph 2.7.2., amend to read:

"2.7.2. "Passenger compartment for electric safety **and/or hydrogen safety** assessment" ..., or **back door**, as well as ... with high voltage live parts. "

Insert new paragraphs 2.44. to 2.48., to read:

"2.44. "Compressed hydrogen storage system (CHSS)" means a...

...

2.48. "Shut-off valve (for hydrogen-fuelled vehicles)" means a valve between **the container** and the vehicle fuel system that **must default to** the "closed" position when not connected to a power source."

Insert new paragraphs 5.2.7.1. to 5.2.7.3., to read:

"5.2.7.1. The hydrogen leakage rate (V_{H_2}) ...

5.2.7.2. The gas ... This requirement is satisfied if it is confirmed that the shut-off valve of each **compressed** hydrogen storage system has closed within five seconds of first vehicle contact with **the barrier** and there is no leakage from the **compressed** hydrogen storage system(s).

5.2.7.3. ..."

Paragraph 12. to 12.4., amend to read:

"12. **Transitional Provisions**

...

¹ See 2.14.

- 12.2. As from 1 September **2027**, Contracting Parties ... after 1 September **2027**.
- 12.3. Contracting Parties applying this Regulation shall continue ..., before 1 September **2027** provided the transitional provisions in these respective previous series of amendments foresee this possibility

..."

New Annex 12, paragraph 2.4., shall be deleted

Annex VI

UN Regulation No. 95

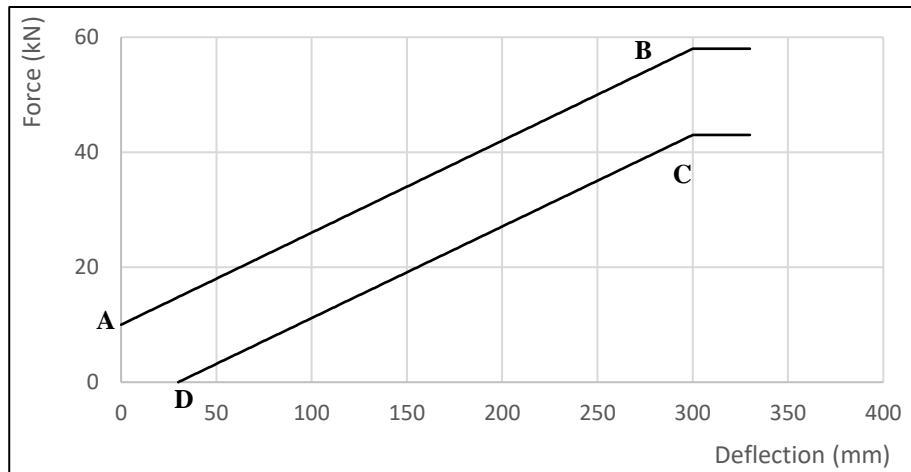
Adopted text based on GRSP-73-44 and GRSP-73-45 (paragraph 24)

Annex 5 - Appendix 2, amend to read:

"Annex 5 – Appendix 2

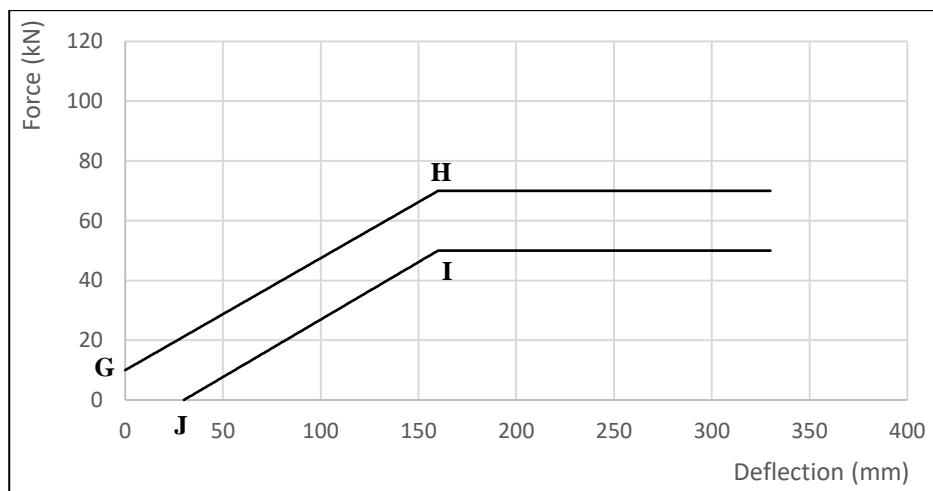
FORCE-DEFLECTION CURVES FOR DYNAMIC TESTS

Figure 2a
Blocks 1 and 3



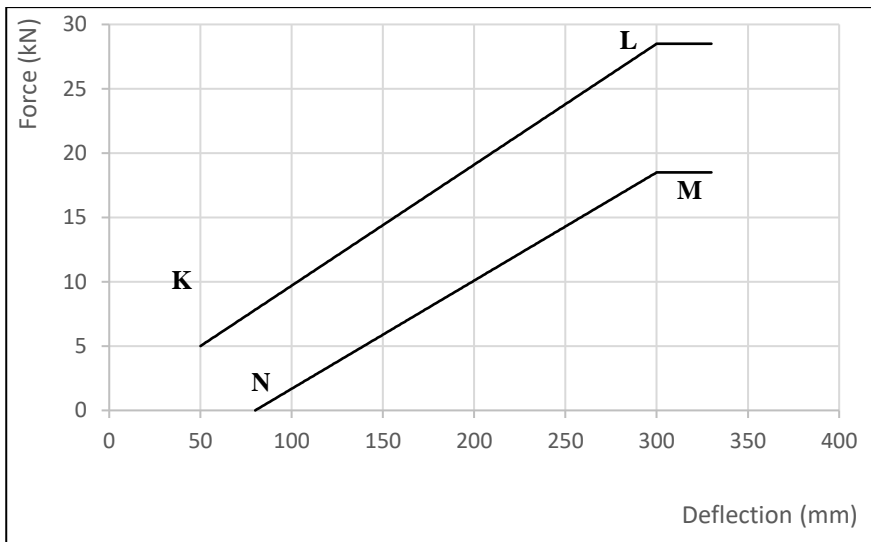
	Deflection	Force
A	0 mm	10 kN
B	300 mm	58 kN
C	300 mm	43 kN
D	30 mm	0 kN

Figure 2b
Block 2



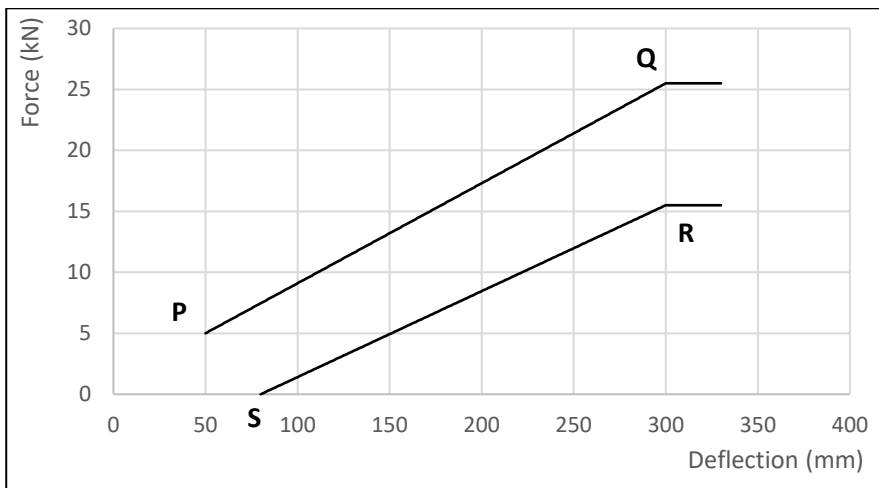
	Deflection	Force
G	0 mm	10 kN
H	160 mm	70 kN
I	160 mm	50 kN
J	30 mm	0 kN

Figure 2c
Block 4



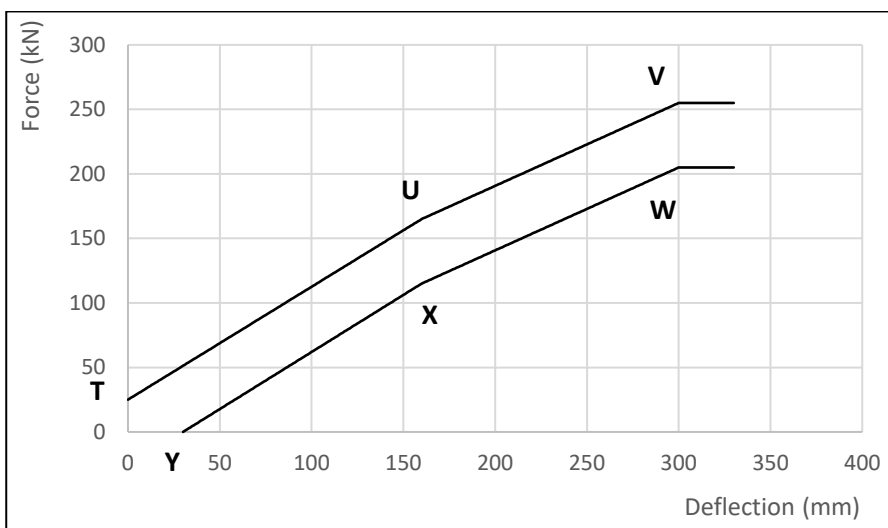
	Deflection	Force
K	50 mm	5,0 kN
L	300 mm	28,5 kN
M	300 mm	18,5 kN
N	80 mm	0 kN

Figure 2d
Blocks 5 and 6



	Deflection	Force
P	50 mm	5,0 kN
Q	300 mm	25,5 kN
R	300 mm	15,5 kN
S	80 mm	0 kN

Figure 2e
Blocks total



	Deflection	Force
T	0 mm	25 kN
U	160 mm	165 kN
V	300 mm	255 kN
W	300 mm	205 kN
X	160 mm	115 kN
Y	30 mm	0 kN

Amendments adopted to ECE/TRANS/WP.29/GRSP/2023/18 (paragraph 25)

New paragraph 2.2.9., shall be deleted

Paragraphs 2.2. to 2.2.8., amend to read:

- "2.2. *"Vehicle type"* means a category of power-driven vehicles which do not differ in such essential respects, **in so far as they have an adverse effect on the result of the impact test prescribed in this Regulation**, as:
- (a) The ... vehicle;
 - (b) The ...the side walls of the passenger **compartment**;
 - (c) The ... and the type of protective **systems**;
 - (d) The ... of the **engine**;
 - (e) The unladen **mass**;
 - (f) The optional arrangements or interior **fittings**;
 - (g) The type of front seat(s) and position of the "R" **point**;
 - (h) The locations of the **REESS**;
 - (i) **The basic configuration and main characteristics of the compressed hydrogen storage system."**

Paragraph 2.3.2., amend to read:

- 2.3.2. *"Passenger compartment for electric safety and/or hydrogen safety assessment"* means the space for occupant accommodation, bounded ..., or **back door**, as well ... high voltage live parts."

Insert new paragraphs 2.49. to 2.53., to read:

- "2.49. *"Compressed hydrogen storage system (CHSS)"* ...

...

- 2.53. *"Shut-off valve (for hydrogen-fuelled vehicles)"* means a valve between **the container** and the vehicle fuel system that **must default to the "closed"** position when not connected to a power source."

Insert new paragraphs 5.3.7.1. to 5.3.7.3., to read:

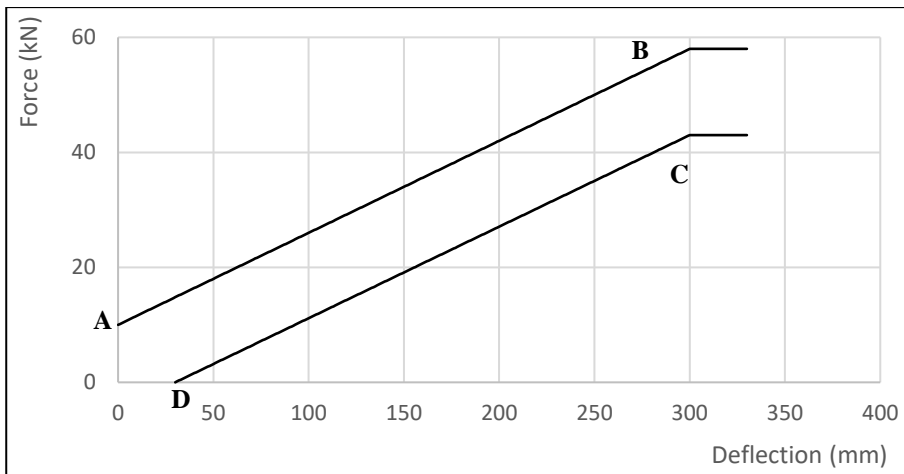
- "5.3.7.1. The hydrogen leakage rate (V_{H_2}) determined ..., Δt minutes, after the crash.
- 5.3.7.2. The gas (hydrogen or helium as applicable) This requirement is satisfied if it is confirmed that the shut-off valve of each **compressed** hydrogen storage system has closed within five seconds of first vehicle contact with **the barrier** and there is no leakage from the **compressed** hydrogen storage system(s).
- 5.3.7.3. The container(s)... point."

Annex 5 - Appendix 2, amend to read:

"Annex 5 – Appendix 2

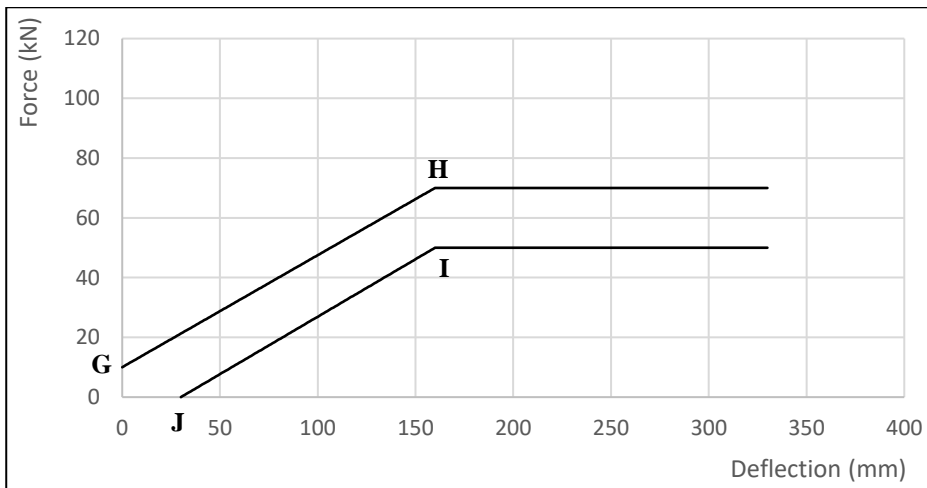
FORCE-DEFLECTION CURVES FOR DYNAMIC TESTS

Figure 2a
Blocks 1 and 3



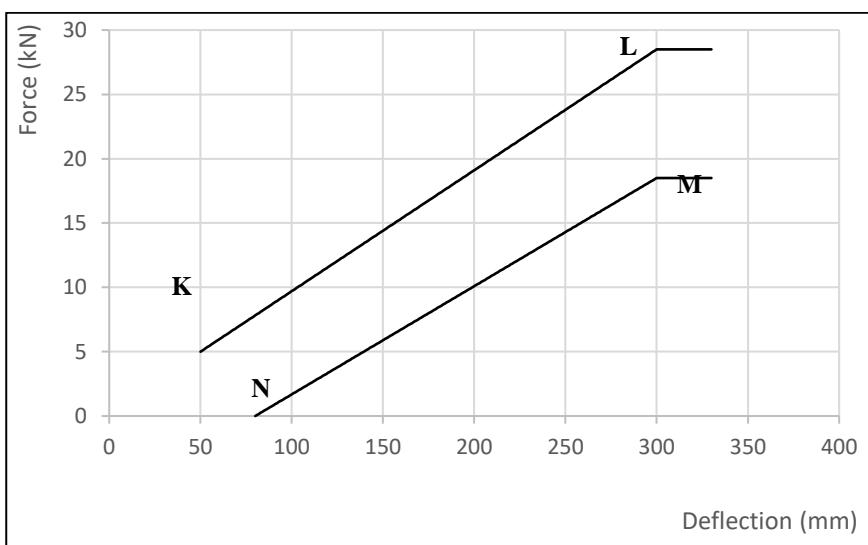
	Deflection	Force
A	0 mm	10 kN
B	300 mm	58 kN
C	300 mm	43 kN
D	30 mm	0 kN

Figure 2b
Block 2



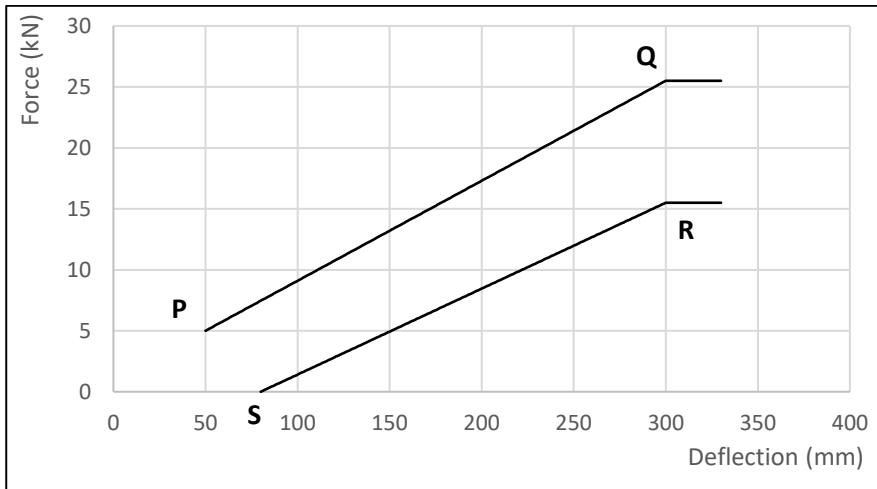
	Deflection	Force
G	0 mm	10 kN
H	160 mm	70 kN
I	160 mm	50 kN
J	30 mm	0 kN

Figure 2c
Block 4



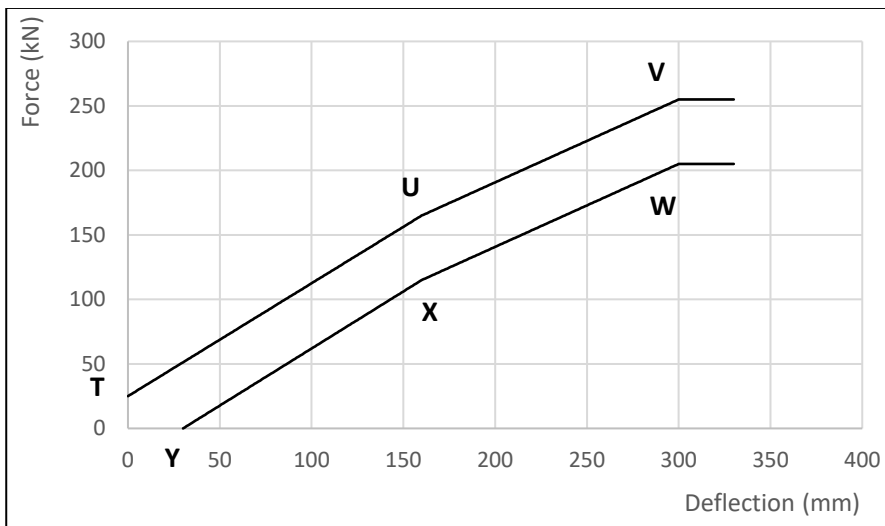
	Deflection	Force
K	50 mm	5,0 kN
L	300 mm	28,5 kN
M	300 mm	18,5 kN
N	80 mm	0 kN

Figure 2d
Blocks 5 and 6



	Deflection	Force
P	50 mm	5,0 kN
Q	300 mm	25,5 kN
R	300 mm	15,5 kN
S	80 mm	0 kN

Figure 2e
Blocks total



	Deflection	Force
T	0 mm	25 kN
U	160 mm	165 kN
V	300 mm	255 kN
W	300 mm	205 kN
X	160 mm	115 kN
Y	30 mm	0 kN

New Annex 10, paragraph 2.4., shall be deleted

Annex VII

[English/French only]

UN Regulation No. 100

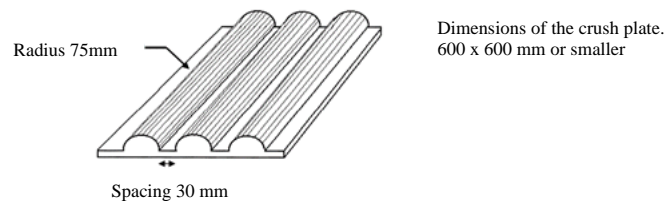
Amendments adopted to ECE/TRANS/WP.29/GRSP/2023/16 and ECE/TRANS/WP.29/GRSP/2023/23 (paragraph 28)

New paragraph 12.7., shall be deleted

Annex 8 D, paragraphs 3.2.1., amend to read:

"3.2.1. Crush force

The tested-Device shall be...exceeding 10s.



A higher crush ... For each of the test directions specified, a separate **test-device** may be used.

..."

Adopted text based on GRSP-73-55 (paragraph 31)

Paragraphe 6.15.1., corrigé comme suit :

"6.15.1. Le SRSEE ou le système du véhicule doit émettre un **signal pour activer** un signal d'alerte **préalable dans le véhicule afin de permettre l'évacuation** ou 5 minutes avant que puisse survenir une situation dangereuse à l'intérieur de l'habitacle (incendie, explosion ou fumée) en raison d'une propagation thermique causée par un court-circuit interne ayant entraîné l'emballement thermique d'une **pile**. Cette prescription est réputée satisfaite si la propagation thermique n'a pas pour conséquence une situation dangereuse pour les occupants du véhicule. Le fabricant du SRSEE ou le constructeur du véhicule, à la demande du service technique, doit mettre à disposition selon qu'il convient certains éléments renseignant sur les fonctions de sécurité prévues à l'échelle du SRSEE du véhicule ou de ses sous-systèmes, à savoir :"

Annex VIII

UN Regulation No. 129

Amendments adopted to ECE/TRANS/WP.29/GRSP/2023/13 (paragraph 33)

Paragraph 2.12., amend to read:

"2.12. "Anti-rotation device". Means a device intended to limit the rotation of the Enhanced Child Restraint System during a vehicle impact and **in the case of i-Size ECRS** consisting of:

..."

Insert new paragraphs 2.63. to 2.63.6., to read:

"2.63. "Lower tether anchorage (LTA)"...

2.63.1. "Lower tether" is a type of anti-**rotation** device intended to restrict the rearward rotation of a rearward-facing ECRS.

2.63.2. "Lower tether strap" is a webbing strap (or equivalent) which extends from the back of a **Specific Vehicle ECRS** to

...

2.63.4. "Lower tether hook" means a connector typically used to attach a lower tether strap to a lower tether bracket and which is the same and has the same dimensions as the ISOFIX top tether hook as defined in figure 3 of Annex 4 of **UN Regulation No. 145**.

..."

Paragraph 6.3.4.1., amend to read:

"6.3.4.1. Top tether connector
The top tether connector shall be **an** ISOFIX top tether hook as shown in Figure 3(c), or similar devices that fit within the envelope given by Figure 3(c). The same connector **shall** also **be** used as the lower tether hook (if applicable; see paragraph 6.3.6.)."

Paragraph 6.3.4.2.2., amend to read:

"6.3.4.2.2. **No-slack indicator**

The ISOFIX top tether strap or the ISOFIX Enhanced Child Restraint System shall be equipped with a device that will indicate that all slack has been removed from the strap. The device may be part of an adjustment and tension relieving device and shall meet the requirements of paragraph 6.7.2."

Former paragraph 6.3.4.2.3., renumber as paragraph 6.3.4.2.4. and amend to read:

"6.3.4.2.4. Dimensions

..."

Paragraph 6.3.5., amend to read:

"6.3.5. **Support leg and support leg foot requirements for i-Size ECRS and also for Specific Vehicle ECRS that are tested on the test bench according to paragraph 6.6.4.1.2.1.**

These support-legs shall comply in all positions of use (e.g. in case of length adjustable attachment, base, etc. the shortest and longest position) with the geometrical provisions defined in this paragraph and its subparagraphs.

..."

Insert new paragraphs 6.3.6. to 6.3.8., to read:

"6.3.6. ...

...

6.3.6.3. Lower tether no-slack indicator

The lower tether strap of the Enhanced Child Restraint System shall be equipped with a device that will indicate that all slack has been removed from the strap. The device may be part of an adjustment and tension relieving device **and shall meet the requirements of paragraph 6.7.2.**

6.3.6.4. Lower tether Retractor

An automatically locking retractor ... In this case the retractor shall fulfil the requirements specified in paragraph 6.7.3.1.

...

6.3.7.2. **Dimensions bracket:**

...

6.3.7.3. Mounting material bracket

The mounting material shall consist of:

...

Figure 3 (g)

M6x8 Flange Buttonhead Hexagon Socketcap Screw (ISO 7380-2)

...

Specs	M6x8
L	8 mm
d _c	13.6 mm
k	3.3 mm
d	M6
S	4 mm

6.3.8.1. Force application

Apply a force of 2,500 N ± 50 N to each generic lower tether bracket... For anchorages designed to be used for two adjacent CRS positions, or in case of a single LTA, the force shall be 5,000 N ± 100 N. **At the request of the manufacturer the anchorages may be tested at higher loads if they fulfil the requirements.**

6.3.8.2. Force direction

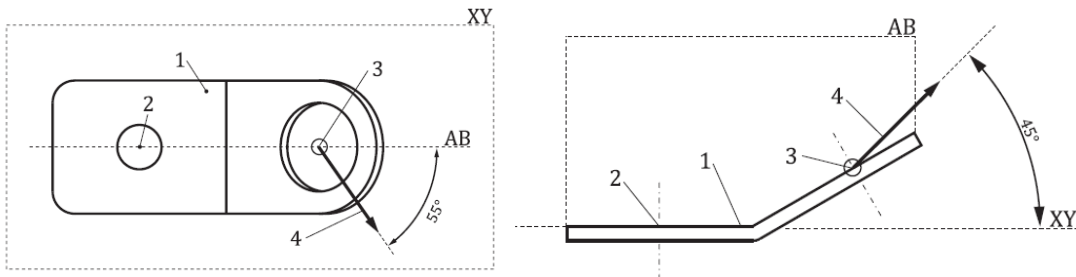
Two tests **shall be** performed; See figure 3 (j) and 3 (k)

(a) the force shall be applied ..., measured in plane AB; **rotation around the anchorage point to vehicle (2) shall be prevented.**

See figure 3 (j);

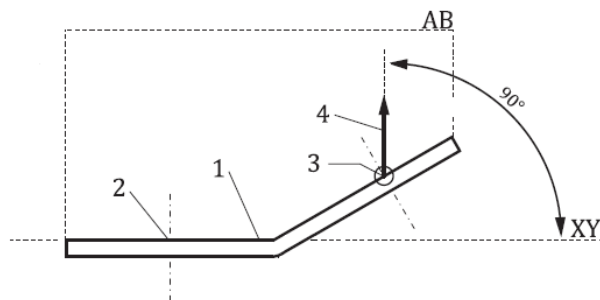
(b)

Figure 3 (j)
Test 1



- Key: 1. ...
5. the XY plane is located on top of the bracket (thus loading the thread inside the bracket)

Figure 3 (k)
Test 2



- Key: 1.
5. the XY plane is located on top of the bracket (thus loading the thread inside the bracket)."

Paragraph 6.6.4.1.2.1., unamended.

Paragraph 6.6.4.4.1.2.1., amend to read:

"6.6.4.4.1.2.1. Head excursion: ...

Where a test ... shall be **applied** to the head excursion ... plane DE."

Figure 5, amend to read:

"Figure 5

Test Arrangement for a Rearward-Facing Device, **not supported by the dashboard**

..."

Paragraph 7.1.3.5.2.3., amend to read:

"7.1.3.5.2.3. Installation of an Integral Enhanced Child Restraint Systems "Universal Belted" Seat or Specific Vehicle Belted Seat on the Test Bench

...

Extract all webbing from the retractor spool and rewind the excess webbing keeping a tension of $4 \pm 3\text{N}$ in the belt between the retractor and the pillar loop. The spool shall be locked before the dynamic test.

If present, the top tether or lower tether shall be adjusted to achieve a tension load of $50 \pm 5\text{N}$. Alternatively, and if present, the support-leg shall be adjusted according to the enhanced child restraint system manufacturer's instructions.

If present, the lower tether bracket(s) shall be mounted on the positions in accordance with annex 6, appendix 2, figure 5. The installation of the bracket(s) shall be in accordance with the user manual.

The dummy shall be placed in the Enhanced Child Restraint System separate from the seat-back of the chair by a flexible spacer

..."

Insert new paragraphs 16.13. to 16.15., to read:

"16.13. As from 1 September 2026, Contracting Parties ... after 1 September 2026.

..."

Annex 27, amend to read:

"Annex 27

...

6.3.7.	<i>Generic lower tether bracket specifications</i>
---------------	---

...
-----	-----	-----	-----

6.3.7.2.	Dimensions bracket:
-----------------	----------------------------

..."

Amendments adopted to ECE/TRANS/WP.29/GRSP/2023/11 (paragraph 34)

The title, amend to read:

"Proposal for Supplement 10 to the 03 Series of Amendments and of 04 Series of Amendments to UN Regulation No. 129 (Enhanced Child Restraint Systems)"*

Insert new paragraph 3.5., to read:

"3.5. an ECRS shall not bear more than one approval number. This provision does not apply for the purpose of approving a module as part of different ECRSs."

Paragraph 5.4.1.1., the reference to footnote ², renumber as footnote ³

Paragraph 6.1.3.6., the reference to footnote ³, renumber as footnote ⁴

Paragraph 6.3.5., the reference to footnote ⁴, renumber as footnote ⁵

Paragraph 7.2.4.3.4., the reference to footnote ⁵, renumber as footnote ⁶

* *Note by the secretariat:* The change of the title was agreed with the author of the proposal to include the text of the draft Supplement 10 to the 03 Series of Amendments into the draft 04 Series of Amendments to UN Regulation No. 129.

Annex IX

UN Regulation No. 135

Amendments adopted to ECE/TRANS/WP.29/GRSP/2023/24 (paragraph 38)

Paragraph 2.14., amend to read:

"2.14. **Passenger compartment**

2.14.1. "*Passenger compartment with regard to occupant protection*" means the space for occupant accommodation, bounded by the roof, floor, side walls, doors, outside glazing, **front** bulkhead and the plane of the rear compartment bulkhead or the plane of the rear-seat back **support**.

2.14.2. "**Passenger compartment for hydrogen safety assessment**" means the space for occupant accommodation, bounded by the roof, floor, side walls, doors, outside glazing, **front bulkhead and rear bulkhead, or back door.**"

Paragraph 2.20., amend to read:

"2.20. "*Shut-off valve (for hydrogen-fuelled vehicles)*" means a valve between **the container** and the vehicle fuel system that **must default to** the "closed" position when not connected to a power source."

Paragraph 2.15., shall be kept

Paragraph 2.26., amend to read:

"2.26. "*Vehicle type*" means a category of vehicles, the design characteristics of which do not differ in such essential respects, **in so far as they have an adverse effect on the result of the impact test prescribed in this Regulation**, as:

...

(i) The sitting of the engine (**front, rear or centre**);"

Amendments adopted to ECE/TRANS/WP.29/GRSP/2023/19 (paragraph 38)

Paragraph 2.14., amend to read:

"2.14. **Passenger compartment**

2.14.1. "*Passenger compartment with regard to occupant protection*" means the space for occupant accommodation, bounded by the roof, floor, side walls, doors, outside glazing, and front bulkhead and the plane of the rear compartment bulkhead or the plane of the rear-seat back **support**.

2.14.2. "**Passenger compartment for electric safety and/or hydrogen safety assessment**" means the space for occupant accommodation, bounded by ...and rear bulkhead, or **back door**, as well as by the electrical protection barriers and enclosures provided for protecting the occupants from direct contact with high voltage live parts."

Paragraph 2.15., shall be deleted

Paragraphs 2.16. to 2.20.(former), renumber as paragraphs 2.15. to 2.19.

Paragraph 2.21. (former), renumber as paragraph 2.20. and amend to read:

"2.20. "*Shut-off valve (for hydrogen-fuelled vehicles)*" means a valve between **the container** and the vehicle fuel system that **must default to the** "closed" position when not connected to a power source. "

Paragraphs 2.22. to 2.26.(former), renumber as paragraphs 2.21. to 2.25.

Paragraph 2.27. (former), renumber as paragraph 2.26. and amend to read:

"2.26. "Vehicle type" means a category of vehicles, the design characteristics of which do not differ, **in so far as they have an adverse effect on the result of the impact test prescribed in this Regulation**, in such essential respects as:

...

(j) The locations of the **REESS**."

Paragraphs 2.28. to 2.56.(former), renumber as paragraphs 2.27. to 2.55.

Annex X

UN Regulation No. 137

Amendments adopted to ECE/TRANS/WP.29/GRSP/2023/20 (paragraph 40)

New paragraph 2.4.8., shall be deleted

Paragraphs 2.4. to 2.4.7., amend to read:

- "2.4. *"Vehicle type"* means a category of power-driven vehicles which do not differ in such essential respects, **in so far as they have an adverse effect on the result of the impact test prescribed in this Regulation**, as:
- (a) The ... the **vehicle**;
 - (b) The structure "R" point of the driver's **seat**;
 - (c) The lines and inside dimensions of the passenger compartment and the type of protective **system**;
 - (d) The siting (front, rear or centre) and the orientation (transversal or longitudinal) of the **engine**;
 - (e) The unladen **mass**;
 - (f) The optional arrangements or fittings provided by the **manufacturer**;
 - (g) The locations of the **REESS**;
 - (h) **The basic configuration and main characteristics of the compressed hydrogen storage system.**"

Paragraph 2.5.2., amend to read:

- "2.5.2. *"Passenger compartment for electric safety and/or hydrogen safety assessment"* means the space for occupant accommodation, bounded by the roof, floor, side walls, doors, outside glazing, front bulkhead and rear bulkhead, or **back door**, as well as by the electrical protection barriers and enclosures provided for protecting the occupants from direct contact with high voltage live parts."

Add new paragraphs 2.41. to 2.45., to read:

- "2.41. ...
- 2.45. "Shut-off valve (for hydrogen-fuelled vehicles)" means a valve between the container and the vehicle fuel system that must default to the "closed" position when not connected to a power source."**

Renumber (former) paragraph 5.2.7. as paragraph 5.2.6.1.

Insert new paragraphs 5.2.7. to 5.2.7.3., to read:

- "5.2.7. ...
- 5.2.7.2. This requirement is satisfied if it is confirmed that the shut-off valve of each **compressed** hydrogen storage system has closed within five seconds of first vehicle contact with the **barrier** and there is no leakage from the **compressed** hydrogen storage system(s).
- 5.2.7.3. ..."

Paragraphs 12.1. to 12.5., amend to read:

- "12.1. As from the official date of entry into force of the **03** series of amendments, no Contracting Party applying this Regulation shall refuse to grant or refuse to

accept type-approvals under this Regulation as amended by the **03** series of amendments.

- 12.2. As from 1 September **2027**, Contracting Parties ... after 1 September **2027**.
- 12.3. Contracting Parties ..., first issued before 1 September **2027** provided the transitional provisions in these respective previous series of amendments foresee this possibility
- 12.4. Contracting Parties applying this Regulation **may** grant type-approvals according to any preceding series of amendments to this Regulation.
- 12.5. **Contracting Parties applying this Regulation shall continue to grant extensions of existing approvals to any preceding series of amendments to this Regulation."**

Insert new paragraph 12.6., to read:

- "12.6. Notwithstanding the transitional provisions above, Contracting Parties which start to apply this Regulation after the date of entry into force of the most recent series of amendments are not obliged to accept type-approvals which were granted in accordance with any of the preceding series of amendments to this Regulation."**

New paragraphs 12.6. to 12.8., shall be deleted

Annex 10, paragraph 2.4., shall be deleted

Annex XI

UN Regulation No. 145

Adopted text based on GRSP-73-25-Rev.1 (paragraph 42)

Paragraph 5.3.6., amend to read:

"5.3.6. Notwithstanding ... of mass groups 0, or 0+, or 1 **or of the specific vehicle built-in Enhanced Child Restraint Systems for use by children up to 105 cm height.**"

Amendments adopted to ECE/TRANS/WP.29/GRSP/2023/12 (paragraph 45)

Insert new paragraphs 2.25. to 2.32., to read:

- "2.25. ...
- 2.26. "Lower tether" is a type of **anti-rotation** device intended to restrict the rearward rotation of a rearward-facing (E)CRS.
- 2.27. "Lower tether strap" is a ...back of a **Specific Vehicle (E)CRS** to the lower tether anchorage in the vehicle and ...
- ...
- 2.29. "Lower tether hook" means a ...UN Regulation No. **145**.
- ...
- 2.32. "Force Direction Reference Point (FDRP)", located at the front of the ISO/R2 envelope at a height of 300 mm from the bottom. The FDRP lateral position coincides with the centreline of the ISO/R2 envelope."**

Paragraph 5.3.6., amend to read:

"5.3.6. Notwithstanding ... of mass groups 0, or 0+, or 1 **or of the specific vehicle built-in Enhanced Child Restraint Systems for use by children up to a 105 cm height.**"

New paragraph 5.4.2.1.3., shall be deleted

New paragraph, 5.4.3.3., amend to read:

"5.4.3.3. LTA ..and protrusions. **LTA in compliance with UN Regulation No. 21 and/or UN Regulation No. 17 are regarded as to comply with this paragraph.**"

Paragraphs 6.2.4.3. to 6.2.4.5., amend to read:

- "6.2.4.3. ...
- 6.2.4.3.1. Forward direction force test:
Horizontal... risk to **adjacent vehicle safety components** in agreement with the Technical Service and Type Approval Authority.
- 6.2.4.3.2. Oblique direction force test:
Excursion in the direction...additional risk to **adjacent vehicle safety components** in agreement with the Technical Service and Type Approval Authority.
- 6.2.4.4. Test of ISOFIX anchorages systems and ISOFIX top tether anchorage:

A tension pre-load ... risk to **adjacent vehicle safety components** in agreement with the Technical Service and Type Approval Authority.

6.2.4.5. Test for i-Size seating positions:

In addition...

The horizontal ... and the deformation does not constitute an **additional risk to adjacent vehicle safety components** in agreement with the Technical Service and Type Approval Authority."

Insert new paragraphs 6.3. to 6.3.5., to read:

"6.3. Lower tether

...

6.3.3. Apply a force of 2,500 N \pm 50 N ... anchorage bracket, **or any other means in agreement between the manufacturer and the Technical Service and documented in the test report.** In case ... adjacent (E)CRS positions, or in case of a single LTA, the force shall be 5,000 N \pm 100 N. **At the request of the manufacturer the anchorages may be tested at higher loads if they fulfil the requirements.**

...

6.3.5. When testing in accordance with paragraphs 6.3.3. and 6.3.4., **permanent deformation including partial rupture or breakage of any low tether anchorage or surrounding area shall not constitute failure if the required force is sustained for the specified time and the deformation does not constitute an additional risk to adjacent vehicle safety components in agreement with the Technical Service and Type Approval Authority.**"

Insert new paragraphs 12. to 12.4., to read:

"12. TRANSITIONAL PROVISIONS

12.1. As from...

12.2. As from 1 September **2026**, ... 1 September **2026**.

..."

New Annex 6, key 5, amend to read:

"Key: ...

5. where the LTA... front, **taking the presence of the ISO/R2 envelope into consideration.**

..."

Annex XII

UN Regulation No. 153

Adopted text based on ECE/TRANS/WP.29/GRSP/2023/21 (paragraph 44)

Paragraphs 2.1. to 2.1.9., amend to read:

- "2.1. "Vehicle type" means a category of power-driven vehicles which do not differ in such essential respects, **in so far as they have an adverse effect on the result of the impact test prescribed in this Regulation**, as:
- (a) ... of the **vehicle**;
 - (b) The structure, ...rearmost seat.
 - (c) ... the passenger **compartment**;
 - (d) ... (transversal or longitudinal) of the **engine**;
 - (e) The unladen **mass**;
 - (f) The ... the **REESS**;
 - (g) The ... of the **tank(s)**;
 - (h) The ... paragraph 5.2.1.
 - (i) The characteristics ... (pump, filters, etc.)
 - (j) **The basic configuration and main characteristics of the compressed hydrogen storage system.**"

Paragraph 2.2., amend to read:

- "2.2. "Passenger compartment **for electric safety and/or hydrogen safety assessment**" means ... bulkhead, or **back door**, as well as ... high voltage live parts."

New paragraph 2.36., amend to read:

- "2.36. "Shut-off valve (for hydrogen-fuelled vehicles)" means a valve between the **container and the vehicle fuel system that must default to the "closed" position when not connected to a power source.**"

Annex XIII

[English only]

Informal Working Groups

<i>Informal Working Group</i>	<i>Chair</i>	<i>Expiry date of the mandate [pending WP.29 decision]</i>	<i>Secretary</i>
UN GTR No. 9 on Pedestrian Safety Deployable – Pedestrian Protection Systems (DPPS)	Mr. Jin Seop PARK (Republic of Korea)	[May 2024]	OICA
UN GTR No. 20 (EVS) – Phase 2	Mr. Martin KOUBEK (USA) and vice-chaired by EC, China and Japan	December 2023	Japan
Three-dimensional H-point machine	Mr. Luis MARTINEZ (Spain)	[...]	
UN GTR No. 13 (HFCV) – Phase 2	Mr. Martin KOUBEK (USA) (co-chaired by Japan and vice-chaired by China and the Republic of Korea)	[December 2023]	[...]
Protective helmets	Mr. Luca ROCCO	Suspended	
Securing children in buses and coaches	Ms. Marta ANGLES	March 2024	
