Proposal for a Supplement to the 03 series of amendments to UN Regulation No. 51

Submitted by the experts from the International Organization of Vehicle Manufacturers

The text reproduced below was prepared by OICA in order to make a correction to the procedure of free rolling tyre noise testing described in Annex 8. The modifications to the current text of the UN Regulation are marked in bold for new or strikethrough for deleted characters.

I. Proposal

Annex 8, paragraph 2.3., amend to read:

2.3. Tyre/road sound

The measurements of the tyre/road sound shall be performed on a test track as described paragraph 2.1.1. of Annex 3 of this Regulation. The evaluation of tyre/road sound consists of two procedures, namely:

(a) Evaluation of free rolling sound ~~as described in Appendix 3 of Annex 3;~~

(b) Evaluation of tyre/road sound including torque influence which can be derived from a) by a simplified method.

All conditions for evaluation of tyre/road sound shall be done according to paragraph 3. of this Annex.

II. Justification

1. This proposal restores paragraph 2.3. in Annex 8 to its original wording, as introduced with Supplement 4 (indoor testing).

2. Supplement 7 introduced a reference in paragraph 2.3.(a) in Annex 8, stating that the evaluation of tyre rolling sound shall be carried out in accordance with Appendix 3 to Annex 3. However, the final sentence of paragraph 2.3. refers to paragraph 3., which in turn specifies that all test conditions for tyre sound measurement are described in ISO 362-3:2016. This dual reference creates an inconsistency, as the two cited test methods differ.

3. The test method in Annex 3, Appendix 3 was introduced to determine a reference rolling tyre sound level at a specified temperature and speed, for the purpose of correcting Annex 3 test results. However, unlike ISO 362-3, it does not provide a tyre torque sound model, nor does it deliver sound levels as a function of vehicle position. As a result, it cannot produce a tyre sound model that can be integrated into indoor powertrain measurements.