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Item 7 (c) of the provisional agenda

Other UN Regulations:

UN Regulation No. 65 (Special warning lamps)

Proposal for a new series of amendments to UN Regulation No. 65

Submitted by the expert from Germany*

The text reproduced below was prepared by the expert from Germany. The modifications to the existing text of the UN Regulation are marked bold for new and 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

Table of content, Annexes, add reference to a new annex 9:

"9 Test for the base mounting of magnetically attached special warning lamps"

Add new paragraphs 5.10. and 5.11 to read:

"5.10. In the case of a special warning lamp approved under this Regulation, it shall not be possible for the user to activate different colors during normal operation of the vehicle."

5.11. In case of a magnetic attachment the special warning lamp shall be exposed to the test described in Annex 9 to this regulation. During the test the magnetic base mounting shall not move by more than 200 mm from the original position.¹"

Insert footnote 1 to paragraph 5.11. to read:

1 The manufacturer shall inform the user, that an attachment is only possible for a roof of adequate steel.

Paragraph 13, amend to read:

"13. TRANSITIONAL PROVISIONS

13.1. For the 00 series of amendments

13.1.1. As from the official date of entry into force of Supplement 4, no Contracting Party applying this Regulation shall refuse to grant approvals under this Regulation as amended by Supplement 4.

13.1.2. As from 24 months after the date of entry into force of Supplement 4, Contracting Parties applying this Regulation shall grant approvals only if the type of special warning lamps to be approved meets the requirements of this Regulation as amended by Supplement 4.

13.1.3. Contracting Parties applying this Regulation shall not refuse to grant extensions of approval to a preceding version of this Regulation, up to Supplement 3.

13.1.4. Approvals granted under this Regulation earlier than 24 months after the date of entry into force of Supplement 4 and all extensions of approvals, granted subsequently, shall remain valid indefinitely. When the type of special warning lamps approved to a preceding version of the Regulation up to its Supplement 3 meets the requirements of this Regulation as amended by Supplement 4, the Contracting Party which granted the approval shall notify the other Contracting Parties applying this Regulation thereof.

13.1.5. No Contracting Party applying this Regulation shall refuse a type of special warning lamps approved under this Regulation as amended by Supplement 4.

13.1.6. As from the official date of entry into force of Supplement 4, no Contracting Party applying this Regulation shall prohibit the fitting on a vehicle of special warning lamps approved under this Regulation as amended by Supplement 4.

13.1.7. Contracting Parties applying this Regulation shall continue to allow the fitting on a vehicle of special warning lamps approved under the preceding version of the Regulation up to its Supplement 3 during the 48 months period which follows the date of entry into force of Supplement 4.

- 13.1.8. Upon the expiration of a period of 48 months after the date of entry into force of Supplement 4, Contracting Parties applying this Regulation may prohibit the fitting of special warning lamps, which do not meet the requirements of this Regulation as amended by Supplement 4, on a new vehicle for which national type or individual approval was granted more than 24 months after the entry into force of Supplement 4 to this Regulation.
- 13.2. **For the 01 series of amendments**
- 13.2.1. **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 or refuse to accept UN type approvals under this Regulation as amended by the 01 series of amendments.**
- 13.2.2. **As from 1 September [2024] Contracting Parties applying this Regulation shall not be obliged to accept UN type approvals to the preceding series of amendments, first issued after 1 September [2024].**
- 13.2.3. **Until 1 September [2025], Contracting Parties applying this Regulation shall accept type approvals to the preceding series of amendments, first issued before 1 September [2024].**
- 13.2.4. **As from 1 September [2025], Contracting Parties applying this Regulation shall not be obliged to accept type approvals issued to the preceding series of amendments to this Regulation.**
- 13.2.5. **Contracting Parties applying this Regulation shall continue to grant and accept type approvals for devices (equipment and parts) on the basis of any previous series of amendments, provided that the devices (equipment and parts) are intended as replacements for fitting to vehicles in use and that it is not technically feasible for the devices (equipment and parts) in question to satisfy the new requirements contained in this Regulation as amended by the 01 series of amendments.**
- 13.2.6. **Notwithstanding the transitional provisions above, Contracting Parties whose application of this Regulation comes into force after the date of entry into force of the 01 series of amendments are not obliged to accept UN type approvals which were granted in accordance with any of the preceding series of amendments to this Regulation.**
- 13.2.7. **Contracting Parties applying this Regulation shall continue to accept UN type approvals to the preceding series of amendments to this Regulation, for the equipment or parts which are not affected by the changes introduced by the 01 series of amendments.**
- 13.2.8. **Contracting Parties applying this Regulation may grant type approvals according to any preceding series of amendments to this Regulation.**
- 13.2.9. **Contracting Parties applying this Regulation shall continue to grant extensions of existing approvals to any preceding series of amendments to this Regulation."**

Insert a new Annex 9 to read:

"Annex 9

Test for the base mounting of magnetically attached special warning lamps

The tests shall be performed at $23^{\circ}\text{C} \pm 5^{\circ}$ ambient temperature on a metal surface of sufficient size and the following specifications:

- **kind of metal: steel with a yield strength of 180 N/mm² - 240 N/mm²;**
- **thickness of metal surface: 0,7 + 0,1 - 0 mm;**
- **radius of curvature: ≤ 5000 mm;**
- **paint thickness: 120 ± 20 µm;**
- **paint protection: Polyurethane film;**
- **paint protection thickness: ≥200 µm including glue.**

Figure 1
Metal surface with paint and paint protection film



The special warning lamp shall be magnetically attached to the flat metal surface and subjected to a minimum acceleration of 16 g during 30 ms.

The direction of the acceleration shall be in horizontal direction."

II. Justification

1. It is possible to approve special warning lamps of different colours. During the normal operation of a vehicle, it should not be possible to switch from one colour to another, because this may lead to confusion of other road users.
2. In addition, certain colours of warning lights - especially blue warning lights - may only be fitted by a nationally restricted and declared permissible group of users. For this reason too, a possible simple switchover while driving should be prevented in technical ways.
3. Magnetic mountings are widely used for fixing special warning lamps on the roof of a vehicle. The mounting should be strong enough to withstand usual maximum forces during various accelerations and wind loads. Such a test is described in standard ISO 4148 with a resulting minimum attachment force described by the movement of the device during this test, as required in paragraph 5.10. But since a lot of vehicles are protected with a special film to avoid scratching the paint, such a film has also to be specified for this test. Therefore, the test itself is described in Annex 9 without reference to standard ISO 4148.
4. Special warning lamps with a magnetic attachment can only be used for steel roofs of vehicles. The manufacturer should point out this.
5. Annex 9 specifies a usual steel roof top of a vehicle. All relevant parameters, including a film to prevent scratching, are fixed to appropriate values, to ensure repeatable tests in different laboratories.
6. The described steel and its shape correspond to the usual roof of a vehicle. The film thickness is determined as the maximum value for such films produced by different manufacturers.¹
7. Since there is a new series of amendments, the old transitional provisions are renumbered from 13.1.1. to 13.1.8. The transitional provisions for the new series of amendments are then given in a new paragraph 13.2.

¹ For reference, please see the following specifications:
<https://multimedia.3m.com/mws/media/1091986O/3m-industrial-protective-film-7070uv-7071uv-technical-data-sheet.pdf>;
<https://www.orafol.com/products/europe/en/technical-data-sheet/oraguard-2815gf-stone-guard-film-id11205-technical-data-sheet-europe-en.pdf>.