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ECONOMIC COMMISSION FOR EUROPE

INLAND TRANSPORT COMMITTEE

Working Party on the Construction of Vehicles

Working Party on Passive Safety (GRSP)

REPORT OF THE WORKING PARTY ON PASSIVE SAFETY
ON ITS TWENTY-FOURTH SESSION

(1-4 December 1998)

1. GRSP held its twenty-fourth session from 1 December (afternoon) to 4 December (morning) 1998 under the chairmanship of Mr. C. Lomonaco (Italy). Experts from the following countries participated in the work: Belgium; Belarus; Canada; Czech Republic; Denmark; Finland; France; Germany; Italy; Netherlands; Poland; Romania; Russian Federation; Slovakia; Spain; Sweden; United Kingdom; United States of America. A representative of the European Commission (EC) participated. Representatives of Japan and the People's Republic of China took part in the session under paragraph 11 of the Commission's Terms of Reference. Experts from the following non-governmental organizations participated: International Organization for Standardization (ISO); International Touring Alliance / International Automobile Federation (AIT/FIA); Consumers International (CI); International Organization of Motor Vehicle Manufacturers (OICA); International Motorcycle Manufacturers Association (IMMA); Liaison Committee for the Manufacture of Automobile Equipment and Spare Parts (CLEPA).

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

DRAFT REGULATION ON AIRBAGS

<u>Documentation</u>: TRANS/WP.29/GRSP/1998/4; informal documents Nos. 4, 11 and 16 of annex 1 to this report.

- 3. Informal document No. 4 tabled by the expert from Germany presented agreements reached by GRSP during the previous meetings.
- 4. The expert from France presented informal document No. 11 which explained why requirements concerning the steering wheels not equipped with airbags should not be included in this new Regulation but in Regulation No. 12. In accordance with this statement, informal document No. 11 proposed to delete requirements referring to the steering wheels without airbags.
- 5. The expert from Germany explained that the reason to include those prescriptions into the draft Regulation was based on his country's national type approval of after market steering wheels and in his view this was also desirable on an international level.
- 6. GRSP agreed to eliminate from the draft Regulation prescriptions referring to steering wheels not equipped with airbags. The expert from the United Kingdom expressed his concerns that this decision would imply that in Germany a national type approval would still be required for the after market steering wheels not equipped with airbags.
- 7. To resolve the problem raised by the experts from Germany and the United Kingdom, GRSP suggested to the German delegation to prepare a proposal for consideration containing the requirements for steering wheels without airbags in order to be incorporated into Regulation No. 12.
- 8. Having in mind the agreement reached (see para. 6 above), GRSP continued the examination of the proposal by Germany (TRANS/WP.29/GRSP/1998/4) from the point where consideration had been stopped during the twenty-third session (TRANS/WP.29/GRSP, para. 42). The secretariat was requested to revise the section examined during the previous session (up to paragraph 5.3.3.) and delete the prescriptions related with steering wheels without airbags (see para. 6 above). The secretariat was also required to review the text in order to avoid repetitive requirements in paras 5. and 6. of the proposal. A number of amendments were agreed in principle, based also on informal document No. 11, and, with the modifications introduced by the secretariat, are noted in annex 2 to this report.
- 9. During the discussion of paragraph 5.3.11. of document TRANS/WP.29/GRSP/1998/4, the expert from Poland presented a video showing some tests made in his country. He expressed his concern that demonstrating positive influence of an airbag system in a frontal impact by a test according to Regulation No. 94 would be difficult and expensive.

- 10. The expert from Germany proposed to incorporate a provision ensuring that 5 percentile female (small) and 5 percentile male (large) would effectively be protected. The expert from the United Kingdom supported this suggestion.
- 11. The expert from CLEPA voiced his opposition to accepting the principle that, for equipment, prescriptions would be more strict than those contained in Regulation No. 94. He also expressed his opinion that such a provision could introduce problems of competition between manufacturers of vehicles and equipment, and considered that countries of the European Community would not accept such a situation.
- 12. During the discussion of paragraph 6.3.2., the expert from the Russian Federation asked for a minimum speed collision to the airbag deployment to be included. He suggested a speed of 25 km/h. The expert from OICA reminded GRSP that a similar provision had originally been considered for Regulation No. 94 but it was rejected by GRSP.
- 13. In order to resolve those particular issues, informal document No. 16 was prepared and tabled by the experts from Germany, Poland the Russian Federation and the United Kingdom.
- 14. Considering informal document No. 16 (reproduced in annex 3 to the report), the majority of participants was in agreement with its first subparagraph, the opinion was divided for the second and a majority was against the third subparagraph.
- 15. GRSP agreed to continue consideration of paragraphs 5.3.11 and 6.3.2. during the next session.
- 16. The proposal for deletion of paragraph 5.1.1.4. (scrapping of airbags) was discussed in detail. The expert from Germany, supported by the experts from the United Kingdom and the Russian Federation, asked for this paragraph to be maintained in order to guarantee any detriment to humans and to the environment.
- 17. Some other delegates argued that this particular prescription had no place in a technical Regulation and advised that, if maintained, a similar one should be introduced in all Regulations.
- 18. The expert from the European Commission informed GRSP that a draft proposal for an EC Directive was being prepared to consider this kind of prescription in a general way. He recommended not to take any decision and await the final decision in the European Community.
- 19. GRSP agreed in principle to delete paragraph 5.1.1.4., but to ask WP.29 for a general solution for Regulations which could have a similar problem.
- 20. The expert from the United Kingdom expressed his reservation on the temperature range tests contained in paragraph 6.2.1.1.

- 21. As concerns labelling (paragraphs 7.2.2. to 7.3.3.), the expert from Consumers International proposed to use the same warning label as in Regulation No. 44, Supplement 2 to the 03 series of amendments, approved at the one-hundred-and-sixteenth session of WP.29 (document TRANS/WP.29/650). His proposal was contained in informal document No. 14 (see paras. 59 and 60 below). Other experts expressed their opinion that only a reference to Regulation No. 94 should be made. No agreement was reached and GRSP decided to continue the consideration of this issue during the next session.
- 22. GRSP noted that with the amendments adopted (see annex 2 of this report), an agreement was reached on the draft Regulation on airbags except for paragraphs 5.1.1.4.; 5.3.11.; 6.3.2. (see paras. 19 and 9-15 above), and in paragraphs 7.2.2. to 7.3.3. concerning labelling (see para. 22 above). GRSP agreed to resume consideration of these paragraphs during the next session.

AMENDMENTS TO ECE REGULATIONS

(a) Regulation No. 12 (Steering systems)

<u>Documentation</u>: TRANS/WP.29/GRSP/1998/14; informal documents Nos. 8 and 9 of annex 1 to this report.

- 23. The expert from OICA introduced informal document No. 8. He explained the OICA opposition to the proposal from the Netherlands contained in document TRANS/WP.29/GRSP/1998/14 (see para. 27 below). In his opinion, available accident data clearly indicated that, even in the case of old steering wheel designs, frontal collision accidents at low to moderate speed were of little consequence in terms of head injury.
- 24. He also explained that OICA had collected several video tapes showing that there was no head impact on the steering wheel in frontal collisions below a speed of $30\ km/h$. He announced the presentation of some of these video tapes during the next session of GRSP.
- 25. The expert from France presented a study about the probability of a head impact on the steering wheel in a low to moderate speed frontal collision (informal document No. 9). The study showed that very few serious injuries had occurred in vehicles not equipped with an airbag.
- 26. To the question by the expert from Germany about the compliance with the prescriptions of Regulation No. 12, the expert from France explained that a number of vehicles included in these statistics had been of an older design. In order to consider the real influence of these accidents in the case of vehicle types approved to Regulation No. 12, he agreed to present at the next session data referring exclusively to those vehicles.
- 27. The expert from the Netherlands presented document TRANS/WP.29/GRSP/1998/14. He explained that its intention was to introduce a test of the head impact with the steering wheel when the airbag was not deployed for different reasons, among those at a low speed crash.

- 28. No consensus was reached on the proposal by the Netherlands and GRSP decided to resume consideration of this item during the next session, taking into account the new data expected to be presented by France and expecting also the video presentation announced by the expert from OICA (see para. 24 above).
- (b) Regulation No. 14 (Safety-belt anchorages)

 $\label{eq:decomposition} \begin{array}{lll} \underline{\text{Documentation}}\colon & \text{TRANS/WP.29/GRSP/1997/11}; & \text{TRANS/WP.29/GRSP/1998/2}; \\ \text{TRANS/WP.29/GRSP/1998/19}; & \text{informal documents Nos. 5, 10, 12 and 17 of annex 1 to this report.} \end{array}$

- 29. The proposal from CLEPA (TRANS/WP.29/GRSP/1998/2), consisting of the introduction of a cross-reference to Regulation No. 80 for M_2 and M_3 vehicles was noted. GRSP agreed to continue its consideration during the next session and asked for comments to be sent to CLEPA.
- 30. Concerning ISOFIX anchorages, the expert from ISO informed GRSP that the part of the standard related to the two rigid anchorages in the bight of the seat would probably be voted on and adopted in January 1999. However, the second part of the standard related to the top tether anchorage would only be considered in a second stage.
- 31. Considering the question of the top tether anchorage, the expert from OICA said that alternative methods of preventing the child restraint rotation, such as a support leg or a tensioning device should also be considered. He proposed that, before taking a final decision concerning another anchorage, there should be a search for any rotation problem associated with the two lower ISOFIX fixation points, and to propose possible solutions only if such a problem was quantified.
- 32. The experts from the United Kingdom, the United States of America and the Consumers International indicated their preference for the top tether solution, as included in document TRANS/WP.29/GRSP/1997/11.
- 33. In view of differing opinions, GRSP made a call for further information. The expert from the United States of America stated that, in his country, a Federal Rule concerning the top tether would be adopted during 1999 and offered to provide the relevant information to GRSP.
- 34. The experts from France, Germany, Netherlands, the United Kingdom, OICA and CLEPA agreed to constitute an informal group under the chairmanship of the expert from the United Kingdom (Mr. P. O'Reilly), in order to examine the question of the top tether and provide the required information to GRSP.
- 35. Informal document No. 17 was produced and tabled by the experts involved (para. 34 above), reflecting the terms of reference of this spontaneous informal ISOFIX group. After consideration, GRSP introduced minor modifications and adopted the terms of reference of the spontaneous informal ISOFIX group, as annex 4 of this report.

- 36. The expert from France introduced informal document No. 10. It contained a proposal to adapt the safety-belt anchorages strength requirements prescribed in Regulation No. 14 to new restraint systems equipped with a load limiter.
- 37. GRSP agreed to consider this proposal at the next session and requested the secretariat to distribute informal document No. 10 with an official symbol.
- 38. The secretariat was also requested by GRSP to distribute with an official symbol informal document No. 5, tabled by the expert from Germany, and containing a proposal amending paragraph 6.4.4.2. of Regulation No. 14, for consideration during the next session.
- 39. The expert from Germany introduced document TRANS/WP.29/GRSP/1998/19 containing a proposal to reduce the minimal lateral distance between lower effective anchorage in the rear seats of M_1 and N_1 categories. He also presented informal document No. 12 supporting the proposal and showing that in performance there was no fundamental difference between the distance proposed (240 mm) and the distance that now existed in the Regulation (350 mm).
- 40. The expert from Spain expressed his concern and suggested that this reduction should only be applied to the rear central seat. GRSP agreed to resume the consideration of this item during the next session.
- (c) Regulation No. 17 (Strength of seats)

Documentation: TRANS/WP.29/GRSP/1997/1; TRANS/WP.29/GRSP/1997/6;
TRANS/WP.29/GRSP/1998/20; informal documents Nos. 1, 2 and 3 of annex 1 to this report.

- 41. Informal document No. 1 was presented by the expert from the United States of America. It provided up-to-date information on the NHTSA seat back strength studies. He announced that a new and more complete study would be presented at the next session of GRSP.
- 42. The expert from Germany presented an accidentological study of injuries caused by luggage transported in passenger cars (informal document No. 2). The document concluded that a better positioning of luggage, reinforcement of the backrest and a better stiffness, anchorages and locking of the seat back would contribute to reduction of injuries caused to passengers.
- 43. Informal document No. 3 was presented by the expert from Italy. It contained results of the seat back strength tests comparing the results of seats conforming to the prescriptions of the Regulation in its 07 series of amendments with seats conforming to prescriptions included in document TRANS/WP.29/GRSP/1997/1. He said that no significant safety improvements had been demonstrated, and expressed his view that the proposals in document TRANS/WP.29/GRSP/1997/1 should not be accepted unless accident data proved that the actual prescriptions of the Regulation were insufficient.

- 44. The expert from the United Kingdom expressed some concerns regarding the tests presented by the expert from Italy and insisted on introducing the amendments contained in document TRANS/WP.29/GRSP/1997/1. GRSP agreed to continue the consideration of this issue during the next session.
- 45. Concerning document TRANS/WP.29/GRSP/1998/6, GRSP also agreed to continue its consideration at the next session.
- 46. Document TRANS/WP.29/GRSP/1998/20 was presented by the expert from Germany. It contained a proposal to align Regulation No. 17 with European Directive 74/408/EEC. GRSP adopted the document and agreed to transmit it to WP.29 and AC.1 for consideration at its session of June 1999.
- (d) Regulation No. 21 (Interior fittings)

<u>Documentation</u>: TRANS/WP.29/GRSP/R.163; TRANS/WP.29/GRSP/1997/2; TRANS/WP.29/GRSP/1998/17; and informal document No. 15 of annex 1 to this report.

- 47. The expert from the United States of America presented document TRANS/WP.29/GRSP/1998/17 which superseded TRANS/WP.29/GRSP/R.163 and TRANS/WP.29/GRSP/1997/2. It contained recent modifications to FMVSS No. 201. He explained that further improvement modifications were anticipated and that they would probably be finished by August 1999. He also announced that at a later stage procedures for lateral and frontal impacts would be incorporated.
- 48. The expert from the United Kingdom suggested that, for prescriptions on frontal and lateral impacts, the final results of the EEVC should be awaited.
- 49. The expert from the Netherlands informed GRSP that EEVC had been considering three solutions for the head impactor, and the final choice seemed to be a free flight impactor, in line with the one used in the United States of America. He reported that currently accident analysis was being studied.
- 50. The expert from France confirmed the information and announced that a final solution should be reached by the summer of 1999.
- 51. GRSP agreed to continue the consideration of this subject during the session of December 1999. Nevertheless, if the announced Spanish document concerning Regulation No. 21 (TRANS/WP.29/GRSP/23, para. 32) would be available, it should be considered at the next session.
- (e) <u>Regulation No. 29</u> (Cabs of commercial vehicles)

Documentation: TRANS/WP.29/GRSP/1998/13.

- 52. The proposal concerning the exclusion from Regulation No. 29 of vehicles of category N_1 , derived from those of category M_1 , was tabled by the expert from the Czech Republic (TRANS/WP.29/GRSP/1998/13).
- 53. Several delegates pointed out that, contrary to the intention in the proposal, all N_1 category vehicles were excluded from the scope of the Regulation. Two solutions were suggested, one to exclude from the scope only N_1 vehicles with a total mass lower than 1,500 kg., the other to apply the

Regulation to only $N_{\rm 2}$ vehicles with a total mass higher than 7,500 kg and to $N_{\rm 3}$ vehicles.

- 54. No conclusion was reached and GRSP agreed to resume consideration of this subject at the next session.
- (f) Regulation No. 44 (Child restraints)

<u>Documentation</u>: TRANS/WP.29/GRSP/1997/12; informal documents Nos. 6 and 13 of annex 1 to this report.

- 55. The ISOFIX fixation for child restraints (TRANS/WP.29/GRSP/1997/12) was considered during the discussion of Regulation No. 14 (see paras. 30 to 35 above).
- 56. Informal document No. 6, tabled by the expert from Hungary, raised the question if a child restraint with a "Y" shield or a "T" shield was allowed by the Regulation. In his view the English and the French versions of the Regulation were not identical, causing confusion and interpretation difficulties.
- 57. The expert from France offered to review the relevant text of Regulation No. 44 in collaboration with the expert from the United Kingdom and to inform GRSP at the next session.
- 58. Informal document No. 13 was tabled by experts from the technical services in Germany applying the Regulation. In order to consider the proposal at the next session, GRSP requested the secretariat to distribute this informal document with an official symbol.
- (g) <u>Regulation No. 94</u> (Frontal collision protection)

<u>Documentation</u>: Informal document No. 14 of annex 1 to this report.

- 59. The expert from Consumers International introduced informal document No. 14. It contained a proposal to introduce the same pictogram and text as adopted for child restraints in vehicles, warning of the risk of death or serious injuries for children by deployment of the airbag in the front passenger place.
- 60. Considering that this issue was related to the labelling contained in the draft Regulation on airbags (see paras. 21 and 22 above), GRSP agreed to continue the consideration of this proposal at the next session and requested the secretariat to distribute informal document No. 14 with an official symbol.
- (h) Regulation No. 95 (Lateral collision protection)
- 61. The consideration of this item was deferred to the next session.

REGULATION No.22 (Protective helmets)

<u>Documentation:</u> TRANS/WP.29/GRSP/1998/5/Rev.1; TRANS/WP.29/GRSP/1998/15/Rev.1; TRANS/WP.29/GRSP/1998/16 and Add.1 and informal document No. 7 of annex 1 to this report.

- 62. Informal document No. 7 was considered and adopted by GRSP. It was also agreed to transmit it to the Working Party and to the Administrative Committee (AC.1) for consideration at its March 1999 session as a proposal for draft Supplement 2 to the 04 series of amendments to Regulation No. 22.
- 63. With regard to documents TRANS/WP.29/GRSP/1998/5/Rev.1; TRANS/WP.29/GRSP/1998/15/Rev.1; TRANS/WP.29/GRSP/1998/16 and Add.1, GRSP agreed that they should constitute the 05 series of amendments to the Regulation once all of them were adopted.
- 64. The expert from Germany chairing the informal group on Regulation No. 22, introduced document TRANS/WP.29/GRSP/1998/5/Rev.1 which contained a proposal for the chin guard test for helmets with a protective lower face cover.
- 65. GRSP considered and adopted document TRANS/WP.29/GRSP/1998/5/Rev.1 with the following amendments:

Paragraph 5.1.4.1.1., footnote 3/, amend to to read:

" $\underline{3}$ / 1 for ..., 24 for Ireland, ... 32 for Latvia, 33-36 (vacant), 37 for Turkey, 38-39 (vacant), 40 for The former Yugoslav Republic of Macedonia, 41 (vacant), 42 for the European Community (approvals are granted by its Member States using their respective ECE symbol) and 43 for Japan. Subsequent numbers ..."

Paragraph 7.3.4.2., impact point P: correct the value of "500 mm" to read "50 mm".

- 66. Considering the proposal by Germany contained in document TRANS/WP.29/GRSP/1998/15/Rev.1, several members of the informal group expressed their opinion that the proposal did not reflect the conclusions which had been reached by the informal group and some other provisions were still under discussion.
- 67. The expert from France, supported by the expert from Belgium, requested that the continuous control of production should be maintained as existing in the current version of the Regulation.
- 68. For the reasons mentioned in paras. 66 and 67 above, GRSP decided to send document TRANS/WP.29/GRSP/1998/15/Rev.1 back to the informal group for reconsideration.

- 69. Considering document TRANS/WP.29/GRSP/1998/16, the expert from France pointed out that the oblique impact test (method B) had not yet been agreed by the informal group, and that without this alternative method it was not useful to discuss the proposal. His view was supported by the experts from Belgium, Italy and Spain. These experts also announced that they could not accept the proposal without method B.
- 70. The expert from the United Kingdom insisted on considering the proposal, in order to continue the work needed to update Regulation No. 22 (TRANS/WP.29/GRSP/23, para. 44). Following this suggestion, GRSP considered document TRANS/WP.29/GRSP/1998/16 and adopted in principle the following modifications.

Paragraph 6.5., amend the first subparagraph to read,

"...according to paragraph 7.4 [or 7.5.]"

Paragraph 6.6., delete the square brackets.

Paragraph 7.4.4.1.1., amend the figure of "9 Ns" to read "12.5 Ns".

<u>Paragraph 7.4.4.2.1.</u>, amend the figures of "4,000 N" and "28 Ns" to read "3,500 N" and "25 Ns" respectively.

- 71. Regarding paragraph 7.1., the expert from Italy said that there was a contradiction with paragraphs 6.10.8. and 6.11.8.
- 72. GRSP agreed to send document TRANS/WP.29/GRSP/1998/16 back to the informal group in order to complete the test method B and to consider all the modifications adopted in principle as well as any possible contradictions (paras. 70 and 71 above).
- 73. Considering the proposal included in document TRANS/WP.29/GRSP/1998/16/Add.1, the expert from France stated that the proposal had not been approved by the informal group and should be considered as a proposal by the United Kingdom.
- 74. Referring to the statement by France, the expert from Germany, chairing the informal group, explained that the abrasion test had been included in the proposal in order to consolidate all the different tests which were being used by various different technical services, including those of the United Kingdom. He also explained that the test method had been taken from Regulation No. 43. Nevertheless, he proposed to postpone the consideration of the abrasion test to the next session of GRSP, having it reconsidered by the informal group.

75. To advance the matter, GRSP had the first reading of document TRANS/WP.29/GRSP/1998/16/Add.1. The following modifications were in principle agreed:

Paragraph 6.15.3.6. (new numbering), amend to read:

- "..... (Q) shall no be less than:
- 0.8 for red and yellow signal lights;
- 0.6 for green signal light;
- 0.4 for blue signal light.

The relative...."

<u>Paragraph 6.15.3.8. (new)</u>, amend the reference to "annex 13" to read "annex 15".

<u>Paragraph 6.15.3.9. (new)</u>, amend the reference to "annex 14" to read "annex 16".

<u>Paragraph 7.8.3.3.1.1.</u> (new numbering), amend the reference to "annex A" to read "annex 13" and the reference to "annex B" to read "annex 14".

Paragraph 15.1., amend to read:

"15.1. Helmets and visors".

Paragraphs 15.2. to 15.2.1.2., shall be deleted.

76. GRSP agreed that the references to the method A made in paragraphs 7.8.3.1. and 7.8.3.1.3.3., as well as references to method B in paragraphs 7.8.3.2.; 7.8.3.2.1. and the text of paragraphs 13.6 to 13.6.7. and the text of annex 10 should be reconsidered by the informal group.

OTHER BUSINESS

(a) Tribute to Mr. P. Frederiksen

77. Mr. P. Frederiksen, the expert from Denmark announced his forthcoming retirement. He thanked all his colleagues in the GRSP and the secretariat for their collaboration. The Chairman thanked Mr. Fredericksen for the valuable contributions he had made to the Working Party and wished him a happy and long retirement. All the delegates joined the thanks and wishes to Mr. Frederiksen with cordial applause.

AGENDA FOR THE NEXT SESSION

78. For the twenty-fifth session, to be held in Geneva from 3 May (14.30 h) to 7 May (12.30 h) 1999 $\underline{1}$ /, GRSP agreed on the following agenda:

- 1. Draft Regulation on airbags development
- 2. Amendments to ECE Regulations
- 2.1. Regulation No. 12 (Steering systems)
- 2.2. Regulation No. 14 (Safety-belt anchorages)
- 2.3. Regulation No. 17 (Strength of seats)
- 2.4. Regulation No. 21 (Interior fittings)
- 2.5. Regulation No. 29 (Cabs of commercial vehicles)
- 2.6. Regulation No. 44 (Child restraints)
- 2.7. Regulation No. 94 (Frontal collision protection)
- 2.8. Regulation No. 95 (Lateral collision protection)
- 3. Regulation No. 22 (Protective helmets) $\underline{2}$ /
- 4. Other business

 $\underline{1}/$ 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}/$ This item will not be considered earlier than Thursday afternoon, 6 May 1999.

 $\frac{\texttt{Annex 1}}{\texttt{LIST OF INFORMAL DOCUMENTS DISTRIBUTED WITHOUT A SYMBOL DURING THE SESSION}}$

No.	Transmitted by	<u>Agenda</u> item	<u>Lanquaqe</u>	<u>Title</u>
1.	USA	2.3.	Е	A Preliminary Investigation of Seat Performance and Occupant Injuries using 1995-1996 Automated NASS CDS Data in Rear Impacts - A NHTSA Internal Study.
2.	Germany	2.3.	E	Injuries to car occupants as a result of pieces of luggage transported in cars
3.	Italy	2.3.	E	Comments on doc. TRANS/WP.29/GRSP/1997/1
4.	Germany	1.	E	Agreements on draft Regulation on airbags
5.	Germany	2.2.	E	Proposal for draft amendments to Regulation No. 14
6.	Hungary	2.6.	E	Belt or strap systems of child restraint
7.	Belgium	3.	E	Proposal for draft corrigendum to Regulation No. 22
8.	OICA	2.1.	E	OICA position on the Dutch proposal to amend Regulation No. 12
9.	France	2.1.	E	Probability of a head impact on the steering wheel in a low to moderate speed frontal collision configuration
10.	France	2.2.	E	Proposal for draft amendments to Regulation No. 14
11.	France	1.	E	Proposal for draft amendments to the draft Regulation on airbags
12.	Germany	2.2.	E	Test report ECE Regulation No. 14
13.	Germany	2.6.	E	Proposal for draft amendments to Regulation No. 44.03 (proposed by the Test Houses on Regulation No. 44)

No.	<u>Transmitted</u> <u>by</u>	<u>Agenda</u> <u>item</u>	<u>Lanquaqe</u>	<u>Title</u>
14.	Consumers International	2.7.	Е	A proposal for an amendment to Regulation No. 94 to improve the warnings about hazards from airbags
15.	Netherlands	2.4.	E	Corrigendum to Regulation No. 21
16.	GRSP <u>1</u> /	1.	E	Proposal for draft amendments to the draft Regulation on airbags
17.	GRSP <u>2</u> /	2.2.	E	Terms of reference of informal "ISOFIX" group
-	Netherlands		E	Consequences of relief of the chest displacement requirement in Regulation No. 16

 $[\]underline{1}/$ Presented jointly by the experts from Germany, United Kingdom, Poland and the Russian Federation.

 $[\]underline{2}/$ Presented jointly by the experts from Italy, France, Germany, Netherlands, United Kingdom, CLEPA and OICA.

Annex 2

AMENDMENTS TO THE PROPOSAL FOR A DRAFT REGULATION

CONCERNING REPLACEMENT AIRBAGS AGREED IN PRINCIPLE BY GRSP

(Document TRANS/WP.29/GRSP/1998/4)

The list of contents,

Paragraphs 3.2. 4.2., 5.3. and 6.2., delete the words "or without an airbag".

Paragraph 10., delete the words "OR WITHOUT".

The list of annexes,

Annexes 2 and 5, delete the words "or without an airbag".

Annexes 7 and 8, should be deleted.

Annexes 9 and 10 (former), renumber as Annexes 7 and 8.

Text of the Regulation,

Paragraph 1., amend to read:

"1. SCOPE

This Regulation applies to the following aftermarket equipment:"

Paragraph 1.2., amend to read:

"1.2. to replacement steering wheels for vehicles of categories M_1 and N_1 equipped with an airbag module of an approved of injuries of the occupants."

Paragraph 2.3., amend to read:

".... sub-assembly comprising the energy source for its deployment and the airbag involved in the deployment."

Paragraph 2.4. (new), should read the text of paragraph 2.14.

Paragraph 2.4., renumber as 2.5. and amend to read:

"2.5. "Replacement airbag system" means an after market airbag system which is supplied to modify a motor vehicle, and which may vary in its functional dimensions, form, materials or operation from any original airbag system provided by the vehicle manufacturer for that motor vehicle."

Paragraphs 2.5. to 2.6. (former), renumber as paragraphs 2.6. to 2.7.

Paragraph 2.7. (former), should be deleted.

Paragraph 2.9., amend the words "airbag assembly" to read "airbag system".

Paragraphs 2.11. and 2.13., amend to read:

" . . .

- (b) the geometry of the airbag,
- (c) the material of the airbag,

. . . . '

Paragraph 2.12., amend to read:

- "2.12. Type of a replacement steering wheel equipped with an airbag module means after market steering wheels equipped with airbags which do not differ in such essential respects as:
 - (a) presence of an airbag,
 - (b) the dimension and diameter of the steering wheel,
 - (c) the form, in so far as the safety performance and the strength performance is influenced,
 - (d) the material,
 - (e) the type definition of an airbag module for a replacement airbag system according to paragraph 2.11. above."

(Paragraph 2.14., renumber as paragraph 2.4.)

Paragraph 3.1.1., delete the words "or the vehicle manufacturer".

Paragraph 3.2., delete the words "or without an airbag".

Paragraph 3.2.1., amend to read:

"...steering wheel equipped with an airbag module shall be ..."

Paragraph 3.2.2., amend to read:

".....steering wheel equipped with airbags, the application...."

<u>Paragraph 3.2.2.5.</u>, amend the words "steering wheel" to read "steering wheels equipped with airbags".

Paragraph 3.3., amend to read:

"3.3. <u>Application for approval of a replacement airbag system other than that installed in a steering wheel</u>"

<u>Paragraph 3.3.2.3.</u>, amend the words "airbag device(s)" to read "airbag system(s)".

Paragraph 4.1.4.1., footnote 1/, amend to read:

"1/ 1 for ..., 24 for Ireland, ... 32 for Latvia, 33-36 (vacant), 37 for Turkey, 38-39 (vacant), 40 for The former Yugoslav Republic of Macedonia, 41 (vacant), 42 for the European Community (approvals are granted by its Member States using their respective ECE symbol) and 43 for Japan. Subsequent numbers ... to the Agreement concerning the Adoption of Uniform Technical Prescriptions for Wheeled Vehicles, Equipment and Parts which can be fitted and/or be used on Wheeled Vehicles and the Conditions for Reciprocal Recognition of Approvals Granted on the Basis of These Prescriptions, and the numbers thus assigned"

Paragraph 4.2.1., amend to read:

"4.2.1. If a replacement steering wheel type equipped with an airbag submitted for approval meets the requirements of the relevant paragraphs 5 and 6, approval of that replacement steering wheel equipped with an airbag type shall be granted."

Paragraph 4.3.1., amend to read:

"... approval of that replacement airbag system shall be granted."

Paragraph 5.1., amend to read (including the title in the "Contents"):

"....equipped with airbag module(s) of an approved type or replacement airbag system(s) other than those installed in an steering wheel."

Paragraph 5.1.1.2., renumber as paragraph 5.1.1.1.

Paragraph 5.1.1.3., renumber as paragraph 5.1.1.2., and amend to read:

"... after guaranteed lifetime,"

Paragraphs 5.1.1.4., should be deleted

Paragraph 5.1.1.5., renumber as paragraphs 5.1.1.3.

Paragraph 5.1.3., amend to read:

"5.1.3. A complete system shall comprise a device alerting the user if the airbag system or the airbag systems are not in working order as designed."

Paragraph 5.1.4., amend the words "flexible structure" to read "airbag".

Paragraph 5.1.5., amend to read:

. . .

"A certificate shall be presented \dots and temperature of the gases and solid particles released on deployment of an airbag are not such as to be liable to injure seriously the occupants \dots "

Paragraph 5.2.1., add at the end the following text:

"

The module manufacturer shall state that the above-mentioned tests were carried out with positive test results. In case of doubts the approval authority responsible for issuing the approval shall reserve the right to verify the accuracy of this statement.

Paragraph 5.2.2.3., should be deleted.

<u>Paragraphs 5.2.2.4.</u> to 5.2.2.6. (former), renumber as paragraphs 5.2.2.3. to 5.2.2.5.

Paragraph 5.2.2.8. (former), renumber as paragraphs 5.2.2.6.

Paragraph 5.3., delete the words "or without an airbag".

Paragraphs 5.3.1.1. to 5.3.1.4., amend to read:

- "5.3.1.2 a heat test of the steering wheel (all parts except the airbag module), as described in paragraph 6.2.1.1., to guarantee a cohesion of all materials.
- 5.3.1.2. a bending test, as described in paragraph 6.2.1.2., to guarantee a minimum deformation of the steering wheel rim,
- 5.3.1.3. a torque test, as described in paragraph 6.2.1.3., to guarantee a sufficient stiffness when the steering wheel is loaded tangentially to the steering wheel rim,
- 5.3.1.4. a fatigue test, as described in paragraph 6.2.1.4., to guarantee a sufficient lifetime."

Paragraphs 5.3.2. to 5.3.7., should be deleted.

Paragraph 5.3.8. (former), renumber as paragraph 5.3.2. and amend to read:

"5.3.2. For the replacement.....by the vehicle manufacturer."

<u>Paragraph 5.3.9. (former)</u>, renumber as paragraph 5.3.3.

<u>Paragraph 5.3.10.(former)</u>, renumber as paragraph 5.3.4. and correct the reference to "paragraph 6.2.3.1." to read "paragraph 6.2.2."

<u>Paragraph 5.3.11. (former)</u>, renumber as paragraph 5.3.5. and, correct the reference to "paragraph 6.2.4." to read "paragraph 6.2.3."

Note: see also paragraphs 9 to 15 and annex 3 of this report.

Paragraph 5.4.2., amend to read:

"... In case of an airbag device of category C, additional dummies shall be used ..."

Paragraph 6.2., delete the words "or without an airbag".

Paragraph 6.2.2.3., amend to read:

"...of the vehicle manufacturers, the repositioning of the direction indicator control, the function..."

Paragraph 6.3.2., amend to read:

"...

In case of an airbag device of category C, additional dummies..."

Note: see also paragraphs 9 to 15 and annex 3 of this report.

Annex 2, delete the words "or without an airbag."

Annex 3, delete the words "or without an airbag."

Annexes 7 and 8, should be deleted.

Annexes 9 and 10 (former), remumber as Annexes 7 and 8.

Annex 3

PROPOSAL FOR DRAFT AMENDMENTS TO THE DRAFT REGULATION ON AIRBAGS

Transmitted by the Experts from Germany, the United Kingdom,
Poland and the Russian Federation

Paragraph 5.3.11., amend to read:

"5.3.11. Replacement airbag steering wheels installed in a vehicle shall fulfil sufficient tests according to paragraph 6.2.3. to demonstrate the proper function of the airbag device or devices in a frontal impact test according to Regulation No. 94, 01 series of amendments. Sufficient tests mean that at least one test according to Regulation No. 94 per each type of vehicle model line has to be carried out.

If the technical service responsible for this test has doubts that the after markets airbag system does not work well respecting the range of persons, represented by the 5th female dummy to the 95th male dummy, additional test results shall be presented by the manufacturer of the aftermarkets airbag system.

In addition to the above-mentioned tests, the manufacturer of the aftermarkets airbag system shall demonstrate that no deployment occurs, if the vehicle with such an aftermarkets airbag system is, for example, crushed with a vehicle speed of [25]+0.2/-0.0 km/h under the test conditions prescribed in ECE Regulation No. 94."

Annex 4

TERMS OF REFERENCE OF INFORMAL "ISOFIX" GROUP

Terms of Reference of the informal ISOFIX group to be chaired by Mr. P. O'Reilly (United Kingdom)

- 1. To review the possibility of child restraint seat rotation and to quantify it; have available evidence from previous panels;
- To review available studies from previous panels with respect to the misuse of CRS;
- 3. To identify the aspects of the vehicle and child restraint which should be controlled and how this will be achieved;
- 4. To define the core requirements of a test procedure and a suitable test device to quantify rotation and the programme of tests which would be necessary to assess the philosophy of the approach;
- 5. No specific arrangements for funding are set out but a member of the informal group must be willing to carry out work or testing in support of the approval which he favours;
- 6. If an approach and test procedure is judged feasible by the informal group, a more detailed proposal or outline shall be prepared to assist GRSP by December 1999, and
- 7. An interim report shall be presented to GRSP during its session of May 1999