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World Forum for Harmonization of Vehicle Regulations
Working Party on Passive Safety
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**Report of the Working Party on Passive Safety on its
sixty-second session**
Contents

	<i>Paragraphs</i>	<i>Page</i>
I. Attendance.....	1–2	3
II. Adoption of the agenda (agenda item 1)	3	3
III. UN Global Technical Regulation No. 7 (Head restraints) (agenda item 2).....	4	3
IV. UN Global Technical Regulation No. 9 (Pedestrian safety) (agenda item 3).....	5–7	4
A. Proposal for Amendment 2 (Phase 2)	5	4
B. Proposal for Amendment 3	6	4
C. Proposal for Amendment 4	7	4
V. UN Global Technical Regulation No. 13 (Hydrogen and Fuel Cells Vehicles) (agenda item 4).....	8	5
VI. Harmonization of side impact dummies (agenda item 5).....	9–10	5
VII. UN Global Technical Regulation on electric vehicles (agenda item 6)	11–12	6
VIII. UN Regulation No. 14 (Safety-belt anchorages) (agenda item 7).....	13	6
IX. UN Regulation No. 16 (Safety-belts) (agenda item 8)	14–16	6
X. UN Regulation No. 17 (Strength of seats) (agenda item 9).....	17	7
XI. UN Regulation No. 22 (Protective helmets) (agenda item 10).....	18–19	7
XII. UN Regulation No. 29 (Cabs of commercial vehicles) (agenda item 11)	20	8
XIII. UN Regulation No. 44 (Child restraint systems) (agenda item 12).....	21–24	8
XIV. UN Regulation No. 94 (Frontal collision) (agenda item 13).....	25	9
XV. UN Regulation No. 95 (Lateral collision) (agenda item 14)	26	10

XVI.	UN Regulation No. 100 (Electric power trained vehicles) (agenda item 15).....	27	10
XVII.	UN Regulation No. 127 (Pedestrian safety) (agenda item 16)	28	10
XXVIII.	UN Regulation No. 129 (Enhanced Child Restraint Systems) (agenda item 17)	29–34	10
XIX.	UN Regulation No. 134 (Hydrogen and Fuel Cells Vehicles (HFCV)) (agenda item 18)	35	11
XX.	UN Regulation No. 135 (Pole Side Impact) (PSI) (agenda item 19)	36	12
XXI.	UN Regulation No. 136 (Electric Vehicles of category L (EV-L))(agenda item 20).....	37	12
XXII.	UN Regulation No. 137 (Frontal impact with focus on restraint systems) (agenda item 21)	38	12
XXIII.	Collective amendments to UN Regulations Nos. 16, 44, 94, 129 and 137 (agenda item 22)	39–41	12
XXIV.	Draft new UN Regulation on ISOFIX anchorage systems, ISOFIX top tether anchorage and i-Size seating positions (agenda item 23)	42	13
XXV.	Draft new UN Regulation on Hydrogen and Fuel Cell Vehicles of category L (agenda item 24)	43	13
XXVI.	Election of officers	44	13
XXVII.	Other business (agenda item 26)	45–52	13
	A. Exchange of information on national and international requirements on passive safety	45	13
	B. Definitions and acronyms in Regulations under the responsibilities of GRSP	46	14
	C. Development of the International Whole Vehicle Type Approval (IWVTA) system and involvement of the Working Parties (GRs)	47	14
	D. Highlights of the June and November 2017 sessions of WP.29.....	48	14
	E. Three-dimensional H-point machine.....	49	14
	F. Intelligent transport systems	50	14
	G. UN Regulation No. 80 (Strength of seats and their anchorages (buses)).....	51	14
	H. UN Regulation No. 11 (Door latches and hinges).....	52	15
XXVIII.	Provisional agenda for the next session (agenda item 27).....	53	15

Annexes

I.	List of informal documents (GRSP-62-...) distributed without an official symbol during the session	17
II.	Terms of reference of the informal working group on the UN Global Technical Regulation (UN GTR) No. 13 (Hydrogen and Fuel Cell Vehicles) - Phase 2	21
III.	Draft amendments to Mutual Resolution No. 1 (M.R.1).....	24
IV.	Draft amendments to UN Regulation No. 16 (Safety-belts).....	25
V.	Draft amendments to UN Regulation No. 22 (Protective helmets)	29
VI.	Draft amendments to UN Regulation No. 44 (Child Restraint Systems)	31
VII.	Draft amendments to UN Regulation No. 129 (Enhanced Child Restraint Systems).....	32

VIII.	Draft amendments to UN Regulation No. 137 (Frontal impact with focus on restraint systems)	37
IX.	Draft amendments to the draft new UN Regulation on Hydrogen and Fuel Cell Vehicles of category L	38
X.	List of GRSP informal working groups.....	40

I. Attendance

1. The Working Party on Passive Safety (GRSP) held its sixty-second session in Geneva from 12 to 15 December 2017, chaired by Mr. J.-Wan Lee (Republic of Korea) due to absence of Mr. N. Nguyen (United States of America), in compliance with Rule 13 of the Rules of Procedure (TRANS/WP.29/690, Amend. 1 and 2). Experts from the following countries participated in the work following Rule 1(a) of the Rules of Procedure of the World Forum for Harmonization of Vehicle Regulations (WP.29): Australia; Belgium; Canada; China; Czech Republic; France; Germany; India; Islamic Republic of Iran; Italy; Japan; Netherlands; Norway; Poland; Republic of Korea; Russian Federation; Spain; Sweden; Switzerland and United Kingdom of Great Britain and Northern Ireland (United Kingdom). Experts from the following non-governmental organizations participated: Consumers International (CI); Federation International de l'Automobile (FIA); Global New Car Assessment Programme (Global NCAP); European Association of Automotive Suppliers (CLEPA); International Motorcycle Manufacturers Association (IMMA) and International Organization of Motor Vehicle Manufacturers (OICA). At the invitation of the secretariat, an expert from the Confederation of the European Bicycle Industry (CONEBI) also attended.

2. The informal documents distributed during the session are listed in Annex I of this report.

II. Adoption of the agenda (agenda item 1)

Documentation: ECE/TRANS/WP.29/GRSP/2018/1 and Add.1
Informal document GRSP-62-03

3. GRSP considered and adopted the agenda (ECE/TRANS/WP.29/GRSP/2018/1 and Add.1) proposed for the sixty-second session with the new agenda items 26 (g), 26 (h) and 27 as well as the running order (GRSP-62-03). The list of GRSP informal working groups are listed in Annex X of this report.

III. UN Global Technical Regulation No. 7 (Head restraints) (agenda item 2)

Documentation: ECE/TRANS/WP.29/GRSP/2015/34

4. The expert from the United Kingdom, on behalf of the Chair of the Informal Working Group (IWG) on UN Global Technical Regulation (UN GTR) No. 7 - Phase 2, informed GRSP that for the time being the IWG had not yet decided when to resume its activity. He added that further information would be provided at the May 2018 session of GRSP.

IV. UN Global Technical Regulation No. 9 (Pedestrian safety) (agenda item 3)

A. Proposal for Amendment 2 (Phase 2)

Documentation: ECE/TRANS/WP.29/GRSP/2014/15
ECE/TRANS/WP.29/GRSP/2014/16
ECE/TRANS/WP.29/GRSP/2015/2
ECE/TRANS/WP.29/GRSP/2017/3
Informal documents GRSP-62-15-Rev.1 and GRSP-62-16

5. The expert from Germany, on behalf of the Chair of the IWG, informed GRSP that the group had met on 24 November 2017. As a result of this meeting, he was able to introduce the consolidated text of draft Amendment 2 to UN GTR No. 9 (GRSP-62-15-Rev.1), incorporating: (a) the flexible pedestrian legform impactor (FlexPLI) (ECE/TRANS/WP.29/GRSP/2014/15), (b) the new bumper test area (ECE/TRANS/WP.29/GRSP/2015/2) and the removal of the study reservation on the Injury Assessment Values (IARVs) (ECE/TRANS/WP.29/GRSP/2017/3). He also introduced the progress report of the IWG (GRSP-62-16) superseding ECE/TRANS/WP.29/GRSP/2014/16. GRSP was not yet in the position to adopt the proposal and requested the secretariat to distribute GRSP-62-15-Rev.1 and GRSP-62-16 with official symbols for final review at its May 2018 session. Moreover, GRSP requested the IWG to draft Addendum 3 to Mutual Resolution No. 1 of the 1958 and the 1998 Agreements to provide drawings and technical specifications of the FLexPLI. GRSP also requested the IWG to liaise with the FlexPLI manufacturer to have free availability of the above-mentioned technical information. Finally, GRSP agreed to seek endorsement from WP.29 and the Executive Committee of the 1998 Agreement (AC.3) at their March 2018 sessions to extend the mandate of the IWG by one year.

B. Proposal for Amendment 3

Documentation: ECE/TRANS/WP.29/GRSP/2012/2
ECE/TRANS/WP.29/GRSP/2014/5

6. Due to the lack of information on this subject, GRSP agreed to defer discussion to its May 2018 session.

C. Proposal for Amendment 4

Documentation: Informal document GRSP-62-13

7. The expert from the Republic of Korea introduced the Status Report (GRSP-62-13) of the Task Force of Deployable Pedestrian Protection Systems (TF-DPPS). He reiterated his previous statement that the basis of discussion within the TF was New Car Assessment Programme (NCAP) test protocols. He added that the TF had agreed on the need to discuss numerical simulation and human body models for the amendment to UN GTR No. 9 and UN Regulation No. 127 to cover this subject. However, he clarified that the amendment would not be limited to simulation only but would allow other alternatives like a physical dummy testing. He finally regretted the limited participation from Contracting Parties of both the 1958 and 1998 Agreements and encouraged their attendance. GRSP noted that the Chair of the TF in his previous presentation suggested to transform the TF into an IWG also to cope this issue. Finally, GRSP agreed to seek endorsement of WP.29 and AC.3 at their March 2018 sessions to establish the IWG.

V. UN Global Technical Regulation No. 13 (Hydrogen and Fuel Cells Vehicles) (agenda item 4)

Documentation: ECE/TRANS/WP.29/AC.3/49
Informal documents GRSP-62-25-Rev.1 and GRSP-62-26

8. The expert from Japan, co-Chair of the IWG on the UN Global Technical Regulation (UN GTR) No. 13 - Phase 2, informed GRSP on the group's progress. He introduced the report of the first meeting of the IWG (GRSP-62-26), held in Brussels on 17-19 October 2017. He explained that the meeting had received contributions from over fifty experts and that the group had provided updates on regulatory work, research and vehicle technologies and production. He concluded that the IWG had also drafted the Terms of Reference (ToR) of the IWG, submitted as an informal document (GRSP 62-25-Rev.1) for endorsement by GRSP and announced that the date of the next meeting of the IWG was scheduled 5-7 February, 2018. GRSP adopted GRSP 62-25-Rev.1, as reproduced in Annex II to the report and agreed to submit it to the June 2018 session of AC.3. Finally, it was agreed to resume consideration on work of the IWG at the May 2018 session of GRSP.

VI. Harmonization of side impact dummies (agenda item 5)

Documentation: Informal documents GRSP-62-09 and GRSP-62-34

9. The Chair of GRSP, on behalf of the Chair of the IWG Mr. D. Sutula, informed GRSP that the IWG had not yet met to discuss the next steps, but would like to do so before making any decisions. To that end, he informed GRSP that the Chair of the IWG would apprise WP.29 and AC.3 during the March 2018 session of the extension of the mandate of the IWG and how the group would move forward.

10. The expert from OICA introduced GRSP-62-09 aimed at updating the reference of the ISO standard concerning the World Side Impact Dummy (WorldSID) fiftieth percentile in Addendum 2 of Mutual Resolution No. 1 (M.R.1). He urged GRSP to adopt the amendment to prevent disruption in type approval testing. The expert from Australia supported the proposal as the only viable solution to quickly solve the issue. The expert from Germany informed GRSP about the intention of his country to inform WP.29 about the current status of the M.R.1. He solicited that the addenda of the M.R.1, such as those incorporating anthropomorphic test devices (crash test dummies) and the World Side Impact Dummy fiftieth percentile specifications, be completed as soon as possible. He therefore urged the establishment of an advisory group of experts from research institutes, test laboratories, dummy manufacturers and experts from the industry under the aegis of GRSP to regularly update M.R.1. The expert from CLEPA made a similar statement (GRSP-62-34) urging the completion of M.R.1 of specific descriptions of crash test dummies which were essential for the correct application of UN Regulations and GTRs. GRSP finally adopted GRSP-62-09, as reproduced in Annex III to this report and requested the secretariat to submit it as draft Amendment 1 to Addendum 2 to M.R.1 for consideration and vote at the March 2018 sessions of WP.29 and AC.3 (ECE/TRANS/WP.29/2018/36).

VII. UN Global Technical Regulation on electric vehicles (agenda item 6)

Documentation: ECE/TRANS/WP.29/2017/138
ECE/TRANS/WP.29/2017/143

11. The Chair of GRSP, on behalf of the Chair of the IWG, informed GRSP that the representative of the United States of America was preparing for the vote on the draft UN GTR on vehicle safety scheduled for the March 2018 session of AC.3. He clarified that the IWG discussed the matter of wireless charging batteries and agreed to resume discussion on this matter at its next meeting. GRSP noted that the authorization to develop the Phase 2 (ECE/TRANS/WP.29/2017/143) was endorsed by AC.3 at its November 2017 session. Thus, GRSP learned that the IWG was ready to continue the work, even prior to the establishment of the UN GTR Phase 1 in the Global Registry of the 1998 Agreement.

12. Finally, GRSP agreed to resume discussion at its May 2018 on the work progress of the IWG.

VIII. UN Regulation No. 14 (Safety-belt anchorages) (agenda item 7)

Documentation: ECE/TRANS/WP.29/GRSP/2017/23

13. The expert from Germany introduced ECE/TRANS/WP.29/GRSP/2017/23 on the minimum distance between the two effective lower belt anchorages L1 and L2, which aims to clarify that rear seat rows could only have one central seating position with a reduced minimum distance of 240 mm and 350 mm for the other rear seats. GRSP adopted the proposal, not amended. The secretariat was requested to submit the proposal as draft 09 series of amendments to UN Regulation No. 14, for consideration and vote at the June 2018 sessions of WP.29 and AC.1.

IX. UN Regulation No. 16 (Safety-belts) (agenda item 8)

Documentation: ECE/TRANS/WP.29/GRSP/2017/21
ECE/TRANS/WP.29/GRSP/2017/22
ECE/TRANS/WP.29/GRSP/2017/24
ECE/TRANS/WP.29/GRSP/2016/13
Informal documents GRSP-62-06-Rev.2, GRSP-62-07-Rev.1 and
GRSP-62-08

14. The expert from the Netherlands introduced ECE/TRANS/WP.29/GRSP/2017/21 and ECE/TRANS/WP.29/GRSP/2017/22 to correct typo errors. The expert from Japan proposed GRSP-62-06-Rev.2 (amending ECE/TRANS/WP.29/GRSP/2017/21), GRSP-62-07-Rev.1 (amending ECE/TRANS/WP.29/GRSP/2017/22) and GRSP-62-08 to complete the set of corrections. Finally, GRSP adopted ECE/TRANS/WP.29/GRSP/2017/21 and ECE/TRANS/WP.29/GRSP/2017/22 as amended by Annex IV and GRSP-62-08 as reproduced by Annex IV to the report. The secretariat was requested to submit the proposals for consideration and vote to the June 2018 sessions of WP.29 and AC.1: (a) ECE/TRANS/WP.29/GRSP/2017/21 as Corrigendum 1 to Supplement 9 to the 06 series of amendments, (b) ECE/TRANS/WP.29/GRSP/2017/22 as Corrigendum 1 to Supplement 1 to the 07 series of amendments and (c) GRSP-62-08 as Corrigendum 1 to Supplement 10 to the 06 series of amendments and Corrigendum 1 to Supplement 2 to the 07 series of amendments.

15. The expert from France introduced ECE/TRANS/WP.29/GRSP/2017/24, aimed at clarifying the second level warning application concerning occupant detection on the rear seating positions. GRSP adopted the proposal not amended and requested the secretariat to submit it for consideration and vote to the June 2018 sessions of WP.29 and AC.1 as Supplement 3 to the 07 series of amendments to UN Regulation No. 16.

16. Finally, the expert from Australia, withdrew ECE/TRANS/WP.29/GRSP/2016/13.

X. UN Regulation No. 17 (Strength of seats) (agenda item 9)

Documentation: ECE/TRANS/WP.29/GRSP/2017/25
Informal document GRSP-62-37

17. The expert from Germany introduced ECE/TRANS/WP.29/GRSP/2017/25 aimed at clarifying that safety-belts and components should continue to function after the load retention test. He added that according to the current text of the UN Regulation, when safety-belt retractor destruction occurred during a test, there were no means to refuse the type approval. However, the expert from OICA argued that the text proposed still shows misinterpretations. Therefore, the expert from Germany, in cooperation with the experts from CLEPA and OICA introduced GRSP-62-37. The experts from the Russian Federation and Australia remarked on the need to verify cross references to other UN Regulations. The expert from OICA suggested that the proposal should be a new series of amendments instead of a supplement. In the meantime, the expert from France argued that it should be considered as a Supplement because it introduces clarifications. He requested further a study reservation. GRSP agreed to resume discussion on this subject at its May 2018 session and requested the secretariat to distribute GRSP-62-37 with an official symbol. Finally, the expert from Germany proposed to establish a Technical Service Group (TSG) to address interpretation issues, as for UN Regulation No. 44.

XI. UN Regulation No. 22 (Protective helmets) (agenda item 10)

Documentation: Informal documents GRSP-62-04, GRSP-62-10 and GRSP-62-19

18. The expert from Belgium introduced (GRSP-62-04) aiming at establishing a more appropriate frequency for inspection and random sampling indicated in Annex 12 to the UN Regulation to ensure an effective control of the conformity of production. GRSP noted GRSP-62-10 on preventing the use of a Unique Identifier, since in the case of the UN Regulation No. 22 on handling protective helmets and their visors, the approval number carried particular information that were relevant for users and enforcement controls. GRSP also noted that the same provisions had already been introduced for Child Restraint Systems in UN Regulations Nos. 44 and 129. Finally, GRSP adopted GRSP-62-04 and GRSP-62-10 as reproduced in Annex V to the report. The secretariat was requested to submit both proposals for consideration and vote to the June 2018 sessions of WP.29 and AC.1 as draft Supplement 3 to the 05 series of amendments to UN Regulation No. 22.

19. The expert from France introduced a presentation (GRSP-62-19), on the need to update the UN Regulation according to the new research results in biomechanics on head protection. The expert from FIA introduced a presentation¹ showing the work progress of FIA in the field of safety helmets based on its experience from motor sports. He also announced the intention of his organization to handover its experience on improving motorcycle helmets. GRSP agreed, with the support of the experts from Belgium, France,

¹ The expert of FIA requested that the presentation not be available on the UNECE website. However, it may be shared confidentially in a PDF version with all the experts that participated in the December 2017 session of GRSP.

Germany, Italy, Netherlands, Russian Federation, Spain, Sweden, Switzerland and the United Kingdom to seek consent of WP.29 at its March 2018 session to establish an IWG on protective helmets to deal with the most urgent technical issues. The expert from Germany clarified that, for the time being, the topic of protective helmets designed for riders of bikes assisted by an electric engine (pedelec) should be excluded from the ToR of the IWG. GRSP agreed to resume discussion on this subject on the basis of a draft ToR submitted by the IWG to the May 2018 session of GRSP, pending consent of WP.29.

XII. UN Regulation No. 29 (Cabs of commercial vehicles) (agenda item 11)

Documentation: ECE/TRANS/WP.29/GRSP/2017/26
Informal document GRSP-62-11

20. GRSP agreed (ECE/TRANS/WP.29/GRSP/2017/26) on how to secure a cab mounted on a vehicle on the test rig allowing the use of rigid composite blocks and/or metal brackets instead of the wooden blocks (Annex 3, Appendix 1, para. 1), and on the necessity to secure the vehicle with ropes or chains for test C. The expert from Germany introduced GRSP-62-11 on tolerance for the position of the loading device during the test. GRSP agreed in principle with GRSP-62-11, to combine both documents and to resume discussion at the May 2018 session of GRSP to allow for any further provisions. The secretariat was requested to distribute GRSP-62-11 with an official symbol at the next session of GRSP.

XIII. UN Regulation No. 44 (Child restraint systems) (agenda item 12)

Documentation: ECE/TRANS/WP.29/GRSP/2017/20
ECE/TRANS/WP.29/GRSP/2017/28
ECE/TRANS/WP.29/GRSP/2017/33
ECE/TRANS/WP.29/GRSP/2017/37
ECE/TRANS/WP.29/GRSP/2017/38
ECE/TRANS/WP.29/GRSP/2017/39
Informal documents GRSP-62-17, GRSP-62-18, GRSP-62-27, GRSP-62-29, GRSP-62-33-Rev.1 and GRSP-62-39

21. The expert from CI introduced ECE/TRANS/WP.29/GRSP/2017/20 to definitively phase out approvals granted to non-integral group 2 or group 2/3 of child restraint systems (CRS). The expert from CLEPA supported a unique set of provisions in the future (UN Regulation No. 129) to which the CRS manufacturers could refer. However, he introduced the rationales in GRSP-62-18 for an adequate time period to implement this transition sensibly. In response to the presentation of CLEPA the expert from CI stated that the timeline of the withdrawal of group 0, 0+ and 1 integral harness from UN Regulation No. 44 should not precede the withdrawal of group 2/3 CRS. He explained that a short lead time could apply, as demonstrated by CRS manufacturers in the past and could allow consumers to benefit from a higher standard as soon as possible. However, the expert from France noted that the transitional provisions proposed by ECE/TRANS/WP.29/GRSP/2017/20 cannot be applied from the administrative point of view and proposed a one year delay to cease new type approvals. The expert from the United Kingdom encouraged a compromise to allow the industry to phase out any such provisions from UN Regulation No. 44. Finally, GRSP agreed on the transitional provisions set out GRSP-62-29 and adopted ECE/TRANS/WP.29/GRSP/2017/20 as amended by Annex VI to this report. The secretariat was requested to submit it to the June 2018 sessions of WP.29 and AC.1 as draft Supplement 14 to the 04 series of amendments to UN Regulation No. 44.

22. The expert from France introduced ECE/TRANS/WP.29/GRSP/2017/28, concerning the correct use of the symbol Y for the use of a crotch strap and ECE/TRANS/WP.29/GRSP/2017/33 to allow the use of digital information for customers. GRSP adopted ECE/TRANS/WP.29/GRSP/2017/28 not amended and ECE/TRANS/WP.29/GRSP/2017/33 as amended below. The secretariat was requested to submit both proposals as part of (see para. 21) draft Supplement 14 to the 04 series of amendments to UN Regulation No. 44, for consideration and vote at the June 2018 sessions of WP.29 and AC.1.

Paragraph 15.2.2., amend to read:

"15.2.2. For "restricted" and "semi-universal" category child restraints the following information, **in at least a physical version**, shall be clearly visible at the point of sale without removing the packing: ..."

23. The expert from France, on behalf of the Technical Services Group (TSG), introduced ECE/TRANS/WP.29/GRSP/2017/37 to clarify the test protocol for the opening force of the ISOFIX attachments and ECE/TRANS/WP.29/GRSP/2017/38 to clarify the positioning and securing of child restraint systems in the vehicle. The expert from CLEPA introduced GRSP-62-27, amending the figures for the explanation of the measurement procedure of ECE/TRANS/WP.29/GRSP/2017/38. GRSP adopted ECE/TRANS/WP.29/GRSP/2017/37 not amended and ECE/TRANS/WP.29/GRSP/2017/38 as amended by Annex VI to this report. The secretariat was requested to submit both proposals as part of (see paras. 21 and 22) draft Supplement 14 to the 04 series of amendments to UN Regulation No. 44, for consideration and vote at the June 2018 sessions of WP.29 and AC.1.

24. The expert from the Netherlands gave a presentation (GRSP-62-39) to introduce ECE/TRANS/WP.29/GRSP/2017/39 on preventing a lie of belt that could lead to injuries to children using non-integral CRS. The expert from CLEPA agreed in principle with the proposal but requested further clarification. Therefore, the expert from the Netherlands introduced GRSP-62-33-Rev.1. Finally, GRSP agreed to resume discussion at its May 2018 session and requested the secretariat to distribute GRSP-62-33-Rev.1 with an official symbol.

XIV. UN Regulation No. 94 (Frontal collision) (agenda item 13)

25. The expert from Global NCAP, stated that L₇ category of vehicles were becoming more popular and frequent on roads, and that, it was probable that they become popular in emerging markets as well. He urged that these vehicles be designed to perform adequately in frontal and side impacts tests, as well as pedestrian protection tests. He reminded GRSP of the low-rate crash test results of four L₇ vehicles that had been displayed on the grounds of the Palais de Nations (see ECE/TRANS/WP.29/1126, para. 86). The expert from France stated that the actual number of these kinds of vehicles in his country was still low (0.5 per cent). He suggested fixing priorities and identifying the main areas to be addressed in parallel with other types of vehicles. The expert from Australia informed GRSP that his country had decided that there should be minimum crashworthiness requirements for L₆ and L₇ vehicles. He added that his country did not adopted the L₆ and L₇ vehicle categories into its national law, which means these vehicles were classified as M₁ category of vehicles and were required to meet the national standards applied to passenger cars, including crashworthiness standards. He concluded that as a result, there were very few L₆ and L₇ vehicles in Australia. The expert from the Republic of Korea reminded GRSP of the presentation he had given during the May 2017 session of GRSP (see ECE/TRANS/WP.29/GRSP/61, para. 31), on a plan for implementing safety requirements of micromobility. However, he clarified that, according to the plan, crashworthiness requirements would be covered by the Korean NCAP. The expert from CI supported the statement from Global NCAP and reminded GRSP about the recommendation made by the World Forum at its June 2017 session (see ECE/TRANS/WP.29/1141, para. 41) on the need to address roadworthiness issue related to

this category of vehicles, especially frontal collision. Finally, GRSP agreed to resume discussion on this subject at its May 2018 session.

XV. UN Regulation No. 95 (Lateral collision) (agenda item 14)

Documentation: ECE/TRANS/WP.29/GRSP/2017/40

26. The expert from Germany introduced ECE/TRANS/WP.29/GRSP/2017/40 aimed at defining the conditions of door opening after test collision. The expert from OICA expressed concerns on the interpretation of results and underlined the need of a reasonable and repeatable test procedure. The expert from Italy endorsed in principle the proposal. However, he requested more depth to avoid misinterpretations. The expert from Germany clarified that the test procedure was already described in the test protocol of Euro NCAP. However, he suggested that the matter be dealt with in cooperation with the expert from OICA to devise a repeatable test. GRSP agreed to resume discussion at its May 2018 session on the basis of a revised proposal.

XVI. UN Regulation No. 100 (Electric power trained vehicles) (agenda item 15)

Documentation: ECE/TRANS/WP.29/GRSP/2016/7
Informal document GRSP-62-31

27. The expert from Belgium withdrew ECE/TRANS/WP.29/GRSP/2016/7. The expert from OICA introduced GRSP-62-31, aiming at correcting the transitional provisions in accordance with the General Guidelines for United Nations (ECE/TRANS/WP.29/2017/107) regulatory procedures and transitional provisions in UN Regulations (see para. 47 below). He explained the need to confirm that existing type approvals should remain valid as they were established at the time of the adoption of the 01 and 02 series of amendments. GRSP acknowledged the relevance of this issue and agreed in principle with the proposal, pending its official adoption at its May 2018 session. Therefore, the secretariat was requested to distribute GRSP-62-31 with an official symbol at its next session.

XVII. UN Regulation No. 127 (Pedestrian safety) (agenda item 16)

28. No new information was provided under this agenda item.

XVIII. UN Regulation No. 129 (Enhanced Child Restraint Systems) (agenda item 17)

Documentation: ECE/TRANS/WP.29/GRSP/2017/29
ECE/TRANS/WP.29/GRSP/2017/30
ECE/TRANS/WP.29/GRSP/2017/31
ECE/TRANS/WP.29/GRSP/2017/32
ECE/TRANS/WP.29/GRSP/2017/33
ECE/TRANS/WP.29/GRSP/2017/34
ECE/TRANS/WP.29/GRSP/2017/35
ECE/TRANS/WP.29/GRSP/2017/36
ECE/TRANS/WP.29/GRSP/2017/41
ECE/TRANS/WP.29/GRSP/2017/42
ECE/TRANS/WP.29/GRSP/2017/43
ECE/TRANS/WP.29/GRSP/2017/44

Informal documents GRSP-62-20, GRSP-62-21, GRSP-62-22, GRSP-62-23, GRSP-62-28 and GRSP-62-30

29. The expert from France introduced ECE/TRANS/WP.29/GRSP/2017/29, aligning the requirements of UN Regulation No. 129 with those of UN Regulation No. 44 on the belt behaviour of the adult safety-belt. GRSP adopted the proposal not amended and requested the secretariat to submit it to the June 2018 sessions of WP.29 and AC.1 for consideration and vote as draft Supplement 3 to the 02 series of amendments to UN Regulation No. 129.

30. The expert from France withdrew ECE/TRANS/WP.29/GRSP/2017/30, ECE/TRANS/WP.29/GRSP/2017/31 and ECE/TRANS/WP.29/GRSP/2017/32 for further revision. He also introduced ECE/TRANS/WP.29/GRSP/2017/34, proposing the deletion of the reference to the "Chest deflection Abdominal Pressure (in frontal impact)". GRSP adopted the proposal not amended and requested the secretariat to submit it for consideration and vote as draft Supplement 7 to the original version of UN Regulation No. 129 at the June 2018 sessions of WP.29 and AC.1.

31. Referring to the same amendments introduced to UN Regulation No. 44 (see para. 23 above), the expert from France introduced ECE/TRANS/WP.29/GRSP/2017/35 and ECE/TRANS/WP.29/GRSP/2017/36 to clarify the test protocols for the opening force of the ISOFIX attachments. GRSP adopted both proposals not amended and requested the secretariat to submit them to the June 2018 sessions of WP.29 and AC.1 for consideration and vote as draft Supplement 4 to the 01 series of amendments (ECE/TRANS/WP.29/GRSP/2017/35) and as part of (see para. 29 above) draft Supplement 3 to the 02 series of amendments (ECE/TRANS/WP.29/GRSP/2017/36) to UN Regulation No. 129.

32. The expert from CLEPA introduced GRSP-62-23, clarifying the test provisions of the toxicity of materials in the UN Regulation. GRSP adopted the proposal as reproduced in Annex VII to the report. The secretariat was requested to submit it for consideration and vote to the June 2018 sessions of WP.29 and AC.1 as part of (see paras. 29 and 31) draft Supplement 3 to the 02 series of amendments to UN Regulation No. 129.

33. The expert from France, Chair of the IWG on Enhanced Child Restraint Systems (ECRS), gave a presentation (GRSP-62-28) on the work progress of the draft 03 series of amendments to the UN Regulation (ECE/TRANS/WP.29/GRSP/2017/41). He also introduced GRSP-62-20, covering definition and provisions for lower tether strap and lower tether anchorages. ECE/TRANS/WP.29/GRSP/2017/41 received several comments and amendments including transitional provisions that were adapted according to ECE/TRANS/WP.29/2017/107. GRSP adopted ECE/TRANS/WP.29/GRSP/2017/41 as amended by Annex VII to this report. The secretariat was requested to submit the proposal as draft 03 series of amendments to UN Regulation No. 129 for consideration and vote at the June 2018 sessions of WP.29 and AC.1. GRSP requested the secretariat to distribute GRSP-62-20 with an official symbol at the May 2018 session of GRSP.

34. Finally, the expert from France withdrew ECE/TRANS/WP.29/GRSP/2017/42, ECE/TRANS/WP.29/GRSP/2017/43 and ECE/TRANS/WP.29/GRSP/2017/44. Moreover, he explained that the IWG on ECRS could be dissolved, since the main objectives of the IWG have been achieved.

XIX. UN Regulation No. 134 (Hydrogen and Fuel Cells Vehicles (HFCV)) (agenda item 18)

35. No new information was provided under this agenda item.

**XX. UN Regulation No. 135 (Pole Side Impact) (PSI)
(agenda item 19)**

36. No new information was provided under this agenda item.

**XXI. UN Regulation No. 136 (Electric Vehicles of category L
(EV-L)) (agenda item 20)**

37. No new information was provided under this agenda item.

**XXII. UN Regulation No. 137 (Frontal impact with focus on
restraint systems) (agenda item 21)**

Documentation: Informal document GRSP-62-05

38. The expert from Japan introduced GRSP-62-05, removing the reference to the bending moment of the axial compressive force. GRSP adopted the proposal as reproduced in Annex VIII to this report. The secretariat was requested to submit the proposal to the June 2018 sessions of WP.29 and AC.1 as draft Supplement 1 to the original version of UN Regulation No. 137 and as draft Supplement 1 to the 01 series of amendments to UN Regulation No. 137.

**XXIII. Collective amendments to UN Regulations Nos. 16, 44, 94,
129 and 137 (agenda item 22)**

Documentation: ECE/TRANS/WP.29/GRSP/2017/27
Informal document GRSP-62-14

39. The expert from OICA introduced GRSP-62-14, as an alternative proposal to ECE/TRANS/WP.29/GRSP/2017/27 tabled by the expert from EC, concerning the information in the airbag warning label on the correct installation of CRS on a passenger seat with an activated frontal airbag. He suggested that the proposal should be adopted as a new series of amendments to UN Regulation No. 16 (Safety-belts) instead of a Supplement and to regroup these kind of requirements in UN Regulation No. 16 only. He also underlined the problem of translation in all languages of the detailed information, which makes reference to the warning, that should be contained in the owner's manual.

40. The expert from Australia explained that his country requires vehicles to be fitted with an airbag warning label through a national rule that requires vehicles to meet UN Regulation No. 94. He added that although his country also had a national rule that incorporates UN Regulation No. 16, this rule does not require vehicles to meet the airbag warning label requirements of UN Regulation No. 16. Therefore, he stated that removing the requirement for an airbag warning label from UN Regulation No. 94 would create a loophole, which would allow vehicles to be supplied to the Australian market without any airbag warning label.

41. GRSP agreed to resume discussion on this subject at its May 2018 session. The secretariat was requested to distribute GRSP-62-14 with an official symbol at the next session awaiting a possible revised proposal submitted by the expert from OICA.

XXIV. Draft new UN Regulation on ISOFIX anchorage systems, ISOFIX top tether anchorages and i-Size seating positions (agenda item 23)

Documentation: Informal document GRSP-58-13

42. The expert from Australia withdrew GRSP-58-13 and GRSP agreed to delete this item from the agenda of its May 2018 session.

XXV. Draft new UN Regulation on Hydrogen and Fuel Cell Vehicles of category L (agenda item 24)

Documentation: ECE/TRANS/WP.29/GRSP/2017/19
Informal documents GRSP-62-01 and GRSP-62-02

43. The expert from Japan introduced the draft UN Regulation on Hydrogen and Fuel Cell Vehicles of category L (ECE/TRANS/WP.29/GRSP/2017/19) with a presentation (GRSP-62-01). GRSP noted that GRSP-62-02 showed the changes introduced in the official proposal (ECE/TRANS/WP.29/GRSP/2017/19) with reference to the original ones introduced during the May 2017 session of GRSP (GRSP-61-03). The expert from the United Kingdom suggested incorporating these provisions into UN Regulation No. 134 instead to creating a new UN Regulation. However, the expert from Japan confirmed his intention of have a separate UN Regulation addressing specific conditions related to L category of vehicles, such as: (a) frontal and lateral shocks, (b) fuel system leakage and (c) parking conditions. GRSP adopted ECE/TRANS/WP.29/GRSP/2017/19, as amended by Annex IX to this report. The secretariat was requested to submit the proposal as draft new UN Regulation on Hydrogen and Fuel Cell Vehicles of category L to the June 2018 sessions of WP.29 and AC.1 for consideration and vote.

XXVI. Election of officers (agenda item 25)

44. In compliance with Rule 37 of the Rules of Procedure (TRANS/WP.29/690, Amendments.1 and 2), GRSP called for the election of officers. The representatives of the Contracting Parties, present and voting, unanimously re-elected Mr. N. Nguyen (United States of America) as Chair and Mr. J.W. Lee (Republic of Korea) as Vice-Chair for the sessions of GRSP scheduled in the year 2018.

XXVII. Other business (agenda item 26)

A. Exchange of information on national and international requirements on passive safety

Documentation: Informal document GRSP-62-38

45. The expert from the Republic of Korea informed GRSP about the recent rule-making result for the implementation (GRSP-62-38) of safety-belt reminders and FlexPLI provisions in the legislation of the Republic of Korea.

B. Definition and acronyms in the Regulations under the responsibilities of GRSP

46. As a follow-up of the adoption of the UN Regulation on HFCV of category L, the expert from Japan stated that an updated list of definitions and acronyms should be added.

C. Development of the International Whole Vehicle Type Approval (IWVTA) system and involvement of the Working Parties (GRs)

47. GRSP noted that Revision 3 of the 1958 Agreement entered into force on 14 September 2017. It was also noted that the General Guidelines for United Nations regulatory procedures and transitional provisions in UN Regulations (ECE/TRANS/WP.29/2017/107, Corr.1 and Add.1) had been adopted at the November 2017 session of WP.29 (see ECE/TRANS/WP.29/1135, para. 53). It was also noted that UN Regulation No. 0 (ECE/TRANS/WP.29/2017/8), its explanatory, and questions and answers documents (ECE/TRANS/WP.29/2017/9 and ECE/TRANS/WP.29/2017/31) had been adopted by WP.29 at that session and that UN Regulation No. 0 was expected to enter into force in June 2018. However, due to the administrative notification process, it was noted that UN Regulation No. 0 would be fully applicable from spring 2019.

D. Highlights of the June and November 2017 sessions of WP.29

48. The Secretary reported on the highlights of the 172nd and 173rd sessions of WP.29 (ECE/TRANS/WP.29/1131 and ECE/TRANS/WP.29/1135).

E. Three-dimensional H-point machine

Documentation: Informal document GRSP-62-24

49. The expert from Spain, Chair of the IWG on the harmonization of specifications of the 3-D H-point machine, informed GRSP on the progress of work of the IWG through a presentation (GRSP-62-24). The expert from OICA informed GRSP that the 3-D H-point machine was used for both vehicle safety development and comfort. He added that the latest standards of the machine did not correspond to those mentioned in the UN Regulations and there were different versions of the machine on the market.

F. Intelligent transport systems

50. No new information was provided under this agenda item.

G. UN Regulation No. 80 (Strength of seats and their anchorages (buses))

Documentation: Informal documents GRSP-62-12, GRSP-62-35 and GRSP-62-36;
Video presentation Nos. 1 and 2.

51. The expert from Germany gave two presentations (GRSP-62-35 and GRSP-62-36) to introduce a proposal of amendment (GRSP-62-12) to the UN Regulation aimed at removing the static tests and improving the dynamic test on seat anchorages. Referring also to the video presentations Nos. 1 and 2, he provided evidence that seat anchorages tested statically do not reach the same level of safety as that tested dynamically and, therefore, they cannot be considered as equivalent. GRSP agreed to resume discussion on this subject at its May 2018 session and requested the secretariat to distribute GRSP-62-12 with an official symbol.

H. UN Regulation No. 11 (Door latches and hinges)

Documentation: Informal document GRSP-62-32

52. The expert from OICA introduced GRSP-62-32, addressing a similar issue (see para. 27) on transitional provisions as discussed for UN Regulation No. 100. GRSP agreed in principle with the proposal and requested the secretariat to distribute it with an official symbol at its May 2018 session of GRSP.

XXVIII. Provisional agenda for the next session (agenda item 27)

53. The sixty-third session is scheduled to be held in Geneva from 14 May (9.30 a.m.) to 18 (12.30 p.m.) May 2018. GRSP noted that the deadline for the submission of official documents to the secretariat is 16 February 2018, twelve weeks prior to the session. GRSP agreed to the following provisional agenda:

1. Adoption of the agenda.
2. UN Global Technical Regulation No. 7 (Head restraints).
3. UN Global Technical Regulation No. 9 (Pedestrian safety):
 - (a) Proposal for Amendment 2 (Phase 2);
 - (b) Proposal for Amendment 3;
 - (c) Proposal for Amendment 4.
4. UN Global Technical Regulation No. 13 (Hydrogen and Fuel Cell Vehicles).
5. Harmonization of side impact dummies.
6. UN Global Technical Regulation on electric vehicles.
7. UN Regulation No. 11 (Door latches and hinges).
8. UN Regulation No. 14 (Safety-belt anchorages).
9. UN Regulation No. 16 (Safety-belts).
10. UN Regulation No. 17 (Strength of seats).
11. UN Regulation No. 22 (Protective helmets).
12. UN Regulation No. 29 (Cabs of commercial vehicles).
13. UN Regulation No. 44 (Child restraint systems).
14. UN Regulation No. 80 (Strength of seats and their anchorages (buses)).
15. UN Regulation No. 94 (Frontal collision).
16. UN Regulation No. 95 (Lateral collision).
17. UN Regulation No. 100 (Electric power trained vehicles).
18. UN Regulation No. 127 (Pedestrian safety).
19. UN Regulation No. 129 (Enhanced Child Restraint Systems).
20. UN Regulation No. 134 (Hydrogen and Fuel Cell Vehicles (HFCV)).
21. UN Regulation No. 135 (Pole Side Impact (PSI)).
22. UN Regulation No. 136 (Electric Vehicles of category L (EV-L)).
23. UN Regulation No. 137 (Frontal impact with focus on restraint systems).

24. Collective amendments to UN Regulations Nos. 16, 44, 94, 129 and 137.
25. Securing of children in buses and coaches.
26. Other business:
 - (a) Exchange of information on national and international requirements on passive safety;
 - (b) Definitions and acronyms in Regulations under GRSP responsibilities;
 - (c) Development of the International Whole Vehicle Type Approval (IWVTA) system and involvement of the Working Parties;
 - (d) Highlights of the March 2018 session of WP.29;
 - (e) Three-dimensional H-point machine;
 - (f) Intelligent transport systems.

Annex I

List of informal documents (GRSP-62-...) distributed without an official symbol during the session

<i>No.</i>	<i>Transmitted by</i>	<i>Agenda item</i>	<i>Language</i>	<i>Title</i>	<i>Follow-up</i>
01	Japan	24	E	(Japan) Draft New Regulation (UNR) on Hydrogen-Fuelled Vehicles of Categories L ₁ , L ₂ , L ₃ , L ₄ and L ₅	(a)
02	Japan	24	E	(Japan) Draft New Regulation (UNR) on Hydrogen-Fuelled Vehicles of Categories L ₁ , L ₂ , L ₃ , L ₄ and L ₅	(a)
03	GRSP Chair	1	E	Running order of the sixty-second session of GRSP	(a)
04	Belgium	10	E	Proposal for Supplement 3 to the 05 series of amendments Regulation No. 22 (Protective helmets)	(d)
05	Japan	1	E	Proposal for Supplement 1 to UN Regulation No. 137 and Supplement 1 to the 01 series of amendments to UN Regulation No. 137 (Frontal impact with focus on restraint systems)	(a)
06/ Rev.2	Secretariat	8	E	Proposal for Corrigendum 1 to Supplement 9 to the 06 series of amendments to UN Regulation No. 16 (Safety-belts)	(d)
07/ Rev.1	Secretariat	8	E	Proposal for Corrigendum 1 to Supplement 1 to the 07 series of amendments to UN Regulation No. 16 (Safety-belts)	(d)
08	Japan	8	E	Proposal for Corrigendum 1 to Supplement 10 to the 06 series of amendments and Corrigendum 1 to Supplement 2 to the 07 series of amendments to UN Regulation No. 16 (Safety-belts)	(d)
09	OICA	5	E	Draft amendments to Mutual Resolution M.R.1, Addendum2 (specifications of WorldSID 50th male side impact dummy) -ECE/TRANS/WP.29/1101/Amend.1	(d)
10	Secretariat	10	E	Proposal for Supplement 3 to the 05 series of amendments Regulation No. 22 (Protective helmets)	(d)
11	Germany	11	E	Proposal for Supplement 4 to the 03 series of amendments to Regulation No. 29 (Cabs of commercial vehicles)	(b)

<i>No.</i>	<i>Transmitted by</i>	<i>Agenda item</i>	<i>Language</i>	<i>Title</i>	<i>Follow-up</i>
12	Germany	26(g)	E	Proposal for the 04 series of amendments to UN Regulation No. 80 (Strength of seats and their anchorages (buses))	(a)
13	Republic of Korea	3(c)	E	Status Report of the Task Force of Deployable Pedestrian Protection Systems (TF-DPPS)	(a)
14	OICA	22	E	Collective amendments to UN Regulations Nos. 16, 94, and 137	(b)
15/ Rev.1	IWG GTR9 PH2	3(a)	E	Draft Amendment 2 – Revision 1 of UN GTR No. 9 - Submitted by the Informal Working Group on global technical regulation No. 9	(b)
16/ Rev.1	France	3(a)	E	(IWG GTR9 PH2) Sixth progress report of the informal working group on UN Global Technical Regulation No. 9	(b)
17	CLEPA	12	E	Proposal for supplement 14 to the 04 series of amendments to UN Regulation No. 44 (Child restraint systems)	(a)
18	CLEPA	12	E	Response to ANEC proposal for Booster phase out in UN Regulation No. 44	(a)
19	France	10	E	French considerations on UN Regulation No. 22 - Protective Helmets	(a)
20	France	17	E	Proposal for Supplement 1 to the 03 series of amendments to UN Regulation No. 129 (Enhanced Child Restraint Systems)	(b)
21	France	17	E	Proposal for Supplement 4 to the 02 series of amendments to UN Regulation No. 129 (Enhanced Child Restraint Systems)	(a)
22	France	17	E	Proposal for Supplement 5 to the 01 series of amendments to UN Regulation No. 129 (Enhanced Child Restraint Systems)	(a)
23	CLEPA	17	E	Proposal for Corrigendum 1 to Supplement 1 to UN Regulation No. 129 (Enhanced Child Restraint Systems)	(d)
24	IWG 3D-HPM	26(e)	E	Status Report of the IWG of the Three-Dimensional H-Point Machine (3D-HPM)	(a)
25/ Rev.1	IWG GTR13 PH2	4	E	Terms of Reference for the informal working group of Phase 2 of GTR No.13, Hydrogen and Fuel Cell Vehicles	(d)
26	IWG GTR13 PH2	4	E	First meeting of the Informal Working Group on Hydrogen and Fuel Cell Vehicles Global Technical Regulation No. 13 (Phase 2)	(d)

<i>No.</i>	<i>Transmitted by</i>	<i>Agenda item</i>	<i>Language</i>	<i>Title</i>	<i>Follow-up</i>
27	CLEPA	12	E	Proposal for supplement 14 to the 04 series of amendments to UN Regulation No. 44 (Child restraint systems)	(d)
28	France	17	E	Sixty-second session of GRSP - UN Regulation No. 129 Phase 3	(a)
29	CLEPA	12	E	Proposal for Supplement 14 to the 04 series of amendments to UN Regulation No. 44 (Child restraint systems)	(d)
30	France	17	E	Proposal for the 03 series of amendments to UN Regulation No. 129 (Enhanced Child Restraint Systems) - Amending ECE/TRANS/WP.29/GRSP/2017/41	(a)
31	OICA	15	E	Draft Supplement 4 to the 02 series of amendments and draft Supplement 5 to the 01 series of amendments to UN Regulation 10	(b)
32	OICA	26(h)	E	Draft Supplement 2 to the 04 series of amendments to UN Regulation No. 11 (Door latches and hinges)	(a)
33/ Rev.1	The Netherlands	12	E	(The Netherlands) Proposal for Supplement 14 to the 04 series of amendments to UN Regulation No. 44 (Child restraint systems) - Amending ECE/TRANS/WP.29/GRSP/2017/39	(b)
34	CLEPA	5	E	CLEPA statement concerning the description of Crash test dummies and Validation tools in UN Regulations and GTRs	(a)
35	Germany	26(g)	E	UN-Regulation No. 80 - Comparative study between static and dynamic test procedure	(a)
36	Germany	26(g)	E	UN-Regulation No. 80 - Systems comparison of static and dynamic test procedure	(a)
37	Germany	9	E	Proposal for Supplement 5 to the 08 series of amendments to UN Regulation No. 17 (Strength of seats) - Amendments to ECE/TRANS/WP.29/GRSP/2017/25	(b)
38	Republic of Korea	26(a)	E	Exchange of information on national requirements on passive safety (Republic of Korea); Item 26(a): Exchange of information on national requirements on passive safety (Republic of Korea)	(a)
39	The Netherlands	12	E	Explanation in pictures to ECE/TRANS/WP29/GRSP/2017/39	(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

Terms of reference of the informal working group on the UN Global Technical Regulation (UN GTR) No. 13 (Hydrogen and Fuel Cell Vehicles) - Phase 2

Adopted text based on GRSP-62-25-Rev.1 (see para. 8 of this report)

A. Introduction

1. In June 2013, the World Forum for Harmonization of Vehicle Regulations (WP.29) and the Executive Committee of the 1998 Agreement (AC.3) established UN Global Technical Regulation (GTR No. 13) for Hydrogen and Fuel Cell Vehicles (HFCV). The UN GTR was developed during Phase 1 by the subgroup safety (SGS) and consists of safety provisions for the hydrogen fuel vessel, fuel system and high voltage system of HFCV. The UN GTR was subsequently adopted and transposed into national regulations by several contracting parties under the 1998 Agreement. Some of the provisions that required long term research were deferred to Phase 2.
2. In March 2017, AC.3 gave general support to a joint proposal submitted by Japan, the Republic of Korea and the European Union to establish an informal working group (IWG) to work on Phase 2 of the UN GTR No. 13 under the framework of the 1998 Agreement.
3. This document sets forth the Terms of Reference (ToR) for the IWG, including objective, scope, operating principles, timeline and deliverables.

B. Objective of the working group

4. The objective of the IWG is to develop additional safety provisions that were either not ready for adoption in Phase 1 and/or required additional research. The IWG will also update/clarify existing requirements and test procedures in UN GTR No.13 based on new data and on-road experience.
5. The provisions that will attain equivalent levels of safety as those for conventional gasoline powered vehicles will be performance-based and supported by science and data to the extent possible, so as not to restrict future technological development. The scope of work for the IWG in Phase 2 shall include the following items. Should additional items be proposed, the IWG will decide by consensus on their inclusion:
 - (a) Potential revision of the scope to address additional vehicle classes;
 - (b) Potential to harmonize vehicle crash test requirements;
 - (c) Potential to refer the existing high voltage requirements of the UN GTR for electric vehicles;
 - (d) Requirements for material compatibility and hydrogen embrittlement;
 - (e) Requirements for the fuelling receptacle;
 - (f) Evaluation of performance-based test for long-term stress rupture proposed in Phase 1;
 - (g) Consideration of research results reported after completion of Phase 1 – specifically research related to electrical safety, hydrogen storage systems, and post-crash safety; and

- (h) Consideration of 200 per cent Nominal Working Pressure (NWP) or lower as the minimum burst requirement for certain types of fuel containers;
- (i) Consider a safe guard system in case of isolation resistance breakdown.

D. Operating principles

- (a) The IWG will be sponsored by Japan, the Republic of Korea and the European Union. The IWG led by Co-Chairs (Japan and the United States of America), vice-chairs (China and Republic of Korea), and a Secretary of the International Organization of Motor Vehicle Manufacturers (OICA);
- (b) The IWG is a subgroup of the Working Party on Passive Safety (GRSP) and is open to all participants of GRSP including contracting parties and non-governmental organizations to the 1958 and 1998 agreements;
- (c) The IWG will report to GRSP, WP.29 and AC.3;
- (d) The official language of the IWG will be English;
- (e) All documents must be submitted to the Secretary of the group in a suitable electronic form;
- (f) Formatting of documents at least (ten) working days before the meeting. The documents will be posted on the UN website at least (five) working days in advance of the meetings;
- (g) The Secretary of the IWG will distribute a draft minute of the meetings to all members within (fifteen) working days after any meeting with the view to formal adoption at the next meeting;
- (h) Decisions and proposals of the group shall be reached by consensus. When consensus cannot be reached, the Chairs of the group may present the different points of view and seek guidance from GRSP, as appropriate;
- (i) Meetings shall be held in agreement with the majority of the participants based on the joint proposal by the Chairs of the IWG. Meetings may be in person or virtual, using web-based technology;
- (j) A provisional agenda shall be drawn up by the IWG leadership. The first item of the provisional agenda for each session shall be the adoption of the agenda. The second item shall be the minutes of the previous session followed by technical discussions and miscellaneous items.

E. Timeline and deliverables

October 2017: First IWG meeting;

November 2017: Report to the World Forum for Harmonization of Vehicle Regulations (WP.29) and the Executive Committee for the 1998 Agreement (AC.3);

December 2017: Report to GRSP;

February 2018: Second IWG meeting;

May 2018: Report to GRSP;

June 2018: Third IWG meeting;

June 2018: Report to the World Forum for Harmonization of Vehicle Regulations (WP.29) and the Executive Committee for the 1998 Agreement (AC.3);

October 2018: Fourth IWG meeting;

November 2018: Report to the World Forum for Harmonization of Vehicle Regulations (WP.29) and the Executive Committee for the 1998 Agreement (AC.3);

December 2018: Report to GRSP;

2019-2020: Three IWG meetings per year with regular reports provided for the WP.29 and GRSP sessions;

End of 2020: Estimated completion of Phase 2 of UN GTR No. 13 (Hydrogen and Fuel Cell Vehicles).

Annex III

Draft amendments to Mutual Resolution No. 1 (M.R.1)

Amendments adopted on the basis of GRSP-62-09 (see para. 10 of this report)

Paragraph 1.1., amend to read:

- "1.1. This Addendum provides the specifications for the WorldSID 50th percentile adult male anthropomorphic test device (WorldSID 50th male) to be used for testing of road vehicles for side impact occupant protection. Detailed specifications for the design, certification and assembly/disassembly of the WorldSID 50th male have been published by the International Organization for Standardization (ISO) under the reference ISO 15830:2013 **or ISO 15830:2013 as amended by ISO/TS 15830-5: 2017**. It is the intention for the relevant specifications to be incorporated within this Addendum at the earliest opportunity."

Paragraph 1.3., amend to read:

- "1.3. Until such time as the relevant specifications are incorporated within this Addendum, the WorldSID 50th male to be used for regulatory testing in accordance with the above mentioned Regulations shall be assembled and certified in accordance with the requirements of ISO 15830:2013 **or ISO 15830:2013 as amended by ISO/TS 15830-5: 2017** for the dummy fitted with two half arms."

Annex IV

Draft amendments to UN Regulation No. 16 (Safety-belts)

Amendments adopted to ECE/TRANS/WP.29/GRSP/2017/21 (see para. 14 to the report)

Paragraph 6.4.1.4.1.1., correct to read:

"6.4.1.4.1.1. In the case of the driver, contact of the chest with the steering assembly would be allowed, if the latter meets the requirements of Regulation No. 12 and provided contact does not occur at a speed higher than 24 km/h. For this assessment the seat shall be considered **to be in the** positions specified in paragraph 7.7.1.5. below."

Paragraph 8.3.6., correct to read:

"8.3.6. Any i-Size seating position shall allow the installation of the ISOFIX child restraint fixture "ISO/F2X", "ISO/R2", and the support leg installation assessment volume as defined in Appendix 2 of Annex 17, as well as the booster seat fixture "ISO/B2" as defined in Appendix 5 of Annex 17, without the ISOFIX attachments (see detail B). It shall be possible to occupy all adjacent i-Size seating positions simultaneously. This is deemed to be demonstrated when the vertical median planes of individual adjacent positions are at least 440 mm apart.

..."

Annex 17,

Appendix 2, paragraph 3.1., correct to read:

"3.1. It has to be possible to accommodate the CRF(s), with or without i-Size support leg installation assessment volume, without interference with the vehicle interior. The CRF base shall have a pitch angle of $15^\circ \pm 10^\circ$, above the horizontal plane passing through the ISOFIX anchorages system. ISOFIX attachments, according to detail Y of figures 1 to 8,..."

Appendix 2, paragraph 3.3., amend to read:

"3.3. Should the above requirements not be met These alternative positions shall be described in the vehicle handbook and with the additional information specified **in Appendix 3** to this annex. ..."

...

Appendix 5, paragraph 4, correct to read:

"4. Booster seat child restraint system fixtures:

...

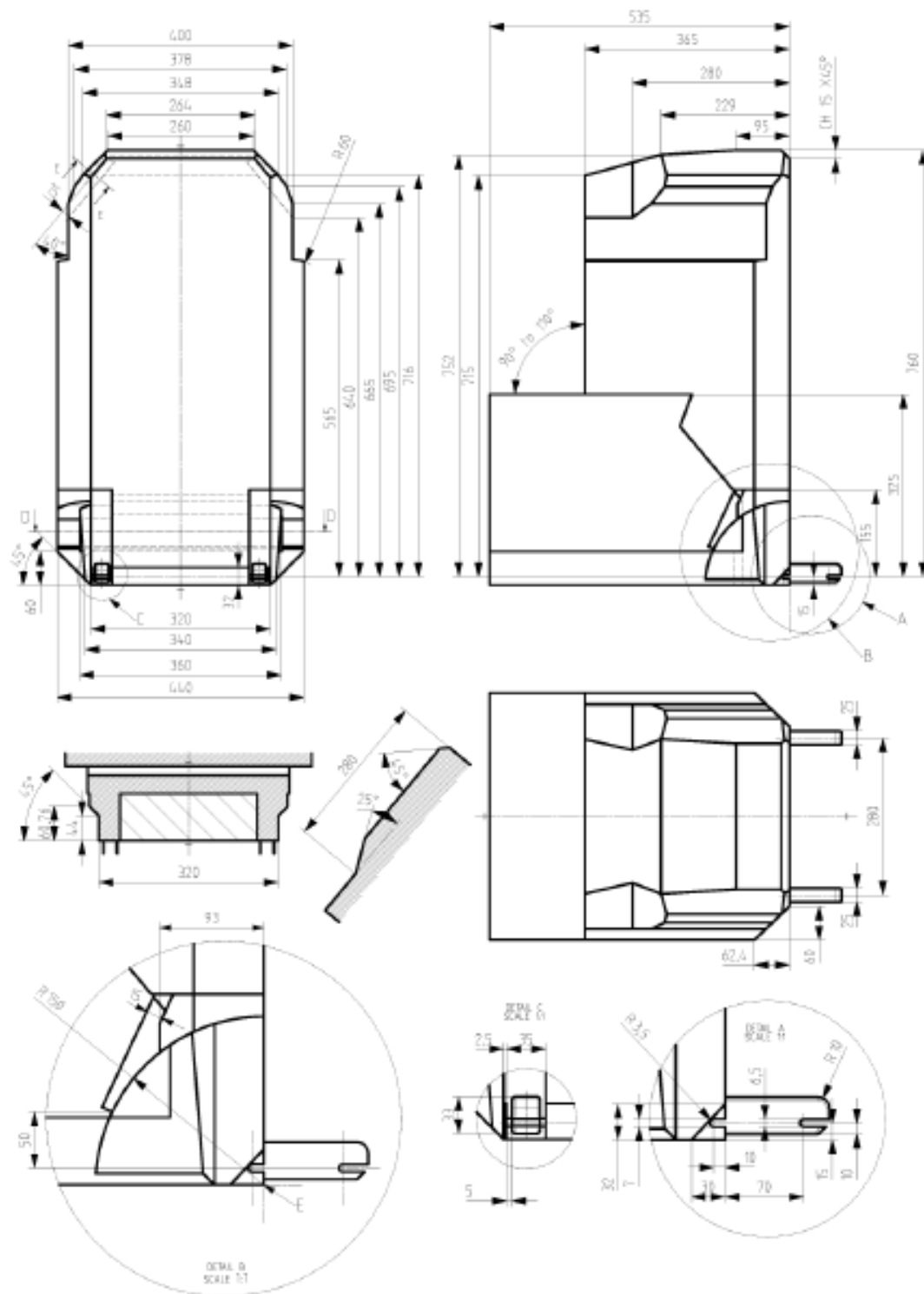
The fixtures above shall be constructed with a mass of 7 kg +/- 1 kg and shall be of suitable durability and stiffness to satisfy the functional requirements."

Appendix 5, figure 2 ISO B2, to be replaced as follows:

"Figure 2

...

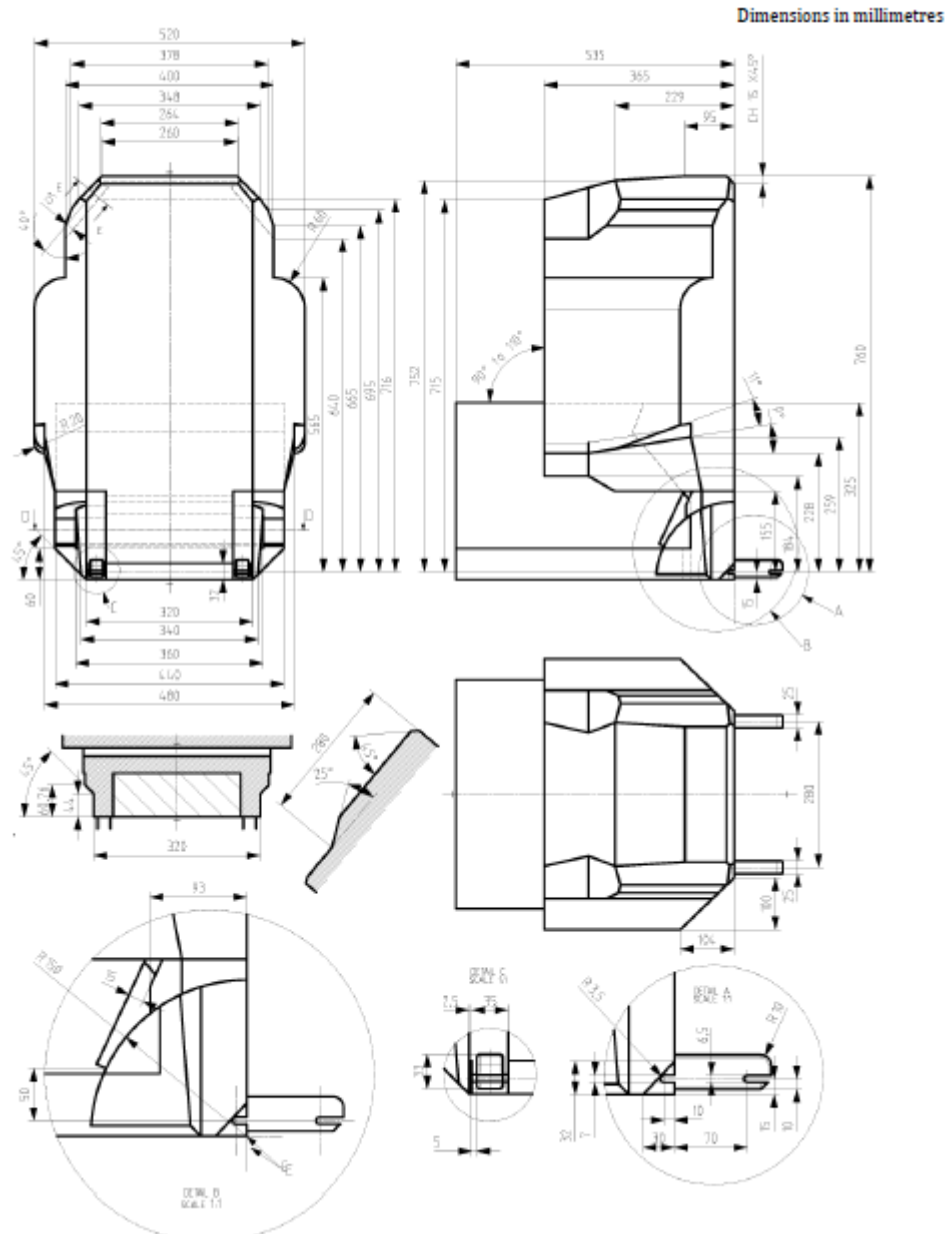
Dimensions in millimetres



Appendix 5, Figure 3 ISO/B3, to be replaced as follows:

"Figure 3

...



"

Amendments adopted to ECE/TRANS/WP.29/GRSP/2017/22 (see para. 14 to the report)

Paragraph 6.4.1.4.1.1., correct to read:

"6.4.1.4.1.1. In the case of the driver, contact of the chest with the steering assembly would be allowed, if the latter meets the requirements of Regulation No. 12 and provided contact does not occur at a speed higher than 24 km/h. For this

assessment the seat shall be considered to **be in the positions** specified in paragraph 7.7.1.5. below."

Paragraph 8.3.6., correct to read:

"8.3.6. Any i-Size seating position shall allow the installation of the ISOFIX child restraint fixture "ISO/F2X", "ISO/R2", and the support leg installation assessment volume as defined in Appendix 2 of Annex 17, as well as the booster seat fixture "ISO/B2" as defined in Appendix 5 of Annex 17, without the ISOFIX attachments (see detail B). It shall be possible to occupy all adjacent i-Size seating positions simultaneously. This is deemed to be demonstrated when the vertical median planes of individual adjacent positions are at least 440 mm apart.

..."

Annex 17,

...

Appendix 2, paragraph 3.1., amend to read:

"3.1. It has to be possible to accommodate the CRF(s), with or without i-Size support leg installation assessment volume, without interference with the vehicle interior. The CRF base shall have a pitch angle of $15^{\circ} \pm 10^{\circ}$, above the horizontal plane passing through the ISOFIX anchorages system. ISOFIX attachments, according to detail Y of figures 1 to 8..."

Appendix 2, paragraph 3.3., amend to read:

"3.3. Should the above requirements not be met These alternative positions shall be described in the vehicle handbook and with the additional information specified **in Appendix 3** to this annex. ..."

...

Amendments adopted on the basis of GRSP-62-08 (see para. 14 of this report)

Paragraph 8.3.6., amend to read:

"8.3.6. ...

The pitch angle used for the geometrical assessment above shall be as measured in paragraph **5.2.3.4. of UN Regulation No. 14** or **5.2.2.4 of UN Regulation No. [XX]**.

..."

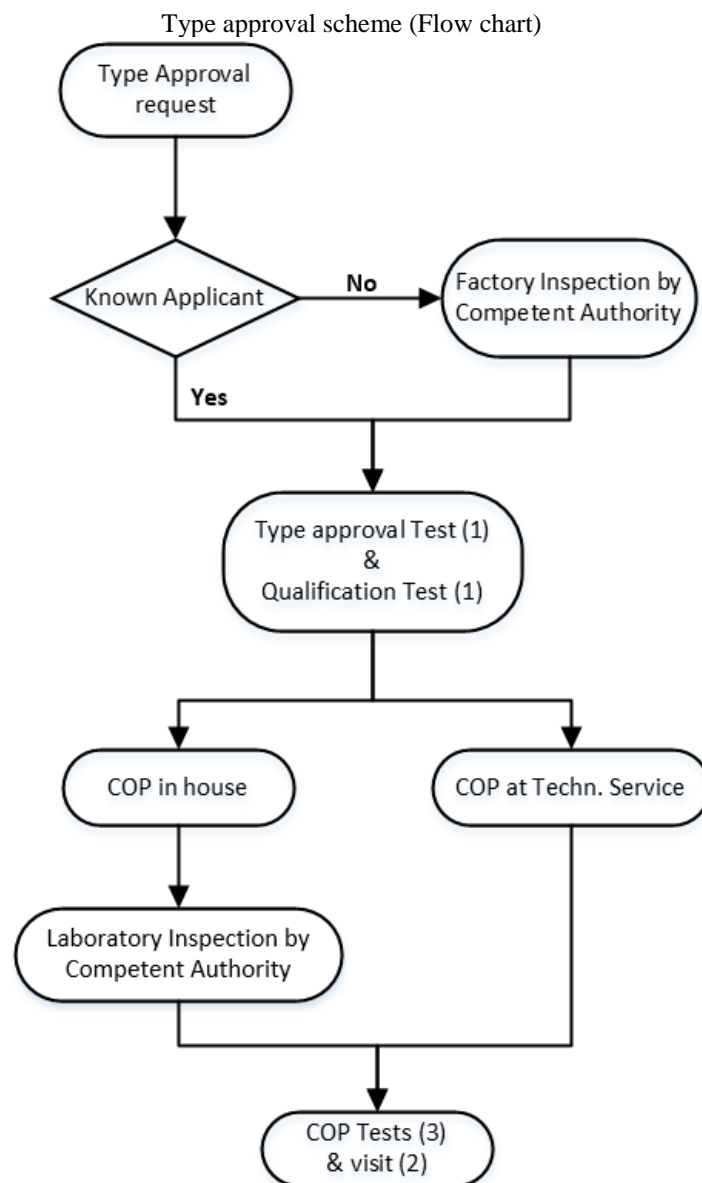
Annex V

Draft amendments to UN Regulation No. 22 (Protective helmets)

Amendments adopted on the basis of GRSP-62-04 (see para. 18 of this report)

Annex 12, amend to read:

"Annex 12



- (1) To be carried out at the same technical service or the same accredited independent laboratory.
 - (2) Visit of the manufacturer for inspection and random sampling by the authority or technical service:
 - (a) if there is no ISO 9002* or an equivalent standard : **1** times a year
 - (b) if there is an ISO 9002* or an equivalent standard : 1 time **every 1 to 2 years, depending on the results of the inspection.**
 - (3) Tests in accordance to paragraph 10.5 and/or 10.6 on samples taken out of the production:
 - (a) if there is no ISO 9002* : of the authority or technical service during the visit of footnote 2 a) of the manufacturer between the visits of footnote 2 a)
 - (b) if there is an ISO 9002* : taken by the manufacturer, procedure checked during visit of footnote 2 b)
- * **or an equivalent standard, i.e. one that delivers the same or better levels of quality."**

Amendments adopted on the basis of GRSP-62-10 (see para. 18 of this report)

Insert new paragraphs 5.1.8., to read:

"5.1.8. The approval marks prescribed in paragraphs 5.1.4., 5.1.5. and 5.2.4. above may not be replaced by an Unique Identifier (UI) as referred to in Schedule 5 of the 1958 Agreement."

Paragraphs 5.1.8. to 5.1.13., renumber as paragraphs 5.1.9. to 5.1.14.

Annex VI

Draft amendments to UN Regulation No. 44 (Child restraint systems)

Amendments adopted to ECE/TRANS/WP.29/GRSP/2017/20 (see para. 21 to this report)

...

Insert new paragraphs 17.18. and 17.19., to read:

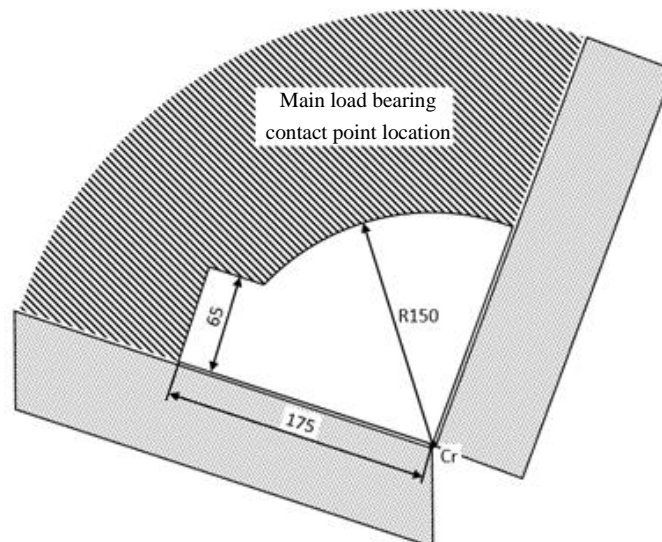
- "17.18. As from **1 September 2019**, no new approvals shall be granted under this Regulation to non-integral class forward facing child restraint systems of group 2 or group 2/3, **unless they form part of a multi-group child restraint system that will also be approved for group 1 and above**
- 17.19. As from **1 September 2023**, no extensions shall be granted under this Regulation to non-integral class forward facing child restraint systems of group 2 or group 2/3, **unless they form part of a multi-group child restraint system that will also be approved for group 1 and above.**"

Amendments adopted to ECE/TRANS/WP.29/GRSP/2017/38 (see para. 23 of this report)

Paragraph 6.1.8., amend to read:

- "6.1.8. Integral child restraint ... without a dummy.

Figures for the explanation of the measurement procedure



..."
...

Annex VII

Draft amendments to UN Regulation No. 129 (Enhanced Child Restraint Systems)

Amendments adopted on the basis of GRSP-62-23 (see para. 32 of this report)

Paragraph 6.3.1.1., amend to read:

"6.3.1.1. The Enhanced Child Restraint System manufacturer shall declare in writing that the toxicity of materials used in the manufacture of restraint systems and accessible to the restrained child is in conformity with the relevant parts of EN 71-3:2013+A1:2014 (paragraph 4.2., Table 2, Category III for specific requirements and paragraph 7.3.3. for test methodology). Tests confirming the validity of the declaration may be carried out at the discretion of the Technical Service. **This paragraph does not apply to Non-integral ECRS with a stature range starting at 100 cm or above.**"

Amendments adopted to ECE/TRANS/WP.29/GRSP/2017/41 (see para. 33 to this report)

...

Insert new paragraph 2.7.3., to read:

"2.7.3. **"Specific vehicle Belted"** is a category of Integral Enhanced Child Restraint System connected to specific vehicle types **by using the vehicle safety-belt. Additional vehicle anchorage points approved by UN Regulation XX may be used. Any attachment points required for securing rearward facing Enhanced Child Restraint System shall be checked according to Annex 25. Enhanced Child Restraint Systems that use the vehicle dashboard as a contact zone are permitted.**"

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 consisting of:

- (a) A top-tether strap; or
- (b) A support-leg.

Meeting the requirements of this UN Regulation and fitted to an ISOFIX anchorage system and ISOFIX top tether anchorages or vehicle floor contact surface meeting the requirements of UN Regulation No. 14 or UN Regulation No. XX.

An "Anti-rotation device" for a "specific vehicle" Enhanced Child Restraint System may comprise a top tether, a support-leg **or, any other means capable of limiting the rotation.**"

...

Paragraph 4.8. (former), renumber as paragraph 4.12. and amend to read:

"4.12. Additional markings

...

- (g) **The shoulder belt part and the lap belt part of the adult safety-belt used to attach the infant carrier shall be indicated with specific icons for the shoulder webbing path and lap belt webbing paths, visible for the user, close to the belt guiding area (icon A and B) or on the installation drawings (icon C). Icons A, B and C shall have the same colour coding (darker green on lap belt) as used on the installation drawings and the minimum size is 20 mm in diameter.**

Icons for use on/near
the belt guide

Icons for use on the
installation label



or



A

B

C

"

Insert new paragraphs 6.1.2.3. to 6.1.2.6., to read:

- 6.1.2.3. For the "Universal Belted" category, this shall be by means of the adult safety-belt **only**.
- 6.1.2.4. For the "Specific vehicle Belted" category, this shall be **primarily** by means of the adult safety-belt.
- 6.1.2.5. Integral Enhanced Child Restraint Systems of the Belted categories shall have only one adult safety-belt route and a main load-bearing contact point, between the Enhanced Child Restraint System and the adult safety-belt on each side of the Enhanced Child Restraint System. This point shall not be less than 150 mm from the Cr axis when measured with the Enhanced Child Restraint System on the dynamic test bench installed in accordance with paragraph 7.1.3.5.2.3. of this UN Regulation, without a dummy. This shall apply to all adjustment set-ups and webbing paths.
- 6.1.2.6. The adult safety-belt required to secure a Belted Integral Enhanced Child Restraint System on the dynamic test bench is defined in Annex 23 to this UN Regulation. The Enhanced Child Restraint System shall be secured onto the test bench using the appropriate standard safety-belt described in Annex 23

using a preload tension of $50\text{N} \pm 5\text{N}$. The dummy shall not be installed unless the design of the restraint is such that the installation of a dummy would increase the length of belt used. With the Enhanced Child Restraint System in the installed position **as declared by the ECRS manufacturer**, there shall be no additional tension in the belt, apart from that exerted by the standard retractor ($4 \pm 3\text{N}$), where fitted. Where the retractor belt is used, this condition shall be met with at least 150 mm of belt remaining on the spool.

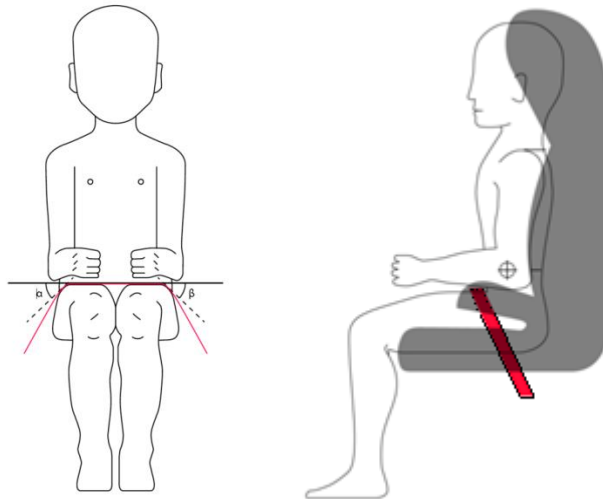
A clamping mechanism used according to paragraph 7.1.3.5.2.3. shall not influence the webbing path."

Paragraph 6.2.1.5., amend to read:

"6.2.1.5. All restraint ... excessive stresses.

In the case of booster seats, the lap portion of the adult safety-belt shall be positively guided on both sides to ensure that the loads transmitted by the adult lap belt are transmitted through the pelvis. The positive guidance of loads over the pelvis shall be realised from the moment that the child is installed; the lap belt shall pass over the top of the thigh, just touching the fold with the pelvis. The angles α and β between the tangent line in which the belt touches the thighs and the horizontal shall be greater than 10° .

Figures of Strapped child



The shoulder portion of the adult safety belt shall be positively guided to ensure that the child torso and neck do not escape."

Paragraph 6.2.1.6., amend to read:

"6.2.1.6. **During the dynamic tests**, the standard safety-belt used to install a non-integral Enhanced Child Restraint System, shall not become disengaged from any guide or locking device utilized for the test conducted; however, for the shoulder portion of the standard safety-belt this shall be judged up to the moment that the maximum horizontal head excursion of the dummy is reached."

Paragraph 6.6.4.4.1.2.1., amend to read:

"6.6.4.4.1.2.1. Head excursion: no part of the head of the dummy shall pass beyond the planes FD, FG and DE, as shown in figure 2 below. This shall be judged up to 300 ms

or the moment that the dummy has come to a definitive standstill whatever occurs first.

Except when testing using Q6 or Q3 dummy where the value in relation to the FD plane is 840 mm

Where a test is conducted with paragraphs 6.6.4.1.6.1.1. or paragraph 6.6.4.1.6.1.2. or paragraph 6.6.4.1.8.2. above, only the second test results without 100 mm diameter bar will be considered ... "

...

Insert new paragraphs 16.8. to 16.11., to read:

- "16.8. As from the official date of entry into force of the 03 series of amendments, no Contracting Party applying this UN Regulation shall refuse to grant or refuse to accept UN type-approvals under this UN Regulation as amended by the 03 series of amendments.
- 16.9. As from 1 September 2020, Contracting Parties applying this UN Regulation shall not be obliged to accept UN type-approvals to the preceding series of amendments, first issued after 1 September 2020.
- 16.10. As from 1 September 2022, Contracting Parties applying this UN Regulation shall not be obliged to accept type-approvals issued to the preceding series of amendments to this Regulation.
- 16.11. Notwithstanding paragraphs 16.9 and 16.10, Contracting Parties applying the UN Regulation shall continue to accept UN type-approvals issued according to the preceding series of amendments to the UN Regulation, for the vehicles/vehicle systems which are not affected by the changes introduced by the 03 series of amendments."

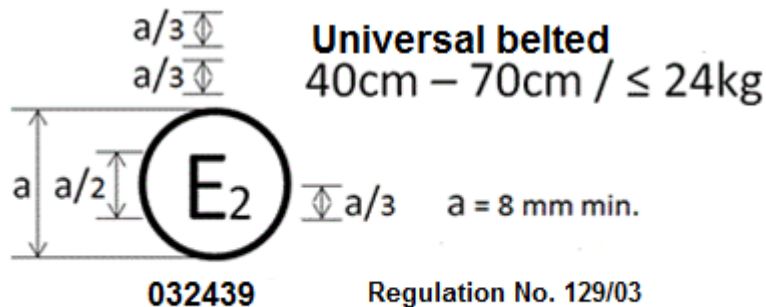
...

Annex 2, amend to read:

"Annex 2

1. Arrangements of the approval mark

... according to which the approval has been granted.



The Enhanced Child Restraint System bearing the above approval mark is a device capable of being fitted in any universal seating position of the vehicle and of being

used for the 40 cm - 70 cm size range; it is approved in France (E 2) under the number 032439. The approval number indicates that the approval..."

Annex VIII

Draft amendments to UN Regulation No. 137 (Frontal impact with focus on restraint systems)

Amendments adopted on the basis of GRSP-62-05 (see para. 38 of this report)

Annex 3, paragraph 5.2.4.1., amend to read:

"5.2.4.1. The axial compressive **force is** measured with a CFC of 600."

Annex IX

Draft amendments to the draft new UN Regulation on Hydrogen and Fuel Cell Vehicles of category L

Amendments adopted to ECE/TRANS/WP.29/GRSP/2017/19 (see para. 43 to this report)

...

Paragraph 7.1.3.1., amend to read:

"7.1.3.1. Pressure relief systems

- (a) Storage system TPRDs. The outlet of the vent line, if present, for hydrogen gas discharge from TPRD(s) of the storage system shall be protected by a cap;
- (b) Storage system TPRDs. The hydrogen gas discharge from TPRD(s) of the storage system shall not be directed:
 - (i) Into enclosed or semi-enclosed spaces;
 - (ii) Into or towards any wheel housing of the vehicle or any braking component that is subject to elevated temperatures during intended use;
 - (iii) Towards hydrogen gas containers;
 - (iv) **In any direction other than perpendicularly outward from the bottom of the vehicle body.**
- (c) Other pressure relief devices (such as a burst disc) may be used outside the hydrogen storage system. The hydrogen gas discharge from other pressure relief devices shall not be directed:
 - (i) Towards exposed electrical terminals, exposed electrical switches or other ignition sources;
 - (ii) **Into or towards the vehicle passenger or luggage compartments or towards the driver or any passengers on the vehicle;**
 - (iii) Into or towards any wheel housing of the vehicle or any braking component that is subject to elevated temperatures during intended use.
 - (iv) Towards hydrogen gas containers.

The system is visually inspected for compliance."

...

Paragraph 7.1.4.1., amend to read:

"7.1.4.1. **Hydrogen leakage and/or permeation from the hydrogen storage system shall not directly vent into the passenger or luggage compartments or towards the driver or any passengers on the vehicle, or to any enclosed or**

semi-enclosed spaces within the vehicle that contains unprotected ignition sources."

...

Annex X

[English only]

List of GRSP 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>
Harmonized side impact dummies	Mr. David Sutula (USA) Phone : +1 202 366 32 73 Fax : +1 202 493 29 90 email : david.sutula@dot.gov	December 2017	
Head Restraints (GTR7-Phase 2)	Mr. Bernard Frost (UK) Phone : +44-(0)207 9442107 Fax : +44-(0)207 9449623 email : bernie.frost@dft.gsi.gov.uk	June 2018	OICA
Child Restraint Systems (CRS)	Mr. Pierre Castaing (France) Phone : +33 1-69801750 Fax : +33 1-69801719 email : pierre.castaing.externe@utacceram.com	Dissolved	
Pedestrian Safety (GTR9-Phase 2)	Mr. Richard Damm (Germany) Tel.: +49 (0) 228 99 300 4302 Fax: +49 (0) 228 99 300 807 4302 email: richard.damm@bmvi.bund.de	[December 2018]	
Electric Vehicle Safety (EVS) – Phase 2	Mr. N. Nguyen (USA), (vice-chaired by the European Union and China) Phone: +1 202 366 69 34 Fax: +1 202 493 29 90 email : nha.nguyen@dot.gov	December 2020	Japan
Three-dimensional H-point machine	Mr. L. Martinez (Spain) Phone: +34 91 336 53 00 Fax: +34 91 336 53 02 email: luis.martinez@upm.es	[...]	
Hydrogen and Fuel Cell Vehicles (HFCV)	[...]	December 2020	[...]