



## Economic and Social Council

Distr.: General  
14 January 2011

Original: English  
English and French only

---

### Economic Commission for Europe

#### Inland Transport Committee

#### World Forum for Harmonization of Vehicle Regulations

#### Working Party on Lighting and Light-Signalling

#### Sixty-fifth session

Geneva, 28–31 March 2011

Item 5 (d) of the provisional agenda

**Collective amendments—Regulations Nos. 19, 48,  
98, 99, 113 and 123**

### **Proposal for the [06] series of amendments to Regulation Nos. 48 (Installation of lighting and light-signalling devices)**

#### **Submitted by the experts from the Netherlands and Germany\***

The text reproduced below was prepared by the experts from the Netherlands and Germany, with the support of the expert from Austria, to delete an old exemption, which allows manual levelling for dipped-beam headlamps. The modifications to the existing text of the Regulation are marked in bold for new or strikethrough for deleted characters.

---

\* In accordance with the programme of work of the Inland Transport Committee for 2010–2014 (ECE/TRANS/208, para. 106, 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

*List of Annexes,*

*Annex 8,* shall be deleted

*Annexes 9 to 13,* renumber as Annexes 8 to 12

*Paragraph 2.7.1., footnote \*,* amend to read:

\* For clarification see Annex 9.

*Paragraph 4.2.,* amend to read:

"4.2. An approval number shall be assigned to each type approved. Its first two digits (at present [06], corresponding to the [06] series of amendments) shall indicate the series ...."

*Paragraph 6.2.6.2.2.,* shall be deleted

*Paragraph 6.2.6.2.3.,* renumber as 6.2.6.2.2. and amend to read:

"6.2.6.2.2. In the event of a failure of devices described in paragraphs 6.2.6.2.1. and ~~6.2.6.2.2.~~, the dipped-beam shall not assume a position on which the dip is less than it was at the time when the failure of the device occurred."

*Paragraph 6.2.9.,* amend to read:

"6.2.9. *Other requirements*

The requirements of paragraph 5.5.2. shall not apply to dipped-beam headlamps.

...

With respect to ...headlamps:

(a) ~~with LED module(s) producing the principal dipped beam, or~~

(b) ~~with a light source producing the principal dipped beam and having an objective luminous flux which exceeds 2,000 lumen.~~

Only dipped-beam headlamps .... "

*Paragraph 6.21.5.1.,* amend to read:

"6.21.5.1. for rear conspicuity markings (see Annex 10, Figure 1a and 1b) the ..."

*Paragraph 6.21.5.2.,* amend to read:

"6.21.5.2. for side conspicuity markings (see Annex 10, Figure 2)..."

*Paragraph 8.2.2.,* amend to read:

"8.2.2. ensure that ...in Annex 8 to ..."

*Insert new paragraphs 12.27. to 12.30.,* to read:

"12.27. **As from [30] months for vehicles of categories M<sub>1</sub> and N<sub>1</sub> and [84] months for vehicles of other categories after the official date of entry into force of the [06] series of amendments, Contracting Parties applying this Regulation shall grant approvals only if the vehicle type to be approved meets the requirements of this Regulation as amended by the [06] series of amendments.**

- 12.29. Until [30] months for vehicles of categories M<sub>1</sub> and N<sub>1</sub> and [84] months for vehicles of other categories after the official date of entry into force of the [06] series of amendments, Contracting Parties applying this Regulation shall continue to grant approvals to those types of vehicles which comply with the requirements of this Regulation as amended by the preceding series of amendments.
- 12.30. Approvals granted under this Regulation before [30] months for vehicles of categories M<sub>1</sub> and N<sub>1</sub> and [84] months for vehicles of other categories after the official date of entry into force of the [06] series of amendments and all extensions of such approvals, including those to a preceding series of amendments to this Regulation granted subsequently, shall remain valid indefinitely. When the vehicle type approved to the preceding series of amendments meets the requirements of this Regulation as amended by the [06] series of amendments, the Contracting Party which granted the approval shall notify the other Contracting Parties applying this Regulation thereof."

Annex 2, amend to read:

"Annex 2

Arrangements of Approval Marks

Model A

(See paragraph 4.4. of this Regulation)

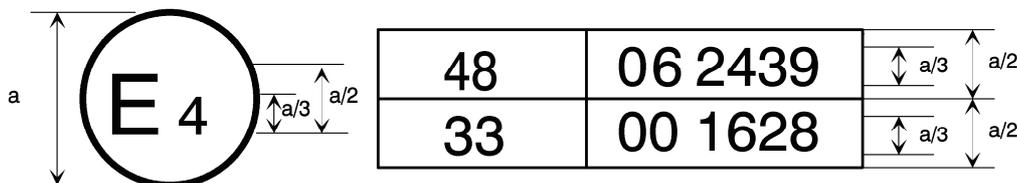


a = 8 mm min.

The above ... Regulation No. 48 as amended by the [06] series of amendments. The approval number indicates that the approval was granted in accordance with the requirements of Regulation No. 48 as amended by the [06] series of amendments.

Model B

(See paragraph 4.5. of this Regulation)



a = 8 mm min.

The above ... Regulation No. 48 as amended by the [06] series of amendments and Regulation No. 33.<sup>1</sup> The approval number indicates that, at the dates when the respective

<sup>1</sup> The second number is given merely as an example.

approvals were given, Regulation No. 48 was amended by the [06] series of amendments and Regulation No. 33 was still in its original form."

*Annex 6, paragraph 5.5.*, amend to read:

"5.5. Measurements

The variation of ... with paragraph 5.2. above.

~~If the vehicle is fitted with a manual headlamp levelling system, the latter shall be adjusted to the positions specified by the manufacturer for given loading conditions (according to Annex 5)."~~

*Annex 8*, shall be deleted

*Annexes 9 to 13 (former)*, renumber as Annexes 8 to 12

## II. Justification

1. This proposal is aimed at deleting an old exemption in Regulation No. 48 that allows manual leveling for dipped-beam headlamps, which was established thirty five years ago with the introduction of automatic leveling. At that time automatic leveling was becoming mandatory and manual leveling was allowed to manufacturers to provide a simple and cheap alternative at the beginning and for a certain period only.

2. Automatic leveling for all headlamps became mandatory at the beginning of the 1990s, starting with manual leveling (later only in limited cases). However, even at that time it was still a challenge for the manufacturers to ensure that all types of vehicles would meet this requirement. But the technical progress over the last two decades no longer justifies this exemption.

3. The experience over the years (especially during periodical inspections) has shown that many vehicle drivers do not know how to handle such manual leveling devices and/or use them (un)intentionally in a wrong way. Wrong use especially can worsen, or even cause, glare instead of actually avoiding it (which was one of the original intentions).

4. Incorrect use of manual leveling also could lead to a (drastic) reduction of the driver's distance visibility, thus reducing safety. This occurs for instance in cases when the control for the manual headlamp-leveling device is inadvertently left in position that gives the greatest downward inclination for the headlamps. While automatic leveling ensures optimal distance visibility and therefore can contribute significantly to an increase of night-time driving safety.

5. The improvements with respect to glare reduction and keeping the seeing-distance in an optimum will be underlined by several studies (e.g. University of Michigan Transportation Research Institute 2007-46), which was carried out in a country with a relative critical view on such aspects. Also the studies on pedestrian protection show clearly the safety benefit of a sufficient seeing distance.

6. The technical progress of recent years makes the manual operation outdated and offers safer sensor controlled solutions. Therefore, the experts from the Netherlands and Germany propose, as a step to improve road safety, the deletion of this old exemption, which still allows manual operation of a leveling device for the dipped-beam headlamps.

7. According to European legislation, new types of vehicles shall be fitted with Electronic Stability Control (ESC), starting from the end of 2011 (depending on vehicle category). And new vehicles (existing types) shall be fitted with ESC no later than by the end of 2014. All this means that future vehicles will be equipped with a basic electronic

network, thus enabling manufacturers to equip their vehicles with sensors for automatic leveling with little additional effort and cost. Moreover, the manual leveling control unit on the dashboard will no longer be needed, which may actually provide an additional saving.

---