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Seventy-second session

Geneva, 20–24 February 2012

Report of the Working Party on Brakes and Running Gear on its seventy-second session (20–24 February 2012)

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I. Attendance

1. The Working Party on Brakes and Running Gear (GRRF) held its seventy-second session from 20 to 24 February 2012 in Geneva. The meeting was chaired by Mr. S. Sopp (United Kingdom). 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 and TRANS/WP.29/690/Amend.1): Australia, Belgium, Canada, China, Czech Republic, Denmark, Finland, France, Germany, Hungary, India, Italy, Japan, Netherlands, Norway, Poland, Republic of Korea, Russian Federation, Slovakia, Spain, Sweden, Switzerland, United Kingdom of Great Britain and Northern Ireland and United States of America. Experts from 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 Chair, experts from the following non-governmental organizations participated: the International Association of the Body and Trailer Building Industry (CLCCR), the European Tyre and Rim Technical Organisation (ETRTO) and Federation of European Manufacturers of Friction Materials (FEMFM).

II. Adoption of the agenda (agenda item 1)

Documentation: ECE/TRANS/WP.29/GRRF/2012/1,
ECE/TRANS/WP.29/GRRF/2012/1/Add.1,
Informal document GRRF-72-06

2. GRRF adopted the agenda ECE/TRANS/WP.29/GRRF/2012/1, its Add.1 and the running order GRRF-72-06 without changes.

III. Advanced Emergency Braking Systems (agenda item 2)

Documentation: ECE/TRANS/WP.29/2011/93/Amend.1,
ECE/TRANS/WP.29/2011/92/Amend.1,
Informal documents GRRF-71-30, GRRF-71-24 and GRRF-72-14

3. GRRF welcomed a presentation (GRRF-72-14) by the expert from Japan on their national enforcement of Advanced Emergency Braking Systems (AEBS). GRRF noted that ECE/TRANS/WP.29/2011/92/Amend.1 and ECE/TRANS/WP.29/2011/93/Amend.1 were listed on the agenda of the November 2011 session of WP.29 and its decision that the proposed text in square brackets of paragraph 12.2. be added as a footnote (see report ECE/TRANS/WP.29/1093, para. 39).

4. GRRF noted the preference of WP.29 not to accept the alternative text relating to voluntary approval and to remove the text in square brackets of the alternative text proposed in ECE/TRANS/WP.29/2011/92/Amend.1. The GRRF Chair reported that the work on a revised table of Annex 3 (defining performance requirements for vehicles of categories M₂ and N₂ ≤ 8 tonnes) would resume with the informal working group on AEBS.

IV. Regulations Nos. 13 and 13-H (Braking) (agenda item 3)

A. Electronic stability control (ESC)

Documentation: Informal documents GRRF-72-01, GRRF-72-03 and GRRF-72-17

5. The expert from OICA presented GRRF-72-03 on the conversion of vehicles already covered by a type approval on braking. GRRF did not support the proposed conversion of vehicles with an electronic stability function. It was recommended that, in particular, the retrofitting with ESC of vehicles after their first registration should be a matter of national or regional legislation. The expert from OICA volunteered to prepare a revised proposal for consideration at the next session of GRRF.

6. The expert from CLEPA introduced GRRF-72-17 proposing to clarify the use of a test report according to Annex 19 to prove compliance of a vehicle stability function. The expert from OICA proposed to clarify the exemptions listed in footnote 12/ of Regulation No. 13 with respect to the mandatory equipment of vehicles with a stability function (GRRF-72-01 tabled jointly by CLCCR, CLEPA and OICA). GRRF noted a number of concerns. It was agreed to resume consideration of these subjects at its next session on the basis of revised proposals.

7. In the absence of a new proposal, GRRF agreed to remove item 3(a)(iii) from the agenda.

B. Trailer braking

Documentation: ECE/TRANS/WP.29/GRRF/2012/12
Informal documents GRRF-72-07, GRRF-72-18, GRRF-72-19, GRRF-72-20, GRRF-72-21 and GRRF-72-26

8. The expert from Denmark presented documents relating to truck and trailer brake compatibility, coupling force control, and test points for Periodical Technical Inspections (PTI). The documents included GRRF-72-26 underlining the need to improve brake distribution between the truck and the trailer of heavy vehicle combinations. He introduced GRRF-72-07 supplementing his proposal ECE/TRANS/WP.29/GRRF/2012/12. GRRF noted a number of concerns raised the experts from CLCCR, CLEPA and OICA (GRRF-72-18, GRRF-72-19, GRRF-72-21 and GRRF-72-20).

9. Following the discussion, GRRF welcomed the initiative by the industry to hold an ad hoc expert meeting on this issue in order to consider the issues, jointly with the experts from Denmark and other interested experts, and to report back at the next session of GRRF. The expert from OICA offered to host the meeting in June 2012.

C. Automated Connections between Vehicles (ACV)

Documentation: ECE/TRANS/WP.29/GRRF/2012/8

10. The expert from Sweden, chairing the informal group on Automated Connections between Vehicles (ACV), introduced ECE/TRANS/WP.29/GRRF/2012/8 on the terms of reference and rules of procedures of the group. It was clarified that amendments to Regulations Nos. 29 and 55 were not covered by the mandate of the informal group. The GRRF Chair invited all experts to contribute to the work of the informal group. GRRF adopted ECE/TRANS/WP.29/GRRF/2012/8 as reproduced in Annex VIII to this report.

D. Clarifications

Documentation: ECE/TRANS/WP.29/GRRF/2011/35/Rev.1,
ECE/TRANS/WP.29/GRRF/2012/2,
ECE/TRANS/WP.29/GRRF/2012/7,
ECE/TRANS/WP.29/GRRF/2012/9,
ECE/TRANS/WP.29/GRRF/2012/11
Informal documents WP.29-155-19, GRRF-72-8, GRRF-72-22,
GRRF-72-27 and GRRF-72-28

11. GRRF noted the outcome of the discussion in WP.29 on dynamic/static references to other UN Regulations and private standards (see report ECE/TRANS/WP.29/1093, paras. 48 and 49). GRRF endorsed the recommendation to proceed on a case by case approach awaiting a final decision by WP.29 at one of its next sessions.

12. The expert from CLEPA introduced ECE/TRANS/WP.29/GRRF/2011/35/Rev.1 clarifying the levels of braking performance of vehicles in relation with different positions of the ignition key. GRRF noted a number of comments. Following the discussion, CLEPA presented GRRF-72-27 amending ECE/TRANS/WP.29/GRRF/2011/35/Rev.1. GRRF adopted the proposal, as reproduced in Annex II, and requested the secretariat to submit it to WP.29 and AC.1, for consideration at their June 2012 sessions, as Supplement 14 to Regulation No. 13-H.

13. Recalling the purpose of WP.29-155-19, the expert from EC withdrew ECE/TRANS/WP.29/GRRF/2012/9. As a consequence, the expert from CLEPA withdrew ECE/TRANS/WP.29/GRRF/2012/7. Nevertheless, the experts from Germany, Japan and OICA expressed their support for ECE/TRANS/WP.29/GRRF/2012/9 and their preference to keep it on the agenda. The Chair concluded that the item should be revisited, together with the related document from CLEPA (GRRF-72-17), at the next GRRF session on the basis of a new proposal, if available.

14. The expert from Belgium reported on the progress (GRRF-72-08) made by the informal group on Alternative Method Electronic Vehicle Stability Control (AMEVSC). On behalf of informal group, the expert from CLEPA proposed to use simulation tools to prove compliance of the vehicle stability function (ECE/TRANS/WP.29/GRRF/2012/2). The expert from OICA introduced GRRF-72-22 on some weaknesses in the current simulation tool. GRRF noted a number of comments and agreed to refer the proposal back to the informal group. GRRF agreed to resume consideration on this subject at its next session on the basis of a revised proposal to be submitted by the informal group, taking into account GRRF-72-17, GRRF-72-22 and the comments received. GRRF noted that the informal meeting was scheduled to be held in Brussels (at CLEPA offices) on 10-11 May 2012.

15. The expert from Germany introduced ECE/TRANS/WP.29/GRRF/2012/11 and GRRF-72-28 on the introduction of an electro-hydraulic transmission for electrical brake systems. GRRF noted some concerns and agreed to resume the discussion on this subject to the next session of GRRF on the basis a revised proposal, if available.

E. Braking symbols in Regulation No. 121 (Identification of controls, tell-tales and indicators)

Documentation: ECE/TRANS/WP.29/GRRF/2012/14,
ECE/TRANS/WP.29/2012/30,
Informal documents GRRF-72-29 and GRRF-72-30

16. GRRF noted the submission by the Working Party on General Safety Provisions (GRSG) to the June session of WP.29 of ECE/TRANS/WP.29/2012/30 proposing to remove the ESC tell-tale requirements from Regulations Nos. 13 and 13-H and to insert these requirements into Regulation No. 121. GRRF supported the text proposed in ECE/TRANS/WP.29/GRRF/2012/14 and agreed to take the opportunity of these amendments to clean up the transitional provisions. The Russian Federation introduced GRRF-72-29 summarizing the transitional provisions of Regulation No. 13-H. The Chair introduced GRRF-72-30 containing additional explanations. Following the discussion, GRRF decided to establish an editorial group to review the transitional provisions in Regulations Nos. 13 and 13-H. The Chair committed to ensure simultaneous adoption, by WP.29, of ECE/TRANS/2012/30 and the final amendments to the braking regulations with regard to the ESC tell-tale requirements. GRRF agreed to resume consideration of this subject at its next session on the basis of a revised proposal.

F. Other business

Documentation: Informal document GRRF-72-02

17. The expert from OICA presented GRRF-72-02 to align Regulation No. 13-H with FMVSS 135 on electric vehicle requirement with special regard to the regenerative braking system. GRRF supported the proposal and requested the secretary to distribute GRRF-72-02 as official document for consideration at the next session of GRRF.

V. Regulation No. 55 (Mechanical couplings) (agenda item 4)

Documentation: Informal documents GRRF-71-05 and GRRF-71-07

18. The expert from Germany recalled the discussion of GRRF at its previous session on GRRF-71-05 clarifying the provisions on drawbar coupling devices, their bending resistance and the position of remote indicators. GRRF noted broad support on the provisions of drawbar coupling devices and their bending resistance, but also noted concerns on the remote indicator. The Chair suggested going forward with the part of GRRF-71-05 supported by GRRF and invited Germany to prepare an official document for consideration at the next session of GRRF.

19. The expert from Germany presented GRRF-71-07 proposing to amend Regulation No. 55 to cover innovative devices, including remote control, automatic and agricultural couplings. He suggested re-establishing the informal group on Regulation No. 55. The expert from ISO endorsed the initiative and informed GRRF on the ongoing standardization work within his organization. GRRF agreed to establish a new working group on couplings (and to include agricultural couplings within the Terms of Reference), under the chairmanship of Germany, subject to the consent of WP.29 at its March 2012 session. GRRF agreed to resume consideration on this subject at its next session on the basis of a proposal for the terms of reference and rules of procedure for the informal group.

VI. Regulation No. 78 (Motorcycle braking) (agenda item 5)

Documentation: Informal documents GRRF-72-09 and GRRF-72-25

20. The expert from EC informed GRRF about the intention of the EU member states to mandate the fitting of advanced brake systems (ABS) on certain category L vehicles (GRRF-72-09). He clarified that ABS in the context of his presentation meant combined braking systems acting on front and rear wheels, as well as anti-lock braking systems. He added that evidence from the European Union (EU) indicated that mandatory fitting of ABS could decrease the number of fatal accidents and the risk of severe injuries for motorcyclists.

21. The expert from the United States of America informed GRRF about the result of a study on motorcycle anti-lock braking systems and crash risks (GRRF-72-25). According to the outcome of the study, motorcycles with anti-lock braking systems were not shown to have a significant effect on motorcycle crash risk. The expert from Australia welcomed both presentations and announced that his government had recently released a national road safety strategy.

VII. Regulation No. 90 (Replacement brake linings) (agenda item 6)

Documentation: ECE/TRANS/WP.29/GRRF/2012/3,
Informal documents GRRF-72-05, GRRF-72-05-Rev.1, GRRF-72-15

22. The expert from CLEPA presented GRRF-72-15, superseding ECE/TRANS/WP.29/GRRF/2012/3, on the "Bedding in" test procedure for brake drums. GRRF adopted the proposal as reproduced in Annex VI and requested the secretariat to submit it to WP.29 and AC.1, as a Corrigendum to ECE/TRANS/WP.29/2012/4, for consideration at their March 2012 sessions.

23. The expert from FEMFM introduced GRRF-72-05 superseding ECE/TRANS/WP.29/GRRF/2012/3 clarifying the meaning of "identical" brake linings. Following the discussion, he presented, jointly with the expert from Spain, a revised proposal (GRRF-72-05-Rev.1). GRRF supported the approach but noted some concerns and agreed to resume consideration of this subject at its next session. This will be on the basis of an official document to be prepared by FEMFM jointly with Spain, the Russian Federation and OICA.

VIII. Tyres (agenda item 7)

A. Global technical regulation on tyres

Documentation: Informal documents GRRF-72-16 and GRRF-72-23

24. On behalf of the informal group on the Tyre GTR, the expert from ETRTO reported on the work progress done by the group during the meeting prior the GRRF session proper. He presented the proposed structure and the draft preamble for the new GTR on tyres (GRRF-72-23). He informed GRRF on the remaining open issues still to be considered: amongst others the scope, the tyre identification number and the manufacturer reference code. The expert from the United States of America volunteered to review the preamble with respect to a more neutral certification procedure. Referring to GRRF-72-16, the expert from India acknowledged that the informal group had already considered his concerns.

GRRF noted that the next meeting of the informal group was scheduled to be held in Geneva on 29 June 2012 to further develop GRRF-72-23. GRRF noted the consent of WP.29 at its November 2012 session to go forward with a two-phase approach and to consider the requirements e.g. for rolling resistance, wet grip, light truck and commercial tyres only in the second phase. GRRF agreed to have, at its next session in September 2012, a detailed review of the draft GTR (first phase) on the basis of an official document to be prepared by the informal group.

B. Regulations Nos. 30 and 54 (Pneumatic tyres)

Documentation: ECE/TRANS/WP.29/GRRF/2011/13,
ECE/TRANS/WP.29/GRRF/2011/14,
ECE/TRANS/WP.29/GRRF/2012/4,
ECE/TRANS/WP.29/GRRF/2012/6
Informal documents GRRF-72-10, GRRF-72-11 and GRRF-72-13

25. Recalling the discussion on documents ECE/TRANS/WP.29/GRRF/2011/14 at its previous GRRF session, the expert from France presented, on behalf of the ad hoc expert group on snow tyres, GRRF-72-13 clarifying the definition of "snow tyres" within Regulation No. 117. GRRF noted a number of comments. GRRF adopted the proposal as reproduced in Annex VII and requested the secretariat to submit it to WP.29 and AC.1 at their November 2012 sessions as draft Supplement 2 to the 02 series of amendments to Regulation No. 117. As new limit values have been inserted for normal traction tyres, GRRF agreed to submit it to the Working Party on Noise (GRB) for consideration at its next session in September 2012 and to also have a final review by GRRF at its September 2012 session.

26. Referring to ECE/TRANS/WP.29/GRRF/2011/13, the expert from ETRTO introduced GRRF-72-10 proposing to align the definition of "snow tyres" in Regulation No. 30 with that of Regulation No. 117 (para. 25 above). GRRF adopted ECE/TRANS/WP.29/GRRF/2011/13 as reproduced in Annex III, and requested the secretariat to submit it to WP.29 and AC.1 for consideration at their June 2012 sessions, as draft Supplement 17 to the 02 series of amendments to Regulation No. 30.

27. For the same purpose, the expert from ETRTO presented GRRF-72-11 amending ECE/TRANS/WP.29/GRRF/2011/14 with respect to the definitions in Regulation No. 54. GRRF adopted ECE/TRANS/WP.29/GRRF/2011/14 as reproduced in Annex IV, and requested the secretariat to submit it to WP.29 and AC.1 for consideration at their June 2012 sessions, as draft Supplement 18 to Regulation No. 54.

28. The expert from ETRTO proposed to amend the regulatory markings for "temporary use spare tyres" (ECE/TRANS/WP.29/GRRF/2012/4). GRRF adopted the proposal (not amended) and requested the secretariat to submit it to WP.29 and AC.1 for consideration at their June 2012 sessions, as a part (see para. 26) of draft Supplement 17 to the 02 series of amendments to Regulation No. 30.

29. The expert from ETRTO introduced ECE/TRANS/WP.29/GRRF/2012/6 clarifying in Regulation No. 30 the requirements for the load/speed performance tests. GRRF adopted ECE/TRANS/WP.29/GRRF/2012/6, not amended. The secretariat was requested to submit the proposal to WP.29 and AC.1 for consideration at their June 2012 sessions, as a part as part (see paras. 26 and 28) of draft Supplement 17 to the 02 series of amendments to Regulation No. 30.

C. Regulation No. 106 (Tyres for agricultural vehicles)

Documentation: ECE/TRANS/WP.29/GRRF/2011/31,
Informal document GRRF-71-13

30. The expert from ETRTO recalled the purpose of GRRF-71-13 complementing ECE/TRANS/WP.29/GRRF/2011/31 proposing new provisions on tyres for specialized applications. Despite the concerns raised by the expert from the Netherlands, GRRF adopted ECE/TRANS/WP.29/GRRF/2011/31 as amended below and requested the secretariat to submit it to WP.29 and AC.1 for consideration at their June 2012 sessions, as draft Supplement 9 to Regulation No. 106.

Page 2, paragraph 3.1.13., amend to read:

"3.1.13. The inscriptions "CFO" or "CHO", if applicable, **may** be marked after the nominal rim diameter."

D. Regulation No. 117 (Tyres - Rolling resistance, rolling noise and wet grip)

Documentation: ECE/TRANS/WP.29/GRRF/2011/29,
ECE/TRANS/WP.29/GRRF/2012/5,
ECE/TRANS/WP.29/GRRF/2012/10,
ECE/TRANS/WP.29/2012/2
Informal documents GRRF-71-11 and GRRF-72-24

31. GRRF reviewed ECE/TRANS/WP.29/2012/2 clarifying in Regulation No. 117 the current wet grip testing method and adding specific performance requirements for C3 snow tyres. GRRF agreed to go forward with the proposed agenda of the March 2012 session of WP.29, but to include some minor editorial corrections transmitted by the expert from ETRTO to the secretariat.

32. The expert from ETRTO recalled the purpose of GRRF-71-11 justifying the insertion of provisions for snow tyres of class C2 (ECE/TRANS/WP.29/GRRF/2011/29). GRRF adopted ECE/TRANS/WP.29/GRRF/2011/29 and agreed to submit it to WP.29 and AC.1, for consideration at their November 2012 sessions, as part (para. 25 above) of draft Supplement 2 to the 02 series of amendments to Regulation No. 117, subject to a final review by GRB and GRRF at their next sessions in September 2012.

33. The expert from France introduced ECE/TRANS/WP.29/GRRF/2012/5 proposing to amend the definition of the measuring rim for C1, C2 and C3 tyres. Following the discussion, the expert from France presented a revised proposal (GRRF-72-24) taking into account the comments received. GRRF adopted ECE/TRANS/WP.29/GRRF/2012/5 as reproduced in Annex VII and agreed to submit it to WP.29 and AC.1, for consideration at their November 2012 sessions, as a separate document for draft Supplement 2 to the 02 series of Amendments to Regulation No. 117, also subject to a final review by GRB and GRRF at their next sessions in September 2012.

34. The expert from ETRTO proposed to clarify the title of Regulation No. 117 and its Annex 1 (ECE/TRANS/WP.29/GRRF/2012/10). GRRF adopted the proposal and it was agreed to have a final review by GRB and GRRF at their next sessions in September 2012. The secretariat was requested to submit it to WP.29 and AC.1, for consideration at their November 2012 sessions, as part (paras. 25 and 32 above) of draft Supplement 2 to the 02 series of amendments to Regulation No. 117.

E. Other business

Documentation: ECE/TRANS/WP.29/GRRF/2012/13
Informal documents GRRF-72-04 and GRRF-72-12

35. The expert from OICA introduced ECE/TRANS/WP.29/GRRF/2012/13 to insert into Regulation No. 64 a reference to Regulation No. 54. The expert from OICA presented GRRF-72-04 offering the manufacturer the flexibility for the speed limit of type 4 spare units. GRRF adopted ECE/TRANS/WP.29/GRRF/2012/13, as reproduced in Annex V, and requested the secretariat to submit it to WP.29 and AC.1 for consideration at their June 2012 sessions, as draft Supplement 2 to the 02 series of amendments to Regulation No. 64.

36. The expert from France introduced GRRF-72-12 to align the French version of the Regulation with the English and Russian versions. GRRF adopted GRRF-72-12, as reproduced in Annex IV of the report, and requested the secretariat to submit it to WP.29 and AC.1 for consideration at their June 2012 sessions, as Corrigendum 3 to Revision 2 to Regulation No. 54.

IX. Other Business (agenda item 8)

A. Report of the 155th session of WP.29 in November 2011

Documentation: ECE/TRANS/WP.29/1093

37. GRRF noted that the report ECE/TRANS/WP.29/1093 of the November 2011 session of WP.29 was available at the WP.29 website. The following major issues were highlighted (reference to the report of WP.29):

- (a) Situation on the delays in publishing procedure of documentation (paras. 4 and 14);
- (b) Availability of documentation in the three authentic languages (paras. 15-17);
- (c) Instructions and rules of the UN Office of Legal Affairs (OLA) for Corrigenda (para. 19), specifying that Corrigenda should aim exclusively at correcting, without modifying the meaning or substance of the text of the treaty: (a) physical errors on typing, printing, spelling ... (b) lack of conformity of the treaty with the official records, and/or (c) lack of concordance between the texts of the different authentic languages;
- (d) Recommendations from OLA that the terms "UN Regulations", "UN Global Technical Regulations" and "UN Rules" could be used in administrative and informative documents, but not in legal documents (subject to a revision of the text of the 1958, 1997 and 1998 Agreements) (para. 20).

B. Tributes

38. Learning that Mr. H. Hesse (Germany) would no longer attend the sessions, GRRF acknowledged his good cooperation and contributions to GRRF activities for more than fourteen years and wished him all the best for his new responsibilities.

39. GRRF was informed that Mr. P.O. Rydberg (Volvo Trucks) will retire and no longer participate in the sessions. GRRF thanked him for his excellent contributions and expertise to the work of GRRF during the three last decades and wished him a healthy, happy and long retirement.

C. Global Technical Regulation No. 3

40. The expert from China raised a question concerning the peak friction coefficient (PFC) specified in Global Technical Regulation No. 3 on motorcycle brakes. He reported that China was developing a new national standard with references, for some of the technical issues, to the GTR, UN Regulations or US-FMVSS standards on braking. He questioned the differences of the PFC values (0.9 in GTR No. 3 and FMVSS versus 0.8 in UN Regulations). The expert from CLEPA explained that for the determination of the value 0.8, a normal tyre was used while for the determination of value 0.9 a special tyre (as defined in ASTM) would have to be used. The experts from Germany and the Netherlands confirmed that, according to some comparison tests, testing tracks comply with both values. The expert from China acknowledged the information received.

X. Provisional agenda for the seventy-third session

41. GRRF noted that its seventy-third session would be held in Geneva from 18 September 2012 (starting at 9.30 a.m.) to 20 September 2012 (concluding at 5.30 p.m.).

Annex I

List of informal documents considered during the session

List of informal documents (GRRF-72-...) of the session (English only)

<i>No.</i>	<i>(Author) Title</i>	<i>Follow-up</i>
1	(CLEPA/CLCCR/OICA) Vehicle stability function, footnote 12	(e)
2	(CLEPA/OICA) Test conditions concerning regenerative braking systems (RBS)	(c)
3	(OICA) Braking system changes -> inform the original type approval owner	(e)
4	(OICA) Type 4 spare unit may perform at 80 or 120 km/h	(a)
5	(Spain/FEMFM) chemically and physically identical brake and drum brake linings need not to be tested	(e)
Rev.1		
6	(Chair) Running order for GRRF 72	(f)
7	(Denmark) Revised proposal of ECE/TRANS/WP.29/GRRF/2012/12 - improving brake distribution between truck and trailer of heavy vehicle combinations at everyday low decelerations	(e)
8	(Chair Informal Group) Report by the Alternative Method Electronic Vehicle Stability Control (AMEVSC) Informal Working Group	(f)
9	(EC) L-category vehicle EU type-approval legislation. Obligatory fitting of advanced brake systems	(f)
10	(ETRTO) harmonized definitions/marketing requirements for snow tyres to Regulation No. 117, (ECE/TRANS/WP.29/GRRF/2011/13)	(a)
11	(ETRTO) harmonized definitions/marketing requirements for snow tyres to Regulation No. 117 (ECE/TRANS/WP.29/GRRF/2011/14)	(a)
12	(ETRTO) Harmonization of French version to English/Russian	(a)
13	(Informal Group on Snow Tyres) Snow tyres	(c/b)
14	(Japan) Information on introduction for AEBS	(f)
15	(CLEPA) Proposal for the addition of a "Bedding in" procedure	(a)
16	(India) Comments on the GTR for Passenger Vehicle Tyres	(f)
17	(CLEPA) Proposal for amendments to Reg. No 13	(e)
18	(CLEPA/CLCCR/OICA) Comments to ECE/TRANS/WP.29/GRRF/2012/12 / GRRF-72-7; Semi trailer braking	(f)
19	(CLEPA/CLCCR/OICA) Comments to ECE/TRANS/WP.29/GRRF/2012/12 / GRRF-72-7; Compatibility	(f)
20	(CLEPA/CLCCR/OICA) Comments to ECE/TRANS/WP.29/GRRF/2012/12 / GRRF-72-7; Side by side comparison	(f)
21	(CLEPA/CLCCR/OICA) Comments to ECE/TRANS/WP.29/GRRF/2012/12 / GRRF-72-7; Test points	(f)
22	(OICA) Comments to ECE/TRANS/WP.29/GRRF/2012/2	(e)
23	(IG Tyre GTR) Draft proposal for the Tyre GTR	(e)
24	(France/UK/ETRTO) Modifications to ECE/TRANS/WP.29/GRRF/2012/5	(c/a)
25	(NHTSA) Presentation on motorcycle Antilock Braking Systems and crash risk. Estimated from case-control comparisons	(f)
26	(Denmark) Presentation for ECE/TRANS/WP.29/GRRF/2012/12: Improved HGV brake compatibility	(f)

<i>No.</i>	<i>(Author) Title</i>	<i>Follow-up</i>
27	(CLEPA/OICA) Revision 2 of ECE/TRANS/WP.29/2011/35/Rev.1	(a)
28	(Germany) Explanation to ECE/TRANS/WP.29/GRRF/2012/11	(f)
29	(Chair) Explanations for the transitional provisions of Regulation No. 13H	(f)
30	(Russian Federation) Explanations for the transitional provisions of Regulation No. 13H	(f)
31	(Secretariat) Summary of decisions on documents (This document)	(f)

Reconsideration of informal documents from the previous sessions of GRRF or other Working Parties (English only)

<i>No.</i>	<i>(Author) Title</i>	<i>Follow-up</i>
WP.29-155-19	(CLEPA) R13 - Observations to the proposal from the European Union: "Vehicle manufacturer"	(f)
GRRF-71-05	Changes for Class T definition, position of remote indicators, Av	(c/e)
GRRF-71-07	Innovative devices	(f)
GRRF-71-11	(ETRTO) R117 – Presentation for ECE/TRANS/WP.29/GRRF/2011/29	(f)
GRRF-71-13	(ETRTO) R106 – Presentation for ECE/TRANS/WP.29/GRRF/2011/31	(f)
GRRF-71-24	(OICA) - introduce AEBS on vehicles equipped with rigid rear axle suspension	(f)
GRRF-71-30	(Note by Secretariat) Additional adopted amendments to ECE/TRANS/WP.29/2011/93	(f)

Notes:

- (a) Submitted with no change to WP.29 for consideration.
- (b) Submitted with changes to WP.29 for consideration.
- (c) Resume consideration on the basis of an official document.
- (d) Kept as reference document/continue consideration.
- (e) Revised proposal for the next session.
- (f) Consideration completed or to be superseded.
- (g) Withdrawn

Annex II

Draft amendments to Regulation No. 13-H

GRRF adopted ECE/TRANS/WP.29/GRRF/2011/35/Rev.1 as reproduced below (see para. 12).

Paragraph 5.2.20.1., amend to read:

"5.2.20.1. **With the parking brake released, the service braking system shall be able to fulfil the following requirements:**

(a) **with the propulsion on/off control in the "On" ("Run") position, generate a static total braking force at least equivalent to that required by the Type-0 test for service braking performance as prescribed in paragraph 2.1. of Annex 3 to this Regulation,**

(b) **during the first 60 seconds after the propulsion system on/off control has been deactivated to the "Off" or "Lock" position and/or the ignition key has been removed, three brake applications shall generate a static total braking force at least equivalent to that required by the Type-0 test for service braking performance as prescribed in paragraph 2.1. of Annex 3 to this Regulation, and**

(c) **after the period mentioned above, or as from the fourth brake application within the 60 second period, whichever occurs first, generate a static total braking force at least equivalent to that required by the Type-0 test for secondary braking performance as prescribed in paragraph 2.2. of Annex 3 to this Regulation.**

It should be understood that sufficient energy is available in the energy transmission of the service braking system."

Annex III

Draft amendments to Regulation No. 30

GRRF adopted ECE/TRANS/WP.29/GRRF/2011/13 as reproduced below (see para. 26).

Paragraph 2.1.3., amend to read:

"2.1.3. Category of use **normal tyre**, snow tyre, **special use tyre** or temporary use tyre);"

Insert a new paragraph 2.2., to read:

"2.2. **"Normal tyre" means a tyre intended for normal on-road use"**

Paragraph 2.2. (former), renumber as paragraph 2.3. and amend to read:

"2.3. **"Snow tyre" means a tyre whose tread pattern, tread compound or structure is primarily designed to achieve in snow conditions a performance better than that of a normal tyre with regard to its ability to initiate or maintain vehicle motion."**

Insert a new paragraph 2.4., to read:

"2.4. **"Special use tyre" means a tyre intended for mixed use both on- and off-road or for other special duty. These tyres are primarily designed to initiate and maintain the vehicle in motion in off-road conditions."**

Insert a new paragraph 2.4.1., to read:

"2.4.1. **"Professional off-road tyre" is a special use tyre primarily used for service in severe off-road conditions."**

Paragraphs 2.3. (former) to 2.3.3., renumber as paragraphs 2.5. to 2.5.3.

Paragraph 2.3.4., renumber as paragraph 2.5.4. and amend to read:

"2.5.4. **"Reinforced" or "Extra Load" means a pneumatic-tyre structure designed to carry more load at a higher inflation pressure than the load carried by the corresponding standard version tyre at the standard inflation pressure as specified in ISO 4000-1:2010;"**

Paragraphs 2.3.5. to 2.3.7., renumber as paragraphs 2.5.5. to 2.5.7.

Paragraphs 2.4. (former) to 2.10.1., renumber as paragraphs 2.6. to 2.12.1.

Paragraph 2.11. (former), renumber as paragraph 2.13. and amend to read:

"2.13. **"Tread pattern groove" means the space between two adjacent ribs or blocks in the tread pattern; 2"**

Paragraphs 2.12. (former) to 2.30., renumber as paragraphs 2.14. to 2.32.

Paragraph 2.30.1. (former), renumber as paragraph 2.32.1. and amend to read:

"2.32.1. **"Principal grooves" means the wide circumferential grooves positioned in the central zone of the tyre tread, which have the tread-wear indicators located in the base."**

Add a new paragraph 2.33., to read:

"2.33. **"Void to fill ratio" means the ratio between the area of voids in a reference surface and the area of this reference surface calculated from the mould drawing."**

Paragraphs 2.31. to 2.35. (former), renumber as paragraphs 2.34. to 2.38.

*Paragraph 3.1.2., amend to read: **

"3.1.2. The tyre-size designation ~~as defined in paragraph 2.17. of this Regulation;~~"

*Paragraph 3.1.4., amend to read: **

"3.1.4. An indication of the tyre's speed category ~~by means of the symbol shown in paragraph 2.29. above;~~"

Paragraph 3.1.5., amend to read:

"3.1.5. The inscription M+S or M.S or M&S **if the tyre is classified in the category of use "snow tyre" "**

Insert a new paragraph 3.17., to read:

"3.1.7. **The inscription "ET" and/or "POR" if the tyre is classified in the category of use "Special use".**

ET means Extra Tread and POR means Professional Off Road."

*Paragraph 3.1.6. (former), renumber as paragraph 3.1.8. and amend to read: **

"3.1.8. The load-capacity index ~~as defined in paragraph 2.28. of this Regulation;~~"

Paragraphs 3.1.7. (former) to 3.1.9., renumber as paragraph 3.1.9. to 3.1.11.

Paragraph 3.1.10. (former), renumber as paragraph 3.1.12. and 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 2.19.1.5. shall be placed immediately after the rim diameter marking referred to in paragraph 2.19.1.3."

Paragraphs 3.1.11.(former) to 3.1.12., renumber as paragraph 3.1.14. to 3.1.15.

*Paragraph 4.1.1., amend to read: **

"4.1.1. The tyre-size designation ~~as defined in paragraph 2.17. of this Regulation;~~"

Paragraph 4.1.3., amend to read:

"4.1.3. The category of use (**normal tyre or snow tyre, or special use tyre, or for temporary use**);"

Paragraph 4.1.14., amend to read:

"4.1.14. The factor x referred to in paragraph 2.22. above."

Paragraph 6.3., amend to read:

"6.3. **Tread pattern of a tyre**

* *Note by the secretariat:* This paragraph has to be amended following the introduction of new paragraphs 2.2. and 2.4. It is proposed to delete this superfluous cross reference.

6.3.1. In order to be classified as a "special use tyre" a tyre shall have a block tread pattern in which the blocks are larger and more widely spaced than for normal tyres and have the following characteristics:

- i) A tread depth ≥ 11 mm;
- ii) A void-to-fill ratio ≥ 35 per cent.

6.3.2. In order to be classified as a 'professional off-road tyre', a tyre shall have all of the following characteristics:

- i) A tread depth ≥ 11 mm;
- ii) A void-to-fill ratio ≥ 35 per cent;
- iii) A maximum speed rating of $\leq Q$.

Paragraph 6.3. (former), renumber as paragraph 6.3.3.

Paragraph 6.3.1. to 6.3.4. (former), renumber as paragraph 6.3.3.1. to 6.3.3.4.

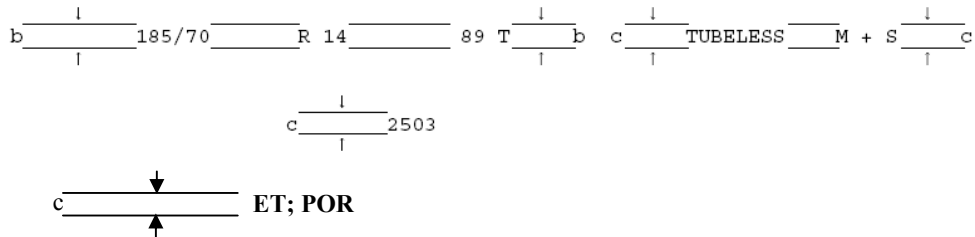
Annex 1, paragraph 5.2., amend to read:

"5.2. Category of use: normal/snow/special use/temporary use 2."

Annex 3,

Paragraph 1., amend to read:

"1. Example of the markings to be borne by type of tyres placed on the market after the entry into force of this Regulation



b = 6 mm (min.)

....."

Paragraph 3. subparagraph (c), amend to read:

"3.(c) the symbols "TUBELESS", "REINFORCED", "M + S" and "ET" and "POR" may be at a distance from the size-designation."

Annex IV

A. Draft amendments to Regulation No. 54

GRRF adopted ECE/TRANS/WP.29/GRRF/2011/14 as reproduced below (see para. 27).

Paragraph 2.1.3., amend to read:

"2.1.3. Category of use (**normal tyre, snow tyre, special use tyre**);"

Paragraph 2.2.1., amend to read:

"2.2.1. *"Normal tyre"* means a tyre intended for normal, on-road use;"

Paragraph 2.2.2., amend to read:

"2.2.2. *"Snow tyre"* means a tyre whose tread pattern, tread compound or structure is primarily designed to achieve in snow conditions a performance better than that of a normal tyre with regard to its ability to initiate or maintain vehicle motion."

Paragraph 2.2.3., amend to read:

"2.2.3. *"Special use tyre"* means a tyre intended for mixed use both on- and off-road or for other special duty. **These tyres are primarily designed to initiate and maintain the vehicle in motion in off-road conditions.**"

Add a new paragraph 2.2.3.1., to read:

"2.2.3.1. *"Professional off-road tyre"* is a special use tyre primarily used for service in severe off-road conditions."

Add new paragraphs 2.30. to 2.31.2., to read:

"2.30. *"Void to fill ratio"* means the ratio between the area of voids in a reference surface and the area of this reference surface calculated from the mould drawing.

2.31. *"Tyre Class"* means one of the following groupings:

2.31.1. *Class C2 tyres:* Tyres identified by a load capacity index in single formation lower or equal to 121 and a speed category symbol higher or equal to "N";

2.31.2. *Class C3 tyres:* Tyres identified by:

- (a) A load capacity index in single formation higher or equal to 122;
or
- (b) A load capacity index in single formation lower or equal to 121 and a speed category symbol lower or equal to "M".

Paragraph 3.1.5., amend to read:

"3.1.5. The inscription M+S or M.S or M&S **if the tyre is classified in the category of use "snow tyre".**"

Paragraph 3.1.9., amend to read:

"3.1.9. In the case of tyres which can be regrooved, the symbol "Ω" at least 20 mm in diameter, or the word "REGROOVABLE", moulded into or on to each sidewall;"

Paragraph 3.1.12., amend to read:

"3.1.12. The inscription "MPT" (or alternatively "ML" or "ET") and /or "POR" if the tyre is classified in the category of use "special".

ET means Extra Tread, ML stands for Mining and Logging, MPT means Multi-Purpose Truck and POR means Professional Off Road; 4/"

Add paragraph 6.3., to read:

"6.3. Tread pattern of a tyre

6.3.1. In order to be classified as a "special use tyre" a tyre shall have a block tread pattern in which the blocks are larger and more widely spaced than for normal tyres and have the following characteristics:

For C2 tyres: a tread depth ≥ 11 mm and void to fill ratio ≥ 35 per cent

For C3 tyres: a tread depth ≥ 16 mm and void to fill ratio ≥ 35 per cent

6.3.2. In order to be classified as a "professional off-road tyre", a tyre shall have all of the following characteristics:

(a) For C2 tyres:

- i) A tread depth ≥ 11 mm;
- ii) A void-to-fill ratio ≥ 35 per cent;
- iii) A maximum speed rating of $\leq Q$.

(b) For C3 tyres:

- i) A tread depth ≥ 16 mm;
- ii) A void-to-fill ratio ≥ 35 per cent;
- iii) A maximum speed rating of $\leq K$."

Annex 1

Paragraph 5.2., amend to read:

"5.2. Category of use: normal/snow/special 2/"

Insert a new paragraph 5.4., to read:

"5.4. Tyre class: C2 / C3 2/"

Paragraphs 5.4. to 5.5., renumber as paragraphs 5.5. to 5.6.

Annex 3, arrangement of tyre markings, insert a new marking to read:

".....
 ↓
 c _____ ET; ML; MPT; POR
 ↑
"

B. Draft Corrigendum to Regulation No. 54

GRRF adopted GRRF-72-12 aligning the French text of the Regulation with the English and Russian (see para. 36).

Paragraph 2.17.1.3.1. amend in the French version the value for diameter code "22,5" to read:

"2.17.1.3.1.

Code de diamètre nominal de la jante, symbole "d"	Valeur du symbole "d", exprimée en mm
...	...
14,5	368
16,5	419
17,5	445
19,5	495
20,5	521
22,5	575 572
24,5	622
26	660
28	711
30	762

"

Annex V

Draft amendments to Regulation No. 64

GRRF adopted ECE/TRANS/WP.29/GRRF/2012/13 as reproduced below (see para. 35).

Paragraph 5.1.4.1., amend to read:

"5.1.4.1. An 80 km/h maximum speed warning symbol ...

...

The requirements of this paragraph shall apply to types"

Paragraph 5.1.4.1.1., amend to read:

"5.1.4.1.1. An 120 km/h maximum speed warning symbol arranged in accordance with the diagram below shall be permanently displayed on the outer face of the wheel in a prominent position.

...

Upper case letters shall be and be on a background of contrasting colour.

For a type 4 temporary-use spare unit as defined in paragraph 2.10.4., either the requirements of this paragraph or the requirements of paragraph 5.1.4.1. shall apply, at the request of the vehicle manufacturer."

Annex VI

Draft amendments to Regulation No. 90

GRRF adopted ECE/TRANS/WP.29/GRRF/2012/3 as reproduced below (see para. 22).

Paragraph 4.2.2.2.2., amend to read:

"4.2.2.2.2. Test program (brake drum high load test).

Table A11/4.2.2.2.2.

Test provision	High load test
"Bedding in" procedure	200 brake applications Initial speed: 60 km/h Final speed: 5 km/h d_m alternating between 1 m/s² and 2 m/s² Initial temperature : ≤ 200 °C (beginning at ambient temperature) Alternatively bedding may be omitted if the applicant for approval does not consider it to be necessary
Type of braking	Braking to less than 5 km/h
Total number of brake applications	150
Initial brake drum temperature at each brake application	≤ 100 °C
Brake applications from to	60 km/h ≤ 5 km/h
Brake torque set to produce a deceleration of	6 m/s ²
Cooling (also deviating from paragraph 3.2.3. of this annex)	Permitted

"

Annex VII

A. Draft amendments to Regulation No. 117, Document 1

GRRF adopted ECE/TRANS/WP.29/GRRF/2011/14, ECE/TRANS/WP.29/GRRF/2011/29 and ECE/TRANS/WP.29/GRRF/2012/10 as amended below (see paras. 25, 32 and 34).

Annexes of Contents, amend to read:

"7. Procedures for snow performance testing **relative to snow tyre for use in severe snow conditions**"

Paragraph 2.5., amend to read:

"2.5. *"Representative tyre size"* means the tyre size which is submitted to the test described in Annex 3 to this Regulation with regard to rolling sound emissions, or Annex 5 for adhesion on wet surfaces or Annex 6 for rolling resistance to assess the conformity for the Type Approval of the type of tyre, or Annex 7 for **use in severe snow conditions**"

Paragraph 2.11., amend to read:

"2.11. *"Snow tyre"* means a tyre whose tread pattern, tread compound or structure is primarily designed to achieve in snow conditions a performance better than that of a normal tyre with regard to its ability to initiate **or maintain vehicle motion.**"

Insert a new paragraph 2.11.1., to read

"2.11.1. ***"Snow tyre for use in severe snow conditions":* means a snow tyre whose tread pattern, tread compound or structure is specifically designed to be used in severe snow conditions and that fulfils the requirements of paragraph 6.4.**"

Paragraph 3.1.1., amend to read:

"3.1.1. The performance characteristics to be assessed for the tyre type; "rolling sound emissions level" and/or "adhesion performance level on wet surfaces" and/or "rolling resistance level". Tyre "snow performance level" in cases of **"snow tyre for use in severe snow conditions".** "

Paragraph 4.2.5., amend to read:

"4.2.5. The inscription "TRACTION"¹¹ if the tyre is classified as **"traction tyre";** "

Paragraph 4.2.6., amend to read:

"4.2.6. The inscription "M+S" or "M.S" or "M&S" **if the tyre is classified in the category of use "snow tyre".** "

Insert a new paragraph 4.2.6.1., to read:

"4.2.6.1. **The "Alpine" symbol ("3-peak-mountain with snowflake" conforming to the symbol described in Annex 7, Appendix 1) may be added if the snow tyre is classified as "snow tyre for use in severe snow conditions".** "

Paragraph 4.2.7., should be deleted.

Paragraph 4.2.8., renumber as paragraph 4.2.7.

Paragraph 6.1.1., the table, amend to read:

"6.1.1.

<i>Stage 2</i>	
<i>Nominal Section Width</i>	<i>Limit dB(A)</i>
185 and lower	70
Over 185 up to 245	71
Over 245 up to 275	72
Over 275	74
The above limits shall be increased by 1 dB(A) for "snow tyre for use in severe snow conditions", extra load tyres or reinforced tyres, or any combination of these classifications.	

"

Paragraph 6.1.2., the tables, amend to read:

"6.1.2.

<i>Stage 1</i>	
<i>Category of use</i>	<i>Limit dB(A)</i>
Normal tyre	75
Snow tyre	77
Special use tyre	78

<i>Stage 2</i>			
<i>Category of use</i>		<i>Limit dB(A)</i>	
		<i>Other</i>	<i>Traction Tyres</i>
Normal tyre		72	[73]
Snow tyre		72	73
	Snow tyre for use in severe snow conditions	73	75
Special use tyre		74	75

"

Paragraph 6.1.3., the tables, amend to read:

"6.1.3.

<i>Stage 1</i>	
<i>Category of use</i>	<i>Limit dB(A)</i>
Normal tyre	76
Snow tyre	78
Special use tyre	79

<i>Stage 2</i>			
<i>Category of use</i>		<i>Limit dB(A)</i>	
		<i>Other</i>	<i>Traction tyres</i>
Normal tyre		73	[75]
Snow tyre		73	75
	Snow tyre for use in severe snow conditions	74	76
Special use tyre		75	77

"

Paragraph 6.2.1., the table, amend to read:

"6.2.1.

<i>Category of use</i>		<i>Wet grip index (G)</i>
Normal tyre		≥ 1.1
Snow tyre		≥ 1.1
	"Snow tyre for use in severe snow conditions " and with a speed symbol ("R" and above, including "H") indicating a maximum permissible speed greater than 160 km/h	≥ 1.0
	"Snow tyre for use in severe snow conditions " and with a speed symbol ("Q" or below excluding "H") indicating a maximum permissible speed not greater than 160 km/h	≥ 0.9
Special use tyre		Not defined

"

Paragraphs 6.3.1. and 6.3.2., the table, amend to read:

"6.3.1. The maximum values for stage 1 for the rolling resistance coefficient shall not exceed the following (value in N/kN is equivalent to value in kg/tonne):

<i>Tyre class</i>	<i>Max value (N/kN)</i>
C1	12.0
C2	10.5
C3	8.0
For "snow tyre for use in severe snow conditions ", the limits shall be increased by 1 N/kN.	

- 6.3.2. The maximum values for stage 2 for the rolling resistance coefficient shall not exceed the following (value in N/kN is equivalent to value in kg/tonne):

<i>Tyre class</i>	<i>Max value (N/kN)</i>
C1	10.5
C2	9.0
C3	6.5
For "snow tyre for use in severe snow conditions", the limits shall be increased by 1 N/kN.	

"

Paragraph 6.4., amend to read:

- "6.4. In order to be classified as a **"snow tyre for use in severe snow conditions"** the tyre shall meet the performance requirements of paragraph 6.4.1.

The tyre shall meet these requirements based on a test method of Annex 7 by which:

.....

of the candidate tyre is compared to that of a standard reference tyre.

The relative performance shall be indicated by a snow index."

Annex 1, paragraph 14.1., footnote 7, amend to read:

- "⁷ In the case of **"snow tyre for use in severe snow conditions"** a test report according to **Appendix 2** of Annex 7 shall be submitted."

Annex 7

The title, amend to read:

"Procedures **for snow performance testing** relative to snow tyre for use in severe snow conditions"

Paragraph 1., amend to read:

- "1. Specific definitions for snow test when different **from** existing ones"

Paragraph 2., amend to read:

- "2. Spin traction method for Class C1 and C2 tyres (traction force test per **paragraph 6.4 (b)**)"

Appendix 1, amend to read:

"Minimum 15 mm base and 15 mm height, placed adjacent to the M+S inscription."

B. Draft amendments to Regulation No. 117, Document 2

GRRF adopted ECE/TRANS/WP.29/GRRF/2012/5 as reproduced below (see para. 33).

Annex 6

Paragraph 2.2., amend to read:

"2.2. Measuring rim (see **Appendix 2**)

The tyre shall be mounted on a steel or light alloy measuring rim, as follows:

- (a) for Class **C1** tyres, the width of the rim shall be as defined in ISO 4000-1:2010,
- (b) for Class **C2 and C3** tyres, the width of the rim shall be as defined in ISO 4209-1:2001.

In cases where the width is not defined in the above mentioned ISO standards, the rim width as defined by one of the standards organizations as specified in Appendix 4 may be used."

Appendix 1, paragraph 2.1., amend to read

"2.1. Width

For passenger car tyre rims (C1 tyres), the test rim width shall be the same as the measuring rim determined in ISO 4000-1: 2010 clause 6.2.2.

For truck and bus tyres (C2 and C3), the rim width shall be the same as the measuring rim determined in ISO 4209-1:2001, clause 5.1.3.

In cases where the width is not defined in the above mentioned ISO standards, the rim width as defined by one of the standards organizations as specified in Appendix 4 may be used."

Appendix 1, paragraph 5., in the table, where the tolerances are given for spindle force and torque input, amend both rows to read:

"

spindle force	+/- 0.5 N or +/- 0.5% (a)	+/- 1.0 N or +/- 0.5% (a)
Torque input	+/- 0.5 Nm or +/- 0.5% (a)	+/- 1.0 Nm or +/- 0.5% (a)

"

Add an Appendix 4, to read:

"Appendix 4 - TYRE STANDARDS ORGANIZATIONS

- The Tire and Rim Association, Inc. (TRA)
- The European Tyre and Rim Technical Organisation (ETRTO)
- The Japan Automobile Tyre Manufacturers' Association (JATMA)
- The Tyre and Rim Association of Australia (TRAA)
- South Africa Bureau of Standards (SABS)
- China Association for Standardization (CAS)
- Indian Tyre Technical Advisory Committee (ITTAC)
- International Standards Organisation (ISO)"

Annex VIII

Terms of Reference for the informal group on Automated Connections between Vehicles (ACV)

A. Introduction

1. The Working Party on Brakes and Running Gear (GRRF) agreed to set up a group of interested experts to establish alternative requirements for brake related signals between towing and towed vehicles.
2. Regulation No. 13 establishes that braking related signals from towing to towed vehicles should use the standardized connector ISO 7638. This is not possible when an automated coupling system (ACS) is used.

B. Objectives

3. The objectives of the informal group on ACV are:
 - (a) To consider in detail, the task of producing an amended text of Regulation No. 13, concerning braking related signals between towing and towed vehicles, taking account of the existing and emergent new technologies in the context of ACS, modular vehicle combinations (road trains) and totally integrated vehicle combination control systems.
 - (b) To follow the guidelines set out in ECE/TRANS/WP.29/1044/Rev.1.
 - (c) To produce the Regulation requirements which draw on existing texts in the braking field but, within sensible limits, lean toward the acceptance of the more stringent standards. This is to be done consistently while remaining practical and workable by differing organizations in various countries. Every attempt is to be made to ensure that the completed text will be understandable to users who are not seasoned experts in the development of braking Regulations.
 - (d) To cover vehicles of category N1, N2, N3, O3 and O4.
 - (e) To consider in a first step, alternative ACS requirements for vehicles of categories N1, N2, N3, O3 and O4. In a second step, the group may consider also alternative requirements for modular vehicle combinations and totally integrated vehicle combination control systems.
 - (f) To produce an amendment to Regulation No. 55 with a proposal for a new definition of the ACS coupling.

C. Rules of procedure

4. The informal working group is a subgroup of GRRF, and is open to all participants of GRRF.
5. A Chair and a Secretary will manage the informal working group.
6. The official language of the informal working group will be English.

7. An agenda and related documents will be circulated to all members of the informal working group in advance of all scheduled meetings.
8. Decisions will be reached by consensus. When consensus cannot be reached, the Chair shall present the different points of view to GRRF. The Chair may seek guidance from GRRF as appropriate.
9. The progress of the informal group will be routinely reported to GRRF – wherever possible as an informal document and presented by the Chair or her/his representative.
10. All working documents will be distributed in digital format. Meeting documents will be made available to the UNECE secretariat for publication on the website of the World Forum for Harmonization of Vehicle Regulation (WP.29).

D. Work plan and time schedule

11. The informal group aims at submitting its proposal to GRRF as an informal document at the September 2012 session and its final proposal as an official document at the GRRF session in February 2013.

Annex IX

GRRF informal groups

<i>Informal group</i>	<i>Chairperson</i>	<i>Secretary</i>
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