



**Economic and Social
Council**

Distr.
GENERAL

ECE/TRANS/WP.29/GRB/47
19 March 2009

Original: ENGLISH

ECONOMIC COMMISSION FOR EUROPE

INLAND TRANSPORT COMMITTEE

World Forum for Harmonization of Vehicle Regulations

Working Party on Noise

**REPORT OF THE WORKING PARTY ON NOISE
ON ITS FORTY-NINTH SESSION
(Geneva, 16-18 February 2009)**

CONTENTS

	<u>Paragraphs</u>	<u>Page</u>
I. ATTENDANCE.....	1	3
II. ADOPTION OF THE AGENDA (Agenda item 1)	2	3
III. REGULATION No. 41 – (NOISE OF MOTORCYCLES) (Agenda item 2).....	3-4	3
IV. REGULATION No. 51 - (NOISE OF M AND N CATEGORIES VEHICLES) (Agenda item 3)		
A. <u>Development</u> (Agenda item 3(a))	5-6	4
B. <u>New sound limit values</u> (Agenda item 3(b))	7-11	4
C. <u>Additional sound emission provisions</u> (ASEP) (Agenda item 3(c)).....	12-14	5
V. REGULATION No. 59 - (REPLACEMENT SILENCING SYSTEMS) (Agenda item 4)	15-17	5

CONTENTS (continued)		<u>Paragraphs</u>	<u>Page</u>
VI.	REGULATION No. 92 - (REPLACEMENT EXHAUST SILENCING SYSTEMS FOR MOTORCYCLES) (Agenda item 5)	18	6
VII.	REGULATION No. 117 - (TYRE ROLLING NOISE AND WET GRIP ADHESION (Agenda item 6)	19-22	6
VIII.	EXCHANGE OF INFORMATION ON NATIONAL AND INTERNATIONAL REQUIREMENTS ON NOISE LEVELS (Agenda item 7)	23-24	7
IX.	INFLUENCE OF ROAD SURFACE ON TYRE ROLLING SOUND EMISSIONS (Agenda item 8).....	25-26	7
X.	COLLECTIVE AMENDMENTS TO REGULATIOND NOS. 41, (NOISE OF MOTORCYCLES), 51 (NOISE OF M AND N CATEGORIES OF VEHICLES) AND 59 (REPLACEMENT SILENCING SYSTEMS) (Agenda item 9)	27-28	7
XI.	OTHER BUSINESS (Agenda item 10)		
	A. <u>Clarifications regarding Regulation No. 28 (Audible warning devices)</u> (Agenda item 10(a))	29-30	7
	B. <u>Minimum sound limit values for silent vehicles</u> (Agenda item 10(b)).....	31-33	8
	C. <u>Environmentally Friendly Vehicles</u> (Agenda item 10(c)).....	34	8
	D. <u>Tribute to Mr. Bries</u>	35	8
XII.	PROVISIONAL AGENDA FOR THE FIFTIETH SESSION	36	8
<u>Annexes</u>			
I.	List of informal documents distributed during the session (GRB-49-...)		10
II.	GRB informal groups.....		11

I. ATTENDANCE

1. The Working Party on Noise (GRB) held its forty-ninth session from 16 (afternoon) to 18 February 2009 in Geneva, under the chairmanship of Mr. Ch. Theis (Germany). Experts from the following countries participated in the work following Rule 1(a) of the Rules of Procedure of the World Forum for Harmonization of Vehicle Regulations (WP.29) (TRANS/WP.29/690 and Amend.1): Czech Republic; France; Germany; Hungary; India; Italy; Japan; Netherlands; Norway; Poland; Republic of Korea; Russian Federation; Slovakia; Spain; Sweden; Switzerland; United States of America. An expert from the European Commission (EC) participated. Experts from the following non-governmental organizations also participated: European Association of Automobile Suppliers (CLEPA); European Tyre and Rim Technical Organization (ETRTO); International Motorcycle Manufacturers Association (IMMA); International Organization for Standardization (ISO); International Organization of Motor Vehicle Manufacturers (OICA). Upon the special invitation of the Chairman, experts from the non-governmental organizations participated: European Tuning Organization (ETO); Fédération Internationale de Motocyclisme (FIM); National Federation of the Blind (NFB) and Specialty Equipment Market Association (SEMA).

II. ADOPTION OF THE AGENDA (Agenda item 1)

Documentation: ECE/TRANS/WP.29/GRB/2009/1

2. GRB considered and adopted the agenda proposed for the forty-ninth session (ECE/TRANS/WP.29/GRB/2009/1). The informal documents distributed during the session are listed in Annex I to this report.

III. REGULATION No. 41 – NOISE OF MOTORCYCLES (Agenda item 2)

Documentation: Informal document No. GRB-49-09

3. The Chairman of the informal group on noise of motorcycles informed GRB that, since September 2008, no further informal meeting had taken place. He added that the next meeting was expected to be held in Geneva, on 23 and 24 April 2009. The Secretary of the informal group presented GRB-49-09 with regard to remaining open issues on noise of motorcycles. He announced the intention of the informal group to resolve the remaining issues at the next meeting and to submit to GRB a final proposal for amendments to Regulation No. 41, for consideration and adoption at the September 2009 session.

4. The expert from Germany said that he was in favour of including the reference information related to drive-by noise enforcement testing on the manufacturer's plate. A large number of GRB experts supported that position. The expert from Italy opposed the suggestion.

**IV. REGULATION No. 51 – NOISE OF M AND N CATEGORIES OF VEHICLES
(Agenda item 3)**

A. Development (Agenda item 3(a))

Documentation: Informal document No. GRB-49-06

5. The expert from ISO introduced GRB-49-06 regarding the stationary noise testing of some vehicles equipped with advanced technologies (e.g. automatic stop and start, hybrid and electric vehicles) in their propulsion systems. He sought the advice of GRB on this issue and suggested exempting such vehicles from stationary noise testing. GRB noted a number of comments and agreed on the need to go forward in a two step approach: (i) a short term solution with derogation for advanced technology vehicles from the stationary noise test requirements and (ii) a long term solution with an in-depth review of the provisions for in-use testing suitable for future technology vehicles.

6. The expert from ISO volunteered to prepare a concrete proposal for the short term solution, for consideration by GRB at its next session in September 2009.

B. New sound limit values (Agenda item 3(b))

7. The expert from EC informed GRB about the ongoing monitoring procedure, confirming that a total of 487 datasets had been received so far for all vehicle categories M and N. He pointed out that 389 datasets had been received for category M₁ vehicles, but only 1 dataset for category M₂ vehicles. In order to ease the evaluation of the monitoring data, he underlined the importance to provide full information and to respect the format indicated on the corresponding website, when type approval authorities were entering their data into the database. With regard to the confidentiality of the datasets, he added that his organization had received a letter from OICA confirming that the monitoring data could be made available to all GRB experts from governments, whether or not they are Contracting Parties to the 1958 Agreement (excluding non-governmental organizations). He invited these experts to express by email (at: wolfgang.schneider@ec.europa.eu) their interest in obtaining these data.

8. GRB welcomed this initiative by the automotive industry. The GRB Chairman questioned the possibility to include into the monitoring database also the former GRB datasets of about 150 vehicles and to start an anticipated discussion on new limit values.

9. The expert from EC agreed to include the former datasets into the monitoring database. For this purpose, the expert from OICA volunteered to reformat the former datasets and to submit them to the European Commission.

10. The expert from EC suggested starting the discussion on limit values for M₁ category vehicles around mid 2009, once the monitoring process for type approvals according to Regulation No. 51 is concluded. With regard to the limit values of vehicle categories other than M₁, the EC expert preferred to wait for additional data as the current sets of data were limited and statistically not representative.

11. GRB endorsed that position and invited the automotive industry, together with the technical services, to provide, if possible, additional test results of vehicle categories other than M₁ in order to complete the database.

C. Additional sound emission provisions (ASEP) (Agenda item 3(c))

Documentation: Informal documents Nos. GRB-49-03 and GRB-49-07

12. The Chairman of the informal group reported on the progress made during the thirteenth and fourteenth meeting of the group held in Paris/France, on 6-7 November 2008 and 28-29 January 2009 (GRB-49-07). He introduced GRB-49-03 proposing draft amendments to Regulation No. 51 in order to incorporate the additional sound emission provisions. He outlined that a number of issues still remained to be resolved. Thus, he reminded that some text of the proposal was still in square brackets and would need further discussion by the informal group at its next meeting, scheduled to be held in Flensburg/Germany, on 14-15 May 2009.

13. Following an in-depth discussion on GRB-49-03, GRB invited the informal group to prepare, for a final decision at the next GRB session, some examples of different boundary conditions for the measuring method, taking into account the different modes. In order to simplify the test procedure, GRB preferred not to include tyre noise compensation, up to the decision by the informal group. The expert from Germany announced that he would provide the informal group with a new proposal for the calculation of the slope of the regression line.

14. Finally, GRB urged the informal group to come up with a final proposal for amendments to Regulation No. 51 on the basis of an official document, and to clearly indicate the possible options.

**V. REGULATION No. 59 – (REPLACEMENT SILENCING SYSTEMS)
(Agenda item 4)**

Documentation: ECE/TRANS/WP.29/GRB/2008/5/Rev.1, Informal documents Nos. GRB-49-04 and GRB-49-08

15. Recalling the discussion at the previous GRB session, the expert from CLEPA introduced a revised proposal (ECE/TRANS/WP.29/GRB/2008/5/Rev.1) for amendments to Regulation No. 59 aiming at aligning the current provisions with the new measurement method of Regulation No. 51. He also presented GRB-49-08 justifying the amendments proposed. GRB considered ECE/TRANS/WP.29/GRB/2008/5/Rev.1 in detail and noted a number of comments.

16. The expert from ETO introduced GRB-49-04 proposing an alternative text for replacement silencing systems or components and aiming at decreasing the burden of the aftermarket industry. GRB acknowledged that the compliance statement should have a higher importance than the test results.

17. Following the discussion, GRB agreed to have, at its next session in September 2009, a final review of the proposal. For this purpose, the expert from CLEPA was invited to prepare a

proposal as new 01 series of amendments to Regulation No. 59 including a proposal for transitional provisions, taking into account the ETO proposal and comments received.

VI. REGULATION No. 92 – REPLACEMENT EXHAUST SILENCING SYSTEMS FOR MOTORCYCLES (Agenda item 5)

18. GRB endorsed the position of the expert from IMMA to wait for the conclusion and adoption of the new draft amendments to Regulation No. 41 (see paras. 3 and 4 above). GRB agreed to keep this item on its agenda of the next session.

VII. REGULATION No. 117 – TYRE ROLLING NOISE AND WET GRIP ADHESION (Agenda item 6)

Documentation: ECE/TRANS/WP.29/GRRF/2008/12, Informal documents Nos. GRB-49-02 and GRB-49-11

19. GRB noted the purpose of ECE/TRANS/WP.29/GRRF/2008/12 and the discussion in WP.29 and GRRF to insert new provisions into Regulation No. 117 (see reports ECE/TRANS/WP.29/GRRF/64, paras. 35-38 and ECE/TRANS/WP.29/1068, para. 35). The proposal was aimed at inserting into the Regulation new provisions to indicate the tyre rolling resistance coefficient in the type approval communication, but in a first step without any limit values. However, the tyre family definition for rolling resistance would nevertheless be different from that used for rolling noise and wet grip adhesion and, therefore, would have to be revised. Furthermore, the title and the scope of Regulation No. 117 would have to be adapted too. GRB also noted the intention by the European Commission to implement, within the European Union, new requirements for the reduction of rolling resistance for new tyre types in 2012.

20. GRB followed with interest a presentation (GRB-49-11) by the expert from the Russian Federation justifying the insertion of the tyre rolling resistance coefficient into the type approval documentation. In this respect, he introduced GRB-49-08 proposing new provisions into Regulation No. 117, taking into account the new standard ISO 28580 aimed at improving the accuracy of the measurement method.

21. GRB agreed on the principle to insert the rolling resistance measures into Regulation No. 117. The Chairman invited the experts from EC to prepare, jointly with the experts from ETRTO, a proposal for amendments to Regulation No. 117 for consideration at the next GRB session on the basis of an official document.

22. GRB noted the intention of the European Commission to develop, by the end of 2010, a new regulation on general safety issues and the need to insert into the UNECE Regulations concerned a definition for "special tyres" (i.e. snow tyres or tyres for off-road use). GRB also noted the discussion of GRRF at its February 2009 session and its suggestion to set up a joint GRRF/GRB informal group on special tyres, subject to the consent by WP.29 at its March 2009 session. A large number of GRB experts expressed their interest to participate in that work.

VIII. EXCHANGE OF INFORMATION ON NATIONAL AND INTERNATIONAL REQUIREMENTS ON NOISE LEVELS (Agenda item 7)

23. The expert from the United States of America welcomed the initiatives by a number of manufacturers of replacement exhaust silencing systems to certify their products according to the United States Environmental Protection Agency regulation and, thus, the benefit of such certified aftermarket parts for the environment.

24. GRB agreed to resume consideration of this subject at the next session of GRB.

IX. INFLUENCE OF ROAD SURFACE ON TYRE ROLLING SOUND EMISSIONS (Agenda item 8)

25. GRB noted that some countries had installed new road paving with new soft nano-engineered surfaces and that such road paving had considerable potential in noise reduction (up to -9 dB(A)).

26. GRB agreed to resume consideration of this subject at the next session of GRB.

X. COLLECTIVE AMENDMENTS TO REGULATIONS NOS. 41 (NOISE OF MOTORCYCLES), 51 (NOISE OF M AND N CATEGORIES OF VEHICLES) AND 59 (REPLACEMENT SILENCING SYSTEMS) (Agenda item 9)

Documentation: Informal document No. GRB-49-12

27. The expert from the Netherlands introduced GRB-49-12 on the different use of the terms "noise", "sound" and "silencer" in UNECE Regulations relating to noise emissions. He volunteered to prepare a concrete proposal to harmonize the use of these wordings.

28. GRB welcomed this initiative and agreed to resume consideration of this subject on the basis of that proposal.

XI. OTHER BUSINESS (Agenda item 10)

A. Clarifications regarding Regulation No. 28 (Audible warning devices) (Agenda item 10(a))

Documentation: Informal document No. GRB-49-05

29. GRB noted with surprise that a number of tests on audible warning devices produced in Europe had been conducted in China and had shown that none of these devices fulfilled the sound pressure requirements of Regulation No. 28. In this respect, GRB noted a proposal by the expert from China to adapt the sound pressure levels of audible warning devices (GRB-49-11). GRB confirmed not having received similar complaints and, therefore, considered that there was no need to revise the requirements of Regulation No. 28.

30. GRB agreed to resume consideration of this subject at its next session on the basis of the informal document.

B. Minimum sound limit values for silent vehicles (Agenda item 10(b))

Documentation: Informal documents Nos. GRB-49-01 and GRB-49-10

31. GRB followed with interest a presentation (GRB-49-10) by the expert from Japan regarding a study on approach warning systems for hybrid vehicles in motor mode. The expert from the United States of America stressed that such advanced technology vehicles would have to generate a sound informing pedestrians not only of the presence of a vehicle, but also of its speed, direction and acceleration or deceleration. Such a sound is important for the orientation especially for visually-impaired pedestrians to enable them to make an intelligent judgement about the location of a vehicle, its driving direction and its speed to avoid danger.

32. On behalf of SAE, the expert from ISO introduced GRB-49-01 regarding on-going safety and sound investigations conducted by SAE. He added that ISO and SAE would cooperate to develop new test procedures and he volunteered to keep GRB informed about the results of their work.

33. The expert from the United States of America was in favour of taking immediate action within GRB instead of waiting for external research results. GRB endorsed his suggestion to set up an informal group on this subject, subject to the consent by WP.29 at its March 2009 session. GRB invited the expert from the United States of America to prepare the draft Terms of Reference of the informal group, for consideration at the next GRB session in September 2009.

C. Environmentally Friendly Vehicles (Agenda item 10(c))

Documentation: Informal documents Nos. WP.29-146-24 and GRPE-57-26

34. GRB recalled the decision by WP.29 (see report ECE/TRANS/WP.29/1064, para. 66) to set up a informal group on Environmentally Friendly Vehicles (EFV) under the Working Party on Pollution and Energy (GRPE) in collaboration with GRB. In this respect, GRB noted informal documents Nos. WP.29-146-24 and GRPE-57-26 regarding the fourth international EFV conference, scheduled to be held in New Delhi (India) on 23-24 November 2009.

D. Tribute to Mr. Bries

35. Learning that Mr. N. Bries (ETRTO) will retire, GRB acknowledged his professional and valuable contributions to GRB activities for the past 12 years and wished him a long and happy retirement.

XII. PROVISIONAL AGENDA FOR THE FIFTIETH SESSION

36. The following provisional agenda was adopted for the fiftieth session of GRB, scheduled to be held in Geneva from 1 (starting at 2.30 p.m.) to 3 (concluding at 5.30 p.m.) September 2009:

1. Adoption of the agenda
2. Regulation No. 41 – (Noise of motorcycles): Development
3. Regulation No. 51 – (Noise of M and N categories of vehicles)
 - (a) Development
 - (b) New limit values
 - (c) Additional sound emission provisions (ASEP)
4. Regulation No. 59 – (Replacement silencing systems)
5. Regulation No. 92 – (Replacement exhaust silencing systems (RESS) for motorcycles)
6. Regulation No. 117 – (Tyre rolling noise and wet grip adhesion)
 - (a) Development
 - (b) Special tyre definition
7. Collective amendments to Regulations Nos. 49, 51 and 59
8. Exchange of information on national and international requirements on noise levels
9. Influence of road surface on tyre rolling sound emissions
10. Minimum sound limit values for silent vehicles
11. Environmentally Friendly Vehicles (EFV)
12. Election of officers
13. Other business
 - (a) Clarifications regarding Regulation No. 28

Annex I

LIST OF INFORMAL DOCUMENTS DISTRIBUTED DURING THE SESSION (GRB-49-...)

No.	Transmitted by	Agenda item	Language	Title	Follow-up
1.	SAE	10(b)	E	SAE safety and sound investigations	(a)
2.	Russian Federation	6	E/R	Proposal for draft Supplement to the 01 series of amendments to Regulation No. 117 regarding manufacturer's information on rolling resistance coefficient	(a)
3.	ASEP	3(c)	E	Draft proposal for changes to the text of TRANS/WP.29/GRB/2005/2/Rev.2 (Regulation No. 51/03) in order to incorporate the Additional Sound Emission Provisions	(a)
4.	ETO	4	E	Proposal for draft amendments to Regulation No. 59	(a)
5.	China	10(a)	E	Proposal for draft amendments to Regulation No. 28 regarding audible warning devices	(b)
6.	ISO	3(a)	E	ECE R51 (ISO 5130) stationary noise testing of advanced technology vehicles	(a)
7.	ASEP	3(c)	E	Report of the GRB ad hoc working group on Additional Sound Emission Provisions	(a)
8.	CLEPA	4	E	CLEPA presentation supporting justification of working document ECE/TRANS/WP.29/GRB/2008/5/Rev.1, proposing amendments to Regulation No. 59	(a)
9.	IMMA	2	E	List of remaining issues on noise of motorcycles (Regulation No. 41)	(a)
10.	Japan	10(b)	E	A study on approach warning systems for hybrid vehicles in motor mode	(a)
11.	Russian Federation	6	E	Amendments to Regulation No. 117 regarding manufacturer's information on rolling resistance coefficient	(a)
12.	Netherlands	9	E	Inventory of the use of "sound", "noise" and "silencer" in the GRB relevant Regulations	(a)

Note:

- (a) Consideration completed or to be superseded;
- (b) Resume consideration at the next session as an informal document.

Annex II

GRB INFORMAL GROUPS

<u>Informal group</u>	<u>Chairman</u>	<u>Secretary</u>
Motorcycle noise emissions (Regulation No. 41)	Mr. A. Erario (Italy) Tel: +39 06 4158 6228 Fax: +39 06 4158 3253 E-mail: antonio.erario@mit.gov.it	Mr. N. Rogers (IMMA) Tel: +41 22 920 2123 Fax: +41 22 920 2121 E-mail: nickrogers@immamotorcycles.org
Additional Sound Emission Provisions (ASEP)	Mr. B. Kortbeek (Netherlands) Tel: +31 70 339 4526 Fax: +31 70 339 1280 E-mail: boudewijn.kortbeek@minvrom.nl	Mr. H.P. Bietenbeck (OICA) Tel.: +49 221 90 32 409 Fax : +49 221 90 32 546 E-mail: hbietenb@ford.com
Special Tyre Definitions (STD)	<u>1/</u>	<u>1/</u>

Note:

1/ to be determined.
