

Proposal for Supplement X to the 06 series of amendments to Regulation No. 48 (Installation of lighting and light-signalling devices) for development of IWVTA

Note: The text reproduced below was prepared by the expert from Japan to extend Regulation No. 48 type approval that will be a part of IWVTA to more countries and vehicles, according to WP.29-156-21-Rev.1. The modifications to the current text of the regulation are marked in bold or strikethrough characters.

I. Proposal

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.

~~Dipped-beam headlamps with a light source or LED module(s) producing the principal dipped beam and having a total objective luminous flux which exceeds 2,000 lumen shall only be installed in conjunction with the installation of headlamp cleaning device(s) according to Regulation No. 45¹⁴.~~

With respect to vertical inclination ..."

Insert a new paragraph 6.2.9.1., to read:

"**6.2.9.1. Contracting Parties may request the following provision on the basis of national regulations.**

Dipped-beam headlamps with a light source or LED module(s) producing the principal dipped-beam and having a total objective luminous flux which exceeds 2,000 lumen shall only be installed in conjunction with the installation of headlamp cleaning device(s) according to Regulation No. 45¹⁴."

Paragraph 6.11. and 6.11.1., amend to read:

"6.11. Rear fog lamp (Regulation No. 38) [¹⁴]

6.11.1. Presence

Devices of F or F1 or F2 categories: ~~Mandatory~~ **Optional**.

...

[¹⁴ **Contracting Parties may mandate the presence of rear fog lamp (as specified in paragraph 5.22.) on the basis of national regulations.**]"

Paragraph 6.19. and 6.19.1., amend to read:

"6.19. Daytime running lamp (Regulation No. 87) ^{14 15}

6.19.1. Presence

~~Mandatory~~ **Optional** on motor vehicles. Prohibited on trailers.

[¹⁴⁻¹⁵ **Contracting Parties may mandate the presence of DRL (as specified in paragraph 5.22.) on the basis of national regulations.**] The Contracting Parties not applying Regulation No. 87 may prohibit the presence of DRL (as specified in paragraph 5.22.) on the basis of national regulations."

Footnotes 15 to 20 (former), renumber as 16 to 21

Paragraph 6.22.9.1., amend to read:

"6.22.9.1. **Contracting Parties may request the following provision on the basis of national regulations.**

An AFS shall be permitted only in conjunction with the installation of headlamp cleaning device(s) according to Regulation No. 45²⁰⁻²¹ for at least those lighting units, which are indicated under item 9.3. of the communication form conforming to the model in Annex 1 to Regulation No. 123, if the total objective luminous flux of the light sources of these units exceeds 2,000 lm per side, and which contribute to the class C (basic) passing-beam."

II. Justification

1. The purpose of this proposal is to extend R48 (Regulation No. 48) type approval that will be a part of IWVTA to more countries and vehicles.
2. Japan examined R48 according to the IWVTA guide line; WP.29-156-21-Rev.1 page 2 "(ii) whether amendments of the said UN Regulation is necessary or not (Some requirements should be converted into "If fitted" category.)" and found the presences of some devices should be converted from "mandatory" to "optional".
3. Fig 1. is a list of national requirements. Presences of DRL (Daytime running lamps), RFL (Rear fog lamps) and HLC (Headlamp cleaners for over 2000 lumens) are shown. On this list, the requirements in EU and Russia are same as R48. But the requirements in many countries are different from R48.

		DRL	RFL	HLC	
R48		M	M	M	
CPs applying R48	EU	M	M	M	
	Russia	M	M	M	
	Japan	P	○	○	
CPs not applying R48	Australia	○	○	M	
	South Africa	○	○	M	
	Republic of Korea	○	○	○	
Non-CPs	USA	○	○	○	
	Canada	M	○	○	
	China	○	M	M	
	India	○	○	M	

DRL: Daytime running lamp
 RFL: Rear fog lamp
 HLC: Headlamp cleaner for over 2000 lumens
 M: Mandatory
 ○: Optional
 P: Prohibited

Fig. 1

4. This difference is due to difference among climates in these countries. For example, there is not enough effect to mandate DRL for countries in low latitude.

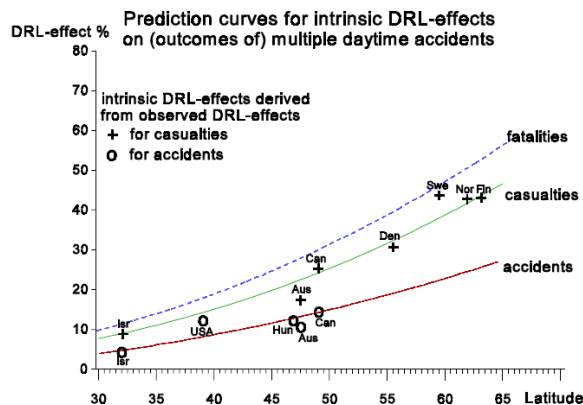


Figure 1. Prediction curves for intrinsic DRL-effects on (outcomes of) multiple daytime accidents.

Fig. 2

5. As a result, R48 type approval is limited to few countries and vehicles. R48 seems to be based on the European climate but it is an international regulation now.

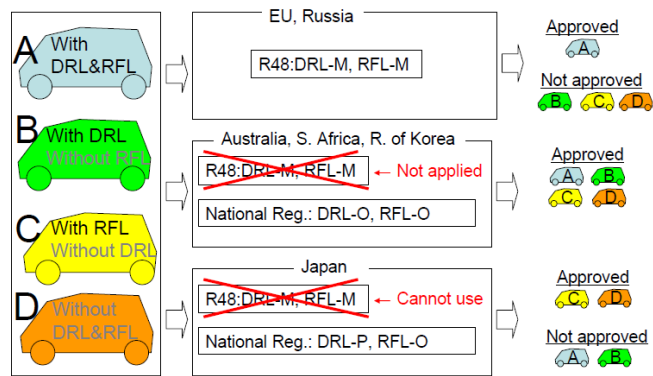


Fig. 3

6. To extend R48 type approval, the presences of these devices should be converted from “mandatory” to “optional”. If Contracting Parties need to mandate these devices, they should do so in their national regulations. This method is used for ESC, BAS (R13H) and TPMS (R64) in EU. There are not descriptions that Contracting Parties may mandate the presences on the basis of national regulations in R13H and R64, and so the descriptions are in the square brackets to discuss if we need to align with R13H and R64.

7. R48 type approval (IWVTA) will be extended to more countries and vehicles after the amendment.

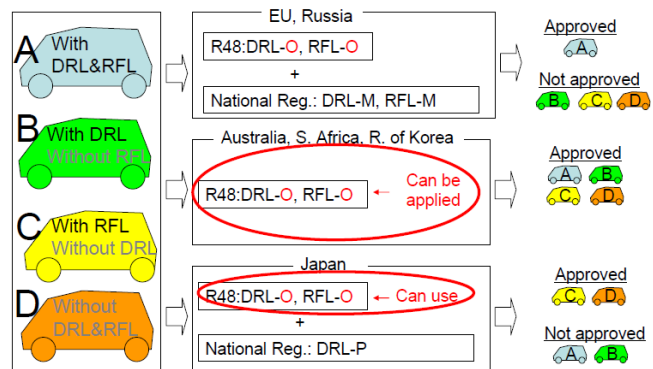


Fig. 4

8. The proposals about headlamp cleaner and rear fog lamp are enclosed within the square brackets because the first priority is the proposal about DRL for Japan to participate in IWVTA. The second priority is the proposals about headlamp cleaner and rear fog lamp to extend R48 type approval (IWVTA) to more countries and vehicles.