

Proposal to amend GRE/2020/04 Rev.1

I. Proposal

A. New Supplement to the 06 and 07 series of amendments to UN Regulation No. 48

Add a new paragraph 2.7.8.; to read:

“2.7.8. “Driver Assistance Projection” means a modification of the light distribution for driver assistance purposes, exclusively as patterns (simple geometric shapes such as lines, rectangles, ~~triangles~~, etc. without any complex combination of all of them, and easily/intuitively understandable by the driver) and/or simple symbols, without causing discomfort, distraction or glare to road users and without causing distraction to the driver.”

Add a new paragraph 3.2.9.; to read:

“3.2.9. Where a function is able to provide driver assistance projections on the road, a list of these patterns ~~and~~ ~~or~~ symbols shall be provided by the manufacturer.”

Amending paragraph 6.22.9.2.4.; to read:

6.22.9.2.4. To verify, that the adaptation of the main-beam, ~~including driving assistance projection~~, does not cause any discomfort, distraction or glare, neither to the driver nor to oncoming and preceding vehicles, the technical service shall perform a test drive according to paragraph 2. in Annex 12. This shall include any situation relevant to the system control on the basis of the applicant’s description. The performance of the adaptation of the main beam shall be documented and checked against the applicant’s description. Any obvious malfunctioning shall be contested (e.g. excessive angular movement or flicker)

Add a new paragraph 6.22.9.3.2.; and its subparagraph to read:

“6.22.9.3.2. The adaptive main-beam may produce driver assistance projections as patterns or symbols on the road in order to inform or warn the driver appropriately regarding special traffic situations or conditions.

Symbols ~~and~~ ~~patterns~~ that may be used for driver assistance projections are listed in Annex [16].

6.22.9.3.2.1. The lateral distance from the outer edges of the driver assistance projections on the road with respect to the trajectory of the centre of gravity of the vehicle shall not be more than 1,875 mm. This shall be demonstrated by the manufacturer by calculation or by other means accepted by the Type Approval Authority.

6.22.9.3.2.2. **Flashing and/or transforming of driver assistance projections is not permitted.**

6.22.9.3.2.3. **Driver assistance projections shall not interfere with information displayed by the Field of Vision Assistant defined in UN Regulation No. 125.**

Amending paragraph 2. in Annex 12; to read:

2. Test drive specifications for adaptive main-beam headlamps

...

2.8 **For the test sections A, B, C and E in the table above the engineers conducting the tests shall evaluate driving assistance projection if installed.**

Add a new Annex [16] to read:

Symbols and patterns for the use as driver assistance projections

1. Symbol for slippery road warning



2. Symbol for collision warning



3. **Pattern for guidance**



B. New Supplement to UN Regulation No. 149

Add a new paragraph 3.1.3.4. to read:

“3.1.3.4. In the case of driver assistance projections according to UN Regulation No. 48; it shall specify the size (horizontal and vertical angular limits) of the zone used for performing said projections.”

Renumber existing paragraphs 3.1.3.4. to 3.1.3.7. accordingly.

Add a new paragraph 5.3.3.8. and its subparagraph to read:

“5.3.3.8. Driver assistance projections according to UN Regulation No. 48, paragraph 6.22.9.3.2., may be part of the driving-beam light distribution within a zone limited by the following angles:

vertically: $- 1.2^\circ$ and below

horizontally: $\pm 25^\circ$

The projections may be produced in positive contrast by ~~modifying~~ adding light to the beam pattern in the zone defined above, where the luminous intensity in any point of the entire driving beam shall not exceed the maximum value (IM) according to paragraph 5.1.3.5.

5.3.3.8.1. The colour of the driver assistance projections shall be white.”

II. Justification

1. This informal document amends document -/GRE/2020/4/Rev.1 taking in to account the discussions during GRE 84th session.