Economic Commission for Europe
Inland Transport Committee

World Forum for Harmonization of Vehicle Regulations
155th session
Geneva, 15–18 November 2011
Item 4.16.1 of the provisional agenda
1958 Agreement – Consideration of amendments to draft Regulations submitted by GRRF

Proposal for the 01 series of amendments to the draft Regulation on Advanced Emergency Braking Systems (AEBS)

Submitted by the Working Party on Brakes and Running Gear *

The text reproduced below was adopted by the Working Party on Brakes and Running Gear (GRRF) at its seventieth session, as draft 01 series of amendments to the new draft Regulation on advanced emergency braking systems. This second step on collision avoidance systems is based on ECE/TRANS/WP.29/GRRF/2011/26, as amended by Annex II to the report (ECE/TRANS/WP.29/GRRF/70, para. 14). It is submitted to the World Forum for Harmonization of Vehicle Regulations (WP.29) and to the Administrative Committee (AC.1) for consideration. The pending issues, which require a decision from WP.29 and AC.1, are marked in square brackets.

* In accordance with the programme of work of the Inland Transport Committee for 2010–2014 (ECE/TRANS/208, para. 106 and ECE/TRANS/2010/8, programme activity 02.4), the World Forum will develop, harmonize and update Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.
Paragraph 4.2., amend to read:

"4.2. An approval number shall be assigned to each type approved; its first two digits (at present 01 corresponding to the 01 series of amendments) shall indicate…"

Insert new paragraphs 12. to 12.6., 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 Type Approvals under this Regulation as amended by the 01 series of amendments.]

[12.2. Contracting Parties applying [the 00 Series of Amendments to] this Regulation shall not be prohibited from granting UNECE type approvals and extensions of UNECE type approvals to the 00 series of amendments to this Regulation.]

[12.3. As from the official date of entry into force of the 01 series of amendments, no Contracting Party applying this Regulation shall refuse national or regional type approval of a vehicle type approved to the 01 series of amendments to this Regulation.]

[12.4. As from the official date of entry into force of the 01 series of amendments, no Contracting Party applying this Regulation shall refuse first national or regional registration of a vehicle which complies with the requirements of the 01 series of amendments to this Regulation.]

[12.5. Until [1 November 2016 / 1 November 2012], no Contracting Party applying this Regulation shall refuse national or regional type approval of a vehicle type approved to the 00 series of amendments to this Regulation.]

[12.6. Until [1 November 2020 / 1 November 2018] [1 November 2020 / 1 November 2014], no Contracting Party applying this Regulation shall refuse first national or regional registration of a vehicle which complies with the requirements of the 00 series of amendments to this Regulation.]

Annex 2, amend to read:

"Annex 2

Arrangements of approval marks

(see paragraphs 4.4. to 4.4.2. of this Regulation)

\[
\text{XXXR - 01185}
\]

\[a = 8 \text{ mm min}\]
The above approval mark affixed to a vehicle shows that the vehicle type concerned has been approved in Belgium (E6) with regard to the XXX pursuant to Regulation No. XXX. The first two digits of the approval number indicate that the approval was granted in accordance with the requirements of the 01 Series of Amendments to the Regulation No. AEBS

Annex 3, the table, amend to read:

"Warning and activation test requirements – pass/fail values"

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stationary target</strong></td>
<td><strong>Moving target</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Timing of warning modes</td>
<td>Speed reduction</td>
<td>Timing of warning modes</td>
<td>Speed reduction</td>
<td>Target speed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At least 1 haptic or acoustic (ref. paragraph 6.4.2.1.)</td>
<td>At least 2 (ref. paragraph 6.4.2.2.)</td>
<td>At least 1 haptic or acoustic (ref. paragraph 6.4.4.)</td>
<td>At least 2 (ref. paragraph 6.5.2.2.)</td>
<td>(ref. paragraph 6.5.1.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M₁ and N₃ [1],[3]</td>
<td>Not later than 1.4 s. before the start of emergency braking phase</td>
<td>Not later than 0.8 s. before the start of emergency braking phase</td>
<td>Not less than 20 km/h</td>
<td>Not later than [1.4] s. before the start of emergency braking phase</td>
<td>No impact</td>
<td>12 ± 2 km/h</td>
<td>1</td>
</tr>
<tr>
<td>N₂&gt;8 t [4]</td>
<td>Not later than 1.4 s. before the start of emergency braking phase</td>
<td>Not later than 0.8 s. before the start of emergency braking phase</td>
<td>Not less than 20 km/h</td>
<td>Not later than [1.4] s. before the start of emergency braking phase</td>
<td>No impact</td>
<td>12 ± 2 km/h</td>
<td>2</td>
</tr>
<tr>
<td>N₂≤8 t and M₂ [2],[4]</td>
<td>[No restriction regarding timing and warning modes a]</td>
<td>[No time restriction]</td>
<td>[0 km/h b]</td>
<td>[No time restriction]</td>
<td>0 km/h [c]</td>
<td>12 ± 2 km/h</td>
<td>3</td>
</tr>
</tbody>
</table>

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, the start of the emergency braking phase is time to collision. In this case, paragraph 6.4.3. does not apply.
b. Speed reduction optional.

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

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