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## Economic Commission for Europe

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Item 3 (a) of the provisional agenda

**Convention on Road Traffic (1968):**

**Consistency between the Convention on Road Traffic (1968)  
and Vehicle Technical Regulations**

### **Amendment proposal to the Convention on Road Traffic (1968)**

#### **Submitted by Italy**

This document, submitted by Italy, contains the text of agreed amendments to Article 25bis, Article 32, Annex 1 and Annex 5 of the 1968 Convention on Road Traffic. The additions are identified by bold text and the deletions by strikethrough. For Chapter II of Annex 5, paras. 19-45 (“Vehicle lighting and light-signalling devices”) – due to extensive re-organization of this chapter – neither deletions nor additions are identified. As a result, the entire Chapter II is to be deleted and subsequently replaced by the new text contained herein. The Global Forum is invited to review this document and with a view of adopting it.

ARTICLE 25 bis, paragraph 2

2. Even if the tunnel is lit, all drivers ~~must switch on the driving or passing lamps~~ **shall ensure that the driving or passing beam headlamps are switched on.**

*As a result of the above amendment, Article 25bis, paragraph 2 shall read:*

ARTICLE 25 bis, paragraph 2

2. Even if the tunnel is lit, all drivers shall ensure that the driving or passing beam headlamps are switched on.

ARTICLE 32

Rules of the use of lamps

1. Between nightfall and dawn and in any other circumstances when visibility is inadequate on account, for example, of fog, snowfall or heavy rain, the following lamps shall be lit on a moving vehicle:

(a) On power-driven vehicles and mopeds, the driving ~~lamp(s)~~ **beam headlamp(s)** or passing ~~lamp(s)~~ **beam headlamp(s)** and the rear position lamp(s), according to the equipment prescribed by the present Convention for the vehicle of each category;

(b) On trailers, front position lamps, if such lamps are required according to Annex 5, paragraph ~~30~~ **22.2**, of this Convention, and not less than two rear position lamps.

2. Driving ~~lamps~~ **beam headlamps** shall be switched off and replaced by passing ~~lamps~~ **beam headlamps**:

(a) In built-up areas where the road is adequately lighted and outside built-up areas where the ~~carriageway road~~ is continuously lighted and the lighting is sufficient to enable the driver to see clearly for an adequate distance and to enable other ~~road-users~~ **road users** to see the vehicle far enough away;

(b) When a driver is about to pass another vehicle, so as to prevent dazzle far enough away to enable the driver of the other vehicle to proceed easily and without danger;

(c) In any other circumstances in which it is necessary to avoid dazzling other ~~road-users~~ **road users** or the users of a waterway or railway running alongside the road.

3. When, however, a vehicle is following closely behind another vehicle, driving ~~lamps~~ **beam headlamps** may be used to give a luminous warning as referred to in Article 28 paragraph 2 of the intention to overtake.

4. Fog lamps may be lit only in ~~thick fog, falling snow, heavy rain or similar conditions and, fog or any similar condition of reduced visibility and,~~ as regards front fog lamps, as a substitute for passing ~~lamps~~ **beam headlamps**. ~~However, Domestic legislation may authorize the simultaneous use of front fog lamps and passing lamps~~ **beam headlamps, the simultaneous use of front fog lamps and cornering lamps, and the use of front fog lamps on narrow, winding roads.**

5. On vehicles equipped with front position lamps, such lamps shall be ~~used~~ **switched on** together with the driving ~~lamps~~ **beam headlamps**, the passing ~~lamps~~ **beam headlamps** or the front fog lamps. **The function of the front position lamps may be substituted by the passing beam headlamps and/or the driving beam headlamps, provided that in case of failure of such lamps the front position lamps are automatically switched on again.**

~~76. Domestic legislation may make it compulsory for drivers of motor vehicles to use during the day either passing lamps beam headlamps or daytime running lamps. Rear position lamps shall in this case be used together with the front lamps.~~

~~67. During the day, a motorcycle moving on the road shall display~~ **have lit** at least one passing ~~lamp~~ **beam headlamp** to the front and a red lamp to the rear. Domestic legislation may permit the use of daytime running lamps instead of passing ~~lamps~~ **beam headlamps**.

8. Between nightfall and dawn and in any other circumstances when visibility is inadequate, the presence of power-driven vehicles and ~~their trailers~~ **of trailers coupled to power-driven vehicles**, standing or parked on a road shall be indicated by front and rear position lamps. In ~~thick fog, falling snow, heavy rain or any similar conditions of reduced visibility~~, passing ~~lamps~~ **beam headlamps** or front fog lamps may be used. Rear fog lamps may in these conditions be used as a supplement to the rear position lamps.
9. Notwithstanding the provisions of paragraph 8 of this Article, within a built-up area the front and rear position lamps may be replaced by parking lamps, provided that:
- The vehicle does not exceed 6 m in length and 2 m in width;
  - No trailer is coupled to the vehicle;
  - The parking lamps are placed on that side of the vehicle which is furthest from the carriageway edge alongside which the vehicle is standing or parked.
10. Notwithstanding the provisions of paragraphs 8 and 9 of this Article, a vehicle may be standing or parked without any lamps lit:
- On a road lit in such a way that the vehicle is clearly visible at an adequate distance;
  - Away from the carriageway and hard shoulder;
  - In the case of mopeds and two-wheeled motorcycles without a side-car which are not equipped with batteries, at the extreme edge of a carriageway in a built-up area.
11. Domestic legislation may grant exemptions from the provisions of paragraphs 8 and 9 of this Article for vehicles standing or parked in ~~streets~~ built-up areas where there is very little traffic.
12. Reversing lamps may be used only when the vehicle is reversing or about to reverse; **optional additional reversing lamps may remain illuminated during short and slow forward manoeuvres.**
- 12 bis. Manoeuvring lamps may be used only when the vehicle is moving at a speed not exceeding 10 km (6 miles) per hour.**
13. Hazard warning signals may be used only to warn other ~~road-users~~ **road users** of a particular danger:
- When a vehicle which has broken down or has been involved in an accident cannot be moved immediately, so that it constitutes an obstacle to other ~~road-users~~ **road users**;
  - When indicating to other ~~road-users~~ **road users** the risk of an imminent danger.
14. Special warning lamps:
- Displaying a blue **and/or red** light may be used only on priority vehicles when carrying out an urgent mission or when in other cases it is necessary to give warning to other ~~road-users~~ **road users** of the presence of the vehicle;
  - Displaying an amber light may be used only when the vehicles **are genuinely** assigned to the specific tasks for which they were equipped with the special warning lamp or when the presence of such vehicles on the road constitutes a danger or inconvenience to other ~~road-users~~ **road users**;
- ~~The use of warning lamps displaying other colours may be authorized by domestic legislations.~~
- Displaying a light of any other colour may be authorized by domestic legislation.**
15. In no circumstances shall a vehicle display a red light to the front or white light to the rear, subject to the exemptions mentioned in Annex 5, paragraph 61. A vehicle shall not be modified or lamps added to it in a way which could conflict with this requirement.

*As a result of the above amendments, Article 32 shall read:*

ARTICLE 32

Rules of the use of lamps

1. Between nightfall and dawn and in any other circumstances when visibility is inadequate on account, for example, of fog, snowfall or heavy rain, the following lamps shall be lit on a moving vehicle:

(a) On power-driven vehicles and mopeds, the driving beam headlamp(s) or passing beam headlamp(s) and the rear position lamp(s), according to the equipment prescribed by the present Convention for the vehicle of each category;

(b) On trailers, front position lamps, if such lamps are required according to Annex 5, paragraph 22.2, of this Convention, and not less than two rear position lamps.

2. Driving beam headlamps shall be switched off and replaced by passing beam headlamps:

(a) In built-up areas where the road is adequately lighted and outside built-up areas where the road is continuously lighted and the lighting is sufficient to enable the driver to see clearly for an adequate distance and to enable other road users to see the vehicle far enough away;

(b) When a driver is about to pass another vehicle, so as to prevent dazzle far enough away to enable the driver of the other vehicle to proceed easily and without danger;

(c) In any other circumstances in which it is necessary to avoid dazzling other road-users or the users of a waterway or railway running alongside the road.

3. When, however, a vehicle is following closely behind another vehicle, driving beam headlamps may be used to give a luminous warning as referred to in Article 28 paragraph 2 of the intention to overtake.

4. Fog lamps may be lit only in fog or any similar condition of reduced visibility and, as regards front fog lamps, as a substitute for passing beam headlamps. However, domestic legislation may authorize the simultaneous use of front fog lamps and passing beam headlamps, the simultaneous use of front fog lamps and cornering lamps, and the use of front fog lamps on narrow, winding roads.

5. On vehicles equipped with front position lamps, such lamps shall be switched on together with the driving beam headlamps, the passing beam headlamps or the front fog lamps. The function of the front position lamps may be substituted by the passing beam headlamps and/or the driving beam headlamps, provided that in case of failure of such lamps the front position lamps are automatically switched on again.

6. Domestic legislation may make it compulsory for drivers of motor vehicles to use during the day either passing beam headlamps or daytime running lamps.

7. During the day, a motorcycle moving on the road shall have lit at least one passing beam headlamp to the front and a red lamp to the rear. Domestic legislation may permit the use of daytime running lamps instead of passing beam headlamps.

8. Between nightfall and dawn and in any other circumstances when visibility is inadequate, the presence of power-driven vehicles and of trailers coupled to power-driven vehicles, standing or parked on a road shall be indicated by front and rear position lamps. In fog or any similar condition of reduced visibility, passing beam headlamps or front fog lamps may be used. Rear fog lamps may in these conditions be used as a supplement to the rear position lamps.

9. Notwithstanding the provisions of paragraph 8 of this Article, within a built-up area the front and rear position lamps may be replaced by parking lamps, provided that:

(a) The vehicle does not exceed 6 m in length and 2 m in width;

(b) No trailer is coupled to the vehicle;

(c) The parking lamps are placed on that side of the vehicle which is furthest from the carriageway edge alongside which the vehicle is standing or parked.

10. Notwithstanding the provisions of paragraphs 8 and 9 of this Article, a vehicle may be standing or parked without any lamps lit:

(a) On a road lit in such a way that the vehicle is clearly visible at an adequate distance;

(b) Away from the carriageway and hard shoulder;

(c) In the case of mopeds and two-wheeled motorcycles without a side-car which are not equipped with batteries, at the extreme edge of a carriageway in a built-up area.

11. Domestic legislation may grant exemptions from the provisions of paragraphs 8 and 9 of this Article for vehicles standing or parked in built-up areas where there is very little traffic.

12. Reversing lamps may be used only when the vehicle is reversing or about to reverse; optional additional reversing lamps may remain illuminated during short and slow forward manoeuvres.

12 bis. Manoeuvring lamps may be used only when the vehicle is moving at a speed not exceeding 10 km (6 miles) per hour.

13. Hazard warning signals may be used only to warn other road-users of a particular danger:

(a) When a vehicle which has broken down or has been involved in an accident cannot be moved immediately, so that it constitutes an obstacle to other road-users;

(b) When indicating to other road-users the risk of an imminent danger.

14. Special warning lamps:

(a) Displaying a blue and/or red light may be used only on priority vehicles when carrying out an urgent mission or when in other cases it is necessary to give warning to other road users of the presence of the vehicle;

(b) Displaying an amber light may be used only when the vehicles are assigned to the specific tasks for which they were equipped with the special warning lamp or when the presence of such vehicles on the road constitutes a danger or inconvenience to other road-users;

(c) Displaying a light of any other colour may be authorized by domestic legislation.

15. In no circumstances shall a vehicle display a red light to the front or white light to the rear, subject to the exemptions mentioned in Annex 5, paragraph 61. A vehicle shall not be modified or lamps added to it in a way which could conflict with this requirement.

## Annex 1

### EXCEPTIONS TO THE OBLIGATION TO ADMIT MOTOR VEHICLES AND TRAILERS IN INTERNATIONAL TRAFFIC

2. For the purposes of paragraph 1 of this Annex, the lateral projection of the following shall not be regarded as projection beyond the permissible maximum width:

- (a) Tyres, near their point of contact with the ground and connections of tyre-pressure ~~indicators~~ **monitoring systems**;
- (b) Anti-skid devices mounted on the wheels;
- (c) ~~Driving mirrors~~ **Rear view mirrors/devices for indirect vision** designed so as to yield both forwards and backwards under moderate pressure so that they no longer project beyond the permissible maximum width;
- (d) Side direction-indicators and marker lights, provided that such projection does not exceed a few centimetres;
- (e) Customs seals affixed to the load, and devices for the securing and protection of such seals.

8. Contracting Parties may refuse to admit to their territories in international traffic any motor vehicle equipped with passing ~~lamps~~ **beam headlamps** with asymmetric beams if such beams have not been adapted to suit the direction of traffic in their territories.

*As a result of the above amendments, Annex 1, paragraphs 2 and 8 shall read:*

## Annex 1

### EXCEPTIONS TO THE OBLIGATION TO ADMIT MOTOR VEHICLES AND TRAILERS IN INTERNATIONAL TRAFFIC

2. For the purposes of paragraph 1 of this Annex, the lateral projection of the following shall not be regarded as projection beyond the permissible maximum width:

- (a) Tyres, near their point of contact with the ground and connections of tyre-pressure monitoring systems;
- (b) Anti-skid devices mounted on the wheels;
- (c) Rear view mirrors/devices for indirect vision designed so as to yield both forwards and backwards under moderate pressure so that they no longer project beyond the permissible maximum width;
- (d) Side direction-indicators and marker lights, provided that such projection does not exceed a few centimetres;
- (e) Customs seals affixed to the load, and devices for the securing and protection of such seals.

8. Contracting Parties may refuse to admit to their territories in international traffic any motor vehicle equipped with passing beam headlamps with asymmetric beams if such beams have not been adapted to suit the direction of traffic in their territories.

## Annex 5

### TECHNICAL CONDITIONS CONCERNING MOTOR VEHICLES AND TRAILERS

#### CHAPTER I

##### Braking

##### D. Braking of motorcycles

18. (a) Every motorcycle shall be equipped with two brakes, one of which acts at least on the rear wheel or wheels and the other at least on the front wheel or wheels; if a side-car is attached to a motorcycle, braking of the side-car wheel shall not be required. These braking devices shall be capable of slowing down the motorcycle and of stopping it safely, rapidly and effectively, whatever its conditions of loading and whatever the upward or downward gradient of the road on which it is moving;

**(b) As an alternative to the provisions of subparagraph (a) of this paragraph, a motorcycle may be equipped with a brake system that operates the brakes on all wheels, consisting of two or more subsystems actuated by a single control designed so that a single failure in any subsystem does not impair the operation of any other subsystem;**

**(bc)** In addition to the provisions of subparagraph (a) of this paragraph, motorcycles having three wheels symmetrically arranged in relation to the vehicle's median longitudinal plane shall be equipped with a parking brake that fulfils the conditions stated in paragraph 5 (b) of this Annex.

*As a result of the above amendments, Annex 5, Chapter I, Section D (Braking of motorcycles) paragraphs 18 (b) and 18 (c) shall read:*

##### Braking

##### D. Braking of motorcycles

18. (a) Every motorcycle shall be equipped with two brakes, one of which acts at least on the rear wheel or wheels and the other at least on the front wheel or wheels; if a side-car is attached to a motorcycle, braking of the side-car wheel shall not be required. These braking devices shall be capable of slowing down the motorcycle and of stopping it safely, rapidly and effectively, whatever its conditions of loading and whatever the upward or downward gradient of the road on which it is moving;

(b) As an alternative to the provisions of subparagraph (a) of this paragraph, a motorcycle may be equipped with a brake system that operates the brakes on all wheels, consisting of two or more subsystems actuated by a single control designed so that a single failure in any subsystem does not impair the operation of any other subsystem;

(c) In addition to the provisions of subparagraph (a) of this paragraph, motorcycles having three wheels symmetrically arranged in relation to the vehicle's median longitudinal plane shall be equipped with a parking brake that fulfils the conditions stated in paragraph 5 (b) of this Annex.

## CHAPTER II

### Vehicle lighting and light-signalling devices

#### A. Definitions

19. For the purposes of this chapter, the term:

(a) “Driving beam headlamp” means a lamp used to illuminate the road over a long distance ahead of the vehicle;

(b) “Passing beam headlamp” means a lamp used to illuminate the road ahead of the vehicle without causing undue dazzle or discomfort to oncoming drivers and other road users;

(c) “Adaptive front lighting system” means a lighting device providing beams with differing characteristics for automatic adaptation to varying conditions of use of the passing beam and/or the driving beam;

(d) “Cornering lamp” means a lamp used to provide supplementary illumination of that part of the road which is located near the forward corner of the vehicle at the side towards which the vehicle is going to turn;

(e) “Bend lighting” means a lighting function to provide enhanced illumination in bends;

(f) “Front position lamp” means a lamp used to indicate the presence and the width of the vehicle when viewed from the front;

(g) “Rear position lamp” means a lamp used to indicate the presence and the width of the vehicle when viewed from the rear;

(h) “Stop lamp” means a lamp used to indicate to other road users to the rear of the vehicle that the longitudinal movement of the vehicle is intentionally retarded;

(i) “Front fog lamp” means a lamp used to improve the illumination of the road ahead of the vehicle in case of fog or any similar condition of reduced visibility;

(j) “Rear fog lamp” means a lamp used to make the vehicle more visible from the rear in fog or any similar condition of reduced visibility;

(k) “Reversing lamp” means a lamp used to illuminate the road to the rear of the vehicle and provide a warning signal to other road users that the vehicle is reversing or about to reverse, or, in the case of optional additional reversing lamps, to provide illumination to the side for slow manoeuvres;

(l) “Manoeuvring lamp” means a lamp used to provide supplementary illumination to the side of the vehicle to assist during slow manoeuvres;

(m) “Direction-indicator lamp” means a lamp used to indicate to other road users that the driver intends to change direction to the right or to the left;

(n) “Parking lamp” means a lamp which is used to draw attention to the presence of a parked vehicle in a built-up area. In such circumstances it may replace the front and rear position lamps;

(o) “End-outline marker lamp” means a lamp fitted near to the extreme outer edge and as close as possible to the top of the vehicle and intended to indicate clearly the vehicle’s overall width. This lamp is intended, for certain motor vehicles and trailers, to complement the vehicle’s front and rear position lamps by drawing particular attention to its bulk;

(p) “Hazard warning signal” means a signal given by the simultaneous functioning of a vehicle’s direction-indicator lamps;

(q) “Side marker lamp” means a lamp used to indicate the presence of the vehicle when viewed from the side;

(r) “Special warning lamp” means a lamp intended to indicate either priority vehicles, or a vehicle, or a group of vehicles whose presence on the road may constitute a danger or inconvenience to other road users;

(s) “Rear registration plate lamp” means a device used to illuminate the space reserved for the rear registration plate; such a device may consist of several optical components;

(t) “Daytime running lamp” means a lamp intended to make the vehicle more visible from in front when being driven during daytime;

(u) “Exterior courtesy lamp” means a lamp used to provide supplementary illumination to assist the entry and exit of the vehicle driver and passenger or in loading operations;

(v) “Retro-reflector” means a device used to indicate the presence of a vehicle by the reflection of light emanating from a light source not connected to the vehicle;

(w) “Conspicuity marking” means a device intended to increase the conspicuity of a vehicle when viewed from the side or rear (or, in the case of trailers, additionally from the front) by the reflection of light emanating from a light source not connected to the vehicle;

(x) “Illuminating surface” means an orthogonal projection of the lamp in a plane perpendicular to its axis of reference and in contact with the exterior light-emitting surface of the lamp. For a retro-reflector, the light-emitting surface is considered to be delimited by planes contiguous to the outermost parts of the retro-reflector’s optical system.

## B. Technical requirements

### 20. Principles

- 20.1 The colours of lights mentioned in this chapter shall, as far as possible, be in accordance with the definitions given in the international legal instruments concerning wheeled vehicles, equipment and parts which can be fitted and/or be used on wheeled vehicles.\*
- 20.2 A specific illuminating function can be performed by more than one lamp.
- 20.3 Lamps on a given vehicle having the same function and facing in the same direction shall be of the same colour.

Lamps and retro-reflectors which are of even number shall be placed symmetrically in relation to the vehicle’s median longitudinal plane, except on vehicles with an asymmetrical external shape. The intensity of the lamps in each pair shall be substantially the same. These provisions do not apply to an adaptive front lighting system.

- 20.4 Lamps of different kinds, and, subject to the provisions of other paragraphs of this chapter, lamps and retro-reflectors, may be grouped or incorporated in the same device, provided that each of these lamps and reflectors complies with the applicable provisions of this Annex.
21. Driving beam headlamp, passing beam headlamp, adaptive front lighting system and illuminating surface
- 21.1 With the exception of motorcycles, every motor vehicle with a maximum authorized design speed exceeding 40 km (25 miles) per hour shall be equipped in front with an even number of white driving beam headlamps or the relevant parts of an adaptive front lighting system.

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\* The United Nations Regulations annexed to the Agreement concerning the Adoption of Uniform Technical Prescriptions for Wheeled Vehicles, Equipment and Parts which can be fitted and/or be used on Wheeled Vehicles and the Conditions for Reciprocal Recognition of Approvals Granted on the Basis of These Prescriptions, done at Geneva on 20 March 1958, or  
The United Nations Global Technical Regulations developed in the framework of the Agreement concerning the Establishing of Global Technical Regulations for Wheeled Vehicles, Equipment and Parts which can be Fitted and/or be Used on Wheeled Vehicles, done at Geneva on 25 June 1998.

- 21.2 With the exception of motorcycles, every motor vehicle with a maximum authorized design speed exceeding 10 km (6 miles) per hour shall be equipped in front with two white passing beam headlamps or the relevant parts of an adaptive front lighting system.
- 21.3 Subject to the possibility that exemption from all or some of these obligations may be granted in respect of mopeds by Contracting Parties which, in conformity with Article 54 paragraph 2 of the Convention, have declared that they treat mopeds as motorcycles:
- (a) Every two-wheeled motorcycle with or without a side-car shall be equipped with one or two white passing beam headlamps;
  - (b) Every two-wheeled motorcycle with or without a side-car with an authorized maximum design speed exceeding 40 km (25 miles) per hour may be equipped, in addition to the passing beam headlamps, with at least one white driving-beam headlamp.
  - (c) Every two-wheeled motorcycle with or without a side-car with an authorized maximum design speed exceeding 50 km (31 miles) per hour shall be equipped, in addition to the passing beam headlamps, with one or two white driving-beam headlamp(s).
- 21.4 The outer edges of the illuminating surfaces of the driving lamps shall in no case be closer to the extreme outer edge of the vehicle than the outer edges of the illuminating surfaces of the passing beam headlamps.
22. Front position lamp and rear position lamp
- 22.1 Every motor vehicle other than a two-wheeled motorcycle without a side-car shall be equipped in front with two white or amber front position lamps.
- 22.2 Every trailer shall be equipped at the front with two white front position lamps if its width exceeds 1.60 m.
- 22.3 Every two-wheeled motorcycle without a side-car may be equipped at the front with one or two white or amber front position lamps.
- 22.4
- (a) Every motor vehicle other than a two-wheeled motorcycle without a side-car shall be equipped at the rear with an even number of red rear position lamps;
  - (b) Every trailer shall be equipped at the rear with an even number of red rear position lamps.
- 22.5 Every two-wheeled motorcycle without a side-car shall be equipped at the rear with one or two rear red position lamp(s).
23. Rear registration plate lamp
- On every motor vehicle or trailer the registration plate, or the number if present, located at the rear shall be illuminated by a rear registration plate lamp.
24. Front and rear fog lamp and illuminating surface
- 24.1 Every motor vehicle may be fitted with one or two white or selective-yellow front fog lamps. They shall be placed in such a way that no point on their illuminating surface is above the highest point on the illuminating surface of the passing beam headlamps.
- 24.2 Every motor vehicle, other than motorcycles, and every trailer shall be fitted at the rear with one or two red rear fog lamps; they shall be able to be switched on only if the driving beam headlamps, the passing beam headlamps or the front fog lamps are switched on.
- 24.3 Each motorcycle may be fitted at the rear with one or two red rear fog lamps; they shall be able to be switched on only if the driving beam headlamps, the passing beam headlamps or the front fog lamps are switched on.
25. Retro-reflector
- 25.1 Every motor vehicle other than two-wheeled motorcycles without side-cars shall be equipped at the rear with at least two red retro-reflectors of other than triangular form.
- 25.2 Every trailer shall be equipped at the rear with at least two red retro-reflectors. It shall, however, be permissible for a trailer whose overall width does not exceed 0.80 m to be

equipped with only one such retro-reflector if the trailer is coupled to a two-wheeled motorcycle without a side-car.

These retro-reflectors shall have the shape of an equilateral triangle with one vertex uppermost and one side horizontal. No signal lamp shall be placed inside the triangle.

- 25.3 Every motor vehicle with a length exceeding 6 m and every trailer shall be fitted with (an) amber side retro-reflector(s). The rearmost side retro-reflector may be red if it is combined with a red rear lamp.
- 25.4 Every trailer shall be equipped at the front with two white retro-reflectors of other than triangular form.
- 25.5 Every two-wheeled motorcycle without a side-car shall be equipped at the rear with one or two red non-triangular retro-reflectors and may be equipped, at each side, with one or two non-triangular retro-reflectors which are amber at the front and amber or red at the rear.
26. Side marker lamp
- Every motor vehicle with a length exceeding 6 m and every trailer with a length exceeding 6 m (for trailers including the drawbar) shall be fitted with amber side marker lamps. The rearmost side marker lamp may be red if it is combined with a red rear lamp.
27. Conspicuity marking
- Every motor vehicle, except motorcycles, and every trailer may be fitted with white or yellow conspicuity markings at the side and with red or yellow conspicuity markings at the rear. In addition, every trailer may be fitted with white conspicuity markings at the front.
28. Stop lamp
- 28.1 With the exception of two-wheeled motorcycles with or without a side-car, every motor vehicle with a maximum authorized design speed exceeding 25 km (15 miles) per hour and every trailer shall be equipped at the rear with at least two red stop lamps. An additional centre high-mounted stop lamp may be fitted on such vehicles.
- 28.2 Subject to the possibility for Contracting Parties which, in conformity with Article 54 paragraph 2 of this Convention have declared that they treat mopeds as motorcycles, to exempt two-wheeled mopeds with or without a side-car from this obligation, every two-wheeled motorcycle with or without a side-car shall be equipped with one or two red stop lamp(s). An additional centre high-mounted stop lamp may be fitted on such vehicles.
29. Daytime running lamp
- 29.1 Every motor vehicle, except motorcycles, may be equipped with two white daytime running lamps.
- 29.2 Every two-wheeled motorcycle, with or without a side-car, may be equipped with one or two white daytime running lamps.
- On motorcycles on which they are installed, the daytime running lamp(s) shall automatically be on when the engine is running. On motorcycles on which no daytime running lamp(s) is (are) installed, a headlamp shall automatically be on when the engine is running.
30. Direction-indicator lamp
- Every motor vehicle, except mopeds, and every trailer, shall be equipped with amber direction-indicator lamps, fitted on the vehicle in even numbers.
31. Reversing lamp
- 31.1 Motor vehicles, except motorcycles, and trailers with a permissible maximum mass exceeding 750 kg shall be fitted with one or two white reversing lamps at the rear. The reversing lamp(s) shall not be lit when the reverse gear is not engaged.
- 31.2 Two additional white reversing lamps may be fitted on the side of motor vehicles and trailers with a length exceeding 6 m.

32. Manoeuvring lamp
- Every motor vehicle, except motorcycles with or without a side car, may be equipped on the side with one or two white manoeuvring lamps.
33. Special warning lamp
- Special warning lamps shall emit a winking, revolving or flashing light. Colours of these lights shall conform to the provisions of Article 32 paragraph 14 of this Convention.
34. Hazard warning signal
- Every motor vehicle and every trailer shall, and every motorcycle may, be so equipped that it can emit a hazard warning signal.
35. End-outline marker lamp
- Every motor vehicle and trailer more than 1.80 m wide may be fitted with end-outline marker lamps. Such lamps shall be mandatory if the width of a motor vehicle or trailer exceeds 2.10 m. If these lamps are fitted, there shall be at least two of them and they shall emit white or amber light towards the front and red light towards the rear.
36. Parking lamp
- Every motor vehicle with a length not exceeding 6 m and a width not exceeding 2 m may be fitted with two white front parking lamps and two red rear parking lamps, or with one parking lamp at each side showing white light to the front and red light to the rear.
37. Cornering lamp and bend lighting function
- 37.1 Every motor vehicle, except motorcycles, may be fitted with white cornering lamps.
- 37.2 Every motor vehicle may be equipped with the bend lighting function that can be produced in conjunction with the passing beam headlamp(s), by activating additional light source(s) or additional lighting unit(s) or through the swivelling of the passing beam headlamp(s) on each side of the vehicle.
- In the case of two-wheeled motorcycles, the additional light source(s) or additional lighting unit(s) used to produce bend lighting on each side of the vehicle may only be automatically activated and deactivated on the basis of the banking of the vehicle.
38. Exterior courtesy lamp
- Every motor vehicle may be fitted with white exterior courtesy lamps
39. Provisions involving several categories of lights/signals/devices
- 39.1 No lamps, other than direction-indicator lamps, the hazard warning signal, stop lamps when operated as emergency stop signals and special warning lamps, shall emit a winking, revolving or flashing light. Side marker lamps may flash at the same time as direction-indicator lamps.
- 39.2 Motor vehicles with three wheels placed symmetrically in relation to the vehicle's median longitudinal plane, which are treated as motorcycles pursuant to Article 1 paragraph n of this Convention, shall be equipped with the devices prescribed in paragraphs 21.1, 21.2, 22.1, 22.4 (a), 25.1 and 28.1, above. However, on an electric vehicle the width of which does not exceed 1.30 m and with a maximum authorized design speed not exceeding 40 km (25 miles) per hour, a single driving beam headlamp and a single passing beam headlamp shall be sufficient.
- 39.3 The electrical connections on all motor vehicles (including motorcycles) and on all combinations consisting of a motor vehicle and one or more trailers shall be such that the driving beam headlamps, the passing beam headlamps and the front fog lamps can only be switched on together with the rear and front position lamps, the end-outline marker lamps, if they exist, the side marker lamps, if they exist, and the rear registration plate lamp.
- However, this provision shall not apply to driving beam headlamps or passing beam headlamps when they are used to give the luminous warning referred to in Article 32 paragraph 3 of this Convention.

- 39.4 Without prejudice to the provisions concerning lamps and devices prescribed for two-wheeled motorcycles without a side-car, any side-car attached to a two-wheeled motorcycle shall be equipped at the front with a white or amber front position lamp and at the rear with a red rear position lamp and a red retro-reflector. The electrical connections shall be such that the front position lamp and rear position lamp of the side-car are switched on at the same time as the rear position lamp of the motorcycle.

*The above new text of Chapter II, Vehicle lighting and light-signalling devices, paragraphs 19 to 39.4, entirely replaces the deleted Chapter II, Vehicle lighting and light-signalling devices, paragraphs 19 to 45.*

## CHAPTER III

### Other requirements

#### Driving (rear-view) mirror and other devices for indirect vision

47. Every motor vehicle shall be equipped with one or more **devices, such as** driving (rear-view) mirrors, ~~the number, dimensions and arrangement of these mirrors shall be such as to~~ that enable the driver to see the traffic to the rear of his **or her** vehicle.

*As a result of the above amendments, Annex 5, Chapter III, Section D (Other requirements) paragraphs 47 shall read:*

47. Every motor vehicle shall be equipped with one or more devices, such as driving (rear-view) mirrors that enable the driver to see the traffic to the rear of his or her vehicle.

## Chapter IV

### Exemptions

60. For domestic purposes, Contracting Parties may grant exemptions from the provisions of this Annex in respect of:

(a) Motor vehicles and trailers which, ~~by virtue of their design, cannot exceed a speed of 30 km (19 miles) per hour on a level road of whose speed is~~ **have a maximum design speed not exceeding 30 km (19 miles) per hour or those having a maximum authorized speed** limited by domestic legislation to 30 km per hour;

(b) Invalid carriages, i.e. small motor vehicles specially designed and constructed — and not ~~merely~~ adapted — for use by a persons ~~suffering from some physical defect or disability and normally used by that person only~~ **with reduced mobility**;

(~~c~~) Vehicles adapted for use by ~~handicapped~~ persons **with reduced mobility**.

(~~d~~) Vehicles used for experiments whose purpose is to keep up with technical progress and improve road safety;

(~~e~~) Vehicles of a special form or type, or which are used for particular purposes under special conditions **such as snowplows**;

61. Contracting Parties may also grant exemptions from the provisions of this Annex in respect of vehicles which they register and which may enter international traffic:

(~~a~~) ~~By authorizing the use of the colour amber for the front position lamps of motor vehicles and trailers;~~

(~~a~~) As regards the position of lamps on special-purpose vehicles whose external shape is such that the said provisions could not be observed without the use of mounting devices which could easily be damaged or torn off;

(~~b~~) As regards trailers carrying long loads (tree trunks, pipes, etc.), which are not coupled to the drawing vehicle when in movement, but merely attached to it by the load;

(cd) By authorizing the emission towards the rear of white light and towards the front of red light for the following equipment:

- ~~Revolving or flashing~~ **Special warning** lamps of priority vehicles;
- Fixed lamps for exceptional loads;
- Side lamps and retro-reflectors;
- Professional lighted signs on the roof;

~~(e) By authorizing the emission of blue light towards the front and towards the rear for revolving or flashing lamps;~~

(df) By authorizing on any side of a vehicle of a special shape or kind or used for special purposes and in special conditions, alternating red retro-reflective or fluorescent and white retro-reflective strips;

(eg) By authorizing the emission towards the rear of white or coloured light reflected by the figures or letters or by the background of rear registration plates, by ~~the~~ distinctive signs or ~~by~~ other distinctive marks required by domestic legislation;

~~(h) By authorizing the use of the colour red for rearmost lateral reflex-reflectors and side lamps;~~

(fh) By authorizing the fitting of white conspicuity markings at the rear of motor vehicles and trailers.

*As a result of the above amendments, Annex 5, Chapter IV, (Exemptions) paragraphs 60 and 61 shall read:*

60. For domestic purposes, Contracting Parties may grant exemptions from the provisions of this Annex in respect of:

- (a) Motor vehicles and trailers which have a maximum design speed not exceeding 30 km (19 miles) per hour or those having a maximum authorized speed limited by domestic legislation to 30 km per hour;
- (b) Invalid carriages, i.e. small motor vehicles specially designed and constructed — and not adapted — for use by persons with reduced mobility;
- (c) Vehicles adapted for use by persons with reduced mobility.
- (d) Vehicles used for experiments whose purpose is to keep up with technical progress and improve road safety;
- (e) Vehicles of a special form or type, or which are used for particular purposes under special conditions such as snowplows;

61. Contracting Parties may also grant exemptions from the provisions of this Annex in respect of vehicles which they register and which may enter international traffic:

- (a) As regards the position of lamps on special-purpose vehicles whose external shape is such that the said provisions could not be observed without the use of mounting devices which could easily be damaged or torn off;
- (b) As regards trailers carrying long loads (tree trunks, pipes, etc.), which are not coupled to the drawing vehicle when in movement, but merely attached to it by the load;
- (c) By authorizing the emission towards the rear of white light and towards the front of red light for the following equipment:
  - Special warning lamps of priority vehicles;
  - Fixed lamps for exceptional loads;
  - Side lamps and retro-reflectors;
  - Professional lighted signs on the roof;

(d) By authorizing on any side of a vehicle of a special shape or kind or used for special purposes and in special conditions, alternating red retro-reflective or fluorescent and white retro-reflective strips;

(e) By authorizing the emission towards the rear of white or coloured light reflected by the figures or letters or by the background of rear registration plates, by the distinctive signs or other distinctive marks required by domestic legislation;

(f) By authorizing the fitting of white conspicuity markings at the rear of motor vehicles and trailers.

### Appendix

#### DEFINITION OF COLOUR FILTERS FOR OBTAINING THE COLOURS REFERRED TO IN THIS ANNEX (TRICHROMATIC COORDINATES)

Red .....	limit towards yellow .....	$y \leq 0.335$
	limit towards purple <sup>1-</sup> .....	$z \leq 0.008$
White .....	limit towards blue .....	$x \geq 0.310$
	limit towards yellow .....	$x \leq 0.500$
	limit towards green .....	$y \leq 0.150 + 0.640x$
	limit towards green .....	$y \leq 0.440$
	limit towards purple .....	$y \geq 0.050 + 0.750x$
	limit towards red .....	$y \geq 0.382$
Amber <sup>2-</sup> .....	limit towards yellow <sup>1-</sup> .....	$y \leq 0.429$
	limit towards red <sup>1-</sup> .....	$y \geq 0.398$
	limit towards white <sup>1-</sup> .....	$z \leq 0.007$
Selective yellow <sup>3-</sup> .....	limit towards red <sup>1-</sup> .....	$y \geq 0.138 + 0.580x$
	limit towards green <sup>1-</sup> .....	$y \leq 1.29x - 0.100$
	limit towards white <sup>1-</sup> .....	$y \geq x + 0.966$ limit
	towards spectral value <sup>1-</sup> .....	$y \leq x + 0.992$
Blue .....	limit towards green .....	$y = 0.065 + 0.805x$
	limit towards white .....	$y = 0.400 - x$
	limit towards purple .....	$x = 0.133 + 0.600y$

For verifying the colorimetric characteristics of these filters, a source of white light at a colour temperature of 2,854°K (corresponding to illuminant A of the International Commission on Illumination [CIE]) shall be used.

<sup>1-</sup> In these cases, different limits have been adopted from those recommended by the CIE, since the supply voltages at the terminals of the lamps with which the lights are fitted vary very considerably.

<sup>2-</sup> Applies to the colour of motor vehicle signs hitherto commonly called "orange" or orange yellow. Corresponds to a specific part of the "yellow" zone of the triangle of CIE colours.

<sup>3-</sup> Applies only to passing and driving lights. In the particular case of fog lights, the selectivity of the colour shall be considered satisfactory if the purity factor is not less than 0.820, the limit towards white  $y \geq x + 0.966$ , being in that case  $y \geq x + 0.940$  and  $y = 0.440$ .

The above Appendix to Annex 5 is deleted.

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### **EXPLANATORY NOTE**

These amendment proposals aim at harmonizing – in the area of vehicle lightning and light-signalling devices – the relevant provisions of the 1968 Convention on Road Traffic and those of the 1958 Agreement concerning the Adoption of Uniform Technical Prescriptions. The differences and/or discrepancies have emerged largely due significant technological advances. A more detailed explanations can be found in ECE/TRANS/WP.1/2011/4 on pp.1-2.

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