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agenda items 6 and 8)

Transmitted by the expert from the European Commission

## ***Amendment proposals for Regulation Nos 9, 63 and 92***

**On behalf of the European Commission**

# Overview

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- 1. Editorial amendments,**
- 2. Amendments in paragraph 2, Definitions,**
- 3. Amendments in paragraph 6, Specifications,**
- 4. Amendments in transitional provisions,**
- 5. Amendments in annex 1,**
- 6. Amendments in annex 3,**
- 7. New annex 4.**

# Editorial Amendments

## UN Regulation Nos 9, 63 and 92

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- The term “noise” was replaced by “sound” except for background noise.
- The words “moped”, “motorcycle” etc. were replaced by “L<sub>x</sub> category vehicle”, x being 1, 2, 4 or 5 whatever is appropriate.
- Whenever the word “speed” is used throughout the regulations, it is specified whether it is engine speed or vehicle speed.

# Amendments in paragraph 2, Definitions

## UN Regulation Nos 9, 63 and 92

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- Rated maximum net power and rated engine speed was added, where missing.
- “Number and ratio of gears” was replaced by “Drive train, in particular the number and ratios of the gears of the transmission and the final ratio”, which is more precise.
- Reference mass and test mass were added.
- Maximum vehicle speed was added, where missing.
- NORESS acronym used for the non-original replacement exhaust silencing system (UN R92 only)

# Amendments in paragraph 6, Specifications UN Regulation Nos 9 and 63

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➤ Paragraph 6.3 “Additional prescriptions related to tamperability and manually adjustable multi-mode exhaust or silencing systems” was restructured and complemented as follows:

6.3 Additional requirements,

6.3.1 Tampering protection provisions,

6.3.2 Manually adjustable multi-mode exhaust or silencing systems,

6.3.3 Prohibition of defeat devices

# Amendments in paragraph 6, Specifications UN Regulation No 9

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- Paragraph 6.2.1.1, under "Methods of measurement" was complemented as follows:
  - concerning a vehicle that has user selectable software programs or modes which affect the sound emission of the vehicle: worst case scenario;
  - concerning the hybrid electric vehicles, the highest of the following test results:
    - Condition A: max charge state of batteries or most electric hybrid mode, if more than one 'hybrid mode'
    - Condition B: max charge state of batteries or most fuel consuming hybrid mode, if more than one 'hybrid mode'

# Amendments in Transitional provisions

## UN Regulation Nos 9 and 63

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- Two paragraphs added to provide for a transitional period of 5 years till the full application of the proposed supplements to these UN Regulations

# Amendments in Annex 1

## UN Regulation Nos 9 and 63

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- More detailed data for the engine (incl. electric motor, if applicable) and transmission
- Reference data for in use compliance



# Amendments in Annex 3

## UN Regulation Nos 9 and 63

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➤ Paragraph 2 of annex 3 “Conditions of measurement” was restructured and amended as follows:

2.1. Test site, weather conditions and background noise correction.

With respect to the test track surface the transition from ISO 10844:1994 (annex 5) to ISO 10844:2014 was introduced.

2.2. Condition of the vehicle.

# Amendments in Annex 3

## UN Regulation Nos 9 and 63

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- Paragraph 3 of annex 3 “Methods of measurement” / “Methods of testing” was restructured and amended:
  - 3.1. Measurement of the sound emission of the vehicle in motion
    - 3.1.1. Test arrangement and microphone positions
    - 3.1.2 Acceleration test execution, approach vehicle speed determination and gear use
- The two following amendments are proposed according to ECE R 41-04
  - 3.1.3 Sound level determination
  - 3.1.4 Calculation of the final test result

# Amendments in Annex 3

## UN Regulation Nos 9 and 63

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- The method in R 41-04, taken over in 3.1.4., is more appropriate than the one in the current versions of UN R9 and R63, where the individual measurement results are reduced by 1 dB and rounded to the nearest integer and then the arithmetic average is calculated as the final result.

# Amendments in Annex 3

## UN Regulation Nos 9 and 63

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- A new paragraph 4 was added in annex 3 in accordance with R 41-04 as follows:
  4. Sound from the vehicle in motion (data reported to facilitate in motion testing of the vehicle in use).
- This annex is intended to provide all necessary information for roadside in-use compliance tests with the vehicle in motion.
- Such tests are more effective than the stationary tests.
- Added to paragraph 5: Approval marking requirements of original silencers containing fibrous absorbing materials

# New Annex

## UN Regulation Nos 9 and 63

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- A new annex 4 dedicated to the sound limits for the different vehicle categories was added in Regulation 9 in order to align it to the other Regulations.

# Drafting amendment

## UN Regulation Nos 9 and 63

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Drafting amendment to be done:

- in R9: paragraph 3.1.2.2.3 in Annex 3, the ref to the definition of maximum vehicle speed has to be corrected to 2.10 instead of 2.8
- in R63: paragraph 3.1.2.2 in Annex 3, the ref to the definition of maximum vehicle speed has to be corrected to 2.12 instead of 2.8

# Amendments in paragraph 6

## UN Regulation No 92

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➤ Additional requirements, paragraph 6.3

6.3.1 Tampering protection provisions

6.3.2 Multi-mode NORESS

6.3.3 Prohibition of defeat devices

6.3.4 ASEP for L-category vehicles approved in accordance with UN R41-04

# Amendments in Annex 1

## UN Regulation No 92

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- Two communication forms
    - One for NORESS of vehicles approved in accordance with UN R41-04
    - One for NORESS of vehicles approved in accordance with UN R9 or 63
- to differentiate testing conditions and ASEP



# Amendments in Annex 3

## UN Regulation No 92

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- Conditioning methods for fibrous absorbent materials used in NORESS in accordance with the UN Regulation under which the vehicle of NORESS installation is approved

# New Annex 4

## UN Regulation No 92

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- Statement of Compliance with ASEP of NORESS installed on vehicles approved in accordance with UN R41-04