Economic Commission for Europe
Inland Transport Committee
World Forum for Harmonization of Vehicle Regulations
Working Party on Brakes and Running Gear
Seventieth session
Geneva, 12–13 May 2011
Item 2 of the provisional agenda
Advanced Emergency Braking Systems

Proposal for 01 Series of amendments to the Draft Regulation on advanced emergency braking systems

Submitted by the Informal group on Advanced Emergency Braking and Lane Departure Warning Systems *

The text reproduced below was prepared by the Informal group on Advanced Emergency Braking and Lane Departure Warning Systems (AEBS/LDWS) to propose a draft 01 series of amendment to the AEBS regulation, following the “1-Regulation” approach.

* 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.
I. Proposal

*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 UNECE type approvals under this Regulation as amended by the 01 series of amendments.]

12.2. Contracting Parties applying 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], 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], 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)

![Approval Mark](image)

The above approval mark affixed to a vehicle shows that the vehicle type concerned has been approved in Belgium (E6) with regard to the AEBS 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. XXX in its original form.

Annex 3, Table 1, amend to read:

<table>
<thead>
<tr>
<th></th>
<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></td>
<td>Stationary target</td>
<td></td>
<td>Moving target</td>
<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<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></td>
<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 6.5.2.2.)</td>
<td>At least 2 (ref. paragraph 6.5.2.2.)</td>
<td>Not later than [1.4 s / 2.0 s] before start of emergency braking phase</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M₁ and N₁ vehicles with a pneumatic braking system [pneumatic rear axle suspension]</td>
<td>Not later than 1.4 s. before start of emergency braking phase</td>
<td>Not later than 0.8 s. before start of emergency braking phase</td>
<td>Not less than [10/20/50 km/h]</td>
<td>No impact</td>
<td>[12 ± 2 km/h]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M₂ and N₂ vehicles with a pneumatic braking system [pneumatic rear axle suspension]</td>
<td>Not later than 1.4 s. before start of emergency braking phase</td>
<td>Not later than 0.8 s. before start of emergency braking phase</td>
<td>Not less than [10/20/50 km/h]</td>
<td>No impact</td>
<td>[12 ± 2 km/h]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M₂ and N₂ [M₃ and N₃] vehicles with an pneumatic-hydraulic braking system (AoH) [pneumatic rear axle suspension]</td>
<td>Not later than 1.4 s. before start of emergency braking phase</td>
<td>Not later than 0.8 s. before start of emergency braking phase</td>
<td>Not less than [10/20/50 km/h]</td>
<td>No impact</td>
<td>[32 ± 2 km/h]</td>
<td></td>
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</tr>
<tr>
<td>M₂ and N₂ vehicles with a Vacuum-hydraulic braking system</td>
<td>Not later than 1.4 s. before start of emergency braking phase</td>
<td>Not later than 0.8 s. before start of emergency braking phase</td>
<td>Not less than [10/20/50 km/h]</td>
<td>No impact</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>