

A-1. Proposal**Annex 3 of Informal document No. GRRF-70-05; GRRF/2011/25,
amend to read****“Warning and activation test requirements – pass/fail values**

A	Stationary target			Moving target				H
	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.)			
M ₃ and N ₃ <u>1/</u> , <u>2/</u> , <u>4/</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	32 ± 2 km/h	1
N ₂ >8t <u>3/</u> , <u>4/</u>	[Not later than 1.4 s. before start of emergency braking phase] or [Blank]	[Not later than 0.8 s. before start of emergency braking phase] or [Blank]	[Not less than 10 km/h] or [Blank]	[Not later than 1.4 s. before start of emergency braking phase] or [Blank]	[Not later than 0.8 s. before start of emergency braking phase] or [Blank]	[No impact] or [Blank]	[32 ± 2 km/h] or [Blank]	2
N ₂ ≤ 8t and M2 3/ , 5/	[No restriction regarding timing and warning modes ^{a]} or [Blank]	[No restriction regarding timing and warning modes ^{a]} or [Blank]	[0 km/h ^{b]} or [Blank]	[No time restriction] or [Blank]	[Not later than 1.4 s. before start of emergency braking phase ^{c]} or [Blank]	[0 km/h ^{d]} or [Blank]	[32 ± 2 km/h] or [Blank]	3

1/ Vehicles with pneumatic-hydraulic braking system (AoH) are subject to the requirements of row 2

2/ Vehicles of category M3 with hydraulic braking system are subject to the requirements of row 3.

3/ Vehicles with pneumatic braking system are subject to the requirements of row 1

4/ applicable only to vehicles with pneumatic rear axle suspension]

~~5/ — Reservation from J for light M2/N2 vehicles~~

^a For zero speed reduction, start of emergency braking phase is time to collision. In this case, paragraph 6.4.3. does not apply.

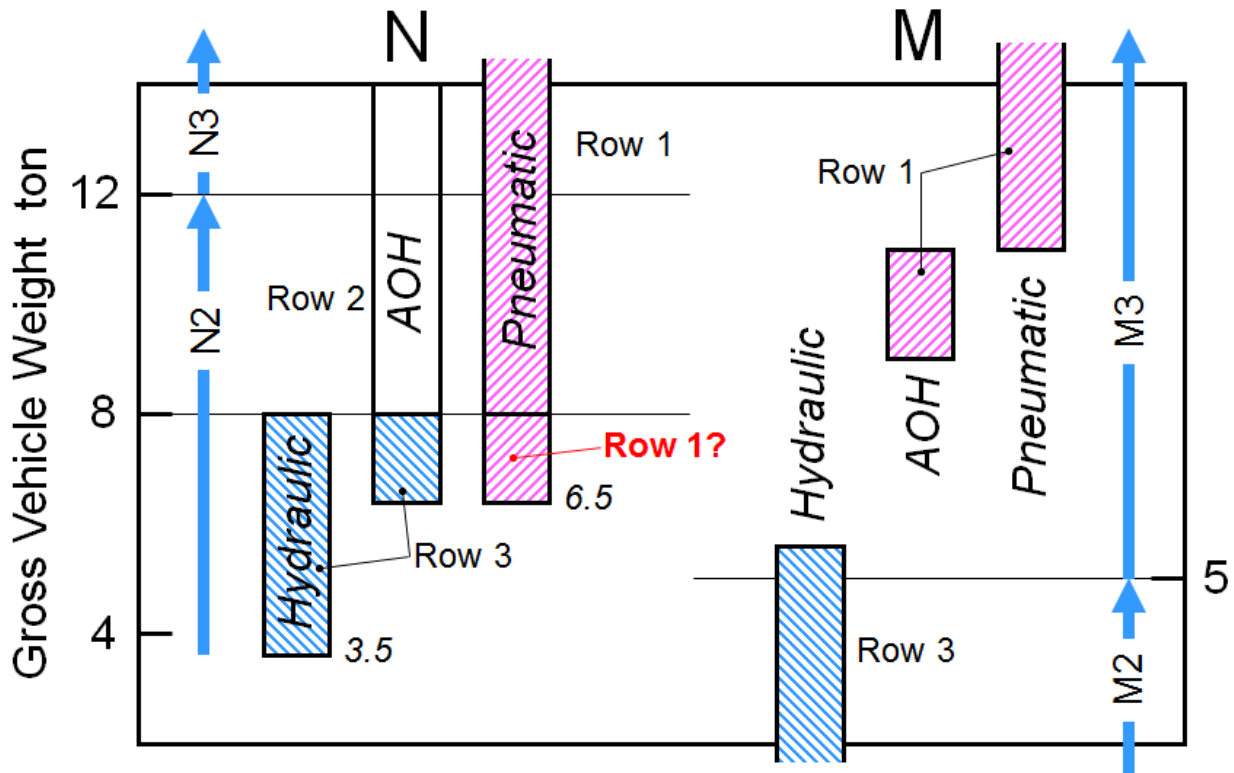
^b Speed reduction optional.

^c For zero speed reduction, start of emergency braking phase is time to collision.

^d In this case, paragraph 6.5.3. does not apply. Speed reduction optional.”

B-1. Justification

Vehicles with pneumatic braking system in $N_2 \leq 8t$ category are subject to the requirements of row 1, however, vehicles with pneumatic-hydraulic braking system (AOH) in the same category are subject to the requirements of row 3. Since the vehicle behaviour is according to the vehicle size, it is adequate to apply the same requirements, i.e. row 3 for both braking systems.



A-2. Proposal**Annex 3 of Informal document No. GRRF-70-06; GRRF/2011/26,
amend to read****“Warning and activation test requirements – pass/fail values**

A	B			C			D			E			F			G			H					
	Stationary target						Moving target																	
	Timing of warning modes			Speed reduction			Timing of warning modes			Speed reduction			Target speed											
	At least 1 haptic or acoustic (ref. paragraph 6.4.2.1.)			At least 2 (ref. paragraph 6.4.2.2.)			Speed reduction (ref. paragraph 6.4.4.)			At least 1 haptic or acoustic (ref. paragraph 6.5.2.1.)			At least 2 (ref. paragraph 6.5.2.2.)			Speed reduction (ref. paragraph 6.5.3.)			Target speed (ref. paragraph 6.5.1.)					
M ₃ and N ₃ 1/, [3/]	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			Not later than [1.4 / 2.0] 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			1		
N ₂ >8 t [3/]	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			Not later than [1.4 / 2.0] 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			2		
N ₂ ≤ 8 t and M ₂ 2/, 4/	[No restriction regarding timing and warning modes ^a] or [Blank]- 4/			[No restriction regarding timing and warning modes ^a] or [Blank]- 4/			[0 km/h ^b] or [Blank]- 4/			[No time restriction] or [Blank]- 4/			[Not later than 1.4 s. before start of emergency braking phase ^c] or [Blank]- 4/			[0 km/h ^d] or [Blank]- 4/			[12 ± 2 km/h] or [Blank]- 4/			3		

1/ Vehicles of category M3 with hydraulic braking system are subject to the requirements of row 3

~~2/ Vehicles with pneumatic braking system are subject to the requirements of row 1~~

[3/ applicable only to vehicles with pneumatic rear axle suspension]

~~4/ Reservation from J for light M2/N2 vehicles~~

^a For zero speed reduction, start of emergency braking phase is time to collision. In this case, paragraph 6.4.3. does not apply.

^b Speed reduction optional.

^c For zero speed reduction, start of emergency braking phase is time to collision.

^d In this case, paragraph 6.5.3. does not apply. Speed reduction optional.”

B-2. Justification

Vehicles with pneumatic braking system in $N_2 \leq 8t$ category are subject to the requirements of row 1, however, vehicles with pneumatic-hydraulic braking system (AOH) in the same category are subject to the requirements of row 3. Since the vehicle behaviour is according to the vehicle size, it is adequate to apply the same requirements, i.e. row 3 for both braking systems.

