


**Economic Commission for Europe**
**Inland Transport Committee**
**World Forum for Harmonization of Vehicle Regulations**
**Working Party on Brakes and Running Gear**
**Eighty-sixth session**

Geneva, 12-16 February 2018

**Report of the Working Party on Brakes and Running Gear  
on its eighty-sixth session**
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## I. Attendance

1. The Working Party on Brakes and Running Gear (GRRF) held its eighty-sixth session from 12 to 16 February 2018 in Geneva. The meeting was chaired by the elected Chair of GRRF, Mr. B. Frost (United Kingdom of Great Britain and Northern Ireland). Experts from the following countries participated in the work, following Rule 1 of the Rules of Procedure of the World Forum for Harmonization of Vehicle Regulations (WP.29) (TRANS/WP.29/690/Rev.1): Australia, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Hungary, India, Italy, Japan, the Netherlands, Norway, Poland, Russian Federation, Republic of Korea, San Marino, Slovakia, South Africa, Spain, Sweden, Switzerland and the United Kingdom of Great Britain and Northern Ireland (UK). Experts from the following non-governmental organizations (NGOs) participated: the Bureau International Permanent des Associations de Vendeurs et Rechappeurs de Pneu (BIPAVÉR), the International Motor Vehicle Inspection Committee (CITA), the European Association of Automotive Suppliers (CLEPA/MEMA/JAPIA), the European Tyre and Rim Technical Organisation (ETRTO), the Federation of European Manufacturers of Friction Materials (FEMFM), the International Motorcycle Manufacturers Association (IMMA), the International Organization for Standardization (ISO) and the International Organization of Motor Vehicle Manufacturers (OICA). Upon the special invitation of the Chair, the following NGOs participated: Imported Tyre Manufacturers Association (ITMA) and the Recreational Vehicle Industry Association (RVIA).

## II. Adoption of the agenda (agenda item 1)

*Documentation:* ECE/TRANS/WP.29/GRRF/2018/1  
Informal documents GRRF-86-01, GRRF-86-08 and GRRF-86-27

2. GRRF considered the agenda prepared for the eighty-sixth session and adopted it (ECE/TRANS/WP.29/GRRF/2018/1 and Add. 1). The adopted agenda is reproduced in GRRF-86-27, including all informal documents received until the session's starting date. GRRF also adopted the running order for the session as proposed in GRRF-86-01. The informal documents distributed during the session are listed in Annex I of this report. The list of the Informal Working Groups of GRRF is reproduced in Annex II of this report

3. The Chair gave the floor to Mr. Li Yuwei, newly appointed Director of the Sustainable Transport Division. Mr Li introduced himself. He recalled his previous activities related to UN Transport legal instruments administered by UNECE. He mentioned the importance of vehicle regulations addressing vehicle safety and therefore road safety in order to meet the ambition of the Sustainable Development Goals to halve the number of fatalities due to road crashes by 2020.

4. The secretariat introduced GRRF-86-08, announcing that the next GRRF session would take place on 25-28 September 2018 and recalling that the deadline for the submission of official documents would be 29 June 2018.

## III. Advanced Emergency Braking Systems (agenda item 2)

*Documentation:* (ECE/TRANS/WP29/GRRF/2017/24)  
Informal documents GRRF-86-12, GRRF-86-18 and GRRF-86-32

5. The secretariat reminded that *Footnote 5* in the table of Annex 3 in the 01 series of amendments to Regulation No. 131 imposed the review of the target speed in cell H2 before 1 November 2021.

6. The expert from Japan presented (GRRF-86-12) a status report of the activities of the Informal Working Group (IWG) on Advanced Emergency Braking Systems (AEBS). GRRF agreed that AEBS for light vehicles should perform when the target is a vehicle, a pedestrian or a cyclist, recognizing that the technology for cyclist detection is still being refined. GRRF agreed to also consider the concern raised by the expert from Sweden on the detection of big animals by AEBS.

7. GRRF also agreed that AEBS for light vehicle should not be included in UN Regulation No. 131, noting that UN Regulation No. 131 is aimed at addressing situations on highways, while AEBS systems for light vehicle would primarily address urban situations.

8. The expert from Germany recalled the purpose of ECE/TRANS/WP.29/GRRF/2017/24 proposing more stringent provisions on automatic reactivation of AEBS. He presented GRRF-86-32 addressing concerns expressed at the September 2017 session on the original proposal. The expert from OICA answered to the proposal (GRRF-86-18). The experts from Nordic Countries supported OICA's proposal as they are facing user acceptance issues on their market due to false AEBS warnings. GRRF urged the experts from Germany and from OICA to submit a revised proposal for the September 2018 session of GRRF.

#### **IV. Regulations Nos. 13, 13-H, 139 and 140 (agenda item 3)**

##### **A. Electronic Stability Control**

9. GRRF did not receive any new document to be discussed under this agenda item.

##### **B. Modular Vehicle Combinations**

10. The secretariat recalled the mandate extension until February 2019 of the IWG on Modular Vehicle Combinations (MVC) adopted by WP.29 in March 2017.

##### **C. Clarifications**

*Documentation:* (ECE/TRANS/WP.29/GRRF/2013/13)  
ECE/TRANS/WP.29/GRRF/2018/2  
ECE/TRANS/WP.29/GRRF/2018/3  
Informal documents GRRF-86-16-Rev.1 and GRRF-86-33

11. The Chair of GRRF recalled the purpose of ECE/TRANS/WP.29/GRRF/2013/13, adopted during the seventy-fifth GRRF session. The document remained on the agenda of GRRF, pending submission to the World Forum for Harmonization of Vehicle Regulations (WP.29) and the Administrative Committee of the 1958 Agreement (AC.1) of the adopted text for Regulation No. 89 (Speed limitation devices). Therefore, it was considered under agenda item 12(b).

12. The expert from Australia presented ECE/TRANS/WP.29/GRRF/2018/2 and ECE/TRANS/WP.29/GRRF/2018/3 clarifying the obligation for the vehicle type to be equipped with a Brake Assist System (BAS) or an Electronic Stability Control (ESC)

system in order to receive a type approval according to UN Regulation No. 139 or UN Regulation No. 140 respectively. GRRF supported both proposals and requested the secretariat to submit them to WP.29 and AC.1 as draft Supplements 1 to UN Regulations Nos. 139 and 140 for consideration and vote at their June 2018 sessions.

13. The expert from OICA introduced GRRF-86-16-Rev.1 with provisions related to the introduction of Remote Controlled Parking (RCP) in UN Regulation No. 79 (Steering equipment).

14. GRRF adopted the proposal as reproduced in Annex III and requested the secretariat to submit it as draft Supplement 1 to the 01 series of amendments to UN Regulation No. 13-H and as draft Supplement 15 to the 11 series of amendments to UN Regulation No. 13 to WP.29 and AC.1 for consideration and vote at their June 2018 sessions.

15. The expert from CLEPA introduced GRRF-86-33, highlighting a mistake in Revisions 7 and 8 of UN Regulation No. 13. The secretariat agreed to correct both revisions.

#### **D. Other business**

16. No intervention was made under this agenda item.

#### **V. Regulation No. 55 (agenda item 4)**

*Documentation:* ECE/TRANS/WP.29/GRRF/2018/4  
Informal documents GRRF-86-02, GRRF-86-03, GRRF-86-06 and GRRF-86-34

17. The Chair of the IWG on the Agricultural Coupling Devices and Components reported on the activities of the group (GRRF-86-06) and presented GRRF-86-02, introducing ECE/TRANS/WP.29/GRRF/2018/4 with a draft Regulation on the Agricultural Coupling. GRRF received information on the texts of para. 4.5.

18. GRRF agreed that the stress weld limit should be qualified as absolute. It adopted the document and requested the secretariat make the necessary change and to submit the proposal as new draft UN Regulation on uniform provisions concerning the approval of mechanical coupling components of combinations of agricultural vehicles to WP.29 and AC.1 for consideration and vote at their June 2018 sessions.

19. The expert from CLEPA introduced GRRF-86-03 proposing a Corrigendum to UN Regulation No. 55. GRRF invited the expert from CLEPA to submit a revised proposal for consideration at the September 2018 session.

20. The expert from Poland introduced GRRF-86-34 proposing a clarification of item 9.3 in Annex 1 to UN Regulation No. 55. GRRF requested the secretariat to distribute this proposal with an official symbol at its September 2018 session.

#### **VI. Motorcycle braking (agenda item 5)**

##### **A. Global technical regulation No. 3**

*Documentation:* (ECE/TRANS/WP.29/GRRF/2017/15  
ECE/TRANS/WP.29/GRRF/2017/16)  
Informal documents GRRF-86-10 and GRRF-86-11

21. The expert from Italy withdrew GRRF-86-10 and GRRF-86-11.

## **B. Regulation No. 78**

*Documentation:* (ECE/TRANS/WP.29/GRRF/2017/14)  
Informal document GRRF-86-35

22. The expert from IMMA introduced GRRF-86-35 with provisions allowing additional conditions for the activation of the stop lamp. The proposal received some comments. GRRF noted that some conditions were related to regenerative braking and, therefore, GRRF recommended to explore corresponding provisions in UN Regulations Nos. 13 and 13-H on the braking performance of regenerative braking and to complement the proposal for amendments to UN Regulation No. 78 with corresponding provision, not only addressing brake light activation requirements. GRRF noted the potential need to clarify the need of the word "instantaneous" in para. 5.1.16. The expert from IMMA agreed to submit a revised proposal for the September 2018 session of GRRF.

## **VII. Regulation No. 90 (agenda item 6)**

*Documentation:* Informal documents GRRF-86-39, GRRF-86-40, GRRF-86-40-Rev.1 and GRRF-86-41

23. The expert from Spain recalled the purpose of the Special Interest Group of Experts on UN Regulation No. 90 and presented the status report of the group (GRRF-86-39).

24. The expert mentioned that UN Regulation No. 90 was not aligned with corresponding provisions in UN Regulation No. 78 and proposed amendments to Annex 7 (GRRF-86-41). GRRF requested the secretariat to keep this document on the agenda for its September 2018 session.

25. The expert from CLEPA introduced GRRF-86-40 proposing to amend ECE/TRANS/WP.29/2016/58, which was prepared on the basis of three documents with conflicting provisions. The secretariat informed GRRF that ECE/TRANS/WP.29/2016/58 was adopted by AC.1 as Supplement 3 to UN Regulation No. 90 and that the corrections proposed could not be adopted as drafted. The secretariat agreed to prepare a revised version that could potentially be adopted (GRRF-86-40-Rev.1) by AC.1 as a Supplement 4.

## **VIII. Tyres (agenda item 7)**

### **A. Global technical regulation No. 16**

*Documentation:* Informal documents GRRF-86-21, GRRF-86-22, GRRF-86-28 and GRRF-86-29

26. The expert from the Russian Federation, chairing the IWG on Tyre GTR, reported (GRRF-86-21) on the work done by the IWG on Tyres on the development of draft Amendment 2 of the GTR No. 16 (Tyres). He informed GRRF that a first informal document could be delivered for the September 2018 session of GRRF.

27. The Chair of the IWG introduced GRRF-86-22 with a memorandum on a "global marking for tyres". He invited the Contracting Parties to the 1998 Agreement to review this memorandum and assess, whether the approach for tyre global marking in UN GTR No. 16 could be supported and whether it would be feasible to recognize a global tyre marking as

an alternative to the existing national/regional tyre marking. The Chair invited GRRF delegates to respond to the memorandum.

28. The Secretary of the IWG on Tyre introduced GRRF-86-28 and GRRF-86-29, providing further details and explanations on what may be delivered by the IWG in September 2018.

## **B. Regulation No. 30**

*Documentation:* Informal documents GRRF-86-04 and GRRF-86-05

29. The expert from ETRTO presented GRRF-86-04, introducing GRRF-86-05, and announcing the intention of ETRTO to propose provisions for extended mobility tyres in UN Regulations Nos. 30 and 64, on the basis of initial work done by the tyre industry at the International Standardization Organization (ISO). GRRF noted the reference to ISO documentation and invited the expert from ETRTO to prepare a more detailed proposal for consideration at the next GRRF session, both concerning UN Regulations Nos. 30 and 64.

## **C. Regulation No. 54**

*Documentation:* ECE/TRANS/WP.29/GRRF/2018/5  
ECE/TRANS/WP.29/GRRF/2018/11  
Informal documents GRRF-86-23, GRRF-86-26 and GRRF-86-43

30. The expert from ETRTO introduced ECE/TRANS/WP.29/GRRF/2018/5 with editorial correction and a number of imperial tyre sizes updated in Annex 5. He also introduced ECE/TRANS/WP.29/GRRF/2018/11 as a consolidated version of UN Regulation No. 54, containing ECE/TRANS/WP.29/GRRF/2018/5. GRRF adopted ECE/TRANS/WP.29/GRRF/2018/11 as amended (GRRF-86-23 and GRRF-86-26) and as reproduced in Addendum 1 (based on GRRF-86-43) to the report. GRRF requested the secretariat to submit this amended proposal as draft Supplement 23 to UN Regulation No. 54 to WP.29 and AC.1 for consideration and vote at their June 2018 sessions.

## **D. Regulation No. 75**

*Documentation:* Informal documents GRRF-86-25

31. The expert from ETRTO introduced GRRF-86-25, highlighting a mistake in a footnote in ECE/TRANS/WP.29/2017/8 adopted as Supplement 17 to UN Regulation No. 75. GRRF adopted a proposal as reproduced in Annex V and requested the secretariat to submit it a Corrigendum 1 to UN Regulation No. 75 to WP.29 and AC.1 for consideration and vote at their June 2018 sessions.

## **E. Regulation No. 106**

*Documentation:* ECE/TRANS/WP.29/GRRF/2018/6  
ECE/TRANS/WP.29/GRRF/2018/7  
ECE/TRANS/WP.29/GRRF/2018/12  
Informal documents GRRF-86-31 and GRRF-86-43

32. The expert from ETRTO introduced ECE/TRANS/WP.29/GRRF/2018/6 and ECE/TRANS/WP.29/GRRF/2018/7 (amended by GRRF-86-31) with tyre sizes and tyre classification codes common in the United States of America and standardised by the Tire

and Rim Association Inc. and with marking provisions on inflation pressure (for measurements and tests). He also introduced ECE/TRANS/WP.29/GRRF/2018/12 as a consolidated version of UN Regulation No. 106, containing ECE/TRANS/WP.29/GRRF/2018/6 and ECE/TRANS/WP.29/GRRF/2018/7. GRRF adopted ECE/TRANS/WP.29/GRRF/2018/12 as amended and reproduced in Addendum 2 (based on GRRF-86-42) to the report. GRRF requested the secretariat to submit this amended proposal as draft Supplement 16 to UN Regulation No. 106 to WP.29 and AC.1 for consideration and vote at their June 2018 sessions.

## **F. Regulation No. 109**

*Documentation:* ECE/TRANS/WP.29/GRRF/2018/8,  
ECE/TRANS/WP.29/GRRF/2018/9  
Informal document GRRF-86-24

33. The expert from France presented ECE/TRANS/WP.29/GRRF/2018/9, aimed at harmonizing the definitions and provisions in Regulation No. 109 with those introduced in UN Regulations Nos. 30, 54 and 117. The expert from ETRTO introduced GRRF-86-24, proposing amendment to this proposal. GRRF adopted the proposal as amended by Annex VI (of this report) and requested the secretariat to submit it as draft supplement 4 to UN Regulation No. 109. GRRF requested the secretariat to address corrections to the French version of the document suggested by the expert from France.

34. The expert from BIPAVER introduced ECE/TRANS/WP.29/GRRF/2018/8 with similar provisions as those in ECE/TRANS/WP.29/GRRF/2018/9 and proposed as amendments to UN Regulation No. 108. GRRF adopted the proposal as amended by Annex IV (of this report) and requested the secretariat to submit it as draft Supplement 9 to UN Regulation No. 108 for consideration and vote by WP.29 and AC.1 at their June 2018 sessions.

## **G. Regulation No. 117**

*Documentation:* ECE/TRANS/WP.29/GRRF/2016/42  
ECE/TRANS/WP.29/GRRF/2017/7

35. The Chair recalled that GRRF already supported ECE/TRANS/WP.29/GRRF/2016/42 and ECE/TRANS/WP.29/GRRF/2017/7 with editorial corrections and that these documents were kept on the agenda, awaiting substantive proposals to be considered at the coming session.

36. GRRF agreed to keep both documents on the agenda for its September 2018 session.

## **H. Regulation No. 141**

*Documentation:* ECE/TRANS/WP.29/GRRF/2016/43  
Informal document GRRF-86-17

37. The Chair recalled that GRRF already supported ECE/TRANS/WP.29/GRRF/2016/43 with editorial corrections and that this document was kept on the agenda, awaiting substantive proposals to be considered at the coming sessions.

38. GRRF agreed to keep this document on the agenda for its February 2018 session.

39. The expert from OICA introduced GRRF-86-17 containing the field study report on the Tyre Pressure Monitoring System (TPMS) fitment and tyre inflation pressure which was mentioned in GRRF-86-33 presented at the eighty-fourth session of GRRF.

**I. Regulation No. 142**

40. No intervention was made under this agenda item.

**J. Snow tyres provisions**

*Documentation:* Informal document GRRF-86-09

41. The expert from Germany presented GRRF-86-09 with possible scenarios for developing snow tyre provisions for all tyres and vehicles categories as it is already existing for snow tyres of category C1, C2 and C3 for vehicles categories M and N. GRRF supported the scenario 2 proposed in the document and invited the expert from Germany and other interested experts to prepare snow tyre provisions according to this scenario.

**K. Other business**

42. No intervention was made under this agenda item.

**IX. Intelligent Transport Systems (agenda item 8)****A. Vehicle automation**

43. GRRF discussed this agenda item together with item 9(b).

**B. Other ITS issues**

*Documentation:* <https://www.itu.int/en/fnc/2018/Pages/default.aspx>

44. The secretariat invited GRRF experts to attend the 2018 symposium on the Future Networked Car co-organized by UNECE and the International Telecommunication Union (ITU).

**X. Steering equipment (agenda item 9)****A. Regulation No. 79**

*Documentation:* ECE/TRANS/WP.29/GRRF/2018/10  
Informal document GRRF-86-15

45. The expert from UK introduced ECE/TRANS/WP.29/GRRF/2018/10, proposing to include provisions applicable for Remote Control Manoeuvring (RCM) in UN Regulation No. 79. GRRF welcomed the proposal, noting that some vehicles were already delivered with this feature. GRRF agreed to insert provisions on RCM in UN Regulation No. 79. The proposal received a number of comments from Contracting Parties and from OICA, as reflected in GRRF-86-15.

46. The expert from UK volunteered to submit a revised proposal for consideration at the September 2018 session of GRRF and invited interested experts to contribute to this work stream.

## **B. Automatically Commanded Steering Function**

*Documentation:* Informal documents GRRF-86-13, GRRF-86-20-Rev.1 and GRRF-86-36

47. The expert from Japan, on behalf of the Co-Chairs of the IWG on Automatically Commanded Steering Function (ACSF), reported on the outcome of the sixteenth session of IWG on Automatically Commanded Steering Function (ACSF) held on 23-25 January 2018 in Japan (GRRF-86-20-Rev.1). He explained that the group sought for guidance from GRRF on the proper way to address ACSF of Categories B2 and [C2]. GRRF agreed that the Category B2 shall be considered in the context of SAE level 3 or 4 as a first priority. GRRF recognised the interest from industry on an additional option for Category C (C2) and noted that the industry may work separately on this. The expert from Japan stated that, as a second priority, GRRF could also develop provisions for ACSF of Category B2 in the context of SAE level 2. GRRF reviewed in detail the presentation and provided recommendations to the IWG on ACSF on the basis of GRRF-86-20-Rev.1 as reflected in GRRF-86-36. Noting the ambitious deadline for the group and the number of tasks, GRRF's recommendations included among others the establishment of tasks forces that would work through Web Conferencing in order to make progress before the next session of the IWG on ACSF scheduled in April 2018. GRRF also identified bodies that could develop provisions on transversal issues, not necessarily in the remit of GRRF under the current mandate. GRRF agreed that its Chair would consult GRSG on regulatory activities for Data Storage Systems for Automated Driving (DSSAD).

48. The expert from Germany presented GRRF-86-13 tabled by the experts from Germany and from the Republic of Korea with a proposal for amendments to the ACSF testing provisions in Annex 8 of UN Regulation No. 79, based on the first experience gathered since the 02 series of amendments of UN Regulation No. 79 entered into force. GRRF welcomed the proposal and provided comments. The experts from Germany and the Republic of Korea volunteered to prepare a revised proposal aimed to avoid prescriptive requirements on the measurement instruments and providing more detailed justification e.g. on the sample rate and the filtering of the lateral acceleration data.

49. The expert from OICA reported on ongoing activities at ISO on the development of ISO 11992.

## **C. Complex Electronic (CEL) control system requirements**

50. GRRF discussed this agenda item together with item 9(b) – see GRRF-86-36.

# **XI. International Whole Vehicle Type Approval (agenda item 10)**

## **A. Report on the IWVTA informal group and subgroup activities**

*Documentation:* Informal document GRRF-86-38

51. The GRRF Ambassador to the IWG on International Whole Vehicle Type Approval (IWVTA) provided a status report of the activities of the IWG (GRRF-86-38) informing GRRF among others about the adoption of UN Regulation No. 0 by AC.1 at the November 2017 session.

52. The secretariat informed GRRF about potential follow-up activities related to the entry into force of Revision 3 to the 1958 Agreement and the adoption of UN Regulation No. 0. He drew attention of GRRF to (a) the adopted guidelines related to the drafting of Transitional Provisions, (b) the possibility to insert provisions in UN Regulations

preventing the use of the Unique Identifier as defined in the Agreement, (c) the discussion of the IWG on IWVTA on the new approval numbering in Schedule 4 potentially in conflict with marking provisions in Tyre regulations and in UN Regulation No. 90 (see GRRF-86-37), (d) the maintenance of Annex 4 in UN Regulation No. 0, (e) the update of the standard provisions related to the Conformity of Production still referring to Revision 2 of the 1958 Agreement.

## **B. Other business**

*Documentation:* Informal document GRRF-86-37

53. The expert from CLEPA introduced GRRF-86-37, providing detailed information on the identification of a consistency issue between the provisions related to approval numbers according to UN Regulation No. 90 and those in Schedule 4 to the 1958 Agreement. GRRF requested the secretariat to submit this presentation to the IWG on IWVTA.

## **XII. Exchange of views on innovations, automations and self-driving cars (agenda item 11)**

54. GRRF did not receive any new document to be discussed under this agenda item.

## **XIII. Other business (agenda item 12)**

### **A. Highlights of the November 2017 session of WP.29**

*Documentation:* (ECE/TRANS/WP.29/1135)  
Informal document GRRF-86-07

55. The secretariat introduced GRRF-86-07, reporting on the GRRF relevant highlights of the 173rd session of WP.29. For more information, please refer to the session report (ECE/TRANS/WP.29/1135).

### **B. Regulation No. 89**

*Documentation:* (ECE/TRANS/WP.29/GRRF/2017/22)  
Informal document GRRF-86-14

56. The expert from OICA introduced GRRF-86-14 with provisions on the warning activation condition, in case of the system deactivation by the driver as well as a verification simplification of the throttle control action during testing. GRRF adopted the proposal as reproduced in Annex VII. GRRF requested to submit it together with ECE/TRANS/WP.29/GRRF/2013/13 as draft Supplement 3 to UN Regulation No. 89 to WP.29 and AC.1 for consideration and vote at their June 2018 sessions.

### **C. Any other business**

*Documentation:* Informal documents GRRF-86-19 and GRRF-86-30

57. The expert from the Russian Federation introduced GRRF-86-19, inviting delegates to confirm the type of speed limitation systems requested for vehicles type approved for the transport of dangerous goods as specified in the European Agreement Concerning the

International Carriage of Dangerous Goods by Road (ADR). GRRF confirmed that a vehicle equipped with a Speed Limitation Function would be in compliance with ADR Section 9.2.5 similarly to a vehicle equipped with a Speed Limitation Device.

58. The expert from Norway presented GRRF-86-30, reporting on the investigation of road crashes that involved trucks with potential issues related to the mechanical failure of the steering gear. GRRF invited its experts to review crash data available and agreed to further discuss this issue at its September 2018 session.

#### **D. Tributes**

59. GRRF learned that Jochen Schaefer (Bosch, CLEPA) would no longer attend the sessions of GRRF as he would enter the passive phase of his partial retirement agreement with his employer. GRRF congratulated him for his outstanding contributions to GRRF and wished him all the best for his future retirement.

### **XIV. Provisional agenda for the eighty-seventh session**

60. The provisional agenda will be prepared by the secretariat and will be distributed ten weeks prior to the eighty-seventh session of GRRF<sup>1</sup>.

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<sup>1</sup> GRRF noted that the deadline for submission of official documents to the UNECE secretariat was 29 June 2018, twelve weeks prior to the session.

## Annex I

## List of informal documents (GRRF-86-...) considered during the session

[English only]

<i>No.</i>	<i>(Author) Title</i>	<i>Follow-up</i>
1	(Chair) Running order	A
2	(Germany) Introduction of ECE/TRANS/WP.29/GRRF/2018/4	F
3	(CLEPA) Proposal for amendments to UN Regulation No. 55	F
4	(ETRTO) Proposal for amendments to UN Regulations Nos. 30 and 64	F
5	(ETRTO) Introduction to the proposal for amendments to UN Regulations Nos. 30 and 64	F
6	(ACDC) Status report	F
7	(Secretariat) Highlights of the last session of WP.29	F
8	(Secretariat) General information	F
9	(Germany, Japan, Russian Federation, ETRTO) Snow tyres provisions - status report	F
10	(Italy) Revised proposal for Amend. 3 to UN GTR No. 3	E
11	(Italy) Revised report on Amend. 3 to UN GTR No. 3	E
12	(AEBS) Status report	F
13	(Germany, Republic of Korea) Proposal for amendments to UN Regulation No.79 (Steering equipment)	E
14	(OICA) Proposal for amendments to ECE/TRANS/WP29/GRRF/2017/22	B
15	(OICA) Proposal for amendments to ECE/TRANS/WP29/GRRF/2018/10	F
16	(OICA) Proposal for amendments to the 01 series of amendments to UN Regulation No. 13-H and Rev.1 to UN Regulation No. 13	B
17	(OICA) TPMS Fitment and Tyre Inflation Pressures - Field Study EU 2016/2017	F
18	(OICA) Proposal for amendments to ECE/TRANS/WP.29/GRRF/2017/24	F
19	(Russian Federation) Request to GRRF concerning implementation of UN Regulation No. 89 in the European Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR)	F
20	(ACSF) Status report of the IWG on ACSF Rev.1	F
21	(Tyre GTR) Report of the Chair of the IWG on Tyre GTR	F
22	(Tyre GTR) Memorandum explaining introduction of global marks for tyres in UN GTR No. 16	F
23	(ETRTO) Proposal for amendments to ECE/TRANS/WP.29/GRRF/2018/5 and ECE/TRANS/WP.29/GRRF/2018/11	B
24	(ETRTO) Proposal for amendments to UN Regulation No. 109.	B
25	(ETRTO) Proposal for a Corrigendum to UN Regulation No. 75 (ECE/TRANS/WP29/2017/8)	A
26	(ETRTO) Proposal for amendments to ECE/TRANS/WP.29/GRRF/2018/5 and ECE/TRANS/WP.29/GRRF/2018/11	B
27	(Secretariat) Updated and consolidated provisional agenda for the 86th GRRF session	A

<i>No.</i>	<i>(Author) Title</i>	<i>Follow-up</i>
28	(TyreGTR) IWG on Tyre GTR proposal for Amend. 2 to UN GTR No. 16 (Phase 2A)	F
29	(TyreGTR) IWG on Tyre GTR proposal for Amend. 2 to UN GTR No. 16 (Phase 2A)	F
30	(Norway) Protection of steering gear attached to the chassis frame and an associated part on heavy truck	E
31	(ETRTO) Proposal for amendments to ECE/TRANS/WP.29/GRRF/2018/6 and ECE/TRANS/WP.29/GRRF/2018/12	B
32	(Germany) Proposal for amendments to ECE/TRANS/WP.29/GRRF/2017/24	E
33	(CLEPA) Proposal for a Corrigendum to Revisions 7 and 8 to Regulation No. 13	A
34	(Poland) Draft proposal for a new supplement to the 01 series of amendments to UN Regulation No. 55 (Mechanical coupling device)	C
35	(IMMA) Proposal for amendments to UN Regulation No. 78	E
36	(Secretariat) GRRF recommendations to the IWG on ACSF on the basis of GRRF-86-20-Rev.1	F
37	(CLEPA) UN R90 Approval Numbering	F
38	(GRRF Ambassador) Report to GRRF	F
39	(SIG R90) Status report	F
40	(CLEPA) Proposal for amendments to UN Regulation No. 90	E
41	(Spain) Draft proposal for amendments to Annex 7 to UN Regulation No. 90	C
42	(Secretariat) Adopted amendments to ECE/TRANS/WP.29/GRRF/2018/12	A
43	(Secretariat) Adopted amendments to ECE/TRANS/WP.29/GRRF/2018/11	A

*Notes:*

- A Endorsed or adopted without amendment.
- B Endorsed or adopted with amendments.
- C Resume consideration on the basis of a document with an official symbol.
- D Kept as reference document/continue consideration.
- E Revised proposal for the next session.
- F Consideration completed or to be superseded.

## Annex II

### List of informal working groups

<i>Acronym</i>	<i>Chair or Co-chairs</i>	<i>Secretaries</i>	<i>End of mandate</i>
AEBS	Mr. A. Lagrange (European Commission) Mr. T. Hirose (Japan)	O. Fontaine (OICA)	September 2018
ACSF	Mr. C. Theis (Germany) Mr. H. Morimoto (Japan)	[J. Schaefer (CLEPA)]	February 2019
MVC	Mr. A. Gunneriusson (Sweden)	O. Fontaine (OICA)	September 2019

## Annex III

### Adopted amendments to UN Regulations Nos. 13 and 13-H

#### Based on GRRF-86-16-Rev.1

*UN Regulation No. 13-H*

*Paragraph 5.2.10.*, amend to read:

"5.2.10. The service, secondary and parking braking systems shall ...

...

Nevertheless, in all cases, the permanently connected friction braking source shall ensure that both the service and secondary braking systems continue to operate with the prescribed degree of effectiveness.

Disconnection of the braking surfaces of the parking braking system shall be permitted only on condition that the disconnection is controlled ~~exclusively~~ by the driver from his driving seat **or from a remote control device**, by a system incapable of being brought into action by a leak.

**The remote control device mentioned above shall be part of a system fulfilling the technical requirements of an ACSF of Category A as specified in the 02 series of amendments to UN Regulation No. 79 or later series of amendments."**

*Paragraph 5.2.19.4.* amend to read:

"5.2.19.4. After the ignition/start switch which controls the electrical energy for the braking equipment has been switched off and/or the key removed, it shall remain possible to apply the parking braking system, whereas releasing shall be prevented.

**However, the parking braking system may also be released when this action is part of an operation of a remote control system fulfilling the technical requirements of an ACSF of Category A as specified in the 02 series of amendments to UN Regulation No. 79 or later series of amendments."**

*UN Regulation No. 13*

*Paragraph 5.2.1.10.*, amend to read:

"5.2.1.10. The service, secondary and parking braking systems shall act on braking surfaces connected to the wheels through components of adequate strength.

Where braking torque for a particular axle or axles is provided by both a friction braking system and an electrical regenerative braking system of category B, disconnection of the latter source is permitted, providing that the friction braking source remains permanently connected and able to provide the compensation referred to in paragraph 5.2.1.7.2.1.

However, in the case of short disconnection transients, incomplete compensation is accepted, but within 1 s, this compensation shall have attained at least 75 per cent of its final value.

Nevertheless, in all cases the permanently connected friction braking source shall ensure that both the service and secondary braking systems continue to operate with the prescribed degree of effectiveness.

Disconnection of the braking surfaces of the parking braking system shall be permitted only on condition that the disconnection is controlled ~~exclusively~~ by the driver from his driving seat **or from a remote control device**, by a system incapable of being brought into action by a leak.

**The remote control device mentioned above shall be part of a system fulfilling the technical requirements of an ACSF of Category A in the 02 series of amendments to UN Regulation No. 79 or later series of amendments."**

*Paragraph 5.2.1.26.4., amend to read:*

"5.2.1.26.4. After the ignition/start switch which controls the electrical energy for the braking equipment has been switched off and/or the key removed, it shall remain possible to apply the parking braking system, whereas releasing shall be prevented.

**However, the parking braking system may also be released when this action is part of an operation of a remote control system fulfilling the technical requirements of an ACSF of Category A as specified in the 02 series of amendments to UN Regulation No. 79 or later series of amendments."**

## Annex IV

### **Adopted amendment to ECE/TRANS/WP.29/GRRF/2018/8**

*Proposal for a new paragraph 9.4.3., amend to read:*

"9.4.3. At least ..."

*Proposal for a new paragraph 9.4.4., amend to read:*

"9.4.4. At least ..."

*Annex 9,*

*Paragraph 2., subparagraph, footnote 1, amend to read:*

" ... CTI penetrometer<sup>1</sup> ..."

*Paragraph 3.1.1., subparagraph, footnote 1, amend to read:*

" ... CTI penetrometer<sup>1</sup> ..."

## Annex V

### Proposal for Corrigendum 1 to UN Regulation No. 75

**Based on GRRF-86-25**

*Annex 7,*

*Paragraph 1.2., footnote 1,* amend to read:

"\_\_\_\_\_

<sup>1</sup> From the date of entry into force of Supplement 8 to this UN Regulation no new approvals for these tyres should be issued pursuant to UN Regulation No. 75. These tyre sizes are now included in UN Regulation No. ~~406~~ 54."

## Annex VI

### Adopted amendment to ECE/TRANS/WP.29/GRRF/2018/9

#### Based on GRRF-86-24

*Paragraph 3.2.10.*, amend to read:

"3.2.10. An indication, by the means of the "PSI" index (**as explained in Annex 7, Appendix 2 to this UN Regulation) or in kilopascals (kPa)**, of the inflation pressure to be adopted for the load/speed endurance tests, ~~as explained in Annex 7, Appendix 2 to this Regulation.~~ This indication may be placed on one sidewall only."

*Annex 7, Paragraph 1.3.*, amend to read:

"1.3. Inflate the tyre to the pressure corresponding to the ~~pressure index~~ **indication on the sidewall** as specified in paragraph 3.2.10. of this UN Regulation."

## Annex VII

### Adopted amendment to UN Regulation No. 89

#### Based on GRRF-86-14

*Paragraph 5.2.5.4.2.*, amend to read (deletion of “or”):

"5.2.5.4.2. Whenever the vehicle speed is exceeding  $V_{adj}$  the driver must be informed by means of a suitable ~~or~~ warning signal other than the speedometer."

*Paragraph 21.2.5.4.2.*, amend to read (deletion of “or”):

"21.2.5.4.2. Whenever the vehicle speed exceeds  $V_{adj}$  the driver must be informed by means of a suitable ~~or~~ warning signal other than the speedometer."

*Annex 6,*

*Paragraph 1.5.1.*, amend to read:

"1.5.1. With the ASLF/D deactivated, for each gear ratio selected for the chosen test speed  $V_{adj}$ , the technical service shall:

- (a) **either** measure the forces required on the accelerator control;
- (b) **or measure the accelerator control position;**

to maintain  $V_{adj}$  and a speed ( $V_{adj}^*$ ) which is 20% or 20 km/h (whichever is the greater) faster than  $V_{adj}$ ."

*Paragraph 1.5.2.*, amend to read:

"1.5.2. With the ASLF/D activated and set at  $V_{adj}$ , the vehicle shall be run at a speed of 10km/h below  $V_{adj}$ . The vehicle shall then be accelerated by **either** increasing the force on the accelerator control **or adjusting the accelerator control position** over a period of  $1s \pm 0.2s$  to that required to maintain  $V_{adj}^*$ . This force **or position** shall then be maintained for a period of at least 30 seconds after the vehicle speed has stabilised."