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**ECONOMIC COMMISSION FOR EUROPE**

INLAND TRANSPORT COMMITTEE

World Forum for Harmonization of Vehicle Regulations

Working Party on Brakes and Running Gear

**REPORT OF THE WORKING PARTY ON BRAKES AND RUNNING GEAR  
ON ITS SIXTY-SIXTH SESSION  
(15 – 17 September 2009)**

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## **I. ATTENDANCE**

1. The Working Party on Brakes and Running Gear (GRRF) held its sixty-sixth session from 15-17 September 2009 under the Chairmanship of Mr. I. Yarnold (United Kingdom). 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, as amended): Belgium, Canada, China, Czech Republic, Finland, France, Germany, Hungary, India, Italy, Japan, Netherlands, Norway, Poland, Republic of Korea, Russian Federation, South Africa, Spain, Sweden, Switzerland, United Kingdom of Great Britain and Northern Ireland and United States of America. Representatives of the European Commission (EC) also participated. Experts from the following non-governmental organizations participated: European Association of Automobile Suppliers (CLEPA), International Motorcycle Manufacturers Association (IMMA), International Organization for Standardization (ISO), and International Organization of Motor Vehicle Manufacturers (OICA). Upon the special invitation of the Chairman, experts from the following non-governmental organizations participated: the Bureau International Permanent des Associations de Vendeurs et Rechapeurs de Pneumatiques (BIPAVÉR), the International Association of the Body and Trailer Building Industry (CLCCR), the Transportation Technical Supervision (TDT), the European Tuning Organization (ETO) and the European Tyre and Rim Technical Organization (ETRTO).

2. The informal documents distributed during the session are listed in Annex I to this report.

## **II. ADOPTION OF THE AGENDA (Agenda item 1)**

Documentation: ECE/TRANS/WP.29/GRRF/2009/18, Informal document No. GRRF-66-01

3. GRRF adopted the agenda ECE/TRANS/WP.29/GRRF/2009/18 with the inclusion of a new agenda item 12(b) on Regulation No. 89 (Speed limitation devices). GRRF agreed on the running order GRRF-66-01.

## **III. MEETING OF THE INFORMAL GROUP ON AUTOMATIC EMERGENCY BRAKING AND LANE DEPARTURE WARNING SYSTEMS (Agenda item 2)**

4. GRRF noted that the informal group had held its second informal meeting prior to the GRRF session proper (for the results, see agenda item 4, paras. 24 to 27).

## **IV. REGULATIONS Nos. 13 AND 13-H (Braking) (Agenda item 3)**

### **A. Emergency Stop Signal (ESS) (Agenda item 3(a))**

Documentation: ECE/TRANS/WP.29/GRRF/2009/2/Rev.1, ECE/TRANS/WP.29/GRRF/2009/3, ECE/TRANS/WP.29/GRRF/2009/14/Rev.1, ECE/TRANS/WP.29/GRRF/2009/19, ECE/TRANS/WP.29/GRRF/2009/20, Informal documents Nos. GRRF-66-12, GRRF-66-24 and GRRF-66-25

5. The expert from OICA presented ECE/TRANS/WP.29/GRRF/2009/2/Rev.1, ECE/TRANS/WP.29/GRRF/2009/3, ECE/TRANS/WP.29/GRRF/2009/14/Rev.1 and

GRRF-66-12 in order to permit the illumination of stop lamps when the electric regenerative braking produces a certain deceleration. GRRF agreed with the principles of the proposals from OICA but considered that, above a certain deceleration level, the generation of a brake signal should be made mandatory. Therefore, the expert from OICA prepared a revised version of its proposals (GRRF-66-24 and GRRF-66-25). However, GRRF and in particular the expert from the United Kingdom could not agree on the braking signal thresholds. GRRF required the expert from OICA to prepare, for the next session of GRRF in February 2010, revised proposals with a detailed justification of the thresholds to be used. The expert from the United Kingdom was also requested to provide evidence to support thresholds.

6. GRRF considered ECE/TRANS/WP.29/GRRF/2009/19 and ECE/TRANS/WP.29/GRRF/2009/20 submitted by OICA in order to clarify, respectively in Regulations Nos. 13 and 13-H, the conditions in which the ESS is permitted to be activated. GRRF adopted the documents, as amended below, and requested the secretariat to submit them to WP.29 and AC.1, for consideration at their March 2010 sessions, respectively as draft Supplement 4 to the 11 series of amendments to Regulation No. 13 and as draft Supplement 10 to the original version of Regulation No. 13-H.

ECE/TRANS/WP.29/GRRF/2009/19, page 2, paragraph 5.2.1.31., amend to read (including the reference to the existing footnote 10):

"5.2.1.31. When a vehicle is equipped with the means to indicate emergency braking, activation and de-activation of the emergency braking signal **shall only be generated by the application of the service braking system when the following conditions are fulfilled: 10**"

ECE/TRANS/WP.29/GRRF/2009/20, page 2, paragraph 5.2.23., amend to read (including the reference to the existing footnote 6):

"5.2.23. When a vehicle is equipped with the means to indicate emergency braking, activation and de-activation of the emergency braking signal **shall only be generated by the application of the service braking system when the following conditions are fulfilled: 6**"

B. Secondary coupling for unbraked trailers (Agenda item 3(b))

Documentation: ECE/TRANS/WP.29/GRRF/2009/12

7. The expert from the United Kingdom recalled the purpose of ECE/TRANS/WP.29/GRRF/2009/12 aiming at removing from Regulation No.13 the requirement for light trailers to be fitted with a secondary coupling device and incorporating it in Regulation No. 55. This document was considered in conjunction with item 6 of the agenda. Given that GRRF could not agree on the provisions to be introduced in Regulation No. 55 (see agenda item 6, para. 30), GRRF agreed to have a final review of this subject at its next session in February 2010.

C. Trailer braking (Agenda item 3(c))

Documentation: ECE/TRANS/WP.29/GRRF/2009/11, ECE/TRANS/WP.29/GRRF/2009/11/Corr.1, ECE/TRANS/WP.29/GRRF/2009/28, Informal documents Nos. GRRF-66-02, GRRF-66-06 and GRRF-66-23

8. The expert from the United Kingdom presented ECE/TRANS/WP.29/GRRF/2009/11 and its Corrigendum 1 introducing a new specific test procedure and an alternative calculation method, to check that the braking torque of the trailer parking brake is evenly distributed to wheels on either side of the axle(s). A number of experts favoured the calculation method only. Therefore, the expert from the United Kingdom drafted GRRF-66-23. GRRF agreed to have a final review of this subject at its next session and requested the secretariat to distribute GRRF-66-23 with an official symbol.

9. The expert from Germany introduced ECE/TRANS/WP.29/GRRF/2009/28 proposing to allow O<sub>3</sub> trailers to be type-approved on the basis of Type-III test results. The expert from CLEPA made several comments (GRRF-66-06) to supplement the German proposal. GRRF agreed to give this subject a final review at its next session and requested the secretariat to distribute GRRF-66-06 with an official symbol.

10. The expert from the United Kingdom introduced GRRF-66-02 revising the circumstances when spring brakes are applied following the loss of pressure in the service braking system on an uncoupled trailer. GRRF supported the document in principle and requested the secretariat to distribute it with an official symbol for consideration at the next session of GRRF.

D. Electric control line (Agenda item 3(d))

Documentation: ECE/TRANS/WP.29/GRRF/2009/6

11. The expert from CLEPA introduced ECE/TRANS/WP.29/GRRF/2009/6 proposing to remove a design restriction in Regulation No. 13 with respect to vehicles that may be equipped with an electric control line. GRRF adopted the document, not amended, and requested the secretariat to submit it to WP.29 and AC.1, for consideration at their March 2010 sessions, as part (see para. 6) of draft Supplement 4 to the 11 series of amendments to Regulation No. 13.

E. Clarifications (Agenda item 3(e))

Documentation: ECE/TRANS/WP.29/GRRF/2009/8, ECE/TRANS/WP.29/GRRF/2009/21, ECE/TRANS/WP.29/GRRF/2009/26, Informal documents Nos. GRRF-66-04, GRRF-66-05 and its Rev.1, GRRF-66-09, GRRF-66-10 and GRRF-66-11

12. The secretariat recalled that the purpose of ECE/TRANS/WP.29/GRRF/2009/8 was to update the reference to ISO 9128 in Regulations Nos. 13 and 13-H. The expert from Germany supported the proposal but pointed out that, in the future, as a general rule, the new versions of the concerned ISO standards should be made available to the experts before updating their reference in a Regulation. GRRF endorsed this proposal and requested the secretariat ask ISO for a courtesy copy of the ISO standard concerned to be distributed to the experts. GRRF

adopted the document, not amended, and requested the secretariat to submit it to WP.29 and AC.1, for consideration at their March 2010 sessions, respectively as part (see paras. 6 and 11) of draft Supplement 4 to the 11 series of amendments to Regulation No. 13 and as part (see para. 6) of draft Supplement 10 to the original version of Regulation No. 13-H.

13. The expert from CLEPA introduced ECE/TRANS/WP.29/GRRF/2009/21 updating the reference to ISO 7638 in Regulation No. 13. GRRF adopted the document, not amended, and requested the secretariat to submit it to WP.29 and AC.1, for consideration at their March 2010 sessions, as part (see paras. 6, 11 and 12) of draft Supplement 4 to the 11 series of amendments to Regulation No. 13.

14. The expert from CLEPA introduced ECE/TRANS/WP.29/GRRF/2009/26 to correct errors in Revision 6 of Regulation No. 13. GRRF adopted the document, as amended below, and requested the secretariat to submit it to WP.29 and AC.1, for consideration at their March 2010 sessions, as draft Corrigendum 3 to Revision 6 of Regulation No. 13.

Appendix 4, correct the formula of  $z_c$ , to read:

$$" z_c = (0.5 - 0.01) \left( \frac{F_R}{(P + 7000) g} \right) + 0.01 "$$

15. The expert from the Netherlands introduced GRRF-66-04, GRRF-66-05 and its Revision 1 aligning the maximum test speeds used in Regulations Nos. 13 and 13-H. GRRF agreed on the principle of these proposals. However, the experts from Germany and OICA pointed out that the text of GRRF-66-04 and GRRF-66-05-Rev.1 needed editorial improvements. GRRF agreed to have a final review on this subject at its next session on the basis of revised proposals prepared jointly by the experts from the Netherlands, Germany, CLEPA and OICA.

16. The expert from CLEPA presented GRRF-66-09 amending Regulation No. 13 to ensure that a trailer equipped with electric control line will always brake when the driver activates the braking system. GRRF supported the principle of the document and requested the secretariat to distribute it with an official symbol for consideration at the next session of GRRF.

17. The expert from CLEPA introduced GRRF-66-10 proposing to extend the scope of Annex 20 of Regulation No. 13 to trailers with more than three axles. GRRF supported the principle of this proposal. However, the expert from Germany commented that the proposed text needed improvements. GRRF agreed to have a final review on this subject at its next session on the basis of a revised proposal from CLEPA.

18. The expert from CLEPA introduced GRRF-66-11 clarifying the wording used for a failure of the electric control transmission and the anti-lock braking system. The expert from Germany supported this proposal in principle but pointed out that the proposed text needed improvements. GRRF agreed to have a final review on this subject at its next session on a basis of a revised proposal from CLEPA.

F. Electronic Vehicle Stability Control (EVSC) (Agenda item 3(f))

Documentation: ECE/TRANS/WP.29/GRRF/2009/9, ECE/TRANS/WP.29/GRRF/2009/15, ECE/TRANS/WP.29/GRRF/2009/27, ECE/TRANS/WP.29/GRRF/2009/33, ECE/TRANS/WP.29/GRRF/2009/35, Informal documents Nos. GRRF-66-18, GRRF-66-21

19. The expert from CLEPA presented GRRF-66-21 superseding ECE/TRANS/WP.29/GRRF/2009/15 and proposing an alternative method to assess the vehicle stability system in the same way as trailer components. GRRF supported the proposal in principle, but a number of experts raised doubts about the proposed method and requested evidence for such alternative assessments. Furthermore, the expert from Germany stated that the text of GRRF-66-21 still needed improvements. GRRF agreed with the proposal of the Chairman to set up an informal group on this topic, subject to the consent of WP.29 at its November 2009 session. GRRF agreed to resume consideration of this subject at its next session in February 2010 on the basis of a revised proposal and a presentation of the subject by CLEPA.

20. The expert from CLCCR introduced ECE/TRANS/WP.29/GRRF/2009/27 superseding ECE/TRANS/WP.29/GRRF/2009/9 and proposing to exempt N<sub>2</sub> vehicles used for markets from the stability control requirements. A number of experts were of the opinion that the scope of the proposed exemption was too wide and needed to be more accurately defined. The expert from the United Kingdom raised a concern that an exemption was being proposed for this category of vehicle when ESC systems were being developed for similar vehicles (motorhomes), and questioned the need for such an exemption. GRRF agreed to have a final review of this subject at its next session on the basis of a revised proposal from CLCCR.

21. The expert from the United Kingdom introduced ECE/TRANS/WP.29/GRRF/2009/33 clarifying that a vehicle stability function may be fitted to N<sub>1</sub> vehicles on a voluntary basis. The expert from Japan presented GRRF-66-18 supplementing ECE/TRANS/WP.29/GRRF/2009/33. GRRF adopted both documents as reproduced below, and requested the secretariat to submit them to WP.29 and AC.1, for consideration at their March 2010 sessions, as part (see paras. 6, 11, 12 and 13) of draft Supplement 4 to the 11 series of amendments to Regulation No. 13.

Insert a new paragraph 5.2.1.33., to read:

**"5.2.1.33. Category N<sub>1</sub> vehicles having no more than 3 axles may be equipped with a vehicle stability function. If fitted, it shall include roll-over control and directional control and meet the technical requirements of Annex 21 to this Regulation."**

Annex 21 paragraph 1., amend to read:

"1. GENERAL

This annex defines the special requirements for vehicles equipped with a vehicle stability function, pursuant to paragraphs 5.2.1.32., **5.2.1.33.** and 5.2.2.23. of this Regulation."

22. The experts from OICA/CLEPA introduced ECE/TRANS/WP.29/GRRF/2009/35 defining the operating conditions which allow the vehicle stability function to be automatically disabled and include a requirement for an ESC system to have a dedicated warning lamp. GRRF adopted the document, not amended, and requested the secretariat to submit it to WP.29 and AC.1, for consideration at their March 2010 sessions, as part (see paras. 6, 11, 12, 13 and 21) of draft Supplement 4 to the 11 series of amendments to Regulation No. 13.

G. Other business (Agenda item 3(g))

Documentation: Informal document No. GRRF-66-08

23. The expert from CLEPA presented GRRF-66-08 introducing multi-trailers combinations in the scope of Regulation No. 13. A number of experts supported the proposal in principle but some experts requested more time to examine it. GRRF agreed that no informal group on this issue was needed at this stage. GRRF agreed to resume the consideration of this subject at its next session on the basis of an official proposal from CLEPA.

V. **AUTOMATIC EMERGENCY BRAKING AND LANE DEPARTURE WARNING SYSTEMS (Agenda item 4)**

Documentation: Informal document No. GRRF-66-07

24. GRRF noted the progress of work the informal group on Automatic Emergency Braking and Lane Departure Warning systems (AEBS/LDW) during its meetings in Paris on 25-26 June 2009 (GRRF-66-07) and in Geneva on 14 September 2009 prior to the GRRF session proper. The chairman of the informal group sought guidance from GRRF on issues that could not be solved by the informal group, namely the scope of work and the regulatory approach.

25. With regard to the scope of work, GRRF confirmed that the informal group should first focus on vehicles of categories N<sub>2</sub>, N<sub>3</sub>, M<sub>2</sub> and M<sub>3</sub>. Vehicles of categories M<sub>1</sub> and N<sub>1</sub> should be considered at a later stage. GRRF agreed that the draft requirements would apply to all the vehicles within the scope without any derogation. GRRF agreed that AEBS would only cover forward collision due to time constraints.

26. With regard to the regulatory approach, GRRF expressed its preference for the inclusion of the new requirements on AEBS/LDW in new stand-alone regulations in order to allow more flexibility for the adoption of these new technologies by the Contracting Parties. The expert from Germany expressed doubt on the possibility for the EC to adopt these new regulations before the end of 2011 as envisaged. GRRF requested the informal group to consider whether this regulatory choice would still be compatible with the time constraints of the EC.

27. The Chairman of the informal group explained that the next meeting was expected to be held in December 2009 with sub group meetings in the meantime. GRRF agreed to hold, on Monday of the next session of GRRF, a meeting of the informal group on AEBS/LDW and to postpone, if possible, the proper session of GRRF by half a day (starting day: Tuesday morning).



## **VI. MOTORCYCLE BRAKING (Agenda item 5)**

Documentation: ECE/TRANS/WP.29/GRRF/2009/22, ECE/TRANS/WP.29/GRRF/2009/22/Corr.1, Informal documents Nos. GRRF-65-33, GRRF-66-03, GRRF-66-15 and GRRF-66-16

28. The expert from IMMA presented ECE/TRANS/WP.29/GRRF/2009/22 and its Corrigendum 1 amending Regulation No. 78 with regard to the peak braking coefficient (PBC). The expert from Germany wished to change the PBC value from 0.9 to of 0.8. GRRF adopted neither the German proposal nor the IMMA one because it believed that they would create a discrepancy between Regulation No.78 and the gtr. Consequently, Canada withdrew its proposal GRRF-66-03 commenting ECE/TRANS/WP.29/GRRF/2009/22.

29. The expert from Canada introduced GRRF-66-15 and GRRF-66-16 correcting respectively gtr No. 3 and Regulation No. 78. A number of experts pointed out that the reference to the standard ASTM1136 in these proposals should be updated to include the year of the standard. Canada volunteered to prepare revised proposals to that aim.

## **VII. REGULATION No. 55 (Mechanical couplings) (Agenda item 6)**

Documentation: ECE/TRANS/WP.29/GRRF/2009/29, ECE/TRANS/WP.29/GRRF/2009/32, Informal document No. GRRF-66-20

30. The expert from the United Kingdom introduced ECE/TRANS/WP.29/GRRF/2009/32 proposing to make mandatory the fitting of a secondary coupling attachment point or device on unbraked O<sub>1</sub> trailers (see also agenda item 3(c)). A number of experts were in favour of this proposal due to its low costs compared to the benefits regarding safety and legislation harmonization. The expert from Germany preferred an optional fitting (ECE/TRANS/WP.29/GRRF/2009/29 and GRRF-66-20). GRRF noted a study reservation by the expert from France to check whether the definition used for a secondary coupling device was in line with the corresponding ISO standard. GRRF agreed to have a final review of this subject at its next session.

## **VIII. REGULATION No. 90 (Replacement brake linings) (Agenda item 7)**

Documentation: ECE/TRANS/WP.29/GRRF/2009/23, ECE/TRANS/WP.29/GRRF/2009/24, ECE/TRANS/WP.29/GRRF/2009/25, ECE/TRANS/WP.29/GRRF/2009/31, ECE/TRANS/WP.29/GRRF/2009/34, Informal document No. GRRF-66-26

31. On behalf of the informal group on Replacement Discs and Drums (RD&D), the expert from Germany reported on the progress of work made by the informal group. He introduced ECE/TRANS/WP.29/GRRF/2009/23, ECE/TRANS/WP.29/GRRF/2009/24 and ECE/TRANS/WP.29/GRRF/2009/25 amending respectively Regulations Nos. 90, 13 and 13-H in order to cover replacement brake discs and drums. GRRF agreed with the changes to ECE/TRANS/WP.29/GRRF/2009/23 proposed by the experts from OICA and CLEPA in ECE/TRANS/WP.29/GRRF/2009/34 as well as the amendments to paragraph 4.2.3. and Annex 2 of Regulation No. 90 proposed by the expert from CLEPA in

ECE/TRANS/WP.29/GRRF/2009/31. GRRF agreed in principle to documents ECE/TRANS/WP.29/GRRF/2009/23, 24, 25 and acknowledged the hard work done by the informal group and its chairman. GRRF agreed to have a final review of this subject at its next session and requested the secretariat to prepare a revised version of ECE/TRANS/WP.29/GRRF/2009/23, incorporating document ECE/TRANS/WP.29/GRRF/2009/34 and paragraph 4.2.3. and Annex 2 of ECE/TRANS/WP.29/GRRF/2009/31.

32. The expert from ETO introduced GRRF-66-26 proposing to clarify that special parts should remain under national type approval. GRRF could not reach a decision on this proposal. A number of experts were of the opinion that such a clarification was superfluous because these parts are already outside the scope of the regulation. GRRF agreed to have a final review of this subject at its next session and requested the secretariat to make GRRF-66-26 available with an official symbol.

#### **IX. REGULATION No. 79 (Steering equipment) (Agenda item 8)**

33. GRRF noted that no new information was provided under this agenda item and agreed to keep it on its agenda of the next session of GRRF.

#### **X. TYRES (Agenda item 9)**

##### **A. Harmonization of tyre Regulations (Agenda item 9(a))**

Documentation: Informal document No. GRRF-66-22

34. GRRF followed with interest the presentation of the expert from India (GRRF-66-22) on the harmonization of high-speed and endurance/low-pressure tests. GRRF noted a number of comments and agreed to defer consideration of this issue to a later stage.

35. With regard to the development of the gtr on tyres, the GRRF Chairman recalled that, at the June 2009 session of WP.29/AC.3, ETRTO had announced its wish to have the gtr adopted in one step in 2013 instead of having a two-step approach, with the first step delivered in 2010, as agreed previously. He added that AC.3 had postponed the work on the tyre GTR until the global tyre industry had met with the technical sponsor (France) and agreed a clear position on the development of the gtr, for consideration at the next session of WP.29/AC.3. GRRF agreed with the proposal of the GRRF Chairman to resume consideration of this gtr only after the next session of WP.29/AC3.

##### **B. Regulations Nos. 30 and 54 (Pneumatic tyres) (Agenda item 9(b))**

36. GRRF noted that no new information was provided under this agenda item and agreed to defer consideration of this subject to the next GRRF session.

C. Regulation No. 106 (Pneumatic tyres for agricultural vehicles) (Agenda item 9(c))

37. GRRF noted that no new information was provided under this agenda item and agreed to defer consideration of this subject to the next GRRF session.

D. Regulation No. 124 (Replacement wheels) (Agenda item 9(d))

Documentation: ECE/TRANS/WP.29/GRRF/2008/13, ECE/TRANS/WP.29/GRRF/2009/30, Informal documents Nos. GRRF 66-13 and GRRF 66-27

38. The expert from Germany introduced ECE/TRANS/WP.29/GRRF/2009/30 superseding ECE/TRANS/WP.29/GRRF/2008/13 and extending the scope of Regulation No. 124. He also presented GRRF-66-13 clarifying ECE/TRANS/WP.29/GRRF/2009/30. The expert from United Kingdom raised concerns with the definition of family of types and that the alternating torque test was being removed. OICA introduced GRRF 66-27 supplementing ECE/TRANS/WP.29/GRRF/2009/30. GRRF agreed to have a final review of this subject at its next session on the basis of a revised proposal prepared by Germany and taking into account the comments from OICA and the United Kingdom. GRRF requested the secretariat to ask ISO also for a courtesy copy of ISO 2409:2007 and to review the entire regulation in order to correct the use of the words the "inset/outset" in the text.

E. Tyre pressure monitoring systems (TPMS) (Agenda item 9(e))

Documentation: ECE/TRANS/WP.29/2009/129, Informal documents Nos. GRRF-65-40, GRRF-66-17, GRRF-66-19 and WP.29-148-02

39. As agreed at its last session, GRRF reviewed ECE/TRANS/WP.29/2009/129 based on GRRF-65-40 and proposing to include TPMS requirements in Regulation No. 64. GRRF reviewed the unresolved issues, kept in square brackets in the proposal.

40. With regard to the diffusion test procedure, GRRF preferred to keep the "option B" wording for paragraph 2.6.2.1. of the proposed Annex 5 of ECE/TRANS/WP.29/2009/129 was preferable. For the cumulative time necessary to warn the driver [30/60] minutes, no consensus was reached. In particular, the expert from ETRTO expressed a preference for 20 minutes (GRRF-66-19) whereas the expert from CLEPA and the United Kingdom preferred 30 minutes whilst the expert from OICA favoured 60 minutes. However, the majority of the members of GRRF present showed a preference for 60 minutes.

41. With regard to the tolerance that should apply to the pressure threshold of 20 per cent, the expert from OICA recalled WP.29-148-02 on the three causes that may impact the inner pressure of tyres: the accuracy of the pressure measuring equipment, the pressure variation due to the abrupt deflation of 20 per cent (thermo dynamical effect) and the pressure variation due to increased rolling resistance after deflation. He called for higher tolerances than the proposed [5] kPa, stressing the need for between 15 and 25 kPa depending on the recommended pressure of the tyre. The expert from the United States of America recalled that the tolerance in his country for the testing procedure of TPMS was equivalent to 7 kPa. The experts from the Netherlands, CLEPA and ETRTO pointed out that pressure gauges were much more accurate (2

or 3 kPa) than the [5] kPa proposed in ECE/TRANS/WP.29/2009/129. The expert from CLEPA added that the tests they conducted showed the thermo dynamical effect was negligible.

42. Following several interventions by experts, the chairman summarised the discussion, underlining that WP29 was expecting advice on how to proceed. He noted the forceful contributions of the expert from Germany on limit value tolerances and of the expert from OICA on the accuracy of tyre inflation equipment available to motorists in service stations. He indicated to experts that, in his opinion, the service station equipment was beyond the scope of a new vehicle type approval test but agreed to highlight this to WP29 prior to reaching their decision. Subsequently, upon his proposal, the majority of GRRF agreed to submit to WP.29 and AC.1, for consideration at their November 2009 session, a corrigendum modifying the test procedure as follows. A tolerance of +/-3 kPa would be introduced for the inaccuracy of the pressure measurement equipment used during the type approval test. Furthermore, for the diffusion test, "Option B" wording would be chosen for the driving procedure, the cumulative time necessary to warn the driver would be fixed to 60 minutes, a stabilization period of between 2 and 5 minutes will be introduced to take into account the thermo dynamical effect, and a further deflation of 7 kPa will be added to take into account the heating of the tyre due to the increased rolling resistance after deflation. The expert from Germany made a study reservation on this proposal. GRRF requested the Chairman to prepare the necessary corrigendum to ECE/TRANS/WP.29/2009/129, reflecting the above-mentioned compromise reached by GRRF.

43. GRRF also agreed with the corrections to ECE/TRANS/WP.29/2009/129 proposed by Japan (GRRF-66-17) and requested the secretariat to submit them to WP.29 and AC.1 for consideration at their November 2009 session, as a corrigendum to ECE/TRANS/WP.29/2009/129.

F. Rolling resistance (Agenda item 9(f))

Documentation: Informal document No. GRRF-66-28

44. GRRF followed with interest the presentation given by ETRTO on the progress of work made by the ISO group on rolling resistance measurement methods (GRRF-66-28).

G. Special tyre definitions (Agenda item 9(g))

45. The secretary of the informal group on Special Tyre Definitions reported on the progress made by the informal group. He informed GRRF that for snow tyres, it was agreed in principle to use the definition of the American Society for Testing and Materials (ASTM). He added that for traction tyres and off-road tyres, geometric requirements should be used. With regard to the measurement of rolling resistance, he indicated that four test methods existed and that there was a problem of consistency between laboratories that needed to be solved. He announced that the next meeting would be held in Geneva on 16 November 2009. He added that a proposal should be submitted for consideration at the next sessions of GRB and GRRF, with a possible adoption by WP.29/AC.1 in June 2010.

H. Exchange of information on national and international tyre requirements  
(Agenda item 9(h))

46. GRRF noted that no new information was provided under this agenda item and agreed to defer consideration of this subject to the next GRRF session.

**XI. INTELLIGENT TRANSPORT SYSTEMS (ITS) (Agenda item 10)**

47. GRRF noted that the informal group would meet after the GRRF session proper on 18 September 2009.

**XII. ELECTION OF OFFICERS (Agenda item 11)**

48. In compliance with Rule 37 of the Rules of Procedure (TRANS/WP.29/690, as amended by Amendment 1), GRRF called the election of officers on Tuesday morning. Mr. I. Yarnold (United Kingdom) was unanimously re-elected Chairman of GRRF for the sessions scheduled for the year 2010.

**XIII. OTHER BUSINESS (Agenda item 12)**

A. Exchange of information on national and international requirements on primary safety  
(Agenda item 12(a))

49. The expert from Spain informed GRRF that he would be interested in an exchange of views on the procedure used for the approval of modified vehicles in use, in particular with regard to brakes. GRRF invited Spain to make a proposal on this subject for the next session.

50. The expert from the EC announced that the General Safety Regulation had been published in the official journal of the EC under reference 661/2009. He added that the implementing measures of this regulation should be adopted in the coming months.

B. Regulation No. 89 (Speed limitation devices) (Agenda item 12(b))

Documentation: Informal document No. GRRF-66-14

51. The expert from EC presented GRRF-66-14 extending to vehicles of category M<sub>2</sub> the scope of Regulation No. 89. The expert from OICA pointed out that the text of the Regulation was not clear and that such amendment may render adjustable speed limitation devices mandatory for M<sub>2</sub> vehicles. GRRF agreed to resume the consideration of this subject at its next session and requested the secretariat to make GRRF-66-14 available with an official symbol for its next session.

C. Tributes

52. The GRRF Chairman thanked Mr. Maltry (CLEPA) and Mr. Ross (CLEPA) for their contribution to GRRF over the years and wished them a happy and long retirement.

#### **XIV. PROVISIONAL AGENDA FOR THE NEXT SESSION**

53. GRRF did not consider the agenda for the sixty-seventh session to be held in Geneva, from 2 (9.30 a.m.) to 5 (5.30 p.m.) February 2010. GRRF requested the secretariat to book the 1 February (From 10.30) for the informal group on AEBS/LDW. It was agreed that the Chairman, jointly with the secretariat, would propose a draft agenda. The deadline for the submission of official documents to that session is 5 November 2009. 1/

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1/ To help delegates make arrangements for travel and accommodation, the Chairman advises delegates that tyres items should be discussed at the end of the session.

Annex ILIST OF INFORMAL DOCUMENTS DISTRIBUTED WITHOUT A SYMBOL  
DURING THE SESSION (GRRF-66-....)

No.	Transmitted by	Agenda item	Language	Title	Follow- up
01	Chairman	-	E	Running order of the provisional agenda of the 66th session of GRRF	(a)
02	United Kingdom	3(c)	E	Proposal for draft amendments to Regulation No. 13 (Trailer braking)	(b)
03	Canada	5	E	Comments on proposed amendments GRRF-64-15 and ECE/TRANS/WP.29/GRRF/2009/22, (Regulation No. 78)	(a)
04	Netherlands	3(e)	E	Proposal for draft amendments to Regulation No. 13-H (clarifications)	(a)
05 +Rev1	Netherlands	3(e)	E	Proposal for draft amendments to Regulation No. 13 (clarifications)	(a)
06	CLEPA	3(c)	E	Proposal for draft amendments to ECE/TRANS/WP.29/GRRF/2009/28 (trailer braking)	(b)
07	Chairman AEBS/LDW informal group	2	E	Report on the 1st meeting of the GRRF informal group on Advanced Emergency Braking Systems (AEBS) and Lane Departure Warning Systems (LDWS)	(a)
08	CLEPA	3(g)	E	Draft amendments to Regulation No.13 (Other business)	(a)
09	CLEPA	3(e)	E	Draft amendments to Regulation No. 13 (Clarifications)	(b)
10	CLEPA	3(e)	E	Draft amendments to Regulation No. 13 (Clarifications)	(a)
11	CLEPA	3(e)	E	Draft amendments to Regulation No. 13 (Clarifications)	(a)
12	OICA	3(a)	E	Proposal for amendments to Regulation No. 13 (Emergency Stop Signal)	(a)

No.	Transmitted by	Agenda item	Language	Title	Follow- up
13	Germany	9(d)	E	Amendments to Regulation No. 124 (Replacement wheels)	(a)
14	European Commission	12	E	Proposal for draft amendments to Regulation No. 89 (Other business)	(b)
15	Canada	5	E	Proposed amendments to Global Technical Regulation No. 3 (Motorcycle Brake Systems)	(a)
16	Canada	5	E	Proposal for draft amendment to Regulation No. 78 (Braking category L vehicles)	(a)
17	Japan	9(e)	E	Proposal for corrigendum to document ECE/TRANS/WP.29/2009/129 (TPMS)	(a)
18	Japan	3(f)	E	Proposal for corrigendum to document ECE/TRANS/WP.29/GRRF/2009/33 (EVSC)	(a)
19	ETRTO	9(e)	E	ETRTO position on Tyre Pressure Monitoring Systems (TPMS)	(a)
20	Germany	6	E	Informal paper for clarification to ECE/TRANS/WP.29/GRRF/2009/29 and ECE/TRANS/WP.29/GRRF/2009/32	(a)
21	CLEPA	3(f)	E	Draft Proposal for Amendment of Regulation No. 13 (EVSC)	(a)
22	India	9(a)	E	Harmonized High Speed and Low Pressure Endurance Test	(a)
23	United Kingdom	3 (c)	E	Proposal for amendments to Regulation No. 13 (Trailer braking)	(b)
24	OICA	3(a)	E	Proposal for amendments to Regulation No. 13- H (Emergency Stop Signal)	(a)
25	OICA	3(a)	E	Proposal for amendments to Regulation No. 13 (Emergency Stop Signal)	(a)
26	ETO	7	E	Proposal for draft amendments to Regulation No. 90 (Replacement brake lining)	(b)



No.	Transmitted by	Agenda item	Language	Title	Follow- up
27	OICA	9(d)	E	Proposal for draft amendments to Document GRRF/2009/30 (Regulation 124- Replacement wheels)	(a)
28	ETRTO	9(f)	E	Rolling resistance	(a)

Reconsideration of informal documents from the previous sessions of GRRF and WP.29

(referring to agenda item and follow-up decision of the current session)

65-40	GRRF Chairman	9(e)	E	Modifications to ECE/TRANS/WP.29/GRRF/2009/10 (TPMS)	(a)
65-33	IMMA	5	E	Amendments to Regulation No.78 (Replacement brake linings)	(a)
WP.29 -148- 02	OICA	9(e)	E	OICA position on TPMS	(a)

Notes:

- (a) Consideration completed or superseded
- (b) Continue consideration at the next session with an official symbol

Annex II

GRRF INFORMAL GROUPS

<u>Informal group on</u>	<u>Chairperson</u>	<u>Secretary</u>
TYREgtr	Mr. I. Yarnold Phone: 44 207 944 2080 Fax: 44 207 944 2169 E-mail: <a href="mailto:ian.yarnold@dft.gsi.gov.uk">ian.yarnold@dft.gsi.gov.uk</a>	Mr. J.-C. Noirhomme (ETRTO) Phone: 32 2 344 4059 Fax: 32 2 344 1234 E-mail: <a href="mailto:info@etrto.org">info@etrto.org</a>
Replacement Discs and Drums (RD&D)	Mr. W. Gaupp Phone: 49 201 825 4139 Fax: 49 201 825 4185 E-mail: <a href="mailto:wgaupp@tuev-nord.de">wgaupp@tuev-nord.de</a>	Mr. M. Pehle (CLEPA) Phone: 49 226-2781974 Fax: 49 226-2786550 E-mail: <a href="mailto:pehle@bpw.de">pehle@bpw.de</a>
Special tyre Definitions (STD)	Mr. W. Schneider Phone : +32 22965260 Fax : +32 22969637 Email : <a href="mailto:wolfgang.schneider@ec.europa.eu">wolfgang.schneider@ec.europa.eu</a>	Mr. I. Knowles (EC) Phone: +32 2-2957680 Fax : +32 2-2969637 Email : <a href="mailto:ian.knowles@ec.europa.eu">ian.knowles@ec.europa.eu</a>
Automatic emergency braking systems and lane departure warning systems (AEBS/LDW)	Mr. J. Renders Phone : +32 2 2969962 Fax : +32 2 2969637 Email : <a href="mailto:johan.renders@ec.europa.eu">johan.renders@ec.europa.eu</a>	Mr. O. Fontaine (OICA) Phone : +33 1-43590013 Fax : +33 1-45638441 Email : <a href="mailto:ofontaine@oica.net">ofontaine@oica.net</a>
Alternative method to assess the vehicle stability system <u>1/</u>	<u>2/</u>	<u>2/</u>

1/ Subject to the consent of WP.29

2/ To be determined

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