Directive 2009/67/EC of the European Parliament and of the Council of 13 July 2009 on the installation of lighting and light-signalling devices on two or three-wheel motor vehicles (codified version) (Text with EEA relevance) (repealed)

ANNEX VI

REQUIREMENTS CONCERNING TRICYCLES

1. All tricycles must be fitted with the following lighting and light-signalling devices:

1.1. main-beam headlamp;

1.2. dipped-beam headlamp;

1.3. direction indicator lamps;

1.4. stop lamp;

1.5. front position lamp;

1.6. rear position lamp:

1.7. rear registration-plate lamp;

1.8. non-triangular rear retro-reflector;

1.9. hazard warning signal.

2. In addition all tricycles may be fitted with the following lighting and light-signalling devices:

2.1. front fog lamp;

2.2. rear fog lamp;

2.3. reversing lamp;

[[F1]2.4. daytime running lamp;**]**

Textual Amendments

F1 Substituted by Commission Directive 2013/60/EU of 27 November 2013 amending for the purposes of adapting to technical progress, Directive 97/24/EC of the European Parliament and of the Council on certain components and characteristics of two or three-wheel motor vehicles, Directive 2002/24/EC of the European Parliament and of the Council relating to the type-approval of two or three-wheel motor vehicles and Directive 2009/67/EC of the European Parliament and of the Council on the installation of lighting and light-signalling devices on two- or three-wheel motor vehicles (Text with EEA relevance).

3. Each of the lighting and light-signalling devices referred to in points 1 and 2 must be fitted in accordance with the appropriate provisions of point 6.

4. No lighting and light-signalling device other than those referred to in points 1 and 2 may be fitted.

5. The lighting and light-signalling devices referred to in points 1 and 2 and type-approved for vehicles in categories M_1 and N_1, in accordance with Directives 76/757/EEC, 76/758/EEC, 76/759/EEC, 76/760/EEC, 76/761/EEC, 76/762/EEC, 77/538/EEC or 77/539/EEC, shall also be permitted on tricycles.

6. SPECIFIC FITTING REQUIREMENTS

6.1. Main-beam headlamps

6.1.1. *Number*: one or two.

However, for tricycles with a maximum width exceeding 1 300 mm, two main-beam headlamps are required.

6.1.2. *Arrangement drawing*: no individual specifications

6.1.3. Position

6.1.3.1. Width:

— an independent main-beam headlamp may be fitted above, below or to one side of another front lamp: if these lamps are one above the other the reference centre of the main-beam headlamp must be located within the median longitudinal plane of the vehicle; if these lamps are side by side their reference centre must be symmetrical in relation to the median longitudinal plane of the vehicle,

— a main-beam headlamp that is reciprocally incorporated with another front lamp must be fitted in such a way that its reference centre lies within the median longitudinal plane of the vehicle. However, when the vehicle is also fitted with an independent dipped-beam headlamp alongside the main-beam headlamp, their reference centres must be symmetrical in relation to the median longitudinal plane of the vehicle,

— two main-beam headlamps of which either one or both are reciprocally incorporated with another front lamp must be fitted in such a way that their reference centres are symmetrical in relation of the median longitudinal plane of the vehicle.

6.1.3.2. The length: at the front of the vehicle. This requirement is considered to have been met if the light emitted does not disturb the driver either directly or indirectly by means of the rear-view mirrors and/or other reflective surfaces on the vehicle.

6.1.3.3. In any case, the distance between the edge of the illuminating surface of any independent main-beam headlamp and the edge of that of the dipped-beam headlamp must not exceed 200 mm.

6.1.4. Geometrical visibility

Even in the zones which do not seem to be illuminated in the direction of observation under consideration, the illuminating surface must be visible within a divergent area limited by generatrices touching the entire contour of the illuminating surface and forming an angle of 5° at least with the headlamp reference axis. The contour of the projection of the illuminating surface on to a transverse plane that is tangent to the front part of the main-beam headlamp lens is considered to be the origin of the angles of geometrical visibility.

6.1.5. *Alignment*: towards the front.

May move in line with the steering angle.

6.1.6. May be grouped together with the dipped-beam headlamp 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 dipped-beam headlamp;

6.1.8.2. with the front position lamp;

6.1.8.3. with the front fog lamp.

6.1.9. Electrical connections

The main-beam headlamps must switch on simultaneously. When switching from the dipped to the main beam all of the main-beam headlamps must be lit. When switching from the main beam to the dipped beams all of the main-beam headlamps must be switched off simultaneously. The dipped-beam headlamps may remain lit at the same time as the main-beam headlamps.

6.1.10. *Circuit-closed telltale*: compulsory.

Blue non-flashing warning light.

[[F1]6.1.11. Other requirements:

— driving-beam headlamps of vehicles which tend to lean in corners may be fitted with a horizontal inclination adjustment system (HIAS) as defined in paragraph 2.25 of UNECE Regulation No 53, provided that all relevant requirements of that Regulation applying to HIAS are met;

— the combined value of the maximum intensity of all driving-beam headlamps which can be activated at the same time shall not exceed 430 000 cd, which corresponds to a reference value of 100.**]**

6.2. Dipped-beam headlamps

6.2.1. *Number*: one or two.

However, for tricycles with a maximum width exceeding 1 300 mm two dipped-beam headlamps are required.

6.2.2. *Arrangement drawing*: no individual specifications.

6.2.3. Position

[[F1]6.2.3.1. In width:

— a single independent passing-beam headlamp may be fitted above, below or to one side of another front lamp. If lamps are stacked on top of each other, the reference centre of the passing-beam headlamp shall be located within the longitudinal median plane of the vehicle. If they are side by side, their reference centres shall be symmetrical in relation to the longitudinal median plane of the vehicle,

— a single independent passing-beam headlamp which is reciprocally incorporated with another front lamp shall be fitted in such a way that its reference centre lies within the longitudinal median plane of the vehicle. However, if the vehicle is fitted with another front lamp alongside the passing-beam headlamp, the reference centres of the two lamps shall be symmetrical in relation to the longitudinal median plane of the vehicle,

— two passing-beam headlamps of which none, one or both are reciprocally incorporated with another front lamp shall be fitted in such a way that their reference centres are symmetrical in relation to the longitudinal median plane of the vehicle,

— where there are two passing-beam headlamps, the lateral distance between the outward edges of the light-emitting surfaces and the outermost edges of the vehicle shall not exceed 400 mm.**]**

6.2.3.2. Height: a minimum of 500 mm and a maximum of 1 200 mm above the ground.

6.2.3.3. Length: at the front of the vehicle. This requirement is considered to have been met if the light emitted does not disturb the driver either directly or indirectly by means of the rear-view mirrors and/or other reflective surfaces of the vehicle.

6.2.4. Geometric visibility

Determined by angles α and β as specified in point A(10) of Annex I:

α = 15° upwards and 10° downwards;
β = 45° to the left and to the right if there is only one dipped-beam headlamp;

45° outwards and 10° inwards if there are two dipped-beam headlamps.

The presence of panels or other items of equipment near the light must not give rise to secondary effects causing discomfort to other road users.

6.2.5. *Alignment*: towards the front.

May move in line with the steering angle.

The vertical inclination of the dipped beam must remain between –0,5 and –2,5 %, except in the case where an external adjusting device is present.

6.2.6. May be grouped together with the main-headlamp and the other front lamps.

6.2.7. May not be combined with any other lamp.

6.2.8. May be reciprocally incorporated with the main-beam headlamp and the other front lamps.

6.2.9. Electrical connections

The control for changing to the dipped beam must switch off all main-beam headlamps simultaneously, whereas the dipped beams may remain switched on at the same time as the main beam.

6.2.10. *Circuit-closed telltale*: optional.

Green non-flashing indicator light.

[F1 6.2.11. Other requirements:

— passing-beam headlamps of vehicles which tend to lean in corners may be fitted with a horizontal inclination adjustment system (HIAS) as defined in paragraph 2.25 of UNECE Regulation No 53, provided that all relevant requirements of that Regulation applying to HIAS are met,

— passing-beam headlamps of which the lowest point of the light-emitting surface is 0,8 m or less above the ground shall be adjusted to an initial aiming inclination of between – 1,0 % and – 1,5 %. The precise value may be declared by the manufacturer,

— passing-beam headlamps of which the lowest point of the light-emitting surface is between 0,8 m and 1,0 m above the ground shall be adjusted to an initial aiming inclination of between – 1,0 % and – 2,0 %. The precise value may be declared by the manufacturer,

— passing-beam headlamps of which the lowest point of the light-emitting surface is 1,0 m or more above the ground shall be adjusted to an initial aiming inclination of between – 1,5 % and – 2,0 %. The precise value may be declared by the manufacturer,

— for passing-beam headlamps with a light source with an objective luminous flux not exceeding 2 000 lumen and an initial inclination of between – 1,0 % and – 1,5 %, the vertical inclination shall remain between – 0,5 % and – 2,5 % under all loading conditions. The vertical inclination shall remain between – 1,0 % and – 3,0 % if the initial inclination is set between – 1,5 % and – 2,0 %. An external adjusting device may

be used to satisfy the requirements, provided that no tools other than those provided with the vehicle are needed,

— for passing-beam headlamps with a light source with an objective luminous flux exceeding 2 000 lumen and an initial inclination of between – 1,0 % and – 1,5 %, the vertical inclination shall remain between – 0,5 % and – 2,5 % under all loading conditions. The vertical inclination shall remain between – 1,0 % and – 3,0 % if the initial inclination is set between – 1,5 % and – 2,0 %. A headlamp levelling device may be used to satisfy the requirements of this paragraph, provided its operation is fully automatic and the response time is less than 30 seconds.

[F2 6.2.11.1. Testing conditions:

— the inclination requirements in point 6.2.11 shall be verified as follows:
  — vehicle with its mass in running order and a mass of 75 kg simulating the driver,
  — vehicle fully laden with the mass distributed so as to attain the maximum axle loads as declared by the manufacturer for this loading condition,
  — vehicle with a mass of 75 kg simulating the driver and additionally laden so as to attain the maximum permissible rear axle load as declared by the manufacturer; however, the front axle load shall be as low as possible in this case,
  — before any measurement is made, the vehicle shall be rocked three times and then moved backwards and forwards for at least a complete wheel revolution.]]

Textual Amendments

F2 Inserted by Commission Directive 2013/60/EU of 27 November 2013 amending for the purposes of adapting to technical progress, Directive 97/24/EC of the European Parliament and of the Council on certain components and characteristics of two or three-wheel motor vehicles, Directive 2002/24/EC of the European Parliament and of the Council relating to the type-approval of two or three-wheel motor vehicles and Directive 2009/67/EC of the European Parliament and of the Council on the installation of lighting and light-signalling devices on two- or three-wheel motor vehicles (Text with EEA relevance).

6.3. Direction indicator lamps

6.3.1. *Number*: two per side.

One side direction indicator is also permitted per side.

6.3.2. *Arrangement drawing*: two front and two rear indicator lamps.

6.3.3. Position

6.3.3.1. Width:

— the edges of the illuminating surfaces furthest from the median longitudinal plane must not be more than 400 mm from the outermost part of the vehicle,

— the internal edges of the illuminating surfaces must be at least 500 mm apart,

— there must be a minimum distance between the illuminating surfaces of the indicators and the nearest dipped-beam headlamps of:
  — 75 mm in the case of a minimum indicator intensity of 90 cd,
  — 40 mm in the case of a minimum indicator intensity of 175 cd,
  — 20 mm in the case of a minimum indicator intensity of 250 cd,

— ≤ 20 mm in the case of a minimum indicator intensity of 400 cd.

6.3.3.2. Height: a minimum of 350 mm and a maximum of 1 500 mm above the ground.

6.3.4. Geometric visibility

Horizontal angles: see Appendix 2.

Vertical angles: 15° above and below the horizontal.

However, the vertical angle below the horizontal may be reduced to 5° if the lamps are less than 750 mm above the ground.

6.3.5. Alignment

The front direction indicator lamps may move in line with the steering angle.

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 must switch on independently of the other lamps. All direction indicator lamps on one side of a vehicle must be switched on and off by means of one control.

6.3.10. *Operational telltale*: compulsory.

This may be optical or auditory or both. If it is optical it must be a green flashing light and visible under all normal operating conditions. It must be extinguished or remain alight without flashing or show a marked change of frequency in the event of the malfunction of any of the direction indicator lamps. If it is entirely auditory it must be clearly audible and show a marked change of frequency in the event of any malfunction.

6.3.11. Other requirements

The characteristics listed below must be measured with the electrical generator supplying current only to those circuits that are essential to the operation of the engine and lighting devices.

6.3.11.1. Actuation of the light-signalling device control must be followed by illumination of the lamp within a maximum of one second and initial extinction of the lamp within a maximum of one and a half seconds.

6.3.11.2. In the case of all vehicles the direction indicator lamps of which are supplied with direct current:

6.3.11.2.1. the flashing-light frequency must be 90 ± 30 times per minute;

6.3.11.2.2. the direction indicator lamps on the same side of the vehicle must flash at the same frequency and in phase.

6.3.11.3. Where a vehicle is fitted with direction indicator lamps which are supplied with alternating current, when the engine speed lies between 50 and 100 % of the speed corresponding to the maximum speed of the vehicle:

6.3.11.3.1. the lights must flash at a frequency of 90 ± 30 times per minute;

6.3.11.3.2. the direction indicator lamps may flash on the same side of the vehicle either simultaneously or alternately. The front lamps must not be visible to the rear nor the rear lamps to the front within the zones defined in Appendix 1.

6.3.11.4. Where the direction indicator lamps fitted to a vehicle are supplied with alternating current, when the engine speed lies between the idling speed specified by the manufacturer and 50 % of the speed corresponding to the maximum speed of the vehicle:

6.3.11.4.1. the flashing frequency must lie between 90 + 30 and 90 – 45 times per minute;

6.3.11.4.2. direction indicator lamps on the same side of the vehicle may flash either simultaneously or alternately. The front lamps must not be visible to the rear, nor the rear lamps visible to the front within the zones defined in Appendix 1.

6.3.11.5. In the event of failure, other than a short circuit, of one direction indicator lamp, the other must continue to flash, or remain lit, but the frequency in this state may be different from that specified, unless the vehicle is fitted with a telltale.

6.4. Stop lamps

[[F1]6.4.1. Number:

— one or two, in the case of vehicles of an overall width not exceeding 1 300 mm,

— two, in the case of vehicles of an overall width exceeding 1 300 mm,

— an additional stop lamp of category S3 or S4 (i.e. central high mounted stop lamp) may be fitted, provided all relevant requirements of UNECE Regulation No 48 applying to the installation of such stop lamps on vehicles of category M1 are met.**]**

6.4.2. *Arrangement drawing*: no individual specifications.

6.4.3. Position

6.4.3.1. Width: if there is only one stop lamp its centre of reference must lie within the median longitudinal plane of the vehicle, or if there are two stop lamps they must be symmetrical to the median longitudinal plane of the vehicle.

In the case of vehicles with two rear wheels: at least 600 mm between the two lamps. The distance may be reduced to 400 mm of the maximum width if the vehicle is less than 1 300 mm.

6.4.3.2. Height: minimum 250 mm, maximum 1 500 mm above ground.

6.4.3.3. Length: at the rear of the vehicle.

6.4.4. Geometric visibility

Horizontal angle: 45° to the left and to the right.

Vertical angle: 15° above and below the horizontal.

However, the vertical angle below the horizontal may be reduced to 5° if the lamp is less than 750 mm above the ground.

6.4.5. *Alignment*: towards the rear of the vehicle.

6.4.6. May be grouped with one or more other 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 connection*: must light up whenever at least one of the service brakes is applied.

6.4.10. *Circuit-closed telltale*: prohibited.

6.5. Front position lamps

6.5.1. *Number*: one or two.

However, in the case of tricycles with a maximum width exceeding 1 300 mm, two front position lamps are required.

6.5.2. *Arrangement drawing*: no individual specifications.

6.5.3. Position

[[F1]6.5.3.1. In width:

— a single independent front position lamp may be fitted above, below or to one side of another front lamp. If lamps are stacked on top of each other, the reference centre of the front position lamp shall be located within the longitudinal median plane of the vehicle. If they are side by side, their reference centres shall be symmetrical in relation to the longitudinal median plane of the vehicle,

— a single independent front position lamp which is reciprocally incorporated with another front lamp shall be fitted so that its reference centre lies within the longitudinal median plane of the vehicle. However, if the vehicle is fitted with another front lamp alongside the front position lamp, the reference centres of the two lamps shall be symmetrical in relation to the longitudinal median plane of the vehicle,

— two front position lamps of which none, one or both are reciprocally incorporated with another front lamp shall be fitted so that their reference centres are symmetrical in relation to the longitudinal median plane of the vehicle,

— where there are two front position lamps, the lateral distance between the outward edges of the light-emitting surfaces and the outermost edges of the vehicle shall not exceed 400 mm.**]**

6.5.3.2. Height: minimum 350 mm, maximum 1 200 mm above the ground.

6.5.3.3. Length: at front of vehicle.

6.5.4. Geometric visibility

Horizontal angle: 80° to the left and right if there is a single position lamp; 80° to the outside and 45° to the inside, if there are two position lamps.

Vertical angle: 15° above and below the horizontal.

However, the vertical angle below the horizontal may be reduced to 5° if the lamp is less than 750 mm above the ground.

6.5.5. *Alignment*: towards the front.

May move in line with the steering angle.

6.5.6. May be grouped with any other front lamp.

6.5.7. May be reciprocally incorporated with any other front lamp.

6.5.8. *Electrical connections*: no individual specifications.

6.5.9. *Circuit-closed telltale*: compulsory.

Non-flashing green pilot light; this telltale is not required where the dashboard lighting can only be switched on and off simultaneously with the position lamp.

6.5.10. *Other requirements*: none.

6.6. Rear position lamps

6.6.1. *Number*: one or two.

However, for tricycles with a maximum width exceeding 1 300 mm, two rear position lamps are required.

6.6.2. *Arrangement drawing*: no individual specifications.

6.6.3. Position

[[F1]6.6.3.1. In width:

— a single rear position lamp shall be installed on the vehicle so that the reference centre of the rear position lamp shall be located within the longitudinal median plane of the vehicle,

— two rear position lamps shall be installed on the vehicle so that the reference centres of the rear position lamps are symmetrical in relation to the longitudinal median plane of the vehicle,

— in the case of vehicles with two rear wheels and of an overall width exceeding 1 300 mm, the lateral distance between the outward edges of the light-emitting surfaces and the outermost edges of the vehicle shall not exceed 400 mm.**]**

6.6.3.2. Height: minimum 250 mm, maximum 1 500 mm above the ground.

6.6.3.3. Length: at rear of vehicle.

6.6.4. Geometric visibility

Horizontal angle: 80° to the left and right if there is a single position lamp; 80° to the outside and 45° to the inside, if there are two position lamps.

Vertical angle: 15° above and below the horizontal.

However, the vertical angle below the horizontal may be reduced to 5° if the lamp is less than 750 mm above the ground.

6.6.5. *Alignment*: towards the rear.

6.6.6. May be grouped with any other rear lamp.

6.6.7. May be combined with the rear registration-plate lamp.

6.6.8. May be reciprocally incorporated with the stop lamp or non-triangular rear retro-reflector, or with both, or with the rear fog lamp.

6.6.9. *Electrical connections*: no individual specifications.

6.6.10. *Circuit-closed telltale*: optional.

Its function may be fulfilled by the device provided, where appropriate, for the front position lamp.

6.6.11. *Other requirements*: none.

6.7. Front fog lamps

6.7.1. *Number*: one or two.

6.7.2. *Arrangement drawing*: no individual specifications.

6.7.3. Position

6.7.3.1. Width:

— a front fog lamp may be installed above, below or next to another front lamp; if these lamps are on top of each other, the reference centre of the front fog lamp must be located within the median longitudinal plane of the vehicle; if the two lamps are side by side, their reference centres must be symmetrical in relation to the median longitudinal plane of the vehicle,

— a front fog lamp that is reciprocally incorporated with another front lamp must be installed in such a way that its reference centre is situated in the median longitudinal plane of the vehicle,

— two front fog lamps, one or both of them, reciprocally incorporated with another front lamp, must be installed in such a way that their reference centres are symmetrical in relation to the median longitudinal plane of the vehicle,

— the edges of the illuminating surface furthermost from the median longitudinal plane of the vehicle must not be further than 400 mm from the outermost edge of the vehicle.

6.7.3.2. Height: 250 mm minimum above the ground. No point of the illuminating surface must be above the highest point of the illuminating surface of the dipped-beam headlamp.

6.7.3.3. Length: at the front of the vehicle. This requirement is considered to have been met if the light emitted does not disturb the driver, either directly or indirectly by means of the rear-view mirrors and/or other reflective surfaces of the vehicle.

6.7.4. Geometric visibility

This is determined by the angles α and β as defined in point A(10) of Annex I:

α = 5° upwards and downwards;
β = 45° to the left and to the right in the case of a non-central lamp, in which case the internal angle must be $\beta = 10°$.

6.7.5. *Alignment*: towards the front.

May move in line with the steering angle.

6.7.6. May be grouped with the other front lamps.

6.7.7. May not be combined with any other front lamp.

6.7.8. May be reciprocally incorporated with a main-beam headlamp and a front position lamp.

6.7.9. Electrical connections

It must be possible to switch the front fog lamp on or off independently of the main-beam headlamp or the dipped-beam lamp.

6.7.10. *Circuit-closed telltale*: optional.

Green non-flashing indicator light.

6.7.11. *Other requirements*: none.

6.8. Rear fog lamps

6.8.1. *Number*: one or two.

6.8.2. *Arrangement drawing*: no individual specifications.

6.8.3. Position

6.8.3.1. Width: the reference centre must be situated in the median longitudinal plane of the vehicle if there is a single rear fog lamp or, if there are two fog lamps, they must be symmetrical in relation to the median longitudinal plane of the vehicle. In the case of vehicles with two rear wheels: at least 600 mm between the two lamps. This distance may be reduced to 400 mm if the maximum width of the vehicle is less than 1 300 mm.

6.8.3.2. Height: minimum 250 mm, maximum 1 000 mm above the ground.

6.8.3.3. Length: at the rear of the vehicle. If there is a single rear fog lamp, it must be on the side of the median longitudinal plane of the vehicle opposite the normal direction of travel; the reference centre may also be situated on the longitudinal plane of symmetry of the vehicle.

6.8.3.4. The distance between the illuminating surface of the rear fog lamp and that of the stop lamp must be at least 100 mm.

6.8.4. Geometrical visibility

This is determined by the angles α and β as defined in point A(10) of Annex I:

α = 5° upwards and 5° downwards;
β = 25° to the left and to the right.

6.8.5. *Alignment*: towards the rear.

6.8.6. May be grouped with any other rear lamp.

6.8.7. May not be combined with any other lamp.

6.8.8. May be reciprocally incorporated with a rear position lamp.

6.8.9. Electrical connections

The lamp may not be lit unless one or more of the following lamps are lit: the main-beam headlamp, the dipped-beam headlamp or the front fog lamp.

6.8.10. *Circuit-closed telltale*: compulsory.

Non-flashing amber indicator light.

6.8.11. *Other requirements*: none.

6.9. Reversing lamps

6.9.1. *Number*: one or two.

6.9.2. *Arrangement drawing*: no individual specifications.

6.9.3. Position

6.9.3.1. Width: no individual specifications.

6.9.3.2. Height: minimum 250 mm, maximum 1 200 mm above the ground.

6.9.3.3. Length: at the rear of the vehicle.

6.9.4. Geometric visibility

This is determined by the angles α and β as specified in point A(10) of Annex I:

α = 15° upwards and 5° downwards;
β = 45° to the right and to the left if there is only one reversing lamp;
β = 45° outwards and 30° inwards if there are two reversing lamps.

6.9.5. *Alignment*: towards the rear.

6.9.6. May be grouped with any other rear lamp.

6.9.7. May not be combined with any other lamp.

6.9.8. May not be reciprocally incorporated with another lamp.

6.9.9. Electrical connections

The reversing lamp may not be alight unless the reverse gear is engaged and the device for switching off the engine is in a position such that it is possible for the engine to operate. It must not be possible for the lamp to be alight or remain lit if one of these conditions is unverified.

6.9.10. *Circuit-closed telltale*: optional.

6.10. Hazard warning signal

6.10.1. Requirements identical to those set out in points 6.3 to 6.3.8.

6.10.2. Electrical connections

The signal must be actuated by a separate control which enables all of the direction indicators to be supplied with current simultaneously.

6.10.3. Circuit-closed telltale: compulsory.

A red flashing light or, if there is no separate telltale, the simultaneous operation of the telltales specified in point 6.3.10.

6.10.4. Other requirements

A light flashing at a frequency of 90 ± 30 times per minute. Actuation of the light-signalling device must be followed by illumination of the lamp within a maximum of one second and initial extinction of the lamp within a maximum of one and a half seconds.

It must be possible to actuate the hazard warning signal even if the device for switching the engine on or off is in a position such that it is impossible for the later to operate.

6.11. Rear registration-plate lamp

6.11.1. *Number*: one.

The lamp may consist of several optical elements intended to illuminate the position of the plate.

6.11.2.	*Arrangement drawing*	Such that the lamp illuminates the position reserved for the registration plate.
6.11.3.	*Position*	
6.11.3.1.	Width	
6.11.3.2.	Height	
6.11.3.3.	Length	
6.11.4.	*Geometric visibility*	
6.11.5.	*Alignment*	

6.11.6. May be grouped with one or more rear lamps.

6.11.7. May be combined with the rear position lamp.

6.11.8. May not be reciprocally incorporated with any other lamp.

6.11.9. *Electrical connections*: no individual specifications.

6.11.10. *Circuit-closed telltale*: optional.

Its operation must be ensured by the same telltale as provided for the position lamp.

6.11.11. *Other requirements*: none.

6.12. Non-triangular rear retro-reflectors

6.12.1. *Number*: one or two Class IA[(1)].

However, in the case of tricycles with a maximum width exceeding 1 000 mm, two non-triangular rear reflectors are required.

6.12.2. *Arrangement drawing*: no individual specifications.

6.12.3. Position

[[F1]6.12.3.1. In width:

— if there is a single rear retro-reflector, this shall be installed on the vehicle so that its reference centre is located within its longitudinal median plane,

— if there are two rear retro-reflectors, these shall be installed on the vehicle so that their reference centres are symmetrical in relation to its longitudinal median plane,

— if there are two rear retro-reflectors, the lateral distance between the outward edges of the light-emitting surfaces and the outermost edges of the vehicle shall not exceed 400 mm.**]**

6.12.3.2. Height: 250 mm minimum, 900 mm maximum above the ground.

6.12.3.3. Length: at the rear of the vehicle.

6.12.4. Geometric visibility

Horizontal angle: 30° to the left and to the right.

Vertical angle: 15° above and below the horizontal.

However, the vertical angle below the horizontal may be reduced to 5° if the height of the retro-reflector is less than 750 mm.

6.12.5. *Alignment*: towards the rear.

6.12.6. May be grouped with any other lamp.

6.12.7. Other requirements:

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

6.13. Non-triangular side retro-reflectors

6.13.1. *Number per side*: one or two Class IA[(1)].

6.13.2. *Arrangement drawing*: no individual specifications.

6.13.3. Position

6.13.3.1. Width: no individual specifications.

6.13.3.2. Height: 300 mm minimum, 900 mm maximum above the ground.

6.13.3.3. Length: must be such that, under normal conditions, the device cannot be hidden by the driver or passenger, or by their clothing; masked by the driver or the passenger, nor by their clothing.

6.13.4. Geometric visibility

Horizontal angles: 30° towards the front and rear.

Vertical angles: 15° above and below the horizontal.

However, the vertical angle below the horizontal may be reduced to 5° if the height of the retro-reflector is less than 750 mm.

6.13.5. *Alignment*: the reference axis of the retro-reflectors must be perpendicular to the median longitudinal plane of the vehicle and positioned outwards. Retro-reflectors at the front may move in line with the steering angle.

6.13.6. May be grouped with the other signalling devices.

[F2 6.14. Daytime running lamp

6.14.1. Number:

— one or two, in the case of vehicles of an overall width not exceeding 1 300 mm,

— two, in the case of vehicles of an overall width exceeding 1 300 mm.

6.14.2. Arrangement:

— no specific requirements.

6.14.3. Position:

6.14.3.1. In width:

— a single independent daytime running lamp may be fitted above, below or to one side of another front lamp. If lamps are stacked on top of each other, the reference centre of the daytime running lamp shall be located within the longitudinal median plane of the vehicle. If they are side by side, their reference centres shall be symmetrical in relation to the longitudinal median plane of the vehicle,

— a single independent daytime running lamp which is reciprocally incorporated with another front lamp shall be fitted so that its reference centre lies within the longitudinal median plane of the vehicle. However, if the vehicle is fitted with another front lamp alongside the daytime running lamp, the reference centres of the two lamps shall be symmetrical in relation to the longitudinal median plane of the vehicle,
— two daytime running lamps of which none, one or both are reciprocally incorporated with another front lamp shall be fitted so that their reference centres are symmetrical in relation to the longitudinal median plane of the vehicle,
— the inward edges of the light-emitting surfaces shall be at least 500 mm apart in the case of vehicles of an overall width exceeding 1 300 mm.

6.14.3.2. In height:

a minimum of 250 mm and a maximum of 1 500 mm above the ground.

6.14.3.3. In length:

at the front of the vehicle. This requirement is considered to have been met if the light emitted disturbs the driver neither directly nor indirectly by reflection off the rear-view mirrors and/or other reflective surfaces on the vehicle.

6.14.3.4. Distance:
— if the distance between the front direction indicator lamp and the daytime running lamp is 40 mm or less, the electrical connections of the daytime running lamp on the relevant side of the vehicle shall be such that either:
  — it is switched off, or
  — its luminous intensity is reduced to a level not exceeding 140 cd,

  during the entire period (both on and off cycle) of activation of the relevant front direction indicator lamp.

6.14.4. Geometric visibility:
— $\alpha = 10°$ upwards and 10° downwards,
— $\beta = 20°$ to the left and to the right if there is only one daytime running lamp,
— $\beta = 20°$ outwards and 20° inwards if there are two daytime running lamps.

6.14.5. Orientation:
— to the front; may move in line with the steering angle of any handlebars.

6.14.6. Electrical connections:
— all daytime running lamps shall light up when the master control switch is activated; however, they may remain off under the following conditions:
  — the automatic transmission control is in the park position,
  — the parking brake is activated, or
  — prior to the vehicle being set in motion for the first time after each manual activation of the master control switch and the vehicle's propulsion system,
— daytime running lamps may be manually deactivated; however, this shall be possible only at a vehicle speed not exceeding 10 km/h. The lamps shall be automatically reactivated when the vehicle speed exceeds 10 km/h or when the vehicle has travelled more than 100 m;
— daytime running lamps shall in each case be deactivated automatically when:
  — the vehicle is shut down by means of the master control switch,
  — the front fog lamps are activated,

— the headlamps are activated, except when they are used to give intermittent luminous warnings at short intervals, and

— in ambient lighting conditions of less than 1 000 lux where the indicated speed on the vehicle's speedometer is still clearly legible (e.g. when speedometer illumination is always on) and the vehicle is not fitted with a non-flashing green tell-tale in compliance with point 6.5.9 or a dedicated green circuit-closed tell-tale for the daytime running lamp identified by the appropriate symbol. In such a case, the passing-beam headlamps and the lighting devices required in point 11 of Annex I Section B shall be automatically activated simultaneously within two seconds of the ambient lighting level dropping below 1 000 lux. If the ambient lighting conditions subsequently reach a level of at least 7 000 lux, the daytime running lamps shall be automatically reactivated, while the passing-beam headlamps and the lighting devices required in point 11 of Annex I Section B shall be deactivated simultaneously within five to 300 seconds (i.e. fully automatic light switching is required if the driver has no visible indication and stimulus to activate normal lighting when it is dark).

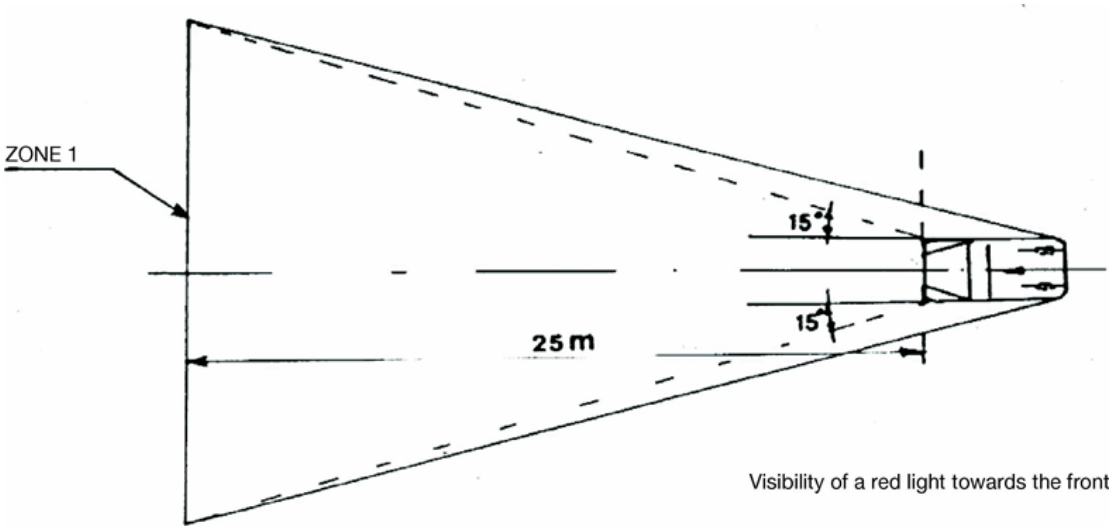
6.14.7. Circuit-closed tell-tale:

— optional.**]**

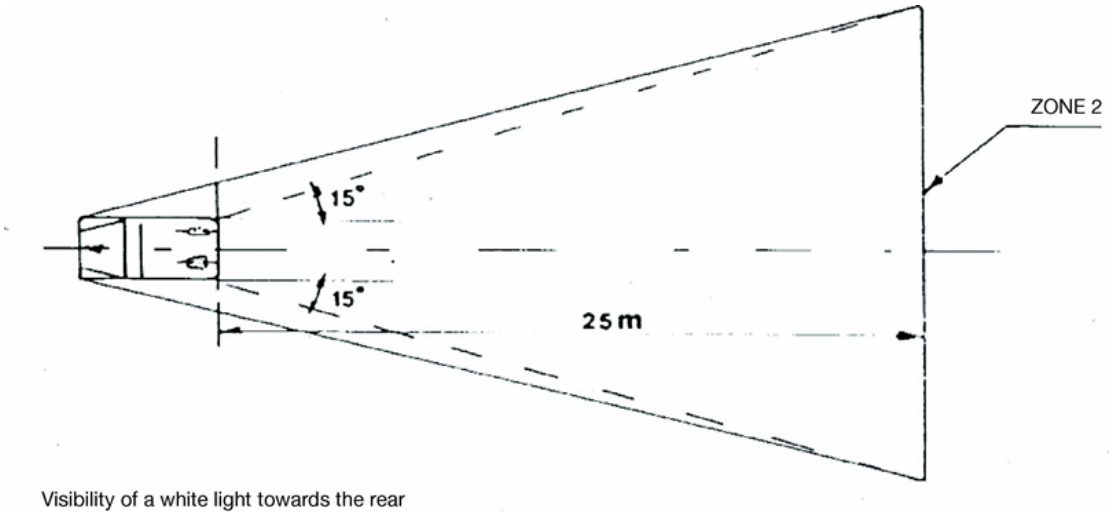
Appendix 1

Visibility of red lights towards the front and white lights towards the rear

(See point B(9) in Annex I and points 6.3.11.3.2 and 6.3.11.4.2 in this Annex)



Visibility of a red light towards the front

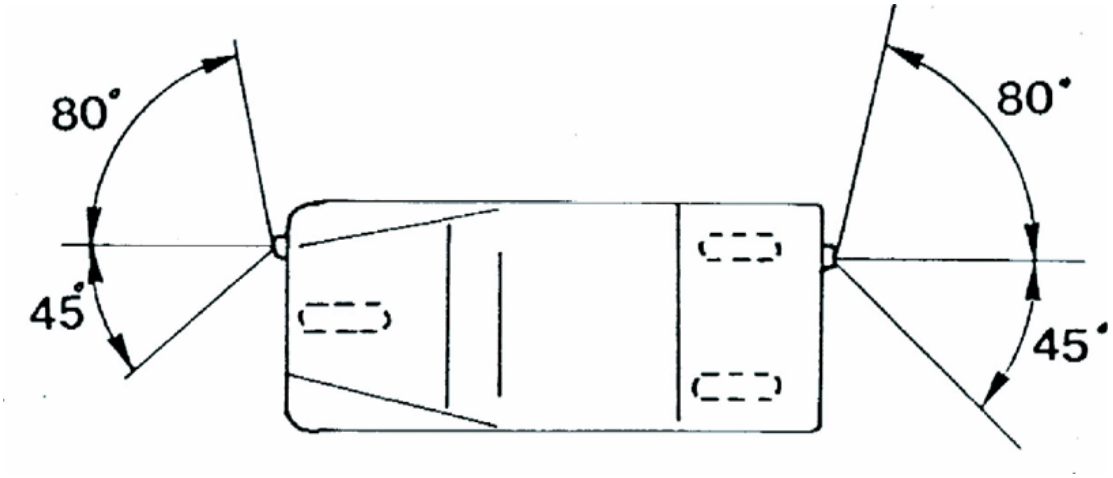


Visibility of a white light towards the rear

Appendix 2

Arrangement drawing

Direction indicator lamp — Geometric visibility



Appendix 3

Information document in respect of the installation of lighting and light-signalling devices on a type of tricycle

(To be attached to the EC component type-approval application where this is submitted separately from the vehicle type-approval application)

Reference number (allocated by the applicant): …

The application for component type-approval in respect of the installation of lighting and light-signalling devices on a type of tricycle shall contain the information set out in Annex II to Directive 2002/24/EC under A, points:

0.1,

0.2,

0.4 to 0.6

8 to 8.4.

Appendix 4

Name of administration

Certificate of EC component type-approval in respect of the installation of lighting and light-signalling devices on a type of tricycle MODEL

Report No … by technical service … on … (date)

EC component type-approval No … Extension No …

1. Make (trade name) of vehicle …

…

2. Vehicle type …

3. Manufacturer's name and address …

…

4. Name and address of manufacturer's representative (if any) …

…

5. Mandatory lighting equipment installed on the vehicle submitted for checks[(2)]: …

5.1. Main-beam headlamps

5.2. Dipped-beam headlamps

5.3. Direction indicator lamps

5.4. Stop lamps

5.5. Front position lamps

5.6. Rear position lamps

5.7. Rear registration plate lamp

5.8. Non-triangular rear retro-reflectors

6. Optional lighting devices fitted to the vehicle submitted for checks[(2)]:

6.1. Front fog lamps: yes/no[3]

6.2. Rear fog lamps: yes/no[3]

6.3. Reversing lamp: yes/no[3]

6.4. Hazard warning signal: yes/no[3]

[[F1]6.5. Daytime running lamp: yes/no**]**[3]

7. Variants …

…

8. Vehicle submitted for EC component type-approval on … (date)

9. EC component type-approval has been granted/refused[3]

10. Place …

11. Data …

12. Signature …

(**1**) In accordance with the classification set out in Directive 76/757/EEC.

(**2**) State on a separate sheet for each device the duly identified types of device meeting the fitting requirements of this Annex.

(**3**) Delete as appropriate.