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**ECONOMIC COMMISSION FOR EUROPE**

INLAND TRANSPORT COMMITTEE

World Forum for Harmonization of Vehicle Regulations (WP.29)

Working Party on Noise (GRB)

**REPORT OF THE WORKING PARTY ON NOISE (GRB)  
ON ITS FORTY-FIRST SESSION 1/**

(22 to 24 February 2005)

ATTENDANCE

1. GRB held its forty-first session on 22 to 24 February 2005 in Geneva, under the chairmanship of Mr. D. Meyer (Germany). Experts from the following countries participated in the work following Rule 1(a) of the Rules of Procedure of WP.29 (TRANS/WP.29/690): Czech Republic; France; Germany; Hungary; India; Italy; Japan; Netherlands; Norway; Republic of Korea; Russian Federation; Slovakia; Spain; Sweden; Switzerland; United Kingdom; United States of America. Representatives of the European Commission (EC) participated. Experts from the following non-governmental organizations also participated: International Organization for Standardization (ISO); International Organization of Motor Vehicle Manufacturers (OICA); International Motorcycle Manufacturers Association (IMMA); European Association of Automobile Suppliers (CLEPA); European Tyre and Rim Technical Organization (ETRTO); Federation of European Motorcyclists' Associations (FEMA); Specialty Equipment Market Association (SEMA).

2. The documents without a symbol distributed during the session are listed in the annex to this report.

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1/ Following GRB's agreement, an informal meeting was held after the proper GRB session (para. 3 below).

3. The second informal meeting of the GRB working group on the development of an improved noise measurement method for motorcycles was held on 25 February 2005 (after the proper GRB session), under the Chairmanship of Mr. A. Erario (Italy). Experts from the following countries and organizations participated in the work: France; Germany; Italy; Japan; Netherlands; Norway; United Kingdom; United States of America. A representative of the European Commission (EC) participated. Experts from the following non-governmental organizations also participated: International Organization for Standardization (ISO); International Organization of Motor Vehicle Manufacturers (OICA); International Motorcycle Manufacturers Association (IMMA); European Tyre and Rim Technical Organization (ETRTO); Federation of European Motorcyclists' Associations (FEMA) (see paras. 4 and 5 below).

1. 1958 AGREEMENT: AMENDMENTS TO EXISTING UNECE REGULATIONS

1.1. Regulation No. 41 – (Noise of motorcycles)

Documentation: Informal document No. GRB-41-10 of the annex to this report.

4. The expert from Italy, Mr. A. Erario, chairing the informal working group on the development of an improved noise measurement method for motorcycles, informed GRB about the results of the first informal meeting held in Paris on 11 and 12 November 2004. He announced that the informal group would meet after the proper session of GRB, on 25 February 2005 2/. He added that the agenda, working papers and reports of the informal meetings could be consulted on the WP.29/GRB informal group's website address:

<http://www.unece.org/trans/main/wp29/wp29wgs/wp29grb/R41-1st.html>

5. The expert from Germany introduced informal document No. GRB-41-10 and suggested to refer it to the informal group for a detailed consideration, in the case that this document falls under the terms of reference of the informal group. GRB supported this suggestion and agreed to resume consideration of this subject at its next session. The GRB Chairman suggested that the group should meet again, if necessary, prior to the next GRB session (para. 31 below).

1.2. Regulation No. 51 – (Noise of M and N categories of vehicles)

1.2.1. Development

Documentation: TRANS/WP.29/GRB/2005/2; informal documents Nos. GRB-41-5, GRB-41-6, GRB-41-7, GRB-41-11, GRB-41-12, GRB-41-13, GRB-41-14 and GRB-41-18 of the annex to this report.

6. With regard to the elaboration of an improved test method for noise measurement of motor vehicles, the Chairman of the informal working group on Regulation No. 51, Mr. Ch. Theis (Germany), reported on the results of the group's informal meetings held on 1-3 December 2004 (London) and on 24-26 January 2005 (Berlin). He introduced the revised

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2/ The informal group on Regulation No. 41 agreed during its second session to convene again in Rome (Italy), on 26 and 27 April 2005, in conjunction with the informal group on Regulation No. 51, scheduled to be held at the same place on 28 and 29 April 2005.

text of the improved measurement method (TRANS/WP.29/GRB/2005/2) and the latest editorial amendments by the informal group (informal document No. GRB-41-13).

7. The expert from Italy introduced informal document No. GRB-41-11 proposing additional sound emission provisions (ASEP). Recalling its decision of the previous session (TRANS/WP.29/GRB/38, paras. 10 and 11), GRB considered these documents in detail and adopted the text as reproduced in TRANS/WP.29/GRB/2005/2/Rev.1. The expert from the United Kingdom raised his study reservation on the whole new test procedure.

8. The expert from OICA confirmed that the test measurement programme by the automotive industry, Japan and the United States of America on vehicles of different categories had already been completed. He presented a first analysis of the test results of that measurement programme still under evaluation. As the new test method was different and reflected much better the sound emissions of vehicles in real traffic conditions, he showed that no equivalence could be achieved between the current and the new test method. GRB acknowledged that there was no direct correlation between the measurement results of both test methods and that the measurement results were only comparable, but not equivalent. GRB requested the informal group to prepare for the next session a final report on the test measurement programme. The secretariat was requested to make available on the WP.29/GRB website the test results of the measurement programme as well as the reports of the informal working group:

[http://www.unece.org/trans/main/wp29/wp29wgs/wp29grb/R51\\_DB.html](http://www.unece.org/trans/main/wp29/wp29wgs/wp29grb/R51_DB.html)

[http://www.unece.org/trans/main/wp29/wp29wgs/wp29grb/R51\\_minutes.html](http://www.unece.org/trans/main/wp29/wp29wgs/wp29grb/R51_minutes.html)

9. With regard to the elaboration of a proposal for limit values, Mr. Theis informed GRB on the ongoing discussion, within the informal group, on the classification of vehicles and the proposal for three stages of limit values (informal document No. GRB-41-14). Referring to informal document No. GRB-41-5, the expert from the Netherlands presented his standpoint regarding the proposed limit values. The expert from Germany presented informal document No. GRB-41-12 justifying the German proposal for limit values. The expert from Japan raised concerns about the subdivisions of vehicles into sportive and off-road vehicles. In the case that such a subdivision was needed, he preferred to have at the latest stage (stage 3) only one single value for all vehicles of categories M<sub>1</sub>, M<sub>2</sub> and N<sub>1</sub>. The expert from France supported this position and underlined the urgent need for an early adoption of the new test procedure and limit values. GRB recalled its decision to insert into the new requirements not only comparable limit values, but more stringent ones, subject to further consideration and final decision by WP.29. GRB agreed that the informal group should continue to gain experience with the new test method and to elaborate an adequate classification of vehicles as well as a proposal for new limit values.

10. The expert from ETRTO introduced informal document No. GRB-41-18 on the tyre industry's position requesting a feasibility study and a cost-benefit analysis of the new test procedure for vehicle sound emissions. He underlined the crucial need to achieve a balanced compromise between safety benefit and environmental performances.

11. As the new test method was quite different from the current one, the expert from the United States of America questioned if the new provisions on vehicle sound emissions should not be published as a Revision 3 to Regulation No. 51, but as a new Regulation under the 1958 Agreement. Referring to GRB's decision to insert into the new requirements more stringent limit values, he also raised the need for a detailed cost-benefit analysis. He added that such an

analysis would have to be done while developing a gtr on vehicle sound emissions. The expert from the United Kingdom supported these positions.

12. Concluding the discussion, the GRB Chairman stated his intention to seek, at the March 2005 session, WP.29's advice on the need, at the current status of development, of a cost-benefit analysis and if the new provisions could be prepared as a Revision to Regulation No. 51. GRB agreed to resume consideration on the limit values at its next session on the basis of a revised proposal by the informal group.

13. GRB took note of the informal document No GRB-41-6 (presented by the expert from the Netherlands) regarding the prevention of in use degradation of noise properties of vehicles due to the fitting of replacement tyres.

#### 1.2.2. Stationary test for four-wheelers

14. GRB noted that no new document was tabled and agreed to keep this subject on its agenda of the next session in September 2005.

#### 1.3. Regulation No. 59 - (Replacement silencing systems)

Documentation: Informal document No. GRB-41-7 of the annex to this report.

15. The expert from CLEPA recalled GRB's decision to wait for the final adoption of Annex 3 to the new test method for noise measurement of motor vehicles under Regulation No. 51. The expert from the Netherlands introduced informal document No. GRB-41-7 regarding the prevention of in use degradation of noise properties of vehicles due to the fitting of replacement exhaust silencers.

16. GRB recalled its adoption of the provisions of Annex 3 (para. 7 above) and invited CLEPA to prepare an updated document, taking into account the related comments and proposals of the previous GRB sessions as well as informal document No. GRB-41-7.

17. GRB agreed to resume consideration on this subject at its September 2005 session on the basis of a concrete proposal by CLEPA.

#### 2. 1997 AGREEMENT: AMENDMENTS TO RULE No. 1

Documentation: Informal document No. GRB-41-15 of the annex to this report.

18. Recalling the request from the Administrative Committee (AC.4) of the 1997 Agreement (TRANS/WP.29/953, paras. 157-160) to align the provisions of Rule No. 1 with those of European Union Directive 96/96/EC, the secretariat informed GRB about the outcome of the discussion in GRPE during its January 2005 session (informal document No. GRB-41-15).

19. GRB concluded that the current text of the provisions relating to noise emissions by motor vehicles should be maintained. It was agreed to consider an improved text of those provisions at a later stage.

### 3. CONSIDERATION OF SCOPES AND COMMON DEFINITIONS

Documentation: Informal documents Nos. GRB-41-1 and GRB-41-4 of the annex to this report.

20. Referring to informal document No. GRB-41-1 on incoherencies between the definitions in the Consolidated Resolution of the construction of vehicles (R.E.3), the Vienna Convention and UNECE Regulations, the expert from the EC introduced a proposal (informal document No. GRB-41-4) for the clarification of the scopes of Regulations Nos. 28, 41, 51, 59, 63 and 117. GRB welcomed this proposal and agreed on the principle to clarify the scopes of those Regulations. The expert from the EC was invited to verify also the scopes of Regulations Nos. 9 and 92. GRB agreed to resume consideration on this subject at its next session in September 2005 on the basis of an official document by the EC. For that purpose, the GRB experts were requested to submit, as soon as possible, their comments to the expert from the EC (manfred.kohler@cec.eu.int).

### 4. EXCHANGE OF INFORMATION ON NATIONAL AND INTERNATIONAL REQUIREMENTS ON NOISE LEVELS

Documentation: Informal documents Nos. GRB-41-8, GRB-41-16 and GRB-41-17 of the annex to this report.

21. The expert from the Netherlands presented a document concerning the influence of low frequency noise on health and well-being (informal document No. GRB-41-8). He underlined that the nuisance rate of low frequency noise was not related to the ear sensibility, but to other serious health problems. He stated that the main sources of such low frequency noise were mostly heavy-duty vehicles and he volunteered to prepare a more detailed document for the next GRB session.

22. The expert from the Russian Federation introduced informal document No. GRB-41-16 proposing a method for the evaluation of infrasound level at the driver's working place, applied in his country. He confirmed that there were no limit values and that the research project on infrasound in a vehicle compartment was still in progress.

23. GRB welcomed these investigations and confirmed the importance of the effects of low frequencies on human beings. It was agreed to resume consideration of this subject at its September 2005 session on the basis of a new proposal by the Netherlands.

24. GRB followed with interest a study by the expert from India on the correlation of stationary and pass-by noise levels and on the development of noise standards for in-use vehicles (informal document No. GRB-41-17). The expert from ISO confirmed that a revision of standard ISO: 5130 was in progress within the ISO working group. He welcomed the input of expertise from the Indian expert and invited him to take part in that work.

5. OTHER BUSINESS

5.1. Tyre adhesion requirements (wet grip)

25. The secretariat briefed GRB on the status of the work within the GRRF informal working group on wet adhesion. He informed that GRRF had, in principle, agreed on the test method and the wet adhesion index limits. Upon GRRF's request, GRB agreed on the general approach to incorporate these requirements into Regulation No. 117. However, GRRF would continue to take the responsibility of these requirements. GRB was also briefed that the GRRF informal group intended to convene again on Wednesday, 27 April 2005 in Brussels, in order to finalize those requirements as an amendment to Regulation No. 117 and to work on a proposal for a clear and easy identification of the approvals and markings. All interested GRB experts were invited to participate in that informal meeting.

26. Following the discussion on the future application of both parts of Regulation No. 117, the rolling sound and wet adhesion requirements, GRB could not agree on a common position on the optional or mandatory application of both parts of requirements. The Chairman concluded the discussion and announced his intention to inform WP.29 about this subject. GRB agreed to resume consideration on this subject at its next session.

5.2. Rolling sound requirements for retreaded tyres

Documentation: Informal documents Nos. GRB-41-2 and GRB-41-9 of the annex to this report.

27. The secretariat introduced informal documents Nos. GRB-41-2 and GRB-41-9 (tabled by BIPAVÉR) regarding the need to extend the requirements for road rolling noise emissions to retreaded tyres. GRB noted no objection regarding the proposed extension and agreed to consider this subject at its next session in September 2005 on the basis of a concrete proposal by BIPAVÉR as a basis for the elaboration of such requirements. Regarding the suggestion to establish an informal working group on this subject, GRB preferred to postpone the decision for the need of such an informal group to its next session, as well as the decision on the appropriate place to insert such requirements (Regulations Nos. 108 and 109, or Regulation No. 117, or a new Regulation).

5.3. Special informal meeting of the GRPE informal working group on  
World-Wide Harmonized Heavy-duty On-Board Diagnostic system (WWH-OBD)

Documentation: Informal document No. GRB-41-3 of the annex to this report.

28. Recalling the decision by the Executive Committee (AC.3) of the 1998 Global Agreement (TRANS/WP.29/953, para. 148) to develop a gtr with generic WWH-OBD provisions enabling the eventual future extension of the OBD system to other functions, GRB was informed about the decision of GRPE and WP.29 to organize a special meeting with experts from all the Working Parties subsidiary to WP.29, and especially GRSG, GRSP and GRRF. All interested experts were invited to that common informal meeting on generic provisions for OBD systems, which will take place on 30 May 2005 in Geneva (informal document No. GRB-41-3).

5.4. Draft amendments to Regulation No. 117

29. Following the proposal by the expert from Germany to correct footnote 1/ of Annex 4 to Regulation No. 117, GRB agreed on the following amendment:

Annex 4, footnote 1/, correct to read (deletion of the last sentence):

"1/ ISO 10844:1994."

30. The secretariat was requested to submit the adopted text to WP.29 and AC.1, as a proposal for Corrigendum 1 to Regulation No. 117, for consideration during their June 2005 sessions.

6. AGENDA FOR THE FORTY-SECOND SESSION

31. The secretariat proposed the following provisional agenda for the forty-second session of GRB, scheduled to be held in Geneva from 5 (from 9.30h) to 7 (until 17.30h) September 2005 3/:

(a) Informal meeting of the GRB working group on an improved test measurement method for motorcycles

To be held on Monday morning, 5 September 2005, from 9.30h till 12.30h, subject to confirmation by the informal group. The agenda of the meeting will be prepared by the informal group's secretariat and distributed to the members of the group prior to the meeting. Note by the secretariat: This meeting will be held without interpretation.

(b) Forty-second session of the GRB proper

To be held from Monday afternoon 5 (from 14.30h) to 7 (until 17.30h) September 2005:

1. 1958 Agreement: Amendments to existing UNECE Regulations

1.1. Regulation No. 41 – (Noise of motorcycles)

1.1.1. Development

1.2. Regulation No. 51 – (Noise of M and N categories of vehicles)

1.2.1. Development

1.2.2. Stationary test for four-wheelers

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3/ As part of the secretariat's efforts to reduce expenditure, all the official documents as well as the informal documents distributed prior to the session, by mail or placed on the UNECE WP.29 website, will not be available in the conference room for distribution to session participants. Delegates are kindly requested to bring their copies of documents to the meeting.

(The WP.29 website address is: <http://www.unece.org/trans/main/welcwp29.htm> select GRB and find "Working Documents" as well as "Informal Documents").

For the translation of the above-mentioned official documents, delegates can now access the new public Official Document System (ODS) at the website address: <http://documents.un.org>

- 1.3. Regulation No. 59 – (Replacement silencing systems)
2. 1997 Agreement: Amendments to Rule No. 1
3. Consideration of scopes and common definitions
4. Low frequency noise emissions
5. Tyre adhesion requirements (wet grip)
6. Rolling sound requirements for retreaded tyres
7. Exchange of information on national and international requirements on noise levels 4/
8. Election of officers
9. Other business

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4/ Delegations are invited to submit brief written statements on the latest status in national requirements and, if necessary, to supplement this information orally.

AnnexLIST OF INFORMAL DOCUMENTS **GRB-41-...** DISTRIBUTED WITHOUT A SYMBOL DURING THE FORTY-FIRST SESSION OF GRB

No.	Transmitted by	Agenda item	Language	Title	Follow-up
1.	European Commission	3.	E	Incoherencies between the definitions in the Consolidated Resolution of the Construction of Vehicles (R.E.3), the Vienna Convention and UNECE Regulations	(a)
2.	BIPAVER	5.2.	E	Retreaded tyres – Tyre to road rolling sound emissions	(a)
3.	Secretariat	5.3.	E/R	Diesel heavy duty emission related OBD – a module within a more generic gtr	(a)
4.	European Commission	3.	E	Proposal for clarification of the scope of Regulations under the 1958 Agreement covered by GRB	(a)
5.	Netherlands	1.2.1.	E	Proposal for limit values connected to D/ISO proposal for Regulation No. 51	(a)
6.	Netherlands	1.2.1.	E	Prevention of in use degradation of noise properties of vehicles due to the fitting of replacement tyres	(a)
7.	Netherlands	1.2.1. & 1.3.	E	Prevention of in use degradation of noise properties of vehicles due to the fitting of replacement exhaust silencers	(a)
8.	Netherlands	4.	E	Influence of low frequency noise on health and well-being	(a)
9.	BIPAVER	5.2.	E	Retreaded tyres – Tyre to road rolling sound emissions – Further information	(a)
10.	Germany	1.1.	E	Motorcycle noise emissions	(a)
11.	Italy	1.2.1.	E	Proposal for additional sound emission provisions (ASEP) to draft 03 series of amendments to UNECE Regulation No. 51	(a)
12.	Germany	1.2.1.	E	The reasoning of the German proposal for limit values	(a)
13.	Germany	1.2.1.	E	Most recent amendments to TRANS/WP.29/GRB/2005/2	(b)

No.	Transmitted by	Agenda item	Language	Title	Follow-up
14.	Germany	1.2.1.	E	Summary of the presentations of the 11th informal GRB meeting	(a)
15.	Secretariat	2.	E	Amendments to Rule No. 1 of the 1997 Agreement (P.T.I.)	(a)
16.	Russian Federation	4.	E	Method of evaluation of infrasound level at the driver's working place applied in Russian Federation	(a)
17.	India	4.	E	Study on correlation of stationary and pass-by noise levels and development of noise standards for in-use vehicles	(a)
18.	ETRTO	1.2.1	E	ETRTO position on the amendments of UNECE Regulation No. 51-03	(a)

Note:

- (a) Consideration completed or to be superseded
- (b) Adopted and to be inserted in Revision 1 to TRANS/WP.29/GRB/2005/2

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