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### Inland Transport Committee

### World Forum for Harmonization of Vehicle Regulations

### Working Party on Noise

Sixty-ninth session

Geneva, 22–25 January 2019

## Report of the Working Party on Noise on its sixty-ninth session

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## **I. Attendance**

1. The Working Party on Noise (GRB) held its sixty-ninth session from 22 to 25 January 2019 in Geneva. The meeting was chaired by Mr. S. Ficheux (France). 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/Rev.1): China, Finland, France, Germany, India, Italy, Japan, Netherlands, Norway, Poland, Republic of Korea, Russian Federation, Spain, Sweden, Turkey, Switzerland and the United Kingdom of Great Britain and Northern Ireland. An expert from the European Commission (EC) participated. Experts from the following non-governmental organizations also participated: Association of European Wheel Manufacturers (EUWA), Bureau International Permanent des Associations de Vendeurs et Rechapeurs de pneumatiques (BIPAVER), International Motor Vehicle Inspection Committee (CITA), European Association of Automotive Suppliers (CLEPA), European Tyre and Rim Technical Organization (ETRTO), Motorcycle Manufacturers Association (IMMA), International Organization of Motor Vehicle Manufacturers (OICA) and International Organization for Standardization (ISO).

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

*Documentation:* ECE/TRANS/WP.29/GRB/2019/1, Informal documents GRB-69-01-Rev.1 and GRB-69-02-Rev.1

2. GRB considered and adopted the agenda (ECE/TRANS/WP.29/GRB/2019/1, as amended by GRB-69-01-Rev.1), subject to the addition of a new item 7 (d) “UN Global Technical Regulation No. 16 (Tyres)”. GRB noted the running order proposed by the Chair (GRB-69-02-Rev.1). The list of informal documents is contained in Annex I. The list of GRB informal groups is reproduced in Annex VI.

## **III. UN Regulation No. 9 (Noise of three-wheeled vehicles) (agenda item 2)**

*Documentation:* Informal documents GRB-69-14 and GRB-69-16

3. GRB noted that the proposals for the 08 series of amendments, which had been adopted by GRB at the previous session (ECE/TRANS/WP.29/GRB/66, para. 3 and Annex II), had been submitted to WP.29 and to the Administrative Committee (AC.1) for consideration and vote at their March 2019 sessions.

4. The expert from IMMA proposed to correct an inconsistency in the exemption conditions applicable to the additional sound emission provisions (ASEP) for vehicles with variable gear ratios or automatic transmission with non-lockable gear ratios (GRB-69-14 and GRB-69-16). The expert from Germany made a study reservation. GRB invited IMMA to convert the proposal into an official document for consideration at the next session.

## **IV. UN Regulation No. 41 (Noise emissions of motorcycles): Development (agenda item 3)**

5. No new proposals were considered under this agenda item.

## **V. UN Regulation No. 51 (Noise of M and N categories of vehicles) (agenda item 4)**

### **A. Development**

*Documentation:* ECE/TRANS/WP.29/GRB/2019/8,  
ECE/TRANS/WP.29/GRB/2019/9,  
ECE/TRANS/WP.29/GRB/2019/10,  
ECE/TRANS/WP.29/GRB/2019/11, Informal document GRB-69-18

6. The Chair of the Informal Working Group on Additional Sound Emission Provisions (IWG ASEP) proposed to introduce transitional provisions for Supplements 4 and 5 to the 03 series of amendments to UN Regulation No. 51 (ECE/TRANS/WP.29/GRB/2019/9 and ECE/TRANS/WP.29/GRB/2019/11). GRB adopted these proposals and recalled that Supplement 5 would still be considered by WP.29 at its session in March 2019 (ECE/TRANS/WP.29/2019/4). To speed up the amendment process, GRB requested the secretariat to issue a revised version of ECE/TRANS/WP.29/2019/4 with the adopted transitional provisions.

7. GRB also noted that, during the adoption of Supplement 4 to the 03 series of amendments, a sentence in Annex 3, paragraph 3.1.2.1.4.2. had been deleted by mistake (ECE/TRANS/WP.29/GRB/2019/9). To restore the sentence, GRB requested the secretariat to issue a corrigendum to the Supplement which would be deemed applicable ab initio. GRB also adopted a minor editorial correction to Annex 3, paragraph 3.1.2.1. (ECE/TRANS/WP.29/GRB/2019/8).

8. The Chair of IWG ASEP proposed a new Supplement 6 to the 03 series of amendments with the aim to correct a reference and to clarify the requirements for stationary sound (ECE/TRANS/WP.29/GRB/2019/10). The expert from Germany, supported by the expert from the Netherlands, raised several issues concerning the proposal. GRB decided to postpone the discussion to the next session and invited all parties concerned to prepare a revised wording which would address the concerns of the expert from Germany.

9. The expert from China reported on a preliminary study of the test methods for the 03 series of amendments to UN Regulation No. 51 (GRB-69-18). GRB noted this information and decided to revert to the topic once more results would be available.

### **B. Additional sound emission provisions**

*Documentation:* Informal documents GRB-69-05, GRB-69-13, GRB-69-15 and GRB-69-26

10. GRB took note of progress of IWG ASEP (GRB-69-13).

11. The expert of OICA raised the issue of uncertainties of sound emission measurements according to UN Regulation No. 51 and some other UN Regulations (GRB-69-15). He pointed out that the uncertainties included variations within the same test laboratory (run-to-run), variations in the ambient conditions and equipment properties (day-to-day) and variations between test laboratories and road surface conditions (site-to-site). The expert from ISO reported on field experience for measuring variations according to ISO 16254 (GRB-69-26). To reduce variations and improve repeatability and reproducibility of the results, he suggested that a single microphone should be replaced with an array of microphones.

12. The experts from Germany and France proposed to address non-negligible differences in sound performance when conformity of production (CoP) tests were not carried out in the same conditions as the type approval tests (GRB-69-05). The proposal introduced conditions and procedures to be followed for test tracks comparison and for corrections to be applied on  $L_{urban}$ . GRB welcomed this initiative as an important starting point for further work and invited GRB experts to support it with real data.

13. GRB stressed the importance of addressing measurement uncertainties and pointed out the need to establish a new task force to this end. While OICA volunteered to provide secretariat support to the task force, GRB was not in a position to identify a governmental expert who would take the lead, due to the limited resources of competent authorities. Nevertheless, GRB was of the view that the task force should start activities as soon as possible, even without a formal leader. GRB requested the ECE secretariat to establish a dedicated website for the task force and suggested that it should meet in conjunction with the meetings of other IWGs, in order to reduce the travel expenses of participants. GRB also invited its Chair to report to the Committee for Coordination of Work (WP.29/AC.2) on the issue.

## **VI. UN Regulation No. 92 (Replacement exhaust silencing systems for motorcycles) (agenda item 5)**

14. GRB noted that the proposals for the 02 series of amendments, which had been adopted by GRB at the previous session (ECE/TRANS/WP.29/GRB/66, para. 10) were submitted to WP.29 and AC.1 for consideration and vote at their March 2019 sessions.

## **VII. UN Regulation No. 138 (Quiet road transport vehicles) (agenda item 6)**

*Documentation:* Informal document GRB-69-06

15. The expert from OICA presented a revised proposal with the aim to clarify the scope and some provisions of UN Regulation No. 138 (GRB-69-06). GRB adopted the proposal, as laid down in Annex II and requested the secretariat to submit it to WP.29 and AC.1 for consideration and vote at their June 2019 sessions as a draft Supplement 1 to the 01 series of amendments to UN Regulation No. 138.

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

### **A. UN Regulation No. 30 (Tyres for passenger cars and their trailers)**

*Documentation:* ECE/TRANS/WP.29/GRVA/2018/6,  
ECE/TRANS/WP.29/GRVA/2018/7,  
ECE/TRANS/WP.29/GRB/2019/5, Informal documents GRB-68-14,  
GRB-69-11-Rev.1 and GRB-69-12

16. The experts from ETRTO proposed to clarify and improve the text of UN Regulation No. 30 (ECE/TRANS/WP.29/GRB/2019/5 and GRB-69-11-Rev.1). GRB adopted the proposal, as amended by Annex III, and requested the secretariat to submit it to WP.29 and AC.1 for consideration and vote at their June 2019 sessions as a draft Supplement 21 to the 02 series of amendments to UN Regulation No. 30. GRB also requested the secretariat, in

cooperation with ETRTO, to use this opportunity to consolidate the text of the UN Regulation.

17. GRB resumed consideration of the ETRTO proposals for amendments to UN Regulations Nos. 30 and 64 which introduce provisions on extended mobility tyres (EMT) (ECE/TRANS/WP.29/GRVA/2018/6, ECE/TRANS/WP.29/GRVA/2018/7 and GRB-68-14). In reply to the questions raised at the previous session, the expert of ETRTO presented GRB-69-12. GRB adopted the proposals and requested the secretariat to submit them to WP.29 and AC.1 for consideration and vote at their June 2019 sessions as a draft Supplement 21 to the 02 series of amendments UN Regulation No. 30 and a draft Supplement 1 to the 03 series of amendments to UN Regulation No. 64.

## **B. UN Regulation No. 75 (Tyres for motorcycles/mopeds)**

*Documentation:* ECE/TRANS/WP.29/GRB/2019/7 and Informal document GRB-69-24-Rev.1

18. The expert of France proposed to clarify the identification, marking and test provisions applicable to tyres designed for speeds above 240 km/h (ECE/TRANS/WP.29/GRB/2019/7 and GRB-69-24-Rev.1). GRB adopted the proposal, as amended by Annex IV, and requested the secretariat to submit it to WP.29 and AC.1 for consideration and vote at their June 2019 sessions as a draft Supplement 18 to the original series of amendments to UN Regulation No. 75.

## **C. UN Regulation No. 117 (Tyre rolling resistance, rolling noise and wet grip)**

*Documentation:* ECE/TRANS/WP.29/GRRF/2016/43, ECE/TRANS/WP.29/GRRF/2017/7, ECE/TRANS/WP.29/GRVA/2018/5, ECE/TRANS/WP.29/GRB/2019/3, ECE/TRANS/WP.29/GRB/2019/4, ECE/TRANS/WP.29/GRB/2019/6, Informal documents GRB-68-12, GRB-69-08, GRB-69-09, GRB-69-10, GRB-69-19 and GRB-69-23

19. The expert from the Russian Federation introduced a proposal that aligns the approval numbers and markings of UN Regulation No. 117 with the provisions of Schedule 4 of the revised 1958 Agreement (ECE/TRANS/WP.29/GRB/2019/4). GRB adopted the proposal and requested the secretariat to submit it to WP.29 and AC.1 for consideration and vote at their June 2019 sessions as a draft Supplement 10 to the 02 series of amendments UN Regulation No. 117.

20. GRB recalled that the former Working Party on Brakes and Running Gear (GRRF) decided to keep on its agenda ECE/TRANS/WP.29/GRRF/2016/43 and ECE/TRANS/WP.29/GRRF/2017/7 with agreed editorial corrections to UN Regulation No. 117, awaiting more substantial amendment proposals before submission to WP.29. GRB agreed that these editorial corrections should be submitted to WP.29 and AC.1 for consideration and vote at their June 2019 sessions in one package with the amendment proposals as referred to in para. 19 above.

21. The expert of France proposed a wet adhesion requirement for C1 tyres in a worn state (ECE/TRANS/WP.29/GRB/2019/6 and GRB-69-08). The proposal received comments from ETRTO (GRB-69-10). GRB also noted a recent study on used tyres (GRB-69-09). GRB was of the view that this topic should be pursued in the framework of a new

IWG and adopted its Terms of Reference (GRB-69-23), as reproduced in Annex V. Various experts expressed their willingness to contribute to the activities of the newly established IWG. The experts from France and the European Commission volunteered to act as Chair and Co-Chair, respectively, while ETRTO agreed to provide secretariat support.

22. On behalf of the group of interested experts on snow tyre provisions, the expert from Germany reported on the group's progress (GRB-69-19) and mentioned that they would submit an official document for consideration at the next session of GRB.

23. The expert from ETRTO recalled their proposal for draft amendments tabled at the previous session (ECE/TRANS/WP.29/GRVA/2018/5 and GRB-68-12) and requested GRB to postpone the discussion to the next session.

24. GRB took note of a proposal submitted by the expert from the Netherlands which introduces two extra stages 3 and 4 with limits for the rolling sound emission, wet grip performance and rolling resistance coefficient (ECE/TRANS/WP.29/GRB/2019/3). The Chair was of the view that, given the ongoing discussion on the issue within the European Union, it would be premature to modify the noise limits at this moment and proposed to revert to this document at a later stage.

#### **D. UN Global Technical Regulation No. 16 (Tyres)**

*Documentation:* Informal documents GRB-69-17, GRB-69-21 and GRB-69-22

25. GRB received a status report from IWG on Tyre GTR (GRB-69-17) and took note of a list of the proposed draft amendments (GRB-69-21 and GRB-69-22). GRB noted that a formal proposal might be submitted to the next session.

### **IX. Draft UN Regulation on reversing alarm (agenda item 8)**

*Documentation:* Informal document GRB-69-20

26. On behalf of the Task Force on Reverse Warning (TF-RW), the expert from Japan reported on the progress of TF-RW (GRB-69-20). GRB pointed out the need to liaise with the Working Party on General Safety (GRSG) on the issue and was of the view that the TF-RW report should be also be brought to the attention of GRSG. The expert from Switzerland volunteered to act as GRB ambassador to GRSG on this topic.

### **X. Exchange of information on national and international requirements on noise levels (agenda item 9)**

27. No information was reported under this agenda item.

### **XI. Influence of road surface on tyre rolling sound emissions (agenda item 10)**

*Documentation:* ECE/TRANS/WP.29/GRB/2019/2

28. The expert from the Netherlands presented a revised draft Resolution on Road Surface Labelling (ECE/TRANS/WP.29/GRB/2019/2) and requested that it should be published as a reference document on the GRB website. GRB was also informed that WP.29, at its November 2018 session, had encouraged GRB to consult the road construction industry, to continue work on the draft Resolution and to report back to WP.29 in due course

(ECE/TRANS/WP.29/1142, para. 69). The Vice-Chair proposed to solicit views on the document of the national road authorities. To this end, GRB invited all experts to consult their national road administrations and send feedback to the Vice-Chair who volunteered to consolidate the replies and report back to GRB at its next session.

## **XII. Proposal for amendments to the Consolidated Resolution on the Construction of Vehicles (agenda item 11)**

29. No issues were considered under this item.

## **XIII. Development of the International Whole Vehicle Type Approval system (agenda item 12)**

*Documentation:* Informal document WP.29-176-21

30. GRB reviewed a candidate UN Regulation No. 138 (QRTV), which had been proposed to be added in Annex 4 of UN Regulation No. 0 under Phase 2 of the International Whole Vehicle Type Approval (IWVTA), and decided to give it priority (i), as explained in WP.29-176-21.

## **XIV. Highlights of the November 2018 session of WP.29 (agenda item 13)**

*Documentation:* Informal document GRB-69-07

31. The secretariat reported on the highlights of the November 2018 session of WP.29 (GRB-69-07). GRB noted that WP.29 had renamed GRB to GRBP (Groupe Rapporteur Bruit et Pneumatiques). The Chair stressed that GRBP is not a new body and requested the secretariat to ensure the continuity of the GRB documentation and website.

## **XV. Exchange of views on the future work of GRB (agenda item 14)**

*Documentation:* Informal documents GRB-69-03 and GRB-69-25-Rev.1

32. The Chair reported on the outcome of the informal meeting in Brussels on 31 October 2018 and introduced a revised document on priorities of the future work (GRB-69-03) with topics related to sound emission and tyre requirements. The document covered essentially the limit values for phase 3, ASEP, uncertainties, track alignment and measurement discrepancies, provisions for the so-called three peak mountain snow flake (3PMSF) winter tyres, wet grip test method for C1 tyres, wet grip for worn tyres, etc. The experts from China, Germany, Netherlands, EC, ETRTO and OICA commented on the proposal. The Chair indicated his intention to convene a meeting to develop a roadmap for level 1 priorities, as marked in GRB-69-03.

33. The expert of OICA briefed GRB about a forthcoming study with the aim to find out if lowering the rolling sound limits would affect other tyre parameters essential for vehicle safety and CO<sub>2</sub> reduction (GRB-69-25-Rev.1). GRB took note of this information and invited OICA to report the outcome of the study at the next session.

## **XVI. Other business (agenda item 15)**

*Documentation:* Informal documents GRB-69-04 and WP.29-176-19

34. The expert from France proposed an amendment to UN Regulation No. 28 which complemented paragraph 2 "Definition" with an "electronic" operation of the audible warning device (GRB-69-04). GRB invited the expert to submit the proposal as an official document for the next session.

35. GRB considered how to implement new provisions of Revision 3 of the 1958 Agreement, such as the "Unique Identifier" (UI), transitional provisions in UN Regulations, approval of innovations, CoP provisions, modified communication form and approval numbers (WP.29-176-19). GRB decided to revert to UI and approval of innovations at the next session. For the CoP provisions, the expert from the Russian Federation referred to Schedule 1 of Revision 3 of the 1958 Agreement.

## **XVII. Provisional agenda for the seventieth session (agenda item 16)**

36. For its seventieth session, scheduled to be held in Geneva from 11 to 13 September 2019, GRB decided to keep the same structure of the provisional agenda and noted that the deadline for the submission of official documents to the secretariat would be 17 June 2019, twelve weeks prior to the session.

## Annex I

### List of informal documents (GRB-69-...) distributed during the session

<i>Symbol</i>	<i>Transmitted by</i>	<i>Agenda item</i>	<i>Language</i>	<i>Title</i>	<i>Follow-up</i>
1-Rev.1	Secretariat	1	E	Updated provisional agenda for the sixty-ninth session	(a)
2-Rev.1	Chair	1	E	Running order	(a)
3	Chair	14	E	Subjects for the future	(c)
4	France	15	E	Proposal for a Supplement to UN Regulation No. 28	(b)
5	France and Germany	5 (b)	E	Proposal for a Supplement to the 03 series of amendments to UN Regulation No. 51	(c)
6	OICA	6	E	Proposal for Supplement 1 to the 01 series of amendments to UN Regulation No. 138	(d)
7	Secretariat	1, 14	E	General information and WP.29 highlights	(a)
8	France	7 (c)	E	Amendment to UN Regulation No. 117: introduction of worn tyre performances	(a)
9	Secretariat	7 (c)	E	2017 Ernst & Young study on used tyres	(a)
10	ETRTO	7 (c)	E	Comments on ECE/TRANS/WP.29/GRB/2019/6	(a)
11-Rev.1	ETRTO	7 (a)	E	Supporting material for ECE/TRANS/WP.29/GRB/2019/5	(d)
12	ETRTO	7 (a)	E	EMT: an ETRTO answer to a Contracting Party	(d)
13	IWG ASEP	4 (b)	E	Status report	(a)
14	IMMA	2	E	Proposal for amendments to the draft 08 series of amendments to UN Regulation No. 9	(b)
15	OICA	4 (b)	E	Measurement uncertainties of sound emission measurements according to UN Regulation No. 51, 03 series of amendments	(a)
16	IMMA	2	E	ASEP for L5 vehicles with CVT/AT: background information to GRB-69-14	(b)
17	IWG Tyre GTR	7	E	Consolidated statement on technical rationale and justification	(b)
18	China	4	E	A preliminary study on test methods for UN Regulation No. 51, 03 series of amendments	(c)
19	Interested group	7	E	Status report on snow tyre provisions	(b)
20	TF RW	8	E	Status report	(a)
21	ETRTO	7	E	List of amendments to UN GTR No. 16	(b)
22	ETRTO	7	E	Proposal for Amendment 1 to UN GTR No. 16	(b)
23	France	7 (c)	E	Draft terms of reference for IWG on wet grip performance of tyres in worn state	(d)
24-Rev.1	France	7 (b)	E	Proposal for amendment to ECE/TRANS/WP.29/GRB/2019/7	(d)

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<i>Symbol</i>	<i>Transmitted by</i>	<i>Agenda item</i>	<i>Language</i>	<i>Title</i>	<i>Follow-up</i>
25- Rev.1	OICA	14	E	Tyre performance study	(c)
26	ISO	5 (b)	E	Measurement variations	(a)

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*Notes:*

- (a) Consideration completed or superseded.
- (b) Continue consideration at the next session with an official symbol.
- (c) Continue consideration at the next session as an informal document.
- (d) Adopted and to be submitted to WP.29.

## Annex II

### Adopted amendments to UN Regulation No. 138 (based on GRB-69-06)

Paragraph 1., add a new footnote 3 to read:

“1. Scope

This Regulation applies to electrified vehicles of categories M and N<sup>1</sup> which can be propelled in the normal mode, in reverse or at least one forward drive gear, without an internal combustion engine operating<sup>2</sup> in respect to their audibility<sup>3</sup>.

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<sup>3</sup> See paragraph 5.1.1. for more detailed specifications on the application.”

Add a new paragraph 5.1.1. to read:

“5.1.1. In case of hybrid vehicles, equipped with an internal combustion engine: if the manufacturer can demonstrate to the Type Approval Authority that the vehicle cannot be assessed according to the provisions of the Regulation because the internal combustion engine used for direct propulsion will be operational during the specified tests within this regulation, this Regulation shall be deemed not applicable to this vehicle.”

Paragraph 6.2., amend to read:

“6.2. Acoustics characteristics

The sound emitted by the vehicle type submitted for approval shall be measured by the methods described in Annex 3 to this Regulation. ~~The speed range for operation is the range of greater than 0 km/h up to and inclusive 20 km/h.~~

**The specifications of this Regulation are applicable for the speed range of greater than 0 km/h up to and inclusive 20 km/h. Operation of an AVAS is permitted at vehicle speeds outside the specification range. AVAS may be operational independent of the operation of an internal combustion engine inside or outside of the specified operation range.**

If the vehicle that is not equipped with an AVAS fulfils the overall levels as specified in Table 2 below with a margin of +3 dB(A), the specification for one-third octave bands and the frequency shift do not apply.”

Add a new paragraph 6.2.6. to read:

“6.2.6. AVAS Sound Level Variation

**If fitted, an AVAS may operate at different sound levels either automatically managed by the control unit or manually selected by the driver, each selected sound level shall be in compliance with the specifications outlined in paragraphs 6.2.1. to 6.2.3. and paragraphs 6.2.8. and 6.2.9.”**

Paragraphs 6.2.6. (former) to 6.2.8., renumber as 6.2.7. to 6.2.9. accordingly.

Annex 3, paragraph 2.2., amend to read:

“2.2. Meteorological conditions

**2.2.1. For outdoor facilities**

Meteorological conditions are specified to provide a range of normal operating temperatures and to prevent abnormal readings due to extreme environmental conditions.

**The meteorological instrumentation shall deliver data representative for the test site and shall be positioned adjacent to the test area at a height representative of the height of the measuring microphone.**

A value representative of temperature, **wind speed**, relative humidity, and barometric pressure shall be recorded during the measurement interval.

~~The meteorological instrumentation shall deliver data representative for the test site and shall be positioned adjacent to the test area at a height representative of the height of the measuring microphone.~~

The measurements shall be made when the ambient air temperature is within the range from 5 °C to 40 °C.

The ambient temperature may of necessity be restricted to a narrower temperature range such that all key vehicle functionalities that can reduce vehicle noise emissions (e.g. start/stop, hybrid propulsion, battery propulsion, fuel-cell stack operation) are enabled according to manufacturer's specifications.

The tests shall not be carried out if the wind speed, including gusts, at microphone height exceeds 5 m/s, during the measurement interval.

**2.2.2. For indoor facilities**

**Meteorological conditions are specified to provide a range of normal operating temperatures and to prevent abnormal readings due to extreme environmental conditions.**

**The meteorological instrumentation shall deliver data representative for the test site and values of temperature, relative humidity, and barometric pressure shall be recorded during the measurement interval.**

**The measurements shall be made when the ambient air temperature is within the range from 5 °C to 40 °C.**

**The ambient temperature may of necessity be restricted to a narrower temperature range such that all key vehicle functionalities that can reduce vehicle noise emissions (e.g. start/stop, hybrid propulsion, battery propulsion, fuel-cell stack operation) are enabled according to manufacturer's specifications.”**

Appendix to Annex 3 Figure 4, amend to read:

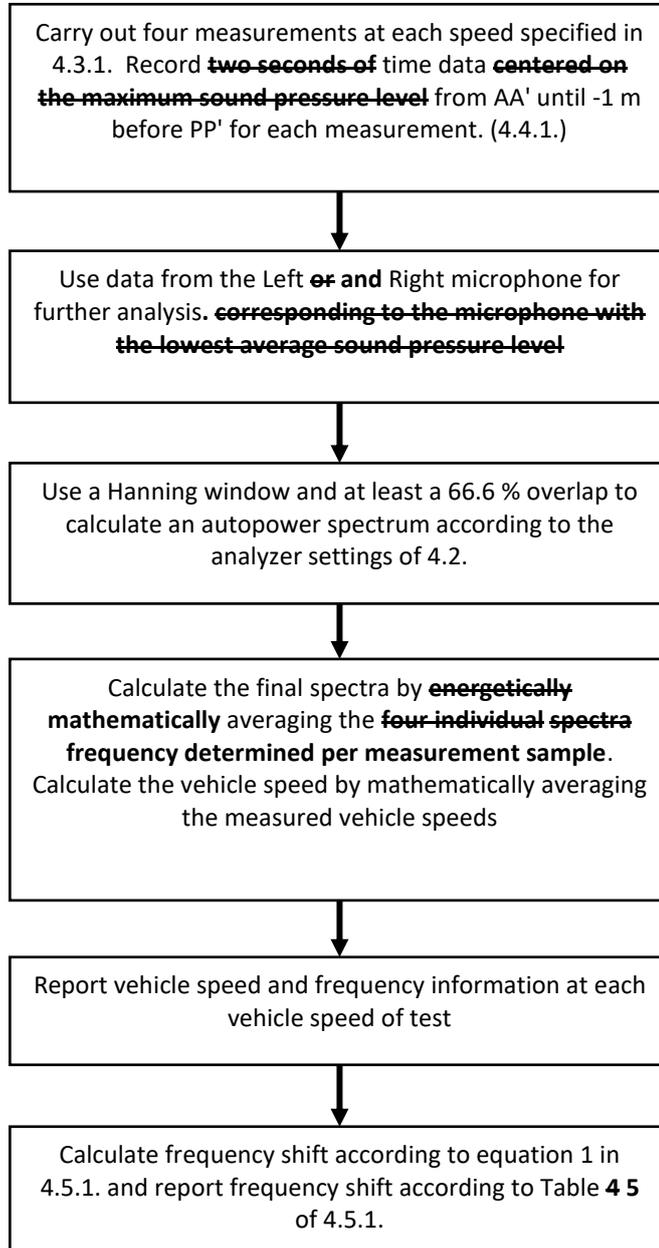
“Figure 4

~~Determination of the range of background noise~~ **Background Noise Parameter”**

Appendix to Annex 3, Figure 7b, amend to read:

“Figure 7b

Test procedures for measurement of frequency shift, Method A

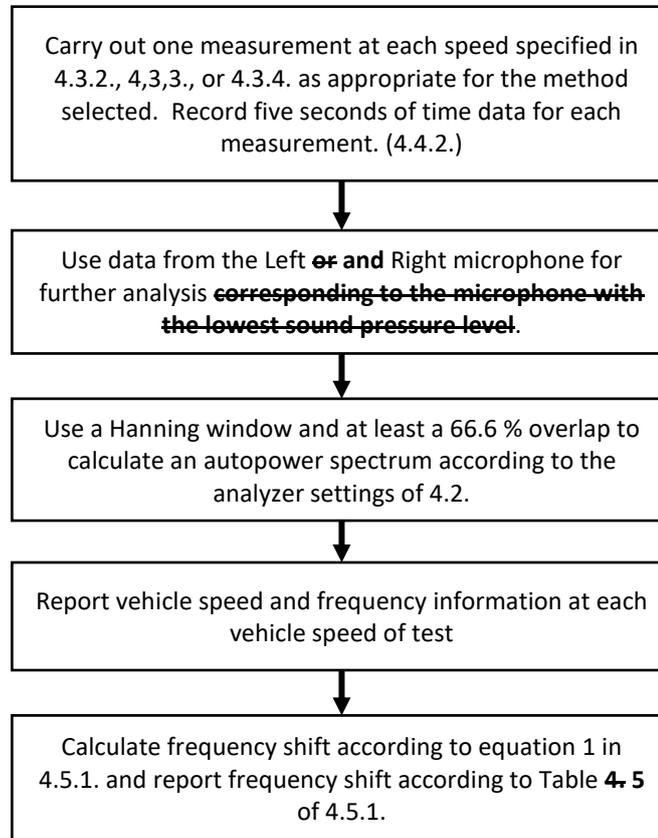


”

Appendix to Annex 3, Figure 7c, amend to read:

“Figure 7c

Test procedures for measurement of frequency shift, Methods B, C, D, and E



## Annex III

### Adopted amendments to ECE/TRANS/WP.29/GRB/2019/5 (based on GRB-69-11-Rev.1)

*Paragraph 2.10. (new)*, delete "structure".

*Paragraph 2.11. (new)*, delete.

*Paragraphs 2.12. to 2.44. (new) and their subparagraphs*, renumber as 2.11. to 2.43., respectively.

*Paragraph 2.18.1. (new)*, renumber as 2.17.1 and replace 3.1.10. with 2.26.1.

*Paragraph 2.25.6. (new)*, renumber as 2.24.6. and amend to read:

"2.24.6.      Optionally the letter "P" in front of the nominal section width;"

*Paragraph 2.44. (new)*, renumber as 2.43. and amend to read:

"2.43.          "Deflected section height" is the difference between the deflected radius, measured from the centre of the rim to the surface of the drum, and one half of the nominal rim diameter as defined in paragraph 2.25. of this Regulation."

*Paragraph 3.1.5.1.*, amend to read:

"3.1.5.1.      On tyres suitable for speeds in excess of 300 km/h, in addition to what is already defined in 2.25.3.4., the tyre shall be marked with a service description consisting of the speed symbol "Y" and the corresponding load index. The service description shall be marked within brackets, for example, "(95Y)"."

*Paragraph 3.1.11. (former)*, renumber as 3.1.10.

*Paragraph 3.1.11. (new)*, replace 2.25.7. with 2.24.7. and replace 2.25.4. with 2.24.4.

*Paragraph 3.4.1.*, replace 3.1.10. with 2.26.1.

*Paragraph 4.1.14.*, amend to read:

"4.1.14.      The factor x referred to in paragraph 2.27. above."

*Paragraph 6.1.1.3.*, replace 3.1.10. with 2.26.1.

*Paragraph 6.1.2.3.*, replace 3.1.10. with 2.26.1.

*Paragraph 6.1.4.2.4.*, replace 3.1.10. with 2.26.1.

*Paragraph 6.1.5.1.*, replace 3.1.10. with 2.26.1.

*Annex 3,*

*Paragraph 2.*, replace 2.25.3. with 2.24.3.

*Paragraph 3.*, amend to read:

"3.            The positioning and order of the markings constituting the tyre designation shall be the following:

- (a) the size designation as defined in paragraph 2.24. of this Regulation shall be grouped as shown in the above examples: 185/70 R 14, P185/70 R 14, T185/70 R 14 and 185-560 R 400A or 185-560 R 400U;

- (b) the service description comprising the load index and the speed symbol shall be placed immediately after the tyre size designation as defined in paragraph 2.24. of this Regulation;
- (c) The symbols "TUBELESS", "REINFORCED", "M + S" and "ET" and "POR" may be at a distance from the size-designation."

*Annex 7,*

*Paragraph 2.2.2.,* replace 2.37.2. with 2.39.2.

*Paragraph 2.2.3.,* replace 2.37.3. with 2.39.3.

*Paragraph 2.2.4.,* replace 2.37.4. with 2.39.4.

*Paragraph 2.5.2.,* replace 2.34.1. with 2.36.1.

## Annex IV

### **Adopted amendments to ECE/TRANS/WP.29/GRB/2019/7 (based on GRB-69-24-Rev.1)**

*Insert a new paragraph 12. to read:*

#### **“12. Transitional provisions**

- 12.1. As from the official date of entry into force of Supplement 18 to the original series of amendments to this Regulation, no Contracting Party applying this Regulation shall refuse to grant or refuse to accept type approvals according to Supplement XX to the original version of this Regulation.”**
- 12.2. As from 1 September 2020, no Contracting Party applying this Regulation shall grant type approvals according to the original version of this Regulation if the tyre to be approved does not meet the provisions of Supplement 18.**
- 12.3. For tyres first type approved before 31 August 2020, Contracting Parties applying this Regulation can continue to grant extensions of type approvals without taking into account the provisions of Supplement 18.”**

## Annex V

### Terms of Reference of the Informal Working Group on Wet Grip Performance for Tyres in a Worn State (IWG WGWT)

#### A. Introduction

1. At the sixty-ninth session of GRB, it was pointed out that the wet grip performance of tyres decreases with tyre wear, so the current testing (performed on new tyres) does not represent the worst-case situation. The process of adapting the requirements on tyres should continue, in particular to ensure that tyre performance is also assessed, if relevant, at the end of a tyre's life (in worn state) and to promote the idea that tyres should meet the requirements throughout their life and not be replaced prematurely. UN Regulation No 117 now contains detailed provisions on noise, rolling resistance and wet grip performance of tyres that can be amended to take into account some other prescriptions.
2. It is proposed to create, starting in 2019, an informal working group to define prescriptions for wet grip performance of tyres in worn state (IWG WGWT).
3. This proposal establishes the Terms of Reference for the IWG WGWT.
4. The aim of the group is to propose an amendment to UN Regulation No. 117 under the 1958 Agreement.

#### B. Objectives

5. The scope and purpose are based on ECE/TRANS/WP.29/GRB/2019/6 and informal document GRB-69-23 submitted by France.
6. The future amendment to UN Regulation No. 117 will apply to new pneumatic tyres of class C1.
7. IWG WGWT shall:
  - Consider the scope and elaborate the target
  - Evaluate the method for preparing a tyre to be tested in worn state
  - Define the test conditions
  - Describe the test methods
  - Define the thresholds
8. IWG WGWT shall work in the framework of the 1958 Agreement and shall report to GRB.

#### C. Rules of Procedure

9. IWG WGWT shall be open to all participants of GRB.
10. IWG shall be chaired by France. ETRTO shall act as Secretary.
11. The working language will be English.
12. All documents and/or proposals must be submitted to the Secretary of IWG in a suitable electronic format at least one week before a scheduled meeting.

13. An agenda and the latest draft document will be circulated to all members of IWG in advance of all scheduled meetings.

14. All IWG documentation will be made available on the dedicated ECE website.

#### **D. Timeline**

15. IWG shall aim to present a working document for adoption at seventy-third session of GRB in January 2021. IWG shall present a progress report, including already achieved results, at the seventy-first session of GRB in January 2020 and a comprehensive proposal at the seventy-second session of GRB in September 2020.

16. The first IWG meeting is planned to be held in April 2019. The exact date and location are to be determined.

## Annex VI

## GRB informal groups

<i>Informal group</i>	<i>Chair(s) and Co-Chair(s)</i>	<i>Secretary</i>	<i>Expiry date of the mandate</i>
Quiet road transport vehicles (QRTV) for GTR	Mr. Ezana Wondimneh (USA) Tel: +1 202 366 21 17 Email: Ezana.wondimneh@dot.gov Mr. Ichiro Sakamoto (Japan) Tel:+81 422 41 66 18 Fax:+81 422 76 86 04 Email: i-saka@ntsel.go.jp	Mr. Andreas Vosinis (Directorate General Growth, European Commission) Tel:+ 32 2 2992116 Email: andreas.vosinis@ec.europa.eu	December 2018
Additional sound emission provisions (ASEP)	Mr. Bernd Schüttler (Germany) Phone: +49 228 99300 4372 Fax: +49 228 99300807 4372 Email: bernd.schuetzler@bmvi.bund.de Mr. Dongming Xie (China) Phone: +86 22 843 79284 Fax: +86 22 84379259 Email: xiedongming@catarc.ac.cn Mr. Kazuhiro Okamoto (Japan) Phone: +81 422 41 3227 Fax: +81 422 41 3232 Email: k-okamot@shinsa.ntsel.go.jp	Ms. Françoise Silvani (OICA) Tel: +33 1 76 85 05 92 Fax: +33 1 76 86 92 89 Email: francoise.silvani@renault.com	September 2020
Wet grip performance for tyres in worn state (WGWT)	Mrs. Elodie Collot (France) Phone: +33 169 80 17 43 Fax: + 33 1 69 80 17 17 Email: elodie.collot@utacceram.com Mr. Andreas Vosinis (Directorate General Growth, European Commission) Tel:+ 32 2 299 21 16 Email: andreas.vosinis@ec.europa.eu	Mr. Nicolas de Mahieu (ETRTO) Phone: +32 23 44 40 59 Email: info@etrto.org	September 2020