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Working Party on Passive Safety (GRSP)

**REPORT OF THE WORKING PARTY ON PASSIVE SAFETY (GRSP)
ON ITS THIRTIETH SESSION**

(3 - 6 December 2001)

1. GRSP held its thirtieth session from 3 December (afternoon) to 6 December 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; Belgium; Canada; Czech Republic; Finland; France; Germany; Hungary; Italy; Japan; Netherlands; Norway; Peoples' Republic of China; Russian Federation; Spain; Sweden; 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); Consumers International (CI); European Enhanced Vehicle-safety Committee (EEVC).

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

1. AMENDMENTS TO ECE REGULATIONS

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

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

3. Following the consent of WP.29 (TRANS/WP.29/792, para. 62) for continuing the work on developing a global technical regulation (gtr), GRSP considered the proposal, which had been transmitted by the expert from OICA (TRANS/WP.29/GRSP/2001/1). GRSP noticed that the most relevant differences between the United States of America provisions (FMVSS No. 206) and Regulation No. 11 were the scope and the rear door latches.

4. The expert from CI was against the proposed deletion of the prescription for an intermediate latched position of the hinged side doors (para. 2.2.1.) and voiced the opinion that gtr should have the maximum level of stringency of the current regulations. The expert from OICA expressed his opinion that harmonization of technical regulations should not be only an exercise of taking the most severe series of prescriptions, which could prove incompatible, but a more extensive consideration of existing prescriptions with the aim of keeping high levels of safety. The expert from the United Kingdom shared this view and said that GRSP should consider and technically evaluate all relevant prescriptions.

5. The expert from the Netherlands requested that the inside handles of the rear doors should be operative when the locking mechanism was engaged. He was only in favour of leaving the handles inoperative in the case of the engagement of the mechanism avoiding the opening of the door by children.

6. The expert from the United States of America said that he intended to study the document in detail and insisted that a Contracting Party to the 1998 Agreement should transmit it to GRSP for consideration.

7. GRSP, thanking the expert from OICA for the elaboration of the comparison document, expressed its hope that a Contracting Party would use it for preparing a proposal for draft gtr and decided to defer further discussion until the Executive Committee of the 1998 Agreement will deliver its opinion.

1.2. Regulation No 14 (Safety-belt anchorages)

1.2.1. Effective anchorages

Documentation: TRANS/WP.29/GRSP/2000/10.

8. The expert from Spain explained to GRSP that the work still continued on updating the proposal of document TRANS/WP.29/GRSP/2000/10 as it had been requested (TRANS/WP.29/GRSP/29, para. 13). He confirmed his intention to transmit it for consideration at the May 2002 session.

1.2.2. Draft global technical regulation (gtr)

Documentation: TRANS/WP.29/GRSP/2000/7; TRANS/WP.29/GRSP/2000/9 and Add.1; TRANS/WP.29/GRSP/2001/5.

9. The Chairman reminded GRSP experts that, regarding the possibility of having two levels of stringency for a gtr (three-point safety-belt anchorages in all seating positions for M1 vehicles for the highest level, and two-point safety-belt anchorages in the rear-facing seats for the lowest level), WP.29 had advised that a gtr should have only one set of prescriptions. He informed GRSP that WP.29 had stated that only at the request of a Contracting Party of the 1998 Agreement, a lower set of prescriptions could be acceptable. On that respect the expert from Italy reminded GRSP that, at the current stage, no legislation requested three-point safety-belt anchorages in all seating

positions of M1 category of vehicles. Moreover, he said that no international legislation required rearward facing seats to be fitted with three point seat belts.

10. The expert from CI stated that lap belt for front-facing seats could only be acceptable in specific markets. The expert from the United Kingdom clarified his position, explaining that for all front seats three-point safety-belt anchorages must be requested, but that he could accept two-point safety-belt anchorages for rearward-facing seats. The expert from the United States of America informed GRSP that in his country not all seats were required to be provided with three-point safety-belt anchorages. He also insisted that only a Contracting Party to the 1998 Agreement could transmit any proposal for a draft gtr to GRSP.

11. GRSP noted the general agreement for having three-point safety-belt anchorages for front seats and two-point safety-belt anchorages for rear seats. The expert from the Netherlands requested a clarification concerning seats that were not exactly in a rear-facing position. GRSP requested him to transmit a proposal for consideration at the next session.

12. GRSP realized that the four documents of this item could be a complete set of provisions for the elaboration of a gtr, and expecting that a Contracting Party would transmit it for consideration, decided to defer further discussion until the Executive Committee of the 1998 Agreement will deliver its opinion.

1.2.3. "ISOFIX"

Documentation: TRANS/WP.29/GRSP/1997/11; TRANS/WP.29/GRSP/2001/14; informal documents Nos. 8 and 13 of annex 1 to this report.

13. GRSP agreed to consider jointly all the items related to "ISOFIX" and affecting Regulations Nos. 14, 16 and 44 (see paras. 37 to 45 of this report).

1.2.4. Technical amendments

Documentation: TRANS/WP.29/GRSP/2001/18; informal document No. 9 of annex 1 to this report.

14. The expert from Japan introduced informal document No. 9 containing correlative proposals to amend Regulations Nos. 14 and 16 in order to introduce in both Regulations safety-belts and its anchorages for rear seats in N category vehicles. He said that after this amendment, the above-mentioned Regulations would be equivalent to Japanese regulation (Safety Regulation Art. 22-3) and to FMVSS No. 14, which could facilitate its acceptance of both Regulations. To allow more detailed consideration of the proposal, the secretariat was requested to distribute informal document No. 9 with an official symbol for the May 2002 session.

15. GRSP considered and adopted document TRANS/WP.29/GRSP/2001/18. It was agreed to transmit it to WP.29 and AC.1 for consideration at their June 2002 sessions, however, only as draft Supplement 3 to the 05 series of amendments to Regulation No. 14.

16. At the request of the expert from OICA, GRSP adopted a draft Corrigendum to the French version of the Regulation as reproduced below. GRSP agreed to transmit it to WP.29 and AC.1 for consideration at their June 2002 sessions as draft Corrigendum 2 to the 03 series of amendments to Regulation No. 14.

Paragraph 12., correct to read (French only):

" ... la fabrication d'un type d'ancrage de ceinture de sécurité conformément au modèle visé à l'annexe 1 du présent Règlement."

1.3. Regulation No. 16 (Safety-belts)

1.3.1. Technical amendments

Documentation: TRANS/WP.29/GRSP/2001/17; TRANS/WP.29/GRSP/2001/19; TRANS/WP.29/GRSP/2001/23; informal documents Nos. 5, 23 and 24 of annex 1 to this report.

17. The expert from Germany introduced document TRANS/WP.29/GRSP/2001/17, which contained a proposal to clarify and extend the requirements for special types of safety-belts. In order to take into account experts' comments, informal document No. 23, modifying the proposal, was tabled. GRSP adopted the proposal of document TRANS/WP.29/GRSP/2001/17 as reproduced in annex 2 to this report. It was agreed to transmit it to WP.29 and AC.1 for consideration at their June 2002 session as draft Supplement 13 to the 04 series of amendments to Regulation No. 16.

18. Concerning the reduction of the retraction force limit (TRANS/WP.29/GRSP/2001/23 and informal document No. 5), the expert from Japan tabled informal document No. 24, which contained the comments to the proposal, suggested by several experts. GRSP adopted the proposal, as reproduced in annex 2 to this report, and agreed to incorporate it into the draft Supplement 13 to the 04 series of amendments to Regulation No. 16 (see para. 17 above).

19. The expert from Spain introduced the proposal to extend the allowance for driver's torso and face contact with the steering column to the front passenger (TRANS/WP.29/GRSP/2001/19). He clarified that in the document a paragraph was missing, and explained to GRSP that to allow face contact with the dashboard was not dangerous if the vehicle was type-approved pursuant Regulations Nos. 21, 94 and 95. Several experts supported the proposal, and GRSP agreed to continue its consideration at the May 2002 session. GRSP requested the secretariat to produce a revision of the document, incorporating the missing paragraph.

1.3.2. Acceleration test devices

Documentation: TRANS/WP.29/GRSP/2000/12; TRANS/WP.29/GRSP/2001/2.

20. The expert from France made a presentation, comparing tests on full crash test facility with HYGE sled test facility, in the frame of Regulation No. 16. He informed GRSP that tests were made with three different crash test facilities (full crash test facility, full crash test facility with a elastic strap powered sled, and HYGE sled facility), and had made four measurements. He concluded stating that the HYGE sled facility test could be considered as an alternative to the current method of Regulation No. 16, even if it was not completely equivalent. Finally, he suggested introducing this alternative method into Regulations Nos. 14, 16, 17, 21, and 44 as a first step, and as a second step modifying more substantially the above-mentioned Regulations. He also offered to prepare the corresponding proposals for the next session.

21. GRSP thanked the expert from France for the presentation, and agreed to continue consideration of the proposals of documents TRANS/WP.29/GRSP/2000/12 and TRANS/WP.29/GRSP/2001/2, jointly with the proposals expected from the expert from France.

1.3.3. "ISOFIX"

Documentation: TRANS/WP.29/GRSP/2001/15; informal documents Nos. 8 and 14 of annex 1 to this report.

22. Similarly to Regulation No. 14 (see para. 11 above), GRSP agreed to consider all the items related to "ISOFIX" and affecting Regulations Nos. 14, 16 and 44 jointly (see paras. 35 to 43 of this report).

1.3.4. Global technical regulation (gtr) concerning safety-belts

Documentation: Informal documents Nos. 17 and 18 of annex 1 to this report.

23. The expert from CLEPA presented informal documents Nos. 17 and 18. He explained that informal document No. 17 contained the proposal for a draft global technical regulation on safety-belts elaborated by the world industry, and informal document No. 18 contained the presentation of the draft gtr in its first part, and a table showing the differences between Regulation No. 16, the FMVSS No. 209, the Japanese standard SRRV 22-3, and the proposal for the gtr in its second part.

24. He stressed that the proposal defined the scope, taking into account the three compared sets of standards (ECE, United States of America and Japan), that it contained dynamic and not static tests, and also tests to verify the resistance of safety-belts, following the FMVSS No. 209 philosophy.

25. At the request of GRSP, he clarified that, according to the proposal, passengers were considered to be restrained by safety-belts and other restraint systems, but not by the vehicle seats. He said that the proposal would not apply to the original restraint systems installed in vehicles. He also clarified that the buckle should not be opened during the tests. In this regard, the expert from CI formally requested that if work was to be undertaken on a draft gtr for safety-belts, consideration should be given to include requirements ensuring that safety-belt buckles were proof against release from inertial loads induced during high buckle accelerations. He said that the so-called "inertial releases" had been seen both in accidents and during whole vehicle tests.

26. GRSP thanked the expert from CLEPA and agreed to engage in a more detailed discussion, taking into consideration not only the CLEPA documents, but also a document to be transmitted by the experts from the United States of America, and concerning the equivalence between Regulation No. 16 and FMVSS No. 209. Anyway, GRSP agreed that when the discussion of the document announced by the expert of the United States of America would be concluded, the work on this topic would be deferred until a Contracting Party use it for preparing a proposal for draft gtr and the Executive Committee of the 1998 Agreement will deliver its opinion.

1.4. Regulation No. 17 (Strength of seats)

Documentation: TRANS/WP.29/GRSP/1997/6/Rev.1; TRANS/WP.29/GRSP/2001/20; informal documents Nos. 20, 21 and 25 of annex 1 to this report.

27. The expert from the Czech Republic presented document TRANS/WP.29/GRSP/2001/20 containing a proposal to align the Regulation to European Community Directive 74/408/EEC. He said that, in order to make the Regulation completely parallel, he would propose to allow the approval of a seat as a component, for consideration at the next session.

28. Several experts expressed their concerns about the change of the scope, the figure of annex 5, and the extension of the Regulation to other seats than forward-facing seats. GRSP asked the expert from the Czech Republic to reply to these comments at the May 2002 session.

29. The expert from CLEPA introduced informal document No. 20, containing his proposal to amend Regulation No. 17, in order to incorporate prescriptions for the type approval of partitioning systems for the after market components. He also introduced informal document No. 21, which showed the correlation between dynamic and static tests proposed in informal document No. 20.

30. Concerns were expressed about how to link components and vehicles, the possible release of the seats' back by these components, and the conformity to the prescriptions of Regulation No. 21. It was also stressed that such components shall ensure same security level as the original pieces furnished by vehicle manufacturers.

31. The expert from CLEPA agreed to review the proposal document, taking into account the remarks made, and offered to transmit it for consideration at the next session.

32. Concerning the proposal for providing a person sufficient space for leaving the rear seat of a two-door passenger vehicle (TRANS/WP.29/GRSP/1997/6/Rev.1), the expert from Spain presented informal document No. 25, proposing to use during tests a cylinder, representing the torso of Hybrid III dummy. He offered to update his proposal for the next session. The expert from Germany suggested that explicit instructions for the use of the cylinder should be included.

1.5. Regulation No. 21 (Interior fittings)

Documentation: TRANS/WP.29/GRSP/1998/17; TRANS/WP.29/GRSP/2001/11.

33. GRSP adopted document TRANS/WP.29/GRSP/2001/11 with the amendments adopted at the previous session (TRANS/WP.29/GRSP/29, para. 44). Although the pending reservation by the expert from Italy to annex 8 to the proposal was noted, it was agreed to transmit the amended proposal to WP.29 and AC.1 for consideration at its June 2002 sessions, as draft Supplement 3 to the 01 series of amendments to Regulation No. 21.

34. GRSP agreed to retain document TRANS/WP.29/GRSP/1998/17 for further consideration.

1.6. 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 the twenty-ninth session.

35. The expert from the Russian Federation recalled the two main issues under discussion: the proposal of document TRANS/WP.29/GRSP/2001/3, which should be reviewed by the expert from the United Kingdom (TRANS/WP.29/GRSP/29, para. 50); and the definition of the scope. He suggested to defer the consideration of the new proposal but to consider the issue of the scope.

36. GRSP considered that a written proposal should be submitted before addressing the scope of the Regulation, and requested the expert from the Russian Federation to submit a final proposal. The expert from OICA suggested not to modify the scope because the approval of a vehicle according to Regulation No. 94 could exclude the need for a frontal impact test of Regulation No. 29.

1.7. Regulation No. 44 (Child restraints)

1.7.1. "ISOFIX"

Documentation: TRANS/WP.29/GRSP/1997/12; TRANS/WP.29/GRSP/2001/16; informal documents Nos. 8, 12, 14, 15, and 19 of annex 1 to this report.

37. The expert from France presented the overview of the ISOFIX issue, with the aim to reach an agreement on its principles, as they had been agreed by the drafting group. In his opinion such an agreement was needed before starting a detailed consideration of the proposed amendments to Regulations Nos. 14, 16 and 44 (as indicated in informal documents Nos. 13, 14, and 15, superseding documents TRANS/WP.29/GRSP/2001/14, TRANS/WP.29/GRSP/2001/15, and TRANS/WP.29/GRSP/2001/16 respectively).

38. He informed GRSP that the drafting group had agreed on the basic principles of defining an ISOFIX position as either a system composed of an ISOFIX anchorage system, or a system composed of an ISOFIX anchorage system plus an ISOFIX top tether anchorage. Whilst an ISOFIX anchorage system were solely the two lower anchorages designed according to ISO standard, the ISOFIX top tether was the anchorage designed to accept a top tether strap connector. He also said that the group had agreed, as a minimum for M1 vehicles, on having two ISOFIX positions, at least one of them in the second row of seats,

two top tether anchorages, one for the forward facing and one for the rearward facing ISO fixtures.

39. He explained to GRSP that Child Restraint Systems (CRS) had been divided into five sizes in addition to the current mass classification of Regulation No. 44. He said that the group proposed as an Universal ISOFIX CRS the integral forward facing CRS including two ISOFIX attachment and one top tether attachment, and that the tool test to approve this ISOFIX CRS should be the Regulation No. 44 bench equipped with top tether attachment. He informed GRSP that the Semi-universal ISOFIX CRS would be any CRS with two ISOFIX attachments and any other feature to avoid rotation, and that the test tool to approve it would be the Regulation No. 44 bench.

40. The expert from France ended his presentation stating that for any ISOFIX position in the vehicle, the car manufacturer would declare which categories, mass groups, and types of ISOFIX CRS fixtures could be installed. He also said that the categories, the mass groups and the corresponding ISOFIX fixtures should be marked on the packaging of each ISOFIX CRS.

41. GRSP congratulated the expert from France to his excellent presentation, and thanked also the drafting group for the effort made in reaching a consensus on this difficult issue. The expert from France was kindly requested to provide to the secretariat a copy if his presentation, in view of making it available in the web page of GRSP.

42. GRSP had a favourable opinion concerning the above-mentioned basic principles. Nevertheless, the expert from the Netherlands said that the Universal concept should not imply the application of the top tether concept to avoid rotation. The experts from the United Kingdom, Australia, Canada, and CI expressed their views that two lower anchorages were not an adequate solution to guarantee children's safety, and insisted on the top tether requirement. The experts from France and OICA declared that top tether was a good existing solution but that future new systems could be developed to avoid CRS rotation. The expert from Japan supported the proposals of informal documents Nos. 13, 14 and 15, and drew the attention of GRSP informal document No. 8 containing amendments to them. The experts from Germany and Italy expressed their reservations to the proposals.

43. The expert from Italy declared that the volume concept for both frontward and rearward facing CRS positioned in vehicles implied new requirements that have never been part of vehicle Regulations. He also said that another consequence of the introduction of the proposed envelopes was the minimum dimensions of 400 to 440 mm of the fixtures used for ISOFIX universal CRS. He also said that the new envelopes, which would seemingly check the length of the adult safety-belts in the case of semi-universal ISOFIX, were in conflict with the present volume due to, among others, the buckle position. He said that, as a consequence, there would be an incompatibility in using either ISOFIX or traditional universal CRS on the same seat. He concluded that Italy was in favour of the proposals transmitted by France as a good basis for discussion, on the condition that they would not imply inner volume requirements on vehicles.

44. The experts from the United States of America and Australia reminded GRSP that informal document No. 12 proposed to accept the use of both rigid and non-rigid ISOFIX anchorages.

45. Finally, GRSP agreed to consider the proposals by France at the May 2002 session, and requested the experts to study the informal documents concerned. To allow an appropriate consideration of this issue, the secretariat was requested to distribute informal documents Nos. 8, 12, 13, 14, 15, and 19 with an official symbol.

1.7.2. Acceleration test devices

Documentation: TRANS/WP.29/GRSP/2000/3;

46. The outcomes of discussion are referred to in paragraphs 20 and 21 above.

1.7.3. Technical amendments

Documentation: TRANS/WP.29/GRSP/2000/2; 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; TRANS/WP.29/GRSP/2001/21; informal documents Nos. 1 and 8 of the twenty-ninth session; informal documents Nos. 6, 10 and 11 of annex 1 to this report.

47. The expert from Sweden presented informal document No. 6 superseding TRANS/WP.29/GRSP/2000/2. The expert from Germany presented, on behalf of the testing laboratories, document TRANS/WP.29/GRSP/2001/8, and reminded GRSP that TRANS/WP.29/GRSP/2000/16 was still under consideration. The expert from the Netherlands introduced document TRANS/WP.29/GRSP/2000/21 and also reminded GRSP that document TRANS/WP.29/GRSP/2000/15 continued to be under consideration.

48. GRSP realized that the five documents were interrelated and, to facilitate their understanding, requested the experts from the three countries to prepare a consolidated version of all proposals for consideration at the next GRSP session.

49. Regarding the proposal for Conformity of Production (COP) procedure (TRANS/WP.29/GRSP/2001/13), it was objected by the experts from Finland, Germany, Netherlands, Sweden and CLEPA. These experts were of the opinion that current provisions for COP were not correctly applied by the Contracting Parties to Regulation No. 44, and the problems that the proposal wanted to resolve would not exist if the requirements of the 1958 Agreement concerning COP were correctly applied, jointly with the prescriptions of Regulation No. 44.

50. GRSP agreed to continue its consideration of the proposal at the May 2002 session, in view of the COP prescriptions of the 1958 Agreement.

51. As concerns the proposal by Japan seeking to improve the comfort in handling the buckle and tongue, to enable the use of the webbing sensitive retractor, and to enable a rear facing CRS installed in vehicle seats with two point safety-belts (TRANS/WP.29/GRSG/2001/4), the expert from Japan introduced informal documents Nos. 10 and 11. He reminded GRSP that informal documents Nos. 1 and 8 of the twenty-ninth session related to the same issue.

52. Concerning the three goals of the proposal, several experts expressed their concerns and showed certain opposition to their acceptance. The Chairman of GRSP acknowledged that none of the three aims were acceptable for the time being and suggested that a national solution should be sought to resolve the deadlock.

1.8. Regulation No. 94 (Frontal collision protection)

Documentation: TRANS/WP.29/GRSP/2001/6; TRANS/WP.29/GRSP/2001/7; TRANS/WP.29/GRSP/2001/22 informal document No. 26 of annex 1 to this report.

53. As concerns the proposals for the warning label concerning hazards from airbags for the rear-facing child restraints (TRANS/WP.29/GRSP/2001/7; TRANS/WP.29/GRSP/2001/22), the experts from CI and OICA reached a compromise and submitted it to GRSP (informal document No. 26).

54. GRSP adopted the proposal of informal document No. 26 as reproduced in annex 3 to this report, and agreed to transmit it to WP.29 and AC.1 for consideration at their June 2002 sessions as draft Supplement 2 to the 02 series of amendments to Regulation No. 94.

55. GRSP also adopted the proposal of document TRANS/WP.29/GRSP/2001/6 with the amendments reproduced below. It agreed to transmit it to WP.29 and AC.1 for consideration at their June 2002 sessions as a draft Corrigendum 1 to the 01 series of amendments to Regulation No. 94.

Annex 9,

Paragraph 1.1., correct the reference to "(BS 1470)" to read "(ISO 209, Part 1)"

Paragraph 1.2., correct the reference to "(BS 1470)" to read "(ISO 209, Part 1)", and correct the line referring to the Cell Size to read:

".....
Cell Size: 6.4 mm ± 20%
....."

1.9. Regulation No. 95 (Lateral collision protection)

Documentation: Informal documents Nos. 2, 3, and 16 of annex 1 to this report.

56. The expert from EEVC presented a final report concerning the EEVC mobile deformable barrier (MDB) face specification validation test programme, as it had been agreed during previous sessions (TRANS/WP.29/GRSP/28, paras. 89 and 90 and TRANS/WP.29/GRSP/29, paras. 69 and 70). He said that informal document No. 2 contained recommendations for a revised specification for the EEVC mobile deformable barrier face, and in its annex the concrete proposal for amending Regulation No. 95.

57. He informed GRSP that the validation programme had showed a good repeatability and reproducibility of MDB faces designed to meet the proposed new specification. Moreover, he said that the test results pointed out the need to increase the adhesive bond strength between the aluminium blocks and the backplate for some of the barrier faces from 0.4 Mpa to 0.6 Mpa, and, consequently that a modified corridor for blocks 1 and 3 was recommended in the proposed design specification.

58. The expert from Japan clarified that the full-scale tests made in his country showed a maximum of 50 mm difference of struck vehicle deformation and that the relation was not clear between dynamic full-scale curve and static full-scale curve. He said that in his opinion a more complete consideration of full-scale dynamic and static responses was necessary.

59. GRSP thanked the expert from EEVC and the countries that had participated on the work. It was agreed that the proposal to amend Regulation No. 95 contained in informal document No. 2 should be considered in detail and the secretariat was requested to distribute it with an official symbol for the May 2002 session.

60. GRSP considered and adopted a Corrigendum to the Regulation contained in informal document No. 16. It was agreed to transmit it, as reproduced below, to WP.29 and AC.1 for consideration at their June 2002 sessions, as draft Corrigendum 3 to Regulation No. 95.

Annex 5,

Paragraph 2.3.1.3., amend to read:

" deviation does not exceed the allowed deflection by more than 35 mm , and the sum" "

61. The expert from the Netherlands made a presentation regarding the development of Eurosid 2 (ES-2) dummy. He explained that the aim of the new design was to improve the current Eurosid 1 (ES-1) dummy. He confirmed that the work was coordinated by EEVC and NHTSA and that extensive tests were made in the European Union, the United States of America, Canada, Japan, and

Australia. He concluded by saying that the ES-2 improved significantly the performances of the precedent ES-1, and that it should be accepted worldwide.

62. The expert from Italy agreed that the quality of the ES-2 dummy prototype was higher in relation to ES-1 dummy, and that in full-scale tests some critical dummy measurements values for ES-2 had increased compared to ES-1. Finally, he agreed that ES-2 was a solid basis for harmonization and a better appraisal for full-scale crash test. Nevertheless, he stated that the possible adoption of the new dummy into Regulations tests should only be done with appropriate dates for new vehicle types, and that transitional provisions should be tailored, in order to have time to solve the issues that affected the performance of the dummy.

63. The expert from France insisted that the main aim for developing the new dummy was to reach harmonization and that ES-2 development was in the right direction. The expert from the United States of America clarified that the development of ES-2 dummy still was only a research, and confirmed that a considerable part of the difficulties of ES-1 had disappeared, but that the back plate still presented problems. He said that he should report to the NHTSA, before it took the final decision concerning the acceptance of the ES-2 dummy by his country.

64. The expert from ISO made a presentation concerning the development of WorldSID advanced harmonized dummy for side impact. He said that the project was under the auspices of ISO TC22, and that its goal was to replace all existing adult side impact dummies with a single, high bio-fidelity model, acceptable to all users. As a summary, he said that the performance of the WorldSID prototype dummy had been very promising, that work still continued in developing it, and that the final release of the dummy and its launch into production was scheduled for 2004.

65. GRSP thanked the experts from the Netherlands and from ISO for their presentations, and agreed to place both presentations on the GRSP web page.

2. OTHER BUSINESS

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

66. The expert from Italy informed GRSP about recent development in the European Council, Working Party on Land Transport, where a proposal for a Directive relating to compulsory use of safety-belts and child restraint systems in vehicles was being considered. He said, that the proposed text would require children travelling on vehicles of category M2 and M3 (buses and coaches) to be restrained by an adult safety-belt when a child restraint system is not available on board. In particular, he drew the attention of GRSP experts to possible negative consequences on children safety in the case of road accidents since safety-belts were designed to be worn by adults. In this respect, he asked GRSP experts to make aware the delegates of the Working Party on Land Transport of the above risks in order to defer any decision concerning the way to restrain children travelling on buses and coaches until appropriate technical studies would be carried out. GRSP welcomed the suggestion made by the Italian expert and agreed that the group should ask WP.29 the mandate to study the appropriate means to restrain children travelling on buses and coaches.

2.2. New draft Regulation concerning whiplash injury avoidance in rear-end accidents

Documentation: Informal document No. 4 of annex 1 to this report.

67. The expert from ISO made a presentation of the work that ISO TC22 SC10 WG1 was conducting to study neck injuries in rear-end low speed collisions. He said that no harmonized test procedure was available and that ISO was developing a test procedure. He clarified that the working group was only considering light injuries due to a speed difference of 15 km/h. He said that for measurements, a draft would be circulated for approval by the working group members by March 2002.

68. The Chairman thanked the expert from ISO for his report and considered it useful to develop a draft Regulation. He recalled the presentations which had been made at the previous sessions and considered it essential to coordinate the work, in order to avoid duplication, and to make a single proposal only for consideration by GRSP. He suggested again that the coordination task should be assumed by EEVC (TRANS/WP.29/GRSP/29, para. 75).

69. The expert from Italy introduced informal document No. 4 that contained the Italian concern with regard to the development of a rear impact collision test procedure. He shared the Chairman's opinion that work should be coordinated by EEVC and suggested that a proposal for draft Regulation concerning the protection against whiplash injuries should not start before the EEVC Steering Committee adopted it.

2.3. International Harmonized Research Activities(IHRA)

Documentation: Informal documents Nos. 1, 7 and 22 of annex 1 to this report

70. The expert from Australia Chairing the IHRA side impact working group made a status report on its activities (informal document No. 1). He reviewed the work done since 1998 and explained that the group's objective for the period 2001-2005 would be to co-ordinate worldwide research to support the development of future side impact test procedure and to maximize harmonization with the objective to enhance safety in real side impacts. He said that for the first two-year period the side impact working group concluded that new test procedures to address the side impact issue should include a mobile deformable barrier to vehicle test, a vehicle pole test, out of position airbag evaluation, and sub-system impact tests.

71. The expert from the United Kingdom Chairing the IHRA crash vehicle compatibility working group gave also a status report (informal document No. 22). He stressed that the work considered the study of vehicles of different size and categories in case of both frontal and side impacts. He said that improvement of structural interaction would, in the opinion of the working group, be beneficial and that a range of tests based on existing fixed barriers and on a mobile deformable barrier were candidates for the definitive test.

72. The GRSP Chairman, in his quality of the Chairman of the IHRA advanced offset frontal crash protection working group, presented a status report as well (informal document No. 7). He stressed that the main goal of the working group was to achieve a harmonized frontal crash protection procedure, taking into account differing views in various parts of the world.

ELECTIONS OF THE OFFICERS

73. Following the announcement by the Secretariat on Monday, 3 December 2001, and in compliance with Rule 13 of the Rules of Procedure (TRANS/WP.29/690), GRSP called the election of officers on Wednesday, 5 December 2001. GRSP elected Ms. J. Abraham (United States of America) to Chair the two sessions scheduled for the year 2002.

TRIBUTE TO THE CHAIRMAN, Mr. C. LOMONACO

74. GRSP noted with regret that Mr. Lomonaco decided not to continue the Chairmanship he had assured from the time of creation of GRSP. It was recalled that before that time he Chaired several other expert groups and, in total, worked in WP.29 for more than thirty years. He contributed considerably to enhancing not only passive vehicle safety, but also all general vehicle safety. In recognition of his high both human and professional qualities and of his effort in Chairing GRSP, even after his national retirement, the expert from Spain proposed GRSP to elect Mr. C. Lomonaco its Honorary Chairman. GRSP adopted his proposal unanimously. The secretary, thanked Mr. C. Lomonaco for his excellent Chairmanship on behalf of all participants and wished him a long and happy retirement.

TRIBUTE TO Mr. R. FERRAVANTE

75. GRSP was informed that Mr. R Ferravante, expert from the European Community would not continue work on GRSP matters due to his new duties. GRSP thanked him for his appreciable work and wished him success in the future.

AGENDA FOR THE NEXT SESSION

76. For the thirty-first session, to be held in Geneva from 13 May (14.30h) to 17 May (12.30h) 2002 1/, GRSP agreed on the following agenda:

1. Amendments to ECE Regulations (1958 Agreement)
 - 1.1. Regulation No. 11 (Door latches and door retention components) 2/
 - 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
 - 1.3. Regulation No. 16 (Safety-belts)
 - 1.3.1. Technical amendments
 - 1.3.2. Draft global technical regulation 2/
 - 1.4. Regulation No. 17 (Strength of seats)
 - 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. Technical amendments
 - 1.8. Regulation No. 95 (Lateral collision protection)
2. ISOFIX 3/
3. ACCELERATION TEST DEVICES
4. OTHER BUSINESS
 - 4.1. Exchange of information on national and international requirements on passive safety
 - 4.2. Sled test procedure for the dummy test in rear impacts 4/

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

3/ The thirty-first GRSP session will begin with ISOFIX items covering all the affected Regulations.

4/ Subject to the presentation of an EEVC study

Annex 1

LIST OF INFORMAL DOCUMENTS DISTRIBUTED WITHOUT A SYMBOL DURING THE SESSION

No.	Transmitted By	Agenda Item	Language	Title
1.	Australia	2.3.	E	IHRA Side Impact Working Group Status Report
2.	EEVC	1.9.	E	Recommendations for a revised specification for the EEVC mobile deformable barrier face
3.	Italy	1.9.	E	Concern of the Italian delegation with regard to the development of the ES-2 dummy
4.	Italy	2.2	E	Concern of the Italian delegation with regard to the development of a rear impact collision test procedure
5.	Japan	1.3.1.	E	Proposal for draft amendments to ECE Regulation No. 16
6.	Sweden	1.7.1.	E	Proposal for draft amendments to Regulation No. 44
7.	Italy	2.3.	E	5-years status report of the advanced offset frontal crash protection
8.	Japan	1.2.3.1. 1.3.3.1. 1.7.1.	E	Japan's position on proposed adoption of ISOFIX systems into ECE Regulations
9.	Japan	1.2.4.	E	Proposal concerning the rear seat safety-belts of category N vehicles (Regulations Nos. 14, No. 16)
10.	Japan	1.7.3.	E	Brake test results
11.	Japan	1.7.3.	E	Results of dynamic test on rearward facing CRS installed with 45° CRS-seatback inclination
12.	Secretariat	1.7.1.	E	ISOFIX comments
13.	France	1.2.3.	E	Proposal for draft 06 series of amendments to Regulation No. 14
14.	France	1.3.3.	E	Proposal for draft 04 series of amendments to Regulation No. 16
15.	France	1.7.1.	E	Proposal for draft 04 series of amendments to Regulation No. 44

No.	Transmitted By	Agenda Item	Language	Title
16.	Secretariat	1.9.	E	Proposal for draft Corrigendum to Regulation No. 95
17.	CLEPA	1.3.4.	E	Draft global technical regulation on safety-belts
18.	CLEPA	1.3.4.	E	Presentation of the draft global technical regulation on safety-belts
19.	United Kingdom	1.7.1.	E	United Kingdom proposal to amend head excursion limits for ISOFIX child restraints equipped with top tether
20.	CLEPA	1.4.	E	Draft amendments to Regulation No. 17
21.	CLEPA	1.4.	E	Draft amendments to Regulation No. 17. Correlation between dynamic and static test of station wagon barrier nets
22.	United kingdom	2.3.	E	Status report of IHRA vehicle compatibility working group
23.	Germany	1.3.1.	E	Proposal to amend document TRANS/WP.29/GRSP/2001/17
24.	Japan and Spain	1.3.1.	E	Proposal for draft 05 series of amendments to Regulation No. 16
25.	Spain	1.4.	E	Draft amendments to Regulation No. 17
26.	CI and OICA	1.8.	E	Draft amendments to Regulation No. 94
--	EEVC	1.9.	E	Development and evaluation of EUROSID-2 (ES-2) dummy
--	ISO	1.9.	E	WorldSID. Advanced harmonized dummy for side impact
--	ISO	2.2.	E	ISO TC22 SC10 WG1 activity on the test procedure for the evaluation of injury risk to the cervical spine in a low speed rear end impact
--	France	1.2.3. 1.3.3. 1.7.1.	E	ISOFIX systems Integration in R14, R16, R44
--	France	1.3.2.	E	Comparison tests on full crash test facility and hyge sled test facility in the frame of Regulation ECE R 16

Annex 2

AMENDMENTS TO REGULATION No. 16
ADOPTED BY GRSP AT ITS THIRTIETH SESSION

Paragraph 2.1., amend to read:

"... absorbing energy or for retracting the belt.

The arrangement can be tested and approved as a safety belt arrangement or as a restraint system."

Paragraph 2.1.1., amend to read:

"2.1.1. Lap belt

A two-point belt which passes across the front of the wearer's pelvis region."

Paragraph 2.1.3., amend to read:

"2.1.3. Three-point belt

A belt which is essentially a combination of a lap strap and a diagonal strap."

Insert a new paragraph 2.1.4., to read:

"2.1.4. S-type belt

A belt arrangement other than a three-point belt or a lap belt."

Paragraph 2.1.4.(former), renumber as paragraph 2.1.5. and amend to read:

"2.1.5. Harness belt

A S-type belt arrangement comprising a lap belt and shoulder straps; a harness belt may be provided with an additional crotch strap assembly;"

Paragraph 2.17., amend to read:

"2.17. Restraint System

A system for a specific vehicle type or a type defined by the vehicle manufacturer and agreed by the Technical Service consisting of a seat and a belt fixed to the vehicle by appropriate means and consisting additionally of all elements which are provided to diminish the risk of injury to the wearer, in the event of an abrupt vehicle deceleration, by limiting the mobility of the wearer's body;"

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 automatically when the safety-belt is fastened. When it is released, such a device switches off automatically."

Insert a new paragraph 5.3.4.2.2.4., to read:

"5.3.4.2.2.4. the letter "t" in the case of a safety belt with a retractor incorporating a tension-reducing device"

Paragraphs 5.3.4.2.2.4. and 5.3.4.2.2.5. (former), renumber as paragraphs 5.3.4.2.2.5. and 5.3.4.2.2.6.

Paragraph 6.2.5.2.2., amend to read:

"6.2.5.2.2. If the retractor is part of a lap belt, ...

If the retractor is part of an upper torso restraint, the retracting force of the strap shall be not less than 0.1 daN and not more than 0.7 daN when similarly measured.

Paragraph 6.2.5.3.4., amend to read:

"6.2.5.3.4. If the retractor is part of a lap belt,

If the retractor is part of an upper torso restraint, the retracting force of the strap shall be not less than 0.1 daN and not more than 0.7 daN when similarly measured, except for a belt equipped with a tension-reducing device, in which case the minimum retracting force may be reduced to 0.05 daN only when such a device is in operation mode. If the strap passes through a guide or pulley, the retracting force shall be measured in the free length between the dummy and the guide or pulley.

If the assembly incorporates a device that upon manual or automatic operation prevents the strap from being completely retracted, such a device shall not be operated when these requirements are assessed.

If the assembly incorporates a tension-reducing device, the retracting force of the strap described in the above shall be measured with the device in operation mode and non-operation mode when these requirements are assessed before and after durability tests according to paragraph 6.2.5.3.5."

Paragraph 6.2.5.3.5., amend to read:

"6.2.5.3.5. The strap shall be (making 45000 in all).

If the assembly incorporates a tension-reducing device, the above tests shall be conducted on condition that the tension-reducing device is in operation mode and in non-operation mode.

After the above tests, the retractor shall operate correctly and still meet the requirements of paragraphs 6.2.5.3.1., 6.2.5.3.3. and 6.2.5.3.4. above."

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

"6.2.5.4. Retractors must fulfill, after durability test according to paragraph, 6.2.5.3.5., and immediately after the retracting force measurement according to paragraph 6.2.5.3.4., all next two specifications:

6.2.5.4.1. When retractors except automatically locking retractors are tested according to paragraph 7.6.4.2., the retractors must be able to avoid any slack between torso and belt, and,

- 6.2.5.4.2. When the buckle is unlatched to release the tongue, the retractor alone must be able to retract strap fully."

Insert a new paragraph 6.4.1.2.5., to read:

- "6.4.1.2.5. In the case of a safety-belt with tension-reducing device, it shall be subjected to a durability test with such a device in operation mode according to paragraph 6.2.5.3.5 before a dynamic test. The dynamic test shall then be conducted with the tension-reducing device in operation mode."

Paragraph 7.6.4.1., amend to read:

- "7.6.4.1. The retracting force shall be measured with the safety-belt assembly fitted to a dummy as for the dynamic test prescribed in paragraph 7.7. The strap tension shall be measured at the point of contact with (but just clear of) the dummy while the strap is being retracted at the approximate rate of 0.6 m/min. In the case of a safety-belt with tension-reducing device, the retracting force and strap tension shall be measured with the tension-reducing device ~~is~~ in both operation mode and non-operation mode."

Insert a new paragraph 7.6.4.2., to read.

- "7.6.4.2. Before the dynamic test described in paragraph 7.7. the seated dummy, which is clothed with a cotton shirt, shall be tilted frontward until 350 mm of the strap is withdrawn from retractor, and then released to the initial position."

Insert a new paragraph 7.7.1.7., to read:

- "7.7.1.7. The dynamic tests of the harness belt system shall be carried out without the crotch strap (assembly), if there is any."

Annex 7,

The text after figure 6, amend to read:

"...

P = pelvis reference ... manikin)

The displacement measurement at point P shall not contain rotational components around the hip axis and around a vertical axis."

Annex 9,

Insert a new paragraph 4., to read:

- "4. An installation requirement for the consumer shall be provided by the manufacturer/applicant for all vehicles where the crotch strap assembly can be used. The manufacturer of the harness belt shall prescribe the mounting of the additional reinforcement elements for the anchorages of crotch straps and their installation in all vehicles where an installation is provided for."

Annex 16,

The note below the table, amend to read:

Note: In all cases all S-type belts may be fitted in place of all possible A or B type belts, provided their anchorages comply with Regulation No. 14. Where a harness belt has been approved as a S-type belt according to this Regulation, using the lap belt strap, the shoulder belt straps and possibly one or more retractors, one or two additional crotch straps including their attachments for their anchorages may be provided by the manufacturer/applicant. These additional anchorages need not meet the requirements of Regulation No. 14."

Annex 3

AMENDMENTS TO REGULATION No. 94
ADOPTED BY GRSP AT ITS THIRTIETH SESSION

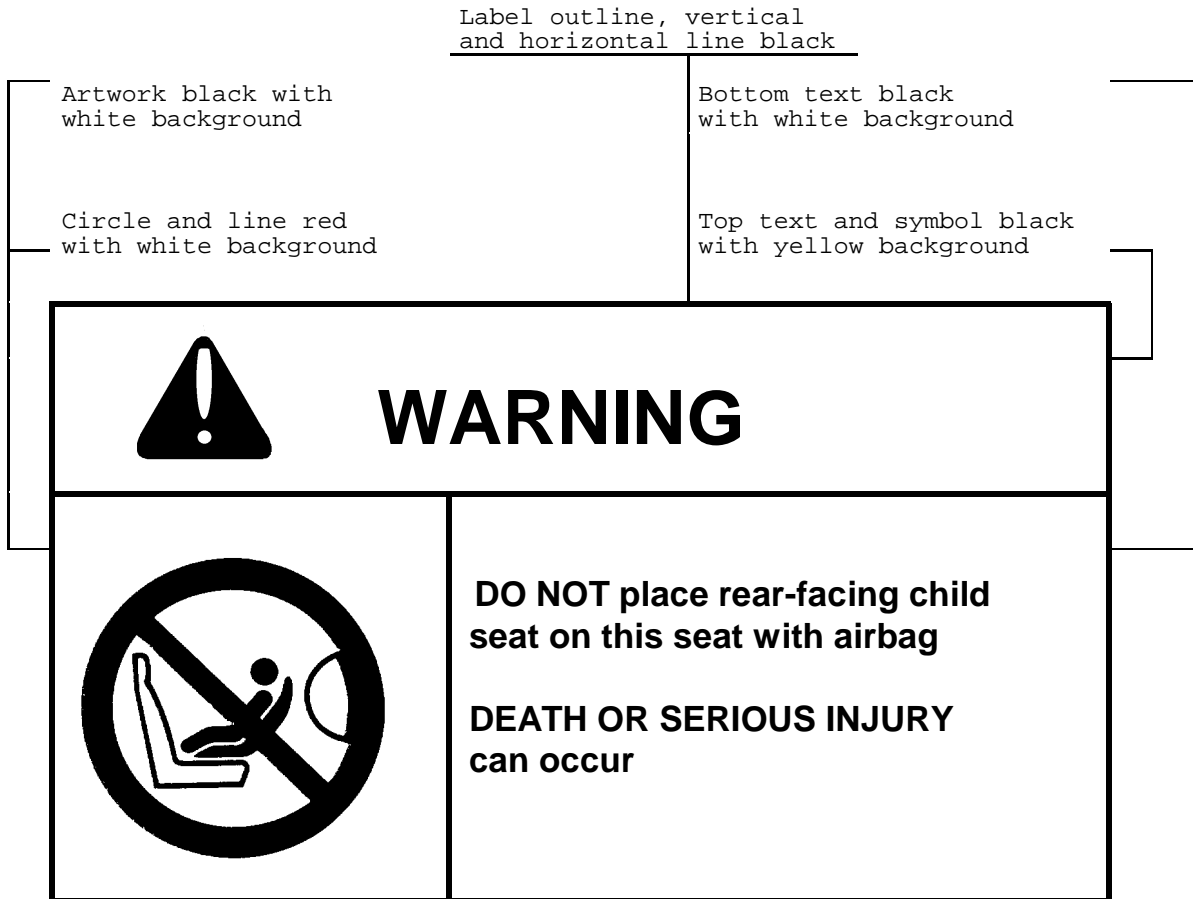
Paragraph 4.1., amend to read:

- "4.1. If the vehicle type submitted for approval pursuant to this Regulation meets the requirements of this Regulation, approval of that vehicle type shall be granted."

Paragraphs 6.1.2. to 6.2.3., amend to read:

- "6.1.2. For a vehicle fitted with a passenger airbag intended to protect occupants other than the driver, this information shall consist of the warning label described in paragraph 6.2. below.
- 6.2. A vehicle fitted with one or more passenger frontal protection airbags shall carry information about the extreme hazard associated with the use of rearward-facing child restraints on seats equipped with airbag assemblies.

- 6.2.1. As a minimum, this information shall consist of a label containing a pictogram and text warning as indicated below.



The overall dimensions shall be 120 x 60 mm or the equivalent area, as a minimum.

The label shown above may be adapted in such a way that the layout differs from the example above; however, the text content shall meet the above prescriptions.

- 6.2.2. At the time of type approval, the label shall be in at least one of the languages of the Contracting Party where the application for approval is submitted. The manufacturer shall declare his responsibility for ensuring the warning is provided at least in one of the languages of the country in which the vehicle is to be sold.
- 6.2.3. In the case of a frontal protection airbag on the front passenger seat, the warning shall be durably affixed to each face of the passenger front sun visor in such a position that at least one warning on the sun visor is visible at all times, irrespective of the position of the sun visor. Alternatively, one warning shall be on the visible face of the stowed sun visor and a second warning shall be on the roof behind the visor, so, at least one warning is visible all times. The text size must allow the label to be easily read by a normal sighted user seated on the seat concerned.

In the case of a frontal protection airbag for other seats in the vehicle, the warning must be directly ahead of the relevant seat, and clearly visible at all times to someone installing a rear-facing child restraint on that seat. The text size must allow the label to be easily read by a normal sighted user seated on the seat concerned.

This requirement does not apply to those seats equipped with a device which automatically deactivates the frontal protection airbag assembly when any rearward facing child restraint is installed."

Insert a new paragraph 6.2.4., to read:

"6.2.4. Detailed information, making reference to the warning, shall be contained in the owner's manual of the vehicle; as a minimum, the following text in the official languages of the country where the vehicle is to be registered, must include:

"Do not use a rearward facing child restraint on a seat protected by an airbag in front of it"

The text shall be accompanied by an illustration of the warning to be found in the vehicle."
