

2005-12-13 / SH

Proposal to amend TRANS/WP.29/GRB/2005/2/Rev.2 of 6 July 2005, Section 6.2.3 Additional Sound Emission Provisions (ASEP)

Justification:

It is generally understood that the new test method in Annex 3 affects noise output at normal engine speeds, leaving higher engine speeds unregulated. In order to preserve what is previously achieved, it seems reasonable to add some provisions.

Therefore it is prohibited according to 6.2.3.1, to install any function that detects driving conditions prescribed in Annex 3, and with ability to alter engine setting parameters in order to affect the vehicle sound output. This provision is absolute, and therefore there is no need to confirm this provision by any test method.

6.2.3.2 in its first two indents explains that the engine may be adjusted differently than during normal driving conditions, intermittently due to reasons of protection or safety. The background behind the third indent is unclear in its content and should preferably be avoided unless clear understanding of its need is achieved. As a fourth indent, we propose to install a provision to be applied, if any control device is installed, which is normally or as an option activated at higher engine speeds. If this function is believed to affect that vehicle's noise output, this device or function may be checked by the technical service. The method to use is then described in Annex 10. The preferred test method in Annex X to be developed and agreed upon, should be simple to perform and able to cover noise emissions at higher engine speeds than achieved by the method in Annex 3.

Thus, non linear behaviour of the vehicle with regard to its emitted sound, is regulated in addition to its normal sound emission during low speed city driving.

6.2.3.3 fits very well as an introduction to 6.2.3.2. The last line is moved to the end of 6.2.3.2. The reason is that physical tests need only be carried out to check the intermittent function of a control device according to the fourth indent.

Proposed amendments in red to the present text in GRB/2005/2/Rev.2 :

6.2.3. Additional sound emission provisions

The additional sound emission provisions apply to vehicles of categories M1 and N1 only.

They are preventive requirements intended to also cover driving conditions of the vehicle in real traffic, which can be environmentally relevant concerning their sound emission and which differs from those during type approval, described in Annex 3.

6.2.3.1. The vehicle manufacturer shall not intentionally alter, adjust, or introduce any mechanical, electrical, thermal, or other device or procedure solely for the purpose

of fulfilling the noise emission requirements as specified in this regulation and as determined by the test procedure of Annex 3 but which will not be operational during typical on-road operation. These measures are commonly referred to as "cycle detection".

6.2.3.2. The sound emission of the vehicle under normal driving conditions, different from the conditions of the type approval test in Annex 3, shall not differ considerably from what can be expected from the type approval test result for this specific vehicle with regard to technical practicability.

Any control device, or function, system or measure that could affect the noise output may be installed on a vehicle provided that:

- it is activated only for the such purposes as of engine protection, cold starting or warming up, or
- it is activated only for such purposes as operational security or safety and limp-home strategies, or
- [- it is required to fulfil this and/or other UN/ECE regulations, or]
- it is activated in an engine speed range above the highest engine speed achieved during tests according to Annex 3.

6.2.3.3 This is fulfilled Control devices or any function affecting the noise output, described in 6.2.3.2 last indent, may be checked by the technical service by applying the test method and applicable limit values if the requirements of Annex 10. are met.

[6.2.3.3. The sound emission of the vehicle under normal driving conditions different from the conditions of the type approval test in Annex 3 shall not differ considerably from what can be expected from the type approval test result for this specific vehicle with regard to technical practicability. This is fulfilled if the requirements of Annex 10 are met.]

old text in 6.2.3

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