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Working Party on Noise

Sixty-second session

Geneva, 1-3 September 2015

Report of the Working Party on Noise on its sixty-second session

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I. Attendance

1. The Working Party on Noise (GRB) held its sixty-second session from 1 to 3 September 2015 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, Amend. 1 and Amend. 2): Austria; Belgium; China; France; Germany; Hungary; India; Italy; Japan; Netherlands; Norway; Poland; Russian Federation; Spain; Sweden; Switzerland; United Kingdom of Great Britain and Northern Ireland and the United States of America. An expert from the European Commission (EC) participated. Experts from the following non-governmental organizations also participated: International Council of Academies of Engineering and Technological Sciences, Inc. (CAETS); European Tyre and Rim Technical Organisation (ETRTO); International Motorcycle Manufacturers Association (IMMA); International Organization for Standardization (ISO); International Organization of Motor Vehicle Manufacturers (OICA) and World Blind Union (WBU).

II. Adoption of the agenda (agenda item 1)

Documentation: ECE/TRANS/WP.29/GRB/2015/6

2. GRB considered and adopted the agenda.

III. Regulation No. 28 (Audible warning devices) (agenda item 2)

Documentation: ECE/TRANS/WP.29/GRB/2015/7, Informal documents GRB-62-18, GRB-62-20 and GRB-62-21-Rev.1

3. The expert from the Russian Federation introduced an updated text of Regulation No. 28, with the aim to align its provisions with the current rulemaking practice. (ECE/TRANS/WP.29/GRB/2015/7). This proposal received comments from the experts of France, India and OICA (GRB-62-20, GRB-62-18 and GRB-62-21-Rev.1, respectively). In particular, the expert from France proposed to include a modular approach to permit the introduction of other audible signals. GRB invited the expert from the Russian Federation to take these comments into account and to submit a revised document for consideration at the next session.

IV. Regulation No. 41 (Noise of motorcycles): Development (agenda item 3)

Documentation: ECE/TRANS/WP.29/GRB/2015/8, ECE/TRANS/WP.29/GRB/54, Informal documents GRB-62-05 and GRB-62-15

4. The expert from IMMA proposed to amend paragraph 8.2. of Regulation No. 41 on the conformity of production (ECE/TRANS/WP.29/GRB/2015/8), thus formalizing the interpretation agreed upon at the fifty-sixth session of GRB (ECE/TRANS/WP.29/GRB/54, para. 5). GRB adopted this proposal and requested the secretariat to submit it to the World Forum for Harmonization of Vehicle Regulations (WP.29) and the Administrative Committee (AC.1) for consideration and vote at their March 2016 sessions as a draft Supplement 4 to the 04 series of amendments to Regulation No. 41.

5. The expert from IMMA proposed to correct minor reference errors in Supplement 2 to the 04 series of amendments to Regulation No. 41 (GRB-62-05). GRB adopted this proposal, as contained in Annex II, and requested the secretariat to submit it to WP.29 and AC.1 for consideration and vote at their March 2016 sessions.

6. The expert from IMMA also proposed to extend, until 1 January 2018, the 1 dB(A) allowance for motorcycles tested in the second gear (GRB-62-15). Taking into account interventions of the experts from Germany and EC, GRB did not support this proposal.

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

A. Development

Documentation: ECE/TRANS/WP.29/2015/62, Informal document GRB-62-19-Rev.1

7. GRB noted that WP.29 and AC.1, at their June 2015 sessions, had adopted the consolidated proposal for the 03 series of amendments to Regulation No. 51 (ECE/TRANS/WP.29/2015/62).

8. The expert from OICA proposed to clarify the wording of Annex 3, paragraph 3.1.3. (GRB-62-19-Rev.1). GRB adopted this proposal, as contained in Annex III, and requested the secretariat to submit it to WP.29 and AC.1 for consideration and vote at their March 2016 sessions as a draft Supplement 1 to the 03 series of amendments to Regulation No.51.

B. Additional sound emission provisions

9. No new information was reported under this item.

VI. Regulation No. 59 (Replacement silencing systems) (agenda item 5)

10. No proposals were considered under this item.

VII. Regulation No. 92 (Replacement exhaust silencing systems for motorcycles) (agenda item 6)

11. No new information was reported under this agenda item.

VIII. Regulation No. 117 (Tyre rolling resistance, rolling noise and wet grip) (agenda item 7)

Documentation: ECE/TRANS/WP.29/GRRF/2015/27,
ECE/TRANS/WP.29/GRRF/2015/32,
Informal documents GRB-62-09 and Add.1, GRB-62-11 and Add.1,
GRB-62-17

12. The expert from the Netherlands presented a study (GRB-62-09 and Add.1) on noise emission from the Original Equipment Manufacturer (OEM) tyres of a specific size

which were found to be around 1 dB(A) lower than the one from replacement tyres of the same size. The expert, thus, proposed to further reduce the limit values for OEM tyres in the 02 series of amendments to Regulation No. 117 (GRB-62-11 and Add.1).

13. The expert from Switzerland expressed his support for the general direction of the Dutch proposal. The experts from Germany and EC were of the view that, at this stage, it would be premature to tighten the tyre noise limits of Regulation No. 117. The expert from France called for a holistic approach to this issue. The experts from ETRTO and OICA expressed doubts about the representativeness of the tyre sample used in the Dutch study. The expert from ETRTO also delivered comments on the proposal for amendments to Regulation No. 117 (GRB-62-17). Finally, GRB invited all experts to further study the Dutch proposal and decided to revert to this issue at the next session.

14. The expert from ETRTO introduced ECE/TRANS/WP.29/GRRF/2015/27 and ECE/TRANS/WP.29/GRRF/2015/32 which would be considered at the forthcoming session of the Working Party on Brakes and Running Gear (GRRF) (15-18 September 2015). GRB experts were invited to review these documents and to provide their colleagues in GRRF with comments, if any.

IX. Collective amendments (agenda item 8)

Documentation: Informal document GRB-62-06-Rev.1

15. The expert from IMMA proposed collective amendments to Regulations Nos. 9, 41, 63 and 92 to clarify that the provisions on fibrous materials are only applicable if such materials are in contact with exhaust gases (GRB-62-06-Rev.1). Following comments by the experts from Germany and OICA, GRB invited IMMA to revise the proposal and re-submit it to the next session, possibly as an official document.

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

Documentation: Informal documents GRB-62-01 and Add.1, GRB-62-02-Rev.1, GRB-62-07, GRB-62-10, GRB-62-12, GRB-62-13-Rev.1, GRB-62-14 and Add.1

16. The expert from China briefed GRB on the activities of the China vehicle noise standards working group (GRB-62-10). The experts from Japan informed GRB about the trends of noise regulation in Japan and gave an overview of the future policy for motor vehicle noise reduction (GRB-62-13-Rev.1 and GRB-62-12, respectively). The expert of ISO reported on the activities of his organization on interior noise, with the aim to review ISO 5128 (GRB-62-07). GRB took note of these presentations and felt that some of the issues raised could be included in the programme of work of GRB (see para. 27 below).

17. The expert from the Netherlands presented a policy indicator for road traffic noise emissions (GRB-62-14 and Add.1) that determines the effect of noise control at source on average noise levels at the dwelling facade and on estimated numbers of annoyed and sleep disturbed people. According to the expert, the indicator had been calculated for the Netherlands, showing a potential reduction of up to 50 per cent in annoyed and sleep disturbed people, if tighter limits for vehicles and tyres were introduced and road surfaces were improved. He also suggested that the policy indicator be applied for the whole EU. The experts from ETRTO and OICA commented on the proposed concept. The Chair proposed to continue the discussion in the future, taking into account comments from the industry.

18. The expert from the Netherlands briefed GRB on the Dutch public campaign "Choose the Best Tyre" and on potential benefits of energy-efficient tyres and correct tyre pressure maintenance (GRB-62-01 and Add.1, GRB-62-02-Rev.1). The Chair recalled other Dutch studies on this topic and commended the experts from the Netherlands for the considerable work undertaken and interesting results. He also called for a holistic approach and closer cooperation between the governments and industry in this area.

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

Documentation: Informal document GRB-62-23

19. The expert from the Belgian Road Research Centre (BRCC) presented a new solution for noise reducing pavements, namely the poro-elastic road surface which provides for extreme noise reduction in a range from 7 to 12 dB(A) (GRB-62-23). GRB thanked BRCC for this presentation and looked forward to further studies and presentations on the issue.

XII. Quiet road transport vehicles (agenda item 11)

Documentation: ECE/TRANS/WP.29/GRB/2015/9, Informal documents GRB-62-03, GRB-62-16 and GRB-62-22

20. The experts from France and Germany, in their capacity of Co-chairs of the Informal Working Group (IWG) on a Quiet Road Transport Vehicles (QRTV) Regulation under 1958 Agreement, presented a draft QRTV Regulation (ECE/TRANS/WP.29/GRB/2015/9 and GRB-62-22).

21. The expert from WBU called for shared responsibility of drivers and vulnerable road users for road safety and requested that the Audible Vehicle Alert System (AVAS) of QRTV be "ON" while the vehicle is stationary and that the driver should not be able to deactivate (or pause) AVAS (GRB-62-03). He also referred to a study (GRB-62-16) suggesting that the proposed AVAS level of sound did not seem to make QRTV with AVAS more detectable to the average blind person than was QRTV without AVAS. According to the study, more research would be needed to determine a minimal noise level that would satisfy the desire to reduce noise emissions while remaining safe for pedestrians.

22. GRB recalled that AVAS provisions had been recently adopted in the European Union and were scheduled to be announced in the United States of America in November 2015. Therefore, GRB stressed the urgent need for a QRTV Regulation and decided to adopt ECE/TRANS/WP.29/GRB/2015/9, subject to minor editorial corrections. The secretariat was requested to submit it to WP.29 and AC.1 for consideration and vote at their March 2016 sessions. At the same time, GRB was of the view that the concerns raised by WBU should be studied further, also bearing in mind recent technologies that improve road safety. To address these issues, GRB agreed that the mandates of both IWG QRTV for a Regulation and IWG QRTV for a GTR should be extended and requested the Chair to seek the WP.29 consent.

XIII. Acronyms and abbreviations in Regulations under the responsibility of the Working Party on Noise (GRB) (agenda item 12)

Documentation: Informal documents WP.29-165-16 and WP.29-165-17

23. GRB noted that WP.29, at its March 2015 session, had considered a list of acronyms and abbreviations used in Regulations (WP.29-165-17) and noted that the acronym RESS "Replacement Exhaust Silencing System" is used in Regulation No. 92. However, RESS is widely used as "Rechargeable Energy Storage System", for example, in Regulations Nos. 10, 12, 94, 95 and 100. For this reason, WP.29 had requested GRB to introduce, in the medium term, an alternative acronym for "Replacement Exhaust Silencing System" in Regulation No. 92 (WP.29-165-16). GRB invited experts and, in particular, IMMA to study this issue and decided to revert to it at the next session.

XIV. Proposal for amendments to the Consolidated Resolution on the Construction of Vehicles (agenda item 13)

24. No proposals were introduced under this item.

XV. Development of the International Whole Vehicle Type Approval (IWVTA) system and involvement of the Working Parties (GRs) in it (agenda item 14)

Documentation: Informal document GRB-62-24

25. The secretariat informed GRB about the recent activities of the Subgroup on UN Regulation No. 0, in particular, about its proposal to introduce a new concept of "IWVTA vehicle type" which would group vehicles of a given type and with the same level of conformity.

XVI. Highlights of the March and June sessions of WP.29 (agenda item 15)

Documentation: ECE/TRANS/WP.29/1114, ECE/TRANS/WP.29/1116,
Informal document GRB-62-04

26. The secretariat reported on the highlights of the 165th and 166th sessions of WP.29 (ECE/TRANS/WP.29/1114, ECE/TRANS/WP.29/1116, GRB-62-04).

XVII. Exchange of views regarding the future work of GRB (agenda item 16)

Documentation: Informal document GRB-62-08

27. The Chair presented a list of possible issues for the future GRB activities prepared at an informal meeting convened by the Chair in July 2015 (GRB-62-08). Various experts expressed their interest in pursuing specific items on the list and/or proposed new subjects. To take these comments into account and to prepare an updated and prioritized list, the Chair informed GRB about his intention to convene a second meeting of stakeholders at the

beginning of December 2015, the results of which would be reported to the next session of GRB.

XVIII. Other business (agenda item 17)

28. GRB was informed that Mr. Georges Dimitri (ETRTO) would retire and no longer attend its sessions. GRB thanked him for his contributions and wished him a happy retirement.

29. GRB took note that Mr. Masahito Yamashita (Japan) would no longer attend its sessions. GRB thanked him for his contributions and wished him success in his future career.

XIX. Provisional agenda for the sixty-third session (agenda item 18)

30. For its sixty-third session, scheduled to be held in Geneva from 16 (starting at 2.30 p.m.) to 18 (concluding at 5.30 p.m.) February 2016, GRB noted that the deadline for the submission of official documents to the secretariat would be 23 November 2015, twelve weeks prior to the session. The following provisional agenda was adopted:

1. Adoption of the agenda.
2. Regulation No. 28 (Audible warning devices).
3. Regulation No. 41 (Noise of motorcycles): Development.
4. Regulation No. 51 (Noise of M and N categories of vehicles):
 - (a) Development;
 - (b) Additional sound emission provisions.
5. Regulation No. 59 (Replacement silencing systems).
6. Regulation No. 92 (Replacement exhaust silencing systems for motorcycles).
7. Regulation No. 117 (Tyre rolling noise and wet grip adhesion).
8. Collective amendments.
9. Exchange of information on national and international requirements on noise levels.
10. Influence of road surface on tyre rolling sound emissions.
11. Quiet road transport vehicles.
12. Acronyms and abbreviations in Regulations under the responsibility of GRB.
13. Proposal for amendments to the Consolidated Resolution on the Construction of Vehicles.
14. Development of the International Whole Vehicle Type Approval (IWVTA) system and involvement of the Working Parties (GRs) in it.
15. Highlights of the November 2015 session of WP.29.
16. Exchange of views regarding the future work of GRB.
17. Other business.

18. Provisional agenda for the sixty-fourth session.

XX. Election of officers (agenda item 19)

31. In compliance with Rule 37 of the Rules of Procedure (TRANS/WP.29/690 and ECE/TRANS/WP.29/690/Amend.1), GRB called for the election of officers. The representatives of the Contracting Parties, present and voting, elected unanimously Mr. Serge Ficheux (France) as Chair and Mr. Andrei Bocharov (Russian Federation) as Vice-Chair for the sessions of GRB scheduled for the year 2016.

Annex I

List of informal documents (GRB-62-...) 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	Netherlands	9	E	Potential benefits of Triple-A tyres in Rotterdam city	(c)
1-Add.1	Netherlands	9	E	Dutch Campaign "Choose the Best Tyre"	(c)
2-Rev.1	Netherlands	9	E	Potential benefits of energy-efficient tyres and correct tyre pressure maintenance for the vehicle fleet of the Dutch National Road Authority (RWS), the municipal fleet of Amsterdam and the municipal fleet of Rotterdam	(c)
3	WBU	11	E	Statement on the draft QRTV Regulation	(a)
4	Secretariat	15	E	General information and WP.29 highlights	(a)
5	IMMA	3	E	Proposal to correct Supplement 2 to the 04 series of amendments to Regulation No. 41	(d)
6-Rev.1	IMMA	8	E	Proposals to clarify the provisions in Regulations Nos. 9, 41, 63 and 92	(b)
7	ISO	9	E	ISO Activity on Interior Noise (ISO 5128)	(a)
8	Chair	16	E	GRB subjects for the future	(c)
9	Netherlands	7	E	Statistics of tyre noise label values in Original Equipment Manufacturer (OEM) tyres	(c)
9-Add.1	Netherlands	7	E	Statistics of tyre noise label values in OEM tyres (presentation)	(c)
10	China	9	E	Plans for the China vehicle noise standards working group	(a)
11	Netherlands	7	E	Proposal for amendments to the 02 series of amendments to Regulation No. 117	(c)
11-Add.1	Netherlands	7	E	Proposal for amendments to the 02 series of amendments to Regulation No. 117 (presentation)	(c)
12	Japan	9	E	Overview of the "Future Policy for Motor Vehicle Noise Reduction"	(a)
13-Rev.1	Japan	9	E	The trend of noise regulations in Japan	(a)
14	Netherlands	9	E	A Policy Indicator for Road Traffic Noise Emission	(c)
14-Add.1	Netherlands	9	E	A Policy Indicator for Road Traffic Noise Emission (presentation)	(c)
15	IMMA	3	E	Proposal for a supplement to Regulation No. 41	(a)
16	WBU	11	E	Quiet car research	(a)
17	ETRTO	7	E	Comments on GRB-61-03	(a)

<i>Symbol</i>	<i>Transmitted by</i>	<i>Agenda item</i>	<i>Language</i>	<i>Title</i>	<i>Follow-up</i>
18	India	2	E	Comments on ECE/TRANS/WP.29/GRB/2015/7	(a)
19- Rev.1	OICA	4 (a)	E	Proposal for amendments to Regulation No. 51	(d)
20	France	2	E	Proposal to correct ECE/TRANS/WP.29/GRB/2015/7	(a)
21- Rev.1	OICA	2	E	Proposal for amendments to ECE/TRANS/WP.29/GRB/2015/07	(a)
22	IWG QRTV	11	E	QRTV for a UN Regulation	(d)
23	BRRC	10	E	Traffic noise: can the poro-elastic road surface help?	(a)
24	Secretariat	14	E	Definition of vehicle type	(a)

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 informal document
- (d) Adopted and to be submitted to WP.29

Annex II

Adopted amendments to the 04 series of amendments to Regulation No. 41

Paragraph 2.13., the table, amend to read:

"

<i>Symbol</i>	<i>Units</i>	<i>Explanation</i>	<i>Reference</i>
...
L	dB(A)	sound pressure level	Annex 3 – 1.4.1.
L _{wot(i)}	dB(A)	L at wot condition	Annex 3 – 1.4.6.
...

"

Annex III

Adopted amendments to the 03 series of amendments to Regulation No. 51

Annex 3, paragraph 3.1.3., amend to read:

"3.1.3. ...

If a sound peak obviously out of character with the general sound pressure level is observed, the measurement shall be discarded. At least four measurements for each test condition shall be made on each side of the vehicle and for each gear ratio. Left and right sides may be measured simultaneously or sequentially. The first four valid consecutive measurement results, within 2 dB(A), allowing for the deletion of non-valid results (see paragraph 2.1.), shall be used for the calculation of the final result for the given side of the vehicle. The results of each side shall be averaged separately and rounded to the first decimal place. All further calculations to derive L_{urban} shall be done separately for the left and right vehicle side. The final value to be reported as the test result mathematically rounded to the nearest integer shall be the higher value of the two sides.

..."

Annex IV

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	<p>Mr. Ezana Wondimneh (USA) Tel: +1 202 366 21 17 E-mail: Ezana.wondimneh@dot.gov</p> <p>Mr. Ichiro Sakamoto (Japan) Tel:+81 422 41 66 18 Fax:+81 422 76 86 04 E-mail: i-saka@ntsel.go.jp</p>	<p>Mr. Andreas Vosinis (Directorate General Growth, European Commission) Tel:+ 32 2 2992116 Email: andreas.vosinis@ec.europa.eu</p>	November 2015
QRTV Regulation under 1958 Agreement	<p>Mr. Bernd Schüttler (Germany) Tel: +49 228 99300 4372 Fax: +49 228 99300807 4372 E-mail: bernd.schuetzler@bmvi.bund.de</p> <p>Mr. Louis-Ferdinand Pardo (France) Tel: +33 1 69 80 17 66 Fax: +33 1 69 80 17 09 E-mail: louis-ferdinand.pardo@utaceram.com</p> <p>Mr. Ichiro Sakamoto (Japan) Tel:+81 422 41 66 18 Fax:+81 422 76 86 04 E-mail: i-saka@ntsel.go.jp</p>	<p>Mr. Hanns-Peter Bietenbeck (OICA) Tel: +49 221 903 24 09 Fax: +49 221 903 25 46 E-mail: hbietenb@ford.com</p>	September 2015