

Proposed amendment to ECE/TRANS/WP.29/2007/20/Rev.1

The modifications are marked in **bold** or ~~strikethrough~~ characters.

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Item 4.2.18. of the provisional agenda

1958 AGREEMENT

Consideration of draft amendments to Regulations

Proposal for the 04 series of amendments to Regulation No. 48
(Installation of lighting and light-signalling devices)

Revised proposal for the 04 series of amendments to Regulation No. 48

Submitted by the representative of the European Community

The text reproduced below has been prepared to replace the proposal for the 04 series of amendments to Regulation No. 48 contained in document ECE/TRANS/WP.29/2007/20. The document is submitted to WP.29 and AC.1 for consideration.

Paragraph 2.7.25., the reference to footnote 3/ and footnote 3/, should be deleted.

Paragraph 4.2., amend to read:

"4.2. An approval number shall be assigned to each type approved. Its first two digits (at present 04, corresponding to the 04 series of amendments) shall indicate the series of amendments incorporating the most recent major technical amendments made to the Regulation at the time of issue of the approval. The same Contracting Party shall not assign this number to another vehicle type or to the same vehicle type submitted with equipment not specified in the list referred to in paragraph 3.2.2. above, subject to the provisions of paragraph 7. of this Regulation."

Paragraph 4.4.1., the reference to footnote 4/ and footnote 4/, renumber as footnote 3/.

Paragraph 5.15., the references to footnotes 5/ and 6/ and footnotes 5/ and 6/, renumber as footnotes 4/ and 5/.

Paragraph 6.2.4.2., the reference to footnote 7/ and footnote 7/, renumber as footnote 6/.

Paragraph 6.2.7., amend to read:

"6.2.7. Electrical connections

The control for changing over to the dipped-beam ...

...

... or by other means accepted by the authority responsible for type approval."

Insert a new paragraph 6.2.7.1., to read:

"[6.2.7.1 **When the headlamp switch(es) is(are) not in any manual ON position, the dipped-beam headlamps shall be switched ON or OFF automatically. They shall be switched ON when it is required to drive with the dipped-beam headlamps switched on due to low ambient lighting conditions (e.g. during nighttime driving conditions, reduced visibility, tunnels, etc..)**

These provisions shall not apply:

- **when dedicated daytime running lamps are installed and they are operating in conjunction with at least rear position lamps,**
- **when dedicated daytime running lamps are not present.**

However, it shall be always possible to manually ~~override the automatic switching of~~ **activate** the dipped-beam headlamps. ~~After each re-start of the engine, the automatic switching between the daytime running lights and the dipped beam headlamps shall be re-activated. As an alternative to the manual activation and on request of the manufacturer, the sensitivity of the sensor shall be adjustable providing at least two~~

~~changes to the preset value, one at brighter ambient conditions and one at a lower ambient light level."]~~

Paragraph 6.2.9., the reference to footnote 8/ and footnote 8/, renumber as footnote 7/.

Paragraphs 6.19., the reference to footnote 9/ and footnote 9/, renumber as footnote 8/ and amend to read:

"6.19. DAYTIME RUNNING LAMP (Regulation No. 87) 8/

....

8/ Contracting Parties not applying Regulation No. 87 may prohibit the presence of Daytime Running Lamp (DRL) (as specified in paragraph 5.22.) on the basis of national regulations."

Paragraph 6.19.1., amend to read:

"6.19.1. Presence

Mandatory on motor vehicles. Prohibited on trailers."

Paragraph 6.19.7., amend to read:

"6.19.7. Electrical connections

The daytime running lamps shall be switched ON automatically when the device which starts and/or stops the engine is in a position which makes it possible for the engine to operate.

The daytime running lamps shall at short intervals.

Furthermore, the lamps referred to in paragraph 5.11. ~~are not~~ **may be** switched on when the daytime running lamps are switched ON."

Paragraph 6.21.4.2.3., the reference to footnote 10/ and footnote 10/, renumber as footnote 9/

Paragraph 12., amend to read:

"12. TRANSITIONAL PROVISIONS

12.1. As from the official date of entry into force of the 03 series of amendments, no Contracting Party applying this Regulation shall refuse to grant approval under this Regulation as amended by the 03 series of amendments.

12.2. As from 12 months after the date of entry into force of the 03 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 03 series of amendments.

- 12.3. Contracting Parties applying the 03 series of amendments to this Regulation shall not refuse to grant extensions of approval to the preceding series of amendments to this Regulation.
- 12.4. No Contracting Party applying this Regulation shall refuse national or regional type approval of a vehicle type approved to the 03 series of amendments to this Regulation.
- 12.5. Until 36 months after the date of entry into force of the 03 series of amendments to this Regulation, no Contracting Party applying this Regulation shall refuse national or regional type approval of a vehicle type approved to the preceding series of amendments to this Regulation.
- 12.6. Starting 36 months after the entry into force of the 03 series of amendments to this Regulation, Contracting Parties applying this Regulation may refuse first national or regional registration (first entry into service) of a vehicle which does not meet the requirements of the 03 series of amendments to this Regulation.
- 12.7. As from 60 months after the entry into force of the 03 series of amendments to this Regulation, approvals to this Regulation shall cease to be valid, except in the case of vehicle types which comply with the requirements of this Regulation as amended by the 03 series of amendments.
- 12.8. Notwithstanding paragraph 12.6. or 12.7., approvals of the vehicle types to the preceding series of amendments to the Regulation which are not affected by the 03 series of amendments shall remain valid and Contracting Parties applying the Regulation shall continue to accept them.
- 12.9. As from the official date of entry into force of Supplement 3 to the 03 series of amendments, no Contracting Party applying this Regulation shall refuse to grant approvals under this Regulation, as amended by Supplement 3 to the 03 series of amendments.
- 12.10. As from 36 months from the entry into force of Supplement 3 to the 03 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 Supplement 3 to the 03 series of amendments.
- 12.11. Approvals granted under this Regulation before the date mentioned in paragraph 12.10. above, including extensions of such approvals, shall remain valid and Contracting Parties applying this Regulation shall continue to accept them.

- 12.12. As from the official date of entry into force of the 04 series of amendments, no Contracting Party applying this Regulation shall refuse to grant approvals under this Regulation as amended by the 04 series of amendments.
- 12.13. As from 30 months for vehicles of categories M₁ and N₁ and 48 months for vehicles of other categories after the date of entry into force of the 04 series of amendments, Contracting Parties applying this Regulation shall grant ECE approvals only if the vehicle type to be approved meets the requirements of this Regulation as amended by the 04 series of amendments [with the exception of the requirements of paragraph 6.2.7.1.]
- [12.14. As from 42 months for vehicles of categories M₁ and N₁ and 60 months for vehicles of other categories after the official date of entry into force of the 04 series of amendments, Contracting Parties applying this Regulation shall grant ECE approvals only if the vehicle type to be approved meets the requirements of this Regulation as amended by the 04 series of amendments including the requirements of paragraph 6.2.7.1.]
- 12.15. Contracting Parties applying the 04 series of amendments to this Regulation shall not refuse to grant extensions of approval to the preceding series of amendments to this Regulation.
- 12.16. Until 30 months for vehicles of categories M₁ and N₁ and 48 months for vehicles of other categories after the date of entry into force of the 04 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.
- 12.17. ECE approvals granted under this Regulation before 30 months for vehicles of categories M₁ and N₁ and 48 months for vehicles of other categories after the official date of entry into force of the 04 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 04 series of amendments, the Contracting Party which granted the approval shall notify the other Contracting Parties applying this Regulation thereof.
- 12.18. No Contracting Party applying this Regulation shall refuse national or regional type approval of a vehicle type approved to the 04 series of amendments to this Regulation.
- 12.19. Notwithstanding the transitional provisions above, Contracting Parties whose application of this Regulation comes into force after the date of entry into force of the most recent series of amendments are not obliged to accept approvals which were granted in accordance with any of the preceding series of amendments of this Regulation.

12.20. Until the United Nations Secretary-General is notified otherwise, Japan declares that in relation to the installation of lighting the light signalling devices, Japan will only be bound by the obligations of the Agreement to which this Regulation is annexed with respect to vehicles of categories M₁ and N₁."

[Annex 1,

Insert a new paragraph 9.2.1., to read:

"9.2.1 Dipped-beam headlamps switched automatically: yes/no
2/....."]

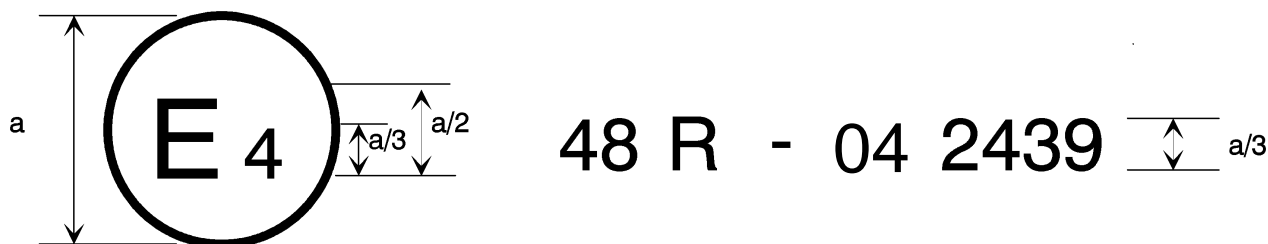
Annex 2, amend to read:

"Annex 2

ARRANGEMENTS OF APPROVAL MARKS

Model A

(See paragraph 4.4. of this Regulation)

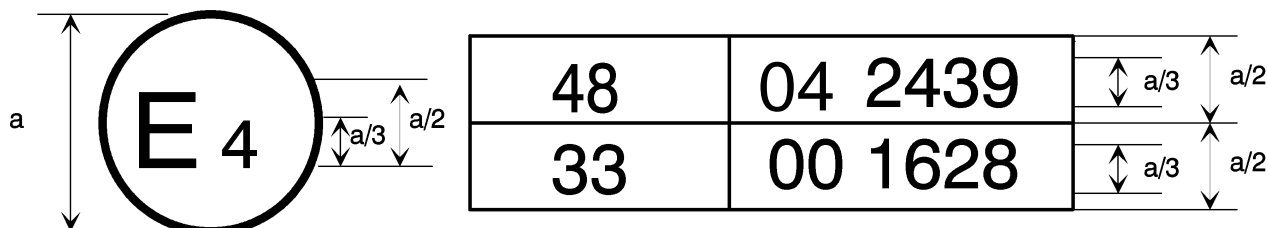


a = 8 mm min.

The above approval mark affixed to a vehicle shows that the vehicle type concerned has, with regard to the installation of lighting and light-signalling devices, been approved in the Netherlands (E4) pursuant to Regulation No. 48 as amended by the 04 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 04 series of amendments.

Model B

(see paragraph 4.5. of this Regulation)



a = 8 mm min.

The above approval mark affixed to a vehicle shows that the vehicle type concerned has been approved in the Netherlands (E4) pursuant to Regulation No. 48 as amended by the 04 series of amendments and Regulation No. 33. ^{1/} The approval number indicates that, at the dates when the respective approvals were given, Regulation No. 48 was amended by the 04 series of amendments and Regulation No. 33 was still in its original form.

^{1/} The second number is given merely as an example."

JUSTIFICATION:

In general OICA sees no necessity to insert the new paragraph 6.2.7.1 which requires the automatic switching of dipped beam headlamps. Therefore the requirements dealing with the automatic switching of the dipped beam headlamps are in brackets.
The justification for this position is as follows:

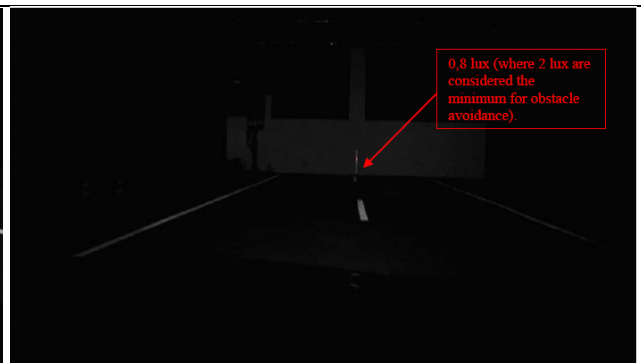
The EC propose to mandate Automatic Headlamp Switching (AHS) on the theoretical basis that, with DRLs, drivers may not switch on headlamps in dark conditions (tunnels etc) and would have no rear lights.

- No scientific corroboration for this theory has been offered as justification
- No cost-benefit study or impact analysis has been carried out.
- Industry offered rear lamps operating with DRLs as an alternative to AHS but this was rejected for CO₂ reasons.
- These CO₂ reasons are theoretical and have never been fully evaluated, but OICA can show that they are not properly justified (see below).
- OICA have demonstrated that the light level provided by DRLs would not influence the decision whether to switch on headlamps or not, so **introduction of DRLs does not justify mandatory AHS.**

Illustration: These pictures give an idea of what the driver can see from his driving position with dipped beam headlamps and with DRLs.



60 lux (where 2 lux are considered the minimum for obstacle avoidance).



0,8 lux (where 2 lux are considered the minimum for obstacle avoidance).

Driver's view with dipped beam headlamps on

Driver's view with dedicated DRLs on

(screen at 25m)

As mentioned above, OICA proposes as an alternative to AHS, the combination of rear position lamps and dedicated DRL's should be allowed also. This alternative would also ensure that rear lights are on when necessary.

From a CO₂ cost-benefit perspective the situation can be summarized as follows:

Vehicle level

EC: proposal	DRL on during day alone:	+1,1 g CO ₂ /km
Industry: proposal	Rear position lamps on during day alone:	+0,3 g CO ₂ /km
	Total:	+1,4 g

This means 0,3 g CO₂/km x 220 000 km = 66 kg additional CO₂ over the lifetime of a vehicle

The market price of 66 kg CO₂ is less than 10% of the estimated cost for installing AHS

(using assumption of 1 tonne of CO₂ = 17 € & AHS installation = 20 €)

Even this small additional CO₂ emission would be partly or even completely offset by increased use of headlamps with AHS, because the only way to select rear lights would be to operate the manual override and switch on headlamps as well.

From a technical perspective, if AHS is to be a mandatory requirement, OICA sees the necessity to define the requirements regarding the automatic switching and the manual override of the dipped beam headlamps as simply as possible. This is to avoid unnecessary complication of switching and wiring, with consequent additional cost, and the possibility of interfering with the driver's ability to choose the most appropriate lighting selection for the prevailing conditions. It is therefore proposed to delete the requirement for AHS override to reset to automatic after each engine restart, and at the same time to restrict the manual override to "HEADLAMPS ON", thus preventing inappropriate operation of DRLs at night and inadvertent operation without rear lights.
