Economic Commission for Europe
Inland Transport Committee

World Forum for Harmonization of Vehicle Regulations

Working Party on Noise and Tyres

Seventieth session
Geneva, 11-13 September 2019
Item 2 of the provisional agenda
UN Regulation No. 9 (Noise of three-wheeled vehicles)

Proposal for a Supplement to the 08 series of amendments to UN Regulation No. 9 (Noise of three-wheeled vehicles)

Submitted by the expert from the International Motorcycle Manufacturers Association (IMMA)*

The text reproduced below was prepared by the expert from IMMA with a view to introducing a mandatory test of additional sound emission provisions (ASEP) in UN Regulation No. 9, in line with UN Regulation No. 41. The modifications to the current text of the Regulation are marked in bold for new or strikethrough for deleted characters.

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* In accordance with the programme of work of the Inland Transport Committee for 2018–2019 (ECE/TRANS/274, para. 123 and ECE/TRANS/2018/21/Add.1, Cluster 3), the World Forum will develop, harmonize and update UN Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.
I. Proposal

Paragraph 6.3.4., amend to read:

"6.3.4. Additional sound emission provisions

6.3.4.1. The motor cycle manufacturer shall not intentionally alter, adjust, or introduce any device or procedure solely for the purpose of fulfilling the noise emission requirements of this Regulation, which will not be operational during typical on-road operation.

6.3.4.2. The vehicle type to be approved shall meet the requirements of Annex 6 to this Regulation. If the vehicle has user selectable software programs or modes which affect the sound emission of the vehicle, all these modes shall be in compliance with the requirements in Annex 6. Testing shall be based on the worst case scenario.

6.3.4.3. In the application for type approval or for modification or extension of a type approval the manufacturer shall provide a statement in accordance with Annex 7 that the vehicle type to be approved complies with the requirements of paragraphs 6.3.4.1. of this Regulation.

6.3.4.4. The Type Approval Authority may carry out any test prescribed in this Regulation.

6.3.4.5. The test results obtained in accordance with the provisions of paragraph 6.3.4.1 above shall be entered in the test report and on a form conforming to the model in Annex 1 to this Regulation."

Add a new paragraph 8.3 to read:

“8.3. For conformity of production, the manufacturer shall make a renewed declaration that the type still fulfils the requirements of paragraphs 6.3.4.1. of this Regulation. The measured sound levels according to Annex 6 shall not exceed by more than 1.0 dB(A) the limits given in paragraph 4 of Annex 6.”

Annex 1.

Add a new point 18 to read:

“18. Additional sound emission provisions:

<table>
<thead>
<tr>
<th>18.1.</th>
<th>ASEP operating conditions</th>
<th>Reference Point</th>
<th>Reference Point</th>
<th>additional operating condition 1</th>
<th>additional operating condition 2</th>
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<td></td>
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<td>(i)</td>
<td>(ii)</td>
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<td>Selected gear number</td>
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<td>18.1.2.1</td>
<td>Vehicle speed vAA’</td>
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<td></td>
<td>(average of 3 runs) (km/h)</td>
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<tr>
<td>18.1.2.2</td>
<td>Vehicle speed vBB’</td>
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<td>(average of 3 runs) (km/h)</td>
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<tr>
<td>18.1.3</td>
<td>Engine speeds</td>
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<td>Engine speed nAA’</td>
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<td>(average of 3 runs) (min⁻¹)</td>
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<td>18.1.3.2</td>
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<td>(average of 3 runs) (min⁻¹)</td>
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</tr>
</tbody>
</table>
18.1.4. Wide open throttle test result $L_{wot}$ (dB(A))

18.1.5. ASEP limit

18.2. See manufacturer’s statement of compliance with the requirements of paragraph 6.3.4.1. (attached)."

Points 18 to 26, renumber to 19 to 27.

Annex 6,

Paragraph 4, add a footnote 1 to read:

“4. ASEP limits

…

1 If the tests according to Annex 3 of this UN Regulation and the ASEP tests are performed with the same vehicle in immediate sequence, the values for $L_{ref}$ and $n_{ref}$ from the Annex 3 test may be used, if agreed by the type approval authority. Otherwise, when compliance with these limits is checked, values for $L_{ref}$ and $n_{ref}$ shall be newly determined by measurements as defined in paragraph 3.1. of Annex 3, however using the same gear as during type approval.”

Paragraph 3.1., amend to read:

“3.1. General

The Type Approval Authority as well as the Technical Service may shall request tests to check the compliance of the vehicle with the requirements of paragraph 2 above. To avoid undue work load testing is restricted to the reference points defined in paragraph 3.3. below and up to two additional operating conditions other than the reference points but inside the ASEP control range.”

Annex 7, amend to read:

“Annex 7

Statement of compliance with paragraph 6.3.4.1. of the Additional Sound Emission Provisions (ASEP)

(Maximum format: A4 (210 x 297 mm))

.......................... (Name of manufacturer) attests that vehicles of this type .................... (type with regard to its noise emission pursuant to UN Regulation No. 9) comply with the requirements of paragraph 6.3.4.1. of UN Regulation No. 9.

.......................... (Name of manufacturer) makes this statement in good faith, after having performed an appropriate evaluation of the sound emission performance of the vehicles.

Date: ..............................................................

Name of authorized representative: ..............................................................

Signature of authorized representative: ..............................................................
II. Justification

1. IMMA presented a proposal to make ASEP testing mandatory under the 04 series of amendments to UN Regulation No. 41. This proposal was recently adopted by the Working Party on Noise (GRB) (ECE/TRANS/WP.29/GRB/2018/11) and by the World Forum for Harmonization of Vehicle Regulations (WP.29) (ECE/TRANS/WP.29/2019/3).

2. IMMA is now presenting a proposal to amend UN Regulation No. 9 in line with the adopted amendment to UN Regulation No. 41.

3. This document is based upon the text of:
   (a) Amendment 3 to Revision 3 of UN Regulation No. 9 (Supplement 3 to the 07 series of amendments).
   (b) ECE/TRANS/WP.29/2019/6 (proposal for the 08 series of amendments to UN Regulation No. 9): introduction of ASEP, as proposed by the European Commission and adopted by GRB at its sixty-eighth in September 2018 and by WP.29 in March 2019.
   (c) ECE/TRANS/WP.29/2019/3 (proposal for Supplement 7 to the 04 series of amendments to UN Regulation No. 41): making ASEP testing mandatory, as proposed by IMMA and adopted by WP.29 in March 2019.