

Proposal for amendments to Regulation No. 51.03

(Uniform provisions concerning the approval of motor vehicles having at least four wheels with regard to their sound emissions)

The text reproduced below was prepared by the expert from the International Organization of Motor Vehicle Manufacturers (OICA), in order to propose amendments to UNECE Regulation No. 51 as adopted by WP29 in June 2015 (WP29/2015-62). Modifications to the text are marked in bold characters for new or as strikethrough for deleted text

I. Proposal

Annex 3, Para. 3.1.3, amend to read:

...

3.1.3. For vehicles of categories M1 and M2 having a maximum authorized mass not exceeding 3,500 kg, and category N1 the maximum A-weighted sound pressure level indicated during each passage of the vehicle between the two lines AA' and BB' shall be rounded to the first significant digit after the decimal place (e.g. XX,X).

For vehicles of category M2 having a maximum authorized mass exceeding 3,500 kg and categories M3, N2, and N3 the maximum A-weighted sound pressure level indicated during each passage of the reference point of the vehicle between line AA' and line BB' + 5 m shall be rounded, to the first significant digit after the decimal place (e.g. XX,X).

If a sound peak obviously out of character with the general sound pressure level is observed, the measurement shall be discarded. At least four measurements for each test condition shall be made on each side of the vehicle and for each gear ratio. Left and right side may be measured simultaneously or sequentially. The first four valid consecutive measurement results, within 2 dB(A), allowing for the deletion of non-valid results (see

paragraph 2.1.), shall be used for the calculation of the final result for the given side of the vehicle.

The results of each side shall be averaged separately. ~~The intermediate result is the higher value of the two averages mathematically and~~ rounded to the first decimal place. **All further calculations to derive L_{urban} shall be done separately for the left and right vehicle side. The final value to be reported as the test result mathematically rounded to the nearest integer shall be the higher value of the two sides.**

The speed measurements at AA', BB', and PP' shall be noted and used in calculations to the first significant digit after the decimal place. The calculated acceleration a_{wot} test shall be noted to the second digit after the decimal place.

II. Justification

The actual wording could lead to the interpretation that sound levels measured on the left side of the vehicle are mixed by calculation with sound levels measured on the right side of the vehicle.

The proposed wording clarifies, that the overall sound emission is assessed individually per vehicle side.