Vehicle Standard (Australian Design Rule 19/00 – Installation of Lighting and Light-Signalling Devices on L-Group Vehicles) 2006

I, JAMES ERIC LLOYD, Minister for Local Government, Territories and Roads, determine this vehicle standard under subsection 7 (1) of the *Motor Vehicle Standards Act 1989*.

Dated 10 August 2006

[SIGNED]

James Eric Lloyd

Minister for Local Government, Territories and Roads

CONTENTS

19.0. LEGISLATIVE PROVISIONS

19.0.1. NAME OF STANDARD

19.0.1.1. This Standard is the Vehicle Standard (Australian Design Rule 19/00 – Installation of Lighting and Light-Signalling Devices on L-Group Vehicles) 2006.

19.0.1.2. This Standard may also be cited as Australian Design Rule 19/00 — Installation of Lighting and Light-Signalling Devices on L-Group Vehicles.

19.0.2. COMMENCEMENT

19.0.2.1. This Standard commences on the day after it is registered.

19.0.3. REPEAL

19.0.3.1. This Standard repeals each vehicle standard with the name Australian Design Rule 19/00 — Installation of Lighting and Light-Signalling Devices on L-Group Vehicles that is:

(a) made under section 7 of the Motor Vehicle Standards Act 1989; and

(b) in force at the commencement of this Standard.

19.0.3.2. This Standard also repeals each instrument made under section 7 of the Motor Vehicle Standards Act 1989 that creates a vehicle standard with the name Australian Design Rule 19/00 — Installation of Lighting and Light-Signalling Devices on L-Group Vehicles, if there are no other vehicle standards created by that instrument, or amendments to vehicle standards made by that instrument, that are still in force at the commencement of this Standard.

PURPOSE AND SCOPE

This Australian Design Rule (ADR) is part of the Australian moor vehicle standards system and is a national standard for the purposes of the Motor Vehicle Standard Act 1989.

The function of this Australian Design Rule is to ensure that the installation of lighting and light-signalling devices on the vehicle is such that the effective operation of these devices is not impaired.

APPLICABILITY

This ADR applies to the design and construction of vehicles as set out in the table hereunder.

These vehicles shall have their lighting and light-signalling devices installed to comply with the relevant requirements of this ADR.

Where the fitment of a lamp is indicated as optional, this means that it is not mandatory to fit the lamp, but if fitted, the lamp(s) are required to comply.

The Package 13 issue of /00 includes minor changes relating to:

clarifying the parking lamp to be used and making it optional rather than mandatory;

clarifying the requirements for the front position lamp (Clause 19.4.4.1) and make it optional rather than mandatory on mopeds;

correcting/clarifying the driving lamp and passing lamp requirements of mopeds;

making several minor corrections to the Rule, and defers the implementation date.

Vehicles certified to any of the "Acceptable Prior Rules" as shown below in the Applicability Table for a particular vehicle category shall be deemed to comply with this Rule.

Vehicle Category	**ADR Category Code** *	**UNECE Category Code** *	**Manufactured on or After**	**Acceptable Prior Rules**
Moped 2 wheels	LA	L1	1 Oct 1991	Nil
Moped 3 wheels	LB	L2	1 Oct 1991	Nil
Motor cycle	LC	L3	1 Oct 1991	Nil
Motor cycle and sidecar	LD	L4	1 Oct 1991	Nil
Motor tricycle	LE	L5	1 Oct 1991	Nil
Passenger car	MA	M1	Not Applicable	
Forward-control passenger vehicle	MB	M1	Not Applicable	
Off-road passenger vehicle	MC	M1	Not Applicable	
Light omnibus	MD	M2		
up to 3.5 tonnes '*GVM'* and up to 12 seats	MD1		Not Applicable	
up to 3.5 tonnes *'GVM'* and more than 12 seats	MD2		Not Applicable	
over 3.5 tonnes and up to 4.5 tonnes *'GVM'*	MD3		Not Applicable	
over 4.5 tonnes and up to 5 tonnes *'GVM'*	MD4		Not Applicable	
Heavy omnibus	ME	M3	Not Applicable	
Light goods vehicle	NA	N1	Not Applicable	
Medium goods vehicle	NB	N2		
over 3.5 tonnes up to 4.5 tonnes *'GVM'*	NB1		Not Applicable	
over 4.5 tonnes up to 12 tonnes *'GVM'*	NB2		Not Applicable	
Heavy goods vehicle	NC	N3	Not Applicable	
Very light trailer	TA	O1	Not Applicable	
Light trailer	TB	O2	Not Applicable	
Medium trailer	TC	O3	Not Applicable	
Heavy trailer	TD	O4	Not Applicable	

* The category code may also be in the format L_1, L_A etc.

19.1. DEFINITIONS

19.1.1. Refer to Vehicle Standard (Australian Design Rule Definitions and Vehicle Categories) 2005.

19.1.2. Refer to part 2 of Appendix A for certain definitions.

19.1.3. For the purposes of this Rule,

19.1.3.1. *'LB1'*- a moped 3 wheels (LB) with one front wheel and 2 rear wheels.

19.1.3.2. *'LB2'*- a moped 3 wheels (LB) with 2 front wheels and one rear wheel.

19.1.3.3. *'LE1'*- a motor tricycle (LE) with one front wheel and 2 rear wheels.

19.1.3.4. *'LE'*- a motor tricycle (LE) with 2 front wheels and one rear wheel.

19.1.4. In paragraph 2.5.6 of Appendix A and elsewhere, for 'driving lamp' read 'main-beam lamp',

19.1.5. In paragraph 2.5.7 of Appendix A and elsewhere, for 'passing lamp" read 'dipped-beam headlamp'.

19.2. REQUIREMENTS

19.2.1. Lighting and light signalling devices shall be installed to comply with the requirements of this Rule.

19.2.2. Appendix A is an extract from the ECE document with administrative provisions not relevant to this ADR deleted or identified by cross-hatching. In the case of deletion of whole sections or annexes, that section's or annex's title will be cross-hatched and the words 'Not Applicable' placed beside its title.

19.2.3. In addition, supplementary Australian requirements are shown in inverse text (white text on a black background) adjacent to the relevant ECE requirement.

19.2.4. Unique Australian lighting requirements are specified in sections 19.5 and 19.6 and are given a 19.5 or 19.6 Clause number in the "100" series, i.e. 101 to 105.

19.3. (NOT USED)

19.4. (NOT USED)

19.5. SUPPLEMENTARY GENERAL SPECIFICATIONS

19.5.0. As shown in Appendix A in inverse text (white text on black background). Additionally:

19.5.14. Mandatory Lamps

19.5.14.101. Not used.

19.5.14.102. Reversing Lamp (Clause 19.6.102)

Applicable to LB. LD and LE category vehicles only if fitted with reverse gear.

19.5.15. Optional Lamps

19.5.15.101. *'Internal lamp'* (Clam 19.6.103)

Applicable to LB, LD and LE category vehicles only.

19.5.15.102. *'Search Lamp'* (Clause 19.6.104)

Applicable to LB. LD and LE category vehicles only.

19.5.15.103. front reflex reflector, non triangular (Clause 19.6.105)

195.15.104. Reversing Lamp (Clause 19.6.102)

Applicable to LC category vehicles only if fitted with reverse gear.

19.5.15.105. Parking Lamp (Clause 19.6.101)

Applicable to LB. LD and LE category vehicles only.

19.5.16. Fitting of Lamps

Additional to paragraph 5.16 of Appendix A. the fining of each of the additional lighting and light signalling devices mentioned in Clauses 19.5.14 and 19.5.15 above shall be effected in conformity with the relevant requirements in section 19.6 of this Design Rule,

19.5.17. Prohibition of Other Lamps

Additional to paragraph 5.17 of Appendix A, the fitting of any additional lighting and light signalling devices other than those mentioned in Clauses 19.5.14 and 19.5.15 is prohibited.

19.6. SUPPLEMENTARY INDIVIDUAL SPECIFICATIONS

19.6.0. As shown in Appendix A in inverse text (white text on black background). Additionally:

19.6.101. PARKING LAMP

19.6.101.1. Number One to ADR 53/… or ADR 49/…

19.6.101.2. Arrangement No special requirement.

19.6.101.3. Poston

19.6.101.3.1. in width: on or to the right of the median longitudinal plane of the vehicle.

19.6.101.3.2. in height not less than 350 mm nor more than 1,200 mm above the ground.

19.6.101.3.3. in length: at the rear of the vehicle.

19.6.101.4. Geometric visibility Horizontal angle: 45^{o} outwards; Vertical angle: 15^{o} above and below the horizontal. The vertical angle below the horizontal may be reduced to 5°, however, if the height of the lamp is less than 750 mm.

19.6.101.5. Orientation Rearwards

19.6.101.6. May be *'grouped'* with any other rear lamp.

19.6.101.7. May not be '*combined'* with any other lamp.

19.6.101.8. May be *'reciprocally incorporated'* with a rear position lamp, stop lamp

or rear fog lamp.

19.6.101.9. Electrical connections The connection must allow the parking lamp to be lit independently of any other lamps. The lamp must be able to function even if the device which starts and/or stops the engine is in a position which makes it impossible for the engine to operate.

19.6.101.10. Tell-tale Circuit-closed tell-tale optional. If there is one, it must not be possible to confuse it with the tell-tale for the front and rear position lamps.

19.6.101.11. Other requirements None.

19.6.102. REVERSING LAMP

19.6.102.1. Number. One or two to ADR 1/...

19.6.102.2. Arrangement No special requirement.

19.6.102.3. Position

19.6.102.3.1 in width: no special requirement.

19.6.102.3.2 in height: not less than 250 mm nor more than 1,200 mm above the ground.

19.6.10.2.3.3 in length: at the back of the vehicle.

19.6.102.4 Geometric visibility Horizontal angle: 45° to the right and left if there is only one lamp, 45° outwards and 30° inwards if there are two. Vertical angle: 15^{o} upwards and 5^{o} downwards.

19.6.102.5 Orientation Rearwards

19.6.102.6 May be *'grouped'* with any other rear lamp.

19.6.102.7 May not be *'combined'* with any other lamp.

19.6.102.8 May not be *'reciprocally incorporated'* with any other lamp.

19.6.102.9 Electrical Connections The lamp shall light up if the reverse gear is engaged and the engine is running. It may light up if the reverse gear is engaged and if the device which controls the starting and stopping of the engine is in such a position that operation of the engine is possible. It shall not light up or remain lit if either of the above conditions is not satisfied

19.6.102.10 Tell-tale Optional.

19.6.102.11 Other requirements None.

19.6.103 *'INTERNAL LAMP'*

19.6.103.1 Number Lamps to ADR 45/... such as required to illuminate the interior of the vehicle.

19.6.103.2 Arrangement Such as required to illuminate the interior of the vehicle.

19.6.103.3 Position

19.6.103.3.1 In width: no special requirement.

19.6.103.3.2 In height: no special requirement.

19.6.103.3.3 In length: no special requirement.

19.6.103.4 Geometric visibility Sufficient to illuminate the interior of the vehicle but not projecting any light other than that which is necessary for the purpose.

19.6.103.5 Orientation Such that the device illuminates the interior of the vehicle.

19.6.103.6 May/may not be "grouped". No requirement.

19.6.103.7 May/may not be 'combined". No requirement.

19.6.103.8 May/may not be "reciprocally incorporated'. No requirement.

19.6.103.9 Electrical connections. No requirement.

19.6.103.10 Tell-tale No special requirement.

19.6.103.11 Other requirements None.

19.6.104 *'SEARCH LAMP'*

19.6.104.1 Number One lamp to ADR 45/...

19.6104.2 Arrangement No special requirement.

19.6.104.3 Position

19.6.104.3.1 In width: No special requirement.

19.6.104.3.2 In height: No special requirement.

19.6.104.3.3 In length: No special requirement.

19.6.104.4 Geometric visibility No requirement.

19.6.104.5 Orientation Such as to be suitable for examining or making adjustments or repairs to the vehicle and/or reading any sign posts or notice boards.

19.6.104.6 May not be "grouped" with any other lamp.

19.6.104.7 May not be 'combined' with any other lamp.

19.6.104.*8* May not be `reciprocally incorporated' with any other lamp.

19.6.104.9 Electrical connections No special requirement.

19.6.104.10 Tell-tale No requirement

19.6.104.11 Other requirements None.

19.6.103 FRONT REFLEX REFLECTOR, NON-TRIANGULAR

19.6.105.1 Number One reflector to ADR 47/... for LA, *'LB1',* LC and *`LE1'* category vehicles; One or 2 reflectors to ADR 47/…for *'LB2',* LD and *'LE2'* category vehicles.

19.6.105.2 Arrangement No special requirement.

19.6.105.3 Position

19.6.105.3.1 In width.

19.6.105.3.1.1. For LA, *'LB1',* LC and *'LEI'* category vehicles, the centre of reference shall be in the median longitudinal plane of the vehicle.

19.6.105.3.1.2 For LD category vehicles, the centre of reference of one reflector shall

be in the median longitudinal plane of the motor cycle. If two reflectors are fitted, that point on the illuminating surface of the other reflector which is farthest from the motor cycle shall not be more than 400 mm from the extreme outer edge of the side-car.

19.6.105.3.1.3 For 'LB2' and *'LE2'* category vehicles, if one reflector is fitted, it shall be on or to the right of the median longitudinal plane of the vehicle. If 2 reflectors are fitted, that point on the illuminating surface which is furthest from the vehicle's median longitudinal plane shall not be more than 400 mm from the extreme outer edge of the vehicle and the inner edges of the reflectors shall not be less than 400 mm apart.

19.6.105.3.2 In height: not less than 350 mm and not more than 900 mm above the ground.

19.6.103.3.3 In length: at front of vehicle.

19.6.105.4 Geometric visibility Horizontal angle: from 30° left to 30° right, Vertical angle: 15° above and below the horizontal. The vertical angle below the horizontal may be reduced to 5^{o} in the case of a reflex reflector less than 750 mm above the ground.

19.6.103.3 Orientation Towards the front.

For LA, *`LB1',* LC and *`LE1'* category vehicles, the reflector may move with the steering.

19.6.105.6 May be 'grouped' with the front position lamp.

19.6.105.7 Other requirements The illuminating surface of the reflex reflector may have parts in common with that of the front position lamp.

19.7. ALTERNATIVE STANDARDS

19.7.1. Provided that all the additional requirement set out in inverse text in Appendix A are complied with, in relation to the lamps covered in Appendix A

19.7.1.1. For LC category vehicles, the technic requirements of ECE R 53/00, “Motorcycle Lighting" with respect to the installation of particular type of lamp shall be deemed to be equivalent to the technical requirements of this Rule for that particular type of lamp.

19.7.1.2. For LA and LB vehicles, the technical requirements of ECE R 74/00 Installation of Lighting and Light-signalling Devices for Mopeds", with respect to the installation of a particular type of lamp shall be deemed to be equivalent to the technical requirements of this Rule for that particular type of lamp.

APPENDIX A

NOTE: THIS ECE UNITED NATIONS' DOCUMENT HAS BEEN EDITED BY DELETION AND ALSO INDICATES ADDITIONAL AUSTRALIAN REQUIREMENTS IN INVERSE TEXT

E/ECE/324
E/ECE/TRANS/505 } Rev.1/Add.52
22 April 1983

UNITED NATIONS

AGREEMENT

CONCERNING THE ADOPTION OF UNIFORM CONDITIONS OF APPROVAL AND RECIPROCAL RECOGNITION OF APPROVAL FOR MOTOR VEHICLE EQUIPMENT AND PARTS

done at Geneva on 20 March 1958

Addendum 52: Regulation No. 53

Date of entry into force as an annex to the Agreement:
1 February 1983

UNIFORM PROVISIONS CONCERNING THE APPROVAL OF VEHICLES WITH REGARD TO THE INSTALLATION OF LIGHTING AND LIGHT-SIGNALLING DEVICES

Regulation No. 53
UNIFORM PROVISIONS CONCERNING THE APPROVAL OF MOTOR CYCLES WITH REGARD TO THE INSTALLATION OF LIGHTING AND LIGHT-SIGNALLING DEVICES

1. SCOPE ~~This regulation applies to the approval of 2 wheeled power driven vehicles without side car, having a maximum design speed exceeding 50km/h and/or cylinder capacity exceeding 50 cc~~.

2. DEFINITIONS For the purpose of 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. "vehicle type" means a category of vehicles which do not differ from each other in such essential respects as:~~

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

~~2.2.2. the number and position of the devices.~~

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

~~2.2.3.1. vehicles which differ within the meaning of paragraphs 2.2.1. and 2.2.2. 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; and~~

~~2.2.3.2. 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. "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. "lamp" means a device designed to illuminate the rod or to emit a luminous signal; rear-registration-plate illuminating devices and reflex reflectors shall likewise be regarded as lamps;

2.5.1. "equivalent lamps" means lamps having the same function and approved under the same Regulation annexed to the 1958 Agreement or in conformity with the same requirements; 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. "independent lamps" means lamps having separate illuminating surfaces, separate light sources and separate lamp bodies;

2.5.3. "grouped lamps" means devices having separate illuminating surfaces and separate light sources, but a common lamp body;

2.5.4. "combined" means devices having separate illuminating surfaces, but a common light source and a common lamp body;

2.5.5. "reciprocally incorporated" means devices having separate light sources (or a single

light source operating in different ways), but a common illuminating surface and a common lamp body;

2.5.6. "driving lamp" means the lamp used to illuminate the road over a long distance ahead of the vehicle;

2.5.7. "passing lamp" means the lamp used to illuminate the road ahead of the vehicle without causing undue dazzle or discomfort to oncoming drivers and other road users;

2.5.8. "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;

2.5.9. "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;

2.5.10. "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 components;

2.5.11. "front position lamp" means the lamp used to indicate the presence of the vehicle when viewed from the front;

2.5.12. "rear position lamp" means the lamp used to indicate the presence of the vehicle when viewed from the rear;

2.5.13. "reflex reflector" means a device used to indicate the presence of a vehicle by the reflection of light from a light source not connected with the vehicle, the observer being situated near that source; for the purpose of this Regulation the reflective number plates are not considered as reflex reflectors;

2.5.14. "vehicle 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;

2.5.15. "front fog lamp" means the lamp used to improve the illumination of the road in case of fog, snowfall, rainstorms or dust clouds;

2.5.16. "rear fog lamp" means the lamp used to make the vehicle more easily visible from the rear in dense fog;

2.6. "illuminating surface" (see annex 3);

2.6.1. "light emitting surface" means all or part of the exterior surface of the transparent lens that encloses the lighting or light-signalling device and allows it to emit light;

2.6.2. "illuminating surface of a lamp" (paragraphs 2.5.6., 2.5.7., and 2.5.15.), means the orthogonal projection of the full aperture of the reflector in a transverse plane. If the lamp glass (or glasses) extend(s) 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 lamp, the illuminating surface is limited on the side of the cut-off by the apparent projection of the line of the cut-off on to the lens. If the reflector and glass are adjustable, the mean adjustment should be used;

2.6.3. "illuminating surface of a light-signalling device other than a reflex reflector" (paragraphs 2.5.8. to 2.5.12., 2.5.14. and 2.5.16.) means the orthogonal projection of the lamp on a plane perpendicular to its axis of reference and in contact

with the transparent outer surface of the lamp, such projection being bound by the covering of the screen edges situated in this plane, each allowing only 98% of the total intensity of the light to subsist in the direction of the axis of reference; for the purposes of determining the lower, upper and lateral edges of the lamp only screens having horizontal or vertical edges shall be used;

2.6.4. "illuminating surface of a reflex reflector" (paragraph 2.5.13.) means the illuminating surface of a reflex reflector in a plane perpendicular to its axis of reference and delimited by planes contiguous to the outermost parts of the reflex reflector's optical system and parallel to this axis; for the purposes of determining the lower, upper and lateral limits of the device only vertical and horizontal planes shall be used;

2.7. "apparent surface" for a defined direction of observation means the orthogonal projection of the light-emitting surface on a plane perpendicular to the direction of observation;

2.8. "axis of reference" (or "reference axis") means the characteristic axis of the light signal determined by the manufacturer of the lamp for use as the direction reference (H = 0°, V = 0°) for angles of field for photometric measurements and for installing the lamp on the vehicle;

2.9. "centre of reference" means the intersection of the axis of reference with the light emitting surface; it is specified by the manufacturer of the lamp;

2.10 "angles of geometric visibility" means the angles which determine the minimum solid-angle zone in which the apparent surface of the lamp must be visible; this solid-angle zone is defined by the segments of the sphere of which the centre coincides with the centre of reference of the lamp and the equator is parallel to the ground; these segments are determined in relation to the axis of reference; the horizontal angles ß correspond to the longitude and the vertical angles a 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. No account is taken of obstacles existing at the time of approval, where required, of the lamp;

2.11. "extreme outer edge", on either side of the vehicle means the plane parallel to the median longitudinal plane of the vehicle and touching the lateral extremity of the vehicle, disregarding the projection or projections;

2.11.1. of rear-view mirrors;

2.11.2. of direction indicator lamps;

2.12. "over-all width" means the distance between the two vertical planes defined in paragraph 2.11. above;

2.13. "a single lamp" means any assembly of two or more lamps, whether identical or not, having the same function and emitting light of the same colour, which is constituted by devices whose lamps have illuminating surfaces which, on the same transverse plane, occupy not less than 60% of the area of the smallest rectangle circumscribing the said illuminating surfaces, provided that such assembly is approved as a single lamp where approval is required. This definition does not apply to driving lamp, the passing lamp or the front fog lamp;

2.14. "distance between two lamps which face in the same direction", the distance between the orthogonal projections in a plane perpendicular to the axes of reference of the outline of the two illuminating surfaces as defined according to the case mentioned

in paragraph 2.6.;

2.15. "'operating' tell-tale" means a tell-tale showing that a device has been switched on and is operating correctly;

2.16. "'circuit-closed' tell-tale" means a tell-tale showing that a device has been switched on, but not showing whether it is operating correctly or not.

~~**3. APPLICATION FOR APPROVAL**~~ Not applicable

~~**4. APPROVAL**~~ Not applicable

5. GENERAL SPECIFICATIONS

5.1. The lighting and light-signalling devices shall be so fitted that in normal conditions of use, and notwithstanding the vibrations to which they may be subjected, they retain the characteristics prescribed by this Regulation and enable the vehicle to comply with the requirements of this Regulation. In particular, it shall not be possible for the lamps to be inadvertently maladjusted.

5.2. The illuminating lamps shall be so installed that correct adjustment of their orientation can easily be carried out.

5.3. For all light-signalling devices the reference axis of the lamp when fitted to the vehicle shall be parallel to the bearing plane of the vehicle on the road; in addition, it shall be perpendicular to the median longitudinal plane of the vehicle in the case of side reflex reflectors and parallel to that plane in the case of all other light-signalling devices. A tolerance of ±3° shall be allowed in each direction. In addition, if specifications for fitting are provided by the manufacturer they shall be complied with.

5.4. In the absence of specific instructions, the height and orientation of the lamps shall be verified with the vehicle unladen and placed on a flat horizontal surface, its median longitudinal plane being vertical and the handlebars being in the position corresponding to the straight ahead movement. The tyre pressures shall be those prescribed by the manufacturer for the particular conditions of loading required in this Regulation.

5.5. In the absence of specific instructions lamps constituting a pair and having the same function shall:

5.5.1. be mounted symmetrically in relation to the median longitudinal plane;

5.5.2. be symmetrical to one another in relation to the median longitudinal plane;

5.5.3. satisfy the same colorimetric requirements; and

5.5.4. have identical nominal photometric characteristics.

5.6. In the absence of specific instructions, lamps having different functions may be independent or be grouped, combined or incorporated in one device, on condition that each such lamp satisfies the requirements applicable to it.

5.7. The maximum height above ground shall be measured from the highest point and the minimum height from the lowest point of the illuminating surface. For passing lamps, the minimum height from the ground shall be measured from the bottom of the lens or the reflector, whichever of these is the higher.

5.8. In the absence of specific instructions, no lamps other than direction-indicator lamps and the vehicle-hazard warning signal shall be flashing lamps.

5.9. No red lamp shall be visible towards the front and no white lamp shall be visible towards the rear. Compliance with this requirement shall be verified as shown hereunder (see drawing in annex 4):

5.9.1. visibility of red lamp towards the front: red lamp must not be directly visible to an observer moving in zone 1 of a transverse plane situated 25 m forward of the foremost point on the vehicle;

5.9.2. visibility of white lamp towards the rear: white lamp must not be directly visible to an observer moving in zone 2 of a transverse plane situated 25 m rearward of the rearmost point on the vehicle;

5.9.3. in their respective planes, the zones 1 and 2 explored by the eye of the observer are bound:

5.9.3.1. in height, by two horizontal planes 1 m and 2.2 m respectively above the ground;

5.9.3.2. in width, by two vertical planes, forming frontwards and rearwards angles of 15° outwards from the vehicle's median longitudinal plane. These planes contain respectively the vertical intersection lines of vertical planes parallel to the vehicle's median longitudinal plane and delimiting the vehicle's over-all length and of transversal planes delimiting the vehicle's over-all width.

5.10. The electrical connections shall be such that the front position lamp, the rear position lamp and the rear-registration-plate illuminating device cannot be switched on or off otherwise than simultaneously.

5.11. In the absence of specific instructions, the electrical connection shall be such that the driving lamp, the passing lamp and the fog lamp cannot be switched on unless the lamps referred to in paragraph 5.10. above are likewise switched on. This requirement need not, however, be satisfied in the case of the driving lamp and passing lamp where their luminous warnings consist in switching on the passing lamp intermittently, at short intervals, or in switching on the driving lamp intermittently, or in switching on the passing lamp and driving lamp alternately at short intervals.

5.12. Tell-tale lamps

5.12.1. Every tell-tale lamp shall be readily visible to a driver in the normal driving position.

5.12.2. Where a "circuit-closed" tell-tale is prescribed by this Regulation, it may be replaced by an "operating" tell-tale.

5.13. Colours of the lights

The colours of the lights referred to in this Regulation shall be as follows:

conspicuity lamp:	white
driving lamp:	white ~~or selective yellow~~
passing lamp:	white ~~or selective yellow~~
direction indicator lamp:	amber
stop lamp:	red
rear-registration-plate illuminating device:	white
front position lamp:	white ~~(selective yellow or a mixture of a selective yellow and white shall be permitted if this lamp is incorporated in a selective yellow headlamp)~~
rear position lamp:	red
rear reflex reflector, non-triangular:	red
side reflex reflector, non-triangular:	amber
vehicle-hazard warning signal:	amber
front fog lamp:	white ~~or less saturated selective yellow~~
rear fog lamp:	red

19.5.13.1. The colour of the front fog lamp may be white or yellow.

~~The definition of the colours of the lamps shall conform to that given in annex 5 to the Convention on Road Traffic (1968).~~

19.5.13.101. Additionally, the colours of the light emitted by the lamps listed below shall be as followed:

'Internal Lamp':	any colour
'Search Lamp':	white
front reflex reflector, non triangular	identical to incident light
Reversing Lamp:	white
Parking Lamp:	red

5.14. Every vehicle ~~submitted for approval pursuant to this Regulation~~ shall be equipped with the following lighting and light-signalling devices:

5.14.1. driving lamp (paragraph 6.1.);

19.5.14.1 Paragraph 5.14.1 (driving lamp) is applicable to LC, LD and LE category vehicles only and is optional for LA and LB vehicles.

5.14.2. passing lamp (paragraph 6.2.);

5.14.3. direction-indicator lamps (paragraph 6.3.);

5.14.4. stop lamp (paragraph 6.4.);

5.14.5. rear-registration-plate illuminating device (paragraph 6.5.);

5.14.6. position lamps

5.14.6.1. front (paragraph 6.6.);

19.5.14.6.1. the front position lamp is optional for mopeds.

5.14.6.2. rear (paragraph 6.7.);

5.14.7. non-triangular red rear reflex reflector (paragraph 6.8.).

5.15. It may, in addition, be equipped with the following lighting and light-signalling devices:

5.15.1. vehicle-hazard warning signal (paragraph 6.9.).

5.15.2. fog lamps

5.15.2.1. front (paragraph 6.10.);

5.15.2.2. rear (paragraph 6.11.);

5.15.3. non-triangular amber side reflex reflectors (paragraph 6.12.).

5.16. The fitting of each of the lighting and light-signalling devices mentioned in paragraphs 5.14. and 5.15. above shall be affected in conformity with the relevant requirements in paragraph 6. of this Regulation.

5.17. The fitting of any lighting and light-signalling devices other than those mentioned in paragraphs 5.14. and 5.15. is prohibited for the purposes of type approval.

6. INDIVIDUAL SPECIFICATIONS

6.1. DRIVING LAMP

6.1.1. Number: ~~One of a type corresponding to the maximum design speed of the vehicle.~~ [#]

19.6.1.1.1. in the case of LC, LD and *'LE1'* category vehicles, one or 2 lamps to either ADR 55/… or ADR 46/…

19.6.1.1.2. in the case of *'LE2'* category vehicles 2 lamps to either ADR 55/... or ADR 46/…

19.6.1.1.3. in the case of LA or *'LB1'* vehicles, one or 2 lamps to either ADR 54/... or ECE R 76/00.

19.6.1.1.4. in the case of *'LB2'* vehicles, 2 1amps to either ADR 54/… or ECE R 76/00 specifications.

6.1.2. Arrangement No special requirement.

6.1.3. Position

6.1.3.1. in width: an independent driving lamp may be installed above or below the passing lamp, in which case the geometric centre shall be situated in the longitudinal median plane of the vehicle. A driving lamp reciprocally incorporated with the passing lamp shall be installed with its geometric centre situated in the longitudinal median plane of the vehicle;

19.6.1.3.1 in width:

For *'LB2'* and *'LE2'* category vehicles the outer edge of the illuminating surface must in no case be closer to the extreme outer edge of the vehicle than the outer edges of the illuminating surface of the passing, beam headlamps. Where 2 driving lamps are fitted, the requirements of paragraph 6.1.3.1 do not apply. However, the requirements of paragraph 5.5 shall be met.

[#] Headlamps complying with the corresponding Regulations for four-wheeled vehicles are acceptable for all motor cycles.

6.1.3.2. in length: at the front of the vehicle. This requirement shall be deemed to be satisfied if the light emitted does not cause discomfort to the driver either directly, or indirectly through the rear view mirrors and/or other reflecting surfaces of the vehicle.

6.1.3.3. In all cases the edge of the illuminating surface of an independent driving lamp shall be not more than 100 mm away from the edge of the illuminating surface of the passing lamp.

6.1.4. Geometric visibility The visibility of the illuminating surface, including its visibility in areas which do not appear to be illuminated in the direction of observation considered, shall be ensured within a divergent space defined by generating lines based on the perimeter of the illuminating surface and forming an angle of not less than 5° with the axis of reference of the headlamp.

6.1.5. Orientation Forwards. The lamp may move with the steering.

19.6.1.5. For '*LB2'* and '*LE2'* category vehicles, the may not move with the steering.

6.1.6. May be "grouped" with the passing lamp and the other front lamps.

6.1.7. May not be "combined" with any other lamp.

6.1.8. May be "reciprocally incorporated"

6.1.8.1. with the passing lamp;

6.1.8.2. with the front position lamp;

6.1.8.3. with the front fog lamp.

6.1.9. Electrical connections The passing lamp may remain switched on at the same time as the driving lamp(s).

6.1.10. "Circuit-closed" tell-tale Mandatory, non-flashing blue signal lamp.

6.1.11. Other requirements ~~Maximum intensity of the driving lamp shall not exceed 120,000 cd. (The approval value.)~~ Nil

6.2. PASSING LAMP

6.2.1. ~~Number One~~.

19.6.2.1.1 in the case of LC, LD and *'LE1'* category vehicles - one or 2 lamps to either ADR 55/... or ADR 46/…

19.6.2.1.2 in the case of *'LE2'* category vehicles, 2 lamps to either ADR 56/… or 45/…
1 9.6.2.1.3 in the case of LA or '*LB1'* category vehicles, one or two lamps to ADR 54/...

19.6.2.1.4 in the case of ``LB2' category vehicles, 2 to either ADR 54/... or ECE R 76/00.

6.2.2. Arrangement No special requirement.

6.2.3. Position

6.2.3.1. In width: the centre of reference shall be in the median longitudinal plane of the vehicle;

19.6 2.3.1 in width

For *'LB2'* and *'LE2'* category vehicles, that edge of the illuminating surface which is

farthest from the vehicles median longitudinal plane shall he not more than 400 mm front the extreme outer edge of the vehicle. Where 2 passing lamps are fitted, the requirements of paragraph 6.2.3.1 do not apply. However, the requirements of Para 5.5 shall be met.

6.2.3.2. in height: not less than 500 mm nor more than 1,200 mm above the ground;

6.2.3.3. in length: at the front of the vehicle. This requirement shall be deemed to be satisfied if the light emitted does not cause discomfort to the driver either directly, or indirectly through the rear-view mirrors and/or other reflecting surfaces of the vehicle.

6.2.4. Geometric visibility

Defined by angles α and β as specified in paragraph 2.10:

α= 15° upwards and 10° downwards;

β= 45° to the left and to the right.

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

6.2.5. Orientation

6.2.5.1. Forwards. The lamp may move with the steering.

9.6.2 5.1 For *'LB2'* and *'LE2'* category vehicles. The lamps may not move with the steering,.

19.6 2.5.2 Paragraphs 6 2.5.2 to 6 2.5.4 and footnote #3 are deleted.

6.2.5.2. Not Applicable

6.2.5.3. Not Applicable

6.2.5.4. Not Applicable

6.2.6. May be "grouped" with the driving lamp and other front lamps.

6.2.7. May not be "combined" with any other lamp.

6.2.8. May be "reciprocally incorporated"

6.2.8.1. with the driving lamp;

6.2.8.2. with the other front lamps.

6.2.9. Electrical connections The control for changing over to the passing lamp shall switch off the driving lamp simultaneously. The passing lamp may remain switched on at the same time as the driving lamp.

6.2.10. Tell-tale Optional; non-flashing green signal lamp.

6.2.11. Other requirements None.

6.3. DIRECTION-INDICATOR LAMP

6.3.1. Number According to the arrangement (see appendix below).

6.3.2. Arrangement ~~A. Two side indicators (category 3 as specified in Regulation No. 6 or category 31 as specified in Regulation No. 50). Permitted until 31.12.1984.~~

~~Arrangement B.~~ Two front indicators (category 1 as specified in Regulation No. 6 or category 11 as specified in Regulation No. 50). Two rear indicators (category 2 as

specified in Regulation No. 6 or category 12 as specified in Regulation No. 50).

19.6.3.2. For “Regulation No. 6” read “ADR 6/…” and for “Regulation No. 50” read “ADR 53/…”

6.3.3. Position

6.3.3.1. in width:

~~arrangement A: the space between the inner edges of the two illuminating surfaces shall be not less than 560 mm; arrangement B~~: for front indicators, the following requirements shall all be met:

(1) there shall be a minimum distance of 300 mm between illuminating surfaces,

(2) the indicators shall be situated outside the longitudinal vertical planes tangential to the outer edges of the illuminating surface of the headlamp(s),

(3) there shall be a minimum distance of at least 100 mm between the illuminating surfaces of the indicators and headlamps closest to one another. For rear indicators, the clearance between the inner edges of the two illuminating surfaces shall be at least 240 mm on the condition that the prescriptions of paragraph 2.10. are applied even when the registration plate is mounted;

19.6.3.3.1 in width

For front indicators on *'LB2'* and *'LE2'* category vehicle and for rear indicators on ‘*LB1'* and *'LE1'* category vehicles, the edge of the illuminating surface furthest from the median longitudinal plane of the vehicle must not he more than 400 mm from the extreme outer edge of the vehicle.

6.3.3.2. in height: not less than 350 mm nor more than 1,200 mm above the ground;

6.3.3.3. in length: ~~no special requirements for arrangement A: for arrangement B of paragraph 6.3.3.1.,~~ the forward distance between the centre reference of the rear indicators and the transverse plane which constitutes the rearmost limit of the vehicle's over-all length shall not exceed 300 mm.

6.3.4. Geometric visibility Horizontal angles: see appendix below.

Vertical angles: 15° above and below the horizontal.

The vertical angle below the horizontal may be reduced to 5°, however, if the height of the lamps is less than 750 mm.

6.3.5. Orientation

According to the fitting arrangement. The front ~~(arrangement B) and side (arrangement A)~~ direction indicators may move with the steering.

19.6.3.5. Orientation For ‘*LB2’* and ‘*LE2’* category vehicles, the front lamps may not move with the steering.

6.3.6. May be "grouped" with one or more lamps.

6.3.7. May not be "combined" with any other lamp.

6.3.8. May not be "reciprocally incorporated" with any other lamp.

6.3.9. Electrical connections Direction-indicator lamps shall switch on independently of the other lamps. All direction-indicator lamps on one side of a vehicle

shall be switched on and off by means of one control.

6.3.10. "Operating" tell-tale Mandatory ~~for all direction indicator lamps of arrangement B~~. It shall be a flashing green lamp, visible in all normal driving conditions which, in the event of defective operation of any of the direction indicators, is extinguished, remains alight without flashing, or shows a marked change of frequency.

6.3.11. Other requirements The characteristics indicated below shall be measured with no other load on the electrical system than that required for the operation of the engine and the lighting devices.

19.6.3.10. The colour of the tell-tale may be green or yellow.

6.3.11.1. In the case of all vehicles which supply direct current to the direction indicators:

6.3.11.1.1. the light flashing frequency shall be 90 ± 30 times per minute;

6.3.11.1.2. the flashing of the direction indicators on the same side of the vehicle shall occur synchronously and in phase;

6.3.11.1.3. operation of the light-signal control shall be followed within not more than one second by the appearance of the light and within not more than one-and-one-half seconds by the first extinction of the light.

6.3.11.2. In the case of a vehicle which supplies alternating current to the direction indicators, where the speed of the engine is between 50% and 100% of the engine speed corresponding to the maximum speed of the vehicle:

6.3.11.2.1. the light flashing frequency shall be 90 ± 30 times per minute,

6.3.11.2.2. the flashing of the direction indicators on the same side of the vehicle may occur synchronously or alternately. The front lights shall not be seen at the rear and the rear lights at the front, in the regions shown in annex 4;

6.3.11.2.3. operation of the light-signal control shall be followed within not more than one second by the appearance of the light and within not more than one-and-one-half seconds by the first extinction of the light.

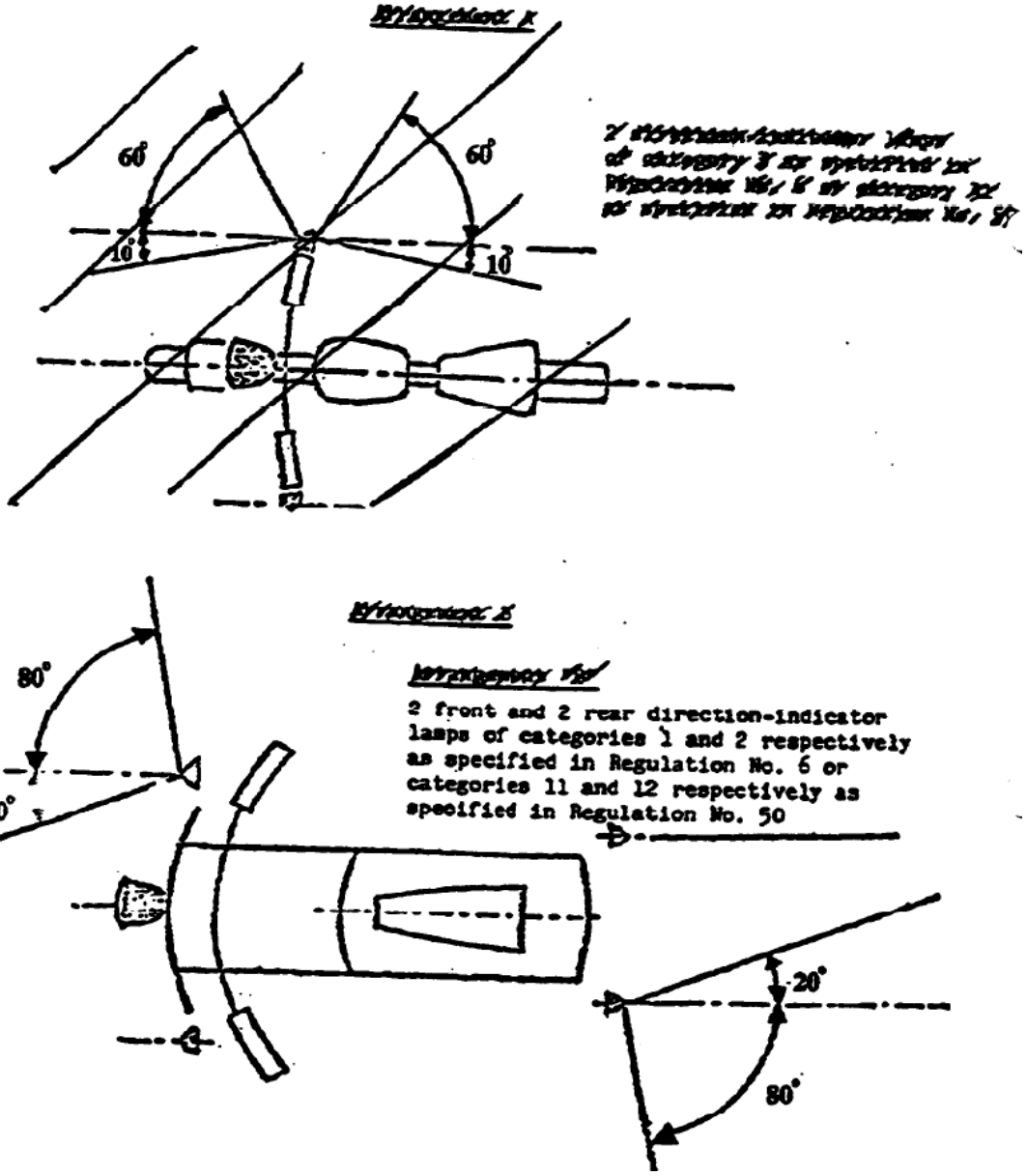
6.3.11.3. In the case of a vehicle which supplies alternating current to the direction indicators, where the speed of the engine is between the idling speed indicated by the manufacturer and 50% of the engine speed corresponding to the maximum speed of the vehicle:

6.3.11.3.1. the light flashing frequency shall be between 90 + 30 and 90 - 45 times per minute;

6.3.11.3.2. the flashing of the direction indicators on the same side of the vehicle may occur synchronously or alternately. The front lights shall not be seen at the rear, and the rear lights at the front, in the regions shown in annex 4;

6.3.11.3.3. operation of the light-signal control shall be followed within not more than one and-one-half seconds by the first extinction of the light.

6.3.11.4. In the event of failure, other than a short circuit, of one direction indicator lamp, the other(s) direction indicator lamp(s) indicating the same direction must continue to flash or remain alight, but the frequency in this condition may be different from that prescribed.



6.4. STOP LAMP

6.4.1 Number ~~One~~.

19.6.4.1 One lamp to ADR 53/… for LA, '*LB2*', LC, LD and '*LE2*' category vehicles; 2 lamps to ADR 53/… or ADR 46/… for '*LB1*' and '*LE1*' category vehicles.

6.4.2. Arrangement No special requirement.

6.4.3. Position

6.4.3.1. in width: the centre of reference shall be in the median longitudinal plane of the vehicle;

19.6.4.3.1 in width

For '*LB1*' and '*LE1*' category vehicles, the 2 lamps shall be not less than 400 mm apart.

6.4.3.2. in height: not less than 350 mm nor more than 1,200 mm above the ground;

6.4.3.3. in length: at the rear of the vehicle.

6.4.4. Geometric visibility

Horizontal angle: 45° to left and to right.

Vertical angle: 15° above and below the horizontal. The vertical angle below the horizontal may be reduced to 5°, however, if the height of the lamp is less than 750 mm.

6.4.5. Orientation Towards the rear of the vehicle.

6.4.6. May be "grouped" with one or more rear lamps.

6.4.7. May not be "combined" with any other lamp.

6.4.8. May be "reciprocally incorporated" with the rear position lamp.

6.4.9. Electrical connections Shall light up at any service brake application.

6.4.10. "Circuit-closed" tell-tale Prohibited.

6.4.11. Other requirements None.

6.5. REAR-REGISTRATION-PLATE ILLUMINATING DEVICE

19.6.5 Lamps to ADR 53/…

6.5.1. Number One. The device may consist of several optical components designed to illuminate the space reserved for the registration plate.

6.5.2. Arrangement #

6.5.3. Position #

6.5.3.1. in width #

6.5.3.2. in height#

6.5.3.3. in length#

6.5.4. Geometric visibility#

6.5.5. Orientation#

6.5.6. May be "grouped" with one or more rear lamps.

6.5.7. May be "combined" with the rear position lamp.

6.5.8. May not be "reciprocally incorporated" with any other lamp.

6.5.9. Electrical connections No special requirement.

6.5.10. Tell-tale Its function shall be performed by the tell-tale prescribed for the position lamp.

6.5.11. Other requirements None.

6.6. FRONT POSITION LAMP

6.6.1. Number ~~One~~.

I9.6.6.1 One independent lamp, or one lamp reciprocally incorporated with each passing lamp, to ADR 53/… for LA, '*LB1'*, 'LC' and '*LE1'* category vehicles; 2 lamps to ADR 53/... or ADR 49/00… for *'LB2'*, LD and '*LE2'* category vehicles.

Such that the device illuminates the space reserved for the registration plate.

Where 2 lamps are fitted, the pair of lamps shall be mounted with their centres symmetrical about the longitudinal median plane of the vehicle.

6.6.2. Arrangement No special requirement.

6.6.3. Position

6.6.3.1. in width: independent lamp: the centre of reference shall be in the median longitudinal plane of the vehicle; lamp reciprocally incorporated with a headlamp; see that headlamp;

19.6.6.3.1.1. For *'LB2'* and *'LE2'* category vehicles, that point on the illuminating surface which is farthest from the vehicle's median longitudinal Plane shall not be more than 400 mm from the extreme outer edge of the vehicle.

19.6.6.3.1.2. For LD category vehicles, one lamp shall be located on the motor cycle as per paragraph 6.6.3.1 of Appendix A. The other lamp shall be mounted on the side-car so that the point on the illuminating surface which is farthest frown the motor cycle shall not he more than 150 mm from the extreme outer edge of the side-car.

6.6.3.2. in height: not less than 350 mm nor more than 1,200 mm above the ground;

6.6.3.3. in length: at the front of the vehicle.

6.6.4. Geometric visibility

Horizontal angle: 80° to left and to right.

Vertical angle: 15° above and below the horizontal. The vertical angle below the horizontal may be reduced to 5°, however, if the height of the lamp is less than 750 mm.

6.6.5. Orientation Forwards. The lamp may move with the steering.

6.6.6. May be "grouped" with any other front lamp.

6.6.7. May be "reciprocally incorporated" with any other front lamp.

6.6.8. Electrical connections No special requirement.

6.6.9. "Circuit closed" tell-tale Mandatory. Non-flashing green signal lamp. This tell- tale shall not be required if the instrument panel (dashboard) lighting can be switched on or off only simultaneously with the position lamp.

6.6.10. Other requirements None.

19.6.6.101. For LD category vehicles, the front position lamp and the rear position lamp on the side-car may be “combined” provided that the geometric visibility for each lamp is maintained.

6.7. REAR POSITION LAMP

6.7.1. Number ~~One~~

19.6.7.1. One lamp to ADR 53/… for LA, ‘*LB2’*, LC and ‘*LE2’* category vehicles; 2 lamps to ADR 53/… or 49/… for ‘*LB1’*, LD or ‘*LE1’* category vehicles.

6.7.2. Arrangement No special requirements.

6.7.3. Position

6.7.3.1. in width: the centre of reference shall be in the median longitudinal plane of the vehicle;

19.6.7.3.1 in width

19.6.7.3.1.1 For '*LB1'* and '*LE1'* category vehicles, that point on the illuminating surface which is furthest from the vehicle's median longitudinal plane shall not he more than 400 mm from the extreme outer edge of the vehicle. The clearance between he inner edge of the illuminating surface shall not be less than 400 mm.

19.6.7.3.1.2. For LD category vehicles vehicle, one lamp shall be located on the motor cycle as per paragraph 6.7.3.1 of Appendix A. The other lamp shall be mounted on the side-car so that the point on the illuminating surface which is farthest from the motor cycle shall not be more than 150 mm from the extreme outer edge of the side-car.

6.7.3.2. in height: not less than 350 mm nor more than 1,200 mm above the ground;

6.7.3.3. in length: at the rear of the vehicle.

6.7.4. Geometric visibility

Horizontal angle: 80° to left and to right.

Vertical angle: 15° above and below the horizontal. The vertical angle below the horizontal may be reduced to 5°, however, if the height of the lamp is less than 750 mm.

6.7.5. Orientation Rearwards.

6.7.6. May be "grouped" with any other rear lamp.

6.7.7. May be "combined" with the rear-registration-plate illuminating device.

19.6.7.7 Additionally to paragraph 6.7.7 of Appendix A, for LD category vehicles, the rear position lamp and the front position lamp on the side-car may be combined provided that the geometric visibility for each lamp is maintained.

6.7.8. May be "reciprocally incorporated" with the stop lamp, or the rear non-triangular red reflex reflector, or both, or with the rear fog lamp.

6.7.9. Electrical connections No special requirement.

6.7.10. "Circuit-closed" tell-tale Its function shall be performed by the device prescribed for the front position lamp.

6.7.11. Other requirements None.

6.8. REAR REFLEX REFLECTOR, RED, NON-TRIANGULAR

6.8.1. Number ~~One~~

19.6.8.1 Number

One reflector to ADR 47/... for LA, *'LB2'*, LC and '*LE2'* category vehicles; 2 reflectors to ADR 47/... for '*LB1'*, LD and *'LE1'* category

6.8.2. Arrangement No special requirement.

6.8.3. Position

6.8.3.1. in width: the centre of reference shall be in the median longitudinal plane of the vehicle;

19.6.8.3.1 Position (width)

19.6.8.3.1.1 For `*LB1'* and `*LE1'* category vehicles, that point on the illuminating surface which is farthest from the vehicle's median longitudinal plane shall not be more than 400 mm from the extreme outer edge of the vehicle. The inner edges of the reflectors shall not be less than 400 mm apart.

19.6.8.3.1.2 For LD category vehicles, one reflector shall be mounted on the motor cycle as per paragraph 6.8.3.1 of Appendix A. The other reflector shall be mounted on the side-car so that the point on the illuminating surface which is farthest from the motor cycle shall not he more than 400 mm from the extreme outer edge of the side-car.

6.8.3.2. in height: not less than 350 mm nor more than 900 mm above the ground.

6.8.4. Geometric visibility

Horizontal angle: 30° to left and to right.

Vertical angle: 15° above and below the horizontal. The vertical angle below the horizontal may be reduced to 5°, however, if the height of the lamp is less than 750 mm.

6.8.5. Orientation Rearwards.

6.8.6. May be "grouped" with any other lamp.

6.8.7. Other requirements

The illuminating surface of the reflex reflector may have parts in common with that of any other red lamp situated at the rear.

6.9. VEHICLE-HAZARD WARNING SIGNAL

6.9.1. The signal shall be given by simultaneous operation of the direction-indicator lamps in accordance with the requirements of paragraph 6.3. above.

6.9.2. Electrical connections The signal shall be given by means of a separate control enabling all the direction indicators to be supplied with current simultaneously.

6.9.3. "Circuit-closed" tell-tale Mandatory. Flashing red signal lamp or, in the case of separate tell-tales, the simultaneous operation of the tell-tale prescribed in paragraph 6.3.10.

6.9.4. Other requirements Light flashing 90 ± 30 times per minute.

Operation of the lamp-signal control shall be followed within not more than one second by the appearance of the light and within not more than one-and-one half seconds by the first extinction of the light.

19.6.9.4 At the start of the third sentence in paragraph 6.9.4 add “Except in the locking position, the”

~~The~~ vehicle-hazard warning signal shall remain capable of being actuated even when the device which controls the starting and stopping of the engine is in such a position that operation of the engine is impossible.

6.10. FRONT FOG LAMP

19.6.10 Lamps to ADR 50/…

6.10.1. Number One.

6.10.2. Arrangement No special requirement.

6.10.3. Position

6.10.3.1. in width: the centre of reference shall be in the median longitudinal plane of the vehicle; or the edge of the illuminating surface which is nearest to that plane shall be not more than 250 mm away from it;

6.10.3.2. in height: not less than 250 mm above the ground. No point on the illuminating surface shall be higher than the highest point on the illuminating surface of the passing lamp;

6.10.3.3. in length: at the front of the vehicle. This requirement shall be deemed to be satisfied if the light emitted does not cause discomfort to the driver either directly, or indirectly through the rear-view mirrors and/or other reflecting surfaces of the vehicle.

6.10.4 Geometric visibility Defined by angles α and β as specified in paragraph 2.10:

α = 5° upwards and downwards;

β = 45° to left and to right except for an off-centre light, in which case the inward angle b = 10°

6.10.5. Orientation Forwards. The lamp may move with the steering.

6.10.6. May be "grouped" with the other front lamps.

6.10.7. May not be "combined" with any other front lamp.

6.10.8. May be "reciprocally incorporated" with a driving lamp and with a front position lamp.

6.10.9. Electrical connections It shall be possible to switch the fog lamp on or off independently of the driving lamp and passing lamp.

6.10.10. "Circuit-closed" tell-tale Optional; non-flashing green signal.

6.10.11. Other requirements None.

6.11. REAR FOG LAMP

6.11.1. Number One.

19.6.11.1 One lamp to ADR 52/… for LA, '*LB2'*, LC, LD and '*LE2'* category vehicles; one or two lamps to ADR 52/… for '*LB1'* and '*LE1'* category vehicles.

6.11.2. Arrangement No special requirement.

6.11.3. Position

6.11.3.1. in width: ~~no special requirements;~~

19.6.11.3.1 Position (width) For '*LB1'*, LD and '*LE1'* category vehicles, where only one lamp is fitted, the lamp shalt be on or to the right of the median longitudinal plane of the vehicle.

6.11.3.2. in height: not less than 350 mm nor more than 900 mm above the ground;

6.11.3.3. in length: at the rear of the vehicle.

6.11.3.4. The distance between the illuminating surface of the rear fog lamp and that of the stop lamp shall not be than 100 mm.

6.11.4. Geometric visibility Defined by angles α and β as specified in paragraph 2.10:

α = 5° upwards and 5° downwards;

β = 25° to right and to left.

6.11.5. Orientation Rearwards.

6.11.6. May be "grouped" with any other rear lamp.

6.11.7. May not be "combined" with any other lamp.

6.11.8. May be "reciprocally incorporated" with a rear position lamp.

6.11.9. Electrical connections They shall be such that the rear fog lamp can light up only when one or more of the following lamps are switched on: driving lamp, passing lamp, front fog lamp. If there is a front fog lamp, it shall be possible to switch off the rear fog lamp independently of the front fog lamp.

6.11.10. "Circuit-closed" tell-tale Mandatory. Non-flashing amber signal lamp.

6.11.11. Other requirements None.

6.12. SIDE REFLEX REFLECTOR, AMBER, NON-TRIANGULAR

19.6.12 Reflectors to ADR 47/…

6.12.1. Number per side One or two

6.12.2. Arrangement No special requirement.

6.12.3. Position

6.12.3.1. in width: no special requirement;

6.12.3.2. in height: not less than 350 mm nor more than 900 mm above the ground;

6.12.3.3. in length: should be placed in such a position that under normal conditions it may not be masked by the driver's or passenger's clothes.

6.12.4. Geometric visibility

Horizontal angles, β: 30° to the front and to the rear.

Vertical angles, α: 15° above and below the horizontal. The vertical angle below the horizontal may be reduced to 5°, however, if the height of the lamp is less than 750 mm.

6.12.5. Orientation The reference axis of the reflex reflectors must be perpendicular to the vehicle's median longitudinal plane and directed outwards.

6.12.6. May be "grouped" with the other signalling devices.

~~**7. MODIFICATION AND EXTENSION OF THE VEHICLE TYPE OR OF THE INSTALLATION OF ITS LIGHTING AND LIGHT-SIGNALLING DEVICES.**~~

Not Applicable

~~**8. CONFORMITY OF PRODUCTION**~~

Not Applicable

~~**9. PENALTIES FOR NON-CONFORMITY OF PRODUCTION**~~

Not Applicable

~~10. PRODUCTION DEFINITELY DISCONTINUED~~

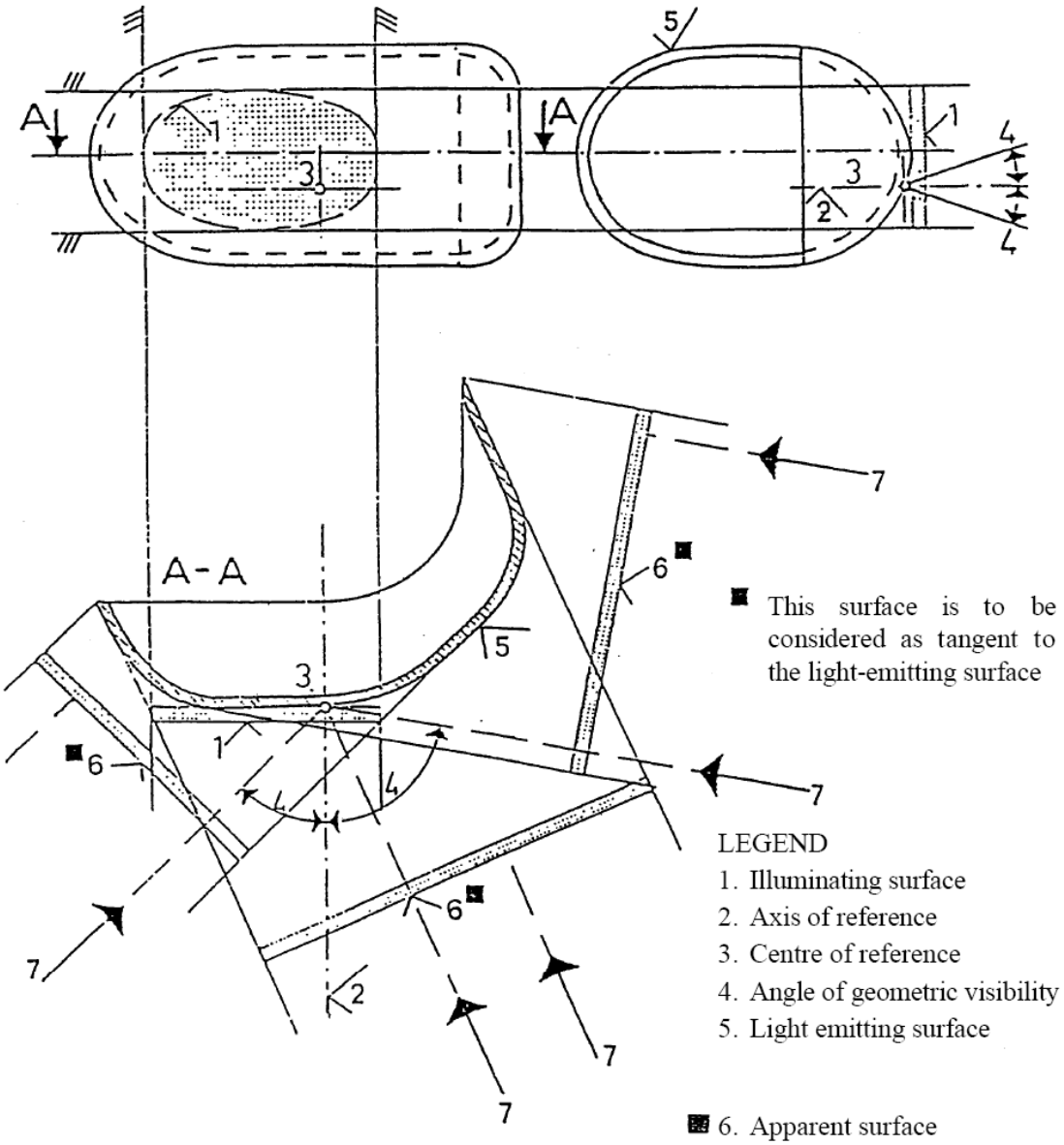
Not Applicable

~~11. NAMES AND ADDRESSES OF TECHNICAL SERVICES RESPONSIBLE FOR CONDUCTING APPROVAL TESTS, AND OF ADMINISTRATIVE DEPARTMENTS~~

Not Applicable

Annex 3

DEFINITION OF THE TERMS OF PARAGRAPHS 2.6 TO 2.10 OF THIS REGULATION



Note: The object being to check that a minimum distance is respected and, in order to avoid the determination of the exact limit of the illuminating surface, simplified methods may be used providing that they do not lead to interpretations which would not correspond to the provisions of minimum distance required by the Regulation.

Annex 4

FORWARD VISIBILITY OF RED LIGHTS AND REARWARD VISIBILITY OF WHITE LIGHTS

(see paragraph 5.9 of this Regulation)

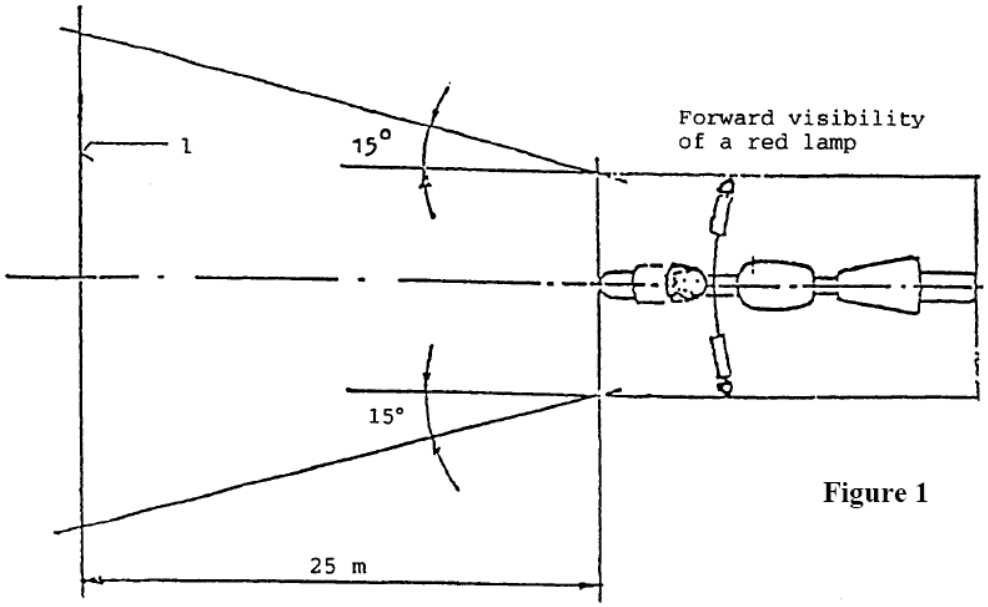


Figure 1

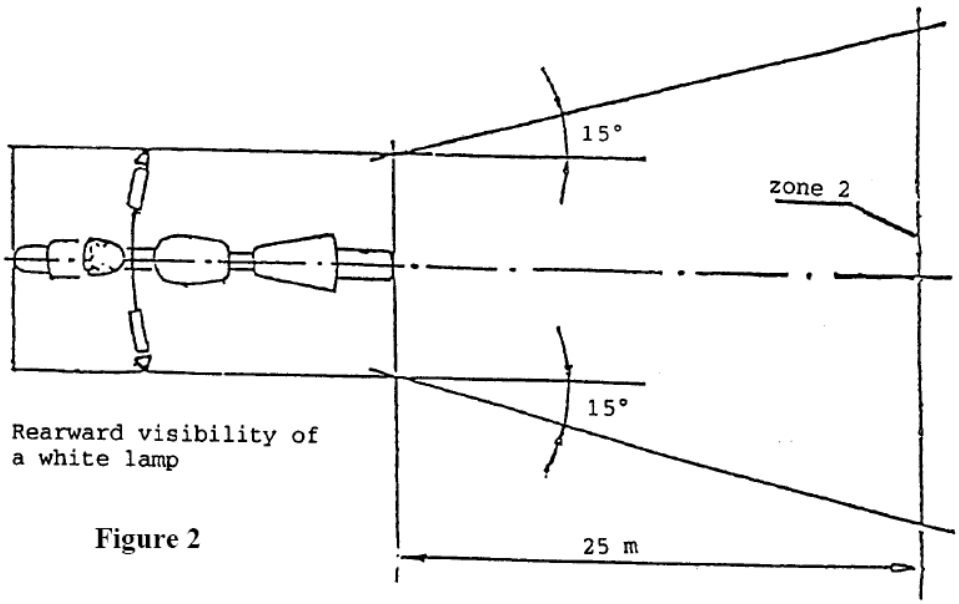


Figure 2