

Revision of UN Regulation No.86 - Lighting installation for agricultural tractors

Additional changes

I. Proposal

Insert a new Paragraph 2.8.2. to read:

- 2.8.2. "Textured outer lens" or "Textured outer lens area" means all or part of an outer lens, designed to modify or influence the propagation of light from the light source(s), such that the light rays are significantly diverted from their original direction.**

Paragraph 2.15 shall read:

- 2.15. "*Distance between two lamps*" which face in the same direction means the **shortest** distance between the ~~orthogonal projections in a plane perpendicular to the direction in question of the outlines of the two illuminating surfaces as defined according to the case mentioned in paragraph 2.6.~~ **two apparent surfaces in the direction of the reference axis. [Where the distance between the lamps clearly meets the requirements of the Regulation, the exact edges of apparent surfaces need not be determined.]**

Paragraph 5.8. shall read:

- 5.8. The maximum height above the ground shall be measured from the highest point and the minimum height from the lowest point of the apparent surface in the direction of the reference axis.
Where the (maximum and minimum) height above the ground clearly meets the requirements of the Regulation, the exact edges of any surface need not be determined.
~~Lamps shall be installed in such a way that the vehicle complies with applicable (national or regional) legislation concerning its maximum height.~~

Paragraphs 5.16. to 5.16.1.2. shall read:

- 5.16. Variable position lamps
- 5.16.1. The position of all lamps may be varied except ~~main beam headlamps, dipped beam headlamps and~~ at least one pair of rear reflectors, provided that:
- 5.16.1.1. These lamps remain attached to the vehicle when their position is altered;
- 5.16.1.2. These lamps shall be capable of being locked in the position required by traffic conditions. Locking shall be automatic;

Insert a new Paragraph 5.16.1.3. to read:

- 5.16.1.3. In the case of main beam and dipped beam headlamps, their position varies exclusively as a consequence of the displacement [movement] of the movable part of the vehicle on which they are installed and this movable part is put back [returned] in the normal (closed) position of use before the vehicle moves.**

Insert a new Paragraph 5.19. to read:

- 5.19. With the exception of retro-reflectors, a lamp even bearing an approval mark is deemed not to be present when it cannot be made to operate by the sole installation of a light source and/or a fuse.**

II. Justification

After examination of the draft revision of ECE Regulation 86 (document ECE TRANS/WP.29/GRE/2014/2), the Italian experts have judged necessary to include in the said document the six further changes listed above. Here below detailed justifications for each of the proposed changes are given:

New Paragraph 2.8.2.

The proposed addition of this definition is necessary since the wording "textured lens" is used in paragraph 2.8.1. and it is a basic parameter to decide whether consider the lamps grouped or reciprocally incorporated.

Paragraph 2.15

The proposed change is necessary to correctly match the wording of this paragraph with that of the new definitions of paragraph 2.8. and the requirement of paragraph 5.8.

The last sentence is in square brackets since, for alignment with the same paragraph of Regulation 48, it should be included but, from a practical point of view, is redundant.

Paragraph 5.8.

The last sentence of this paragraph needs to be deleted.

The reason for its presence, as claimed by some Administrations, is to avoid that the allowance for installing certain lamps up to 4 m (measured at their lower edge) could mean that their upper edge may exceed the maximum permissible height of the whole vehicle within certain "regional" type approval legislation.

This is not correct since, in any legislation, the maximum vehicle dimensions are absolute and shall include all the vehicle features unless, explicitly divergences are indicated .

Consequently, not being necessary the statement of this last sentence paragraph 5.8, it shall be removed. If incorrectly applied, it could give to the Administrations the possibility to refuse vehicles being in line with the international requirements on the lamp fitting based on local and more restrictive requirements, being this possibility in contrast with the principle of the '58 Agreement itself. Taking into account of stricter regional type approval or road circulation requirements may not be dealt with in UNECE Regulations. In the specific case of agricultural tractors, maximum vehicle height set by European legislation is 4 m. If a Manufacturer is interested in the European market he will design vehicles compliant to UNECE R 86 considering this additional local limit, which is not strictly related to light installation, but to the overall height of the vehicle.

Paragraphs 5.16. to 5.16.1.2. and new paragraph 5.16.1.3.

The changes and the addition proposed are necessary to avoid any restrictive interpretation of the text of paragraph 5.16.1. as proposed by AVL.

A restrictive interpretation of this paragraph could forbid the installation of main and dipped beam headlamps on the movable engine hood of the vehicle. This restriction shall be avoided since more than 90 % of agricultural and forestry vehicles have headlamps fitted on the engine hood. This is the only practical solution, even in most of future applications.

New Paragraph 5.19

This sentence, present from many time in ECE Regulation 48, is mainly used on road vehicles to avoid an hardware change of the lamps in case where a light function is fitted for some markets but it is not allowed in some other (typical example are DRL, mandatory based on Regulation 48 but with possibility for the Administrations to forbid its fitting, as Japan do).

With the introduction of some new light functions the same possibility given by Regulation 48 should be introduced also in Regulation 86.

Editorial remark

In addition to the proposed changes, a revision of the cross references included in all those parts "copied" from ECE Regulation 48 into the draft revision to ECE Regulation 86 is suggested. Some examples:

- Paragraph 2.13.1. Reference to par. 2.12 instead of 2.11.
 - Paragraph 2.7.3. Reference to par. 2.6.22 instead of 2.5.22.
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