


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

Geneva, 19-22 September 2017

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

1. The Working Party on Brakes and Running Gear (GRRF) held its eighty-fourth session from 19 to 22 September 2017 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(a) of the Rules of Procedure of the World Forum for Harmonization of Vehicle Regulations (WP.29) (TRANS/WP.29/690, ECE/TRANS/WP.29/690/Amend.1 and Amend. 2): Australia, Belgium, Canada, China, Czech Republic, Denmark, Finland, France, Germany, Hungary, India, Italy, Japan, the Netherlands, Norway, Poland, Russian Federation, Republic of Korea, Slovakia, South Africa, Spain, Sweden, Switzerland and the United Kingdom of Great Britain and Northern Ireland (UK). An expert from the European Commission (EC) also participated. 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 and the secretariat, the following NGOs participated: Imported Tyre Manufacturers Association (ITMA) and the Recreational Vehicle Industry Association (RVIA) as well as Tesla Inc. and Vehicle Safety Certification Center in Changua county.

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

*Documentation:* ECE/TRANS/WP.29/GRRF/2017/10  
Informal documents GRRF-84-01, GRRF-84-06 and GRRF-84-08

2. GRRF considered the agenda prepared for the eighty-fourth session and adopted it (ECE/TRANS/WP.29/GRRF/2017/10) with the addition of ECE/TRANS/WP.29/GRRF/2017/25 under agenda item 7(k). The adopted agenda is reproduced in GRRF-84-08, including all informal documents received until the session's starting date.

3. GRRF also adopted the running order for the session as proposed in GRRF-84-01. The informal documents distributed during the session are listed in Annex I of this report.

4. The secretariat introduced GRRF-84-06, announcing that the next GRRF session would take place on 11 December 2017 and recalling that the deadline for the submission of official documents would be 19 September 2017.

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

*Documentation:* ECE/TRANS/WP.29/GRRF/2017/24  
Informal documents GRRF-84-03 and GRRF-84-21

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

6. The expert from Japan introduced GRRF-84-03 with the Terms of Reference for the Informal Working Group (IWG) on Advanced Emergency Braking Systems (AEBS) adopted by the members of the IWG, based on ECE/TRANS/WP.29/GRRF/83, Annex II.
7. GRRF supported the proposal and adopted the Terms of Reference proposed for the IWG on AEBS as reproduced in Annex II.
8. The expert from Germany presented ECE/TRANS/WP.29/GRRF/2017/24 proposing provisions on automatic reactivation of AEBS. The expert from OICA answered to the proposal (GRRF-84-21). GRRF reacted positively to the proposal and invited the experts from Germany and from OICA to submit a revised proposal for the February 2018 session of GRRF.

#### **IV. Regulations Nos. 13 and 13-H (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 Modula 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/2017/2)  
ECE/TRANS/WP.29/GRRF/2017/11  
ECE/TRANS/WP.29/GRRF/2017/12  
Informal document GRRF-84-04

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).
12. The Chair of GRRF recalled the purpose of ECE/TRANS/WP.29/GRRF/2017/2 proposing to delete an obsolete provision in Annex 5 to Regulation No. 13, adopted at the previous session and kept on the agenda.
13. The expert from CLEPA introduced ECE/TRANS/WP.29/GRRF/2017/11 with a clarification of Footnote 12. GRRF adopted this proposal.
14. The expert from Germany introduced ECE/TRANS/WP.29/GRRF/2017/12 as amended by GRRF-84-04 (Justification), clarifying the verification of the sufficient movement on the balancer without having to take measurements underneath the trailer in a potentially unsecure position. GRRF adopted this proposal.
15. GRRF requested the secretariat to submit the three official documents above as draft Supplement 15 to the 11 series of amendments to Regulation No. 13 for consideration and vote by WP.29 and AC.1 at their March 2018 session.

## **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/2017/13  
Informal documents GRRF-84-26 and GRRF-84-27

17. The Chair of the IWG on the Agricultural Coupling Devices and Components reported on the activities of the group (GRRF-84-27) and presented ECE/TRANS/WP.29/GRRF/2017/13 as amended by GRRF-84-26 with a draft regulation on the Agricultural Coupling. GRRF discussed the texts of para. 4.5. contained in square brackets and requested the group to consider *working protection laws*. The expert from Sweden proposed to clarify the provisions for remote coupling and remote indication. GRRF agreed that the remote indication should be located where the remote operation takes place. The Chair of the IWG volunteered to submit a revised proposal at the February 2018 session of GRRF.

## **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-84-10

18. The expert from Italy introduced ECE/TRANS/WP.29/GRRF/2017/15 with provisions aimed at aligning the text of UN GTR No. 3 and UN Regulation No. 78 especially on tri-cycles Anti-lock Braking Systems (ABS), Emergency Stop Signal and means to disable the ABS function ('ABS switch'), prepared in collaboration with the expert from IMMA. The expert from Canada answered to the proposal (GRRF-84-10). The expert from Italy presented ECE/TRANS/WP.29/GRRF/2017/16 with the report on the activities related to the amendment proposal to UN GTR No.3. The expert from India informed GRRF about regulatory activities in his Country on the obligation to install ABS on new motorcycle with an engine capacity of 125 cm<sup>3</sup> and more.

19. GRRF recommended the expert from Italy to keep the draft amendment to GTR No. 3 as harmonized as possible with UN Regulation No. 78 especially with regard to the ABS switch to avoid subsequent amendments to UN Regulation No. 78.

20. The expert from Italy agreed to submit a revised proposal for the February 2018 session of GRRF.

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

*Documentation:* ECE/TRANS/WP.29/GRRF/2017/14  
Informal document GRRF-84-13

21. The expert from IMMA introduced ECE/TRANS/WP.29/GRRF/2017/14 as amended GRRF-84-13 with provisions allowing additional conditions for the activation of the stop lamp. The expert from Canada recommended addressing this question within GTR No. 3. The Chair noted that ETRTO would not be allowed to propose amendments to GTR

No. 3 and asked whether a Contracting Party to the 1998 Agreement could sponsor this amendment. GRRF raised the question why the author of the proposal selected provisions from Regulation No. 13 and not from Regulation No. 13-H. The expert from IMMA agreed to submit a revised proposal for the February 2018 session of GRRF.

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

*Documentation:* Informal document GRRF-84-25

22. The expert from Spain recalled the purpose of the Special Interest Group of Experts on Regulation No. 90 (i) willing to review the application of Regulation No. 90, (ii) willing to consider the necessity of a scope extension and (iii) willing to come up with recommendation on remanufactured brake parts.

23. The expert from CLEPA introduced GRRF-84-25 addressing the question raised at the eighty second session of GRRF on the necessity of potential regulatory activities related to Replacement brake callipers.

24. GRRF agreed with the proposal of the expert from Spain to circulate a questionnaire to the delegates.

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

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

*Documentation:* Informal documents GRRF-84-05, GRRF-84-11 and GRRF-84-12

25. The expert from the Russian Federation, chairing the IG on Tyre GTR reported (GRRF-84-05) on the work done by the IWG on Tyres on the development of draft Amendment 2 of the GTR No. 16 (Tyres). He informed on the progress made and the challenges, notably harmonization the high speed test and the need for a mandate extension of two years. GRRF supported this request and agreed to seek for AC.3 consent on this matter.

26. The expert from China introduced GRRF-84-11 and GRRF-84-12 highlighting the discrepancies between Tyre UN GTR No.16 and China's tyre regulations. GRRF welcomed both the engagement of China in the work on UN GTR No. 16 and the remarkable amount of work done to identify divergences between the current version of UN GTR No. 16 and China's tyre regulation.

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

*Documentation:* ECE/TRANS/WP.29/GRRF/2017/17  
Informal document GRRF-84-15

27. The expert from ETRTO introduced ECE/TRANS/WP.29/GRRF/2017/17 as amended by GRRF-84-15 with editorial corrections. GRRF adopted the proposal as amended by Annex III as draft Supplement 19 to Regulation No. 30 and requested the secretariat to submit it to WP.29 and AC.1 for consideration and vote at their March 2018 sessions.

**C. Regulation No. 54**

*Documentation:* ECE/TRANS/WP.29/GRRF/2017/18  
Informal documents GRRF-84-16 GRRF-84-34

28. The expert from ETRTO introduced ECE/TRANS/WP.29/GRRF/2017/18 as amended by GRRF-84-16 with editorial correction and a number of imperial tyre sizes updated in Annex 5.

29. GRRF agreed to adopt the proposed amendment to paragraph 3.4. (based on GRRF-84-34) as reproduced below:

*Paragraph 3.4., amend to read:*

"3.4. The markings referred to in paragraph 3.1. and the approval mark prescribed in paragraph 5.4. of this Regulation shall be moulded on to or into the tyres. They shall be clearly legible and shall, except for the marking referred to in paragraphs 3.1.1., 3.1.2. and 3.1.13. above, be located on at least one lower sidewall."

30. The expert from ETRTO volunteered to prepare a revised proposal for the February 2018 session of GRRF to address the comments received on some provisions proposed in ECE/TRANS/WP.29/GRRF/2017/18.

**D. Regulation No. 75**

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

**E. Regulation No. 106**

*Documentation:* ECE/TRANS/WP.29/GRRF/2017/19  
Informal document GRRF-84-17

32. The expert from ETRTO introduced ECE/TRANS/WP.29/GRRF/2017/18 as complemented by GRRF-84-17 proposing the addition of a number of tyre sizes. The expert from ETRTO volunteered to prepare a revised proposal addressing the comments received for the February 2018 session of GRRF.

**F. Regulation No. 109**

*Documentation:* ECE/TRANS/WP.29/GRRF/2017/20

33. The expert from France presented ECE/TRANS/WP.29/GRRF/2017/20, aimed at harmonizing the definitions and provisions in Regulation No. 109 with those introduced in Regulations Nos. 30, 54 and 117. Following the intervention of the expert from BIPAVÉR and the expert from Spain, GRRF agreed that the text proposed in para. 6.4.4. could be clarified. The expert from France volunteered to prepare a revised proposal together with the expert from Spain and from BIPAVÉR.

**G. Regulation No. 117**

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

34. 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.

35. GRRF agreed to keep both documents on the agenda for its February 2018 session.

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

*Documentation:* ECE/TRANS/WP.29/GRRF/2016/43

36. 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.

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

## **I. Regulation No. 142**

*Documentation:* (ECE/TRANS/WP.29/GRRF/2016/44)  
ECE/TRANS/WP.29/GRRF/2017/21  
Informal documents GRRF-84-33 and GRRF-84-35

38. The Chair recalled that GRRF already supported ECE/TRANS/WP.29/GRRF/2016/44 with editorial corrections and that this document was kept on the agenda, awaiting substantive proposals to be considered at the coming session.

39. The expert from ETRTO presented ECE/TRANS/WP.29/GRRF/2017/21 proposing corrections to paragraph references due to amendments to Regulation No. 30. GRRF agreed with the proposal as reproduced in Annex IV

40. GRRF requested the secretariat to submit ECE/TRANS/WP.29/GRRF/2016/44 as well as ECE/TRANS/WP.29/GRRF/2017/21 amended as draft Supplement 1 to Regulation No. 142, for consideration and vote by WP.29 and AC.1 at their March 2018 sessions.

41. The expert from OICA introduced GRRF-84-33, presenting the results of a study aimed at evaluating the effectiveness of Tyre Pressure Monitoring Systems in general and especially indirect and direct systems by comparing the actual tyre inflation pressures with the individual recommended pressures. The expert offered to share the details of the study on request. The expert from ETRTO offered to review the study.

42. No information was presented on existing regulations and laws on the mandatory use of TPMS.

## **J. Snow tyres provisions**

*Documentation:* Informal document GRRF-84-20

43. The expert from Germany introduced GRRF-84-20 on the possibility to develop 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 by amending the scope of Regulation No. 117. GRRF discussed the possible options as well as the necessity of the creation of an informal working group to work on this matter. GRRF supported in principle the establishment of an informal working group and invited the expert from Germany and other interested experts to prepare draft terms of reference for the group to be reviewed by GRRF in February 2018.



## **K. Other business**

*Documentation:* ECE/TRANS/WP.29/GRRF/2017/25

44. The expert from the Russian Federation introduced ECE/TRANS/WP.29/GRRF/2017/25 proposing a Corrigendum in Russian only of Regulation No. 108. GRRF adopted the proposal and requested the secretariat to submit it as draft Corrigendum to Regulation No. 108 to WP.29 and AC.1 for consideration and vote at their February 2017 session.

45. The expert from the Russian Federation, Mr. Kutenev, gave an oral presentation advocating for activities towards the reduction of particulate matters related to tyre wear. GRRF noted the activities of the Working Party on Pollution and Energy and its Informal Working Group on Particulate Measurement Programme.

## **IX. Intelligent Transport Systems (agenda item 8)**

### **A. Vehicle automation**

*Documentation:* Informal document WP.29-172-08

46. The expert from Germany introduced WP.29-172-08 proposing to regulate the performance of vehicles equipped with "SAE Level 3 and 4" technology. GRRF discussed this proposal together with the proposal for amendments to the terms of reference of the IWG on Automatically Commanded Steering Functions under item 9.

### **B. Other ITS issues**

47. The Global Forum for Road Traffic Safety (WP.1) and GRRF held a joint session to exchange information on the activities of common interest. The event this time was focused on the topics of "secondary activities" and cyber security. The participants agreed that these joint sessions are constructive and contribute to a better understanding of the role of the driver in highly and fully automated vehicles. Both chairs agreed to explore possibilities at ITC session in 2018 for holding additional joint sessions in the future.

## **X. Steering equipment (agenda item 9)**

### **A. Regulation No. 79**

*Documentation:* ECE/TRANS/WP.29/GRRF/2017/23  
Informal document GRRF-84-22

48. The expert from OICA introduced ECE/TRANS/WP.29/GRRF/2017/23 as amended by GRRF-84-22 with provisions to be included in UN Regulations Nos. 13, 13-H, 79 and 140 related to the stability control warning activation by Corrective Steering Functions and Automatically Commanded Steering Functions. The proposal received some comments. GRRF amended the proposal as reflected in GRRF-84-39.

49. GRRF agreed with the proposal as amended by Annex V and requested the secretariat to submit it as draft supplements to Regulations Nos. 13, 13-H, 79 and 140 to WP.29 and AC.1 for consideration and vote at their March 2018 sessions.

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

*Documentation:* Informal documents GRRF-84-02, GRRF-84-09, GRRF-84-19, GRRF-84-23, GRRF-84-24, GRRF-84-28 and GRRF-84-36

50. The expert from Germany on behalf of the Co-Chair of the IWG on Automatically Commanded Steering Function (ACSF) presented GRRF-84-02 with draft provisions for ACSF of Category [C1]. GRRF discussed values in square brackets in the document related to the scenario considered for the purpose of testing the performance of ACSF of C1 category. In particular, the definition of *the point at which, following the beginning of the Lane Change Procedure, the driver's reaction should be understood* did not make consensus and created difficulties to agree on what is referred to as *reaction time* in draft para. 5.6.4.8.1. The expert from Japan presented GRRF-84-28 proposing derogations in case the maximum speed allowed in the territory of a Contracting Party would be lower than 130 km/h. GRRF agreed to defer GRRF-84-24 to the IWG on ACSF. GRRF considered the note from the secretariat (GRRF-84-24) reproducing comments received from Tesla Inc. GRRF also discussed GRRF-84-23 tabled by the experts from OICA and CLEPA on Emergency Steering Functions. GRRF requested the secretariat to consolidate the proposals as reflecting the current position and guidance of GRRF (GRRF-84-36) and to add this consolidation to the provisional agenda of the next session of GRRF (ECE/TRANS/WP.29/GRRF/2017/27). GRRF also requested the IWG on ACSF to review this document until the next GRRF session.

51. The expert from UK introduced GRRF-84-09 proposing to include provisions applicable for Remote Control Manoeuvring (RCM). GRRF requested the secretariat to distribute this document with an official symbol for the February 2018 session of GRRF.

52. GRRF reviewed the update proposal for the Terms of Reference of the IWG on ACSF tabled by the expert from Germany (GRRF-84-19). GRRF considered this document bearing in mind WP.29-172-08 under agenda item 8.

53. GRRF agreed to recommend to WP.29 the extension of the Terms of Reference of the IWG on ACSF as reproduced in Annex VI and to work in parallel on provisions related to ACSF of Category E, SAE Level 3 and 4, taking into account the future recommendations of the IWG on ITS/AD Task Force on the testing of automated/autonomous vehicles.

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

*Documentation:* Informal document GRRF-84-14

54. The expert from UK introduced GRRF-84-14 proposing amendments to the requirements in Annex 6 (Complex Electric control systems). GRRF reviewed in detail the proposal and requested the secretariat to include the amended proposal in the consolidated document GRRF-84-36 and ECE/TRANS/WP.19/GRRF/2017/27.

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

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

55. The secretariat informed GRRF about the entry into force of Revision 3 to the 1958 Agreement concerning the Adoption of Harmonized Technical United Nations Regulations 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 United Nations Regulations. For more information, please see the

notification online here: (<https://treaties.un.org/doc/Publication/CN/2017/CN.314.2017-Eng.pdf>).

56. The Ambassador of GRRF at the IWG on IWVTA meetings gave an oral report about the IWVTA activities. He informed that the subgroup on Regulation No. 0 would be dissolved, that discussions took place on the future nature of the subgroup on IWVTA and that the draft Regulation No. 0 would be submitted in the near future. He announced that the need for an ambassador might be reduced given the progress made on IWVTA.

## **B. Other business**

*Documentation:* (ECE/TRANS/WP.29/2017/54, ECE/TRANS/WP.29/2017/55 and ECE/TRANS/WP.29/2017/107  
Informal document GRRF-84-18

57. The secretariat introduced the ECE/TRANS/WP.29/2017/54, ECE/TRANS/WP.29/2017/55 and ECE/TRANS/WP.29/2017/107. The expert from ETRTO introduced GRRF-84-18 on schedule 4 of Revision 3 to the 1958 Agreement. GRRF raised concerns, in particular, on the defined approval number format prescribed in Schedule 4.

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

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

## **XIII. Election of Officers (agenda item 12)**

59. In compliance with Rule 37 of the Rules of Procedure (TRANS/WP.29/690 and Amends. 1 and 2), GRRF called for the election of officers on Tuesday morning. Mr. Bernie Frost (UK) was unanimously elected Chair of GRRF for the sessions scheduled for the year 2018. Mr. Hiroshi Morimoto (Japan) was elected Vice-Chair of GRRF for the same period.

## **XIV. Other business (agenda item 13)**

### **A. Highlights of the March and June 2017 sessions of WP.29**

*Documentation:* (ECE/TRANS/WP.29/1129 and ECE/TRANS/WP.29/1131)  
Informal document GRRF-84-07

60. The secretariat introduced GRRF-84-07 reporting on the GRRF relevant highlights of the 171<sup>st</sup> and 172<sup>nd</sup> session of WP.29. For more information, please refer to the session report (ECE/TRANS/WP.29/1129 and ECE/TRANS/WP.29/1131).

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

*Documentation:* ECE/TRANS/WP.29/GRRF/2017/22

61. The expert from OICA introduced ECE/TRANS/WP.29/GRRF/2017/22 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.

The proposal received some comments. The expert from OICA agreed to prepare a revised proposal and additional information for the February 2018.

**C. Any other business**

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

**XIV. Provisional agenda for the eighty-fifth session**

63. The following provisional agenda was endorsed for the eighty-fifth session of GRRF, scheduled to be held in Geneva on 11 December 2017 (starting at 10.00 a.m. and concluding at 5.30 p.m.)<sup>1</sup>:

1. Adoption of the agenda.
2. Regulation No. 79.
3. Any other business.

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<sup>1</sup> GRRF noted that the deadline for submission of official documents to the UNECE secretariat was 20 September 2017, twelve weeks prior to the session.

## Annex I

## List of informal documents (GRRF-84-...) considered during the session

[English only]

<i>No.</i>	<i>(Author) Title</i>	<i>Follow-up</i>
1	(Chair) - Running Order	A
2	(ACSF) - Proposal for amendments to Regulation No. 79 (steering equipment) - Requirements applicable to ACSF of Category C1	F
3	(AEBS) Revised ToR and RoP of the IWG on AEBS	B
4	(France and Germany) Amendments to the Justification part in ECE/TRANS/WP.29/GRRF/2017/12	F
5	(TyreGTR) Report of the Chair - 16th meeting of the IWG on TyreGTR in Moscow	F
6	(Secretariat) General information	F
7	(Secretariat) Highlights of the 171st and 172nd sessions of WP.29	F
8	(Secretariat) Updated and consolidated provisional agenda	A
9	(UK) Proposal for an amendment to Regulation No. 79. - Remote Control Manoeuvring (RCM)	C
10	(Canada) Proposal for amendments to ECE/TRANS/WP.29/GRRF/2017/15	F
11	(China) Proposal for harmonisation with the current provisions of GTR No.16	F
12	(China) Annex to GRRF-84-11	F
13	(IMMA) Proposal for amendments to ECE/TRANS/WP.29/GRRF/2017/14	F
14	(Chair / CEL) Proposal for amendments to Annex 6 to Regulation No. 79	F
15	(ETRTO) Proposal for Amendments to ECE/TRANS/WP.29/GRRF/2017/17	F
16	(ETRTO) Proposal for amendments to Regulation No. 54 (ECE/TRANS/WP.29/GRRF/2017/18)	F
17	(ETRTO) Proposal for amendments to Regulation No. 106	F
18	(ETRTO) Proposal for amendments to Schedule 4 of Revision 3 of the 1958 Agreement (ECE/TRANS/WP.29/2016/2)	F
19	(ACSF) Proposal for revised ToR and RoP for the IWG on ACSF	B
20	(Germany) Snow tyre activities -status report	F
21	(OICA/CLEPA) Comments on ECE/TRANS/WP29/GRRF/2017/24	F
22-	(OICA/CLEPA) Proposal for amendments to the 02 series of amendments to Regulation No. 79	F
Rev.1		
23	(OICA/CLEPA) Proposal for draft amendments to UN Regulation No. 79 - Emergency Steering Function (ESF)	F
24	(Secretariat) - Comments from Tesla, Inc. on GRRF-84-02 sent to the secretariat	F
25	(CLEPA) Replacement brake callipers	F
26	(Germany) editorial corrections to ECE/TRANS/WP.29/GRRF/2017/13	F
27	(Germany) Status report of the IWG on ACDC	F
28	(Japan) Proposal for amendments to GRRF-84-02	F
29	(CLEPA) Lane Change Manoeuvre representation	F

<i>No.</i>	<i>(Author) Title</i>	<i>Follow-up</i>
30	(OICA) Lane Change Manoeuvre representation	F
31	(TF on CS/OTA) Status report of the TF on CS/OTA)	F
32	(OICA) Secondary activities during Automated Driving	F
33	(OICA) Tyre inflation and TPMS field study	F
34	(ETRTO) Addendum to ECE/TRANS/WP.29/GRRF/2017/18	A
35	(GRRF) Adopted amendments to ECE/TRANS/WP.29/GRRF/2017/21	F
36	(GRRF) Draft consolidated amendments to Regulation No. 79	C
37	(Germany) Calculation sheet	F
38	(WP.1 Chair) Conceptualizing Road Safety Principles in the IoT era	F
39	(GRRF) adopted amendments to ECE/TRANS/WP.29/GRRF/2017/23	F

*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

### Adopted Terms of Reference and Rules of Procedure for the IWG on AEBS

#### I. Terms of Reference

1. The Informal Working Group (IWG) on Advanced Emergency Braking System (AEBS) shall develop draft regulatory proposals to extend the scope of Regulation No. 131 (on AEBS) to vehicles of categories M<sub>1</sub> and N<sub>1</sub> and develop technical requirements for these categories.
2. The group may consider whether it is appropriate to create a new UN Regulation annexed to the 1958 Agreement<sup>2</sup>.
3. The informal group shall address the following issues:
  - a. Define AEBS requirements adapted to moving and stationary obstacles. Priority will be given to rear end collision with M/N vehicles.
  - b. Define AEBS requirements adapted to pedestrians.
  - c. Define AEBS requirements adapted to cyclists.
  - d. Shall provide a technical review for the extension of technical requirements to include motorcyclists and large animals.
4. The group will focus on systems for vehicles of categories M<sub>1</sub> and N<sub>1</sub>
5. The group should take full account of existing data and research in developing its regulatory proposals. It should consider pre-existing standards, existing regulations or test protocols from any region for developing its proposals.
6. Draft regulatory texts of AEBS requirements should be submitted to the eighty-sixth session of GRRF in September 2018.
7. The informal group will advise WP29 if as part of the discussion, it is recognized that there will be a delay in the delivery of one or more of the technical measures of paragraph 3.
8. A final decision on regulatory proposals rests with WP.29 and the Contracting Parties to the 58 Agreement.

#### II. Rules of Procedures

1. The informal group is a sub group of GRRF, and is open to all participants of GRRF.
2. Two co-Chairs and a Secretary will manage the informal group.
3. The working language of the informal group will be English.

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<sup>2</sup> 1958 Agreement on harmonized technical United Nations regulations for the approval of wheeled vehicles, equipment and parts and their reciprocal recognition by its Contracting Parties relies on the exchange of information on granted approvals among the authorities of its member countries.

4. All documents and/or proposals must be submitted to the Secretary of the group in a suitable electronic format in advance of the meeting. The group may refuse to discuss any item or proposal which has not been circulated ten working days in advance to the meeting.
5. An agenda and related documents will be circulated to all members of the informal group in advance of all scheduled meetings.
6. Decisions will be reached by consensus. When consensus cannot be reached, the co-Chairs of the group shall present the different points of view to GRRF. The co-Chairs may seek guidance from GRRF as appropriate.
7. The progress of the informal group will be routinely reported to GRRF – wherever possible as an informal document and presented by the co-Chairs or their representatives.
8. All documents shall be distributed in digital format. Meeting documents should be made available to the Secretary for publication on the dedicated website.



## Annex III

### Adopted amendment to ECE/TRANS/WP.29/GRRF/2017/17

#### Based on GRRF-84-15

*Regulation No. 30,*

*Paragraph 3.1.12.,* amend to read:

"3.1.12. In the case of tyres first approved after the entry into force of Supplement 13 to the 02 series of amendments to Regulation No. 30, the identification referred to in paragraph 2.22.1.5. shall be placed immediately after the rim diameter marking referred to in paragraph 2.22.1.3."

*Paragraph 3.4.,* amend to read:

"3.4. The markings referred to in paragraph 3.1. and the approval mark prescribed in paragraph 5.4. of this Regulation shall be moulded on to or into the tyres. They shall be clearly legible and situated in the lower area of the tyre on at least one of its side walls, except for the inscription mentioned in paragraphs 3.1.1., 3.1.2. and 3.1.13."

## Annex IV

### Adopted amendment to ECE/TRANS/WP.29/GRRF/2017/21

*Regulation No. 142,*

*Paragraph 2.3., amend to read:*

"2.3. "Tyre size designation" means the designation as defined in paragraph 2. of Regulation No. 30 for class C1 tyres and paragraph 2. of Regulation No. 54 for class C2 and C3 tyres."

*Paragraph 2.9., amend to read:*

"2.9. "Run flat tyre" means a tyre as defined in paragraph 2. of Regulation No. 30."

*Paragraph 2.18., amend to read:*

"2.18. "Speed category symbol" means the symbol as defined in paragraph 2. of Regulation No. 30 for class C1 tyres and paragraph 2. of Regulation No. 54 for class C2."

*Paragraph 2.19., amend to read:*

"2.19. "Load capacity index" means a number associated to the maximum load rating of the tyre in relation to the definition in paragraph 2. of Regulation No. 30 for class C1 tyres and paragraph 2. of Regulation No. 54 for class C2 tyres."

*Paragraph 5.2.2.2.1., amend to read:*

"5.2.2.2.1. In the case of tyres of class C1, the "maximum load rating" as referred to in paragraph 2. of Regulation No. 30 is taken into account."

*Paragraph 5.2.2.2.2., amend to read:*

"5.2.2.2.2. In the case of tyres of class C2, the "table load-capacity variation with speed" as referred to in paragraph 2. of Regulation No. 54 is taken into account, which shows, as a function of the load-capacity indices and nominal-speed-category symbols, the load variations which a pneumatic tyre can withstand taking into account the maximum design speed of the vehicle."

*Paragraph 5.2.3.1.2., amend to read:*

"5.2.3.1.2. In the case of tyre of class C2, the speed category symbol shall be compatible with the maximum vehicle design speed and the applicable load/speed combination derived from the "table load-capacity variation with speed" as described in paragraph 2. of Regulation No. 54."

## Annex V

### Adopted amendment to ECE/TRANS/WP.29/GRRF/2017/23

#### Based on GRRF-84-22 and GRRF-84-39

*Regulation No. 13, Annex 21*

*Paragraph 2.1.4., amend to read:*

"2.1.4. Interventions of the vehicle stability function shall be indicated to the driver by a flashing optical warning signal fulfilling the relevant technical requirements of Regulation No. 121. The indication shall be present as long as the vehicle stability function is in an intervention mode. The warning signal specified in paragraph 5.2.1.29.1.2. of this Regulation shall not be used for this purpose.

Additionally, interventions by systems related to the vehicle stability function (including traction control, trailer stability assist, corner brake control, ~~and~~ other similar functions that use throttle individual torque control to operate and share common components with vehicle stability function, **and ESC or VSF intervention on the steering angle of one or more wheels for the purpose of vehicle stability**) may also be indicated to the driver by this flashing optical warning signal.

Interventions of the vehicle stability function used in any learning process to determine the vehicle operational characteristics shall not generate the above signal."

*Regulation No. 13-H, Annex 9, Part. A*

*Paragraph 3.4., amend to read:*

"3.4. ESC malfunction detection

The vehicle shall be equipped with a tell-tale that provides a warning to the driver of the occurrence of any malfunction that affects the generation or transmission of control or response signals in the vehicle's electronic stability control system.

3.4.1. The ESC malfunction tell-tale:

...

3.4.1.5. May also be used to indicate the malfunction of related systems/functions, including traction control, trailer stability assist, corner brake control, and other similar functions that use throttle and/or individual torque control to operate and share common components with ESC.

...

3.4.4. The manufacturer may use the ESC malfunction tell-tale in a flashing mode to indicate the interventions of ESC, ESC-related systems (as listed in paragraph 3.4.1.5.), **and/or to indicate the ESC intervention on the steering angle of one or more wheels for the purpose of vehicle stability.**"

*Regulation No. 79,*

*Paragraph 5.1.6.1.1.,* amend to read:

"5.1.6.1.1. Every CSF intervention shall immediately be indicated to the driver by an optical warning signal which is displayed for at least 1 s or as long as the intervention exists, whichever is longer.

In the case of a CSF intervention which is controlled by an Electronic Stability Control (ESC) or a Vehicle Stability Function as specified in the relevant UN regulation (i.e. UN Regulations Nos.13, 13-H or 140), the ESC flashing tell-tale indicating the interventions of ESC may be used, as long as the intervention exists, as an alternative to the optical warning signal specified above.

*Regulation No. 140*

*Paragraph 7.4.,* amend to read:

"7.4. ESC malfunction detection

The vehicle shall be equipped with a tell-tale that provides a warning to the driver of the occurrence of any malfunction that affects the generation or transmission of control or response signals in the vehicle's electronic stability control system.

7.4.1. The ESC malfunction tell-tale:

...

7.4.1.5. May also be used to indicate the malfunction of related systems/functions, including traction control, trailer stability assist, corner brake control, and other similar functions that use throttle and/or individual torque control to operate and share common components with ESC.

...

7.4.4. The manufacturer may use the ESC malfunction tell-tale in a flashing mode to indicate the interventions of ESC and/or ESC-related systems (as listed in paragraph 7.4.1.5.), **the ESC intervention on the steering angle of one or more wheels for the purpose of vehicle stability.**"

## Annex VI

### **Revised Terms of Reference and Rules of Procedures of the Informal Working Group on Automatically Commanded Steering Functions**

#### **I. Terms of Reference**

1. The Informal Working Group (IWG) on Automatically Commanded Steering Function technology (ACSF) shall review the requirements and limitations associated with ACSF as defined in UN Regulation No. 79. It shall prepare a draft regulatory proposal regarding advances in control system technology and the transport opportunities provided by the Vienna and Geneva Conventions.

2. The IWG shall address the following issues:

(a) Review the current speed limitation (10 km/h) with the purpose of permitting ACSF functionality during interurban journeys.

(b) Define Human Machine Interface (HMI) requirements for communicating between ACSF-system and the driver (e.g. system status, malfunction, transition).

(c) Define requirements to enable the evaluation of ACSF during periodic technical inspection.

(d) Outstanding issues identified during the eighty-second session of GRRF shall be addressed (e.g. ESF).

Constraints:

(a) The driver shall be able to activate and deactivate the system.

(b) The driver shall, at all times, be able to override the system.

3. The group will focus on systems for vehicles of categories N and M.

4. The group should take full account of existing data and research in developing its regulatory proposals. It should consider pre-existing standards (e.g. ISO, SAE and JSAE) and Regulations from other territories for ACSF developing its proposals.

5. As a first step, the target completion date for the informal group's work for less complex ACSF categories shall be the eighty-second session of GRRF in September 2016 (See ECE/TRANS/WP.29/GRRF/2016/45 as amended). Note: Corrective Steering Function (CSF), ACSF of Categories A and B1 were adopted by WP.29 in March 2017.

6. As second step the target completion date for the IWG work on the ACSF category which includes a function of a single manoeuvre (C1 and ESF) when commanded by the driver shall be the eighty-fifth GRRF (special session) in December 2017.

7. And then the target completion date for the IWG work [on ACSF Category B2 and on further consideration whether ACSF Category C2 is necessary] shall be the eighty-eighth session of GRRF in February 2019.

8. The final decision on regulatory proposals remains with WP.29 and the Contracting Parties.

## II. Rules of Procedure

9. The IWG is a subgroup of GRRF, and is open to all participants of GRRF.
  10. Two Co-Chairs and a Secretary shall manage the IWG.
  11. The official language of the IWG is English.
  12. All documents and/or proposals shall be submitted to the Secretary of the IWG in a suitable electronic format in advance of the meeting. The group may refuse to discuss any item or proposal which has not been circulated ten working days in advance.
  13. An agenda and related documents is circulated to all members of the informal group in advance of all scheduled meetings.
  14. Decisions are reached by consensus. When consensus cannot be reached, one of the Co-Chairs of the group shall present the different points of view to GRRF. The Co-Chairs may seek guidance from GRRF as appropriate.
  15. The progress of the IWG will be routinely reported to GRRF – wherever possible as an informal document and presented by the Co-Chairs or one of their representatives.
  16. All documents shall be distributed in digital format. Meeting documents should be made available to the Secretary for publication on the dedicated website.
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