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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 FORTIETH SESSION**

(23 and 24 September 2004)

ATTENDANCE

1. GRB held its fortieth session on 23 and 24 September 2004 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; Italy; Japan; Netherlands; Norway; Republic of Korea; Russian Federation; Slovakia; Spain; Sweden; Switzerland; 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 Association of Automobile Suppliers (CLEPA); European Tyre and Rim Technical Organization (ETRTO); Specialty Equipment Market Association (SEMA).

2. The documents without a symbol distributed during the session are listed in Annex 1 to this report.

1. 1958 AGREEMENT: AMENDMENTS TO EXISTING UNECE REGULATIONS

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

Documentation: Informal documents Nos. GRB-40-1, GRB-40-9, GRB-40-10 and GRB-40-11 of Annex 1 to this report.

3. The expert from Germany introduced informal document No. GRB-40-1 regarding the difficulties of the local enforcement of the stationary noise test for motorcycles in traffic and during the periodical technical inspection in accordance with the German road traffic registration regulations. The experts from Japan and the United Kingdom welcomed this useful information.

4. GRB followed with interest a presentations by IMMA and ISO concerning the need for updating Regulation No. 41 with regard to improved noise measurement procedures for stationary and accelerating motorcycles (informal document No. GRB-40-10 and GRB-40-11). The expert from ISO stated that the fundamental principles of these new procedures could be based on standard ISO 362.

5. GRB welcomed these presentations and agreed on the need to establish an informal working group in order to develop an improved test method for motorcycles with regard to the sound emissions. GRB also agreed to elaborate, in a first step, a proposal for amendments to Regulation No. 41 (1958 Agreement) and, in a later step, a proposal for a draft global technical regulation (gtr) under the 1998 Agreement. Following the discussion, the expert from IMMA proposed the Terms of Reference for the informal group (informal document No. GRB-40-9). GRB adopted the Terms of Reference as reproduced in Annex 2 to this report.

6. The Chairman stated that he would seek the consent of WP.29 at its November 2004 session for the establishment of the above-mentioned informal working group.

7. GRB supported the Chairman's suggestion to clarify in the near future the chairmanship of the informal group and to inform WP.29 in November 2004 on the final decision. Dr. Nick Rogers (IMMA) volunteered to assure the function of the Secretary of the group. He proposed that the first informal meeting should be held on 11-12 November 2004 in Paris.

8. The Chairman invited GRB to participate at the informal group meetings and to communicate in due time their interest and their proposals of documents to the Secretary of the informal group (nickrogers@immamotorcycles.org).

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

1.2.1. Development

Documentation: TRANS/WP.29/GRB/2002/4/Rev.2; informal documents Nos. GRB-40-4, GRB-40-5, GRB-40-7 and GRB-40-8 of Annex 1 to this report.

9. The expert from Germany, Mr. Ch. Theis, chairing the informal group on the development of a new test method, briefed GRB on the results of the group's informal meetings on 15-17 March in Paris. He introduced TRANS/WP.29/GRB/2002/4/Rev.2 and raised the

group's options for new additional sound emission provisions for M1 and N1 categories of vehicles, outlined in paragraph 6.2.3. and Annex 10 to the document (see also informal documents Nos. GRB-40-4 and GRB-40-5).

10. The expert from the European Commission (EC) underlined the crucial need to finalize, as soon as possible, the new amendments to Regulation No. 51. For that reason, he preferred not to develop, at the present time, a new test procedure for additional sound emission provisions for M1 and N1 categories of vehicles. The expert from Sweden and the United Kingdom supported the EC position, but raised their concerns about the present wording of the requirements in Annex 10 regarding the tasks and responsibilities of the technical services. The expert from the Netherlands questioned that the test method provisions of Annex 3 were not reflecting a well balanced test method with regard to the sound emissions from vehicles in urban driving conditions. He added that the provisions of Annex 3 were only acceptable, if the urban driving conditions were reflected in an appropriate way in Annex 10.

11. Following the discussion, the majority of delegations agreed to support the Chairman's proposal:

- to delete from Annex 10 the alternatives regarding the additional test track provisions and the chassis dynamometer test prescriptions (e.g. deletion of paras. 2.2. to 2.3. in Annex 10);
- to adopt, after the inclusion of the new limit values, the amendments to Regulation No. 51 and to submit the proposal for consideration to WP.29;
- to establish a new informal working group in order to further develop the additional sound emission provisions for M1 and N1 vehicles (Annex 10), taking into account the experiences gained with the new test method.

12. The expert from OICA reported on the status of the test measurement programmes by the automotive industry, Japan and the United States of America on selected vehicles of different vehicle categories. He stated that this test programme was still in progress and would be finalized by the end of October 2004. He added that the final evaluation of the test results was expected in November/December 2004. He concluded that GRB experts should send him an inquiry in the case they would like to have specific outputs of the vehicle noise database other than the traditional ones. The experts from Norway and the Netherlands requested to have access to or to receive a copy of the raw data of the above-mentioned test measurement programmes.

13. GRB agreed that the informal working group should discuss the test results at its informal meetings in November/December 2004, if available, or in January 2005. The informal group was requested to prepare, on the basis of the test results, a proposal for the introduction of new limit values for noise sound emissions, for consideration by GRB at its February 2005 session. It was agreed that these new limit values should not only be equivalent, but more stringent than the existing limit values. The expert from ETRTO reminded GRB that a reduction of the sound limit values for vehicles only on the basis of a reduction of tyres noise emissions would not be an acceptable solution.

14. The expert from the Netherlands presented his standpoint with respect to the new test method jointly elaborated by ISO and Germany (informal document No. GRB-40-7). For a better clarification of the developing background of TRANS/WP.29/GRB/2002/4/Rev.2, he requested information on statistics as well as the principal choices and foundations of the

proposal (informal document No. GRB-40-8). The expert from ISO confirmed that all reports were available for review on the ISO website. GRB confirmed its confidence in the new test method developed.

1.2.2. Stationary test for four-wheelers

Documentation: Informal document No. GRB-40-2 of Annex 1 to this report.

15. The expert from Japan introduced informal document No. GRB-40-2 concerning the measures taken against motor vehicle exhaust noise pollution in Japan. The expert from the United States of America reported on the experience of the procedures in use in his country regarding the stationary and drive-by tests as well as of the enforcement of national regulations on noise emissions by motor vehicles.

16. GRB agreed to resume consideration of this subject at its session in February 2005.

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

17. The expert from CLEPA recalled the decision of GRB during its last session (TRANS/WP.29/GRB/37, paras. 13 and 14) and stated that the elaboration of a consolidated document was still pending, awaiting the final proposal for amendments to Regulation No. 51 and the amending European Union Directive on noise emissions. GRB agreed to resume consideration on this subject at its February 2005 session on the basis of a concrete proposal for draft amendments to Regulation No. 59.

2. 1997 AGREEMENT: AMENDMENTS TO RULE No. 1

18. The secretariat informed GRB about the request from the Administrative Committee (AC.4) of the 1997 Agreement (TRANS/WP.29/953, paras. 157-160) to align, if appropriate, the provisions of Rule No. 1 (uniform provisions for periodical technical inspections of wheeled vehicles with regard to the protection of the environment) with those of European Union Directive 96/96/EC, as amended.

19. The expert from the European Commission briefed GRB about the future accession of the European Community to the 1997 Agreement and confirmed that the provisions regarding noise emissions in the EU Directive were minimal and in alignment with the present provisions of Rule No. 1.

20. The expert from the Netherlands stated that the work on a proposal for amendments to Rule No. 1 regarding the exhaust emissions of vehicles was still in progress in his country. He volunteered to join the GRPE experts working on that subject in order to insert into the same document a proposal for an improvement of the minimal requirements on noise emissions.

21. GRB welcomed that suggestion and agreed to resume consideration on this subject at its February 2005 session on the basis of the combined GRB/GRPE proposal by the Netherlands.

3. 1998 AGREEMENT: CONSIDERATION OF SPECIAL RESOLUTION No. 1

Documentation: TRANS/WP.29/2004/25.

22. Referring to the request of WP.29 (TRANS/WP.29/992, para. 85), the secretariat introduced the draft proposal on common definitions, masses and dimensions (TRANS/WP.29/2004/25). He informed GRB on the decision of the Executive Committee AC.3 that this proposal should be considered in WP.29 and AC.3 at their November sessions as Special Resolution No. 1 (TRANS/WP.29/1016, para. 88). The expert from the United States of America underlined the high importance of that document in the future work of GRB with regard to the future development of global technical regulations (gtrs).

23. GRB agreed that the new definitions in the document were acceptable. The Chairman stated his intention to report that decision to WP.29 and AC.3 at their November 2004 sessions.

24. The expert from the Netherlands stated that in the future development of regulations on noise emissions, the consideration of low frequencies would be very important. He questioned if it would be possible to set up a new definition for low frequencies.

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

Documentation: Informal document No. GRB-40-3 of Annex 1 to this report.

25. GRB followed with interest a presentation by the expert from the Russian Federation concerning the results of a research project on infrasound in a vehicle compartment (informal document No. GRB-40-3). He reported that, even if the audible sound levels in the vehicles were very low, the noise of infrasonic range (up to 20 Hz) had significant levels and, thus, this effect could have a harmful influence on human beings.

26. The experts from the United States of America and the United Kingdom welcomed this investigation and confirmed the importance of the effects of low frequencies on human beings. The expert from OICA reminded GRB to differ strictly between infrasound and low frequencies. He pointed out that noise limits for work places, such as a truck cabin, were existing in all countries on a national basis and requested all GRB experts to verify, for those frequencies, the level of the limits.

27. GRB agreed to insert this item in its agenda and to resume consideration of this subject at its February 2005 session.

5. ELECTION OF OFFICERS

28. Following the announcement by the Secretary on Thursday morning, 9 October 2003, and in compliance with Rule 37 of the Rules of Procedure (TRANS/WP.29/690), GRB called the election of officers on Friday morning. Mr. D. Meyer was re-elected Chairman for the two sessions scheduled for the year 2005, and he thanked the group for its confidence.

6. OTHER BUSINESS

6.1. Proposal by Germany for draft amendments to Regulation No. 92

Documentation: Informal document No. GRB-40-6 of Annex 1 to this report.

29. The expert from Germany introduced informal document No. GRB-40-6 proposing draft amendments to Regulation No. 92 in order to ensure that the replacement silencing systems should fulfil not only the requirements for the noise level, but also those for the emissions of gaseous pollutants laid down in Regulation No. 40. GRB welcomed this proposal and agreed on the following text:

Insert a new paragraph 6.5., to read:

"6.5. Evaluation of the emission of pollutants of vehicles equipped with replacement silencer system

The vehicle referred to in paragraph 3.3.3., equipped with a replacement exhaust silencing system (RESS) of the type for which approval is requested, shall fulfil the pollution requirements of national regulations in force at the time the vehicle was type approved. The results of these tests shall be documented in the test report."

30. The secretariat was requested to submit the adopted text (see para. 29 above) to WP.29 and AC.1, as a proposal for draft Supplement 2 to Regulation No. 92, for consideration during their March 2005 sessions.

6.2. Wet grip requirements for tyres

31. The Chairman of GRRF, Mr. I. Yarnold (United Kingdom), informed GRB about the decision of GRRF to develop wet grip requirements for tyres. For that purpose, an informal working group had been established within GRRF. He reported on the group's intention to finalize, in the near future, the provisions for a new test procedure concerning wet grip (TRANS/WP.29/GRRF/2004/9 and -/21). After the adoption by GRRF of these provisions, the following possibilities were envisaged to insert them into the UNECE Regulations:

- either to amend Regulations Nos. 30 and 54, or
- to establish a new Regulation or
- to incorporate the prescriptions in the new Regulation on rolling sound emissions (which has been adopted by WP.29 and AC.1 during their June 2004 sessions).

Concluding his presentation, he announced that he would propose to WP.29 to resume consideration of this subject at its November 2004 session in order to take a final decision.

32. He requested all GRB experts to study the afore-mentioned possibilities and to inform their WP.29 representatives about the best solution or possible constraints.

6.3. Time-schedule for the forty-first GRB session

33. The secretariat proposed the following provisional agenda for the forty-first session of GRB, scheduled to be held in Geneva from 22 (from 14.30h) to 24 (until 17.30h) February 2005 1/:

AGENDA FOR THE FORTY-FIRST SESSION

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
  - 1.3. Regulation No. 59 – (Replacement silencing systems)
2. 1997 Agreement: Amendments to Rule No. 1
3. Exchange of information on national and international requirements on noise levels 2/
  - 3.1. Infrasound and low frequencies in motor vehicles
4. Other business

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1/ 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").

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

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Annex 1LIST OF INFORMAL DOCUMENTS **GRB-40-...** DISTRIBUTED WITHOUT A SYMBOL DURING THE FORTIETH SESSION OF GRB

No.	Transmitted by	Agenda item	Language	Title	Follow-up
1.	Germany	1.1.	E	Stationary noise test for motorcycles in traffic and during the periodical technical inspection in accordance with § 29 of the German road traffic registration regulation	(a)
2.	Japan	1.2.2.	E	Measures taken against motor vehicle exhaust noise pollution in Japan	(a)
3.	Russian Federation	4.	E/R	Infrasound in a vehicle compartment – Research results achieved in the Russian Federation	(a)
4.	OICA	1.2.1.	E	Proposal for additional sound emission provisions (ASEP) of the draft version of UNECE Regulation No. 51:03	(a)
5.	OICA	1.2.1.	E	Position paper on additional sound emission provisions (ASEP) described in paragraph 6.2.3. and Annex 10 of the draft version of UNECE Regulation No. 51:03	(a)
6.	Germany	6.1.	E	Proposal by Germany for draft amendments to Regulation No. 92	(c)
7.	Netherlands	1.2.1.	E	Netherlands standpoint with respect to D/ISO proposal on Regulation No. 51	(a)
8.	Netherlands	1.2.1.	E	Request for better clarification of the background statistics, principal choices and foundation of the D/ISO proposal for draft amendments of Regulation No. 51	(a)
9.	IMMA	1.1.	E	Terms of reference for the informal GRB group for preparing an amendment to ECE Regulation No. 41	(a)
10.	IMMA	1.1.	E	Updating ECE Regulation No. 41	(a)
11.	ISO	1.1.	E	Improved noise measurement procedures for stationary and accelerating motorcycles	(a)

Note:

(a) Consideration completed or to be superseded



Annex 2

TERMS OF REFERENCE OF THE GRB INFORMAL WORKING GROUP FOR  
PREPARING AN AMENDMENT TO UNECE REGULATION No. 41

Adopted by GRB at its fortieth session (subject to WP.29's consent, see para. 6)

1. The informal group shall prepare a draft amendment to Regulation No. 41 - Noise emissions from L3 vehicles (motorcycles), for consideration by GRB. The target completion date for the informal group shall be the forty-second session of GRB in September 2005.
2. In preparing the draft amendment, the informal group shall base its discussions on the drive-by test procedure developed by ISO; consider appropriate limit values to accompany this new drive-by test procedure, based on comparative testing between the existing and new procedures; and improve the stationary noise test in the light of practical experience with the existing test.
3. The amendment shall also be developed in the light of its future incorporation in the discussions of a global technical regulation (gtr) under the 1998 Agreement.

Rules of Procedure

4. The informal group is open to all participants of GRB. A maximum of three participants from any country and organization shall participate in the informal group.
  5. A Chairman and a Secretary shall govern the informal group.
  6. The official language of the informal group shall be English.
  7. All documents and/or proposals must be submitted to the Secretary of the group in a suitable electronic format at least two weeks in advance of the meeting. The group may refuse to discuss any item or proposal which has not been circulated ten working days in advance.
  8. A draft agenda and related documents shall be circulated to all members of the informal group ten days in advance of all scheduled meetings.
  9. The conclusions of the informal group shall be based on a majority vote of governmental members.
  10. If the informal group cannot reach a common agreement, the proposals shall be presented to GRB, in order to take a decision.
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