

**Amendment to ECE/TRANS/WP29/GRRF/2011/23, 24, 25 and 26****A. Proposal**

5.1.1 of GRRF/2011/23, 24, 25 and 26, amend to read

5.1.1. Any vehicle fitted with an AEBS-M complying with the definition of paragraph 2.1.1. shall meet the performance requirements contained in paragraphs 5.1. to 5.6.2. of this Regulation and shall be equipped with an anti-lock braking function in accordance with the performance requirements of Annex 13 of Regulation No.13 [~~and a Vehicle Stability Function in accordance with the performance requirements of Annex 21 of Regulation No.13~~].

**Annex 3 of ECE/TRANS/WP29/GRRF/2011/24 and 25, amend to read****Warning and activation test requirements – pass/fail values**

Class	A	B	C	D	E	F	G	H
		Stationary target			Moving target			
		Timing of warning modes		Speed reduction (ref. paragraph 6.4.4.)	Timing of warning modes		Speed reduction (ref. paragraph 6.5.3.)	Target speed (ref. paragraph 6.5.1.)
		At least 1 haptic or acoustic (ref. paragraph 6.4.2.1.)	At least 2 (ref. paragraph 6.4.2.2.)		At least 1 haptic or acoustic (ref. paragraph 6.5.2.1.)	At least 2 (ref. paragraph 6.5.2.2.)		
1	M <sub>3</sub> and N <sub>3</sub> <u>1/</u>	Not later than 1.4 s. before start of emergency braking phase	Not later than 0.8 s. before start of emergency braking phase	Not less than 10 km/h	Not later than 1.4 s. before start of emergency braking phase	Not later than 0.8 s. before start of emergency braking phase	No impact	
2	M <sub>2</sub> and N <sub>2</sub>							

1/ Class 2 requirement is applied to vehicles with pneumatic-hydraulic braking system (AoH) and vehicles with hydraulic braking system

**Annex 3 of ECE/TRANS/WP29/GRRF/2011/23 and 26, amend to read**

Class	A	B		C	D	E	F	G	H
		Stationary target				Moving target			
		Timing of warning modes		Speed reduction (ref. paragraph 6.4.4.)	Timing of warning modes		Speed reduction (ref. paragraph 6.5.3.)	Target speed (ref. paragraph 6.5.1.)	
		At least 1 haptic or acoustic (ref. paragraph 6.4.2.1.)	At least 2 (ref. paragraph 6.4.2.2.)		At least 1 haptic or acoustic (ref. paragraph 6.5.2.1.)	At least 2 (ref. paragraph 6.5.2.2.)			
1	M <sub>3</sub> and N <sub>3</sub> <u>1/</u>	Not later than 1.4 s. before start of emergency braking phase	Not later than 0.8 s. before start of emergency braking phase	Not less than 20 km/h [2/]	Not later than 1.4 s. before start of emergency braking phase	Not later than 0.8 s. before start of emergency braking phase	No impact		12 ± 2 km/h [3/]
2	M <sub>2</sub> and N <sub>2</sub>								

1/ Class 2 requirement is applied to vehicles with hydraulic braking system.

[2/ Not less than 10km/h is applied for speed reduction to vehicles with pneumatic-hydraulic braking system (AoH) .]

[3/ 32 ± 2km/h is applied for target speed to vehicles with pneumatic-hydraulic braking system (AoH) .]

**B. Justification**

With regards to the necessity of equipment of EVSC and (Rear) Air Suspension for AEBS, there is a different opinion among different countries and regions on reflecting their market. It would be appropriate to decide this judgment on national or regional basis. Therefore the relevant prescriptions are deleted.

With regards to the different requirement considering the capability of brake system, the basic classification by vehicle category is introduced instead of brake system in column A. And some foot notes are added to adjust the discrepancy between vehicle category and brake system.