

ECONOMIC COMMISSION FOR EUROPE
INLAND TRANSPORT COMMITTEE
World Forum for Harmonization of Vehicle Regulations (WP.29)
Working Party on Noise and Tyres (GRBP)
Task Force for Quiet Road Transport Vehicles - New TF-QRTV

**Draft meeting minutes of the 03rd session of the
Task Force – Quiet Road Traffic Vehicles – New TF-QRTV
Thursday 09th September, 2022 from 10:00 to 16:00 (CET)**
[hybrid session](#)

CASIC (Geneva) Office

Boulevard Helvétique 36 (Rue Petit-Senn 2 Entrée), 1207 Genève, and by Teams

		Working Documents <small>(*) not available before the meeting</small>
1.	Welcome and opening remarks Mr. Schüttler welcomed the group in the CASIC office. The group said thanks to CASIC for hosting the group in their office. Mr. Schüttler took over the chair position from interim Chair Mr. Ficheux.	
2.	Introduction of participants and organizations Attendees of the 3 rd meeting TF-QRTV agreed for sharing with the group: <ul style="list-style-type: none"> - Any documents used and or presented during the session - Publication on the UNECE website - The attendance list as proposed under document TF-QRTV-03-02 - Attendees in person are highlighted in the attendance list 	<u>TF-QRTV-03-02(*)</u>
3.	Adoption of the draft agenda The drafted agenda has been adopted	<u>TF-QRTV-03-01</u>
4.	Adoption of the meeting minutes from July 2022 The minutes from July meeting have been adopted	<u>TF-QRTV-02-02</u>
5.	Update from ISO to ISO 16254 current status Mr. Moore representing ISO presented an update to the current status of ISO 16254 development. The WG42 corporate research project [CRP] showed an higher than expected uncertainty for the current ISO16254. A significant uncertainty reduction is possible by the following technical changes: <ul style="list-style-type: none"> - Use of 5 microphones in the height between 0,6 m ... 1,6 m height instead of one mic in the height of 1.2m. In R28 [horn] is the variation of height used as well.	<u>TF-QRTV-03-03</u>

	<ul style="list-style-type: none"> - “Max hold” for each 1/3rd octave band in the measurement zone from 10m ahead of the microphone to the microphone instead of 1/3rd octave at the position of maximum sound pressure level - simplification of background noise acceptance criteria and elimination of back ground noise correction - Introduction of “tonal loudness” as an alternative for the frequency shift. <p>The group confirmed the need for uncertainty reduction. The final way has not been decided. Possible options were raised for a component test for frequency shift and the whole vehicle test for overall SPL.</p> <p>The group is requested to make up her mind to:</p> <ul style="list-style-type: none"> - Cancellation of rolling tyres during test in a test bench - Cancellation of the moving vehicle test inside a test bench - Practicability of the 5 microphone per side 	
6.	<p>Committee Draft of ISO 16254 The document was send shortly ahead of the meeting. Mr. Moore presented an rough overview. Some details have been mentioned in the document Current status ISO16254, additional explanations have been presented. Advantage of test in motion on a roller test bench instead of the track is an uncertainty reduction from 4,5 dB to 4 dB. All other uncertainties still occur. Information: Tonality matrix is mentioned in ECMA-418-2</p>	TF-QRTV-03-04
7.	<p>Next steps The chairman requests the group to name topics to be solved or missing in the current R138.01 now or up the next meeting: In the first step it is just to be identified, not to be solved immediately. In the first step only collecting of “Key words” has to be done. Discussion about different solutions incl. preparing draft proposals on each “key word” will be done in a second step. Topics found in the discussion:</p> <ul style="list-style-type: none"> - Scope (Actual: Valid for all M+N vehicle with the option to drive without a combustion engine / to drive in electric mode) Decision: Currently no extension to vehicles of other categories planed in stage 1 of the TF QRTV work. - AVAS activity during “sailing mode” is currently out of the scope (sailing occurs with combustion engine vehicle during deceleration in very slow speed area) - Take out the maximum sound level(s) requirement from R138 and insert it into R51 (RD-ASEP). The maximum noise is an environmental no safety topic. Different maximum sound pressure levels valid for different speeds? (e.g. 10, 20, x km/h) - Are aftermarket products possible? Switzerland and Germany are not in favor to allow aftermarket solutions. In general: European harmonized law allows after market products (e.g. tyre/horn). OICA sees problem with aftermarket due to Cyber security and anti-manipulation security. - Structure R138 more like R28 (Part I/II). - § 6 in document TF-QRTV-03-06 is a review UN-R138-01.02 which includes most changes, but is still not an official document. Speed range measurement: change to greater 0 up to 20 +[x] km/h needed or wanted. - § 6.2 sentence to be revised (because the aim of the paragraph is different to the actual wording): 	TF-QRTV-03-06

	<p><i>“If the vehicle that is not equipped with an AVAS fulfils the overall levels as specified in table 2 below with a margin of +3 dB(A), the specification for one-third octave bands and the frequency shift do not apply.” (missing: “than an AVAS is not needed” and “the specification for one-third octave bands and the frequency shift is not needed because of its natural given sound.)</i></p> <ul style="list-style-type: none"> - § 6.2.1.1. characteristic speeds have been chosen in R138 (what characteristic of SPL and frequencies in between, also during acceleration/deceleration? Little higher SPL during strong acceleration?) - description from greater zero to [x]km/h (Phase out above x km/h?) - § 6.2.3.2. the wording “one tone” is not sufficient: <i>“When tested under the conditions of Annex 3 paragraph 4, at least one tone within the frequency range as specified (with contributes to fulfil...) the in paragraph 6.2.8. emitted by the vehicle shall vary proportionally with speed within each individual gear ratio by an average of at least 0.8 % per 1 km/h in the speed range from 5 km/h to 20 km/h inclusive when driving in forward direction. In case more than one frequency is shifted, only one frequency shift needs to fulfil the requirements.”</i> - § 6.2.4. stationary sound: better wording necessary: <i>“The vehicle may emit a sound when stationary”</i> Idea was: in case the vehicle has an AVAS, it is permitted to emit a stationary sound. Missing: <i>“..., if fitted it has to fulfil the requirements of paragraph 6”.</i> - After which time AVAS has to be ready? How to manage? <p>Open topics in general: Should the maximum sound pressure level skipped in R138 and be handled in R51. Sound pressure level to be involved / working with R51 requirements? Interaction R138, R51, R158 (camera monitoring system) for reverse driving maximum Sound pressure level to be solved.</p> <p>How to describe decrease of SPL with decreasing speed?</p>	
8.	<p>Date and place of next meetings</p> <ul style="list-style-type: none"> - 08.11.2022 from 10:00 to 16:00 (hybrid meeting) in Paris at OICA office. - 06.02.2023 from 12:00 to 16:00 and 07.02.2023 from 09:00-12:00 in Geneva at Palais de Nation. The room XXVII has been confirmed. 	
9.	Adjourn	

All documents of this TF-QRTV are/will be available via the

[New TF-QRTV \(UN-R138-02\) - Transport - Vehicle Regulations - UNECE Wiki](#)