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Working Party on Pollution and Energy (GRPE)
(Forty-fifth session, 13-17 January 2003,
agenda item 4.2.)

PROPOSAL FOR DRAFT AMENDMENTS TO REGULATION No. 85

(Measurement of net power of M and N categories of vehicles)

Transmitted by the expert from Japan

Note: The text reproduced below was prepared by the expert from Japan in order to amend or correct some specifications in the Regulation. It is based on the text of a document distributed without a symbol (informal document No. 9) during the forty-fourth session of GRPE (TRANS/WP.29/GRPE/44, para. 67). The suggested amendments to the Regulation are marked in **bold** characters.

Note: This document is distributed to the Experts on Pollution and Energy only.

A. PROPOSAL

Paragraph 5.4., amend to read:

"5.4. Interpretation of the results

The net power and the maximum 30 minutes power for electric drive trains indicated by the manufacturer for the type of drive train shall be accepted if it does not differ by more than ± 2 per cent for maximum power and more than ± 4 per cent at the other measurement points on the curve with a tolerance of ± 2 per cent for engine or motor speed, **or within the engine or motor speed range ($X1\text{rpm} + 2$ per cent) to ($X2\text{rpm} - 2$ per cent) ($X1 < X2$)** from the values measured by the technical service on the drive train submitted for testing."

Annex 5,

Paragraph 3.8., amend to read:

"3.8. The temperature of the lubricating oil measured in the oil pump **or within the oil sump** or at the outlet from the **oil** cooler, if fitted, shall be maintained within the limits specified in paragraphs 3.6., 3.7. and 3.8. above in this annex."

Paragraph 4.5., amend to read:

"4.5. Engine inlet air temperature: ± 1 K."

Annex 6,

Table 1, row No. 1, column AUXILIARIES, amend the text "Stabilized DC power supply" to read "DC voltage source".

Paragraph 2.5.6., amend to read:

"2.5.6. An auxiliary regulating system may be used, if necessary, to maintain the temperature within the limits specified in paragraphs **2.5.4. and 2.5.5.**"

Paragraph 3.2., amend to read:

"3.2. Motor speed: 0.5 per cent of measured speed."

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B. JUSTIFICATION

Ad paragraph 5.4.:

This addition is to cope with the cases that the maximum power or torque turns flat at the certain range of engine speed. Concerning the tolerance, $\pm 2\%$ is proposed aligning with the ISO 1585-1992, paras. 9.3.1.1. and 9.3.1.2.

Ad annex 5, paragraph 3.8.:

The measurement in the oil pan makes little difference in temperature, and it is easier to modify for the measurements, furthermore, it requires less preparation. With this modification, the regulation also aligns with the EC Directive. In the original text, "coil" seems to be an editorial error of "oil".

Ad annex 5, paragraph 4.5.:

More accurate measurement is necessary because it cannot be ignored that 2 K makes the engine output value change by 0.4 % in comparison to the 2 % of tolerance. Because of the accuracy improvement of the measurement devices, 1 K is sufficient.

Ad annex 6, Table 1:

This is supposed to signify the same with the paragraph 5.3. in the main text, "DC voltage source" therefore the same terms should be used. "DC voltage source" as in the main text has a broader meaning and it enables more choices of voltage source. Especially for the heavy-duty vehicles, which require larger voltage source, it is desirable that a variety of sources is using the battery as the auxiliary source.

Ad annex 6, paragraph 2.5.6.:

Judging from the context, this must be an editorial error.

Ad annex 6, paragraph 3.2.:

Judging from the context, this must be an editorial error.
