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Working Party on Passive Safety

Sixtieth session

Geneva, 13-16 December 2016

Report of the Working Party on Passive Safety on its sixtieth session


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I. Attendance

1. The Working Party on Passive Safety (GRSP) held its sixtieth session in Geneva from 13 to 16 December 2016, chaired by Mr. Nha Nguyen (United States of America). 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) (TRANS/WP.29/690, Amend.1 and Amend.2): Australia; Belgium; Canada; China; Denmark; France; Germany; India; Italy; Japan; Netherlands; Norway; Poland; Republic of Korea; Russian Federation; Spain; Sweden; Switzerland; United Kingdom of Great Britain and Northern Ireland (United Kingdom) and United States of America. An expert from the European Commission (EC) participated. Experts from the following non-governmental organizations participated: Consumers International (CI); 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/2016/16 and Add.1
Informal document GRSP-60-03

3. GRSP considered and adopted the agenda (ECE/TRANS/WP.29/GRSP/2016/16 and Add.1) proposed for the sixtieth session with the new agenda items 27 (g), 27 (h) and 28 and the running order (GRSP-60-03). The list of GRSP informal working groups are listed in Annex VI of this report.

III. Global technical regulation No. 1 (Door locks and door retention components) (agenda item 2)

Documentation: ECE/TRANS/WP.29/GRSP/2016/17
Informal document GRSP-60-23

4. GRSP noted a proposal of amendment to gtr No. 1 (ECE/TRANS/WP.29/GRSP/2016/17) submitted by the expert from EC which aligns the text of the global technical regulation (gtr) to a corresponding amendment to Regulation No. 11. The expert from EC introduced a final report on the development of the amendment (GRSP-60-23). GRSP recommended the draft amendment (ECE/TRANS/WP.29/GRSP/2016/17) not amended and the final report (GRSP-60-23 and reproduced in Annex II to the report), for their establishment in the Global Registry. The secretariat was requested to submit the proposal and its final report for consideration and vote at the June 2017 sessions of the World Forum for Harmonization of Vehicle Regulations (WP.29) and of the Executive Committee of the 1998 Agreement (AC.3), as draft Amendment 2 to the gtr.

IV. Global technical regulation No. 7 (Head restraints) (agenda item 3)

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

5. The expert from the United Kingdom, on behalf of the Chair of the Informal Working Group (IWG) on the gtr No. 7 - Phase 2, clarified that the IWG was following a more empirical approach to determine pass/fail criteria for the Bio Rear Impact Dummy (BioRID). He reported that the IWG expected to resume discussion at the beginning of 2017 and to finalize proposals by the end of 2017 on gtr No. 7 and on Addendum 1 to Mutual Resolution No. 1 (M.R.1) to incorporate Bio Rear Impact Dummy (BioRID) specifications. He concluded that an extension of the mandate of the IWG until December 2017 was needed to complete the final proposals. GRSP agreed to seek endorsement of this request at the March 2017 session of AC.3.

V. Global technical regulation No. 9 (Pedestrian safety) (agenda item 4)

A. Proposal for Phase 2 of the global technical regulation

Documentation: ECE/TRANS/WP.29/GRSP/2014/15
ECE/TRANS/WP.29/GRSP/2014/16
ECE/TRANS/WP.29/GRSP/2015/2
Informal documents GRSP-60-16 and GRSP-60-17

6. The expert from the United States of America announced that the National Highway Traffic Safety Administration (NHTSA) had agreed to accept Injury Assessment Reference Values (IARVs) to move Phase 2 forward and to incorporate the flexible pedestrian legform impactor (FlexPLI). He added that IARVs could change as a result of cost benefits analysis conducted during the adoption process of the gtr when transposed into the national legislation of Contracting Parties. Accordingly, he proposed GRSP-60-17 to amend Part A of the statement of technical rationale and to justify of ECE/TRANS/WP.29/GRSP/2014/15. Moreover, he reported that his administration had not yet completed its cost-benefit analysis, but the United States of America New Car Assessment Programme was already using the FlexPLI and the new improved bumper test proposed by the Task Force on Bumper Test Area (TF-BTA) (ECE/TRANS/WP.29/GRSP/2015/2). He concluded that for the new proposed requirements for the head form tests (ECE/TRANS/WP.29/GRSP/2014/5) some more analysis would be needed.

7. Referring to the statement of the expert from the United States of America, GRSP noted that at its May 2017 session it would likely be in the position to recommend the Phase 2 of the gtr as a full package: ECE/TRANS/WP.29/GRSP/2014/15, ECE/TRANS/WP.29/GRSP/2015/2 and GRSP-60-17. The expert from the United States of America announced that a meeting of the IWG in Washington, D.C. would be scheduled at the beginning of 2017. Thus, GRSP recommended for its May 2017 session: (a) IWG to provide a final report of the development of Phase 2 (update of ECE/TRANS/WP.29/GRSP/2014/16, fifth status report of the IWG), (b) IWG to finalise the analysis because the new headform test were incorporated as well (ECE/TRANS/WP.29/GRSP/2014/5) and (c) the secretariat to distribute GRSP-60-17 with an official symbol.

8. As a follow-up of the adoption of the authorization to develop an amendment to the gtr at the November 2016 session of AC.3 (ECE/TRANS/WP.29/AC.3/45), the expert from

the Republic of Korea informed GRSP (GRSP-60-16) about the progress of work of the task force to develop provisions for active deployable systems in the bonnet area. GRSP noted that: (i) the secretariat service of the task force would be ensured by OICA and (ii) the first meeting had been scheduled on 7 and 8 February 2017, in Paris (OICA premises).

B. Proposal for amendments to Phase 1 and draft Phase 2 of the global technical regulation

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

9. GRSP agreed to dissolve the activities to update Phase 1 of the gtr and to focus efforts on Phase 2 and on future amendments (e.g. ECE/TRANS/WP.29/GRSP/2014/5, see para. 6). Thus, it was agreed to remove ECE/TRANS/WP.29/GRSP/2014/2 from the agenda and to keep ECE/TRANS/WP.29/GRSP/2012/2 (progress report) which would be updated, once that the activity on the head form tests would be finalized (see para. 6 above).

VI. Global technical regulation No. 13 (Hydrogen and Fuel Cells Vehicles) (agenda item 5)

Documentation: Informal document GRSP-60-24

10. The expert from EC introduced GRSP-60-24, on behalf of the experts from Japan and the Republic of Korea which co-sponsoring the proposal for amendments to Phase 2 of the gtr. He explained that GRSP-60-24 was a draft request to develop Phase 2 and which listed the main items to complete gtr No. 13. GRSP endorsed GRSP-60-24, as reproduced in Annex III to the report. The secretariat was requested to submit it as an official request to develop Phase 2 of gtr No. 13 at the March 2017 sessions of WP.29 and AC.3 (ECE/TRANS/WP.29/2017/56).

VII. Harmonization of side impact dummies (agenda item 6)

11. The expert of the United States of America informed GRSP about the work progress of the IWG. He stated that the plan to finalize a draft addendum to the M.R.1 to incorporate specifications of the 50th percentile World Side Impact dummy (SID) had had delays. Finally, GRSP agreed to seek endorsement of WP.29 and AC.3 at their March 2017 sessions to extend the mandate of the IWG until December 2017.

VIII. Global technical regulation on electric vehicles (agenda item 7)

Documentation: Informal documents GRSP-60-13 and GRSP-60-20

12. The expert from the United States of America informed GRSP with a presentation (GRSP-60-20) on the progress of work of the IWG on Electric Vehicle Safety (EVS) and to introduce draft gtr on electric vehicle safety. The expert from OICA in principle supported the draft gtr. However, he raised a reservation on the provisions addressing heavy-duty vehicles and announced new comments shortly. All GRSP experts were invited to send their comments on GRSP-60-13 by mid-January 2017 to the secretariat so as to have an earlier submission to ensure proper translations by the May 2017 session of GRSP. The secretariat was requested to distribute GRSP-60-13 with an official symbol at the next session of GRSP which incorporates the comments received. Finally, GRSP agreed to seek

endorsement of WP.29 and AC.3 at their March 2017 sessions to extend the mandate of the IWG until December 2017.

IX. Regulation No. 14 (Safety-belt anchorages) (agenda item 8)

Documentation: ECE/TRANS/WP.29/GRSP/2016/20
Informal documents GRSP-58-13, GRSP-60-04 and GRSP-60-05

13. The expert from France introduced ECE/TRANS/WP.29/GRSP/2016/20 on the introduction of "Booster Seat" fixtures (ISO/B2 and ISO/B3) and "Reduced-Size Rearward Facing toddler CRS" fixture (ISO/R2x) added to Regulation No. 16 which corresponds with the implementation of Phase 2 of Regulation No. 129. GRSP adopted the proposal, not amended. The secretariat was requested to submit ECE/TRANS/WP.29/GRSP/2016/20 for consideration and vote at the June 2017 sessions of WP.29 and the Administrative Committee of the 1958 Agreement (AC.1) as draft Supplement 8 to the 07 series of amendments to Regulation No. 14.

14. The expert from OICA introduced two proposals: (a) GRSP-60-04 to remove ISOFIX anchorages from the Regulation and (b) GRSP-60-05 to incorporate them into a new one dedicated to these anchorages only. He explained that, in his opinion, the two proposals constitute the most viable solution aimed at solving the incompatibility of the requirements of the Regulation with the existing designs of Child Restraint Systems (CRS) in Australia and including Regulation No. 14 into Annex 4 of the future Regulation No. 0 on the International Whole Vehicle Type Approval (IWVTA). The expert from Australia supported the solution proposed by the expert from OICA as well as the experts from Italy, Japan and Sweden. However, the experts from the Netherlands and EC and the Netherlands argued that the improvement proposed by Australia and covering harmonization issues should not be disregarded. The experts from France and the United Kingdom supported the splitting of Regulation No. 14 and urged that some improvements on ISOFIX provisions were needed once that the new Regulation was established.

15. GRSP agreed to resume discussion on this subject at its May 2017 session, on the basis of revised proposals tabled by OICA including the replacement of dynamic with static references in Regulation No. 14 and in a number of other Regulations. In the meantime, it was agreed to keep GRSP-58-13 on the next GRSP agenda for future development of ISOFIX provisions.

X. Regulation No. 16 (Safety-belts) (agenda item 9)

Documentation: ECE/TRANS/WP.29/GRSP/2016/13
ECE/TRANS/WP.29/GRSP/2016/21
ECE/TRANS/WP.29/GRSP/2016/24
Informal documents GRSP-60-10, GRSP-60-11-Rev.1, GRSP-60-12 and GRSP-60-22

16. The expert from Australia introduced ECE/TRANS/WP.29/GRSP/2016/13 aimed at introducing provisions for airbag deactivation devices (where fitted). The expert from France argued that the proposed requirements should provide the right information for airbag deactivation and avoid mislead reactivation of the airbag when e.g. a rearward-facing CRS is installed on the front passenger seat. Finally, he required data rationales to justify the proposal. GRSP agreed to resume discussion on this subject at its May 2017 session and requested experts to provide their comments on ECE/TRANS/WP.29/GRSP/2016/13 to the expert from Australia.

17. The expert from France introduced GRSP-60-11-Rev.1 amending ECE/TRANS/WP.29/GRSP/2016/21 and ECE/TRANS/WP.29/GRSP/2016/24 as amended by GRSP-60-10. He added that both proposals introduced provisions for Phase 2 of

Regulation No. 129 (see para. 13 above). He also explained that ECE/TRANS/WP.29/GRSP/2016/24 also aligned the 07 series with the 06 series of amendments to the Regulation. The expert from EC introduced GRSP-60-22, improving the provisions concerning contact of the head or of the chest with any rigid part of the vehicle (para. 6.4.1.4.1.2. of the Regulation). GRSP noted that the use of transitional provisions in supplements should be limited as much as possible and only in special cases as indicated by ECE/TRANS/WP.29/1044/Rev.1 (General Guidelines for UN Regulatory Procedures and Transitional Provisions in UN Regulations). Finally, GRSP adopted ECE/TRANS/WP.29/GRSP/2016/21 and ECE/TRANS/WP.29/GRSP/2016/24, as amended by Annex IV to this report. The secretariat was requested to submit: (i) ECE/TRANS/WP.29/GRSP/2016/21 as draft Supplement 9 to the 06 series of amendments and (ii) ECE/TRANS/WP.29/GRSP/2016/24 as draft Supplement 1 to the 07 series of amendments to Regulation No. 16, for consideration and vote at the June 2017 sessions of WP.29 and AC.1.

18. The expert from OICA introduced GRSP-60-12, proposing a re-numbering of the transitional provisions and clarifying for extensions of approvals according to the 07 series of amendments to the Regulation. GRSP adopted GRSP-60-12 as reproduced in Annex IV to this report. The secretariat was requested to submit GRSP-60-12 as part of (see para. 17 above) Supplement 1 to the 07 series of amendments to Regulation No. 16, for consideration and vote at the June 2017 sessions of WP.29 and AC.1.

XI. Regulation No. 17 (Strength of seats) (agenda item 10)

Documentation: ECE/TRANS/WP.29/GRSP/2015/27
Informal document GRSP-57-23

19. The expert from the Netherlands informed GRSP on the progress of work of the "Task Force (TF) on Energy absorption of seats" (former group of interested experts on new restraint system technology). He clarified that the group had decided that eventually there was no need to develop further amendments to the Regulation. He added that Supplement 8 to the 06 series amendments to Regulation No. 16 (ECE/TRANS/WP.29/2016/98), adopted by WP.29 at its November 2016 session, was sufficient to cover the energy absorption requirements of the rear part of seat backs. Accordingly, he announced that the activity of the TF was dissolved. GRSP agreed to remove ECE/TRANS/WP.29/GRSP/2015/27 from its agenda.

20. GRSP resumed discussion on GRSP-57-23 showing three different seat test scenarios. The expert from CLEPA reminded GRSP that the proposal aimed at clarifying which testing scenario should be used and if more than one could be allowed. The expert from EC suggested that test method B indicated in GRSP-57-23 would be more suitable. The expert from the Netherlands agreed with the comments made by the expert from EC and he suggested the inclusion of method C as well.

21. GRSP agreed to resume discussion on this subject at its May 2017 session on the basis of a revised proposal prepared by the expert from CLEPA.

XII. Regulation No. 21 (Interior fittings) (agenda item 11)

Documentation: ECE/TRANS/WP.29/GRSP/2015/28

22. Referring to agenda item 19, the expert from the Netherlands suggested removing this subject and ECE/TRANS/WP.29/GRSP/2015/28 from the agenda of the next sessions of GRSP, because it was covered by the work mandate of the "TF on Energy absorption of seats". GRSP endorsed that suggestion.

XIII. Regulation No. 22 (Protective helmets) (agenda item 12)

23. The expert from Germany announced that the presentation of an analysis on issues such as type approval markings would be deferred to the May 2017 session of GRSP.

24. GRSP resumed discussion on the issue of safety users of two-wheeler user safety, including riders of bikes assisted by an electric engine (pedalex) and the implications on drivers of the mandatory wearing by the driver of helmets that are type approved according to Regulation No. 22. The expert from France expressed concerns on viable enforcement rules if helmets with lower safety performances would be for ride two-wheelers at high speed. The expert from EC reiterated his statement that green alternatives such as electric bikes should be encouraged and not stifled by the use of bulky helmets. The expert from the Netherlands informed GRSP about a national initiative aimed at developing a standard on helmets dedicated to pedalex. He clarified that such a standard would promote helmets with higher level of safety than bike helmets and clear identification. He finally announced to provide full information would be provided at the May 2017 session of GRSP. The expert from the Russian Federation supported the comment of the experts from EC and the Netherlands. The expert from Sweden suggested a more active participation from helmet manufacturers in the discussion so as to explain rationales to develop proper requirements for pedalex bike helmets. The expert from the United Kingdom clarified that motorcyclists make up 1 per cent of road traffic but 20 percent of fatalities in his country. He shared concerns on the enforceability of an alternative standard. He opposed the incorporation of alternative set of requirements in Regulation No. 22 as the existing requirements were technology neutral and already offered appropriate flexibility. The experts from Denmark, Italy and Poland argued that helmet safety should be independent of the propulsion type but rather focus on speed: the severity of injuries above 25 km/h is the same for pedalex as for motorcycles.

25. Finally, GRSP agreed to encourage the participation of helmet experts from the industry to adapt the design requirements of Regulation No. 22. At the same time, it was agreed to resume consideration of this agenda item at its May 2017 session including the harmonization of head-forms in the Regulation.

XIV. Regulation No. 25 (Head restraints) (agenda item 13)

Documentation: ECE/TRANS/WP.29/GRSP/2015/22

26. GRSP agreed to defer discussion on this agenda item to its May 2017 session of GRSP, awaiting new justification on ECE/TRANS/WP.29/GRSP/2015/22 provided by the expert from the Netherlands.

XV. Regulation No. 44 (Child restraint systems) (agenda item 14)

Documentation: ECE/TRANS/WP.29/GRSP/2016/14
ECE/TRANS/WP.29/GRSP/2016/18
Informal documents GRSP-60-02, GRSP-60-14, GRSP-60-15 and GRSP-60-19

27. The expert from the Netherlands introduced ECE/TRANS/WP.29/GRSP/2016/14 aimed at excluding dangerous interpretations on the installation of CRS and proposing an angle limit for the lap belts of minimum of 10°. The expert from Japan raised a reservation to the proposed value. The expert from the Netherlands also introduced GRSP-60-15 (superseding ECE/TRANS/WP.29/GRSP/2016/18) and gave a presentation (GRSP-60-19) to avoid diverging interpretation of the Regulation. GRSP agreed to resume discussion on

this subject at its May 2017 session and requested the secretariat to distribute GRSP-60-15 with an official symbol at its May 2017 session.

28. The expert from France introduced a presentation on inflatable booster showing test results that he had conducted (GRSP-60-25). The expert from Canada informed GRSP about an additional testing requirement in his country that limits the importation and sale of current designs of this type of booster. The limitation results from a Quasi-Static test that is noted in Section 408 of Canada Motor Vehicle Safety Standard (CMVSS) 213.2 and Section 4 of Test Method 213.2 that may be found at:

<http://laws-lois.justice.gc.ca/eng/regulations/SOR-2010-90/FullText.html#h-27>

and

www.tc.gc.ca/media/documents/roadsafety/213.2_TM_May_2012R.pdf

29. The expert from the Netherlands presented GRSP-60-14 on the description of the "new-born" manikins Q0 and P0. GRSP agreed to resume discussion on this subject at its May 2017 session on the basis of a revised proposal tabled by the expert from the Netherlands.

30. Finally, GRSP noted GRSP-60-02, tabled by the expert from the Netherlands, to prevent the use of a Unique Identifier (UI), as allowed in future Revision 3 of the 1958 Agreement, since the type approval mark carries relevant information for the users. GRSP requested the secretariat to distribute GRSP-60-02 with an official symbol at its May 2017 session.

XVI. Regulation No. 80 (Strength of seats and their anchorages (buses)) (agenda item 15)

Documentation: ECE/TRANS/WP.29/GRSP/2015/23

31. GRSP resumed consideration of ECE/TRANS/WP.29/GRSP/2015/23, which proposes to update cross references to Regulation No. 25. GRSP adopted the proposal, as amended below. The secretariat to submit ECE/TRANS/WP.29/GRSP/2015/23 as draft Supplement 3 to the 03 series of amendments to Regulation No. 80, for consideration and vote at the June 2017 sessions of WP.29 and AC.1.

Paragraph 5.5., amend to read:

"5.5. ... Regulation No. 25, **as amended by the 04** series of amendments"

XVII. Regulation No. 94 (Frontal collision) (agenda item 16)

32. GRSP noted the results of crash tests of L7 categories of vehicles performed by the Euro New Car Assessment Programme (NCAP), as had been exhibited by four models on the grounds of the Palais of the Nations (ECE/TRANS/WP.29/1126, para. 86) during the November 2016 session of WP.29. The Chair of GRSP stressed the need to address the performances of such vehicles and encouraged GRSP experts to submit proposal for amendments to Regulations addressing collisions (e.g. Regulation No. 94) to improve their safety. The expert from the Republic of Korea informed GRSP that his country had experienced certification issues in frontal impact and pedestrian protection of L7 quadricycles. He announced that the results of a research to develop possible proposals would be provided by his country at the May 2017 session of GRSP.

XVIII. Regulation No. 100 (Electric power trained vehicles) (agenda item 17)

Documentation: ECE/TRANS/WP.29/GRSP/2016/7

33. In absence of the expert from Belgium, the expert from France informed GRSP that the Working Party on General Safety Provisions (GRSG), would consider ECE/TRANS/WP.29/GRSP/2016/7 at its April 2017 session, which discusses additional safety provisions for electrical safety of trolleybuses addressed in UN Regulation No. 107 (M₂ and M₃ vehicles) instead. Therefore, GRSP agreed to defer discussion to its May 2017 session awaiting the outcome of GRSG at its next session and possible requests of adapting Regulation No. 100.

XIX. Regulation No. 127 (Pedestrian safety) (agenda item 18)

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

XX. Regulation No. 129 (Enhanced Child Restraint Systems) (agenda item 19)

Documentation: ECE/TRANS/WP.29/GRSP/2016/19
ECE/TRANS/WP.29/GRSP/2016/22
ECE/TRANS/WP.29/GRSP/2016/23
Informal documents GRSP-60-01, GRSP-60-08-Rev.1, GRSP-60-09-Rev.2 and GRSP-60-18

35. The expert from France, Chair of the IWG on Enhanced Child Restraint Systems (ECRS), introduced a presentation (GRSP-60-18) on the work progress of the IWG. He also introduced ECE/TRANS/WP.29/GRSP/2016/19, that aligns the provisions on toxicity and flammability of materials used to manufacture CRS and that updates the test provisions of the 02 series of amendments to the Regulation. GRSP adopted ECE/TRANS/WP.29/GRSP/2016/19 not amended, and requested the secretariat to submit it as draft Supplement 1 to the 02 series of amendments to Regulation No. 129, for consideration and vote at the June 2017 sessions of WP.29 and AC.1.

36. The expert from France also furthermore introduced two parallel amendments to the 01 and 02 series of amendments to the Regulation that provide editorial corrections to the text (ECE/TRANS/WP.29/GRSP/2016/22 and ECE/TRANS/WP.29/GRSP/2016/23). GRSP adopted ECE/TRANS/WP.29/GRSP/2016/22, as amended by Annex V to this report (GRSP-60-09-Rev.2) and ECE/TRANS/WP.29/GRSP/2016/23, as amended by Annex V to the report (GRSP-60-08-Rev.1). The secretariat was requested to submit: (a) ECE/TRANS/WP.29/GRSP/2016/22, as Supplement 2 to the 01 series of amendments and (b) ECE/TRANS/WP.29/GRSP/2016/23, as part of (see para. 35) draft Supplement 1 to the 02 series of amendments to Regulation No. 129, for consideration and vote at the June 2017 sessions of WP.29 and AC.1. Referring to the discussion held under agenda item 14 (see para. 30 above), GRSP requested the secretariat to distribute GRSP-60-02 with an official symbol at its May 2017 session, and specifically for the text dedicated to Regulation No. 129. Finally, GRSP agreed to seek the endorsement of WP.29 at its March 2017 sessions to extend the mandate of the IWG until December 2017.

XXI. Regulation No. 134 (Hydrogen and Fuel Cells Vehicles (HFCV)) (agenda item 20)

Documentation: Informal document GRSP-60-07

37. GRSP noted GRSP-60-07 tabled by the expert from Japan which proposes improvements to the test requirements. GRSP agreed to resume discussion on this subject at its May 2017 session and requested the secretariat to distribute it with an official symbol at its next session.

XXII. Regulation No. 135 (Pole Side Impact) (PSI)) (agenda item 21)

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

XXIII. Regulation No. 136 (Electric Vehicles of category L (EV-L)) (agenda item 22)

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

XXIV. Regulation No. 137 (Frontal impact with focus on restraint systems) (agenda item 23)

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

XXV. Collective amendments to Regulations Nos. 14 and 16 (agenda item 24)

Documentation: Informal document GRSP-58-03-Rev.1

41. Referring to agenda item 9 (see para. 17 above), the expert from EC clarified that ECE/TRANS/WP.29/GRSP/2016/21 and ECE/TRANS/WP.29/GRSP/2016/24 would supersede GRSP-58-03-Rev.1, solving the "plug-and-play" concept of i-Size child restraint systems (to reduce misuse of CRS). GRSP agreed to remove this item from the agenda of its May 2017 session.

XXVI. Collective amendments to Regulations Nos. 16, 44, 94 and 129 (agenda item 25)

Documentation: ECE/TRANS/WP.29/GRSP/2015/30

42. In absence of new information, GRSP agreed to defer discussion on this subject to its May 2017 session.

XXVII. Election of officers (agenda item 26)

43. 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 2017.

XXVIII. Other business (agenda item 27)

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

Documentation: Informal document GRSP-60-21

44. The expert from EC gave a presentation (GRSP-60-21), to inform GRSP about the draft revision of the General Safety Regulation (EC) No 661/2009 of the European Parliament and of the Council. GRSP noted that many of the items listed in the review of the General Safety Regulation coincide with those priorities of work administered by WP.29 under the Agreements it administers (including the 1998 Agreement). The expert from EC confirmed the importance to continue consultation with main stakeholders to ensure consistency with common work goals.

45. As a follow-up of a presentation given at the December 2015 session of GRSP (ECE/TRANS/WP.29/GRSP/58, para. 48), the expert from Japan announced his intention to submit a proposal for a new draft Regulation on hydrogen and fuel cell motorcycles.

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

46. GRSP Chair reminded the Group to keep updating abbreviations and symbols of UN Regulations and UN GTRs, listed in the excel files, that are permanently appended to its website (www.unece.org/trans/main/wp29/wp29wgs/wp29gen/acronyms_definitions.html). He would also announce to provide a list of those abbreviations and acronyms under the 1998 Agreement.

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

Documentation: ECE/TRANS/WP.29/2017/53,
ECE/TRANS/WP.29/2017/54 and ECE/TRANS/WP.29/2017/55

47. GRSP noted the progress of ratifying of the adopted Revision 3 of the 1958 Agreement (ECE/TRANS/WP.29/1126, paras. 64 and 65) supported by the EU. It was noted that in absence of objections the date of entry into force of Revision 3 would be scheduled for August 2017. The expert from Japan, ambassador of IWVTA to GRSP, informed the group that a proposal concerning UN Regulation No. 0 would be submitted by the IWG to the June 2017 session of WP.29. It was also noted that at the March 2017 session of WP.29 would be discussed the following documents: (a) a revised guideline for UN Regulatory Procedures and Transitional Provisions in UN Regulations (ECE/TRANS/WP.29/2017/53), (b) an explanatory document on UN Regulation No. 0 (ECE/TRANS/WP.29/2017/54) and (c) a questions and answers document on Revision 3 of the 1958 Agreement (ECE/TRANS/WP.29/2017/55).

D. Highlights of the June and November 2016 sessions of WP.29

48. The Secretary reported on the highlights of the 169th and 170th sessions of WP.29 (ECE/TRANS/WP.29/1123 and ECE/TRANS/WP.29/1126).

E. Three-dimensional H-point machine

49. GRSP noted that Mr. L. Martinez had been appointed Chair of the IWG on the harmonization of specifications of the 3-D H point machine (ECE/TRANS/WP.29/1126, para. 145). Experts from GRSP were invited to contribute to the activity of the IWG to solve, as soon as possible, this relevant issue which involved a number of UN regulations under the 1958 and 1998 Agreements. GRSP agreed to resume discussion on this matter at its May 2017 session and asked to be informed about the work progress of the IWG.

F. Intelligent transport systems

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

G. Performance of vehicle software based systems subjected to Regulations

Documentation: Informal document WP.29-169-13

51. The secretariat presented informal document WP.29-169-13 regarding cycle beating by software based systems, with TPMS as an example. The expert from EC noted a general concern about test optimisation, not only linked to software-based systems, but instead from the utilisation of certain tolerances or corridors that were provided in testing provisions for conventional product performance checks. He added that, for instance, a type-approval test should be considered valid when a deceleration pulse trace was close to the lower boundary of a corridor, but this should not mean that a re-test would be invalid for conformity of production or for market surveillance checks when a product fails performance requirements if the deceleration pulse trace would be toward the upper boundary of the corridor. Thus, he concluded that the requirements should be met regardless of the tolerances provided (e.g. deceleration, temperature, pressure, speed).

H. Proposal for a Supplement to Regulation No. 12 (Steering mechanism)

Documentation: Informal document GRSP-60-06-Rev.1

52. The expert from OICA introduced GRSP-60-06-Rev.1, to provide alternative testing for some specifications in accordance with Regulation No. 94 and also with Regulation No. 137 (Frontal impact with focus on restraint systems). The secretariat was requested to distribute GRSP-60-06-Rev.1 with an official symbol at the May 2017 session of GRSP.

XXIX. Provisional agenda for the next session (agenda item 28)

53. The sixty-first session was scheduled to be held in Geneva from 8 May (2.30 p.m.) to 12 (12.30 p.m.) May 2017. GRSP noted that the deadline for the submission of official documents to the secretariat was 10 February 2017, twelve weeks prior to the session. GRSP agreed to the following provisional agenda:

1. Adoption of the agenda.
2. Global technical regulation No. 7 (Head restraints).
3. Global technical regulation No. 9 (Pedestrian safety):
 - (a) Proposal for Phase 2 of the global technical regulation;
 - (b) Proposal for amendments to Phase 2 of the global technical regulation.
4. Global technical regulation No. 13 (Hydrogen and Fuel Cells Vehicles).

5. Harmonization of side impact dummies.
6. Global technical regulation on electric vehicles.
7. Regulation No. 12 (Steering wheel).
8. Regulation No. 14 (Safety-belt anchorages).
9. Regulation No. 16 (Safety-belts).
10. Regulation No. 17 (Strength of seats).
11. Regulation No. 22 (Protective helmets).
12. Regulation No. 25 (Head restraints).
13. Regulation No. 44 (Child restraints systems).
14. Regulation No. 94 (Frontal collision).
15. Regulation No. 100 (Electric power trained vehicles).
16. Regulation No. 127 (Pedestrian safety).
17. Regulation No. 129 (Enhanced Child Restraint Systems).
18. Regulation No. 134 (Hydrogen and Fuel Cells Vehicles (HFCV)).
19. Regulation No. 135 (Pole Side Impact (PSI)).
20. Regulation No. 136 (Electric Vehicles of category L (EV-L)).
21. Regulation No. 137 (Frontal impact with focus on restraint systems).
22. Collective amendments to Regulations Nos. 16, 44, 94 and 129.
23. Crash tests of L7 categories of vehicles.
24. Hydrogen and Fuel Cells Vehicles of category L.
25. Other business:
 - (a) Exchange of information on national and international requirements on passive safety;
 - (b) Definition 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 2017 session of WP.29;
 - (e) Three-dimensional H-point machine;
 - (f) Intelligent transport systems;
 - (g) Performance of vehicle software based systems subjected to UN Regulations.

Annex I

List of informal documents (GRSP-60-...) 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	France	19	E	Consolidated version of Regulation No. 129 (Enhanced Child Restraint Systems (ECRS))	(a)
02	NL	14 & 19	E	Collective amendments to Regulations Nos. 44 (CRS) and 129 (ECRS)	(b)
03	GRSP Chair	1	E	Running order of the sixtieth GRSP session	(a)
04	OICA	8	E	Proposal for the [08] Series of amendments to Regulation No. 14 (Safety belt anchorages)	(a)
05	OICA	8	E	Proposal for a new UN Regulation on ISOFIX anchorages	(a)
06/ Rev.1	OICA	27(h)	E	Proposal for a Supplement to Regulation No. 12 (Steering mechanism)	(b)
07	Japan	20	E	Proposal for supplement 3 to the Regulation No. 134 on hydrogen and fuel cell vehicles (HFCV)	(a)
08/ Rev.1	France	19	E	Proposal for Supplement 2 to the 02 series of amendments to Regulation No. 129 (Enhanced Child Restraint Systems (ECRS))	(d)
09/ Rev.2	France	19	E	Proposal for Supplement 2 to the 01 series of amendments to Regulation No. 129 (Enhanced Child Restraint Systems (ECRS))	(d)
10	France	9	E	Proposal of amendments to ECE/TRANS/WP.29/GRSP/2016/24 (Supplement 1 to the 07 series of Amendments to Regulation No. 16 (Safety belts))	(d)
11/ Rev.1	France	9	E	Proposal of amendments to ECE/TRANS/WP.29/GRSP/2016/21 (Supplement 9 to the 06 series of Amendments to Regulation No. 16 (Safety belts))	(d)
12	OICA	9	E	Proposal for Supplement 1 to the 07 series of amendments to 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>
13	(EVS IWG & Co-Sponsors of the GTR)	7	E	Draft global technical regulation (GTR) No.XXX on Electric Vehicle Safety	(b)
14	NL	14	E	Draft Supplement 13 to the 04 series of amendments to Regulation No.44 (Child Restraint Systems)	(a)
15	NL	14	E	Proposal for Supplement 13 to the 04 series of amendments to Regulation No. 44 (Child Restraint Systems)	(b)
16	Rep. of Korea	4(a)	E	ask Force for Test Procedure of Deployable Pedestrian Protection System	(a)
17	United States of America	4(a)	E	Proposal from the United States of America on Phase 2 amendments to gtr No. 9 on Pedestrian Safety (ECE/TRANS/WP.29/GRSP/2014/15)	(b)
18	Chair of CRS IWG	22(g)	E	Status report of the Informal Working Group on Child Restraint Systems	(a)
19	NL	14	E	Explanation to ECE/TRANS/WP.29/GRSP/2016/18	(a)
20	EVS IWG Chair	7	E	Electric Vehicles Safety global technical regulation	(a)
21	EC	27(a)	E	Status of the review of the General Safety and Pedestrian Safety Regulations	(a)
22	EC	9	E	Proposal of amendments to ECE/TRANS/WP.29/GRSP/2016/24	(d)
23	EC	2	E	Final report of Amendment 2 to gtr No. 1 (door locks and door retention components)	(d)
24	EC, J and Korea	5	E	Authorization to develop Phase 2 of gtr No. 13 (Hydrogen and fuel cell vehicles)	(d)
25	France	14	E	Inflatable child restraint systems	(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

Draft amendments to global technical regulation No. 1 (Door locks and door retention components)

Final report on the establishment of Amendment 2 to gtr No. 1 based on GRSP-60-23 (see para. 4 of this report)

1. The Executive Committee of the 1998 Agreement (AC.3) had considered a proposal (ECE/TRANS/WP.29/AC.3/43) by the EU to amend global technical regulation No. 1 on door locks and door retention components at its forty-eighth session in November 2016 (ECE/TRANS/WP.29/1126). AC.3 authorised GRSP to consider, at its December 2016 session, a concrete proposal to develop Amendment 2 to global technical regulation No.1. The proposed amendment is aimed at fully aligning the UN GTR with UN Regulation No. 11.

2. At its sixtieth session, GRSP recommended a draft Amendment 2 to gtr No. 1 for its establishment in the Global Registry at its June 2017 session (ECE/TRANS/WP.29/GRSP/2016/17). This amendment aligns the corresponding specifications for back doors with those of side doors with rear mounted hinges as encompassed in Regulation No. 11.

Annex III

Draft amendments to global technical regulation No. 13 (Hydrogen and Fuel Cells Vehicles)

Authorization to develop Phase 2 of gtr No. 13 based on GRSP-60-24 (see para. 10 of this report)

I. Background

1. The Informal Working Group (IWG) on Hydrogen and Fuel Cell Vehicles - Sub group safety (HFCV-SGS) was set up in 2007. The original schedule and scope were described in ECE/TRANS/WP.29/AC.3/17. This document outlines the HFCV-SGS activities and their timeframes divided into two phases. The IWG submitted the global technical regulation (gtr) on Hydrogen and Fuel Cell Vehicle and it was adopted by the Working Party on Passive Safety (GRSP) as well as established by the World Forum for Harmonization of Vehicle Regulations (WP.29) and the Executive Committee of the 1998 Agreement (AC.3) in June 2013.
2. After the establishment in the Global Registry as gtr No. 13 in June 2013, the provisions were transposed into UN Regulation No 134 annexed to the 1958 Agreement.

II. Proposal

3. An extension of the mandate for the HFCV-SGS IWG, sponsored by Japan the Republic of Korea and the European Union, shall tackle the development of the remaining issues. Phase 2 activities should be started immediately after the endorsement of this authorization by WP.29 and AC.3 at their March 2017 sessions.
4. Since hydrogen fuelled vehicles and fuel cell technologies are in early stages of development of commercial deployment, it is expected that revisions to these requirements may be suggested by an extended time of on-road experience and technical evaluations. It is further expected that with additional experience or additional time for fuller technical consideration, the requirements presented as optional requirements in the gtr (LHSS Section G of the preamble) could be adopted as requirements with appropriate modifications.
5. Scope of work in Phase 2 should cover:
 - (a) Original items described in ECE/TRANS/WP.29/AC.3/17 shall be kept;
 - (b) Potential scope revision to address additional vehicle classes;
 - (c) Requirements for material compatibility and hydrogen embrittlement;
 - (d) Requirements for the fuelling receptacle;
 - (e) Evaluation of performance-based test for long-term stress rupture proposed in Phase 1;
 - (f) Consideration of research results reported after completion of Phase 1 – specifically research related to electrical safety, hydrogen storage systems, and post-crash safety;

- (g) Consideration of 200 per cent Nominal Working Pressure (NWP) or lower as the minimum burst requirement;
- (h) Consider Safety guard system for the case of isolation resistance breakdown.
6. In addition, the following test procedure will be considered for long-term stress rupture:
- (a) Three containers made from the new material (e.g. a composite fibre reinforced polymer) shall be burst; the burst pressures shall be within ± 10 per cent of the midpoint, BPo, of the intended application. Then,
- (i) Three containers shall be held at > 80 per cent BPo and at $65 (\pm 5) ^\circ\text{C}$; they shall not rupture within 100 hrs; the time to rupture shall be recorded;
- (ii) Three containers shall be held at > 75 per cent BPo and at $65 (\pm 5) ^\circ\text{C}$; they shall not rupture within 1000hrs; the time to rupture shall be recorded;
- (iii) Three containers shall be held at > 70 per cent BPo and at $65 (\pm 5) ^\circ\text{C}$; they shall not rupture within one year;
- (iv) The test shall be discontinued after one year. Each container that has not ruptured within the one year test period undergoes a burst test, and the burst pressure is recorded.
- (b) The container diameter shall be > 50 per cent of the diameter of intended application and of comparable construction. The tank may have a filling (to reduce interior volume) if > 99 per cent of the interior surface area remains exposed;
- (c) Containers constructed of carbon fibre composites and/or metal alloys are excused from this test;
- (d) Containers constructed of glass fibre composites that have an initial burst pressure > 350 per cent NWP are excused from this test, in which case BPmin = 350 per cent NWP shall be applied in paragraph 5.1.1.1. (Baseline Initial Burst Pressure);
- (e) There are carbon fibre containers that use glass fibre as the protective layer, and some of these containers contribute about 2 per cent of rise in burst pressure. In this case, it shall be demonstrated, by calculation, etc., that the pressure double the maximum filling pressure or above can be ensured by carbon fibre excluding glass fibre. If it can be demonstrated that the rise in burst pressure due to the glass fibre protective layer is 2 per cent or below and if the burst pressure is $225 \text{ per cent NWP} \times 1.02 = 230 \text{ per cent NWP}$ or more, the said calculation may be omitted.

III. Timeline

7. The work of the IWG on HFCV-SGS Phase 2 should be completed by 2020. The work may continue until the end of 2020 without a formal modification of this mandate, unless otherwise needed due to circumstances.
8. A prolongation and extension of the mandate of the IWG on HFCV-SGS may be considered by GRSP in due time.

Annex IV

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

Amendments adopted to ECE/TRANS/WP.29/GRSP/2016/21 (see para. 17 to this report)

Paragraph 6.4.1.4.1.2., amend to read

"6.4.1.4.1.2. In the case of any other occupant, contact of the head or of the chest with any rigid part of the vehicle in front of the manikin is not allowed. Additionally contact of the manikins head with its knees is not allowed.

For this assessment the seat of the tested manikin and, if applicable, the seat in front of the manikin shall be considered to be in the positions specified in paragraph 7.7.1.6. below. With the exception of the deployed structure of an airbag assembly defined in para. 2.8., non-rigid material of < 50 Shore A hardness may be removed in order to demonstrate that covered or padded rigid parts are not contacted by the head or the chest of the manikin during the test."

Insert new paragraph 15.3.9.:

"15.3.9. Until 1 September 2018, no Contracting Parties applying this Regulation shall refuse to grant type approvals to the 06 series of amendments without taking into account Supplement 9 to the 06 series of amendments."

Annex 17, Appendix 2, paragraph 4., amend to read:

"4. ISOFIX child restraint system **size envelope** fixtures:

...

The fixtures **above** shall be constructed with a mass between **10 and/or 13 kg +/- 1 kg** and shall be of suitable durability and stiffness to satisfy the functional requirements, following the table below:

<i>CRF</i>	<i>Mass (kg)</i>	<i>Tolerance (kg)</i>
R1 a	10	± 1
R2 / R2X a	10	± 1
R3	13	± 1
L1 / L2	13	± 1
F2 / F2X a	13	± 1
F3	13	± 1
a	ISOFIX base mass taken into account.	

Annex 17, Appendix 5, paragraph 4., amend to read:

"4. Booster seat child restraint system fixtures:

(a) ISO/B2: Booster seat, reduced width 440 mm (figure 2)

- (b) ISO/B3: booster seat, full width 520 mm (figure 3)

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.

Amendments adopted to ECE/TRANS/WP.29/GRSP/2016/24 (see para. 17 to this report)

Paragraph 6.4.1.4.1.2., amend to read

"6.4.1.4.1.2. In the case of any other occupant, contact of the head or of the chest with any rigid part of the vehicle in front of the manikin **is not allowed**. Additionally contact of the manikins head with its knees is not allowed.

For this assessment the seat of the tested manikin and, if applicable, the seat in front of the manikin shall be considered to be in the positions specified in paragraph 7.7.1.6. below. **With the exception of the deployed structure of an airbag assembly defined in para. 2.8., non-rigid material of < 50 Shore A hardness may be removed in order to demonstrate that covered or padded rigid parts are not contacted by the head or the chest of the manikin during the test.**"

Annex 17, Appendix 2, Paragraph 4., amend to read:

"4. ISOFIX child restraint system **size envelope** fixtures:

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The fixtures **above** shall be constructed with a mass between **10 and/or 13 kg +/- 1 kg** and shall be of suitable durability and stiffness to satisfy the functional requirements, following the table below:

<i>CRF</i>	<i>Mass (kg)</i>	<i>Tolerance (kg)</i>
R1 a	10	± 1
R2 / R2X a	10	± 1
R3	13	± 1
L1 / L2	13	± 1
F2 / F2X a	13	± 1
F3	13	± 1
a	ISOFIX base mass taken into account.	

"

Annex 17, Appendix 5, paragraph 4., amend to read:

"4. Booster seat child restraint system fixtures:

- (a) ISO/B2: Booster seat, reduced width 440 mm (figure 2)
 (b) ISO/B3: booster seat, full width 520 mm (figure 3)

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."

Amendments adopted on the basis of GRSP-60-12 (see para. 18 to this report)

Paragraphs 15.4. to 15.10, amend to read:

- "15.4. As from the official date of entry into force of the 07 series of amendments, no Contracting Party applying this Regulation shall refuse to grant or refuse to accept type approvals under this UN Regulation as amended by the 07 series of amendments. Contracting Parties shall continue to grant extensions of approvals to the preceding series of amendment.
- 15.4.1.** As from 1 September 2019, Contracting Parties applying this Regulation shall not be obliged to accept type approvals to the preceding series of amendments that were first issued on or after 1 September 2019.
- 15.4.2.** A safety-belt reminder is not compulsory on removable rear seats and on any seat in a row in which there is a suspension seat, for the purpose of granting type-approval to the 07 series of amendment, until 1 September 2022. **These exemptions shall remain applicable in the case of extensions of approvals first granted before 1 September 2022.**
- 15.4.3.** Until 1 September 2021, Contracting Parties applying this Regulation shall accept type approvals to the preceding series of amendments that were first issued before 1 September 2019.
- 15.4.4.** As from 1 September 2021, Contracting Parties applying this Regulation shall not be obliged to accept type approvals issued to the preceding series of amendments to this Regulation.
- 15.4.5.** Notwithstanding paragraph 15.4.4., Contracting Parties applying the Regulation shall continue to accept UN type approvals of safety-belts and restraint systems to the preceding series of amendments to the Regulation.
- 15.4.6.** Notwithstanding paragraph 15.4.4, Contracting Parties applying the Regulation shall continue to accept type approvals to the preceding series of amendments to the Regulation, for vehicles which are not affected by the changes introduced by the 07 series of amendments."

Annex V

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

Amendments adopted to ECE/TRANS/WP.29/2016/22 (see para. 36 to this report)

Paragraph 6.3.2.2.1., amend to read:

"6.3.2.2.1. Integral Class..."

Paragraph 6.3.5.1., amend to read:

"6.3.5.1. Support-leg and support-leg foot geometrical requirements

The support leg, including its attachment to the Enhanced child restraint systems and the support-leg foot shall lie completely within the support leg dimension assessment volume (see also figures 1 and 2 of annex 19 of this Regulation), which is defined as follows:

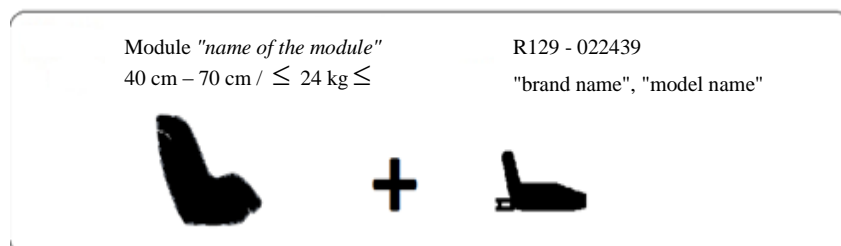
- (a) In width by two planes parallel to the X'-Z' plane separated by 200 mm, and centered around the origin; and
- (b) In length by two planes parallel to the Z'-Y' plane and positioned at distances of 585 mm and 695 mm forward of the origin along the X' axis; and
- (c) In height by a plane parallel to the X'-Y' plane, positioned at a distance of 70 mm above the origin and measured perpendicular to the X'-Y' plane. Rigid, non-adjustable parts of the support leg shall not extend beyond a plane parallel to the X'-Y' plane, positioned at a distance of 285 mm below the origin and perpendicular to the X'-Y' plane.

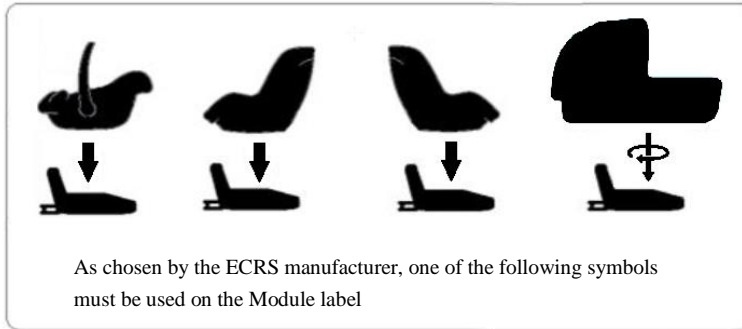
The support-leg may protrude the support-leg dimension assessment volume, providing it remains within the volume of the relevant CRF."

Annex 2, Arrangements of the module mark in combination with an approval mark, the figures, to be deleted.

Annex 2, Arrangements of the module mark in combination with an approval mark, insert new figures, to read:

"...





..."

Annex 8., paragraph 1.1., amend to read:

"1.1. The dummies prescribed in this Regulation are described in this annex, in technical drawings¹ **and** in the user **manuals**. The abdominal pressure sensors prescribed in this Regulation are described in this annex, in technical **drawings and** in the **user manuals**."

Annex 21, amend to read:

"Annex 21

"...

Load application device II

...

Stretch length	(+/- 5 mm)					
	Q 0	Q 1	Q 1,5	Q 3	Q 6	Q 10
Main belt (A)	1740 mm	1850 mm	1900 mm	2000 mm	2000 mm	2100 mm
Hip belt (B)	530 mm	560 mm	600 mm	630 mm	660 mm	800 mm
Lower dimension (C)	125 mm	150 mm	150 mm	170 mm	200 mm	200 mm
Mid dimension (D)	270 mm	300 mm	350 mm	380 mm	380 mm	400 mm

..."

Amendments adopted to ECE/TRANS/WP.29/2016/23 (see para. 36 to this report)

Paragraph 6.3.2.2.1., amend to read:

"6.3.2.2.1. Integral Class..."

Paragraph 6.3.5.1., amend to read:

¹ The configurations of each dummy or abdominal pressure sensors are described and deposited in a transitory way on the website of the informal working group on Child Restraint Systems: <https://www2.unece.org/wiki/display/trans/Q-Dummy+drawings>

"6.3.5.1. Support-leg and support-leg foot geometrical requirements

The support leg, including its attachment to the Enhanced child restraint systems and the support-leg foot shall lie completely within the support leg dimension assessment volume (see also figures 1 and 2 of annex 19 of this Regulation), which is defined as follows:

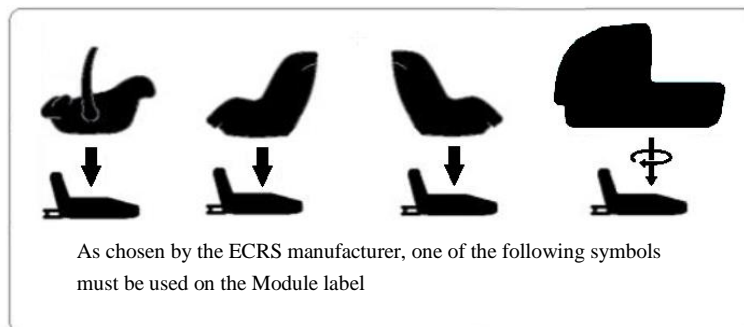
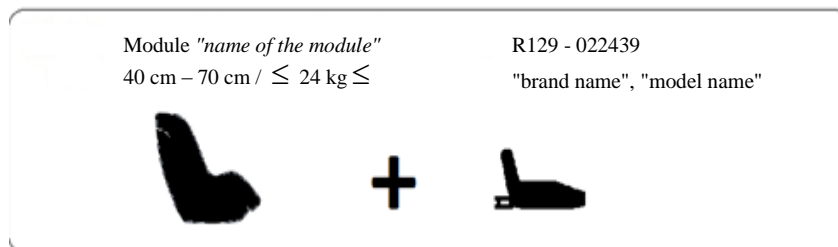
- (a) In width by two planes parallel to the X'-Z' plane separated by 200 mm, and centered around the origin; and
- (b) In length by two planes parallel to the Z'-Y' plane and positioned at distances of 585 mm and 695 mm forward of the origin along the X' axis; and
- (c) In height by a plane parallel to the X'-Y' plane, positioned at a distance of 70 mm above the origin and measured perpendicular to the X'-Y' plane. Rigid, non-adjustable parts of the support leg shall not extend beyond a plane parallel to the X'-Y' plane, positioned at a distance of 285 mm below the origin and perpendicular to the X'-Y' plane.

The support-leg may protrude the support-leg dimension assessment volume, providing it remains within the volume of the relevant CRF."

Annex 2, Arrangements of the module mark in combination with an approval mark, the figures, to be deleted.

Annex 2, Arrangements of the module mark in combination with an approval mark, insert new figures, to read:

"...



..."

Annex 8, paragraph 1.1., amend to read:

"1.1. The dummies prescribed in this Regulation are described in this annex, in technical drawings¹ **and** in the user **manuals**. The abdominal pressure sensors prescribed in this Regulation are described in this annex, in technical **drawings and** in the **user manuals**."

Annex 21, amend to read:

"Annex 21

"...

Load application device II

...

<i>Stretch length</i>	<i>(+/- 5 mm)</i>				
	Q 0	Q 1	Q 1,5	Q 3	Q 6
Main belt (A)	1 740 mm	1 850 mm	1 900 mm	2 000 mm	2 000 mm
Hip belt (B)					
	530 mm	560 mm	600 mm	630 mm	660 mm
Lower dimension (C)	125 mm	150 mm	150 mm	170 mm	200 mm
Mid dimension (D)	270 mm	300 mm	350 mm	380 mm	380 mm

..."

¹ The configurations of each dummy or abdominal pressure sensors are described and deposited in a transitory way on the website of the informal working group on Child Restraint Systems: <https://www2.unece.org/wiki/display/trans/Q-Dummy+drawings>

Annex VI

[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 e-mail : david.sutula@dot.gov	[December 2017]	
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