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Economic Commission for Europe

Inland Transport Committee

World Forum for Harmonization of Vehicle Regulations

Working Party on Pollution and Energy

Ninetieth session

Geneva, 9–12 January 2024

Item 3 (a) of the provisional agenda

Light vehicles:

UN Regulations Nos. 68 (Measurement of the maximum speed, including electric vehicles), 83 (Emissions of M₁ and N₁ vehicles), 101 (CO₂ emissions/fuel consumption), 103 (Replacement pollution control devices) and 154 (Worldwide harmonized Light vehicles Test Procedures (WLTP))

Proposal for Supplement 2 to the 03 series of amendments of UN Regulation No. 154 (Worldwide harmonized Light vehicles Test Procedures (WLTP))

Submitted by the experts from Japan *

The text below is a proposal for Supplement 2 to the 03 series of UN Regulation No. 154 on uniform provisions concerning the approval of light duty passenger and commercial vehicles with regards to Deterioration factors for Diesel. This supplement is required in order to align the Regulation with the latest regional requirements. The modifications to the current text of the Regulation are marked in bold.

* In accordance with the programme of work of the Inland Transport Committee for 2023 as outlined in proposed programme budget for 2024 (A/78/6 (Sect. 20), table 20.5), the World Forum will develop, harmonize and update UN Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.

I. Proposal

Paragraph 6.7.2. **Table 3b** ., amend to read:

6.7.2. Notwithstanding the requirement of paragraph 6.7.1., a manufacturer may choose to have the deterioration factors from Tables 3a or 3b used as an alternative to testing to paragraph 6.7.1.

Table 3b

Additive Deterioration factors (for emissions measurements to be compared against the limits in Table 1B)

Category		Class	Technically Permissible Maximum Laden Mass (GVW) (kg)	Assigned additive deterioration factors														
				Mass of carbon monoxide (CO)			Mass of non-methane hydrocarbons (NMHC)			Mass of oxides of nitrogen (NO _x)			Mass of particulate matter (PM)			Particle Number (PN)		
				L ₁ (mg/km)			L ₃ (mg/km)			L ₄ (mg/km)			L ₅ (mg/km)			L ₆ (#/km)		
			G	D	O	G	D	O	G	D	O	G*1	D	O	G*1	D	O	
M	—	All	127	76		12	3.1		11	11	*4	0	0		0	0		
N _I	—*2	GVW ≤ 1,700	127	76	*4	12	3.1	*4	11	11		0	0	*4	0	0	*4	
	—	1,700 < GVW ≤ 3,500	281	76		18	3.1		15	17		0	0		0	0		
	—*3	All	327	—	—	9	—	—	8	—		0	—	—	0	—	—	

G Petrol, LPG

D Diesel

O Other fuel

*1 For petrol or LPG, particulate mass and particle number limits shall apply only to vehicles with direct injection engines.

*2 Except vehicles having engine displacement less than or equal to 0.660 litre, vehicle length less than or equal to 3.40m, vehicle width less than or equal to 1.48m, and vehicle height less than or equal to 2.00m, seats less than or equal to 3 in addition to a driver, and payload less than or equal to 350kg.

*3 Vehicles having engine displacement less than or equal to 0.660 litre, vehicle length less than or equal to 3.40m, vehicle width less than or equal to 1.48m, and vehicle height less than or equal to 2.00m, seats less than or equal to 3 in addition to a driver, and payload less than or equal to 350kg.

*4 As there are no assigned deterioration factors for compression ignition vehicles **using other fuels**, manufacturers shall use the whole vehicle ageing durability test procedures to establish deterioration factors.

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II. Justification

1. Japan intends to introduce the additive deterioration factors for diesel from October 2024 in our regional regulation.
 2. Necessity of this amendment is to eliminate the potential manipulation which was recently observed in our region and this action needs to be implemented as one of the urgent solutions.
 3. For the purpose of our domestic legal procedure, it is desirable that this amendment is also reflected into UNR154.
 4. Considering the time constraints, Japan requests GRPE approval during the 90th session, January 2024.
 5. On the other hand, Japan understands that the frequent amendments of this Regulation is not efficient from the viewpoint of UNECE amendment process and homologation process in each region. Therefore, Japan follows GRPE decision if this amendment would be voted at WP.29 as a consolidated document including the other amendments yet to come in the near future.
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