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World Forum for Harmonization of Vehicle Regulations

Working Party on Automated/Autonomous and Connected Vehicles*

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Item XXX of the provisional agenda

UN Regulation No. AEBS

Proposal for an 01 Series of amendments to the draft Regulation No. XXX (Advanced Emergency Braking System -AEBS- for M₁ and N₁ vehicles)

Submitted by the experts from the European Commission and Japan**

The text reproduced below was prepared by the experts from the European Commission and Japan for introducing new, enhanced, provisions for the car to pedestrian scenario. The modifications to the existing text of the Regulation are marked in bold.

* Formerly: **Working Party on Brakes and Running Gear (GRRF)**.

** In accordance with the programme of work of the Inland Transport Committee for 2018–2019 (ECE/TRANS/274, para. 123 and ECE/TRANS/2018/21/Add.1, Cluster 3), 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 5.2.1.4, N_1 table and notes, amend to read:

"Maximum relative Impact Speed (km/h) for N_1 vehicles

Relative Speed (km/h)	Stationary				Moving			
	Laden Maximum mass		Unladen Mass in running order		Laden Maximum mass		Unladen Mass in running order	
	$\alpha > 1.3$	$\alpha \leq 1.3$	$\alpha > 1.3$	$\alpha \leq 1.3$	$\alpha > 1.3$	$\alpha \leq 1.3$	$\alpha > 1.3$	$\alpha \leq 1.3$
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
32	0.00	15.00	0.00	0.00	0.00	15.00	0.00	0.00
35	0.00	15.00	0.00	0.00	0.00	15.00	0.00	0.00
38	0.00	20.00	0.00	15.00	0.00	20.00	0.00	15.00
40	10.00	20.00	0.00	15.00	10.00	20.00	0.00	15.00
42	15.00	25.00	0.00	20.00	15.00	25.00	0.00	20.00
45	20.00	25.00	15.00	25.00	20.00	25.00	15.00	25.00
50	30.00	35.00	25.00	30.00	30.00	35.00	25.00	30.00
55	35.00	40.00	30.00	35.00	35.00	40.00	30.00	35.00
60	40.00	45.00	35.00	40.00	40.00	45.00	35.00	40.00

with $\alpha = W_r/W \times L/H$, where :

— W_r is the rear axle load.

— W is the subject vehicle mass in running order.

— L is the subject vehicle wheelbase.

— H is the subject vehicle centre of gravity height in running order

The speed reduction shall be demonstrated according to paragraphs 6.4. and 6.5."

Paragraph 5.2.2.4, M_1 and N_1 tables, amend to read:

"Maximum Impact Speed (km/h) for M_1

Subject vehicle speed (km/h)	Maximum mass	Mass in running order
20	0.00	0.00
25	0.00	0.00
30	0.00	0.00
35	0.00	0.00
40	0.00	0.00
42	10.00	0.00
45	[15.00]	[15.00]
50	[25.00]	[25.00]
55	[30.00]	[30.00]
60	[35.00]	[35.00]

Maximum relative Impact Speed (km/h) for N_1 vehicles

Subject vehicle speed (km/h)	Maximum mass		Mass in running order	
	$[\alpha > 1.3]$	$\alpha \leq 1.3$	$\alpha > 1.3$	$[\alpha \leq 1.3]$
20	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00
35	0.00	15.00	0.00	0.00
40	0.00	20.00	0.00	15.00
42	10.00	25.00	0.00	20.00
45	[15.00]	25.00	[15.00]	25.00
50	[25.00]	35.00	[25.00]	30.00
55	[30.00]	40.00	[30.00]	35.00
60	[35.00]	45.00	[35.00]	40.00

“

Insert a new paragraph 12, to read:

“12. Transitional provisions

- 12.1.** As from the official date of entry into force of the 01 series of amendments, no Contracting Party applying this Regulation shall refuse to grant or refuse to accept type approvals under this Regulation as amended by the 01 series of amendments.
- 12.2.** As from [1 May 2024], Contracting Parties applying this Regulation shall not be obliged to accept type approvals to the original version of this Regulation, first issued after [1 May 2024].
- 12.3.** Until [1 May 2026], Contracting Parties applying this Regulation shall accept type approvals to the original version of this Regulation, first issued before [1 May 2024].
- 12.4.** As from [1 May 2026], Contracting Parties applying this Regulation shall not be obliged to accept type approvals issued to the original version of this Regulation.
- 12.8.** Contracting Parties applying this Regulation shall continue to accept type approvals issued according to the original version of this Regulation first issued before [1 May 2024].
- 12.9.** Contracting Parties applying this Regulation shall not refuse to grant type approvals according to any preceding series of amendments to this Regulation or extensions thereof.”

II. Justification

1. XXX