

Points related to L-category vehicles proposed by the European Commission expert for future work of GRB

The following items, proposed for future work in GRB, are based on the results of the EC study, which concluded the amendments proposals for ECE R9, R63 and R92, submitted as official documents by the EC expert to the 64th GRB.

1. ASEP

With reference to the discussions between the European Commission and IMMA/ACEM on the current amendment proposals for ECE R9, R63 and R92, initially submitted to the 63rd GRB by the EC expert as informal documents, it was agreed that ASEP requirements for ECE R9 should not be included in it for the time being. Such an amendment would need much more data and preparation time than nowadays available for the current amendments. It was further agreed that this issue should be added to the open issues list for future work in GRB.

In this context it is proposed to add ASEP requirements in ECE R9 for those vehicles, whose power to mass ratio exceeds 50 W/kg, in correspondence to ECE R41-04.

Justification: As for L₃ category vehicles, the operating conditions in real traffic for these vehicles (mainly L₅ category tricycles and trikes) cover a much broader range than that covered by the driving conditions in annex 3 of ECE R9. Consequently, ASEP requirements should ensure that the sound emission of these vehicles at operating conditions not covered by the annex 3 tests is coherent with the annex 3 test results.

Furthermore, the European Commission considers that an assessment about ASEP would not only be restricted to this power to mass ratio class but would also include the power to mass ratio class between 25 and 50 W/kg in both ECE R9 and ECE R41-04. Such requirements proposal is to be considered in line with ECE R51-03, which contains ASEP requirements and these are not restricted to vehicles, whose power to mass ratio exceeds 50 W/kg.

Regarding vehicles with power to mass ratios ≤ 25 W/kg: It is noted that L3 vehicles do not exist in this power to mass ratio segment in the EU market. There might be some vehicles other than L3 in this power to mass ratio segment, especially those for commercial use (transportation of goods), but ASEP requirements would not be necessary for those vehicles due to their limited use compared to the rest of L-category vehicles in this power to mass ratio interval.

2. Hybrid Electric Vehicles (HEVs) to be included in ECE R9 and ECE R41-04

With reference to the discussions between the European Commission and IMMA/ACEM on the current amendment proposals for ECE R9, R63 and R92, initially submitted to the 63rd GRB by the EC expert as informal documents, it was agreed to incorporate HEVs in the ECE R9, mentioning the engine capacity and not the power to mass ratio, until ISO has finalised its current work on system power specifications for L-category HEVs.

This was accepted, but it should be ensured that the ISO work will be made transparent and will be accepted by GRB. EC expert proposes as a future work

subject in GRB the implementation of HEVs in ECE R41-04 and a corresponding amendment of the requirements for HEVs in ECE R9 as soon as ISO has finalised its work.

Justification: Hybrid electric vehicles are included in the current amendment proposal of the European Commission for ECE R9, because the current measurement method does not require any system power specification. Hybrid electric vehicles should also be included in ECE R41-04. This would require a system power specification, because the subcategories in ECE R 41-04 are based on power to mass ratio. This would also be required for ECE R9, if ASEP requirements would be added.

3. Revision of the measurement methods for L₅ category vehicles

L5 category vehicles are vehicles with three wheels symmetrically arranged in relation to the longitudinal median plane with an engine cylinder capacity in the case of a thermic engine exceeding 50 cm³ or, whatever the means of propulsion, a maximum design speed exceeding 50 km/h.

They can be designed for the carriage of goods as well as for the carriage of passengers. In annex I of the Regulation (EU) No 168/2013 they are sub-categorised as L5e-A (designed for the carriage of passengers) and L5e-B (designed for the carriage of goods).

For L5 category vehicles designed for the carriage of passengers (also called tricycles and trikes), the same measurement method as for L3 category vehicles (ECE R 41-04) should be applied and the same subcategories based on power to mass ratio should be used.

EC expert proposes it as a future work subject in GRB, to start as soon as possible. A concrete proposal could be elaborated as soon as comments from stakeholders have been collected and considered.

Justification: Tricycles and trikes designed for the carriage of passengers have similar operation conditions in real traffic as L3 category vehicles and thus should be measured accordingly.