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World Forum for Harmonization of Vehicle Regulations**Working Party on Lighting and Light-Signalling****Eighty-seventh session**

Geneva, 25–28 October 2022

Item 6 (a) of the provisional agenda

Installation UN Regulations:**UN Regulation No. 48 (Installation of Lighting and Light-Signalling Devices)****Proposal for a Supplement to the 06, 07 and 08 series of amendments to UN Regulation No. 48****Submitted by the experts from the International Automotive Lighting and Light-Signalling Expert Group***

This document was prepared by the experts from the International Automotive Lighting and Light-Signalling Expert Group (GTB) with the aim to correct and to clarify the failure provisions. The proposed modifications to the current text of the UN 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 2022 as outlined in proposed programme budget for 2022 (A/76/6 (Sect.20), para 20.76), the World Forum will develop, harmonize and update UN Regulations in order to enhance the performance of vehicles. The present document is submitted in conformity with that mandate.



I. Proposal

A. Proposal for a new Supplement to the 06 series of amendments to UN Regulation No. 48

Paragraph 6.1.8., amend to read:

“6.1.8. Tell-tale

~~Circuit-closed~~ **Closed-circuit** tell-tale mandatory.

6.1.8.1. If the control of the main-beam headlamps is automatic as described in paragraph 6.1.7.1. above an indication shall be provided to the driver that the automatic control of the main-beam function is activated. This information shall remain displayed as long as the automatic operation is activated.”

Paragraph 6.2.8.2., amend to read:

“6.2.8.2. A visual **failure** tell-tale whether flashing or not is mandatory:

- (a) In the case where the whole beam or the kink of the elbow of the cut-off is moved to produce bend lighting; or
- (b) If one or more LED modules are used to produce the principal dipped-beam, except when they are wired so that the failure of any one LED module causes all of them to stop emitting light.

It shall be activated:

- (a) In the event of a malfunction of the displacement of the kink of the elbow of the cut-off; or
- (b) In case of a failure of any one of the LED module(s) producing the principal dipped-beam, except when they are wired so that the failure of any one LED module causes all of them to stop emitting light.

It shall remain activated while the failure is present. It may be cancelled temporarily, but shall be repeated whenever the device, which starts and stops the engine, is switched on and off.”

Paragraph 6.3.8., amend to read:

“6.3.8. Tell-tale

~~Circuit-closed~~ **Closed-circuit** tell-tale mandatory. ~~An independent non-flashing warning light.”~~

Paragraph 6.4.8., amend to read:

“6.4.8. Tell-tale

Tell-tale optional, **however a tell-tale indicating failure is mandatory if required by the component regulation.”**

Paragraph 6.6.8., amend to read:

“6.6.8. Tell-tale

Flashing ~~circuit-closed~~ **closed-circuit** tell-tale mandatory.”

Paragraph 6.7.8., amend to read:

“6.7.8. Tell-tale

Tell-tale optional, however a tell-tale indicating failure is mandatory if required by the component regulation.

~~Where the above tell-tale is fitted, this tell-tale shall be an operating tell-tale consisting of a non-flashing warning light which comes on in the event of the malfunctioning of the stop lamps.”~~

Paragraph 6.9.8., amend to read:

“6.9.8. Tell-tale

~~Circuit-closed~~ **Closed-circuit** tell-tale mandatory. This tell-tale shall be non-flashing and shall not be required if the instrument panel lighting can only be turned ON simultaneously with the front position lamps.

This requirement does not apply when light-signalling system operates according to paragraph 6.19.7.4.

However, a tell-tale indicating failure is mandatory if required by the component regulation.”

Paragraph 6.10.8., amend to read:

“6.10.8. Tell-tale

~~Circuit-closed~~ **Closed-circuit** tell-tale mandatory. It shall be combined with that of the front position lamps.

This requirement does not apply when light-signalling system operates according to paragraph 6.19.7.4.

However, a tell-tale indicating failure is mandatory if required by the component regulation.”

Paragraph 6.11.8., amend to read:

“6.11.8. Tell-tale

~~Circuit-closed~~ **Closed-circuit** tell-tale mandatory. ~~An independent non-flashing warning light.~~

A tell-tale indicating failure is mandatory if required by the component regulation.”

Paragraph 6.12.8., amend to read:

“6.12.8. Tell-tale

~~Circuit-closed~~ **Closed-circuit** tell-tale optional. If there is one, it shall not be possible to confuse it with the tell-tale for the front and rear position lamps.

However, a tell-tale indicating failure is mandatory if required by the component regulation.”

Paragraph 6.18.8., amend to read:

“6.18.8. Tell-tale

Tell-tale optional. If it exists its function shall be carried out by the tell-tale required for the front and rear position lamps.

However, a tell-tale indicating failure is mandatory if required by the component regulation.”

Paragraph 6.20.8., amend to read:

“6.20.8. Tell-tale

None. **However, a tell-tale indicating failure is mandatory if required by the component regulation.”**

Annex 1., item 9.2., amend to read:

“9.2. Dipped-beam headlamps: yes/no²

9.2.1. Tell-tale indicating failure, as required by component regulation and/or indicating failure of bend lighting function as required in paragraph 6.2.8.1., fitted: yes/no² ”

Annex 1., item 9.4., amend to read:

“9.4. Reversing lamps: yes/no²

9.4.1. Tell-tale indicating failure, as required by component regulation, fitted: yes/no² ”

Annex 1., item 9.13., amend to read:

“9.13. Rear fog-lamps: yes/no²

9.13.1. Tell-tale indicating failure, as required by component regulation, fitted: yes/no² ”

Annex 1., item 9.14., amend to read:

“9.14. Parking lamps: yes/no²

9.14.1. Tell-tale indicating failure, as required by component regulation, fitted: yes/no² ”

Annex 1., item 9.20., amend to read:

“9.20. Side marker lamps: yes/no²

9.20.1. Tell-tale indicating failure, as required by component regulation, fitted: yes/no² ”

Annex 1., item 9.23., amend to read:

“9.23. Cornering lamps: yes/no²

9.23.1. Tell-tale indicating failure, as required by component regulation, fitted: yes/no² ”

B. Proposal for a new Supplement to the 07 series of amendments to UN Regulation No. 48

Paragraph 6.1.8., amend to read:

“6.1.8. Tell-tale
~~Circuit-closed~~ **Closed-circuit** tell-tale mandatory.

6.1.8.1. If the control of the main-beam headlamps is automatic as described in paragraph 6.1.7.1. above an indication shall be provided to the driver that the automatic control of the main-beam function is activated. This information shall remain displayed as long as the automatic operation is activated. ”

Paragraph 6.2.8.2., amend to read:

“6.2.8.2. A visual **failure** tell-tale whether flashing or not is mandatory:

- (a) In the case where the whole beam or the kink of the elbow of the cut-off is moved to produce bend lighting; or
- (b) If one or more LED modules are used to produce the principal dipped-beam, except when they are wired so that the failure of any one LED module causes all of them to stop emitting light.

It shall be activated:

- (a) In the event of a malfunction of the displacement of the kink of the elbow of the cut-off; or
- (b) In case of a failure of any one of the LED module(s) producing the principal dipped-beam, except when they are wired so that the failure of any one LED module causes all of them to stop emitting light.

~~It shall remain activated while the failure is present. It may be cancelled temporarily, but shall be repeated whenever the device, which starts and stops the propulsion system, is switched ON and OFF.~~

It shall remain activated while the failure is present. It may be cancelled temporarily, but shall be repeated whenever the device, which starts and stops the propulsion system, is switched ON and OFF.”

Paragraph 6.3.8., amend to read:

“6.3.8. Tell-tale

~~Circuit-closed~~ **Closed-circuit** tell-tale mandatory. ~~An independent non-flashing warning light.”~~

Paragraph 6.4.8., amend to read:

“6.4.8. Tell-tale

Tell-tale optional, **however a tell-tale indicating failure is mandatory if required by the component regulation.”**

Paragraph 6.6.8., amend to read:

“6.6.8. Tell-tale

Flashing ~~circuit-closed~~ **closed-circuit** tell-tale mandatory.”

Paragraph 6.7.8., amend to read:

“6.7.8. Tell-tale

Tell-tale optional, however a tell-tale indicating failure is mandatory if required by the component regulation.

~~Where the above tell tale is fitted, this tell tale shall be an operating tell tale consisting of a non flashing warning light which comes on in the event of the malfunctioning of the stop lamps.”~~

Paragraph 6.9.8., amend to read:

“6.9.8. Tell-tale

~~Circuit-closed~~ **Closed-circuit** tell-tale mandatory.

This tell-tale shall be non-flashing and shall not be required if the instrument panel lighting can only switch ON simultaneously with the front position lamps.

This requirement does not apply when light signalling system operates according to paragraph 6.19.7.4.

However, a tell-tale indicating failure is mandatory if required by the component regulation.”

Paragraph 6.10.8., amend to read:

“6.10.8. Tell-tale

~~Circuit-closed~~ **Closed-circuit** tell-tale mandatory. It shall be combined with that of the front position lamps.

This requirement does not apply when light-signalling system operates according to paragraph 6.19.7.4.

However, a tell-tale indicating failure is mandatory if required by the component regulation.”

Paragraph 6.11.8., amend to read:

“6.11.8. Tell-tale

~~Circuit-closed~~ **Closed-circuit** tell-tale mandatory. ~~An independent non-flashing warning light.~~

A tell-tale indicating failure is mandatory if required by the component regulation.”

Paragraph 6.12.8., amend to read:

“6.12.8. Tell-tale

~~Circuit-closed~~ **Closed-circuit** tell-tale optional. If there is one, it shall not be possible to confuse it with the tell-tale for the front and rear position lamps.

However, a tell-tale indicating failure is mandatory if required by the component regulation.”

Paragraph 6.18.8., amend to read:

“6.18.8. Tell-tale

Tell-tale optional. If it exists its function shall be carried out by the tell-tale required for the front and rear position lamps.

However, a tell-tale indicating failure is mandatory if required by the component regulation.”

Paragraph 6.20.8., amend to read:

“6.20.8. Tell-tale

None. **However, a tell-tale indicating failure is mandatory if required by the component regulation.”**

Annex 1., item 9.2., amend to read:

“9.2. Dipped-beam headlamps: yes/no²

9.2.1. Tell-tale indicating failure, as required by component regulation and/or indicating failure of bend lighting function as required in paragraph 6.2.8.1., fitted: yes/no²”

Annex 1., item 9.4., amend to read:

“9.4. Reversing lamps: yes/no²

9.4.1. Tell-tale indicating failure, as required by component regulation, fitted: yes/no²”

Annex 1., item 9.13., amend to read:

“9.13. Rear fog-lamps: yes/no²

9.13.1. Tell-tale indicating failure, as required by component regulation, fitted: yes/no²”

Annex 1., item 9.14., amend to read:

“9.14. Parking lamps: yes/no²

9.14.1. Tell-tale indicating failure, as required by component regulation, fitted: yes/no²”

Annex 1., item 9.20., amend to read:

“9.20. Side marker lamps: yes/no²

9.20.1. Tell-tale indicating failure, as required by component regulation, fitted: yes/no²”

Annex 1., item 9.23., amend to read:

“9.23. Cornering lamps: yes/no²

9.23.1. Tell-tale indicating failure, as required by component regulation, fitted: yes/no²”

C. Proposal for a new Supplement to the 08 series of amendments to UN Regulation No. 48

Paragraph 6.1.8., amend to read:

“6.1.8. Tell-tale

~~Circuit-closed~~ **Closed-circuit** tell-tale mandatory.

6.1.8.1. If the control of the main-beam headlamps is automatic as described in paragraph 6.1.7.1. above an indication shall be provided to the driver that the automatic control of the main-beam function is activated. This information shall remain displayed as long as the automatic operation is activated.”

Paragraph 6.2.8.2., amend to read:

“6.2.8.2. A visual **failure** tell-tale whether flashing or not is mandatory:

- (a) In the case where the whole beam or the kink of the elbow of the cut-off is moved to produce bend lighting; or
- (b) If one or more LED modules are used to produce the principal dipped-beam, except when they are wired so that the failure of any one LED module causes all of them to stop emitting light.

It shall be activated:

- (a) In the event of a malfunction of the displacement of the kink of the elbow of the cut-off; or
- (b) In case of a failure of any one of the LED module(s) producing the principal dipped-beam, except when they are wired so that the failure of any one LED module causes all of them to stop emitting light.

~~It shall remain activated while the failure is present. It may be cancelled temporarily, but shall be repeated whenever the device, which starts and stops the propulsion system, is switched ON and OFF.~~

It shall remain activated while the failure is present. It may be cancelled temporarily, but shall be repeated whenever the device, which starts and stops the propulsion system, is switched ON and OFF.”

Paragraph 6.3.8., amend to read:

“6.3.8. Tell-tale

~~Circuit-closed~~ **Closed-circuit** tell-tale mandatory. ~~An independent non-flashing warning light.”~~

Paragraph 6.4.8., amend to read:

“6.4.8. Tell-tale

Tell-tale optional, **however a tell-tale indicating failure is mandatory if required by the component regulation.”**

Paragraph 6.6.8., amend to read:

“6.6.8. Tell-tale

Flashing ~~circuit-closed~~ **closed-circuit** tell-tale mandatory.”

Paragraph 6.7.8., amend to read:

“6.7.8. Tell-tale

Tell-tale optional, however a tell-tale indicating failure is mandatory if required by the component regulation.

~~Where the above tell tale is fitted, this tell tale shall be an operating tell tale consisting of a non flashing warning light which comes on in the event of the malfunctioning of the stop lamps.”~~

Paragraph 6.9.8., amend to read:

“6.9.8. Tell-tale

~~Circuit-closed~~ **Closed-circuit** tell-tale mandatory.

This tell-tale shall be non-flashing and shall not be required if the instrument panel lighting can only switch ON simultaneously with the front position lamps.

This requirement does not apply while the daytime running lamps are switched ON.

However, a tell-tale indicating failure is mandatory if required by the component regulation.”

Paragraph 6.10.8., amend to read:

“6.10.8. Tell-tale

~~Circuit-closed~~ **Closed-circuit** tell-tale mandatory. It shall be combined with that of the front position lamps.

This requirement does not apply when daytime running lamps are switched ON.

However, a tell-tale indicating failure is mandatory if required by the component Regulation.”

Paragraph 6.11.8., amend to read:

“6.11.8. Tell-tale

~~Circuit-closed~~ **Closed-circuit** tell-tale mandatory. ~~An independent non-flashing warning light.~~

A tell-tale indicating failure is mandatory if required by the component regulation.”

Paragraph 6.12.8., amend to read:

“6.12.8. Tell-tale

~~Circuit-closed~~ **Closed-circuit** tell-tale optional. If there is one, it shall not be possible to confuse it with the tell-tale for the front and rear position lamps.

However, a tell-tale indicating failure is mandatory if required by the component regulation.”

Paragraph 6.18.8., amend to read:

“6.18.8. Tell-tale

Tell-tale optional. If it exists its function shall be carried out by the tell-tale required for the front and rear position lamps.

However, a tell-tale indicating failure is mandatory if required by the component regulation.”

Paragraph 6.20.8., amend to read:

“6.20.8. Tell-tale

None. **However, a tell-tale indicating failure is mandatory if required by the component regulation.”**

Annex 1., item 9.2., amend to read:

“9.2. Dipped-beam headlamps: yes/no²

9.2.1. Tell-tale indicating failure, as required by component regulation and/or indicating failure of bend lighting function as required in paragraph 6.2.8.1., fitted: yes/no²”

Annex 1., item 9.4., amend to read:

“9.4. Reversing lamps: yes/no²

**9.4.1. Tell-tale indicating failure, as required by component regulation, fitted:
yes/no²**”

Annex 1., item 9.13., amend to read:

“9.13. Rear fog-lamps: yes/no²

**9.13.1. Tell-tale indicating failure, as required by component regulation, fitted:
yes/no²**”

Annex 1., item 9.14., amend to read:

“9.14. Parking lamps: yes/no²

**9.14.1. Tell-tale indicating failure, as required by component regulation, fitted:
yes/no²**”

Annex 1., item 9.20., amend to read:

“9.20. Side marker lamps: yes/no²

**9.20.1. Tell-tale indicating failure, as required by component regulation, fitted:
yes/no²**”

Annex 1., item 9.23., amend to read:

“9.23. Cornering lamps: yes/no²

**9.23.1. Tell-tale indicating failure, as required by component regulation, fitted:
yes/no²**”

II. Justification

1. Some modifications concerning the failure provisions in component UN Regulations (Nos. 7, 23, 38, 77, 87, 91 and 119) were introduced and approved between the seventy-fifth and the seventy-seventh sessions of the Working Party on Lighting and Light-Signalling (GRE). In parallel, some modifications were introduced and approved also for UN Regulation No. 48 at the seventy-fifth session of GRE, but some remaining corrections of the failure provisions still had to be addressed. This proposal, based on informal document GRE-77-16, is intended to resume the work from the seventy-seventh session of GRE to correct and to clarify the failure provisions.

2. In order to have the same wording for the definition in paragraph 2 (sub-paragraph 2.3.6.) and the requirements in paragraph 6, we have unified the wording “closed-circuit” instead of “circuit closed”.

3. The structure of paragraph 6.2.8.2. is modified back to its original shape. The last provision is a general one and applies to sub-clauses (a) and (b). The current structure may lead to misinterpretation and restrict compliance with the technical provisions for (b) only.

4. For reversing lamps, we have the possibility in component UN Regulations Nos. 23 and 148 to have a tell-tale indicating failure. We have modified the requirement in paragraph 6.4.8. to be compliant with the component UN Regulations.

5. For stop lamps, we have removed the requirement about an operating tell-tale when tell-tale is required by component regulations (UN Regulations Nos. 07 and 148). This operating tell-tale was also previously required for other lamps, but then removed. We are considering a similar approach for this lamp.

6. For rear fog-lamps, we have the possibility in component UN Regulations Nos. 38 and 148 to have a tell-tale indicating failure. We have modified the requirement in paragraph 6.11.8. to be compliant with the component UN Regulations.

7. For front and rear fog-lamps, we have removed the sentence about the tell-tale specification, specifically written for the fog-lamps in paragraphs 6.3.8. and 6.11.8. There is no reason why this should be an independent non-flashing warning light.

8. For parking lamps, we have the possibility in component UN Regulations Nos. 77 and 148 to have a tell-tale indicating failure. We have modified the requirement in paragraph 6.12.8. to be compliant with the component UN Regulations.
 9. For side marker lamp, we have the possibility in component UN Regulations Nos. 91 and 148 to have a tell-tale indicating failure. We have modified the requirement in paragraph 6.18.8. to be compliant with the component UN Regulations.
 10. For cornering lamps, we have the possibility in component UN Regulation Nos. 119 and 148 to have a tell-tale indicating failure. We have modified the requirement in paragraph 6.20.8. to be compliant with the component UN Regulations.
 11. We have modified Annex 1 and added tell-tale requirements when requested by the component requirements. They were missing for dipped-beam, reversing lamps, rear fog-lamps, parking lamps, side marker lamps and cornering lamps.
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