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Working Party on the Construction of Vehicles

Meeting of Experts on General Safety Provisions

REPORT OF THE MEETING OF EXPERTS ON GENERAL SAFETY PROVISIONS ON ITS SEVENTY-SECOND SESSION

(7 to 11 April 1997)

1. The Meeting of Experts on General Safety Provisions held its seventy-second session from 7 April (afternoon) to 11 April (morning only) 1997, under the chairmanship of Mr. J. Martin (Luxembourg). Experts from the following countries participated in the work: Czech Republic; Denmark; Finland; France; Germany; Hungary; Italy; Luxembourg; Netherlands; Norway; Poland; Russian Federation; Spain; United Kingdom; United States of America. Representatives of Japan took part in the session under paragraph 11 of the Commission's Terms of Reference. 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); Liaison Committee for the Manufacture of Automobile Equipment and Spare Parts (CLEPA); European Insurance Committee (CEA).

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

DEVELOPMENT OF REGULATION No. 36 (Public service vehicles)

Documentation: TRANS/WP.29/R.742/Rev.1; TRANS/WP.29/GRSG/R.280;
TRANS/WP.29/GRSG/R.290; TRANS/WP.29/GRSG/R.292; TRANS/WP.29/GRSG/R.298;
TRANS/WP.29/GRSG/R.299; informal documents Nos. 4, 5, 6 and 7 of annex 1 to this report.

- 3. Reviewing document TRANS/WP.29/R.742/Rev.1, the consideration of which had been deferred by the Working Party during its one-hundred-and-eleventh session (TRANS/WP.29/534, para. 10. (ii)), the Meeting of Experts resumed discussion of the proposal by Germany related to permitted gangway design of low floor vehicles (TRANS/WP.29/GRSG/50, paras. 10 and 11). The results were not conclusive, however, and it was agreed that related provisions in document TRANS/WP.29/R.742/Rev.1 should not be modified. It was consented to resume this topic at the next session, noting that a great majority of experts favoured two specifications to be allowed as alternatives:
 - (a) 12.5 per cent max. slope and no step in the whole gangway length;
 - (b) 8.0 per cent max. slope with a step allowed (12 25 cm high).
- 4. In view of the above, the proposals of document TRANS/WP.29/R.742/Rev.1 were confirmed by the Meeting of Experts and it was agreed to re-transmit it to the Working Party and to the Administrative Committee AC.1, if possible for consideration at its sixth session (June 1997). The only modification requested was a corrigenda to annex 5 (Testing device for siting of hand-rails and hand-holds), where the secretariat was requested to produce a corrected drawing (deleting the dimension of 190 cm corresponding to the compartment height and adding an indication regarding the 2 cm thickness of the testing device see document TRANS/WP.29/R.742/Rev.1/Corr.1).
- 5. The question of the width of service door apertures was considered on the basis of a proposal by Hungary (TRANS/WP.29/GRSG/R.298), understanding that it extended the ideas of the expert from the Czech Republic (TRANS/WP.29/GRSG/R.292) to curved doors copying the outside shape of vehicles' side panels. The question was not concluded of the elastic door trim, i.e. if it should or should not be allowed to reduce further the door access width.
- 6. During a detailed consideration, a number of other proposals contained in TRANS/WP.29/GRSG/R.298 were agreed in principle. All related modifications to the document are recorded in annex 2 to this report; the Meeting of Experts agreed to resume its consideration of this item at the next session with a commitment to conclude the work.
- 7. Document TRANS/WP.29/GRSG/R.299 was considered, but there were some difficulties in interpreting its provisions. The expert from Germany agreed to consider for the next session whether the matter could be solved by referring to the driving axle, instead of a rear axle.
- 8. Consideration of documents TRANS/WP.29/GRSG/R.280 and TRANS/WP.29/GRSG/R.290 was deferred to the next session. The expert from the United Kingdom recalled that in his country an Act of Parliament which had

been passed in November 1995 required accessibility by handicapped persons to land-based public transport vehicles. First, new vehicles would be required to comply, later the existing vehicles should be converted. He expected that more information should be available for the seventy-third session in October. The experts from Germany, France and Spain said that in their countries the accessibility requirements for handicapped persons were set by the operators and customers and no changes to national legislation in this respect were anticipated. They also noted that such requirements would need to be notified to the European Community.

9. An agreement noted below was reached on two of the proposals submitted by the Russian Federation (informal document No. 5) and the Meeting of Experts decided to transmit them for consideration to the Working Party and to the Administrative Committee AC.1 for its seventh session (November 1997). The secretariat was requested to prepare a relevant working document.

Paragraph 1, amend the value "16 passengers" to read "22 passengers"
(Note: This decision implied modifications to other provisions of Regulation
No. 36, as proposed in document TRANS/SC1/WP29/GRSG/R.251.)

Paragraph 5.6.2.2., amend to read:

- ".... not less than 40 per cent of the overall length of the passenger compartment measured parallel to the longitudinal axis of the vehicle. If one of these two doors forms part of a double door"
- 10. The expert from France introduced informal document No. 7, containing specifications for fire extinguishers, proposed to be introduced into Regulation No. 36, as well as No. 52 and the new draft Regulation on double-deck passenger vehicles. In the discussion, the expert from the United Kingdom expressed his concern with prescribing the powder extinguishers, which could be dangerous to passengers if discharged inside a vehicle (inhalation and obscuration of exits). A study reservation was also made by the expert from the Netherlands. The expert from France disputed the matter and referred to Regulation No. 52 and the new draft Regulation on double-deck passenger vehicles, where powder extinguishers had already been accepted. The Meeting of Experts agreed to resume the discussion of this item at the next session and requested the secretariat to issue the document with an official symbol.
- 11. The experts from the United Kingdom (informal document No. 4) and from France (informal document No. 6) distributed results of research in their countries assessing evacuation of various designs of public service vehicles in cases of emergency. The study which had been done in the United Kingdom included also considerations regarding passengers' behaviour, whilst the study by France was particularly concerned with double-deck vehicles.
- 12. To stress how the safety of public service vehicles could be improved by design, the expert from Spain presented a report of an actual high-speed frontal accident of a coach with a passenger car which had resulted in a fire and had cost the lives of 28 people, while leaving another 25 injured. He showed the results of the accident study which concluded that in coaches:
- (a) Low driver's position could have a negative effect, because the driver is not protected and cannot assist passengers in the evacuation of

the vehicle;

- (b) The underrun protection should be used to prevent the penetration of a car under the coach in such type of an accident;
- (c) There shall be special consideration regarding placing of the fuel tanks, particularly if they were made of plastic material;
- (d) The devices for opening the doors of the vehicle in emergency should be more visible and easy to control.
- 13. In the exchange of views which followed, various aspects of the above-reported accident were discussed together with the results of the evacuation research (see para. 11 above). To facilitate further discussion and possible preparation of construction requirements to reduce the gravity of similar collisions, the expert from Spain agreed to prepare a short report on the above accident for distribution at the next session.

DEVELOPMENT OF REGULATION No. 52 (Small capacity public service vehicles)

<u>Documentation</u>: TRANS/WP.29/R.743/Rev.1; TRANS/WP.29/GRSG/R.281; informal documents Nos. 4 and 7 of annex 1 to this report.

- 14. The Meeting of Experts noted the adoption by AC.1 at its fifth session of document TRANS/WP.29/R.743/Rev.1 (TRANS/WP.29/534, para. 23).
- 15. Considering the amendments agreed in principle for Regulation No. 36 (see para. 6 above), the expert from the United Kingdom requested that parallel modifications be considered for Regulation No. 52. This was agreed in principle, although it was pointed out that, with respect to differences in the structure of both Regulations, a parallel proposal would need to be prepared by an expert, based on annex 2 to this report.
- 16. Consideration of document TRANS/WP.29/GRSG/R.281 was postponed to the next session (see also para. 8 above). It was noted that it should be considered together with the relevant amendments, published in the report of the sixty-ninth session (TRANS/WP.29/GRSG/48, annex 3), with an appropriate modification, however, of paragraph references (e.g. para. 5.13 to read 5.10. and annex 7 to read annex 5).
- 17. For the consideration of informal documents Nos. 4 and 7 see paragraphs 10 to 13 above.

DRAFT REGULATION ON DOUBLE-DECK PASSENGER VEHICLES

Documentation: TRANS/WP.29/R.668/Rev.1; TRANS/WP.29/GRSG/R.282; informal
documents Nos. 1, 4, 7, 8 and 9 of annex 1 to this report.

18. The Meeting of Experts noted the transmission by the Working Party at its one-hundred-and-tenth session (TRANS/WP.29/516, paras. 7 (iii) and 77) for reconsideration of the proposal (TRANS/WP.29/R.668/Rev.1), as amended during the seventy-first session (informal document No. 1). It was clearly understood that the agreement which had been reached during the seventieth

session (TRANS/WP.29/GRSG/49, para. 38) and on the basis of which document TRANS/WP.29/R.668/Rev.1 had been prepared was not an acceptable compromise.

- 19. Looking for a more viable solution, the Meeting of Experts agreed to pursue the proposal of the expert from Denmark and the Chairman (informal document No. 8) to define in the new draft Regulation two alternatives, allowing for approvals A and B, satisfying the demand in areas where the construction requirements were contradicting. The agreement reached during the session was consolidated by the secretariat into informal document No. 9 which, during the reading, was further amended by the Meeting of Experts (Note by the secretariat: This document was subsequently published as TRANS/WP.29/R.668/Rev.1/Add.1).
- 20. The Meeting of Experts agreed to transmit the new version of the proposal for a draft Regulation (documents TRANS/WP.29/R.668/Rev.1 and .../Rev.1/Add.1) to the Working Party and the Administrative Committee AC.1 for consideration. With respect to the urgency of the matter, the secretariat was requested to attempt this for the sixth session of AC.1 (June 1997). Note by the secretariat: The new draft Regulation was adopted by AC.1 at its sixth session (TRANS/WP.29/566, para. 147). It is being published under document symbol TRANS/WP.29/597 and transmitted to the UN Secretary-General for distribution to the Contracting Parties to the 1958 Agreement for consideration (according to the provisions of Article 1 of the Agreement).
- 21. Consideration of document TRANS/WP.29/GRSG/R.282 was postponed to the next session (see also para. 8 above). It was noted that it should be considered together with the relevant amendments, published in the report of the sixty-ninth session (TRANS/WP.29/GRSG/48, annex 3), with an appropriate correction of paragraph references, where applicable.
- 22. For consideration of informal documents Nos. 4 and 7, see paragraphs 10 to 13 above. In addition, it was noted that the amendments agreed in principle for Regulation No. 36 should also be applicable for future consideration (see paras. 6 and 15 above).

DEVELOPMENT OF REGULATION No. 43 (Safety glazing)

- 23. Consideration of the inquiry by the expert from the United Kingdom (TRANS/WP.29/GRSG/50, para. 36) was postponed to the next session, to be addressed together with the expected amendments to the Regulation (see below).
- 24. The Chairman of ISO/TC22/SC11 Safety Glazing Materials, confirmed that a relevant draft international standard (ISO/DIS) should be published within three months and on its basis an informal draft proposal will be prepared for amendments to Regulation No. 43. He indicated that the proposal shall be available for consideration by the Meeting of Experts at the next session and will contain provisions for automotive plastic glazing. The expert from OICA pointed out that in ISO the draft international standard would still be subject to vote and that the proposal for amending Regulation No. 43 might possibly only be informal.

OTHER BUSINESS

(a) Consolidated Resolution on the Construction of Vehicles (R.E.3) -

Annex 7: Classification of Vehicles

- 25. The expert from the United Kingdom informed WP.29/GRSG that in the European Commission, for the purposes of the Framework Directive (70/156/EEC) the separation between M1 and N1 categories of vehicles (designed for carrying of passengers and a goods payload) was currently being considered on the basis of a residual mass capacity, after all seats were occupied: the vehicle should be considered as N1 if the mass of the payload exceeded the mass of passengers and M1 in the opposite case.
- 26. The above information announcement was noted as a preliminary answer to the former proposal by Romania (TRANS/WP.29/GRSG/49, paras. 60 and 61). At this occasion it was recalled that the first part of the proposal by Romania (TRANS/WP.29/GRSG/R.283) related to off-road vehicles had been rejected (TRANS/WP.29/GRSG/48, para. 33).

(b) <u>Computerized system for ECE Regulations</u>

27. In a brief information the secretariat indicated that the ECE documents should be derestricted in distribution from May 1997 and that by consequence there should be no need for a login name and password for accessing all TRANS/WP.29/.. and TRANS/WP.29/GR../R... documents through the World Wide Web on the following home page address:

http://www.itu.ch/itudoc/un/editrans/wp29.html

Note by the secretariat: The access is free as from 5 June 1997. The new symbol of derestricted GRSG working documents (Distribution General) is TRANS/WP.29/GRSG/year/..., symbols of the reports were not affected, however, they also became derestricted.

28. Documents on the above address are available in several formats: WordPerfect 5.1 for DOS; WordPerfect 5.2 for Windows; WordPerfect 6.1 for Windows; and PDF format which requires Adobe Acrobat Reader Software. Adobe Acrobat may be downloaded from the following address:

http://www.adobe.com/prodindex/acrobat/readstep.html

(c) <u>Regulation No. 97</u> (Vehicle alarm systems)

<u>Documentation</u>: TRANS/WP.29/GRSG/R.304; informal document No. 2 of annex 1 to this report.

- 29. In consideration of the proposal by CEA (TRANS/WP.29/GRSG/R.304) most commented upon was the specification of "standard attack procedures" to which a vehicle alarm system should be resistant for a period of time. The expert from CEA agreed to prepare a relevant proposal for consideration at the seventy-third session of the Meeting of Experts. He indicated that whilst insurers support the existing Regulation, the proposal was intended to improve further some of its provisions, in the areas where insurers had experienced difficulties in the past.
- 30. Informal document No. 2 was considered and adopted by the Meeting of Experts, and it was agreed to transmit it to the Working Party and to the Administrative Committee (AC.1) for consideration at its seventh session, as a

draft Corrigendum 1 to the Regulation. The adopted text is reproduced below:

Paragraph 7.2.5., add at the end the following words:

".... with fuses changed, if necessary."

Paragraph 7.2.7., amend the value of "20 mA" to read "20 mA in average".

- 31. The Meeting of Experts agreed to resume the consideration of the proposal by CEA (see para. 29 above) at the next session. It was agreed in principle that it would be advantageous, mainly with respect to the relevant EU Directive, to join Regulations Nos. 18 and 97 as a first step into a single Regulation, without any technical amendments. After that step the development work should continue on two groups of additional proposals, i.e. those which could easily be adopted and those necessitating further discussion.
- (d) Regulation No. 66 (Strength of superstructure)

Documentation: TRANS/WP.29/GRSG/R.305.

- 32. The expert from Hungary introduced the document which resulted from an informal meeting in Madrid and represented positions by the experts from Spain, Hungary and the United Kingdom to improve the Regulation.
- 33. In a brief exchange of views the Meeting of Experts agreed that work should start by selecting the most important suggestions from the document. The delegations were invited to transmit their comments directly to the expert from Hungary, for resumed consideration at the next session.
- 34. The expert from Poland suggested that in addition to the rollover considerations a reinforcing of public service vehicles, superstructure should be considered, with respect to frontal and/or angular collisions (see also para. 12 above). He gave an example of an actual accident in which after striking a tree from 75 km/h, seventeen people were killed and the tree trunk penetrated almost four metres inside the vehicle.
- (e) General guidelines for transitional provisions in UN/ECE Regulations

<u>Documentation</u>: Informal document No. 3 of annex 1 to this report.

- 35. The proposal by CLEPA that had first been presented to the Working Party during its one-hundred-and-eleventh session (TRANS/WP.29/534, para. 19) was considered and adopted by the Meeting of Experts, which also agreed to transmit it to the Working Party for consideration at its November session, as an amendment to document TRANS/SC.1/WP.29/383. The adopted text is reproduced in annex 3 to this report. The expert from CLEPA explained that the proposal addressed the situation of a new Regulation, replacing several existing ECE Regulations, e.g. the situation currently under consideration by the Meeting of Experts on Lighting and Light-Signalling under the programme item "Simplification of the system of the ECE Headlamp Regulations".
- (f) <u>Wishes and Tributes: Messrs. K. Brettschneider, G. van Dorp, G. Hammer and M. Hanke</u>

- 36. The Meeting of Experts asked the secretariat to communicate its wishes for a fast and full recovery from a serious illness to the German expert, Mr. K. Brettschneider. It also conveyed its best wishes for the professional and private life to Mr. G. van Dorp, after learning that he had recovered from his illness. However, to prevent any risks, he had agreed not to resume his participation in the Dutch delegation to the sessions of WP.29/GRSG and to concentrate more on the national than international scene.
- 37. Wishes for active and happy retirements were extended to Mr. G. Hammer from Germany and to Mr. M. Hanke from the Czech Republic. It was recalled that Mr. Hanke had joined WP.29/GRSG in 1990 and that Mr. Hammer had actively participated in the work of WP.29 since 1972, firstly in the former GRSA (Group of Rapporteurs on Safety Provisions on Motor Coaches and Buses) and later in WP.29/GRSP. Both experts were thanked for their contributions and it was regretted that Mr. Hammer was unable to take part in the current session.

AGENDA FOR THE NEXT SESSION

- 38. The following agenda was agreed for the seventy-third session (Geneva, 27 October (14.30 h) to 30 October (12.30 h) 1997 $\underline{1}$ /:
- 1. Regulation No. 36 (Public service vehicles), development
- 2. Regulation No. 52 (Small capacity public service vehicles), development
- 3. Draft Regulation on double-deck passenger vehicles, development
- 4. Regulation No. 66 (Strength of superstructure), development
- 5. Regulation No. 43 (Safety glazing), development
- 6. Regulation No. 97 (Vehicle alarm systems), development
- 7. Other business
 - 7.1. Consolidated Resolution on the Construction of Vehicles (R.E.3), Annex 7 Classification of vehicles
 - 7.2. Computerized system for ECE Regulations

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.

Annex 1

LIST OF INFORMAL DOCUMENTS DISTRIBUTED WITHOUT A SYMBOL DURING THE SESSION

No.		Agenda La <u>item</u>	anguage	Title
1.	Secretariat	3.	Е	Draft amendments to the proposal for a draft regulation: Uniform provisions concerning the approval of double-deck large passenger vehicles with regard to their general construction (Document TRANS/WP.29/R.668/Rev.1) approved by the Meeting of Experts during its seventy-first session (Redistribution of informal document No. 11 to 110th session of WP.29)
2.	CLEPA	5.3.	E	Proposal for draft amendments to Regulation No. 97
3.	CLEPA	5.5.	E/F	Draft proposal for amending document TRANS/SC.1/WP.29/383 "General guidelines for transitional provisions in UN/ECE Regulations" (Redistribution of informal document No. 8 to 111th session of WP.29)
4.	United Kingdom	1., 2., and 3.	Е	PSV Emergency exits: Passenger behaviour and exit design (prepared on behalf of the Department of Transport by ICE Ergonomics)
5.	Russian Federation	1.	E	Proposals for draft amendments to Regulation No. 36
6.	France	1.	F	Evacuation des personnes dans les véhicules de transports en commun (UTAC, proces-verbal No. 95/3440, 20 décembre 95
7.	France	1., 2. and 3.	E	Proposal for amendment to Regulation No. 36
8.	Denmark and GRSP Chairman	3.	E	Draft ECE Regulation - Double Deck Large Passenger Vehicles (document TRANS/WP.29/GRSG/R.291)
9.	Secretariat	3.	Е	Proposal for a draft regulation: Uniform provisions concerning the approval of double-deck large passenger vehicles with regard to their general construction (draft TRANS/WP.29/R.668/Rev.1/Add.1)

Annex 2

AMENDMENTS TO THE PROPOSAL FOR DRAFT AMENDMENTS TO REGULATION No. 36 (Document TRANS/WP.29/GRSG/R.298) AGREED IN PRINCIPLE

BY THE MEETING OF EXPERTS DURING ITS SEVENTY-SECOND SESSION

<u>Paragraph 5.6.1.7.</u>, delete the words reading "<u>If there is one door of the two required exits."</u>

<u>Paragraph 5.6.3.1.</u>, delete the amendments proposed to <u>the table</u> (i.e. preserving the original 10 cm service door access width reduction at the level of hand-holds and preserving the 25 cm radius of curvature for emergency windows). However, it was agreed that the required width of free access shall be preserved only in the height of 70 to 160 cm related to the level of the first step.

Paragraph 5.6.4.9. (new), amend to read:

"5.6.4.9. The service door in any open position shall not obstruct the use of or required access to any exit."

<u>Paragraphs 5.7.8.4. to 5.7.8.4.3., 5.7.8.5. to 5.7.8.5.2. and 5.7.9.1. and 5.7.9.2.</u>, delete the amendments proposed.

<u>Paragraph 5.12.2.3.</u>, put the specification of [20] per cent into square brackets for a later reconsideration.

Annex 3,

Figure 6, delete the amendment proposed.

Figure 8, delete the amendment proposed.

<u>Figure 12 (new)</u>, if agreed, indicate the height of required service door access width to be maintained in the area from 70 cm to 160 cm related to the level of the first step.

Annex 3

GENERAL GUIDELINES FOR TRANSITIONAL PROVISIONS IN UN/ECE REGULATIONS (Document TRANS/SC.1/WP.29/383)

Insert new paragraphs R.R. to R.R.4., to read:

"REGULATIONS WHICH HAVE BEEN INTEGRATED INTO A NEW GROUPED REGULATION, WITHOUT MAJOR TECHNICAL CHANGES

R.R. TRANSITIONAL PROVISIONS

Every Regulation being integrated into a new grouped Regulation shall be amended by the following transitional provisions:

- R.R.1. No new type approval shall be granted under this Regulation after the date of entry into force of Regulation No. XXX $\underline{1}/$
- R.R.2. Contracting Parties applying this Regulation shall not refuse to grant extensions of approval to this Regulation and its preceding series of amendments to vehicles / components / separate technical units type approved pursuant this Regulation before the date stated in paragraph R.R.1 above.
- R.R.3. Starting from the date stated in the transitional provisions contained in the first series of amendments to Regulation No. XXX $\underline{1}$ / Contracting Parties applying this Regulation may refuse the installation on a type of vehicle or the sale of a type of component or the sale of a separate technical unit which has been approved pursuant this Regulation unless the component or separate technical unit is intended as a replacement for fitting on vehicles in use or that it would not be technically feasible for the component or separate technical unit in question to satisfy the new requirements contained in Regulation No. XXX $\underline{1}$ / as amended by the 01 series of amendments.
- R.R.4. Starting from the date stated in the transitional provisions contained in the 01 series of amendments to Regulation No. XXX $\underline{1}/$ Contracting Parties applying this Regulation may refuse the first national registration (first entry into service) of a vehicle type approved pursuant this Regulation which does not meet the requirements contained in Regulation No. XXX $\underline{1}/$ as amended by the 01 series of amendments.

^{1/} XXX = New ECE Regulation grouping several existing Regulations."