

Regulation No. 59
(Replacement Silencing Systems)

Draft proposal of amendments to Regulation No. 59

The amendment of the text of Regulation N° 59, including the 01 series of amendments to Regulation N° 59 (ECE/TRANS/WP.29/2011/65) are marked in bold or strikethrough characters.

I. Proposal

Paragraph 2.4., insert a new paragraph 2.4. to read:

"2.4.

"Silencing system or silencing system component with variable geometry" means a silencing system or silencing system component containing one or more moving parts or devices which, by changing the silencing system or silencing system component geometry, may change its noise reduction performance (e.g. moving parts or devices changing the noise reduction performances by opening or closing one or more valves in the exhaust gas flow as a function of varying driving or engine conditions (rpm, load, speed, etc.);"

Paragraph 2.4.to 2.7.6., renumber to read 2.5., 2.6., 2.7., 2.8., 2.8.1., 2.8.2., 2.8.3, 2.8.4., 2.8.5. and 2.8.6.

Paragraph 6.2.2., amend to read:

The noise reduction performance of the replacement silencing system or components of said system shall be verified by means of the methods described in paragraphs 6.2.1., 6.2.2. and 6.2.3. of Regulation No. 51. In particular, for the application of this paragraph, reference shall be made to the amendment level of Regulation No. 51 which was in force at the time of type approval of the new vehicle. **For vehicles type approved before the introduction into Regulation No. 51 of the requirements of Annex 10 the requirements of paragraphs 6.2.2.3. do not apply.**

..."

Insert new paragraphs 6.2.2.3. to 6.2.2.3.2., to read:

"6.2.2.3. Additional sound emission provisions

When the replacement silencing system or components thereof is mounted on the vehicle described in paragraph 3.3.3. Above, each of the 4 noise levels L_i obtained according to paragraph 2.5 of Annex 10 of Regulation No. 51 and measured in gear ratio i as determined in Annex 3 of regulation No. 51, shall satisfy the following condition:

The value measured (before any rounding to the nearest integer) shall not exceed by more than 4 dB(A) the noise value measured (before any rounding to the nearest integer) on the vehicle referred to in paragraph 3.3.3. above, when this is fitted with a silencing system corresponding to the type fitted to the vehicle when submitted for type approval under Regulation No. 51.

For the application of paragraph 2.4. of Annex 10 of Regulation No. 51, it is allowed to have a gear change to a lower acceleration and the use of electronic or mechanical devices to prevent this downshift is not mandatory. If under these conditions the noise level of the test vehicle becomes higher than the conformity of production (COP) values, the technical service will decide on the representativeness of the test vehicle.

- 6.2.2.3.1. In case the replacement silencing system or component is not a system with variable geometry, it is sufficient in the application for type approval that the manufacturer provides a statement (in conformity with Appendix 1 of Annex 10) that the silencing system type to be approved complies with the requirements of paragraph 6.2.3. of Regulation No. 51. The type approval authority may require any relevant test to verify the compliance of the silencing system type to the additional sound emission provisions.

The following is an example of compliance statement: "(Name of the manufacturer) attests that the silencing system of this type complies with the requirements of paragraph 6.2.3. of Regulation No. 51. (Name of the manufacturer) makes this statement in good faith, after having performed an appropriate engineering evaluation of the sound emission performance over the applicable range of operating conditions."

- 6.2.2.3.2. In case the replacement silencing system or component is a system or component with variable geometry, the measurements shall be reported in order to demonstrate that the replacement silencing system or component complies with the requirements of paragraph 6.2.2.3. above."

II. Justification

The additional sound emission provisions (ASEP) have been inserted in Regulation No. 51; Regulation N° 59 should be amended accordingly.
