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## ECONOMIC COMMISSION FOR EUROPE

INLAND TRANSPORT COMMITTEE

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

Working Party on General Safety Provisions (GRSG)

REPORT OF THE WORKING PARTY ON GENERAL SAFETY PROVISIONS (GRSG)
ON ITS EIGHTIETH SESSION

(2 to 6 April 2001)

1. GRSG held its eightieth session 1/ from 2 April (afternoon) 2001 to 6 April (morning) 2001, under the chairmanship of Mr. J. Martin (Luxembourg). 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): Belgium; Canada; Czech Republic; Finland; France; Germany; Hungary; Italy; Japan; Luxembourg; Netherlands; Norway; Poland; 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 took part in the session: International Organization for Standardization (ISO); International Road Transport Union (IRU); International Organization of Motor Vehicle Manufacturers (OICA); International Motorcycle Manufacturers Association (IMMA); European Association of Automobile Suppliers (CLEPA).

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 $<sup>\</sup>underline{1}$ / Following the decision taken by WP.29, a separate informal meeting with interpretation services was held prior to the eightieth GRSG session proper (TRANS/WP.29/735, para. 40).

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- 2. The informal meeting on "Common Tasks" was held on 2 April (afternoon only) and 3 April (morning only), under the Chairmanship of Mr. T. Onoda (Japan). Experts from the following countries participated in the work: Canada; Czech Republic; Finland; France; Germany; Hungary; Italy; Japan; Luxembourg; Netherlands; Norway; Poland; 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 took part in the meeting: International Organization for Standardization (ISO); International Road Transport Union (IRU); International Organization of Motor Vehicle Manufacturers (OICA); International Motorcycle Manufacturers Association (IMMA). A summary of the proceedings of this informal meeting is given below (paras. 68 to 73).
- 3. The documents without a symbol distributed during the session are listed in annex 1 to this report.

DEVELOPMENT OF REGULATION No. 36 (Large capacity passenger vehicles)

<u>Documentation</u>: TRANS/WP.29/GRSG/1999/20 and Add.1; TRANS/WP.29/GRSG/2000/11; TRANS/WP.29/GRSG/2000/17; TRANS/WP.29/GRSG/2000/25; TRANS/WP.29/GRSG/2001/2; informal document No. 6, of annex 1 to this report.

- 4. Consideration of this item was initiated by an announcement by the expert from Hungary that his country intended to introduce prescriptions for the access to vehicles of passengers with reduced mobility into its national legislation. The expert from the European Community informed GRSG about the conciliation process between the European Parliament and the Council of the European Community concerning the draft proposal for a European Community Directive on buses and coaches. He expressed his hope that a consensus would be reached before the end of the year.
- 5. With regard to the proposal concerning the accessibility by passengers with reduced mobility to be inserted in the text of Regulation No. 36 (TRANS/WP.29/GRSG/1999/20 and TRANS/WP.29/GRSG/1999/20/Add.1), the expert from the United Kingdom informed GRSG that the basis of the conciliation process was to impose accessibility provisions to all vehicles of Class I. The experts from non-European Community countries expressed their agreement to incorporate such a mandatory prescription into the Regulation. Nevertheless, the expert from IRU argued in favour of making the prescriptions only optional.
- 6. GRSG agreed to postpone detailed consideration of this issue to the October session, expecting that by that time the final position of the European Community could be adopted.
- 7. GRSG considered and adopted document TRANS/WP.29/GRSG/2000/17, with the amendment reproduced below. It was agreed to transmit it to WP.29 and AC.1 for consideration at their November 2001 sessions.

Paragraph 5.6.1.9., amend to read:

- "5.6.1.9. Escape hatches additional to emergency doors and windows, shall be fitted in Class II and III vehicles. They may also ...."
- 8. Concerning the inclusion of the prescriptions for trolleybuses into the text of the Regulation, GRSG adopted in principle the proposal of document TRANS/WP.29/GRSG/2000/25 as reproduced in annex 2 to this report. It was agreed to adopt it definitively at the next session, jointly with the proposed annex to the Regulation, which would contain specific prescriptions for trolleybuses.
- 9. The expert from the Russian Federation presented informal document No. 6, which superseded document TRANS/WP.29/GRSG/2000/11. The document contained a new proposed annex 8 incorporating specific prescriptions for trolleybuses. GRSG adopted in principle the proposal, as reproduced in annex 2 to this report, and agreed to adopt it definitively at the October 2001 session (see para 8. above). GRSG thanked the Chairman of the informal group on trolleybuses and its experts for the work done, and considered that the informal group had concluded its task.
- 10. GRSG also considered and adopted document TRANS/WP.29/GRSG/2001/2, and agreed to transmit it to WP.29 and AC.1 for consideration at their November 2001 sessions, jointly with the proposal of annex 2 to the report of the seventy-ninth session (TRANS/WP.29/GRSG/58, annex 2).

DEVELOPMENT OF REGULATION No. 52 (Small capacity passenger vehicles)

<u>Documentation</u>: TRANS/WP.29/GRSG/1999/15; TRANS/WP.29/GRSG/1999/21; TRANS/WP.29/GRSG/1999/21/Add.1; TRANS/WP.29/GRSG/2001/1.

- 11. As decided for Regulation No. 36 (see para. 6 above), GRSG agreed to postpone the consideration of the proposal concerning accessibility to vehicles for passengers with reduced mobility (TRANS/WP.29/GRSG/1999/21 and Add.1.
- 12. Due to lack of time, GRSG did not consider the pending issues of document TRANS/WP/29/GRSG/1999/15, and agreed to defer this matter to the October 2001 session.
- 13. GRSG considered and adopted document TRANS/WP.29/GRSG/2001/1 with the amendment reproduced below. It was agreed to transmit it to WP.29 and AC.1 for consideration at their November 2001 sessions, jointly with the proposal of annex 3 to the report of the seventy-ninth session (TRANS/WP.29/GRSG/58, annex 3).

Paragraph 5.7.1.1., amend to read:

" ..... a vertical rectangular panel 2 cm thick 40 cm wide ... "

Annex 3, Figure 1, amend the value of "10 cm" to read "2 cm" for the thick of the panel.

DEVELOPMENT OF REGULATION No. 107 (Double-deck large passenger vehicles)

<u>Documentation</u>: TRANS/WP.29/GRSG/1999/22 and Add.1; TRANS/WP.29/GRSG/2001/3; informal document No. 22 annex 1 to this report.

- 14. GRSG agreed to postpone the consideration of the provisions concerning accessibility to vehicles for passengers with reduced mobility (TRANS/WP.29/GRSG/1999/22 and Add.1), as decided for Regulations Nos. 36 and 52 (see paras. 6 and 11 above).
- 15. GRSG considered and adopted document TRANS/WP.29/GRSG/2001/3, and agreed to transmit it to WP.29 and AC.1 for consideration at their November 2001 sessions, jointly with the proposal of annex 3 to the report of the seventy-ninth session (TRANS/WP.29/GRSG/58, annex 3).
- 16. The expert from Germany introduced informal document No. 22 that contained a proposal to align the text of Regulation No. 107 with the provisions for the interior dimensions of the upper deck, which had been adopted at the seventy-seventh GRSG session (TRANS/WP.29/2000/23). In order to allow a more detailed consideration of the proposal, the secretariat was requested to distribute informal document No. 22 with an official symbol for the next session.

DEVELOPMENT OF REGULATION No. 66 (Strength of superstructure)

 $\underline{\text{Documentation}}\colon \text{TRANS/WP.29/GRSG/2000/14, and Add.1}; \ \text{TRANS/WP.29/GRSG/2001/5}; \ \text{TRANS/WP.29/GRSG/2001/6}; \ \text{informal documents Nos. 3, 4, 5, 9 and 21 of annex 1 to this report.}$ 

- 17. GRSG noted that the proposals of documents TRANS/WP.29/GRSG/2000/14 and Add.1 had been included in documents TRANS/WP.29/GRSG/2001/5 and TRANS/WP.29/GRSG/2001/6.
- 18. The expert from Hungary, Chairman of the informal group on Regulation No. 66, reported to GRSG about the progress made during the meeting, which had been held in Prague on 14 and 15 December 2000 (informal document No. 3).
- 19. Among other issues, he stressed the necessity of the new annexes on the viewpoints to the structural description of superstructures, on the determination of the centre of gravity, and on the description of the load bearing parts of the superstructure in case of rollover. He also said that free suspension and the influence of belt passengers in the developed energy should be clarified.
- 20. The expert from Spain informed GRSG that a research programme was being finalized in his Institute, showing that the influence that belted passengers exerted on the superstructure was lesser than originally supposed. He also said that the main conclusion of the research was that the survival space was not achieved with the current prescriptions of the Regulation. He offered to consider the final report of the research at the next informal group meeting.
- 21. GRSG considered informal document No. 4 proposing the rollover of a full-scale vehicle as the basic test method for the approval pursuant

Regulation No. 66. The Chairman confirmed that alternative methods should be allowed if their equivalence could be demonstrated.

- 22. GRSG agreed that consideration of the proposal for full-scale vehicle rollover should continue in the following sessions, and requested the secretariat to distribute informal document No. 4 with an official symbol for the next session.
- 23. The expert from Hungary also introduced informal document No. 5 containing the statistics of rollover accidents of buses, which complemented the statistical information he had transmitted as informal document No. 6 to the seventy-eighth session. He stressed that the percentage of high deck vehicles having had a rollover accident was higher than the percentage of this kind of vehicle in service. He concluded that this result demonstrated that lateral stability had a considerable influence in rollover. Finally he explained to GRSG that the frequency of accidents by category of vehicles did not cover the total number of cases, because in some accidents the vehicle category was not known.
- 24. The expert from the United Kingdom reminded GRSG that, in his country, stability tilt tests were mandatory for both Regulation No. 36 (35°) and Regulation No. 107 (27°), and that for high deck vehicles the 35° requirement was considered to be applied.
- 25. The expert from Hungary presented informal document No. 9, in which the evolution of the cross-section of coaches was shown together with its implication on the rollover issue. He stressed that, when the height of vehicles exceeded 3 m, the survival space was severally reduced in rollovers. He requested GRSG's authorization to include in the mandate of the informal group a study of this technical issue in order to find a solution, which would avoid any unreliability of the current approval. GRSG gave its approval to the extension of the group's mandate.
- 26. The expert from Spain presented informal document No. 21, which contained a third alternative method for calculation of the centre of gravity. GRSG agreed that the informal group should consider this proposal at its following meeting to be held in Brussels from 9 to 11 May 2001.
- 27. A first consideration of document TRANS/WP.29/GRSG/2001/5, which contained a proposal for the calculation of the centre of gravity was also made. GRSG agreed in principle with the following amendments to the proposal:

### Paragraph 2.2., amend to read:

# Paragraph 2.2.2., amend to read:

"2.2.2. tilting method (see figure 3)"

## Paragraph 3., amend to read:

"3. The following accuracy ......"

# Paragraph 6.1., amend to read:

- "6.1. Lifting shall be done at both sides ...... "
- 28. The expert from Hungary presented document TRANS/WP.29/GRSG/2001/6, proposing to modify substantially the current structure of the Regulation. He said that this document would be updated by incorporating any new proposals of the informal group.
- 29. GRSG thanked the Chairman and the members of the informal group for the work done and expressed its hope on having soon new proposals to be incorporated in the consideration of amendments to Regulation No. 66.

#### DRAFT REGULATION ON FIRE SAFETY

<u>Documentation</u>: TRANS/WP.29/GRSG/1999/23 and Add.1; informal document No. 23 of annex 1 to this report.

- 30. The expert from Norway introduced informal document No. 23 that contained the missing figures of the proposal (TRANS/WP.29/GRSG/1999/23 and Add.1).
- 31. GRSG agreed to divide the consideration of this new Regulation into two steps. In the first one, this Regulation should be made parallel to the equivalent European Community Directive (95/28/EC), and in the second step GRSG would consider the possibility of including new requirements. Bearing in mind the above agreement, the expert from Norway offered to transmit an updated proposal for consideration at the October GRSG session.

DEVELOPMENT OF REGULATION No. 43 (Safety glazing)

Documentation: TRANS/WP.29/GRSG/1999/4; TRANS/WP.29/GRSG/1999/12/Rev.1;
TRANS/WP.29/GRSG/1999/29; TRANS/WP.29/GRSG/1999/30; TRANS/WP.29/GRSG/2000/20;
TRANS/WP.29/GRSG/2000/20/Add.1; TRANS/WP.29/GRSG/2001/4;
TRANS/WP.29/GRSG/2001/7; TRANS/WP.29/GRSG/2001/8; TRANS/WP.29/GRSG/2001/9;
informal documents Nos. 1, 2, 12, 13, 17, 18, 19 and 24 of annex 1 to this report.

32. GRSG considered and adopted the proposal for Corrigenda to the Regulation contained in documents TRANS/WP.29/GRSG/2000/20 and TRANS/WP.29/GRSG/2000/20/Add.1, amended as reproduced below. It was also agreed to transmit it as draft Corrigendum 1 to Supplement 6 to the Regulation to WP.29 and AC.1 for consideration at their November 2001 sessions.

Annex 3, paragraph 9.4., delete the proposed amendment (the current text of the Regulation retained).

33. Concerning the alternative headform use (TRANS/WP.29/GRSG/1999/4), the expert from Germany confirmed that he had received four samples of this alternative headform, but he said that more time was needed to perform the comparison tests and to prepare a report to GRSG.

- 34. To address the proposals for safety glazing installation, the expert from the United Kingdom introduced informal documents Nos. 12 and 17. He explained to GRSG that informal document No. 12 was a revision of document TRANS/WP.29/GRSG/1999/12/Rev.1, whilst informal document No. 17 contained an explanatory note supporting the request of a minimum of 30 per cent in the regular light transmittance behind the B pillar. He said that this document was based on five reports and scientific studies and that, in addition, research on this matter was being conducted in his country. He envisaged that the results of the research could be presented to GRSG at the October 2001 session.
- 35. He proposed not to fix a minimum limit for the regular light transmittance (rlt) at the beginning, but to determine which glazings were necessary for the direct driver's vision and impose a minimum rlt to them only after that. He also mentioned that in several cases (i.e. when acceding to a motorway) direct vision through glazing behind the B pillar was necessary to avoid the blind spot that current rear-view mirrors could not avoid.
- 36. The expert from CLEPA disagreed with some of the conclusions that the expert from the United Kingdom had made from the researches and studies. He said that, in his opinion, these researches were focused on windscreens and that the relation to the rear vision was not clearly stabilised. He also said that no study on accidents showed the need to fix a minimum rlt for glazing behind the B pillar. Concerning the issue of blind spots he suggested solving it through the rear-view mirrors (Regulation No. 46) and not through the glazing behind the B pillar. He also presented informal document No. 19, which contained the CLEPA comments to the proposal of informal document No. 12.
- 37. The expert from Germany introduced informal document No. 13, which contained the German position against the introduction of a minimum value for rlt in glazing behind the B pillar. As his main conclusion, he said that Regulation No. 43 should not incorporate a minimum rlt value behind the B pillar and that Regulation No. 46 and the corresponding European Community Directive 71/127/EEC should be amended to solve the issue of blind spots. He announced that a proposal to amend the above-mentioned European Community Directive was being elaborated in his country, incorporating new technologies as video cameras. On that subject, the Chairman recalled the presentation that the expert from the Netherlands had made at the previous session (TRANS/WP.29/GRSG/58, para. 106).
- 38. The expert from the United Kingdom, supported by the expert from Canada, insisted that among others, in reversing manoeuvres, glazing materials behind the B pillar were not under the indirect field of drivers' vision and that these glazing materials should have a minimum rlt value.
- 39. The expert from Japan introduced informal document No. 18, in which the main conclusion was that the spread of use of dark glazing had not caused an increased occurrence of traffic accidents. The expert from Canada introduced informal document No. 24 containing a study on visibility through tinted

automotive glazing with the main conclusion that reduced rlt could have an adverse effect on night visibility.

- 40. The experts from Italy, Spain and OICA supported the view of the experts from Germany and CLEPA and opposed any introduction of the minimum value of rlt, whilst suggesting to solve the issue of blind spots through rear-view mirrors. The expert from France agreed with this solution for vehicles other than M1, and expressed his intention to study the proposal from the United Kingdom concerning M1 vehicles.
- 41. The experts from CLEPA and OICA withdrew their proposals of documents TRANS/WP.29/GRSG/2001/8 and TRANS/WP.29/GRSG/2001/9, because they were included in informal document No. 19.
- 42. GRSG agreed to continue the consideration of the installation requirements, including the proposal from Japan (TRANS/WP.29/GRSG/2001/7) at its October 2001 session, and requested the secretariat to distribute informal documents Nos. 12 and 19 with official symbols.
- 43. The consideration of the proposal for a draft Corrigendum to the Russian version of Regulation No. 43 (TRANS/WP.29/GRSG/2001/84) was postponed. The expert from the Russian Federation offered to review the text and report to GRSG at its October 2001 session.
- 44. As regards the proposal for a global technical regulation (gtr), the expert from CLEPA withdrew informal document No. 1. He explained to GRSG that a comparison between the draft global technical regulation and Regulation No. 43 was contained in document TRANS/WP.29/GRSG/2000/30.
- 45. The expert from Germany pointed out that Regulation No. 43 had been amended after the elaboration of the draft gtr, and suggested that these amendments were included in the proposal. The expert from CLEPA agreed to prepare a corresponding proposal after consultations with the manufacturers from the North America and Japan. GRSG agreed to consider the proposal in its October 2001 session, jointly with informal document No. 2.

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DEVELOPMENT OF REGULATION No. 39 (Speedometer equipment)

<u>Documentation</u>: Informal documents Nos. 7 and 14 annex 1 to this report.

46. GRSG considered and adopted informal document No. 7 tabled by the expert from IMMA, as reproduced below. It was agreed to transmit it to WP.29 and AC.1 for consideration at its November 2001 sessions as Supplement 4 to the Regulation.

Paragraph 1, amend to read (including the addition of a new footnote 1/):

" ..... the approval of vehicles of categories L, M and N  $\underline{1}/$ 

 $\underline{1}/$  As defined in annex 7 of the Consolidated Resolution of the Construction of Vehicles (TRANS/WP.29/78/Rev.1/Amend.2"

Paragraph 4.4.1., the reference to footnote  $\underline{1}/\underline{and}$  footnote  $\underline{1}/\underline{(former)}$ , renumber as footnote  $\underline{2}/\underline{}$ 

Paragraph 5.1.5., should be deleted.

Annex 3, paragraph 2., amend to read:

" .....

In the case of vehicles of category  $L_3$ ,  $L_4$  and  $L_5$ :

 $0 \le V_1 - V_2 \le 0.1 V_2 + 8 \text{ km/h};$ 

In the case of vehicles of category L1 and L2:

 $0 \ \underline{<} \ V_{\scriptscriptstyle 1} \ - \ V_{\scriptscriptstyle 2} \ \underline{<} \ 0.1 \ V_{\scriptscriptstyle 2} \ + \ 4 \ km/h; "$ 

47. The expert from OICA presented informal document No. 14, which contained a proposal to reduce the minimum diameter of the roller from 2.0 m to 0.4 m for the tests of speedometers. Several experts expressed their concerns about the accuracy of the tests with the smaller roller. In order to allow a deeper consideration of the proposal, the secretariat was requested to distribute informal document No. 14 with an official symbol for the October 2001 session.

DRAFT REGULATION ON THE PROTECTION OF M1 AND M2 CATEGORIES OF VEHICLES AGAINST UNAUTHORIZED USE (Development)

 $\underline{\text{Documentation}}\colon \text{TRANS/WP.29/GRSG/2000/15};$  informal documents Nos. 10 and 15 of annex 1 to this report.

48. GRSG adopted the proposal of document TRANS/WP.29/GRSG/2000/15, deleting the square brackets, and with the amendment of informal document No. 15 as

reproduced below. GRSG agreed to transmit it to WP.29 and to AC.1 for consideration at their November 2001 sessions.

# Annex 9, paragraph 2., amend to read:

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## Electrical disturbance from electrostatic discharges

The VAS/AS shall undergo ......as described in either EN 61000-4-2 or ISO/TR 10605-1993, at the manufacturer's choice.

- 49. The expert from OICA recalled that the adoption of the proposal (see para. 48 above) was a first step and that Regulation No. 10 should also be amended. The expert from France informed GRSG that his country would transmit a proposal to GRE for consideration at its October 2001 session.
- 50. The expert from the United Kingdom presented informal document No. 10, which contained a proposal introducing requirements for the progressive immobilization of a vehicle in motion after its unauthorized use.
- 51. The experts from France and Italy introduced a reservation on the principle of stopping a vehicle in motion, which in his view could be dangerous. The expert from France also suggested that this immobilization should be considered on a national basis. To allow further consideration of the proposal, the secretariat was requested to distribute informal document No. 10 with an official symbol at the October session.

DEVELOPMENT OF REGULATION No. 18 (Protection against unauthorized use)

52. The Chairman informed GRSG that WP.29 had not yet adopted the proposal of amendment to Regulation No. 18, and GRSG agreed to withdraw this agenda item from the next session agenda, unless new proposals were transmitted.

DEVELOPMENT OF REGULATION No. 97

 $\underline{\text{Documentation}}$ : TRANS/WP.29/GRSG/2000/15; informal documents Nos. 11 and 15 of annex 1 to this report.

- 53. The Chairman reminded GRSG that WP.29 had adopted the amendment to the Regulation submitted by GRSG (TRANS/WP.29/2000/3 and Add.1), in which references to EN standards had been made as examples. He informed GRSG that WP.29 had recommended avoiding such references in order to prevent changing the text of the Regulation when the mentioned standards have changed.
- 54. GRSG noted that document TRANS/WP.29/GRSG/2000/15 modified by informal document No. 15 as reproduced below, which had been adopted (see para. 83 above) also applied to Regulation No. 97. Consequently, GRSG agreed to transmit the proposal for amending Regulation No. 97 to WP.29 and AC.1 for consideration at their November 2001 sessions:

	Annex	7,	paragraph	2.,	amend	to	read:
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# Electrical disturbance from electrostatic discharges

The VAS/AS shall undergo  $\dots$  as described in either EN 61000-4-2 or ISO/TR 10605-1993, at the manufacturer's choice.

. . . . . . . . . . . "

55. The proposal for introducing requirements for the progressive immobilization of a vehicle in motion after its unauthorized use (informal document No. 11) was introduced by the expert from the United Kingdom. GRSG requested the secretariat to distribute informal document No. 11 with an official symbol for the October 2001 session (see paras. 50 and 51 above).

#### OTHER BUSINESS

(a) Development of Regulation No. 34 (Prevention of fire risks)

Documentation: TRANS/WP.29/GRSG/1999/8/Rev.1; TRANS/WP.29/GRSG/2001/10; informal document No. 8 of annex 1 to this report.

- 56. The expert from France introduced document TRANS/WP.29/GRSG/2001/10, which superseded document TRANS/WP.29/GRSG/1999/8. He also introduced informal document No. 8, which was the French version of document TRANS/WP.29/GRSG/2001/10.
- 57. He said that, following this proposal, Regulation No. 34 would be divided into two parts. Part I would contain the prescriptions of the corresponding European Community Directive 70/221/EEC, and Part II, the current text of Regulation No. 34 with the addition of tests for frontal impact, rear impact and tests of fuel tanks made of plastic material.
- 58. The expert from the United Kingdom questioned paragraphs 2.2.3. and 2.2.4., which in his opinion should be included only in Part II of the Regulation. He also suggested that in paragraph 5.9.1.1. the reference to paragraph 5.1.3. should read 5.1.4., and that in annex 5 paragraph 5.6. the value of 2 cm should be 3 cm. The expert from CLEPA suggested to include a different definition of the vehicle type for Part II.
- 59. GRSG expressed general support for the proposal, and the expert from France agreed to update the proposal, taking into consideration the results of the discussions. He also announced his intention to include a new annex with tests for lateral impact, to be considered by GRSG in the October 2001 session.
- (b) <u>Draft Regulation on identification of controls</u>, tell-tales and indicators

<u>Documentation</u>: TRANS/WP.29/GRSG/1999/19/Rev.3; TRANS/WP.29/GRSG/2000/8/Rev.1; informal documents Nos. 16 and 20 of annex 1 to this report.

- 60. The expert from Canada introduced informal document No. 20, which had been previously agreed by the experts from the United Kingdom and OICA, and included the proposals of document TRANS/WP.29/GRSG/1999/19/Rev.3 and informal document No. 16, transmitted by the expert from OICA.
- 61. The expert from OICA explained to GRSG that he agreed in principle with the proposal of informal document No. 20, but requested more time to consider it. He also volunteered to elaborate the required annexes to the draft proposal.
- 62. The expert from IRU, supported by the expert from Hungary, suggested that the symbols of the future Regulation should be the same for all categories of vehicles. The expert from the Russian Federation suggested the inclusion of symbols for trolleybuses. The expert from Canada recalled that the proposal did not forbid the utilization of other symbols included in ISO 2575:2000, and recommended that symbols for trolleybuses should be included there.
- 63. GRSG agreed to continue the consideration of the draft Regulation on the basis of a revised version of informal document No. 20 incorporating the annexes to be elaborated by the expert from OICA. It was also agreed that the same prescriptions of the draft Regulation should apply to the proposal for a global technical regulation (TRANS/WP.29/GRSG/2000/8/Rev.1).
- 64. The expert from France informed GRSG that his country was prepared to approve a type of vehicle incorporating a system projecting in the windscreen information covered by this draft Regulation.
- (c) <u>Draft global technical regulation on windshield wiping/washing and defrosting/defogging</u>

Documentation: TRANS/WP.29/GRSG/1999/28.

65. GRSG noted that no complementary documents had been transmitted for consideration and that the pending issues should be resolved in future sessions (TRANS/WP.29/GRSG/58, paras 92 to 94).

#### (d) <u>Draft Regulation on driver's field of vision</u>

Documentation: TRANS/WP.29/GRSG/2000/19.

66. The Chairman reminded GRSG that after the adoption of the amendments to Regulation No. 43, which included new obscuration zones, the proposal should also include them. The expert from Belgium agreed to prepare a corresponding proposal for consideration at the next session. The expert from Italy insisted that this new Regulation should only apply to M1 vehicles. The expert from France informed GRSG that the proposal had some prescriptions different from those of the European Community Directive 77/649/EEC. GRSG noted the information and agreed to continue consideration of this item at the

next session. The secretariat was requested to put in the website the English version of document TRANS/WP.29/GRSG/2000/19.

### (e) Consolidated Resolution on the Construction of Vehicles (R.E.3)

Documentation: TRANS/WP.29/1998/67.

67. The expert from OICA withdrew his proposal for the definition of a low volume manufacturer to be included in the Consolidated Resolution of the Construction of Vehicles (R.E.3). Following this announcement, the item was taken out of the agenda.

#### (f) <u>Informal meeting on "Common Tasks"</u>

<u>Documentation</u>: Informal documents Nos. 1, 2, 3, 4, 5, 6, 7 and 8 of annex 1, part 2 to this report.

- 68. The expert from Japan chairing the informal group on "Common Tasks" reported on the meeting held prior to GRSG proper (see para. 2. above).
- 69. He informed GRSG that the report of the first session had been adopted by the informal group (informal document No. 2), and the review of current status of national and regional disparities had been updated.
- 70. He said that the informal group had reached an agreement on the guidelines and procedures for elaborating the common definitions and selected the cases on which masses and dimensions should be defined. He announced that consideration of the definitions would begin at the next informal meeting.
- 71. He also reported to GRSG that experts participating in the work had been requested to consider a proposal by Japan containing a list of options for defining the categories of vehicles. The experts had been required to send their comments to the informal group's Secretary, in order to prepare a concrete proposal to be considered at the next session of the informal group.
- 72. Regarding the outcome of the work, the Chairman informed GRSG that WP.29 had been informed at its one-hundred-and-twenty-second session about the four possible solutions. He said that WP.29 had not taken any decision, but that the WP.29 Chairman had concluded that a global technical regulation No. "0" in the Global Registry of the 1998 Agreement looked to be the most acceptable solution (TRANS/WP.29/743, paras. 40-41).
- 73. Finally the Chairman informed GRSG that the informal meeting would be held again prior to the next GRSG session, on 8 October (afternoon) and 9 October (morning) 2001.

<u>Note by the secretariat</u>: The draft report and the informal documents of the informal group on "Common Tasks" are available in the WP.29 website under WP.29/GRSG.

### (g) AGENDA FOR THE NEXT SESSION

74. For its eighty-first session (October 2001), GRSG agreed to continue with the scheme of a separate informal meeting, prior to GRSG proper, incorporated in the agenda.

#### (a) <u>Informal meeting on "Common Tasks</u>"

To be held at Geneva from Monday 8 October (14.30h) to Tuesday 9 October (12.30h), with interpretation; with the discussion focused on:

- (1) Definition of masses and dimensions (M1 and N1 vehicles).
- (2) Categories definition (M1 and N1 vehicles).

# (b) Eighty-first session of GRSG proper

To be held in Geneva from 9 October (14.30h) to 11 October (12.30h) 2001  $\underline{1}/\underline{2}/.$  The following provisional agenda was agreed.

- 1. Regulation No. 36 (Large passenger vehicles), development
- 2. Regulation No. 52 (Small capacity passenger vehicles), development
- Regulation No. 107 (Double-deck large passenger vehicles), development
- 4. Regulation No. 66 (Strength of superstructure), development
- 5. Draft Regulation on fire safety
- 6. Regulation No. 34 (Prevention of fire risk), development
- 7. Regulation No. 39 (Speedometer equipment), development
- 8. Regulation No. 43 (Safety glazing),
- 9. New draft Regulation on the protection of M1 and N1 category vehicles against unauthorized use, development
- 10. Regulation No. 97 (Vehicle alarm systems), development
- 11. Other business
- 11.1. New draft Regulation on identification of controls, tell-tales and indicators
- 11.2. New draft global regulation on windshield wiping and washing, defrosting and defogging
- 11.3. New draft Regulation concerning the driver's field of vision of power driven vehicles
- 11.4. Report of the informal meeting on "Common Tasks"

- $\underline{1}/$  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.
- $\underline{2}/$  The numerical order of the agenda items should be followed in order to avoid discontinuity on the participation of experts specialized in various subjects.

# Annex 1

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

No	Transmitted By	Agenda item	<u>Language</u>	<u>Title</u>
1.	CLEPA	6.	E	Draft global standard for safety glazing materials for motor vehicles and motor vehicle equipment
2.	Belgium	6.	F	Comments from the informal meeting group. Brussels 25 and 26 January 2000
3.	Hungary	4.	E	Report of the informal expert group
4.	Hungary	4.	E	Rollover of full scale vehicle as the basic approval test method
5.	Hungary	4.	E	Unusual statistics about rollover accidents of buses II
6.	Russian Federation	1.	E	Proposal for draft amendments to Regulation No. 36
7.	IMMA	7.	E	Proposal for draft supplement to Regulation No. 39
8.	France	11.1.	F	Proposal for draft amendments to Regulation No. 34
9.	Hungary	4.	E	Grave problem with the standard rollover test
10.	United Kingdom	8.	E	Draft Supplement to the new Draft Regulation: Uniform technical prescriptions concerning the protection of motor vehicles against unauthorized use
11.	United Kingdom	10.	Е	Draft Supplement to Regulation No. 97: Uniform provisions concerning the approval of vehicle alarm systems (VAS) and of motor vehicles with regard to their alarm systems (AS)
12.	Belgium and United Kingdom	6.	E	Proposal for draft amendments to Regulation No. 43

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13. Germany 6. E Comments on the B/UK proposal for draft amendments to Regulation No. 43

<u>No</u>	Transmitted By	Agenda item	<u>Language</u>	<u>Title</u>
14.	OICA	7.	E	OICA request for amendment to ECE Regulation No. 39: Speedometer equipment
15.	OICA	8. and 10.	Е	OICA proposed for amendments to draft Regulation: Protection of motor vehicles against unauthorized use and Regulation No. 97: Vehicle alarm systems
16.	OICA	11.2.	E	OICA comments on the proposed draft new Regulation regarding controls, tell tales and indicators
17.	United Kingdom	6.	E	Explanatory note (Regulation No. 43)
18.	Japan	6.	E	Current situation of vehicles with darker glasses in Japan
19.	CLEPA	6.	E	Proposal for draft amendments to Regulation No. 43
20.	Canada	11.1.	E	Proposal for a new draft Regulation: Uniform provisions concerning the approval of vehicles with regard to the specifications for controls, tell tales and indicators
21.	Spain	4.	E	Modification in the tilting test proposed for the determination of the centre of gravity in Regulation 66
22.	Germany	3.	E	Proposal for draft amendments to Regulation No. 107
23.	Norway	5.	E	Draft Regulation on fire safety
24.	Canada	6.	E	Visibility through tinted automotive glazing
-	Russian Federation	-	E	Inter signal doors trans 2001

# LIST OF INFORMAL DOCUMENTS DISTRIBUTED WITHOUT A SYMBOL DURING THE INFORMAL MEETING ON "COMMON TASKS"

<u>No</u>	Transmitted By	Agenda item	Language	<u>Title</u>
1.	Japan	-	Е	Provisional agenda for the second meeting of the Informal Group on "Common Tasks" in GRSG
2.	Japan	2.	Е	Draft report: First meeting of the Informal Group on "Common Tasks" 16-17 October 2000 (79 GRSG)
3.	Canada	4.	E	Proposes procedure for Common Tasks with provisional working definitions
4.	Japan	4.	Е	Proposal for general guidelines and procedures for developing common definitions of vehicles categories, masses and dimensions
5.	OICA	5.	Е	Proposal for terms to be defined in [draft candidate global technical regulation (gtr) concerning uniform provisions for common definitions of vehicles categories, masses and dimensions
6.	Japan	5.	Е	Proposal for viable options and points at issues concerning categorization of vehicles
7.	Japan	3.	Ε.	National and regional disparities in definitions concerning categories, masses and dimensions
8.	Japan	6.	Ε.	Documentation of the outcome of "Common Tasks" discussion

#### Annex 2

# AMENDMENTS TO REGULATION No. 36 ADOPTED IN PRINCIPLE BY GRSG AT ITS EIGHTIETH SESSION

## Paragraph 2.1., amend to read:

"2.1. "Vehicle", means a single deck vehicle designed and equipped for the transport of more than 22 passengers. There are three Classes of vehicles. A vehicle may be regarded as belonging in more than one Class. In such a case it may be approved for each Class to which it corresponds;"

## Insert a new paragraph 2.1.4., to read:

"2.1.4. "Trolleybus", means a vehicle of Classes I, II, or III, electrically driven by energy from external wires."

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

"2.1.5. "Articulated\_vehicle" means ...."

Paragraph 2.1.5. (former), renumber as paragraph 2.1.6.

Paragraph 5.1.1.3., amend to read:

"... articulated vehicles in both ...."

Paragraph 5.2.1.4., amend to read:

".... sections of an articulated vehicle to which ...."

Paragraph 5.5.4.5., amend to read:

"..... to the road surface, but never on any exhaust system or any high voltage electrical equipment."

Insert a new paragraph 5.5.5.3.4., to read:

"5.5.5.3.4. retrieving of trolley poles."

Paragraph 5.5.9., amend to read:

"..... permitted within 10 cm of any exhaust system component, any high voltage electrical equipment or any other significant source of heat of a vehicle unless the material is effectively shielded. For the purpose of this paragraph, a flammable material is considered to be one which is not designed to withstand the temperature likely to be encountered in that location. Where necessary, shielding shall be provided to prevent grease or other

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flammable materials coming into contact with any exhaust system, any high voltage electrical equipment or any other significant source of heat."  $\[ \]$ 

## Paragraph 5.6.1.2., amend to read:

"..... rigid section of an articulated vehicle shall be .... articulated vehicle of Class I."

### Paragraph 5.6.1.6., amend to read:

"..... section of an articulated vehicle shall be treated as a separate vehicle ..."

# Paragraph 5.6.1.9., amend to read:

" ..... in the case of Class I vehicles. There should not be any escape hatches fitted in the roof of any trolleybus. The minimum number of hatches shall be:"

## Paragraph 5.9., amend to read:

"5.9. Articulated section of articulated vehicles"

# Paragraph 5.9.2., amend to read:

"5.9.2. When the articulated vehicles at its unladen kerb mass ... "

## Paragraph 5.9.4., amend to read:

"5.9.4. On articulated vehicles, handrails and/or .... "

# Paragraph 5.10.3., amend to read:

" ..... (see annex 4, figure C) in the case of an articulated vehicle."

# Paragraph 5.11., amend to read:

"5.11. Direction holding of articulated vehicles"

# Insert a new paragraph 5.16., to read:

"5.16. Trolleybuses shall comply with the prescriptions of annex 8."

# Insert a new annex 8, to read:

#### "Annex 8

#### SAFETY PRESCRIPTIONS FOR TROLLEY BUSES

# 1. DEFINITIONS

For the purpose of this Annex:

#### 1.1. Contact system voltage

Trolley buses can be supplied with contact system voltage of rated value of:

- 600 V (a working range of 400 to 720 V);
- 750 V (a working range of 500 to 900).

#### 1.2. Electrical circuits of trolley bus

- "high voltage circuits" means circuits supplied with contact system voltage;
- "low voltage" circuits means circuits supplied with accumulator battery voltage and with a charger outlet of nominal 24 V voltage.
- "three phase circuits" means circuits supplied with a second converter outlet of three phase voltage not exceeding 400 V AC.

#### 1.3. Rated climatic conditions

Trolley buses are intended to provide reliable transit service in the environmental conditions with:

- a temperature range of minus  $40^{\circ}\tilde{N}$  to plus  $40^{\circ}\tilde{N}$ ;
- an relative humidity of 98 per cent at temperature of  $25^{\circ}\tilde{N}$  and lower;
- an atmospheric pressure of 866 to 1066 hPa;
- altitude from sea level 1,000 m maximum
- 1.4. "Self extinguishing material" means a material which does not continue to burn when the ignition source is removed.

#### 2. POWER COLLECTION

- 2.1. Electrical power from overhead wires is leaded to trolleybus with power collectors. The power collector is comprised of a pole, a trolley electric current collector and a replaceable collector insertion. Power collectors are hinged to trolleybuses, and turning in horizontal and vertical directions.
- 2.2. Poles shall be made of insulated material or metal covered with insulating material resistant to mechanical shocks.
- 2.3. Power collectors shall be designed to maintain adequate positive contact with the overhead trolley electric supply wires when the wires are located at 4 to 6 metres above the ground and trolley

bus axis to axis deviation distance of at least 4.0 meters to each side with respect to the axis of the overhead wires.

- 2.4. In case the pole unwires, trolley electric current collector(s) shall not be raised higher than 7.2 metres above the road, or 1 meter maximum above electrical supplied lines at the time of dewiring, and shall not be declined lower than 0.5 metres above the roof of the trolley bus.
- 2.5. Each power collector shall be equipped with a device pulling the pole automatically down if the pole unwires.
- 2.6. The trolley electric current collector, if wrenched out of the pole, shall be kept connected to the pole and should not fall down.
- 2.7. Insulation resistance of the electric current collector to trolley bases shall be at least 10  $\Omega$ :
- 2.8. Power collectors may be equipped with remote control from the driver's compartment at least for unwiring.
- 2.9. Certain arrangements at the trolley bus shall provide an opportunity for the driver to replace, if necessary, power collector inserts in transit service conditions.
- 3. TRACTION AND AUXILIARY EQUIPMENT
- 3.1. Electrical components installed on the trolley bus shall be protected against over-voltage and short-circuit current. The protection shall preferably be assured by current-breaking apparatus that are reset automatically, remotely or manually.
- 3.2. Electrical components shall be protected against commutation or atmospheric over-voltage.
- 3.3. Current-breaking apparatus shall provide interruption of particular damaged circuits.
- 3.4. If any circuit includes single current-breaking apparatus, it shall be installed in the positive wire of the circuit.
- 3.5. All electrical circuits and circuit branches shall be of dual wiring. The trolleybus body can be used for current return grounds only for low voltage electrical circuits.
- 3.6. Battery cases, accumulator covers and battery compartment trays shall be made of non-flammable or self extinguishing materials.
- 3.7. Electrical components energized by the trolley line voltage shall have additional insulation from the body and transmission.

- 3.8. Electrical components with exemption of traction resistors shall be protected against penetration of moisture and dust inside the body and on insulated and current conducting parts.
- 3.9. At rated climate conditions for dry and clean trolley bus insulation resistance of electrical circuits when all rotating machines and apparatus are switched on shall not be less than:
  - body to high voltage electrical circuits  $~~5~\text{M}\Omega$
  - high voltage electrical circuits to low electrical  $\,$  5  $\text{M}\Omega$  circuits
  - body to positive pole of low voltage electrical  $$\rm 1~M\Omega$$  circuits

- 3.10. Wiring, Cabling and Apparatus
- 3.10.1. Only multi-line wires shall be used for high voltage circuits. All high voltage DC wiring shall have insulation rated for 3,000 V DC or AC.
- 3.10.2. Mounted wiring and cabling should not be stressed mechanically.
- 3.10.3. Wiring insulation shall not propagate burning.
- 3.10.4. Wiring of different voltages shall be mounted separately.
- 3.10.5. Cabling conduits shall be made of non-flammable material.
- 3.10.6. Cabling tubes located under the floor shall exclude propagation of water and dust.
- 3.10.7. Cabling and wiring located under the trolley bus shall be inserted into conduit protecting against water and dust.
- 3.10.8. Fastening and arrangement of wiring and cables shall exclude damage (fraying) of insulation.

Grommets of elastomeric material shall be provided at points where wiring penetrates metal structure to exclude insulation damage.

Radius of bound tubes containing wiring shall be five external diameters of the tube minimum.

- 3.10.9. Location of wiring in apparatus breaking off electrical current shall exclude skipping the electrical arch onto the wiring.
- 3.10.10. Precautions shall be taken to avoid damage of wiring and cables from heated resistors and other electrical components. In critical areas thermo-resistant wires or cables shall be used.
- 3.10.11. Wiring holders, connectors and other devices for mounting shall be made of non-flammable or self-extinguishing materials. Electrical components of the hardly flammable materials may be installed outside passenger compartment only.
- 3.10.12. Test voltage  $U_{tes}$  for electrical equipment, wiring and cabling for high voltage circuits shall be of value of:

 $U_{tes} = 2.5 U + 2,000 VAC,$ 

where U - rated voltage of the contact system

Test voltage for low voltage equipment U  $_{tes}$  = 750 VAC.

The test voltage at frequency of 50 Hz shall be approximately sinusoidal form. The time of application of the test voltage is fixed at 1 min.

- 3.11. Electrical machines, apparatus, devices, wiring and cables shall withstand mechanical affects, applied to fixations, as follows:
  - sine-wave form vibration of 0.5 55 Hz frequency and  $10 \text{ m/s}^2$  maximum amplitude including resonance if produced;
  - §- descrest shocks of 30  $m/s^2$  peak shock acceleration lasting 2 -20 ms in vertical direction.
- 4. ELECTRICAL SAFETY OF PASSENGERS AND SERVICE PERSONEL
- 4.1. At rated climate conditions for dry and clean trolley bus connected with both power collectors to wire of positive polarity and negative polarity of the contact system to "the ground" leakage current from the body shall not be higher than 0.2 mA (Grounded contact system).
- 4.2. Trolley bus must be equipped with onboard device for permanent monitoring of leakage current or voltage between chassis and the road surface. The device shall disconnect the high voltage circuits from the contact system in case of leakage current exceeding 3 mA at a voltage of 600 v DC, or the voltage of more than 40 V.
- 4.3. Stanchions at doorway shall be made of insulated material or plated with mechanically durable insulation. Insulation resistance shall at least be 1.0  ${\rm M}\Omega$  on a contact square of 100 +/- 5 cm².
- 4.4. The first steps shall be made of insulated material or plated with mechanically durable insulation. Insulation resistance shall at least be 1.0  $M\Omega$  at a square of contact of 300 +/- 5 cm².
- 4.5. Door panels shall be made of insulated material or insulated from the trolley bus body. Insulation resistance shall be 1.0  $M\Omega$  at least at a contact square on the panel of 300 +/- 5 cm².
- 4.6. Sidewall area adjacent to the door apertures shall be plated with insulation. The insulated area shall extend at least 50 cm wide each side of the door apertures and at least 200 cm high from the roadway. Insulation resistance in respect to the trolley bus body shall not be less than 1.0  $\mathrm{M}\Omega$  at a square of contact of 200 +/- 5 cm²
- 4.7. If the trolley bus is equipped with a double insulated DC/DC converter, paragraphs 4.3 to 4.6 [may/shall] not be applied.

- 5. THE DRIVER'S COMPARTMENT
- 5.1. In the driver's compartment there should not be high voltage equipment accessible for the driver.
- 5.2. As a minimum, the instrument panel shall be consistent of:
  - indicator of voltage in the contact system;
  - indicator of zero voltage in the contact system;
  - indicator of main automatic switch of contact system voltage state;
  - indicator of charge/discharge of the batteries;
  - indicator of dangerous potential on the body or leakage current exceeding permissible value."