

PROPOSAL FOR DRAFT AMENDMENTS TO REGULATION No. 48

(Installation of lighting and light-signalling devices)

Clarifications on installation requirements

Proposal for draft Supplement 5 to the 04 series of amendments to Regulation No. 48

Note: The text reproduced below was prepared by the experts from CLEPA to modify requirements for the conspicuity markings resulting from discussions during 61st GRE. The objective is to allow the difficult-to-apply-to vehicles to cover less area with conspicuity markings and still comply with this Regulation. This document takes into account the views of the industry as well as those expressed in both, the German (GRE-2009-69) and the Italian (GRE-2009-36) documents, and is proposed to serve as an alternative document to those proposals on the same subject. The modifications to the current text of Regulation No. 48, including Supplement 4 to the 04 series of amendments, are marked in bold characters.

A. PROPOSAL

Paragraph 6.21.1.2.2.1., amend, to read:

"6.21.1.2.2.1. partial contour marking on vehicles exceeding 6,000 mm in length (**including the drawbar for trailers**) of the following categories:

- (a) N₂ with a maximum mass exceeding 7.5 tonnes and N₃ (with the exception of chassis-cabs, incomplete vehicles and tractors for semi-trailers)
- (b) O₃ and O₄"

Insert a new paragraph 6.21.1.2.4. and a reference to footnote 16/ and footnote 16/, to read:

"6.21.1.2.4. For vehicles designed for special use, i.e. cement mixer, refuse collection, timber carrier, etc., which cannot fulfil the requirements contained in paragraphs 6.21.2. to 6.21.7.5., due to the shape, structure, design or operational requirements, the application of conspicuity markings shall be maximised on the vehicle structure to ensure clear and uniform signalisation compatible with the objective of conspicuity. This shall include fitting of additional brackets or plates where structure is available. 16/

Verification by the Technical Service authority responsible for type approval is required.

The necessary information shall be indicated in the test report and the communication form.

16/ Contracting Parties to this Regulation can still require additional signalisation system(s) for the vehicle in circulation."

Paragraph 6.21.3., amend to read:

"6.21.3. Arrangement

The conspicuity markings shall be as close as practicable to horizontal and vertical, compatible with the shape, structure, design and operational requirements of the vehicle. **If such horizontal or vertical placement is not possible, the conspicuity marking shall follow as close as practicable the contour of the outer shape of the vehicle.**

Furthermore, the conspicuity markings shall be spaced as evenly as possible over the horizontal dimensions of the vehicle such that the total length or width of the vehicle can be identified."

Paragraph 6.21.4.1.3. and the reference to footnote 16/ and footnote 16/, shall be deleted

Paragraph 6.21.4.2.3., shall be deleted

Paragraphs 6.21.5.1. to 6.21.5.2.2., amend to read:

"6.21.5.1. for rear conspicuity markings (see Annex 11, Figure 1) the observation plane is perpendicular to the longitudinal axis of the vehicle situated 25 m from the extreme end of the vehicle and bounded by:

6.21.5.1.1. in height, by two horizontal planes 1.0 m and 3.0 m respectively above the ground,

6.21.5.1.2. in width, by two vertical planes which form an angle of 4° outwards from the vehicle's median longitudinal plane and which pass through the intersection of the vertical planes parallel to the vehicle's median longitudinal plane delimiting the vehicle's overall width, and the plane perpendicular to the longitudinal axis of the vehicle that delimits the end of the vehicle.

6.21.5.2. for side conspicuity markings (see Annex 11, figure 2) the observation plane is parallel to the longitudinal median plane of the vehicles situated 25 m from the

extreme outer edge of the vehicle and bounded by:

- 6.21.5.2.1. in height, by two horizontal planes 1.0 m and 3.0 m respectively above the ground,
- 6.21.5.2.2. in width, by two vertical planes which form an angle of 4° outwards from a plane perpendicular to the vehicle's longitudinal axis and which pass through the intersection of the vertical planes perpendicular to the vehicle's longitudinal axis delimiting the vehicle's overall length and the extreme outer edge of the vehicle."

Paragraph 6.21.6.1., amend, to read:

"6.21.6.1. To the side:

As close as practicable to being parallel to the median longitudinal plane of the vehicle, compatible with the shape, structure, design and operation requirements of the vehicle; **if this is not possible, it shall follow as close as practicable the contour of the outer shape of the vehicle.**"

Paragraph 6.21.6.2., amend, to read:

"6.21.6.2. To the rear:

As close as practicable to being parallel to the transverse plane of the vehicle, compatible with the shape, structure, design and operation requirements of the vehicle; **if this is not possible, it shall follow as close as practicable the contour of the outer shape of the vehicle.**"

Paragraph 6.21.7.2., amend to read:

"6.21.7.2. In the case of a partial contour marking, each upper corner shall be described by two lines at 90°, to each other and each at least 250 mm in length; **if this is not possible, the marking shall follow as close as practicable the contour of the outer shape of the vehicle.**"

Annex 1,

Insert new paragraph 9.24.4., to read:

"9.24.4. Comment regarding conspicuity marking according to paragraph 6.21.1.2.4.	Rear yes/no <u>2</u> /
	Comments:
	Side yes/no <u>2</u> /
	Comments:"

Annex 11, amend to read:

Annex 11

VISIBILITY OF CONSPICUITY MARKINGS TO THE REAR AND
SIDE OF A VEHICLE

(see paragraph 6.21.5. of this Regulation)

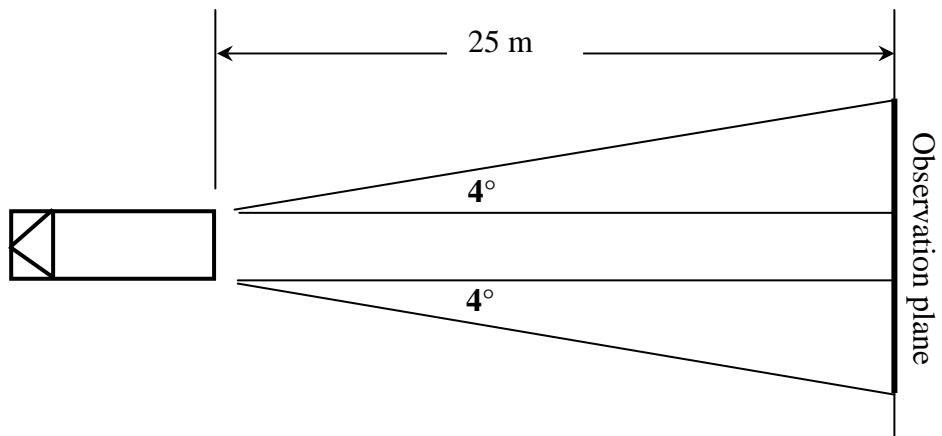
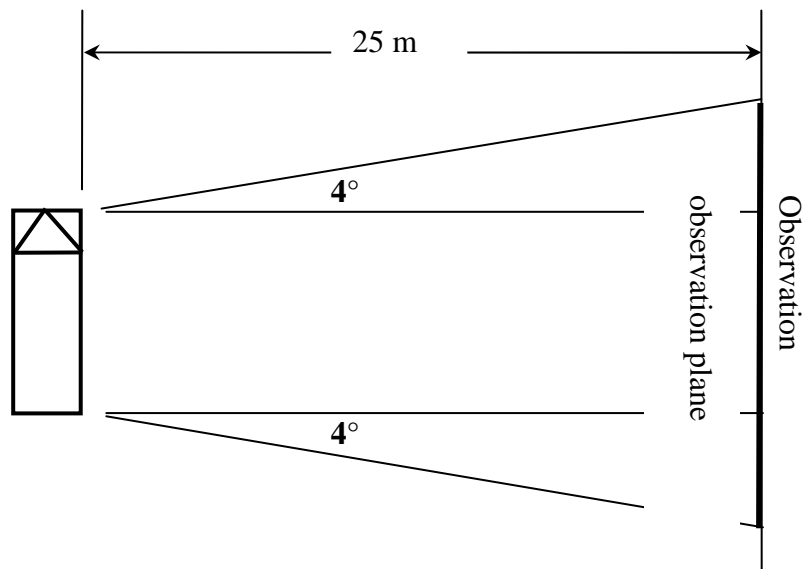


Figure 1



B. JUSTIFICATION

As the usage of conspicuity markings has increased in recent past, it became apparent that, while majority of vehicles have no problem in fulfilling the requirements of Regulation No. 48, 03 series of amendments, some low percentage of vehicles have. This is due to either the lack of adequate structure upon which to place the required 80 per cent coverage of conspicuity markings or to special operational requirements. This document attempts to provide a solution to this problem also as exemplified by the discussions at 61st GRE and before, and has been prepared by taking into consideration the aspects of practicality of application as well as safety.

Firstly, it is proposed to reinstate the existence of drawbar when evaluating the 6 meter length of a trailer (See UNECE Documents: TRANS/WP.29/1045 and 105/Amend. 1 – Special Resolution N° 1 concerning the common definitions of the vehicle categories, measurements and definitions – S.R.1; and, TRANS/WP.29/78/Rev. 1/Amend. 2 – Consolidated Resolutions on the Construction of Vehicles – R.E. 3). The omission of drawbar may potentially create hazardous situations where the total length of a trailer unit may be well over 6 meters but it may not have any conspicuity markings. Even more dangerous situation would be created where a N₂ or heavier vehicle is marked, but is pulling such trailer unit behind unmarked.

Secondly, paragraphs dealing with the 60 per cent and 40 per cent derogation for minimum coverage together with the 5-year limit footnote should be deleted and instead a new paragraph 6.21.1.2.4. inserted. This paragraph provides for the possibility of applying less than 80 per cent required coverage to the side or the rear, if a vehicle manufacturer can prove to the satisfaction of type approval authority that there is no sufficient structure. In this case the application coverage of existing requirements should be maximized and, where possible, additional brackets installed if there is a structure allowing for this placement.

Additionally, a new clear text is introduced in several paragraphs regarding the arrangement of conspicuity marking which says that it is acceptable to follow the outline of the vehicle when applying it instead of rigidly adhering to a parallel or vertical placement concept.

Lastly, paragraphs 6.21.5.1.2. and 6.21.5.2.2. and Annex 11 have been amended to provide for a 4° outward observation plane requirement to the rear or side of vehicle instead of the 15° requirement, which has proven itself impractical in compliance with the 80 per cent visibility requirement due to protruding parts on a vehicle like wheel fenders and mud guards, petrol tanks, C-beam structures on trailers, etc. In this case, the 25 meter evaluation distance did not change.