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**ECONOMIC COMMISSION FOR EUROPE**

INLAND TRANSPORT COMMITTEE

World Forum for Harmonization of Vehicle Regulations (WP.29)

Working Party on Passive Safety (GRSP)

REPORT OF THE WORKING PARTY ON PASSIVE SAFETY (GRSP)  
ON ITS TWENTY-NINTH SESSION

(7 - 11 May 2001)

1. GRSP held its twenty-ninth session from 7 May (afternoon) to 11 May (morning) 2001 under the chairmanship of Mr. C. Lomonaco (Italy). Experts from the following countries participated in the work following Rule 1(a) of the Rules of Procedure of WP.29 (TRANS/WP.29/690): Australia; Canada; Czech Republic; Finland; France; Germany; Hungary; Italy; Japan; Netherlands; Norway; Poland; Romania; Russian Federation; Spain; Sweden; Switzerland; United Kingdom; United States of America. A representative of the European Commission (EC) participated. Experts from the following non-governmental organizations participated: International Organization for Standardization (ISO); International Touring Alliance / International Automobile Federation (AIT/FIA); International Organization of Motor Vehicle Manufacturers (OICA); International Motorcycle Manufacturers Association (IMMA); European Association of Automotive Suppliers (CLEPA); European Enhanced Vehicle-safety Committee (EEVC); Consumers International (CI).

2. The documents without a symbol distributed during the session are listed in annex 1 to this report.

#### DRAFT REGULATION ON AIRBAGS

Documentation: TRANS/WP.29/GRSP/2000/4; TRANS/WP.29/GRSP/2000/5; TRANS/WP.29/2000/11.

3. As announced during the twenty-eighth session (TRANS/WP.29/GRSP/28, para. 5), experts from ISO made two presentations of the work that had been undertaken by the United States Army Research Laboratory and by ISO.

4. Concerning the first presentation, the expert said that, according to the research, the current methods to determine the ear damages in humans were not valid and that a new mathematical method was being developed. He confirmed that the first results of this new method showed its reliability, and the expert expressed his hope that a final result could be presented to GRSP within a year.

5. The second presentation, related to the development of an assessment method for airbag noise in modern vehicles, was being conducted by ISO. As the main conclusion, the expert said that there were no doubts regarding the benefits of airbags and that a regulatory action limiting the noise produced by an airbag deployment was premature for the time being. In his opinion, more time was necessary to complete an experimental study and to finalize recommended measurement practice. He also said that the investigation by SAE relating to the noise associated with airbag deployment could be found in the SAE technical paper series under Nos. 942218 and 983162.

6. GRSP thanked the experts from ISO for their presentations and agreed that, before taking a decision, the researchers should finish their work. GRSP requested the experts to transmit to the secretariat a copy of their presentations to be put on the GRSP web page. It was also agreed that this item would only be considered again at the December 2002 GRSP session, expecting that the final results of the research would be available.

#### AMENDMENTS TO ECE REGULATIONS

(a) Regulation No. 11 (Door latches and door retention components)

Documentation: TRANS/WP.29/GRSP/2001/1.

7. The expert from OICA introduced document TRANS/WP.29/GRSP/2001/1 as a basis for a global technical regulation (gtr) that his organization had presented to WP.29 as one of the priorities for the elaboration of gtrs. The document contained, in the form of a table, the discrepancies amongst Regulation No. 11, the corresponding European Community Directive, and FMVSS No. 206. The expert explained to GRSP that the last column of the table reflected the OICA proposal for the draft gtr. He said that the most relevant discrepancies to consider were the scope and the rear door latches.

8. The Chairman reminded GRSP that WP.29 had not yet established the priorities for gtrs, and announced his intention to report to WP.29 at its June 2001 session, in order to obtain an advice regarding this new possible gtr.

(b) Regulation No 14 (Safety-belt anchorages)

Documentation: TRANS/WP.29/GRSP/1997/11; TRANS/WP.29/GRSP/2000/7; TRANS/WP.29/GRSP/2000/9 and Add.1; TRANS/WP.29/GRSP/2000/10; TRANS/WP.29/GRSP/2001/5; TRANS/WP.29/GRSP/2001/10; informal documents Nos. 3, 13, 14, 16, 21 and 25 of annex 1 of this report.

9. The expert from OICA presented informal document No. 3 containing a draft Corrigendum to Regulation No. 14, in order to accept that the reduction of the minimum distance between the anchorages of the rear centre position of safety-belt anchorages could be applied to all kinds of seats and not only to bench seats. The expert from Spain presented a similar proposal (informal document No. 16).

10. With the objections by the experts from the United Kingdom and from CI, GRSP adopted the proposal, as contained in document TRANS/WP.29/2001/26, which had been previously prepared by the secretariat at the request of the GRSP Chairman. It was confirmed that the proposal had a majority consent by GRSP and should be considered by WP.29 and AC.1 at their June 2001 sessions.

11. Concerning the definition of an effective anchorage, the expert from Spain introduced informal document No. 25 with a new wording for paragraph 2.4. of Regulation No. 14. The expert from Romania presented informal document No. 13, which contained his remarks to the proposal of document TRANS/WP.29/GRSP/2000/10.

12. The expert from Germany stated that, in his opinion, the current text of paragraph 2.4. of the Regulation was clearly defining the effective anchorage, and that the difficulties found by the expert from Spain were more related to the wording of paragraphs 2.4.1. to 2.4.1.3., where different examples were included.

13. GRSP agreed with the above explanation, and requested the expert from Spain to reformulate his proposal keeping paragraph 2.4. unchanged, but considering new wording for paragraphs 2.4.1. to 2.4.1.3.

14. Concerning the proposal for a gtr (TRANS/WP.29/GRSP/2000/7, and TRANS/WP.29/GRSP/2000/9), the expert from OICA introduced document TRANS/WP.29/GRSP/2000/9/Add.1, which updated his proposal and contained the figures of annex 3 (TRANS/WP.29/GRSP/28, para. 36). He said that his organization was considering to create a group of experts on the subject in order to address all the pending issues raised during the twenty-eighth session (TRANS/WP.29/GRSP/28, paras. 26 to 33 and 35). GRSP agreed to continue consideration of the proposals concerned at the next session.

15. The expert from the United Kingdom introduced document TRANS/WP.29/GRSP/2001/5, which included his concrete proposals for the three-point safety-belt anchorages in each forward and rearward seating position. He also indicated that document TRANS/WP.29/GRSP/2001/10 was a duplication of his proposal and should be disregarded.

16. The expert from OICA suggested the possibility of having a gtr on safety-belt anchorages with more than one strength level, and to keep the two lower safety-belt anchorages for those countries which would not want to apply the maximum level of severity. The expert from the United States of America expressed his support for this idea, but the experts from the United Kingdom and CI were against a gtr with different levels of stringency.

17. The experts from Italy and Spain expressed their views that the concept of three-point safety-belt anchorages for front-facing seating positions could be quickly agreed, but the extension of the three-point safety-belts anchorages to rear-facing seats would be more difficult to accept.

18. The Chairman requested the expert from OICA to revise his proposal, showing in the text the alternative solutions proposed by various experts during the discussion, and suggested to consider it at the December 2001 session. He also announced his intention to report to WP.29 to get an advice on the possibility of elaborating a gtr with several levels of stringency.

19. Concerning the ISOFIX system, the expert from France, who had been requested to prepare an updated proposal for the affected Regulations, introduced informal documents Nos. 21 (Regulation No. 14); 23 (Regulation No. 44); and 22 (Regulation No. 16). He also announced to GRSP that the complementary proposals for the second step (TRANS/WP.29/GRSP/28, paras. 15 to 17) would probably be ready for the next GRSP session.

20. He stressed the urgency of the adoption of the ISOFIX system, and to advance quickly, he offered to organize a drafting group in order to prepare the definitive proposals for the three mentioned Regulations. He suggested a two-day meeting, 18 and 19 October 2001, in Paris. He also said that, concerning the question of child restraint rotation, ISO had made significant progress and that, in his view, the ISO work should be taken into account when drafting the definitive proposals.

21. The expert from ISO reported on the state of the work of ISOFIX working group 1 and explained to GRSP that a French research had been considered. He said that a comparison had been made of different ISOFIX systems for forward-facing and rear-facing positions. He concluded that an ISOFIX with two-rigid points and with a child restraint system (CRS) with shield and three-point safety-belt had obtained a satisfactory performance in both head excursion and thorax acceleration, and that only a two-point safety-belt for both CRS with shield and five-point harness without a top tether had shown head excursion exceeding the limits.

22. He also informed GRSP that for a two point ISOFIX system with a CRS with a five point harness and a top tether, the head excursion was well controlled, but that neck loads and chest acceleration had increased. He said that for an ISOFIX system with two-point support and in the rear-facing position, the neck loads were reduced, but that a lower strap was needed in the case of a rear impact. He finally said that it had been demonstrated that an enlargement zone for ISOFIX attachments had been considered necessary by the researchers.

23. The expert from EEVC confirmed that a possible enlarged zone had no influence in lateral impacts. The expert from the Netherlands wanted to be informed if the research had considered the seat as the third support for ISOFIX systems.

24. GRSP thanked the expert from ISO and kindly requested him to transmit to the secretariat a copy of his presentation to be put in the web page.

25. At the request of the expert from CI, the expert from France clarified that the value of 720 mm as the minimum value chosen between the front and rear seat pitch for the exception to install ISOFIX anchorages in the rear seat row (informal document No. 21, para. 5.3.10.1.2.) had been chosen without testing, but that this value had been considered normal, when drafting the proposal.

26. GRSP agreed to continue the consideration of informal document No. 21, jointly with the proposal expected to be submitted by France (see para. 20 above), at the December 2001 session. To allow a more detailed consideration of the proposal, the secretariat was requested to distribute informal document No. 21 with an official symbol for the December 2001 session.

27. The expert from the United Kingdom introduced informal document No. 14 containing possible amendments to the strength of anchorages for minibuses. He said that two possible approaches could be envisaged - either the adaptation of current safety-belt anchorage pull test requirements to require minibuses to have the same anchorage strength as required for cars in Regulation No. 14, or to adopt the Australian coach floor/seat regulation ADR 68. He announced that the complete work would be presented at the technical conference on the enhanced safety of vehicles (ESV), to be held in the Netherlands in June.

28. The experts from Italy and OICA pointed out that, before amending the Regulation, a cost benefit analysis and accident data should demonstrate its benefit. GRSP agreed that, following the presentation at the ESV Conference, this issue could be considered at the December 2001 session, at the request of the expert from the United Kingdom.

(c) Regulation No. 16 (Safety-belts)

Documentation: TRANS/WP.29/GRSP/2000/12; TRANS/WP.29/GRSP/2001/2;; informal documents Nos. 5, 6, 9, 10, 17, 22, 27, 28 and 29 of annex 1 to this report.

29. The expert from France introduced informal document No. 22, which contained the amendments to the Regulation to include the prescriptions for ISOFIX systems. As agreed for Regulation No. 14, the secretariat was requested to distribute informal document No. 22 with an official symbol for the December 2001 session.

30. Concerning the reduction of the retraction force limit (TRANS/WP.29/GRSP/2000/12), the expert from Japan explained to GRSP that, after carrying out some tests, it had been demonstrated that the reduction of the retraction force did not imply any reduction of the security level of passengers (informal documents Nos. 5 and 6).

31. Some experts expressed their concerns about the reduction of 50 per cent in the retraction force and another 50 per cent reduction after the durability test in both cases when the safety-belts were equipped or not with tension reducing devices.

32. In order to reply to the above-mentioned concerns, the expert from Japan tabled informal documents Nos. 27, and 29, which contained additional explanations as well as an alternative proposal. The expert from Spain introduced informal document No. 28 proposing another wording to the same proposal.

33. Finally, GRSP adopted in principle the proposal as reproduced in annex 2 to this report. GRSP agreed to confirm its adoption at the next session, once completed by the incorporation of a proposal, to be transmitted by the expert from Spain, for the marking of the new type of safety-belts.

34. Referring to the acceleration test device (TRANS/WP.29/GRSP/2000/12 and TRANS/WP.29/GRSP/2001/2), the expert from France informed GRSP that, after conducting some comparison tests, the results showed that there was no equivalence between the acceleration and the deceleration test devices. He

offered to transmit those test results for consideration at the December 2001 session. Nevertheless, the expert from the Russian Federation informed GRSP that his country had also conducted tests, and contrary to the French findings, the equivalence between the two devices was considered acceptable.

35. The expert from France stated that, in the case that an alternative test device would be accepted, the Regulation should always give a possibility to the technical services to carry out the test with the deceleration test device. He insisted that the current test method should be considered as the conventional test device procedure. He also stated that, in order to guarantee the conformity of production controls, it should be requested that the type of dynamic test to be used should be exclusively used for the type approval of the relevant safety-belt, and that for the approvals granted with the deceleration test device, the conformity of production should also be carried out with the deceleration test device.

36. The expert from Japan withdraw his proposal for the recognition of the Japanese and United States of America standards as equivalent to Regulation No. 16 (TRANS/WP.29/GRSP/2000/12, annex 1B, item 11, footnote 4/).

37. The expert from Spain introduced informal document No. 17, which contained a proposal for a draft Corrigendum to Regulation No. 16. GRSP agreed to consider it at the next session and requested the secretariat to distribute it with an official symbol.

38. The expert from Germany introduced informal documents Nos. 9 and 10 for amending Regulation No. 16. In order to allow a detailed consideration of the proposals, GRSP requested the secretariat to consolidate both informal documents and distribute them with an official symbol for the December 2001 session.

(d) Regulation No. 17 (Strength of seats)

Documentation: TRANS/WP.29/GRSP/1997/6/Rev.1; informal documents Nos. 20 and 24 of annex 1 to this report.

39. The expert from Spain explained to GRSP that the work still continued on updating the proposal of document TRANS/WP.29/GRSP/1997/6/Rev.1. He envisaged its presentation at the December 2001 session.

40. The expert from the Czech Republic presented informal document No. 24 containing a proposal to amend the scope of the Regulation, to correct some errors in the drawings, to harmonize it with the corresponding European Community Directive, and to allow the approval of a seat as a component.

41. GRSP agreed to continue its consideration of the proposal at the next session, and requested the secretariat to distribute informal document No. 24 with an official symbol.

42. The expert from CLEPA suggested to include into the scope of the Regulation the partitioning systems and its anchorages (informal document No. 20). GRSP gave its general support to the principle, and the expert from CLEPA agreed to prepare a concrete proposal.

(e) Regulation No. 21 (Interior fittings)

Documentation: TRANS/WP.29/GRSP/1998/17; TRANS/WP.29/GRSP/1999/11;  
TRANS/WP.29/GRSP/2001/11; informal document No. 18 of annex 1 to this report.

43. The experts from Germany and Spain introduced the results of the work of the informal group (TRANS/WP.29/GRSP/2001/11). They also explained that the proposal of document TRANS/WP.29/GRSP/1999/11 had been included in it. The expert from OICA introduced informal document No. 18 containing minor modifications to the proposal and suggested to consider it jointly.

44. GRSP thanked the informal group's members and, in a first reading of the proposal, agreed the amendments to document TRANS/WP.29/GRSP/2001/11 reproduced below:

Paragraph 2.17., amend the word "gravity" to read "severity"

Paragraph 5.1.6., amend to read:

" ..... hardness will not be cut so as to contact the support during the specified impact test. In that case the radius requirements shall not apply (see annex 10, ....."

Paragraphs 5.1.7.1. and 5.1.7.2., amend the word "avoid" to read "prevent", and the word "contractible" to read "contactable"

Paragraph 5.2.3.2., correct the reference to paragraph "5.2.3." to "5.2.3.2."

Paragraph 5.2.4., amend to read:

" ..... hardness will not be cut so as to contact the support during the specified impact test. In that case the radius requirements shall not apply."

Paragraph 5.3.5., amend to read:

" ..... hardness will not be cut so as to contact the support during the specified impact test. In that case the radius requirements shall not apply."

Paragraph 5.9.1., amend to read:

" ..... the soft material of less than 50 Shore hardness will not be cut so as to contact the support during the specified impact test. In that case the radius requirements shall not apply."

Annex 3, delete the reference to annex 10 after the title (the current text of the Regulation remains unchanged)

Annex 8,

Paragraph 3., amend the words "system, that this part" to read "system, then this part"

Paragraph 1.2.3., amend to read:

" ..... be validated by at least three of the impact .... "

Annex 9, figure 1, second position, the word "interior" should be placed below the words "Roof frame"

Annex 10,

Paragraph 2.4., amend to read:

" ..... across the width of the vehicle. Where two or ...."

Paragraph 5.1.4., amend to read:

" ..... apparatus of annex 6, paragraph 2. The maximum ....."

45. The expert from Italy made a reservation to annex 8, paragraph 1.2.1. concerning the impact test and requested a better definition of 95th percentile male. The expert from Germany reminded GRSP that this test was one of the possibilities for vehicle impact test.

46. The Chairman thanked the co-Chairmans and the members of the informal group for the excellent work made. GRSP agreed to resume consideration of the proposal at its next session.

(f) Regulation No. 29 (Cabs of commercial vehicles)

Documentation: TRANS/WP.29/GRSP/1998/13; TRANS/WP.29/GRSP/1999/1; TRANS/WP.29/GRSP/2001/3; informal documents Nos. 23 and 24 of the twenty-eighth session and informal document No. 7 of annex 1 to this report.

47. The expert from the United Kingdom introduced the proposal for amending the Regulation (TRANS/WP.29/GRSP/2001/3) jointly with informal document No. 7, which incorporated the proposal of document TRANS/WP.29/GRSP/2001/3 into the text of the Regulation. He explained to GRSP that the most significant modifications concerned the scope (which should apply to N2 vehicles with a gross vehicle mass exceeding 7.0 t), the frontal and rear impact tests, and the roof strength test.

48. The expert from the Russian Federation noticed that no explanation and justification were included in the proposal and opposed the new proposed scope. He reminded GRSP that the current scope applied to all commercial vehicles and insisted on taking into account his proposal concerning the scope of the Regulation (TRANS/WP.29/GRSP/1999/1). He also recalled his presentation of informal document No. 24 at the twenty-eighth session, which contained a complete explanation of the test methodology. The expert from Poland also requested that the scope of the Regulation should apply to all N vehicles with a gross mass exceeding 3.5 t.

49. The expert from Italy reminded GRSP of informal document No. 23 of the last session and also of his position on the report, in which the United Kingdom's proposal was based. He also reminded GRSP that the expert from the United Kingdom had offered to GRSP experts a copy of the relevant report (TRANS/WP.29/GRSP/28, paras. 57 and 58).

50. The expert from the United Kingdom clarified that his proposal would only apply to commercial vehicles with a gross mass exceeding 7.0 t, and that the current text of the Regulation could apply to the rest of N vehicles, with a gross mass exceeding 3.5 t. He offered to review his proposal, and requested the GRSP experts to send him their comments.



51. GRSP agreed to continue consideration of this issue at the next session and requested the experts to bring their copies of informal documents Nos. 23 and 24 of the twenty-eighth session, as well as informal document No. 7 of the current session.

(g) Regulation No. 44 (Child restraints)

Documentation: TRANS/WP.29/GRSP/1997/12; TRANS/WP.29/GRSP/2000/2; TRANS/WP.29/GRSP/2000/3; TRANS/WP.29/GRSP/2000/15; TRANS/WP.29/GRSP/2000/16; TRANS/WP.29/GRSP/2001/4; TRANS/WP.29/GRSP/2001/8; TRANS/WP.29/GRSP/2001/13; informal documents Nos. 1, 8, 11, 23 and 26 of annex 1 to this report.

52. The expert from Japan introduced document TRANS/WP.29/GRSP/2001/4 and informal documents Nos. 1 and 8, which contained a detailed explanation of his proposal.

53. Several experts expressed their concerns about the comparability of the dummy with a sleeping child, the excursion of the child, and argued that with the proposed amendments the excursion limits of paragraph 8.2.2. would be surpassed.

54. GRSP agreed to resume the consideration of this issue at the next session and requested the experts to bring, for that purpose, their copies of informal documents Nos. 1 and 8.

55. With regard to the alternative acceleration test devices (TRANS/WP.29/GRSP/2000/2; TRANS/WP.29/GRSP/2000/3, and informal document No. 13), GRSP agreed to defer the consideration, awaiting the results of the comparison test between the alternative acceleration test device and the current deceleration test device (see para. 34 above).

56. Concerning the "ISOFIX" systems, the expert from France introduced document No. 23. As decided for Regulations Nos. 14 and 16 (see paras. 26 and 29 above), GRSP requested the secretariat to distribute informal document No. 23 with an official symbol for the December 2001 session.

57. The expert from Australia introduced informal document No. 11 that explained the Australian's position, favouring the top tether as the third anchorage point, to avoid child restraint system rotation.

58. The expert from France presented the proposal for Conformity of Production (COP) procedure (TRANS/WP.29/GRSP/2001/13). He explained to GRSP that the principle of the proposal followed the COP procedure adopted for Regulation No. 22.

59. Some experts expressed their concerns about the repeatability and reproducibility of the tests and about the different application of the COP procedure by Contracting Parties. Other experts welcomed the proposal, that in their opinion, could improve the COP control.

60. GRSP made a first reading of the document and agreed to delete paragraph 11.2.1. Finally, it agreed to resume the consideration of the proposal at its December 2001 session.

61. The expert from the Netherlands tabled informal document No. 26, in which he proposed amendments to Regulation No. 44, incorporating prescriptions for the registration of all dynamic tests. GRSP agreed to consider this proposal at the next session, as well as the proposal of document TRANS/WP.29/GRSP/2000/15, which had also been transmitted by the same expert.

The secretariat was requested to distribute informal document No. 26 with an official symbol for the December 2001 session.

62. Referring to the proposals transmitted by the expert from Germany on behalf of the informal group of technical services (TRANS/WP.29/GRSP/2000/16 and TRANS/WP.29/GRSP/2001/8) in order to adapt the Regulation to the technical development, GRSP agreed to defer their consideration to the December 2001 session.

(h) Regulation No. 94 (Frontal collision protection)

Documentation: TRANS/WP.29/GRSP/1999/5; TRANS/WP.29/GRSP/2001/6; TRANS/WP.29/GRSP/2001/7; informal document Nos. 19 of annex 1 to this report.

63. The expert from Consumers International presented his new proposal for the labelling of warning about hazards from airbags for the rear-facing child restraint system. He said that the proposal (TRANS/WP.29/GRSP/2001/7) superseded his previous proposal (TRANS/WP.29/GRSP/1999/5). The expert from OICA tabled informal document No. 19, which contained his proposal on the same issue.

64. The expert from OICA pointed out that his organization was in favour of introducing a label with both text and a pictogramme, but insisted on the concept that the installation of it in the vehicle sold in a country was not a matter of type approval, but a matter to be solved on a national basis. He explained to GRSP that paragraph 6.2.3. of his proposal contained the only possible solution to this problem, proposing that in an annex to the Regulation the text of the warning was translated into all the languages of the Contracting Parties of the 1958 Agreement.

65. The secretariat informed GRSP that the inclusion of the text as proposed by OICA was most probably not possible, and reminded GRSP that the only official languages of ECE were English, French and Russian.

66. The experts from Sweden and the United Kingdom expressed their support to the proposal by CI. The expert from CI suggested to include some of the paragraphs of the proposal by OICA into document TRANS/WP.29/GRSP/2001/7.

67. The Chairman expressed his hope that an agreement could be reached at the next session, and GRSP agreed to continue consideration of the proposal. The secretariat was requested to distribute informal document No. 19 with an official symbol for the December 2001 session.

68. Concerning the proposal transmitted by the expert from Sweden (TRANS/WP.29/GRSP/2001/6), GRSP agreed to consider it at the next session.

(i) Regulation No. 95 (Lateral collision protection)

Documentation: Informal document No. 15 of annex 1 to this report.

69. The expert from EEVC reported to GRSP on the EEVC mobile deformable barrier (MDB) face specification validation test programme (informal document No. 15) in line with his promise made during the previous session (TRANS/WP.29/GRSP/28, paras. 89 and 90). He said that the final report would be available before the next session.

70. He also said that a concrete proposal should be transmitted for consideration at the December 2001 session. GRSP thanked the expert from EEVC and the researchers who had participated in the validation tests.

## OTHER BUSINESS

(a) Exchange of information on national and international requirements on passive safety

71. No information was presented.

(b) Sled test procedure for the dummy test in rear impacts

Documentation: Informal documents Nos. 2 and 12 of annex 1 to this report.

72. The expert from the Netherlands made a presentation of a new test method for the assessments of neck injuries in rear-end collisions. He said that several manufacturers, technical services and universities were collaborating in the work and that some biomechanical tests had been conducted and a sled test method had been proposed. He also explained to GRSP what the future work would be and that in June 2001 the EEVC ad-hoc group would begin to work in order to review the current research knowledge and to determine if it would be justified to develop a test procedure evaluating the risk of injuries in rear impacts. Finally, he offered to make the presentation to interested experts.

73. The expert from Germany introduced informal document No. 2, which contained the proposed amendments to Regulation No. 17 in order to take into account rear impacts. He also introduced informal document No. 12, which contained the calculation method for the torque at the uppermost cervical vertebral-head joint.

74. The expert from OICA reported that ISO had also been working in this area and that all the aspects of injuries caused by rear impacts had been considered.

75. The Chairman thanked the experts for their reports and considered it useful to develop a programme to define a dummy and a test method based on a sled, to determine the best speed for the tests, and to consider the deceleration curves. He considered it essential that the work was coordinated, in order to avoid duplication of efforts, and to obtain only a single proposal to be submitted to GRSP. He suggested that the coordination task was assumed by EEVC.

(c) Regulation No. 22 (Protective helmets)

Documentation: TRANS/WP.29/2001/27; TRANS/WP.29/2001/28;  
TRANS/WP.29/GRSP/2001/9; informal document No. 4 of annex 1 to this report.

76. GRSP considered documents TRANS/WP.29/2001/27 and TRANS/WP.29/2001/28, which were the proposals that the WP.29's secretariat had produced joining the proposals that had been adopted at the previous session (TRANS/WP.29/GRSP/28, para. 105 and annex 3), and the proposals of documents TRANS/WP.29/GRSP/2001/9 and informal document No. 4.

77. The proposals were adopted by GRSP with the amendments reproduced below and GRSP confirmed that they should be considered by WP.29 and AC.1 at their June 2001 sessions.

Document TRANS/WP.29/2001/27,

Paragraphs 7.4.1.3. and 7.4.2.3., should be deleted and inserted in document TRANS/WP.29/2001/28.

Document TRANS/WP.29/2001/28,

Paragraph 6.7., should be deleted.

Insert paragraphs 7.4.1.3. and 7.4.2.3., from document TRANS/WP.29/2001/27.

#### AGENDA FOR THE NEXT SESSION

78. For the thirtieth session, to be held in Geneva from 3 December (14.30h) to 6 December (12.30h) 2001 1/ 2/, GRSP agreed on the following agenda:

1. Amendments to ECE Regulations (1958 Agreement)
  - 1.1. Regulation No. 11 (Door latches and door retention components) 3/
  - 1.2. Regulation No. 14 (Safety-belt anchorages)
    - 1.2.1. Definition of effective anchorages
    - 1.2.2. Draft global technical regulation on safety-belt anchorages
    - 1.2.3. "ISOFIX"
  - 1.3. Regulation No. 16 (Safety-belts)
    - 1.3.1. Technical amendments
    - 1.3.2. Acceleration devices
      - 1.3.1. "ISOFIX"
  - 1.4. Regulation No. 17 (Strength of seats)

1/ As part of the secretariat's efforts to reduce expenditure, all the official documents distributed prior to the session by mail will not be available in the conference room for distribution to session participants. Delegates are kindly requested to bring their copies of documents to the meeting.

2/ GRSP Chairman announced his intention to extend the session by at least a half day, subject to the approval by WP.29.

3/ Subject to the authorization by WP.29 to develop a global technical regulation.

- 1.5. Regulation No. 21 (Interior fittings)
  - 1.6. Regulation No. 29 (Cabs of commercial vehicles)
  - 1.7. Regulation No. 44 (Child restraints)
    - 1.7.1. "ISOFIX"
    - 1.7.2. Accelerating devices
    - 1.7.3. Technical amendments
  - 1.8. Regulation No. 94 (Frontal collision protection)
  - 1.9. Regulation No. 95 (Lateral collision protection)
  - 2. Other business
    - 2.1. Exchange of information on national and international requirements on passive safety
    - 2.2. Sled test procedure for the dummy test in rear impacts
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Annex 1

## LIST OF INFORMAL DOCUMENTS DISTRIBUTED WITHOUT A SYMBOL DURING THE SESSION

No.	Transmitted by	Agenda item	Language	Title
1.	Japan	2.7.	E	Supplemental explanation document concerning the proposed introduction of CRS webbing sensor ELRs
2.	Germany	3.2.	E	Proposal for draft amendments to Regulation No. 17
3.	OICA	2.2.	E	Proposed Corrigendum to draft Supplement 2 to the 05 series of amendments to Regulation No. 14
4.	Secretariat	3.3.	E	Proposal for draft Corrigendum to the 05 series of amendments to Regulation No. 22
5.	Japan	2.3.	E	Japan's position on TRANS/WP.29/GRSP/2000/12 proposal for change in safety-belt retraction force
6.	Japan	2.3.	E	Supplementary document on Japan's position on TRANS/WP.29/GRSP/2000/12 proposal for moderation on safety-belt retraction force standard in ECE R16
7.	United Kingdom	2.6.	E	Consolidated proposal including revising diagrams. Regulation No. 29
8.	Japan	2.5.	E	Japan's position on proposed revision of TRANS/WP.29/GRSP/2001/4 child restraint system (CRS)
9.	Germany	2.3.	E	Proposal for draft amendments to Regulation No. 16
10.	Germany	2.3.	E	Proposal for a draft amendment to Regulation No. 16
11.	Australia	2.7.	E	Child safety restraints and tether straps: Australia real word crash performance
12.	Germany	3.2.	E	How to calculate the $N_{km}$
13.	Romania	2.2.	E	Remarks concerning the proposal for the modification of the definition of effective anchorage
14.	United Kingdom	2.2.	E	UK discussion paper on possible amendments to Regulation 14. Anchorage strength requirements for certain vehicles categories
15.	EEVC	2.9.	E	EEVC MDB face specification validation test programme. Progress report
16.	Spain	2.2.	E	Proposal for a corrigendum to draft supplement N.2 to the Regulation ECE R14.05

No.	Transmitted by	Agenda item	Language	Title
17.	Spain	2.4.	E	Proposal for a corrigendum to the Regulation ECE R16.04
18.	OICA	2.5.	E	Proposal for draft amendments to ECE R21
19.	OICA	2.8.	E	Airbag warning - ECE Regulation 94
20.	CLEPA	2.4.	E	Proposal to amend Regulation nr 17
21.	France	2.2.	E	Revised proposal for draft 06 series of amendments to Regulation No. 14
22.	France	2.3.	E	Revised proposal for draft 06 series of amendments to Regulation No. 16
23.	France	2..	E	Revised proposal for draft 04 series of amendments to Regulation No. 44
24.	Czech Republic	2.4.	E	Comments on contemporary wording of Regulation No. 17-07
25.	Spain	2.2.	E	Revised proposal for document TRANS/WP.29/GRSP/2000/10
26.	Netherlands	2.7.	E	Proposal for amending Reg. 44 - CRS
27.	Japan	2.3.	E	Supplement material for Japan's proposal to amend ECE R16
28.	Spain	2.3.	E	Complementary paragraphs to the Japan proposal
29.	Japan	2.3.	E	Complementary paragraphs to amend ECE R16
-	ISO	1.	E	Solving the problem of Rating noise hazard for the human ear
-	ISO	1.	E	Development of an assessment method for airbag noise in modern vehicles
-	ISO	2.7.	E	Child restraint systems. Report to GRSP
-	Netherlands	3.2.	E	A new test method for the assessment of neck injuries in rear-end collisions

Annex 2

PROPOSAL FOR DRAFT 05 SERIES OF AMENDMENTS TO REGULATION No. 16  
ADOPTED IN PRINCIPLE BY GRSP AT ITS  
TWENTY-NINTH SESSION

Insert a new paragraph 2.28, to read:

"2.28.                   Tension-reducing device

A device which is incorporated in the retractor and reduces the tension of the strap upon automatic operation when the belt is buckled in. When it is unbuckled, upon automatic operation tension reducing function shall be switched off."

Paragraph 6.2.5.3.4., amend to read:

" ..... If the retractor is part of an upper torso restraint, the retraction force of the strap shall be not less than 0.1 daN and not more than 0.7 daN when similarly measured, for a belt equipped with the below tension-reducing device, the minimum retracting force may be reduced to 0.05 daN only when tension-reducing device is operated. If the strap passes through a guide ..... when these requirements are assessed. If the assembly incorporates tension-reducing device that upon automatic operation reduces the tension of the strap, when the belt is buckled, such a tension-reducing device shall be both operated and not operated when these requirements are assessed before and after durability tests according to 6.2.5.3.5."

Paragraph 6.2.5.3.5., amend to read:

" ..... (making 45000 in all). When tension reducing device is equipped with the belt, the above tests shall be conducted on condition that tension-reducing device is operated and not operated. After the above tests, .."

Insert new paragraphs 6.2.5.4. to 6.2.5.4.2., to read:

- "6.2.5.4.     Retractors must fulfil, after durability test according to paragraph 6.2.5.2.3. or 6.2.5.3.5., and immediately after the retracting force measurement according to paragraph 6.2.5.2.2. or 6.2.5.3.4. respectively, all next two specifications:
- 6.2.5.4.1.   When the dummy is tilted 45° frontward and released to the initial position, being clothed with a cotton shirt, the retractor must be able to avoid any slack between torso and belt, and,
- 6.2.5.4.2.   When the buckle is unlatched and the tongue is released, the retractor alone must be able to retract all webbing."

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