

MINUTES

2nd GRB Informal Group ASEP Meeting
The Hague (the Netherlands), 23th and 24th November 2005

0	<u>Attendance</u>	Action
	Commission EU; Germany; France; Spain; Italy; Japan; Netherlands; Sweden; United Kingdom; ETRTO; ISO; OICA; CLEPA	INFO

1	<u>Opening</u>	Action
	Mr. Kortbeek (NL), Chairman of the GRB Informal Group, welcomed the group. With 25 participants, even more than last meeting, this informal group seems to be popular. The scope for the second meeting of the informal GRB-group is if possible to choose an additional emission test method for R51, added in annex 10, referred to as Additional Sound Emission Provisions (ASEP).	INFO

2	<u>House keeping</u>	Action
	Chairman gave some practical instructions due to the (location of) the meeting. Mr. Theis (who was absent due to illness) sent his greeting through the German delegation. The chairman answered it with the best regards of the group and soon recovery to mr. Theis.	INFO

3	<u>Agenda</u>	Action
	The agenda was adopted with a few changes: <ul style="list-style-type: none"> • chairman would like to shift point 5 to the second day of the meeting • point 6 will be changed in "making the criteria operational", because we did not receive any new criteria • there is an informal document from the Netherlands, which will be discussed at point 13 	DECISION

4	<u>Adoption of Minutes of the first meeting</u>	Action
	The minutes were adopted with a few mutations: <ul style="list-style-type: none"> • page 2: UK email, Chairman explains that the UK message can not be extracted from the e-mail, because of its broader content. • Page 8: removal of reference to "ISO" in the name ISO-proposal for what is a Netherlands proposal • Page 10: 2005 has to be 2006 	DECISION

5	<u>Proposal Mr. Hedberg for the main body</u>	Action
	Shifted to the meeting on Tuesday.	INFO
6	<u>Making the criteria operational</u>	Action
	<p>Chairman asked mr. De Graaff for clarification to the list of criteria and the scoring system for the different proposals (hand-out from the Netherlands). The document gave the following discussion items.</p> <p>Germany: change the name "Steven" in German proposal, for it's not only the proposal of mr. Steven.</p> <p>Question on precision: change "repeatable" in "repeatability with respect to the required precision of the method".</p> <p>Change the scoring options for fitness to purpose from "moderate" to "partly".</p> <p>Clarification to "relating to doubts": the question is of the method is suitable for testing only when you have doubts. If not, then you have to test all vehicles.</p> <p>Change "non linear noise control strategies" to "irregular noise control strategies". We use as definition of "irregular": noise that you don't expect from the type approval in that range. According to the definition under term 6.2.3.3 of the regulation.</p>	DECISIONS
7	<u>Proposal of France for a third method</u>	
	<p>Chairman asked mr. Ficheux for a clarification to the French proposal. See GRBIG-ASEP-02-002 and GRBIG-ASEP-02-004.</p> <p>Questions / discussion items / point for attention:</p> <ul style="list-style-type: none"> • Do you need to measure the engine noise behaviour (5 dB/1000 rpm)? Answer: yes, it's not a fixed value, but the intention is that it is a fixed value. • The measurement were not done with a more powerful car. • It's important for this method that the tyre/road noise is much lower than the driveline noise. • Where to adjust the pass-by results to the 2.5 m results? Normally the maximum noise level is behind the pass of the microphone position. • A proposal for the engine speed range? E.g. from the homologation point up to 70 km/h? • The focus of this method is on cars with a manual transmission. No automatics were tested. • Is the regression line (in the example) forced to go through the green point? No, it s by change. • OICA: it looks complicated, but positive value is that you need only 1 run; is there a need to calculate it to distance of 7,5 m? It's only to determine the 	INFO

	<p>irregularities.</p> <ul style="list-style-type: none"> • In the centre of the vehicle, with far field measurement, you have to deal with the noise distribution. • Steven: you could also apply this method to the German proposal. • Is the result very influenced by the reflection of the vehicle / road? Not by vehicle body, but yes for ground reflections. 	
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8	<u>Clarification of the German and Dutch proposal</u>	
	<p>The German and the Dutch proposals have been discussed in the first meeting.</p> <p>Mr. Steven gave some clarification by the German proposal. The original presentation GRBIG-ASEP-02-004 from 07-11-2005 will be distributed in the group.</p> <p>Questions / discussion items / point for attention:</p> <ul style="list-style-type: none"> • What to do with an adaptive manual mode? Answer: do some pre-test to adapt the "sportive" range. • What is the number of points you need in relation to potential workload? You have at first to define a critical range. • What about the proposed "5 dB" ? Answer: that number (and also the 0,3) is open for discussion, it's x in the France proposal. You need a certain value because of the increase of the engine speed. • What about the tyre / torque effect, does that effect the method? Answer: torque effect can change, it depends on tyre and surface. The worst tyre for torque is one with an off road pattern. • How far is <i>WOT</i>? What's the connection between the paddle and the throttle? Answer: the acceleration should be higher than you measure in Annex III. <p>ISO: can the methods be combined? They seem highly similar.</p> <p>Mr. De Graaff gave an presentation with a graphic comparison of the different methods. See GRBIG-ASEP-02-010.</p> <ul style="list-style-type: none"> • the Dutch method is covering a point, the French and German covers an area, so the French and German look more alike • on the other hand: the Dutch methods is also a measurement of a transient, you reports only a point; <p>Presentation by Mr. Ficheux of test results for the Dutch and German method. See GRBIG-ASEP-02-007.</p> <p>ISO: give also attention to automatic cars. In Annex 3 it doesn't matter which acceleration is made, the assumption is a direct relation between vehicle speed and engine speed, by automatic transmission (and CVT, Japan) there isn't such a relation.</p>	<p>ACTION</p> <p>INFO</p>

	<p>Presentation of OICA of some test results. See GRBIG-ASEP-02-008.</p> <p>OICA: +5 dB is liberal for some vehicles and aggressive for others (German proposal), the 5 dB is related to engine speed and not to vehicle speed. 5 dB corresponds to an engine speed change of circa 1000 rpm.</p> <p>There is a direct influence of the transmission ratio. When the gear ranges are close than no problem.</p>	
9	<u>First round of scoring by each delegation</u>	
	<p>Chairman asked every (informal) delegation to score the four methods (Ger, NL, Fr, R51.02) on the discussed criteria: globally applicable, performance based, technology neutral, repeatable with respect to the required precision, fitness for purpose, cost/workload, relating to doubts.</p> <p>The total sum given to the candidate methods was:</p> <ul style="list-style-type: none"> • 38 for the German method, • 41 for the Dutch method, • 49 for the French method, • 19 for the R51.02. <p>The detailed results are given in Appendix 1 of these minutes.</p> <p>Mr. De Graaff gave some highlights of the results of the scoring:</p> <ul style="list-style-type: none"> • current method has the lowest and the new methods the highest score; • the most important criteria is the "purpose": German and French proposal have the best score on this requirement; • a weak point of the German approach is the workload; • for the aspect "related to doubts" the German and France methods have again the highest score. 	
10	<u>Discussion</u>	
	<p>During the discussion it became clear that the group found it difficult to come to a clear evaluation. It would be helpful to discuss on the weak and strong points of the different methods. See GRBIG-ASEP-02-005.</p> <p>Weak for all the methods:</p> <ul style="list-style-type: none"> • relation to automatic gearboxes • non-internal combustion engines (due to lack of experience) • risk to detect the wrong vehicles - reject good / approve bad vehicles <p>Dutch proposal, strong points:</p>	

<ul style="list-style-type: none"> • technology neutral/globally applicable • easy test • low workload • repeatable / reproducible <p>Dutch proposal, weak points:</p> <ul style="list-style-type: none"> • limited range • determination of limit will be difficult <p>German proposal and the French proposal with the WOT test:</p> <p>Strong:</p> <ul style="list-style-type: none"> • can precisely evaluate the chosen point of concern <p>Weak:</p> <ul style="list-style-type: none"> • technical service must know what they are doing • potentially high workload • not technology neutral <p>French proposal with the continuous test:</p> <p>Strong:</p> <ul style="list-style-type: none"> • evaluates whole engine speed range • only few measurements • possibility to be independent from Annex 3 <p>Weak:</p> <ul style="list-style-type: none"> • workload (preparatory workload required, easy test) • open issue: correlation between 2.5m and 7.5m to be clarified • applicability to alternative engine systems unclear • not technology neutral • repeatability (road surface, reflections, tyre noise...) • longer test track required • necessary equipment <p>Chairman remarked that the combination of the scoring results and the strong/weakness evaluation gives remarkable results: the French test has high scores, but also the most amount of weaknesses, on the other hand the Dutch proposal has the lowest score but the fewest weaknesses.</p>	
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	<p>Suggestion of mr. Steven to improve the Dutch method: why limit the NL-proposal to the speed at 50 km/h? When you widen it to 30 - 70 km/h it would be very suitable.</p> <p>Chairman suggested that the next step is to do a lot of work, e.g. to combine the strong points to one method. He proposed to form out of this informal Group a small group with experts who deal daily with vehicles, methods and measurement data to formulate a method for annex 10.</p> <p>The (complete) informal group can in the meantime deal with the other topics: e.g. the administration, which kinds of vehicles have to be tested, the proposal to the main body.</p> <p>The group agreed with the proposal of the chairman.</p> <p>The participants of the expert group are the next persons:</p> <ul style="list-style-type: none"> - mr. Tanaka (Japan) - mr. Steenackers (Clepa) - mr. Ficheux (France) - mr. Steven (Germany) - mr. Gerhard (OICA) - mr. Moore (ISO) - mr. De Graaff (the Netherlands) <p>Mr. Dimitri (ETRTO) is also available to participate in the group. Mr. Schneider (EC) wanted to stay in close contact with the group.</p> <p>The chairman asked Mr. Moore (ISO) to be the leader of the expert group. He agreed. Chairman will take action to formulate the mandate of the group.</p> <p>The secretary and the administration for the expert group is the same as for the complete ASEP group.</p>	<p>DECISION</p> <p>ACTION</p>
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11	<u>Final scoring</u>	
	Agenda item was skipped.	

12	<u>Choice of method</u>	Action
	Agenda item was skipped.	

13	<u>Start discussion about the limits of the method</u>	Action
	Chairman remarked that at this meeting, there will be no discussion on this item. He only asked Mr. De Graaff to present some measurement data of the Netherlands, in relation to the "place of the red line".	

	See presentation GRBIG-ASEP-02-009.	
14	<u>The step from a method to a text in Annex X</u>	Action
	Agenda item was skipped.	
7	<u>Proposal Mr. Hedberg for the main body</u>	Action
	<p>Chairman asked Mr. Hedberg to give some clarification on his proposal, see GRBIG-ASEP-02-003.</p> <p>Summery of the statements during the discussion of the proposal:</p> <ul style="list-style-type: none"> • the text [it is required to ...] can be removed • we have to make very strict regulation, because the explanation on (ECE-) regulation has no status • delete: "with regard to technical practibility" (is too weak) • "shall not differ considerably" replace by "should not differ" • the point of the devices that make more sound is not solved with this proposal • it was a decision of the group to forbid devices that increase the noise outside the tested area • "could affect the noise", when it is positive than its not a problem • the intention was to allow it not at all, but that's not in the proposal of the text • "shall not be installed unless" in place of "may be installed ... provided that" • "shall be checked by the technical service" • is "control device" sharp enough? what is the fundamental difference between a gearbox and a steered flap? • give attention to make it "performance based" <p>Italy: suggestion to write down in Annex 3 that the manufacturer has to describe this information.</p> <p>Moore: the question is if we can discriminate bad vehicles, can everybody give examples of the vehicles we want to discriminate?</p> <p>Final conclusion: we skip this item, everybody has to think it over and this point is open for a proposal.</p>	<p>ACTION</p> <p>DECISION</p>

15	<u>Preparation of next meeting</u>	Action
	<p>Chairman suggested that for a next meeting a full day is too long. It would be effective to combine the meeting to the GRB meetings end of February. He proposed to meet one hour at the 22nd of February in the evening and if necessary one hour in the evening of the 23rd of February.</p> <p>The discussion will mainly be about the main body.</p> <p>On Friday 24th February the technical group of mr. Moore will start with a meeting.</p>	DECISION
16	<u>Any other business</u>	Action
	No other business.	
17	<u>Closing of the meeting</u>	Action
	Mr. Kortbeek thanked all participants for being in The Hague.	

Appendix 1

Results of the scoring from the (informal) delegations.

The scoring was given with an "+" or "0" or "-". For the analysis translated in "1", "0" and "-1".

globally applicable	G	NL	F	R51 02
UK	1	1	1	1
ETRTO	0	0	1	1
Italy	1	1	1	1
Spain	1	1	1	1
Netherlands	1	1	1	1
Sweden	1	1	1	1
Belgium	0	0	0	1
France	0	0	1	1
Germany	1	1	1	1
OICA	0	0	0	-1
ISO	0	0	0	0
EU	1	1	1	1
Japan	1	1	-1	1

	G	NL	F	R51 02
minus	0	0	1	1
zero / ?	5	5	3	1
plus	8	8	9	11
total aut	8	8	8	10

performance based	G	NL	F	R51 02
UK	1	0	1	1
ETRTO	1	1	1	1
It	1	1	1	0
Sp	1	1	1	0
NL	0	1	0	-1
S	1	1	1	0
B	1	1	1	1
Fr	0	0	1	1
Ger	0	1	0	-1
OICA	1	1	1	-1
ISO	0	0	0	-1
EU	1	1	1	-1
Japan	1	1	1	-1

	G	NL	F	R51 02
minus	0	0	0	6
zero / ?	4	3	3	3
plus	9	10	10	4
total aut	9	10	10	-2

tech neutral	G	NL	F	R51 02
UK	1	1	1	1
ETRTO	0	0	1	-1
It	0	0	1	1
Sp	0	0	1	1
NL	0	1	0	-1
S	0	0	1	1
B	0	0	0	1
Fr	0	0	1	-1
Ger	0	1	0	-1
OICA	0	1	0	-1
ISO	0	0	0	-1
EU	0	0	0	1
Japan	?	?	?	?

	G	NL	F	R51 02
minus	0	0	0	6
zero / ?	11	8	6	0
plus	1	4	6	6
total aut	1	4	6	0

repeatable	G	NL	F	R51 02
UK	?	?	?	?
ETRTO	1	1	1	1
It	?	?	?	?
Sp	?	?	?	?
NL	0	1	0	1
S	0	0	0	1
B	0	0	0	1
Fr	?	?	?	?
Ger	1	1	1	1
OICA	0	0	0	0
ISO	0	0	0	0
EU	1	1	1	1
Japan	1	1	-1	1

	G	NL	F	R51 02
minus	0	0	1	0
zero / ?	5	4	5	2
plus	4	5	3	7
total aut	4	5	2	7

fitness for purpose	G	NL	F	R51 02
UK	1	0	1	1
ETRTO	0	1	1	0
It	0	0	1	1
Sp	0	0	1	1
NL	1	0	1	-1
S	0	0	0	0
B	0	0	0	-1
Fr	0	0	1	-1
Ger	1	0	1	-1
OICA	1	0	1	0
ISO	1	0	1	-1
EU	1	0	1	-1
Japan	1	1	1	-1

	G	NL	F	R51 02
minus	0	0	0	7
zero / ?	6	11	2	3
plus	7	2	11	3
total aut	7	2	11	-4

workload	G	NL	F	R51 02
UK	0	1	0	0
ETRTO	0	0	1	1
It	1	1	1	1
Sp	1	1	1	1
NL	0	1	1	1
S	-1	0	0	1
B	-1	-1	-1	0
Fr	1	1	1	0
Ger	0	1	0	1
OICA	-1	1	1	1
ISO	0	0	0	0
EU	0	1	?	0
Japan	-1	1	-1	1

	G	NL	F	R51 02
minus	4	1	2	0
zero / ?	6	3	4	5
plus	3	9	6	8
total aut	-1	8	4	8

related to doubts	G	NL	F	R51 02
UK	1	0	1	0
ETRTO	1	1	1	1
It	1	1	0	0
Sp	1	1	0	0
NL	1	0	1	-1
S	0	0	0	0
B	0	0	0	0
Fr	?	?	?	?
Ger	1	-1	1	-1
OICA	1	0	1	0
ISO	1	0	1	0
EU	1	1	1	0
Japan	1	1	1	1

	G	NL	F	R51 02
minus	0	1	0	2
zero / ?	2	6	4	8
plus	10	5	8	2
total aut	10	4	8	0



