

## Proposal for amendments to ECE/TRANS/WP.29/GRB/2018/2

### Submitted by the experts of OICA

The text reproduced below was prepared by the experts of OICA to amend GRB Working Document GRB/2018/02.

The proposed amendments are marked in bold for new or strikethrough for deleted characters.

### I. Proposal

Appendix to Annex 3, table 1, amend to read:

“Table 1. Examples for Devices and Measures to Enable a Vehicle Tested within the Acceleration Boundaries

No.	Impact	Sub No.	Measure	Additional Requirements
1	Lock of a discrete gear ratio	1*	A discrete gear ratio can be locked by the driver	none
		2	A discrete gear ratio is onboard available but is not available to the driver. The locking can be activated by the manufacturer with an onboard (hidden) function or with an external device	none
2	Controlled gear shift management: Applicable to transmissions which cannot be locked, or where no locked gear provides a valid test result	1*	Kickdown is deactivated	none
		2	Gear shift change(s) can happen during the test, gear shift is controlled by activation of an internal function or external device	Acceleration ** shall be between $a_{urban}$ and $a_{wot,ref}$ , not exceeding 2.0 m/s <sup>2</sup> .
3	Partial load driving****	1	Acceleration is limited by a mechanical device	Acceleration ** shall be between $a_{urban}$ and $a_{wot,ref}$ , not exceeding 2.0 m/s <sup>2</sup> . <b>For ASEP**, the anchor point parameter are calculated by:</b>
		2	External Programming for partial load acceleration (***)	<b><math>L_{anchor} = (L_{test} - k_p * L_{ers}) / (1 - k_p)</math> with <math>k_p = 1 - a_{test} / a_{wot,ref}</math> and <math>a_{wot,ref}</math> according to 3.1.2.1.2.4. but not higher than 2.0 m/s<sup>2</sup></b> <b><math>R_{anchor} = R_{bb,test} * 3.6 / v_{bb,test} * (a_{test} * (20 + 2 * l_{veh}) + 192.9)^{0.5}</math></b>

4	Mix Solution (Mode): This measure will be a mix of the above solutions combined in a specific mode	1*	Mode is onboard available and can be selected by the driver	none
		2	Mode is onboard available and can only be activated by the manufacturer with a hidden function or an external device	none
		3	Mode is not onboard available, an external software overrides the internal software	Acceleration ** shall be between $a_{urban}$ and $a_{wot,ref}$ , not exceeding 2.0 m/s <sup>2</sup> .

\* Comment: This is a standard situation, already covered by the Regulation text.

\*\* Applicable to vehicles of category M<sub>1</sub>, N<sub>1</sub> and M<sub>2</sub> ≤ 3.500 kg. ~~The calculation under “additional requirements” shall be done for each side of the vehicle separately according to Annex 3, paragraph 3.1.3. The higher final result shall be used for further processing.~~

\*\*\* Partial load shall be achieved by simulation of the travel restriction of the accelerator. It is not allowed to interfere with the engine control management.”

\*\*\*\* Applicable only to Pure Electric Vehicle (PEV) as defined in UN R83.07 Revision 5, paragraph 2.30.

## II. Justification

As a follow-up of the discussion in GRB, OICA proposes to restrict the application of the partial load driving to pure electric vehicle.

This will allow adoption of the working document GRB/2018/02 as favoured by several contracting parties and enable the GRB Informal working group on ASEP to have a technical review on the proposed formulas for the ASEP anchor point.

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