Economic and Social Council

Economic Commission for Europe

Inland Transport Committee

World Forum for Harmonization of Vehicle Regulations

154th session
Geneva, 21–24 June 2011
Item 4.13.1 of the provisional agenda
1958 Agreement – Consideration of draft corrigenda
to existing Regulations submitted by GRB

Proposal for Corrigendum 3 to the 02 series of amendments to Regulation No. 117 (Tyre rolling resistance, rolling noise and wet grip adhesion)

Submitted by the Working Party on Noise*

The text reproduced below was adopted by the Working Party on Noise (GRB) at its fifty-third session to clarify the provisions on the reproducibility of tyre measurements in laboratories. It is based on ECE/TRANS/WP.29/GRB/2011/4, as amended by paragraph 19 of the report (ECE/TRANS/WP.29/GRB/51, para. 19). It is submitted to the World Forum for Harmonization of Vehicle Regulations (WP.29) and to the Administrative Committee (AC.1) for consideration.

---

* In accordance with the programme of work of the Inland Transport Committee for 2010–2014 (ECE/TRANS/208/, para. 106 and ECE/TRANS/2010/8, programme activity 02.4), the World Forum will develop, harmonize and update Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.

Paragraphs 2.18.9., footnote [9], correct to read:

"[9] Measurement reproducibility σ_m shall be estimated by measuring n times (where $n \geq 3$), on a single tyre, the whole procedure described in paragraph 4. of Annex 6 as follows:

$$\sigma_m = \sqrt{\frac{1}{n-1} \cdot \sum_{j=1}^{n} \left(Cr_j - \frac{1}{n} \cdot \sum_{j=1}^{n} Cr_j \right)^2}$$

Where:

j   = is the counter from 1 to n for the number of repetitions of each measurement for a given tyre,

n   = number of repetitions of tyre measurements ($n \geq 3$)."

Annex 6, paragraph 4.7., amend to read:

"4.7.   Allowance for machines exceeding σ_m criterion …"

Annex 6, paragraph 6.5., amend to read:

"6.5.   The laboratory shall ensure that, based on a minimum of three measurements, the machine maintains the following values of σ_m, as measured on a single tyre:

$\sigma_m \leq 0.075$ N/kN for tyres of Classes C1 and C2

$\sigma_m \leq 0.06$ N/kN for tyres of Class C3

If the above requirement for σ_m is not met, the following formula shall be applied to determine the minimum number of measurements n (rounded to the immediate superior integer value) that are required by the machine to qualify for conformance with this Regulation.

$n = (\sigma_m / x)^2$

…"