

## Proposal for Amendment to the 01 series of amendments to Regulation No. 74

The text reproduced below was prepared by the expert from the International Motorcycle Manufacturers Association (IMMA) and IWG SLR with the aim to review the definitions given in Regulation No. 74-01 by comparing them with those in Regulation No. 48 and, in case of identical definitions, to delete them from Regulation No. 74. Thus, all identical definitions will only be kept in Regulation No. 48.

The modifications to the existing text of Regulation No. 74 are marked in bold for new or strikethrough for deleted characters.

### I Proposal

Paragraph 2., amend to read:

"2. DEFINITIONS

For the purpose of this Regulation, **the definitions given in the latest series of amendments to UN Regulation No. 48 in force at the time of application for type approval shall apply, unless otherwise specified in this Regulation.**

~~2.1.~~ ~~"Approval of a vehicle" means the approval of a vehicle type with regard to the number and mode of installation of the lighting and light signalling devices;~~

~~2.2.2.1.~~ "Vehicle type" means a category of power-driven vehicles which do not differ from each other in such essential respects as:

~~2.2.1.~~ **2.1.1.** the dimensions and external shape of the vehicle;

~~2.2.2.~~ **2.1.2.** the number and position of the devices;

~~2.2.3.~~ **2.1.3.** the following shall likewise not be deemed to be "vehicles of a different type":

~~2.2.3.1.~~ **2.1.3.1.** vehicles which differ within the meaning of paragraphs ~~2.2.1.~~ **2.1.1.** and ~~2.2.2.~~ **2.1.2.** above but not in such a way as to entail a change in the kind, number, position and geometric visibility of the lamps prescribed for the vehicle type in question;

~~2.2.3.2.~~ **2.1.3.2.** vehicles on which lamps approved under one of the Regulations annexed to the 1958 Agreement, or lamps allowed in the country in which the vehicles are registered, are fitted, or are absent where their fitting is optional;

~~2.3.~~ ~~"transverse plane" means a vertical plane perpendicular to the median longitudinal plane of the vehicle;~~

- ~~2.4.~~ **2.2.** "*unladen vehicle*" means a vehicle without a driver, or passenger, and unladen, but with its fuel tank full and its normal complement of tools;
- ~~2.5.~~ **2.3.** "*lamp*" means a device designed to illuminate the road or to emit a light signal to other road users. Rear registration plate lamp and retro-reflectors are likewise to be regarded as lamps;
- ~~2.5.1.~~ **2.3.1.** "*Equivalent lamps*" means lamps having the same function and authorised in the country in which the vehicle is registered; such lamps may have different characteristics from those of the lamps with which the vehicle is equipped at the time of approval, on condition that they satisfy the requirements of this Regulation;
- ~~2.5.2.~~ **2.3.2.** "*Independent lamps*" means devices having separate illuminating surfaces, separate light sources and separate lamp bodies;
- ~~2.5.3.~~ **2.3.3.** "*Grouped lamps*" means devices having separate illuminating surfaces and separate light sources, but a common lamp body;
- ~~2.5.4.~~ **2.3.4.** "*Combined*" means devices having separate illuminating surfaces, but a common light source and a common lamp body;
- ~~2.5.5.~~ **2.3.5.** "*Reciprocally incorporated*" means devices having separate light sources or a single light source operating under different conditions (for example, optical, mechanical, electrical differences), totally or partially common illuminating surfaces and a common lamp body;
- ~~2.5.6.~~ "*Driving beam (main beam) headlamp*" means the lamp used to illuminate the road over a long distance ahead of the vehicle;
- ~~2.5.7.~~ "*Passing beam (dipped beam) headlamp*" means the lamp used to illuminate the road ahead of the vehicle without dazzling or causing undue discomfort to oncoming drivers and other road users;
- ~~2.5.8.~~ **2.3.6.** "*Front position lamp*" means the lamp used to indicate the presence of the vehicle when viewed from the front;
- ~~2.5.9.~~ **2.3.7.** "*Retro-reflector*" means a device used to indicate the presence of a vehicle by the reflection of light emanating from a light source not connected to the vehicle, the observer being situated near the source;
- For the purpose of this Regulation, retro-reflecting number plates are not considered as retro-reflectors:
- ~~2.5.10.~~ **2.3.8.** "*Direction-indicator lamp*" means the lamp used to indicate to other road-users that the driver intends to change direction to the right or to the left; A direction-indicator lamp or lamps may also be used according to provisions of Regulation No. 97.
- ~~2.5.11.~~ "*Stop lamp*" means the lamp used to indicate to other road users to the rear of the vehicle that its driver is applying the service brake;
- ~~2.5.12.~~ **2.3.9.** "*Rear position lamp*" means the lamp used to indicate the presence of the

vehicle when viewed from the rear;

~~2.5.13.~~ "~~Rear registration plate illuminating device~~" means the device used to illuminate the space reserved for the rear registration plate; such a device may consist of several optical component.

~~2.5.14.~~ "~~Hazard warning signal~~" means the simultaneous operation of all of a vehicle's direction indicator lamps to show that the vehicle temporarily constitutes a special danger to other road users;

~~2.6.2.4.~~ "Light-emitting surface" of a "lighting device", "light-signalling device" or a retro-reflector means all or part of the exterior surface of the transparent material as declared in the request for approval by the manufacturer of the device on the drawing, see Annex 3;

~~2.7.2.5.~~ "Illuminating surface" (see Annex 3);

~~2.7.1.2.5.1.~~ "**Illuminating surface of a lighting device" (driving beam (main beam) headlamp and passing beam (dipped beam) headlamp** paragraphs ~~2.5.6. and 2.5.7.~~) means the orthogonal projection of the full aperture of the reflector, or in the case of headlamps with an ellipsoidal reflector of the "projection lens", on a transverse plane. If the lighting device has no reflector, the definition of paragraph ~~2.5.2. 2.7.2.~~ shall be applied. If the light emitting surface of the lamp extends over part only of the full aperture of the reflector, then the projection of that part only is taken into account.

In the case of a passing beam headlamp, the illuminating surface is limited by the apparent trace of the cut-off on to the lens. If the reflector and lens are adjustable relative to one another, the mean adjustment should be used;

~~2.7.2.2.5.2.~~ "**Illuminating surface of a light-signalling device other than a retro-reflector" (front position lamp, direction indicator lamp, stop lamp and rear position lamp** paragraphs ~~2.5.8., 2.5.10., 2.5.11. and 2.5.12.~~) means the orthogonal projection of the lamp in a plane perpendicular to its axis of reference and in contact with the exterior light-emitting surface of the lamp, this projection being bounded by the edges of screens situated in this plane, each allowing only 98 per cent of the total luminous intensity of the light to persist in the direction of the axis of reference. To determine the lower, upper and lateral limits of the illuminating surface, only screens with horizontal or vertical edges shall be used;

~~2.7.3.2.5.3.~~ "**Illuminating surface of a retro-reflector**" (paragraph ~~2.3.7.2.5.9.~~) means the orthogonal projection of a retro-reflector in a plane perpendicular to its axis of reference and delimited by planes continuous to the outermost parts of the retro-reflector's optical system and parallel to that axis. For the purposes of determining the lower, upper and lateral edges of the device, only horizontal and vertical planes shall be considered;

- ~~2.8.2.6.~~ The "*apparent surface*" for a defined direction of observation means, at the request of the manufacturer or his duly accredited representative, the orthogonal projection of:  
either the boundary of the illuminating surface projected on the exterior surface of the lens (a-b), or the light-emitting surface (c-d), in a plane perpendicular to the direction of observation and tangential to the most exterior point of the lens (see Annex 3 to this Regulation);
- ~~2.9.~~ "*Axis of reference*" (or "*reference axis*") means ~~the characteristic axis of the lamp determined by the manufacturer (of the lamp) for use as the direction of reference ( $H = 0^\circ$ ,  $V = 0^\circ$ ) for angles of field for photometric measurements and for installing the lamp on the vehicle;~~
- ~~2.10.2.7.~~ "*Centre of reference*" means the intersection of the axis of reference with the exterior light-emitting surface; it is specified by the manufacturer of the lamp;
- ~~2.11.2.8.~~ "*Angles of geometric visibility*" means the angles which determine the field of the minimum solid angle in which the apparent surface of the lamp must be visible. That field of the solid angle is determined by the segments of the sphere of which the centre coincides with the centre of reference of the lamp and the equator is parallel with the ground. These segments are determined in relation to the axis of reference. The horizontal angles  $\beta$ , correspond to the longitude and the vertical angles  $\alpha$  to the latitude. There must be no obstacle on the inside of the angles of geometric visibility to the propagation of light from any part of the apparent surface of the lamp observed from infinity. If measurements are taken closer to the lamp, the direction of observation must be shifted parallel to achieve the same accuracy.  
On the inside of the angles of geometric visibility no account is taken of obstacles, if they were already presented when the lamp was type approved.  
If, when the lamp is installed, any part of the apparent surface of the lamp is hidden by any further parts of the vehicle, proof shall be furnished that the part of the lamp not hidden by obstacles still conforms to the photometric values prescribed for the approval of the device as an optical unit (see Annex 3 of this Regulation). Nevertheless, when the vertical angle of geometric visibility below the horizontal may be reduced to  $5^\circ$  (lamp at less than 750 mm above the ground) the photometric field of measurements of the installed optical unit may be reduced to  $5^\circ$  below the horizontal.
- ~~2.12.2.9.~~ "*Extreme outer edge*", on either side of the vehicle means the plane parallel to the median longitudinal plane of the vehicle and tangent to the latter's lateral outer edge, disregarding rear-view mirrors, direction indicators, position lamps and retro-reflectors;

- ~~2.13.2.10.~~ "Over-all width" means the distance between the two vertical planes defined in paragraph ~~2.10.2.12.~~ above;
- ~~2.14.2.11.~~ "A single lamp" means a device or part of a device, having one function and one apparent surface in the direction of the reference axis (see paragraph ~~2.6.2.8.~~ of this Regulation) and one or more light sources.
- For the purpose of installation on a vehicle, a "single lamp" also means any assembly of two independent or grouped lamps, whether identical or not, having the same function, if they are installed so that the projection of their apparent surfaces in the direction of the reference axis occupies not less than 60 per cent of the smallest rectangle circumscribing the projections of the said apparent surfaces in the direction of the reference axis. In such a case, each of these lamps shall, where approval is required, be approved as a type "D" lamp. This possible combination does not apply to driving beam headlamps and passing beam headlamps.
- ~~2.15.~~ "~~Distance between two lamps~~" which ~~face in the same direction~~ means the shortest distance between the 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;~~
- ~~2.16.~~ "~~Operating tell tale~~" means a visual or auditory signal (or any equivalent signal) indicating that a device has been switched on and whether or not it is operating correctly;
- ~~2.17.~~ "~~Circuit closed tell tale~~" means a visual (or any equivalent signal) indicating that a device has been switched on, but not indicating whether or not it is operating correctly;
- ~~2.18.~~ "~~Optional lamp~~" means a lamp, the installation of which is left to the discretion of the manufacturer;
- ~~2.19.~~ "~~Ground~~" means the surface on which the vehicle stands which should be substantially horizontal;
- ~~2.20.~~ "~~Device~~" means a component or combination of components used in order to perform one or several functions.
- ~~2.21.2.12.~~ "Colour of the light emitted from the device". The definitions of the colour of the light emitted given in Regulation No. 48 and its series of amendments in force at the time of application for type approval shall apply to this Regulation."

Paragraph 3.2.1., amend to read:

"3.2.1. a description of the vehicle type with regard to the items mentioned in paragraphs ~~2.1.1.2.2.1.~~ and ~~2.1.2.2.2.2.~~ above; the vehicle type shall be specified;"

*Paragraph 3.2.4., amend to read:*

"3.2.4. if necessary, in order to verify the conformity to the prescriptions of the present Regulation, a layout drawing or drawings of each lamp showing the illuminating surface, as defined in paragraph ~~2.5.1.2.7.1.~~ above, the light-emitting surface as defined in paragraph ~~2.4.2.6.~~, the axis of reference ~~as defined in paragraph 2.9.~~ and the centre of reference as defined in paragraph ~~2.7.2.10.~~ This information is not necessary in the case of the rear registration plate **illuminating device lamp** (~~paragraph 2.5.13.~~)."

*Paragraph 3.2.5., amend to read:*

"3.2.5. The application shall include a statement of the method used for the definition of the apparent surface (paragraph ~~2.6.2.8.~~)"

*Paragraph 6.2.4., amend to read:*

"6.2.4. Geometric visibility

Defined by angles  $\alpha$  and  $\beta$  as specified in paragraph ~~2.8.2.11.~~:

$\alpha = 15^\circ$  and  $10^\circ$  downwards;

$\beta = 45^\circ$  to the left and to the right for a single lamp;

$\beta = 45^\circ$  outwards and  $10^\circ$  inwards for each pair of lamps.

The presence of partitions or other items of equipment near the head-lamp shall not give rise to secondary effects causing discomfort to other road users."

*Annex 5, Paragraph 1.2.1., amend to read:*

"1.2.1. The angles of geometric visibility shall be checked in accordance with paragraph ~~2.8.2.11.~~ of this Regulation."

## II Justification

1. This proposal is part of stage 1 of the simplification package. With the new simplified Regulations on lighting and light-signalling developed by IWG SLR, it is necessary to review the definitions in several installation Regulations. During its seventy-eighth session, GRE was of the view that all identical definitions should be moved to one place and that UN Regulation No. 48 would be the best choice for that purpose.

2. IWG SLR decided that, at least for stage 1 of simplification, definitions that are not totally identical with the definitions in UN Regulation No. 48, even if the meaning is the same, should be retained in the latest series of amendments to UN Regulation No. 74.
  3. This amendment introduces the necessary changes into UN Regulation No. 74-01.
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