

Article 120 (Headlamps, etc.)

1. The requirements prescribed in the Announcement of Paragraph 2, Article 32 of the Safety Regulations in connection with the colour of light, brightness, etc. of the headlamps with driving beam shall be the requirements prescribed in each of the following Items.

- (1) The headlamps with driving beam, when all lit at the same time, shall be capable of illuminating with such an intensity that the driver may discern any traffic obstacle on the road at a distance of 100 m (50 m for those installed to motor vehicles used for snow removal, civil engineering work and other special use that have been designated by the Director-General of District Transport Bureau, and large-sized special motor vehicles with a maximum speed of less than 35 km/h and small-sized special motor vehicles for agricultural use) ahead of them in the nighttime. In this case, for motor vehicles manufactured on or before August 31, 1998, and motor cycles with or without sidecar that were manufactured on or after September 1, 1998, motor vehicles used for snow removal, civil engineering work and other special use that have been designated by the Director-General of District Transport Bureau, large-sized special motor vehicles with a maximum speed of less than 35 km/h and small-sized special motor vehicles for agricultural use, the measurement shall be conducted in accordance with the measuring conditions of Item A. by means of a headlamp tester (for driving beam) (by other appropriate methods when it is difficult to conduct the inspection by means of a headlamp tester). Headlamps with driving beam that comply with the evaluation of measured values of Item B. shall be regarded as complying with these requirements.

A. Measuring conditions

- ① The test vehicle shall be under a straight-ahead condition and the motor vehicle conditions at time of inspection;
- ② In the case of motor vehicles equipped with a manual headlamp aiming direction adjusting device, the operation device of the said device shall be adjusted so that the condition of Item ① may be obtained.
- ③ The battery shall be charged and the engine shall be running.
- ④ The light-receiving unit of the headlamp tester (for driving

beam) shall face normally the headlamp with driving beam.

- ⑤ In cases where there is the possibility that proper measurement is hindered, those lamps other than the lamps to be measured shall be covered.

B. Evaluation of measured values

- ① In the case of the headlamp with driving beam (main driving beam in the case of a four-unit type headlamp (referring to a headlamp in which four driving beams go on simultaneously; hereinafter the same)) mounted on motor vehicles (except motor vehicles of Item ②), the point where the luminous intensity takes on a maximum value (hereinafter referred to as the “maximum luminous intensity point” in this Item) shall be, at a distance of 10 m in front of the motor vehicle, in the range between the horizontal plane including the centre of the illuminating surface of the headlamp with driving beam and the plane downward from the said horizontal plane by 1/5 of the height of the centre of the illuminating surface concerned. Furthermore, the luminous intensity of the headlamp with driving beam at the maximum luminous intensity point shall be at least the luminous intensity given below.
 - (i) 15,000 cd per lamp in the case of headlamps which, other than the four-unit type headlamps, have such construction that the headlamps with passing beam do not go on simultaneously.
 - (ii) 12,000 cd per lamp in the case of headlamps which, other than the four-unit type headlamps, have such construction that the headlamps with passing beam go on simultaneously. However, in cases where the luminous intensity is less than 12,000 cd, the sum together with luminous intensities of the headlamps with passing beam that go on simultaneously may be 15,000 cd.
 - (iii) In the case of the four-unit type headlamps, the luminous intensity of the main driving beam shall be 12,000 cd per lamp, or the sum together with luminous intensities of other headlamps with driving beam shall be 15,000 cd.

- ② In the case of the headlamp with driving beam (main driving beam in the case of a four-unit type headlamp) mounted on motor vehicles used for snow removal, civil engineering work and other special use that have been designated by the Director-General of District Transport Bureau, large-sized special motor vehicles with a maximum speed of less than 35 km/h, small-sized special motor vehicles for agricultural use and motor vehicles manufactured on or before September 30, 1960 (except those with a maximum speed of less than 25 km/h), the maximum luminous intensity point of the headlamp with driving beam (in the case of four-unit type headlamps, the main driving beam) shall be, at a distance of 10 m in front of the motor vehicle, in the range between the horizontal plane including the centre of the illuminating surface of the headlamp with driving beam and the plane downward from the said horizontal plane by 3/10 of the height of the centre of the illuminating surface concerned. Furthermore, the luminous intensity of the headlamp with driving beam at the maximum luminous intensity point shall be at least 10,000 cd per lamp.
- (2) The headlamp with driving beam mounted on motor vehicles with a maximum speed of less than 20 km/h shall have an adequate luminous intensity to ensure safe operation.
 - (3) The colour of light of a headlamp with driving beam shall be white.
 - (4) Headlamps with driving beam shall not have broken lamps, or lamps whose lens surfaces are badly smeared.
 - (5) Headlamps with driving beam shall not have lamps whose lens mountings are loose or exhibit an excessive play.
 - (6) Only the following headlamps with driving beam which exhibit no damage, etc. liable to hamper its function may be used as an adaptive front lighting system with driving beam (referring to headlamps with driving beam capable of illuminating the curved section of road ahead of the motor vehicle more intensively. Hereinafter the same.):
 - A. Adaptive front lighting systems with driving beam having the same construction and provided at the same position as those mounted on designated motor vehicles, etc.;

- B. Adaptive front lighting systems with driving beam type-designated pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, or adaptive front lighting systems with driving beam having the equivalent performance.

2. The requirements prescribed in the Announcement of Paragraph 3, Article 32 of the Safety Regulations in connection with the installation position, installation method, etc. of the headlamps with driving beam shall be the requirements provided for in each of the following Items (Item (1) in the case of headlamps with driving beam mounted on motor vehicles with a maximum speed of less than 20 km/h, whose luminous intensity is less than 10,000 cd; Items (1), (4), (5), (6) through (12) in the case of headlamps with driving beam mounted on motor vehicles with a maximum speed of less than 20 km/h, whose luminous intensity is 10,000 cd or more). In this case, the measuring methods for the illuminating surface, numbers and installation position of the headlamps shall be in accordance with the Attachment 94 "Measuring Method of Illuminating Surfaces, Numbers and Installation Positions of Lamps, etc. (Related to Sections 2 and 3 of Chapter 2)."

- (1) The number of headlamps with driving beam shall be two or four. However, the number shall be one or two for motor cycles with or without sidecar; and one, two or four for mini-sized motor vehicle with caterpillar tracks and sleds, motor vehicles with a width of 0.8 m or less (except motor cycles), and motor vehicles with a maximum speed of less than 20 km/h (except motor cycles with or without sidecar). In this case, an adaptive front lighting system with driving beam may be used at each of the right and left sides of the motor vehicle in the case of motor vehicles other than trailers, motor vehicles with a maximum speed of less than 20 km/h (except motor cycles with or without sidecar), motor vehicles used for snow removal, civil engineering work and other special use that have been designated by the Director-General of District Transport Bureau, large-sized special motor vehicles with a maximum speed of less than 35 km/h, motor cycles with or without sidecar, small-sized special motor vehicles for agricultural use and mini-sized motor vehicles with caterpillar tracks and sleds.
- (2) For motor vehicles equipped with four headlamps with driving beam (only limited to those where all of them can be retracted when the headlamps are turned off (hereinafter referred to as the "retractable headlamps with driving beam")), notwithstanding the provisions of the preceding Item, two headlamps intended to give warning by flashing intermittently at a short interval or illuminating alternatively only by manually may be provided in cases other than those when the

headlamps must be turned on pursuant to the provision of Paragraph 1 of Article 52 of the Road Traffic Act, in addition to the four headlamps with driving beam.

- (3) The total maximum luminous intensity of the headlamps with driving beam shall not exceed 225,000 cd.
- (4) The beams from headlamps with driving beam shall be directed in the moving direction of the motor vehicle. However, in the case of adaptive front lighting system with driving beam, the beam thereof may be directed in the moving direction of the motor vehicle in a straight-ahead condition. In these cases, when measurements are carried out according to each of Item A., Item (1) of the preceding Paragraph by means of a headlamp tester (for driving beam), if the maximum luminous intensity point of the headlamp with driving beam (main driving beam in the case of four-unit type) is, at a distance of 10 m in front of the motor vehicle, in the range between the vertical planes on the right and left sides 200 mm respectively away from the vertical plane including the centre of the illuminating surface of the headlamp with driving beam and parallel with the longitudinal centre plane of the motor vehicle (100 mm in the case of the right side of the headlamp with driving beam mounted at the right side of the motor vehicle (except motor vehicles used for snow removal, civil engineering work and other special use that have been designated by the Director-General of District Transport Bureau, large-sized special motor vehicles with a maximum speed of less than 35 km/h, small-sized special motor vehicles for agricultural use, motor vehicles manufactured on or before September 30, 1960, and motor cycles with or without sidecar)), such headlamps shall be regarded as complying with the requirements of this Item.
- (5) A device shall be provided which indicates the on-off state of the headlamps with driving beam to the driver in his seat. However, this provision shall not apply to large-sized special motor vehicles with a maximum speed of less than 35 km/h, small-sized special motor vehicles for agricultural use, motor cycles with or without sidecar, and mini-sized motor vehicles with caterpillar tracks and sleds.
- (6) Headlamps with driving beam shall be provided in equal numbers on the right and left sides except for motor vehicles having only one headlamp with driving beam and, headlamps with driving beam to be mounted on motor vehicles whose front end is symmetrical shall be mounted symmetrically with respect to the longitudinal centre plane of the motor vehicle. However, in the case of motor cycles having a

headlamp with driving beam at the side of the headlamp with passing beam, it is only necessary that the centres of the headlamp with driving beam and the headlamp with passing beam be located symmetrically with respect to the longitudinal centre plane of the motor vehicle.

- (7) When the headlamps with passing beam are turned on, one or all of the headlamps with driving beam provided at each side of the motor vehicle shall be turned on simultaneously. Furthermore, when the headlamps with passing beam are turned off, all headlamps with driving beam shall be turned off.
 - (8) The headlamp with driving beam shall be so constructed that it cannot be turned on when the position lamps, rear position lamps, front-end outline marker lamps, rear-end outline marker lamps, number plate lamps and side marker lamps are extinguished. However, this provision shall not apply to cases where it is necessary to make the headlamp with driving beam flash intermittently at a short interval or illuminate alternatively only by manually, except cases where the headlamps must be turned on pursuant to the provision of Paragraph 1 of Article 52 of the Road Traffic Act.
 - (9) The headlamp with driving beam shall not flash. However, this provision shall not apply to cases provided for in the proviso of the preceding Item.
 - (10) The direct light or reflected light of the headlamp with driving beam shall not hamper the driving operations of the motor vehicle equipped with the headlamp with driving beam concerned.
 - (11) The headlamp with driving beam shall be such one that the direction of its beam is not liable to be disturbed readily by vibration, shocks, etc., such as exhibiting looseness, excessive play, etc. at its attaching section.
 - (12) The headlamp with driving beam shall be mounted in such a way that the performance provided for in the preceding Paragraph may not be hampered. In this case, those lamps where objects changing the photometric axis are affixed on the lens surface, etc. of the lamp, thus significantly affecting the light distribution, shall be regarded as not complying with these requirements.
3. The following headlamp with driving beam which exhibit no damage, etc. liable to hamper its function shall be regarded as complying with the requirements prescribed in each Item of the preceding Paragraph (except Item

(4).

- (1) Headlamps with driving beam having the same construction and provided at the same position as those mounted on designated motor vehicles, etc.;
- (2) Headlamps with driving beam having the same construction and provided at the same position as headlamps with driving beam mounted on motor vehicles for which device type designation has been granted in connection with the installation of lamps, reflex reflectors and direction indicator lamps pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, or headlamps with driving beam having the performance equivalent to it.

4. The “headlamps with driving beam whose luminous intensity is less than the value prescribed in the Announcement” appearing in Paragraph 4 of Article 32 of the Safety Regulations shall be headlamps with driving beam whose luminous intensity is less than 10,000 cd.

5. The requirements prescribed in the Announcement of Paragraph 5, Article 32 of the Safety Regulations in connection with the colour of light, brightness, etc. of the headlamps with passing beam shall be the requirements prescribed in each of the following Items.

- (1) The beams from the headlamps with passing beam (except those mounted on motor vehicles with a maximum speed of less than 20 km/h which are equipped with headlamps with driving beam whose luminous intensity is 10,000 cd or more), shall not disturb other traffic and, when all lit at the same time, shall be capable of illuminating with such an intensity that the driver may discern any traffic obstacle on the road at a distance of 40 m (15 m for those installed to motor vehicles used for snow removal, civil engineering work and other special use that have been designated by the Director-General of District Transport Bureau, and large-sized special motor vehicles with a maximum speed of less than 35 km/h and small-sized special motor vehicles for agricultural use) ahead of them in the nighttime. In this case, for motor vehicles (except motor cycles with or without sidecar, motor vehicles used for snow removal, civil engineering work and other special use that have been designated by the Director-General of District Transport Bureau, large-sized special motor vehicles with a maximum speed of less than 35 km/h and small-sized special motor vehicles for agricultural use) manufactured on or after September 1, 1998, the measurement shall be conducted in accordance with the measuring conditions of Item A. by means of a headlamp tester (for

passing beam). Headlamps with passing beam that comply with the evaluation of measured values of Item B. shall be regarded as complying with these requirements. However, if it is impossible to conduct the measurement with a headlamp tester (for passing beam), the measurement can be conducted by means of a headlamp tester (for driving beam), screen, wall, etc. pursuant to Item A. ②. Headlamps with passing beam that comply with the requirements of Item B. ② shall be regarded, for the time being, as complying with these requirements.

A. Measuring conditions

- ① Cases other than those of ②:
 - (i) The test vehicle shall be under a straight-ahead condition and the motor vehicle conditions at time of inspection;
 - (ii) In the case of motor vehicles equipped with a manual headlamp aiming direction adjusting device, the operation device of the said device shall be adjusted so that the condition of Item (i) may be obtained.
 - (iii) The battery shall be charged and the engine shall be running.
 - (iv) The light-receiving unit of the headlamp tester (for passing beam) shall face normally the headlamp with passing beam.
 - (v) In cases where there is the possibility that proper measurement is hindered, those lamps other than the lamps to be measured shall be covered.
- ② Cases where it is impossible to conduct the measurement with the headlamp tester (for passing beam):
 - (i) The test vehicle shall be under a straight-ahead condition and the motor vehicle conditions at time of inspection;
 - (ii) In the case of motor vehicles equipped with a manual headlamp aiming direction adjusting device, the operation device of the said device shall be adjusted so that the condition of Item (i) may be obtained.

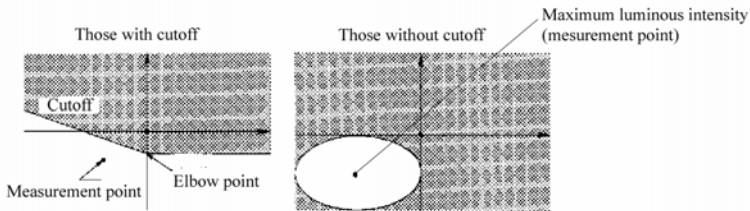
- (iii) The battery shall be charged and the engine shall be running.
 - (iv) In cases where a headlamp tester (for driving beam) is used, the light-receiving unit concerned shall face normally the headlamp with passing beam.
 - (v) In cases where there is the possibility that proper measurement is hindered, those lamps other than the lamps to be measured shall be covered.
- B. Evaluation of measured values
- ① Cases other than those of ②:
 - (i) In the case of headlamps with passing beam provided with cutoff (referring to the light/darkness division line used in adjustment of aiming direction of headlamps with passing beam; hereinafter the same)
 - (a) The elbow point (referring to the intersection of right-half and left-half cutoff lines; hereinafter the same) shall be within the range enclosed by the plane 0.11 degree downward and the plane 0.86 degree downward from the horizontal plane (in the case of motor vehicles with a height of the centre of the illuminating surface concerned exceeding 1 m, between the plane 0.41 degree and the plane 1.16 degree downward), including the centre of the illuminating surface of the headlamp with passing beam, and by the vertical planes oriented one degree to the right and left sides, respectively, from the vertical plane parallel to the longitudinal centre line of the motor vehicle, or, at a distance of 10 m in front of the motor vehicle, within the range enclosed by the straight line 20 mm downward and the straight line 150 mm downward from the horizontal line including the centre of the illuminating surface (in the case of motor vehicles with a height of the centre of the illuminating surface concerned exceeding 1 m, the straight line 70 mm downward and the straight line 200 mm downward) and by the straight lines 180 mm to the right and left sides, respectively, from the vertical plane parallel to the longitudinal centre line of the motor vehicle, including

the centre of the illuminating surface concerned.

- (b) The luminous intensity shall be at least 6,400 cd per headlamp at the position where the plane 0.6 degree (in the case of motor vehicles with a height of the centre of the illuminating surface concerned exceeding 1 m, 0.9 degree) downward from the horizontal plane, including the centre of the illuminating surface of the headlamp with passing beam, intersects with the vertical planes 1.3 degrees to the right and left sides, respectively, from the vertical plane parallel to the longitudinal centre line of the motor vehicle, or, at a distance of 10 m in front of the motor vehicle, at the intersection of the straight line 110 mm (in the case of motor vehicles with a height of the centre of the illuminating surface concerned exceeding 1 m, 160 mm) downward from the horizontal plane including the centre of the illuminating surface concerned, with the straight line 230 mm leftward from the vertical plane parallel to the longitudinal centre line of the motor vehicle, including the centre of the illuminating surface concerned.
- (ii) In the case of headlamps with passing beam without cutoff
 - (a) The maximum luminous intensity point shall be lower than the horizontal plane including the centre of the illuminating surface, and on the left side of the vertical plane parallel to the longitudinal centre line of the motor vehicle.
 - (b) The luminous intensity at the maximum luminous intensity point shall be at least 6,400 cd per headlamp.
- ② Cases where it is impossible to conduct the measurement with the headlamp tester (for passing beam):
 - (i) In the case of headlamps with passing beam with cutoff
 - (a) By throwing the rays of the headlamp with passing beam on a screen (including an accessory screen of the tester), wall, etc., it shall be visually checked that the elbow point is located in the range provided for in Item ① (i) (a).

- (b) The luminous intensity at the position provided for in Item ① (i) (b) (or the maximum luminous intensity point when the said position is not available) shall be at least 6,400 cd per headlamp.
- (ii) In the case of headlamps with passing beam without cutoff
 - (a) The maximum luminous intensity point shall be in the location provided for in Item ① (ii) (a).
 - (b) The luminous intensity at the maximum luminous intensity point shall be at least 6,400 cd per headlamp.

(Reference diagram) An example of the light distribution characteristics of headlamps with passing beam when the beams are projected on a screen



- (2) For those motor vehicles with a maximum speed of less than 20 km/h which are equipped with headlamps with driving beam whose luminous intensity is 10,000 or more, the beams of the headlamp with passing beam shall not disturb other traffic.
- (3) The headlamp with passing beam shall comply with the requirements of Items (3) through (6) of Paragraph 1.
- (4) Only the following headlamps with passing beam which exhibit no damage, etc. liable to hamper their function may be used as adaptive front lighting system with passing beam (referring to headlamps with passing beam capable of illuminating the curved section of road ahead of the vehicle more intensively. Hereinafter the same.):
 - A. Adaptive front lighting system with passing beam having the same construction and provided at the same position as those mounted on designated motor vehicles, etc.;

- B. Adaptive front lighting system with passing beam type-designated pursuant to the provision of Paragraph 1 of Article 75-2 of the Act or adaptive front lighting system with passing beam having the equivalent performance.

6. The requirements prescribed in the Announcement of Paragraph 6, Article 32 of the Safety Regulations in connection with the installation position, installation method, etc. of the headlamps with passing beam shall be the requirements provided for in each of the following Items. In this case, the measuring methods for the illuminating surface, numbers and installation position of the headlamps with passing beam shall be in accordance with the Attachment 94 “Measuring Method of Illuminating Surfaces, Numbers and Installation Positions of Lamps, etc. (Related to Sections 2 and 3).”

- (1) The number of headlamps with passing beam shall be two. However, the number shall be one or two for motor cycles with or without sidecar, mini-sized motor vehicles with caterpillar tracks and sleds, motor vehicles with a maximum speed of less than 20 km/h, and motor vehicles with a width of 0.8 m or less.
- (2) The headlamps with passing beam installed to motor vehicles other than motor cycles with or without sidecar and mini-sized motor vehicles with caterpillar tracks and sleds shall be mounted so that the upper edge of the illuminating surface thereof is at a height of 1.2 m or less above the ground (at a minimum mountable height for headlamps with passing beam installed to large-sized special motor vehicles, small-sized special motor vehicles for agricultural use (small-sized special motor vehicles in the case of motor vehicles with a maximum speed of less than 20 km/h), and motor vehicles used for snow removal, civil engineering work and other special use that have been designated by the Director-General of District Transport Bureau, which cannot be mounted at that height of 1.2 m or less above the ground because of the vehicle construction) and the lower edge is at a height of 0.5 m or more above the ground (at a maximum mountable height for headlamps with passing beam installed to large-sized special motor vehicles, small-sized special motor vehicles for agricultural use (small-sized special motor vehicles in the case of motor vehicles with a maximum speed of less than 20 km/h), and motor vehicles used for snow removal, civil engineering work and other special use that have been designated by the Director-General of District Transport Bureau, which cannot be mounted at that height of 0.5 m or more above the ground because of the vehicle construction).
- (3) The headlamp with passing beam installed to motor cycles with or

without sidecar and mini-sized motor vehicles with caterpillar tracks and sleds shall be mounted so that the centre of the illuminating surface thereof is at a height of 1.2 m or less above the ground.

- (4) The headlamp with passing beam shall be mounted so that the outermost edge of the illuminating surface thereof is within 400 mm from the outermost part of the motor vehicle (at a mountable outermost position for headlamps with passing beam installed to large-sized special motor vehicles, small-sized special motor vehicles for agricultural use (small-sized special motor vehicles in the case of motor vehicles with a maximum speed of less than 20 km/h), and motor vehicles used for snow removal, civil engineering work and other special use that have been designated by the Director-General of District Transport Bureau, which cannot be mounted within 400 mm from the outermost part of the motor vehicle because of the vehicle construction). However, this shall not apply to the headlamps with passing beam installed to motor cycles with or without sidecar, mini-sized motor vehicles with caterpillar tracks and sleds, motor vehicles with a maximum speed of less than 20 km/h, and motor vehicles with a width of 0.8 m or less.
- (5) The headlamp with passing beam to be mounted on motor vehicles whose front end is symmetrical shall be mounted symmetrically with respect to the longitudinal centre plane. However, in the case of motor cycles having a headlamp with driving beam at the side of the headlamp with passing beam, it is only necessary that the centres of the headlamp with driving beam and the headlamp with passing beam be located symmetrically with respect to the longitudinal centre plane of the motor vehicle.
- (6) The operation device for the headlamp with passing beam shall be so constructed that, when the driver turns on the headlamp with passing beam, all headlamps with driving beam shall be turned off.
- (7) The headlamp with passing beam equipped with a discharge type light source shall be so constructed that it cannot be turned off when the headlamp with driving beam is illuminated.
- (8) The headlamp with passing beam shall be so constructed that it cannot be turned on when the position lamps, rear position lamps, front-end outline marker lamps, rear-end outline marker lamps, number plate lamps and side marker lamps are extinguished. However, this provision shall not apply to cases where it is necessary to make the headlamp with passing beam flash intermittently at a short interval or illuminate

alternatively only by manually, except cases where the headlamps must be turned on pursuant to the provision of Paragraph 1 of Article 52 of the Road Traffic Act.

- (9) The headlamp with passing beam shall not flash. However, this provision shall not apply to cases provided for in the proviso of the preceding Item.
- (10) The direct light or reflected light of the headlamp with passing beam shall not hamper the driving operations of the motor vehicle equipped with the headlamp with driving beam concerned and of other motor vehicles.
- (11) The headlamp with passing beam shall be such one that the direction of its beam is not liable to be disturbed readily by vibration, shocks, etc., such as exhibiting looseness, excessive play, etc. at its attaching section.
- (12) The headlamp with driving beam and headlamp with passing beam installed to motor cycles with or without sidecar shall be so constructed that either of them stays lit at all times while the engine is in operation.
- (13) The headlamp with passing beam shall be mounted in such a way that the performance provided for in Paragraph 5 may not be hampered. In this case, those lamps where objects changing the photometric axis are affixed on the lens surface, etc. of the lamp, thus significantly affecting the light distribution, shall be regarded as not complying with these requirements.

7. The following headlamps with passing beam which exhibit no damage, etc. liable to hamper its function shall be regarded as complying with the requirements prescribed in each Item of the preceding Paragraph.

- (1) Headlamps with passing beam having the same construction and provided at the same position as those mounted on designated motor vehicles, etc.;
- (2) Headlamps with passing beam having the same construction and provided at the same position as headlamps with passing beam mounted on motor vehicles for which device type designation has been granted in connection with the installation of lamps, reflex reflectors and direction indicator lamps pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, or headlamps with passing beam having the performance equivalent to it.

8. The requirements prescribed in the Announcement of Paragraph 7, Article 32 of the Safety Regulations in connection with the performance, etc. of adjusting the aiming direction of the headlamps shall be the requirements enumerated in each of the following Items. However, for the equipment of the aim adjusting device, the requirements shall be those prescribed in Attachment 52 “Technical Standard for Installation of Lamps, Reflex Reflectors and Direction Indicator lamps” in the case of motor vehicles other than motor cycles with or without sidecar and mini-sized motor vehicles with caterpillar tracks and sleds.

- (1) The headlamp aim adjusting device shall be capable of preventing the beam from a headlamp with passing beam without fail from disturbing other traffic in every riding or loading condition of the vehicle;
- (2) The headlamp aim adjusting device shall be such that the aiming direction of the headlamp cannot be adjusted right and left;
- (3) A manual type headlamp aim adjusting device shall be able to be operated easily and properly by the driver in his seat. In this case, the manual type headlamp aim adjusting device whose control positions are not indicated by letters, figures or marks, at positions easily seen by the driver in his seat without assuming a strained posture, corresponding to the condition of Item (1) A. ① of Paragraph 1 and main conditions concerned with passenger accommodation or loading, shall be regarded as examples not complying with this requirement.

9. The following headlamp aim adjusting device enumerated which exhibit no damage, etc. liable to hamper its function shall be regarded as complying with the requirements prescribed in each Item of the preceding Paragraph.

- (1) Headlamp aim adjusting devices having the same construction and provided at the same position as those mounted on designated motor vehicles, etc.;
- (2) Headlamp aim adjusting devices having the same construction and provided at the same position as the headlamp aim adjusting device mounted on motor vehicles for which device type designation has been granted in connection with the installation of lamps, reflex reflectors and direction indicator lamps pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, or headlamp aim adjusting devices having the performance equivalent to it.

10. The requirements prescribed in the Announcement of Paragraph 9,

Article 32 of the Safety Regulations in connection with the cleaning performance, etc. of the lens surface of headlamps shall be the requirements prescribed in each of the following Items.

- (1) Headlamp cleaners shall have a washing performance sufficient to recover the luminous intensity of the headlamps when the outside of the lens surface of the headlamp is smeared.
- (2) The performance of the headlamps prescribed in Paragraphs 1 and 5 shall not be hampered. In this case, the headlamp cleaner which does not cover the illuminating surface in excess of 20% of the surface area of the illuminating surface of the headlamp with passing beam; or in excess of 10% of the surface area of the illuminating surface of the headlamp with driving beam shall be regarded as complying with these requirements.
- (3) The headlamp cleaner shall not be damaged nor be actuated due to vibrations, impacts, etc. during running.
- (4) The headlamp cleaner shall not be liable to injure pedestrians, etc., when it comes in contact with them. For example, the headlamp cleaner shall have no sharp outward protrusion.

11. The following headlamp cleaners which exhibit no damage, etc. liable to hamper its function shall be regarded as complying with the requirements prescribed in each Item of the preceding Paragraph.

- (1) Headlamp cleaners having the same construction and provided at the same position as those mounted on designated motor vehicles, etc.;
- (2) Headlamp cleaners for which device type designation has been granted pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, or headlamp cleaners having the performance equivalent to it.

12. The requirements prescribed in the Announcement of Paragraph 10, Article 32 of the Safety Regulations in connection with the installation position, installation method, etc. of the headlamp cleaners shall be the requirements prescribed in each of the following Items.

- (1) The headlamp cleaner shall be such one that can be operated easily by the driver in his seat.
- (2) The headlamp cleaner shall be mounted in such a way that it may not hamper the performance of the lamps, reflex reflectors and indicating

devices.

13. The following headlamp cleaners and headlamp mounting devices enumerated below which exhibit no damage, etc. liable to hamper its function shall be regarded as complying with the requirements prescribed in each Item of the preceding Paragraph.

- (1) Headlamp cleaners and headlamp mounting devices having the same construction and provided at the same position as those mounted on designated motor vehicles, etc.;
- (2) Headlamp cleaners and headlamp mounting devices for which device type designation has been granted pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, or headlamp cleaners and headlamp mounting devices having the performance equivalent to it.

Article 121 (Front Fog Lamps)

1. The requirements prescribed in the Announcement of Paragraph 2, Article 33 of the Safety Regulations in connection with the colour of light, brightness, etc. of the front fog lamps shall be the requirements enumerated in each of the following Items.

- (1) The beams of front fog lamps shall not disturb other traffic.
- (2) The colour of light of a front fog lamp shall be white or selective yellow, and all front fog lamps shall be the same in the colour of light.
- (3) The front fog lamp shall comply with the requirements of Items (5) and (6), Paragraph 1 of the preceding Article, in addition to that provided for in each of the preceding Items.

2. The following front fog lamps enumerated below which exhibit no damage, etc. liable to hamper its function shall be regarded as complying with the requirements prescribed in each Item of the preceding Paragraph.

- (1) Front fog lamps having the same construction and provided at the same position as those mounted on designated motor vehicles, etc.;
- (2) Front fog lamps for which device type designation has been granted pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, or front fog lamps having the performance equivalent to it.

3. The requirements prescribed in the Announcement of Paragraph 3, Article 33 of the Safety Regulations in connection with the installation position, installation method, etc. of the front fog lamps shall be the requirements provided for in each of the following Items. In this case, the measuring methods for the illuminating surface, numbers and installation position of the front fog lamps shall be in accordance with the Attachment 94 “Measuring Method of Illuminating Surfaces, Numbers and Installation Positions of Lamps, etc. (Related to Sections 2 and 3 of Chapter 2).”

- (1) The front fog lamps shall be wired so that three or more units do not light at a time.
- (2) The front fog lamps installed to motor vehicles other than motor cycles with or without sidecar and mini-sized motor vehicles with caterpillar tracks and sleds shall be mounted so that the upper edge of the illuminating surface thereof is at a height of 0.8 m or less above the ground and is at a height of or below the horizontal plane including the upper edge of the illuminating surface of the headlamp with passing beam (for front fog lamps installed to large-sized special motor vehicles, small-sized special motor vehicles and motor vehicles used for snow removal, civil engineering work and other special use that have been designated by the Director-General of District Transport Bureau, which cannot be mounted at a height of 0.8 m or less above the ground because of the vehicle construction, at a minimum mountable height at which the upper edge of the illuminating surface thereof is at a height of or below the horizontal plane including the upper edge of the illuminating surface of the headlamp with passing beam) and the lower edge is at a height of 0.25 m or more above the ground.
- (3) The front fog lamps installed to motor cycles with or without sidecar and mini-sized motor vehicles with caterpillar tracks and sleds shall be mounted so that the centre of the illuminating surface thereof is at a height of or below the horizontal plane including the centre of the illuminating surface of the headlamp with passing beam.
- (4) The front fog lamps shall be mounted so that the outermost edge of the illuminating surface thereof is within 400 mm from the outermost part of the motor vehicle (for front fog lamps installed to large-sized special motor vehicles, small-sized special motor vehicles and motor vehicles used for snow removal, civil engineering work and other special use that have been designated by the Director-General of District Transport Bureau, which cannot be mounted within 400 mm because of the vehicle construction, at an outermost mountable position). However,

this provision shall not apply to the front fog lamps installed to the motor vehicles provided for in the proviso of Item (1), Paragraph 2 of the preceding Article.

- (5) The illuminating surface of the front fog lamp to be provided on motor vehicles other than large-sized special motor vehicles (except pole trailers) and small-sized special motor vehicles shall be visible from every position in the range enclosed by the planes 5° above and 5° below the horizontal plane, including the horizontal line which passes the centre of the front fog lamp and is perpendicular to the forward direction of the motor vehicle, and enclosed by the planes 10° inward of the front fog lamp and 45° outward of the front fog lamp from the vertical plane that includes the centre of the front fog lamp and is parallel to the forward direction of the motor vehicle.
- (6) A device shall be provided, which indicates the on-off state of the front fog lamp to the driver in his seat.
- (7) The front fog lamps shall comply with the requirements of Items (6) and (11), Paragraph 2 of the preceding Article, in addition to those provided for in each of the preceding Items.
- (8) The front fog lamps shall be such ones that can be turned on and off, regardless of the on-off condition of the headlamp with driving beam and headlamp with passing beam.
- (9) The front fog lamps shall be so constructed that they cannot be turned on when the position lamps, rear position lamps, front-end outline marker lamps, rear-end outline marker lamps, number plate lamps and side marker lamps are extinguished. However, this provision shall not apply to cases where it is necessary to make the front fog lamp flash intermittently at a short interval or illuminate alternatively only by manually, except cases where the headlamps must be turned on pursuant to the provision of Paragraph 1 of Article 52 of the Road Traffic Act.
- (10) The front fog lamps shall not flash. However, this provision shall not apply to cases provided for in the proviso of the preceding Item.
- (11) The direct light or reflected light of the front fog lamp shall not hamper the driving operations of the motor vehicle equipped with the front fog lamp concerned and of other motor vehicles.
- (12) The front fog lamps shall be mounted in such a way that the

performance provided for in Paragraph 1 may not be hampered. For example, the lamp mountings shall not be loose or exhibit no excessive play.

4. The front fog lamps enumerated in each of the following Items which exhibit no damage, etc. liable to hamper its function shall be regarded as complying with the requirements prescribed in each Item of the preceding Paragraph.

- (1) Front fog lamps having the same construction and provided at the same position as those mounted on designated motor vehicles, etc.;
- (2) Front fog lamps having the same construction and provided at the same position as front fog lamps mounted on motor vehicles for which device type designation has been granted in connection with the installation of lamps, reflex reflectors and direction indicator lamps pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, or front fog lamps having the performance equivalent to it.

Article 122 (Cornering Lamps)

1. The requirements prescribed in the Announcement of Paragraph 2, Article 33-2 of the Safety Regulations in connection with the colour of light, brightness, etc. of the cornering lamps shall be the requirements enumerated in each of the following Items.

- (1) The beams from the cornering lamps shall not disturb other traffic. In this case, cornering lamps whose luminous intensity is 12,000 cd or less and which function normally shall be regarded as complying with this requirement.
- (2) The main photometric axis of a cornering lamp shall not strike the road surface behind the mounting section; in the case of one mounted on the left side, the road surface on the right side from the mounting section; and in the case of one mounted on the right side, the road surface on the left side from the mounting section.
- (3) The colour of light of a cornering lamp shall be white.
- (4) The cornering lamps shall not have broken lamps, or lamps whose lens surfaces are badly smeared.

2. The cornering lamp having the same construction and provided at the

same position as those mounted on designated motor vehicles, etc. which exhibits no damage, etc. liable to hamper its function shall be regarded as complying with each Item of the preceding Paragraph.

3. The requirements prescribed in the Announcement of Paragraph 3, Article 33-2 of the Safety Regulations in connection with the installation position, installation method, etc. of the cornering lamps shall be the requirements provided for in each of the following Items. In this case, the measuring methods for the illuminating surface, numbers and installation position of the cornering lamps shall be in accordance with the Attachment 94 “Measuring Method of Illuminating Surfaces, Numbers and Installation Positions of Lamps, etc. (Related to Sections 2 and 3 of Chapter 2).”

- (1) The cornering lamp shall be constructed so that it may be illuminated only when the headlamps with passing beam or the headlamps with driving beam are illuminated.
- (2) The cornering lamp at each side of a motor vehicle shall be constructed that it may be illuminated only when the direction indicator lamp on the same side is operated or the steering system is turned from the straight-ahead condition to the same side.
- (3) The cornering lamp shall be constructed that it may be turned off automatically when the operation of the direction indicator lamp is finished or the steering angle of the steering system returns to the straight-ahead condition.
- (4) The cornering lamp shall be mounted so that the lower edge of the illuminating surface thereof is at a height of 0.25 m or more above the ground, and the upper edge is at a height of 0.9 m or less above the ground and at a height of or below the horizontal plane including the upper edge of the illuminating surface of the headlamp with passing beam.
- (5) The cornering lamp shall be mounted so that the outermost edge of the illuminating surface thereof is within 400 mm from the outermost part of the motor vehicle.
- (6) The extreme rear edge of the illuminating surface of the cornering lamp shall be within 1 m from the front end of the motor vehicle.
- (7) The cornering lamp shall be such one that the direction of its beam is not liable to be disturbed readily by vibration, shocks, etc.

- (8) The cornering lamp shall not flash.
 - (9) The direct light or reflected light of the cornering lamp shall not hamper the driving operations of the motor vehicle equipped with the cornering lamp concerned and of other motor vehicles.
 - (10) The cornering lamps shall be mounted in such a way that the performance provided for in Paragraph 1 may not be hampered. For example, the lamp mountings or lens mountings shall not be loose or exhibit no excessive play.
4. The following cornering lamps enumerated below which exhibit no damage, etc. liable to hamper its function shall be regarded as complying with each Item of the preceding Paragraph.
- (1) Cornering lamps having the same construction and provided at the same position as those mounted on designated motor vehicles;
 - (2) Cornering lamps having the same construction and provided at the same position as the cornering lamp mounted on motor vehicles for which device type designation has been granted in connection with the installation of lamps, reflex reflectors and direction indicator lamps pursuant to the provision of Paragraph 1 of Article 75-2 of the Act.

Article 123 (Position lamps)

1. The requirements prescribed in the Announcement of Paragraph 2, Article 34 of the Safety Regulations in connection with the colour of light, brightness, etc. of the position lamps shall be the requirements enumerated in each of the following Items. In this case, the illuminating surface of the position lamps shall be handled in accordance with the Attachment 94 "Measuring Method of Illuminating Surfaces, Numbers and Installation Positions of Lamps, etc. (Related to Sections 2 and 3 of Chapter 2)."
- (1) The illuminating light of a position lamp shall be clearly visible at night at a distance of 300 m from the front of the vehicle, and the beams from the position lamps shall not disturb other traffic. The position lamp with a light source of 5 watts or more and an illuminating surface of 15 cm² or more (for position lamps installed to motor vehicles manufactured on or after January 1, 2006, the light source shall be 5 watts or more and 30 watts or less, and the illuminating surface shall be 15 cm² or more.) that operates normally shall be regarded as complying with this requirement.

- (2) The colour of light of a position lamp shall be white. However, the colour of light may be amber in the case of the position lamp that is integral, from the standpoint of the vehicle construction, with the direction indicator lamp, hazard warning lamp or side marker lamp, and in the case of those installed to motor cycles with or without sidecar and mini-sized motor vehicles with caterpillar tracks and sleds.
- (3) The illuminating surface of the position lamp shall be visible from every position in the range enclosed by the planes 15° above and 15° below the horizontal plane, including the horizontal line which passes the centre of the position lamp and is perpendicular to the forward direction of the motor vehicle, and enclosed by the planes 45° inward of the position lamp and 80° outward of the position lamp from the vertical plane that includes the centre of the position lamp and is parallel to the forward direction of the motor vehicle.
- (4) The position lamps shall not have broken lamps, or lamps whose lens surfaces are badly smeared.

2. The following position lamps enumerated below which exhibit no damage, etc. liable to hamper its function shall be regarded as complying with the requirements prescribed in each Item of the preceding Paragraph.

- (1) Position lamps having the same construction and provided at the same position as those mounted on designated motor vehicles, etc.;
- (2) Position lamps for which device type designation has been granted pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, or position lamps having the performance equivalent to it.

3. The requirements prescribed in the Announcement of Paragraph 3, Article 34 of the Safety Regulations in connection with the installation position, installation method, etc. of the position lamps shall be the requirements provided for in each of the following Items. In this case, the measuring methods for the illuminating surface, numbers and installation position of the position lamps shall be in accordance with the Attachment 94 "Measuring Method of Illuminating Surfaces, Numbers and Installation Positions of Lamps, etc. (Related to Sections 2 and 3 of Chapter 2)."

- (1) The number of position lamps shall be two or four. However, motor vehicles with a width of 0.8 m or less, whose headlamps with passing beam are mounted so that the outermost edge of the illuminating surface thereof is within 400 mm from the outermost part of the motor vehicle, may be provided with no position lamp on these sides.

- (2) The position lamps installed to motor vehicles other than motor cycles with or without sidecar and mini-sized motor vehicles with caterpillar tracks and sleds shall be mounted so that the upper edge of the illuminating surface thereof is at a height of 2.1 m or less above the ground and the lower edge is at a height of 0.35 m or more above the ground.
- (3) The position lamps installed to motor cycles with or without sidecar and mini-sized motor vehicles with caterpillar tracks and sleds shall be mounted so that the centre of the illuminating surface thereof is at a height of 2 m or less above the ground.
- (4) The position lamps shall be mounted so that the outermost edge of the illuminating surface thereof is within 400 mm (150 mm for trailers) from the outermost part of the motor vehicle.
- (5) The position lamps provided on both sides at the front end of a motor vehicle shall be mounted symmetrically with respect to the longitudinal centre plane of the motor vehicle. However, this provision shall not apply to position lamps installed to motor vehicles in which the right and left sides at the front end are not symmetric.
- (6) A device shall be provided, which indicates the on-off state of the position lamps to the driver in his seat. However, this provision shall not apply to large-sized special motor vehicles with a maximum speed of less than 35 km/h, small-sized special motor vehicles and motor vehicles provided with instruments, etc. which are located in front of the driver's seat and other front seats in parallel to the driver's seat and go on in interlocking with the position lamps.
- (7) The position lamps installed to the motor vehicles in parentheses of Item (4), Paragraph 6 of Article 39 and the motor vehicles in parentheses of Item (4), Paragraph 3 of Article 40 shall be constructed so as not to be turned off when the headlamps or front fog lamps are illuminated.
- (8) The position lamps shall be so constructed that they can be turned on and off simultaneously with the rear position lamps, front-end outline marker lamps, rear-end outline marker lamps, side marker lamps and number plate lamps. However, this provision shall not apply to cases where the motor vehicle is equipped with position lamps shared in common with parking lamps, rear position lamps shared in common with parking lamps, and parking lamps shared in common with

position lamps, rear position lamps and side marker lamps.

- (9) The position lamps shall not flash.
- (10) The direct light or reflected light of the position lamp shall not hamper the driving operations of the motor vehicle equipped with the position lamp concerned and of other motor vehicles.
- (11) Position lamps, in combination with either direction indicator lamps or hazard warning lamps, mounted on each side at the front shall be wired so that, when the direction indicator lamps or hazard warning lamps are in operation, one or both at the side where the direction is indicated will be put out, notwithstanding the requirement of Items (7) and (9).
- (12) The position lamps shall be mounted in such a way that the performance (in cases where the upper edge of the illuminating surface of the position lamp is at a height of less than 0.75 m above the ground, "15° below" in the requirement of Item (3) of the preceding Paragraph shall read as "5° below"; and in cases where the side marker lamp mounted at the front section of motor vehicles (except motor cycles with or without sidecar, three-wheeled motor vehicles, mini-sized motor vehicles with caterpillar tracks and sleds, and trailers) used exclusively for carriage of passengers with a passenger capacity of less than 10 persons, or of motor vehicles (except three-wheeled motor vehicles and trailers) used for carriage of goods with a gross vehicle weight of 3.5 tons or less, has a performance complementing the performance provided for in the said Item, "80° outward" in the requirement of the said Item shall read as "45° outward.") provided for in Paragraph 1 (except the provision concerned with Item (3) of the said Paragraph in the case of large-sized special motor vehicles (except pole trailers) and small-sized special motor vehicles) may not be hampered. For example, the lamp mountings or lens mountings shall not be loose or exhibit no excessive play.

4. The following position lamps enumerated below which exhibit no damage, etc. liable to hamper its function shall be regarded as complying with the requirements prescribed in each Item of the preceding Paragraph.

- (1) Position lamps having the same construction and provided at the same position as those mounted on designated motor vehicles, etc.;
- (2) Position lamps having the same construction and provided at the same position as the position lamp mounted on motor vehicles for which device type designation has been granted in connection with the

installation of lamps, reflex reflectors and direction indicator lamps pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, or position lamps having the performance equivalent to it.

Article 124 (Front-End Outline Marker Lamps)

1. The requirements prescribed in the Announcement of Paragraph 2, Article 34-2 of the Safety Regulations in connection with the colour of light, brightness, etc. of the front-end outline marker lamps shall be the requirements enumerated in each of the following Items. In this case, the illuminating surface of the front-end outline marker lamps shall be handled in accordance with the Attachment 94 “Measuring Method of Illuminating Surfaces, Numbers and Installation Positions of Lamps, etc. (Related to Sections 2 and 3 of Chapter 2).”

- (1) The illuminating light of a front-end outline marker lamp shall be clearly visible at night at a distance of 300 m from the front of the vehicle, and the beams from the position lamps shall not disturb other traffic. In this case, the front-end outline marker lamp with a light source of 5 watts or more and 30 watts or less, and an illuminating surface of 15 cm² or more that operates normally shall be regarded as complying with this requirement.
- (2) The colour of light of the front-end outline marker lamp shall be white.
- (3) The front-end outline marker lamps shall not have broken lamps, or lamps whose lens surfaces are badly smeared.

2. The following front-end outline marker lamps enumerated below which exhibit no damage, etc. liable to hamper its function shall be regarded as complying with the requirements prescribed in each Item of the preceding Paragraph.

- (1) Front-end outline marker lamps having the same construction and provided at the same position as those mounted on designated motor vehicles, etc.;
- (2) Front-end outline marker lamps for which device type designation has been granted pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, or front-end outline marker lamps having the performance equivalent to it.

3. The requirements prescribed in the Announcement of Paragraph 3,

Article 34-2 of the Safety Regulations in connection with the installation position, installation method, etc. of the front-end outline marker lamps shall be the requirements provided for in each of the following Items. In this case, the measuring methods for the illuminating surface, numbers and installation position of the front-end outline marker lamps shall be in accordance with the Attachment 94 “Measuring Method of Illuminating Surfaces, Numbers and Installation Positions of Lamps, etc. (Related to Sections 2 and 3 of Chapter 2).”

- (1) The front-end outline marker lamps installed to motor vehicles other than trailers shall be mounted so that the upper edge of the illuminating surface thereof is at least at a height of the horizontal plane which includes the uppermost edge of the front windshield.
- (2) The front-end outline marker lamps installed to trailers shall be mounted at a maximum mountable height.
- (3) The front-end outline marker lamps shall be mounted so that the outermost edge of the illuminating surface thereof is within 400 mm from the outermost part of the motor vehicle.
- (4) The front-end outline marker lamps provided on both sides at the front end of a motor vehicle shall be mounted symmetrically with respect to the longitudinal centre plane of the motor vehicle (except for front-end outline marker lamps installed to motor vehicles in which the right and left sides at the front end are not symmetric).
- (5) The front-end outline marker lamps shall be mounted at such a position that, when the illuminating surface thereof and the illuminating surface of the position lamp are projected on a vertical plane perpendicular to the longitudinal centre plane of the motor vehicle, these projected illuminating surfaces are located at least 200 mm apart from each other.
- (6) The illuminating surface of the front-end outline marker lamp shall be visible from every position in the range enclosed by the planes 20° above and 5° below the horizontal plane, including the horizontal line which passes the centre of the front-end outline marker lamp and is perpendicular to the forward direction of the motor vehicle, and enclosed by the plane 80° outward of the front-end outline marker lamp from the vertical plane that includes the centre of the front-end outline marker lamp and is parallel to the forward direction of the motor vehicle.

- (7) The front-end outline marker lamps shall be constructed so as not to be turned off when the position lamps are on.
- (8) The front-end outline marker lamps shall not flash.
- (9) The direct light or reflected light of the front-end outline marker lamp shall not hamper the driving operations of the motor vehicle equipped with the front-end outline marker lamp concerned and of other motor vehicles.
- (10) The front-end outline marker lamps shall be mounted in such a way that the performance provided for in the Paragraph 1 may not be hampered. For example, the lamp mountings or lens mountings shall not be loose or exhibit no excessive play.

4. The following front-end outline marker lamps enumerated below which exhibit no damage, etc. liable to hamper its function shall be regarded as complying with the requirements prescribed in each Item of the preceding Paragraph.

- (1) Front-end outline marker lamps having the same construction and provided at the same position as those mounted on designated motor vehicles, etc.;
- (2) Front-end outline marker lamps having the same construction and provided at the same position as the front-end outline marker lamp mounted on motor vehicles for which device type designation has been granted in connection with the installation of lamps, reflex reflectors and direction indicator lamps pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, or front-end outline marker lamps having the performance equivalent to it.

Article 125 (Front Reflex Reflectors)

1. The requirements prescribed in the Announcement of Paragraph 2, Article 35 of the Safety Regulations in connection with the colour of reflecting light, brightness, shape of reflecting surface, etc. of the front reflex reflectors shall be the requirements enumerated in each of the following Items. In this case, the reflecting surface of the front reflex reflectors shall be handled in accordance with the Attachment 94 “Measuring Method of Illuminating Surfaces, Numbers and Installation Positions of Lamps, etc. (Related to Sections 2 and 3 of Chapter 2).”

- (1) The reflected light of a front reflex reflector, when illuminated by a headlamp with driving beam (referring to the headlamp with driving beam provided for in Item (1), Paragraph 1, Article 39 (except those mounted on motor vehicles used for snow removal, civil engineering work and other special use that have been designated by the Director-General of District Transport Bureau, large-sized special motor vehicles with a maximum speed of less than 35 km/h and small-sized special motor vehicles for agricultural use) Hereinafter, the same in Articles 45 and 51.) located 150 m ahead of the front reflex reflector concerned at night, shall be clearly visible at that projection position. In this case, front reflex reflectors with a reflecting surface of 10 cm² or more shall be regarded as complying with this requirement.
 - (2) The reflecting surface of a front reflex reflector shall be neither a letter nor a triangle in shape. In this case, the shapes similar to simple letters or figures, such as O, I, U and 8, shall be regarded as complying with this requirement.
 - (3) The colour of reflecting light of the front reflex reflector shall be white.
 - (4) The front reflex reflectors shall not have broken reflex reflectors, or reflex reflectors whose reflecting surfaces are badly smeared.
2. The following front reflex reflectors enumerated below which exhibit no damage, etc. liable to hamper its function shall be regarded as complying with the requirements prescribed in each Item of the preceding Paragraph.
- (1) Front reflex reflectors having the same construction and provided at the same position as those mounted on designated motor vehicles, etc.;
 - (2) Front reflex reflectors for which device type designation has been granted pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, or front reflex reflectors having the performance equivalent to it.
3. The requirements prescribed in the Announcement of Paragraph 3, Article 35 of the Safety Regulations in connection with the installation position, installation method, etc. of the front reflex reflectors shall be the requirements provided for in each of the following Items. In this case, the measuring methods for the reflecting surface, numbers and installation position of the front reflex reflectors shall be in accordance with the Attachment 94 "Measuring Method of Illuminating Surfaces, Numbers and Installation Positions of Lamps, etc. (Related to Sections 2 and 3 of Chapter 2)."

- (1) The front reflex reflectors shall be mounted so that the upper edge of the reflecting surface thereof is at a height of 1.5 m or less above the ground and the lower edge is at a height of 0.25 m or more above the ground.
 - (2) The front reflex reflectors shall be mounted so that the outermost edge of the reflecting surface thereof is within 400 mm from the outermost part of the motor vehicle.
 - (3) The reflecting surface of the front reflex reflector to be provided on motor vehicles other than large-sized special motor vehicles (except pole trailers) and small-sized special motor vehicles shall be visible from every position in the range enclosed by the planes 10° above and 10° below (in cases where the upper edge of the reflecting surface of the front reflex reflector is at a height of less than 0.75 m, the plane 5° below) the horizontal plane, including the horizontal line which passes the centre of the front reflex reflector and is perpendicular to the forward direction of the motor vehicle, and enclosed by the planes 30° inward (the plane 10° inward in the case of the front reflex reflector to be mounted on trailers) of the front reflex reflector and 30° outward of the front reflex reflector from the vertical plane that includes the centre of the front reflex reflector and is parallel to the forward direction of the motor vehicle.
 - (4) The mounting positions of the front reflex reflectors shall comply with the requirements of Item (5), Paragraph 3 of Article 123, in addition to those provided for in each of the preceding Items.
 - (5) The front reflex reflector shall be so mounted that it will not indicate to the rear of the motor vehicle.
 - (6) The front reflex reflector shall be mounted in such a way that the performance provided for in the Paragraph 1 may not be hampered. For example, the lamp mountings or lens mountings shall not be loose or exhibit no excessive play.
4. The following front reflex reflectors enumerated below which exhibit no damage, etc. liable to hamper its function shall be regarded as complying with the requirements prescribed in each Item of the preceding Paragraph.
- (1) Front reflex reflectors having the same construction and provided at the same position as those mounted on designated motor vehicles, etc.;

- (2) Front reflex reflectors having the same construction and provided at the same position as the front reflex reflector mounted on motor vehicles for which device type designation has been granted in connection with the installation of lamps, reflex reflectors and direction indicator lamps pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, or front reflex reflectors having the performance equivalent to it.

Article 126 (Side Marker Lamps and Side Reflex Reflectors)

1. The requirements prescribed in the Announcement of Paragraph 2, Article 35-2 of the Safety Regulations in connection with the colour of light, brightness, etc. of the side marker lamps shall be the requirements enumerated in each of the following Items. In this case, the illuminating surface of the side marker lamps shall be handled in accordance with the Attachment 94 “Measuring Method of Illuminating Surfaces, Numbers and Installation Positions of Lamps, etc. (Related to Sections 2 and 3 of Chapter 2).”

- (1) The illuminating light of a side marker lamp shall be clearly visible at night at a distance of 150 m from the side of the vehicle, and the beams from the position lamps shall not disturb other traffic. In this case, the side marker lamp with a light source of 3 watts or more and 30 watts or less, and an illuminating surface of 10 cm² or more that operates normally shall be regarded as complying with this requirement.
- (2) The colour of light of the side marker lamp shall be amber. However, the colour of light may be red in the case of the side marker lamp that is provided at the rear end and is integral, from the standpoint of construction, with the rear position lamp, rear-end outline marker lamp, rear fog lamp, stop lamp or rear reflex reflector, or shared in common with these lamps.
- (3) The illuminating surface of a side marker lamp to be provided on ordinary-sized motor vehicles with a length exceeding 6 m shall be visible from every position in the range enclosed by the planes 10° above and 10° below the horizontal plane, including the horizontal line which passes the centre of the side marker lamp and is parallel to the forward direction of the motor vehicle, and enclosed by the planes 45° forward and 45° rearward of the vertical plane which passes the centre of the side marker lamp and is perpendicular to the forward direction of the motor vehicle.

(4) The illuminating surface of a side marker lamp to be provided on motor vehicles with a length of 6 m or less shall be visible from every position in the range enclosed by the planes 10° above and 10° below the horizontal plane, including the horizontal line which passes the centre of the side marker lamp and is parallel to the forward direction of the motor vehicle, and enclosed by the planes 30° forward and 30° rearward of the vertical plane which passes the centre of the side marker lamp and is perpendicular to the forward direction of the motor vehicle.

(5) The side marker lamps shall not have broken lamps, or lamps whose lens surfaces are badly smeared.

2. The following side marker lamps enumerated below which exhibit no damage, etc. liable to hamper its function shall be regarded as complying with the requirements prescribed in each Item of the preceding Paragraph.

(1) Side marker lamps having the same construction and provided at the same position as those mounted on designated motor vehicles, etc.;

(2) Side marker lamps for which device type designation has been granted pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, or side marker lamps having the performance equivalent to it.

3. The requirements prescribed in the Announcement of Paragraph 3, Article 35-2 of the Safety Regulations in connection with the installation position, installation method, etc. of the side marker lamps shall be the requirements provided for in each of the following Items. In this case, the measuring methods for the illuminating surface, numbers and installation position of the side marker lamps shall be in accordance with the Attachment 94 "Measuring Method of Illuminating Surfaces, Numbers and Installation Positions of Lamps, etc. (Related to Sections 2 and 3 of Chapter 2)."

(1) The side marker lamps installed to motor vehicles other than motor cycles with or without side car and mini-sized motor vehicles with caterpillar tracks and sleds shall be mounted so that the upper edge of the illuminating surface thereof is at a height of 2.1 m or less above the ground and the lower edge is at a height of 0.25 m or more above the ground.

(2) The side marker lamps installed to motor cycles with or without sidecar and mini-sized motor vehicles with caterpillar tracks and sleds shall be mounted so that the centre of the illuminating surface thereof

is at a height of 2 m or less above the ground.

- (3) The side marker lamps installed to ordinary-sized motor vehicles with a length exceeding 6 m shall be mounted so that the distance between the illuminating surfaces thereof is within 3 m (at a mountable position within 4 m in the case of side marker lamps installed to motor vehicles used for snow removal, civil engineering work and other special use, which cannot be mounted in such a way that the distance between the illuminating surfaces of the side marker lamps may be within 3 m because of the vehicle construction).
- (4) The side marker lamps installed to ordinary-sized motor vehicles with a length exceeding 6 m shall be mounted so that the extreme front end of the illuminating surface of at least one side marker lamp on right and left sides, respectively, is $\frac{1}{3}$ or more of the length of the motor vehicle concerned from the front end of the motor vehicle, and the rearmost edge of the illuminating surface thereof is $\frac{1}{3}$ or more of the length of the motor vehicle concerned from the rear end of the motor vehicle.
- (5) The side marker lamps installed at the front end of a motor vehicle with a length exceeding 6 m shall be mounted so that the extreme front end of the illuminating surface thereof is within 3 m from the front end of the motor vehicle (at a mountable position near the front end of the motor vehicle in the case of side marker lamps installed to motor vehicles used for snow removal, civil engineering work and other special use, which cannot be mounted within 3 m from the front end of the motor vehicle because of the vehicle construction).
- (6) The side marker lamps installed at the rear end of a motor vehicle with a length exceeding 6 m shall be mounted so that the rearmost end of the illuminating surface thereof is within 1 m from the rear end of the motor vehicle (at a mountable position near the rear end of the motor vehicle in the case of side marker lamps installed to motor vehicles used for snow removal, civil engineering work and other special use, which cannot be mounted within 1 m from the rear end of the motor vehicle because of the vehicle construction).
- (7) The side marker lamps installed at the front end of a motor vehicle with a length of 6 m or less shall be mounted so that the extreme front end of the illuminating surface thereof is within $\frac{1}{3}$ of the length of the motor vehicle concerned from the front end of the motor vehicle.
- (8) The side marker lamps installed at the rear end of a motor vehicle with

a length of 6 m or less shall be mounted so that the rearmost edge of the illuminating surface thereof is within 1/3 of the length of the motor vehicle concerned from the rear end of the motor vehicle.

- (9) The side marker lamps shall comply with the requirements provided for in Item (1), Paragraph 3 of the next Article. However, the side marker lamps which serve also as direction indicator lamps or auxiliary direction indicator lamps (hereinafter referred to as the “direction indicator lamps, etc.” in this Article) shall be constructed so that, when the direction indicator lamp, etc. is in operation, the side marker lamp which is serving as the said direction indicator lamp, etc. in operation is turned off. Furthermore, in the case of side marker lamps (except those installed to motor cycles with or without sidecar and mini-sized motor vehicles with caterpillar tracks and sleds) complementing the performance of the direction indicator lamp provided at the front end or the rear end pursuant to the provision of Paragraph 3 of Article 41 of the Safety Regulations, they shall be constructed so that, when the direction indicator lamp, etc. is in operation, the side marker lamp flashes simultaneously with the said direction indicator lamp, etc. in operation.
- (10) The side marker lamp other than those shared in common with the direction indicator lamp, etc. shall be so constructed that, when the hazard warning lamps are in operation, the side marker lamp flashes simultaneously with the said hazard warning lamp.
- (11) The direct light or reflected light of the side marker lamp shall not hamper the driving operations of the motor vehicle equipped with the side marker lamp concerned and of other motor vehicles.
- (12) The side marker lamp whose colour of light is red shall be mounted so that it will not indicate to the front.
- (13) The side marker lamps shall be mounted in such a way that the performance (in cases where the upper edge of the illuminating surface of the side marker lamp is at a height of less than 0.75 m above the ground, “10° below” in the requirement of Item (3) of the preceding Paragraph shall read as “5° below”; and in cases where the side marker lamp (only limited to those whose colour of light is amber) mounted at the front section or the rear section of motor vehicles (except motor cycles with or without sidecar, three-wheeled motor vehicles, mini-sized motor vehicles with caterpillar tracks and sleds, and trailers) used exclusively for carriage of passengers with a passenger capacity of less than 10 persons, or of motor vehicles (except three-wheeled

motor vehicles and trailers) used for carriage of goods with a gross vehicle weight of 3.5 tons or less, has a performance complementing the performance of the direction indicator lamp mounted at the front section or the rear section, that is provided for in “a” in the Table of Item (3), Paragraph 1 of Article 56, “80° outward” in the requirement of “a” in the same Table shall read as “45° outward.”) provided for in Paragraph 1 (except the provision concerned with Item (3) of the said Paragraph in the case of large-sized special motor vehicles (except pole trailers) and small-sized special motor vehicles) may not be hampered. For example, the lamp mountings or lens mountings shall not be loose or exhibit no excessive play.

4. The following side marker lamps enumerated below which exhibit no damage, etc. liable to hamper its function shall be regarded as complying with the requirements prescribed in each Item of the preceding Paragraph.

- (1) Side marker lamps having the same construction and provided at the same position as those mounted on designated motor vehicles, etc.;
- (2) Side marker lamps having the same construction and provided at the same position as the side marker lamp mounted on motor vehicles for which device type designation has been granted in connection with the installation of lamps, reflex reflectors and direction indicator lamps pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, or side marker lamps having the performance equivalent to it.

5. The requirements prescribed in the Announcement of Paragraph 4, Article 35-2 of the Safety Regulations in connection with the colour of reflecting light, brightness, shape of reflecting surface, etc. of the side reflex reflectors shall be the requirements enumerated in each of the following Items. In this case, the reflecting surface of the side reflex reflectors shall be handled in accordance with the Attachment 94 “Measuring Method of Illuminating Surfaces, Numbers and Installation Positions of Lamps, etc. (Related to Sections 2 and 3 of Chapter 2).”

- (1) The reflecting light of a side reflex reflector, when lit by a headlamp with driving beam located 150 m from the side of the side reflex reflector concerned at night, shall be clearly visible at that projection position. In this case, the side reflex reflector with a reflecting surface of 10 cm² or more shall be regarded as complying with this requirement.
- (2) The reflecting surface of a side reflex reflector shall be neither a letter nor a triangle in shape. In this case, the shapes similar to simple letters

or figures, such as O, I, U and 8, shall be regarded as complying with this requirement.

- (3) The colour of reflecting light of the side reflex reflector shall be amber. However, the colour of light may be red in the case of the side reflex reflector that is provided at the rear end and is integral, from the standpoint of construction, with the rear position lamp, rear-end outline marker lamp, rear fog lamp, stop lamp or side marker lamp provided at the rear end.
- (4) The side reflex reflectors shall not have broken lamps or reflex reflectors, or lamps or reflex reflectors whose lens surfaces or reflecting surfaces are badly smeared.

6. The following side reflex reflectors enumerated below which exhibit no damage, etc. liable to hamper its function shall be regarded as complying with the requirements prescribed in each Item of the preceding Paragraph.

- (1) Side reflex reflectors having the same construction and provided at the same position as those mounted on designated motor vehicles, etc.;
- (2) Side reflex reflectors for which device type designation has been granted pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, or side reflex reflectors having the performance equivalent to it.

7. The requirements prescribed in the Announcement of Paragraph 5, Article 35-2 of the Safety Regulations in connection with the installation position, installation method, etc. of the side reflex reflectors shall be the requirements provided for in each of the following Items. In this case, the measuring methods for the reflecting surface, numbers and installation position of the side reflex reflectors shall be in accordance with the Attachment 94 "Measuring Method of Illuminating Surfaces, Numbers and Installation Positions of Lamps, etc. (Related to Sections 2 and 3 of Chapter 2)."

- (1) The side reflex reflectors installed to motor vehicles other than motor cycles with or without sidecar and mini-sized motor vehicles with caterpillar tracks and sleds shall be mounted so that the upper edge of the reflecting surface thereof is at a height of 1.5 m or less above the ground and the lower edge is at a height of 0.25 m or more above the ground.
- (2) The reflecting surface of the side reflex reflector to be provided on motor vehicles other than motor cycles with or without sidecar,

three-wheeled motor vehicles and mini-sized motor vehicles with caterpillar tracks and sleds shall be visible from every position in the range enclosed by the planes 10° above and 10° below (in cases where the upper edge of the reflecting surface of the side reflex reflector is at a height of less than 0.75 m, the plane 5° below) the horizontal plane, including the horizontal line which passes the centre of the side reflex reflector and is parallel to the forward direction of the motor vehicle, and enclosed by the planes 45° forward and 45° backward of the side reflex reflector from the vertical plane that includes the centre of the side reflex reflector and is perpendicular to the forward direction of the motor vehicle.

- (3) The mounting positions of the side reflex reflectors shall comply with the requirements of Items (2) through (8) of Paragraph 3, in addition to those provided for in the two preceding Items.
 - (4) The side reflex reflector shall be mounted so that the reflecting light of the side reflex reflector whose colour of reflecting light is red will not indicate to the rear of the motor vehicle.
 - (5) The side reflex reflector shall be mounted in such a way that the performance provided for in Paragraph 5 may not be hampered. For example, the lamp mountings or lens mountings shall not be loose or exhibit no excessive play.
8. The following side reflex reflectors enumerated below which exhibit no damage, etc. liable to hamper its function shall be regarded as complying with the requirements prescribed in each Item of the preceding Paragraph.
- (1) Side reflex reflectors having the same construction and provided at the same position as those mounted on designated motor vehicles, etc.;
 - (2) Side reflex reflectors having the same construction and provided at the same position as the side reflex reflector mounted on motor vehicles for which device type designation has been granted in connection with the installation of lamps, reflex reflectors and direction indicator lamps pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, or side reflex reflectors having the performance equivalent to it.

Article 127 (Number Plate Lamps)

1. The requirements prescribed in the Announcement of Paragraph 2, Article 36 of the Safety Regulations in connection with the colour of light,

brightness, etc. of the number plate lamps shall be the requirements enumerated in each of the following Items.

- (1) The number plate lamp shall illuminate in such a way that the indications, such as numbers, of the motor vehicle registration number plate, the number plate permitting temporary operation, the number plate permitting forwarding operation or the vehicle number plate can be clearly visible from a distance of 20 m to the rear at night. In this case, the number plate lamps which have an illumination intensity of 30 lux or more at the number plate surface when subjected to the measurement by a number plate lamp tester and operate normally shall be regarded as complying with this requirement.
- (2) The colour of light of the number plate lamp shall be white.
- (3) The number plate lamps shall not have broken lamps, or lamps whose lens surfaces are badly smeared.

2. The following number plate lamps enumerated below which exhibit no damage, etc. liable to hamper its function shall be regarded as complying with the requirements prescribed in each Item of the preceding Paragraph.

- (1) Number plate lamps having the same construction and provided at the same position as the number plate lamp mounted on designated motor vehicles, etc.;
- (2) Illuminated character type motor vehicle registration number plates provided at the rear, which has been recognized as complying with Paragraph 3 of Article 11 of the Enforcement Regulations.

3. The requirement prescribed in the Announcement of Paragraph 3 of Article 36 of the Safety Regulations in connection with the installation position, installation method, etc. of the number plate lamps shall be the requirements provided for in each of the following Items.

- (1) The number plate lamps shall be constructed so as not to be turned off at the driver's seat, or constructed so as not to be turned off when the headlamps, front fog lamps or position lamps are on. However, a device may be provided, which prevents the number plate lamps from being turned on when the headlamps or front fog lamps are turned on, except cases where the headlamps must be turned on pursuant to the provision of Paragraph 1 of Article 52 of the Road Traffic Act.
- (2) The number plate lamp shall not flash.

- (3) The direct light or reflected light of the number plate lamp shall not hamper the driving operations of the motor vehicle equipped with the number plate lamp concerned and of other motor vehicles.
 - (4) The number plate lamp shall be mounted in such a way that the performance provided for in Paragraph 1 may not be hampered. For example, the lamp mountings or lens mountings shall not be loose or exhibit no excessive play.
4. The following number plate lamps enumerated below which exhibit no damage, etc. liable to hamper its function shall be regarded as complying with the requirements prescribed in each Item of the preceding Paragraph.
- (1) Number plate lamps having the same construction and provided at the same position as those mounted on designated motor vehicles, etc.;
 - (2) Number plate lamps having the same construction and provided at the same position as number plate lamps mounted on motor vehicles for which device type designation has been granted in connection with the installation of lamps, reflex reflectors and direction indicator lamps pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, or number plate lamps having the performance equivalent to it.

Article 128 (Rear Position Lamps)

1. The requirements prescribed in the Announcement of Paragraph 2, Article 37 of the Safety Regulations in connection with the colour of light, brightness, etc. of the rear position lamps shall be the requirements enumerated in each of the following Items. In this case, the illuminating surface of the rear position lamps shall be handled in accordance with the Attachment 94 "Measuring Method of Illuminating Surfaces, Numbers and Installation Positions of Lamps, etc. (Related to Sections 2 and 3 of Chapter 2)."

- (1) The illuminating light of a rear position lamp shall be clearly visible at night at a distance of 300 m from the rear of the vehicle, and the beams from the rear position lamps shall not disturb other traffic. In this case, the rear position lamp with a light source of 5 watts or more, and an illuminating surface of 15 cm² or more (for rear position lamps installed to motor vehicles manufactured on or after January 1, 2006, a light source of 5 watts or more and 30 watts or less, and an illuminating surface of 15 cm² or more) that operates normally shall be

regarded as complying with this requirement.

- (2) The colour of light of a rear position lamp shall be red.
- (3) The illuminating surface of the rear position lamp shall be visible from every position in the range enclosed by the planes 15° above and 15° below the horizontal plane, including the horizontal line which passes the centre of the rear position lamp and is perpendicular to the forward direction of the motor vehicle, and enclosed by the planes 45° inward of the rear position lamp and 80° outward of the rear position lamp from the vertical plane that includes the centre of the rear position lamp and is parallel to the forward direction of the motor vehicle.
- (4) The rear position lamps shall not have broken lamps, or lamps whose lens surfaces are badly smeared.

2. The following rear position lamps enumerated below which exhibit no damage, etc. liable to hamper its function shall be regarded as complying with the requirements prescribed in each Item of the preceding Paragraph.

- (1) Rear position lamps having the same construction and provided at the same position as those mounted on designated motor vehicles, etc.;
- (2) Rear position lamps for which device type designation has been granted pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, or rear position lamps having the performance equivalent to it.

3. The requirements prescribed in the Announcement of Paragraph 3, Article 37 of the Safety Regulations in connection with the installation position, installation method, etc. of the rear position lamps shall be the requirements provided for in each of the following Items. In this case, the measuring methods for the illuminating surface, numbers and installation position of the rear position lamps shall be in accordance with the Attachment 94 "Measuring Method of Illuminating Surfaces, Numbers and Installation Positions of Lamps, etc. (Related to Sections 2 and 3 of Chapter 2)."

- (1) The rear position lamp shall comply with the requirements of Item (1), Paragraph 3 of the preceding Article which apply mutatis mutandis.
- (2) The rear position lamps installed to motor vehicles other than motor cycles with or without sidecar and mini-sized motor vehicles with caterpillar tracks and sleds shall be mounted so that the upper edge of the illuminating surface thereof is at a height of 2.1 m or less above the

ground and the lower edge is at a height of 0.35 m or more above the ground (at a maximum mountable height for rear position lamps installed to semi-trailers, which cannot be mounted at that height of 0.35 or more above the ground because of the vehicle construction).

- (3) The rear position lamps installed to motor cycles with or without sidecar and mini-sized motor vehicles with caterpillar tracks and sleds shall be mounted so that the centre of the illuminating surface thereof is at a height of 2 m or less above the ground.
- (4) The rear position lamps provided on both sides at the rear end of a motor vehicle shall be mounted so that the outermost edge of the illuminating surface of the outermost rear position lamp is within 400 mm from the outermost part of the motor vehicle.
- (5) The rear position lamps provided on both sides at the rear end of a motor vehicle shall be mounted symmetrically with respect to the longitudinal centre plane of the motor vehicle (except the rear position lamps of motor vehicles in which the right and left sides at the rear end are not symmetric).
- (6) A device shall be provided, which indicates the on-off state of the rear position lamps to the driver in his seat. However, this provision shall not apply to large-sized special motor vehicles with a maximum speed of less than 35 km/h, small-sized special motor vehicles and motor vehicles provided with instruments, etc. which are located in front of the driver's seat and other front seats in parallel to the driver's seat and go on in interlocking with the rear position lamps.
- (7) The rear position lamps shall not flash.
- (8) The direct light or reflected light of the rear position lamp shall not hamper the driving operations of the motor vehicle equipped with the rear position lamp concerned and of other motor vehicles.
- (9) The rear position lamps shall be mounted in such a way that they will not indicate to the front of the motor vehicle.
- (10) The rear position lamps shall be mounted in such a way that the performance (in cases where the upper edge of the illuminating surface of the rear position lamp is at a height of less than 0.75 m above the ground, "15° below" in the requirement of Item (3) of the preceding Paragraph shall read as "5° below"; and in cases where the side marker lamp mounted at the front section of motor vehicles (except motor

cycles with or without sidecar, three-wheeled motor vehicles, mini-sized motor vehicles with caterpillar tracks and sleds, and trailers) used exclusively for carriage of passengers with a passenger capacity of less than 10 persons, or of motor vehicles (except three-wheeled motor vehicles and trailers) used for carriage of goods with a gross vehicle weight of 3.5 tons or less, has a performance complementing the performance provided for in the said Item, “80° outward” in the requirement of the said Item shall read as “45° outward.”) provided for in Paragraph 1 (except the provision concerned with Item (3) of the said Paragraph in the case of large-sized special motor vehicles (except pole trailers) and small-sized special motor vehicles) may not be hampered. For example, the lamp mountings or lens mountings shall not be loose or exhibit no excessive play.

4. The following rear position lamps enumerated below which exhibit no damage, etc. liable to hamper its function shall be regarded as complying with the requirements prescribed in each Item of the preceding Paragraph.

- (1) Rear position lamps having the same construction and provided at the same position as those mounted on designated motor vehicles, etc.;
- (2) Rear position lamps having the same construction and provided at the same position as the rear position lamp mounted on motor vehicles for which device type designation has been granted in connection with the installation of lamps, reflex reflectors and direction indicator lamps pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, or rear position lamps having the performance equivalent to it.

Article 129 (Rear Fog Lamps)

1. The requirements prescribed in the Announcement of Paragraph 2, Article 37-2 of the Safety Regulations in connection with the colour of light, brightness, etc. of the rear fog lamps shall be the requirements enumerated in each of the following Items. In this case, the illuminating surface of the rear fog lamps shall be handled in accordance with the Attachment 94 “Measuring Method of Illuminating Surfaces, Numbers and Installation Positions of Lamps, etc. (Related to Sections 2 and 3 of Chapter 2).”

- (1) The beams from the rear fog lamps shall not disturb other traffic. In this case, the rear fog lamp with a light source of 35 watts or less and an illuminating surface of 140 cm² or less that shall operate normally shall be regarded as complying with this requirement.

- (2) The colour of light of the rear fog lamp shall be red.
- (3) The rear fog lamps shall not have broken lamps, or lamps whose lens surfaces are badly smeared.

2. The following rear fog lamps enumerated below which exhibit no damage, etc. liable to hamper its function shall be regarded as complying with the requirements prescribed in each Item of the preceding Paragraph.

- (1) Rear fog lamps having the same construction and provided at the same position as those mounted on designated motor vehicles, etc.;
- (2) Rear fog lamps for which device type designation has been granted pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, or rear fog lamps having the performance equivalent to it.

3. The requirements prescribed in the Announcement of Paragraph 3, Article 37-2 of the Safety Regulations in connection with the installation position, installation method, etc. of the rear fog lamps shall be the requirements provided for in each of the following Items. In this case, the measuring methods for the illuminating surface, numbers and installation position of the rear fog lamps shall be in accordance with the Attachment 94 "Measuring Method of Illuminating Surfaces, Numbers and Installation Positions of Lamps, etc. (Related to Sections 2 and 3 of Chapter 2)."

- (1) The number of rear fog lamps shall be two or less.
- (2) The rear fog lamp shall be constructed so as to be turned on only when the headlamps or front fog lamps are on and so as to be turned off when either the headlamps or the front fog lamps are on.
- (3) The rear fog lamp shall be so constructed that it may comply with either one of the following requirements.

A. When the engine is stopped and the door at the driver's seat is opened, if the switch of the rear fog lamps is in the ON position, the alarm with audible sound shall be set off so as to tell the driver in his seat of this ON state.

B. When the rear fog lamps are turned on with the headlamps or front fog lamps are turned off, the rear position lamps shall be on. Furthermore, the rear fog lamps shall be kept turned off until they are turned on again, when the headlamps or front fog lamps are turned on after the rear position lamps have been turned off.

- (4) The rear fog lamps installed to motor vehicles other than motor cycles with or without sidecar and mini-sized motor vehicles with caterpillar tracks and sleds shall be mounted so that the upper edge of the illuminating surface thereof is at a height of 1 m or less above the ground and the lower edge is at a height of 0.25 m or more above the ground.
- (5) The rear fog lamps installed to motor cycles with or without sidecar and mini-sized motor vehicles with caterpillar tracks and sleds shall be mounted so that the centre of the illuminating surface thereof is at a height of 1 m or less above the ground.
- (6) The illuminating surface of a rear fog lamp shall be located 100 mm or more apart from the illuminating surface of the stop lamp.
- (7) The illuminating surface of the rear fog lamp to be provided on motor vehicles other than large-sized special motor vehicles (except pole trailers) and small-sized special motor vehicles shall be visible from every position in the range enclosed by the planes 5° above and 5° below the horizontal plane, including the horizontal line which passes the centre of the rear fog lamp and is perpendicular to the forward direction of the motor vehicle, and enclosed by the planes 25° inward of the rear fog lamp and 25° outward of the rear fog lamp from the vertical plane that includes the centre of the rear fog lamp and is parallel to the forward direction of the motor vehicle.
- (8) When a rear fog lamp is provided, it shall be installed so that the centre of the rear fog lamp concerned may come on the longitudinal centre line of the motor vehicle or come at the right side therefrom.
- (9) A device shall be provided, which indicates the on-off state of the rear fog lamps to the driver in his seat.
- (10) The mounting positions of the rear fog lamps on both sides at the rear end of a motor vehicle shall comply with the requirements of item (5), Paragraph 3 of Article 128, in addition to those provided for in Items (4) through (7).
- (11) The rear fog lamp shall not flash.
- (12) The direct light or reflected light of the rear fog lamp shall not hamper the driving operations of the motor vehicle equipped with the rear fog lamp concerned and of other motor vehicles.

- (13) The rear fog lamp shall be so mounted that it will not indicate to the front of the motor vehicle.
 - (14) The rear fog lamp shall be mounted in such a way that the performance provided for in Paragraph 1 may not be hampered. For example, the lamp mountings or lens mountings shall not be loose or exhibit no excessive play.
4. The following rear fog lamps enumerated below which exhibit no damage, etc. liable to hamper its function shall be regarded as complying with the requirements prescribed in each Item of the preceding Paragraph.
- (1) Rear fog lamps having the same construction and provided at the same position as those mounted on designated motor vehicles, etc.;
 - (2) Rear fog lamps having the same construction and provided at the same position as the rear fog lamp mounted on motor vehicles for which device type designation has been granted in connection with the installation of lamps, reflex reflectors and direction indicator lamps pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, or rear fog lamp having the performance equivalent to it.

Article 130 (Parking Lamps)

1. The requirements prescribed in the Announcement of Paragraph 2, Article 37-3 of the Safety Regulations in connection with the colour of light, brightness, etc. of the parking lamps shall be the requirements enumerated in each of the following Items. In this case, the illuminating surface of the parking lamps shall be handled in accordance with the Attachment 94 "Measuring Method of Illuminating Surfaces, Numbers and Installation Positions of Lamps, etc. (Related to Sections 2 and 3 of Chapter 2)."

- (1) The illuminating light of a parking lamp at the front or the rear shall be clearly visible at night at a distance of 150 m from the front or the rear of the vehicle, respectively. As for a parking lamp on each side, its illuminating light shall be clearly visible at night at a distance of 150 m from the front and the rear of the vehicle, and its beams shall not disturb other traffic. In this case, the parking lamp with a light source of 3 watts or more and 30 watts or less, and an illuminating surface of 10 cm² or more that operates normally shall be regarded as complying with this requirement.

- (2) The colour of light of a parking lamp at the front shall be white; the colour of light of a parking lamp at the rear shall be red; and the colour of light of a parking lamp on each side shall be white in the forward direction of the motor vehicle and red in the backward direction of the motor vehicle. However, the colour of light may be amber in the case of a parking lamp that is integral, from the standpoint of construction, with the side marker lamp or the direction indicator lamp provided on each side of the motor vehicle.
 - (3) The illuminating surface of a parking lamp at the front or the rear shall be visible from every position in the range enclosed by the planes 15° above and 15° below the horizontal plane, including the horizontal line which passes the centre of the parking lamp and is perpendicular to the forward direction of the motor vehicle, and enclosed by a vertical plane that includes the centre of the parking lamp and is parallel to the forward direction of the motor vehicle and a plane 45° outward of the parking lamp from the said vertical plane.
 - (4) The illuminating surface of a parking lamp on each side shall be visible from every position in the range enclosed by the planes 15° above and 15° below the horizontal plane, including the horizontal line which passes the centre of the parking lamp and is perpendicular to the forward direction of the motor vehicle, and enclosed by a vertical plane that includes the centre of the parking lamp and is parallel to the forward direction of the motor vehicle and a vertical plane 45° outward of the parking lamp from the said vertical plane in the forward direction, as well as in the range enclosed by the planes 15° above and 15° below the horizontal plane, including the horizontal line which passes the centre of the parking lamp and is parallel to the forward direction of the motor vehicle, and enclosed by a vertical plane that includes the centre of the parking lamp and is parallel to the forward direction of the motor vehicle and a vertical plane 45° outward of the parking lamp from the said vertical plane in the rearward direction.
 - (5) The parking lamps shall not have broken lamps, or lamps whose lens surfaces are badly smeared.
2. The following parking lamps enumerated below which exhibit no damage, etc. liable to hamper its function shall be regarded as complying with the requirements prescribed in each Item of the preceding Paragraph.
- (1) Parking lamps having the same construction and provided at the same position as those mounted on designated motor vehicles, etc.;

(2) Parking lamps for which device type designation has been granted pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, or parking lamps having the performance equivalent to it.

3. The requirements prescribed in the Announcement of Paragraph 3, Article 37-3 of the Safety Regulations in connection with the installation position, installation method, etc. of the parking lamps shall be the requirements provided for in each of the following Items. In this case, the measuring methods for the illuminating surface, numbers and installation position of the parking lamps shall be in accordance with the Attachment 94 "Measuring Method of Illuminating Surfaces, Numbers and Installation Positions of Lamps, etc. (Related to Sections 2 and 3 of Chapter 2)."

(1) The parking lamp provided on each side of the front or the rear shall be mounted so that the outermost edge of the illuminating surface thereof is within 400 mm (within 150 mm in the case of trailers) from the outermost part of the motor vehicle.

(2) The parking lamp provided on each side of the front or the rear shall be mounted symmetrically with respect to the longitudinal centre plane of the motor vehicle. However, this provision shall not apply to parking lamps installed to motor vehicles in which the right and left sides at the front or the rear are not symmetric.

(3) The parking lamps at the rear shall be wired so that all of them will be lit simultaneously. However, for motor vehicles other than those with a length of 6 m or more or a width of 2 m or more may be constructed so that the parking lamp only on the right side or only on the left side may be turned on.

(4) The parking lamps at the front shall be so constructed that they may be turned on only when the parking lamps at the rear (in cases where a tractor and a trailer are coupled, the rear of the trailer) are lit.

(5) The parking lamps shall be wired so that they may be turned on while the engine is not in operation.

(6) The parking lamps shall not flash.

(7) The direct light or reflected light of the parking lamp shall not hamper the driving operations of the motor vehicle equipped with the parking lamp concerned and of other motor vehicles.

(8) The parking lamp whose colour of light is red shall be so mounted that

it will not indicate to the front of the motor vehicle.

- (9) The parking lamps shall be mounted in such a way that the performance (in cases where the upper edge of the illuminating surface of the parking lamp is at a height of less than 0.75 m above the ground, “15° below” in the requirements of Items (3) and (4) of the preceding Paragraph shall read as “5° below”) provided for in Paragraph 1 (except the provisions concerned with Items (3) and (4) of the said Paragraph in the case of large-sized special motor vehicles (except pole trailers) and small-sized special motor vehicles) may not be hampered. For example, the lamp mountings or lens mountings shall not be loose or exhibit no excessive play.

4. The following parking lamps enumerated below which exhibit no damage, etc. liable to hamper its function shall be regarded as complying with the requirements prescribed in each of the preceding Items.

- (1) Parking lamps having the same construction and provided at the same position as those mounted on designated motor vehicles, etc.;
- (2) Parking lamps having the same construction and provided at the same position as the parking lamp mounted on motor vehicles for which device type designation has been granted in connection with the installation of lamps, reflex reflectors and direction indicator lamps pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, or parking lamps having the performance equivalent to it.

Article 131 (Rear-End Outline Marker Lamps)

1. The requirements prescribed in the Announcement of Paragraph 2, Article 37-4 of the Safety Regulations in connection with the colour of light, brightness, etc. of the rear-end outline marker lamps shall be the requirements enumerated in each of the following Items. In this case, the illuminating surface of the rear-end outline marker lamps shall be handled in accordance with the Attachment 94 “Measuring Method of Illuminating Surfaces, Numbers and Installation Positions of Lamps, etc. (Related to Sections 2 and 3 of Chapter 2).”

- (1) The illuminating light of a rear-end outline marker lamp shall be clearly visible at night at a distance of 300 m from the rear of the vehicle, and the beams from the rear-end outline marker lamps shall not disturb other traffic. In this case, the rear-end outline marker lamp with a light source of 5 watts or more and 30 watts or less, and an

illuminating surface of 15 cm² or more that operates normally shall be regarded as complying with this requirement.

- (2) The colour of light of the rear-end outline marker lamp shall be red.
- (3) The rear-end outline marker lamps shall not have broken lamps, or lamps whose lens surfaces are badly smeared.

2. The following rear-end outline marker lamps enumerated below which exhibit no damage, etc. liable to hamper its function shall be regarded as complying with the requirements prescribed in each Item of the preceding Paragraph.

- (1) Rear-end outline marker lamps having the same construction and provided at the same position as those mounted on designated motor vehicles, etc.;
- (2) Rear-end outline marker lamps for which device type designation has been granted pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, or rear-end outline marker lamps having the performance equivalent to it.

3. The requirements prescribed in the Announcement of Paragraph 3, Article 37-4 of the Safety Regulations in connection with the installation position, installation method, etc. of the rear-end outline marker lamps shall be the requirements provided for in each of the following Items. In this case, the measuring methods for the illuminating surface, numbers and installation position of the rear-end outline marker lamps shall be in accordance with the Attachment 94 "Measuring Method of Illuminating Surfaces, Numbers and Installation Positions of Lamps, etc. (Related to Sections 2 and 3 of Chapter 2)."

- (1) The rear-end outline marker lamps shall be mounted at a maximum mountable height.
- (2) The rear-end outline marker lamps shall be mounted so that the outermost edge of the illuminating surface thereof is within 400 mm from the outermost part of the motor vehicle.
- (3) The rear-end outline marker lamps provided on both sides shall be mounted symmetrically with respect to the longitudinal centre plane of the motor vehicle (except for rear-end outline marker lamps installed to motor vehicles in which the right and left sides are not symmetric).

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- (4) The rear-end outline marker lamps shall be mounted at such a position that, when the illuminating surface thereof and the illuminating surface of the rear position lamp are projected on a vertical plane perpendicular to the longitudinal centre plane of the motor vehicle, these projected illuminating surfaces are located at least 200 mm apart from each other.
 - (5) The illuminating surface of the rear-end outline marker lamp shall be visible from every position in the range enclosed by the planes 5° above and 20° below the horizontal plane, including the horizontal line which passes the centre of the rear-end outline marker lamp and is perpendicular to the forward direction of the motor vehicle, and enclosed by the vertical plane that includes the centre of the rear-end outline marker lamp and is parallel to the forward direction of the motor vehicle and the plane 80° outward of the rear-end outline marker lamp from the said vertical plane.
 - (6) The rear-end outline marker lamps shall be constructed so as not to be turned off when the rear position lamps are on.
 - (7) The rear-end outline marker lamps shall not flash.
 - (8) The direct light or reflected light of the rear-end outline marker lamp shall not hamper the driving operations of the motor vehicle equipped with the rear-end outline marker lamp concerned and of other motor vehicles.
 - (9) The rear-end outline marker lamps shall be so mounted that it will not indicate to the front of the motor vehicle.
 - (10) The rear-end outline marker lamps shall be mounted in such a way that the performance provided for in Paragraph 1 may not be hampered. For example, the lamp mountings or lens mountings shall not be loose or exhibit no excessive play.
4. The following rear-end outline marker lamps enumerated below which exhibit no damage, etc. liable to hamper its function shall be regarded as complying with the requirements prescribed in each Item of the preceding Paragraph.
- (1) Rear-end outline marker lamps having the same construction and provided at the same position as those mounted on designated motor vehicles, etc.;

- (2) Rear-end outline marker lamps having the same construction and provided at the same position as the rear-end outline marker lamp mounted on motor vehicles for which device type designation has been granted in connection with the installation of lamps, reflex reflectors and direction indicator lamps pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, or rear-end outline marker lamps having the performance equivalent to it.

Article 132 (Rear Reflex Reflectors)

1. The requirements prescribed in the Announcement of Paragraph 2, Article 38 of the Safety Regulations in connection with the colour of reflecting light, brightness, shape of the reflecting surface, etc. of the rear reflex reflectors shall be the requirements enumerated in each of the following Items. In this case, the reflecting surface of the rear reflex reflectors shall be handled in accordance with the Attachment 94 “Measuring Method of Illuminating Surfaces, Numbers and Installation Positions of Lamps, etc. (Related to Sections 2 and 3 of Chapter 2).”

- (1) The reflecting surface of a rear reflex reflector (except those installed to trailers) shall be neither a letter nor a triangle in shape. In this case, the shapes similar to simple letters or figures, such as O, I, U and 8, shall be regarded as complying with this requirement.
 - (2) The reflecting surface of a rear reflex reflector installed to a trailer shall be either an equilateral triangle or a hollow equilateral triangle with a stripe whose width is at least one fifth of the side. In either case, each side of the triangle shall be 150 mm or more, but not exceeding 200 mm in length.
 - (3) The reflected light of a rear reflex reflector, when illuminated by a headlamp with driving beam located 150 m to the rear of the rear reflex reflector concerned at night, shall be clearly visible at that projection position. In this case, rear reflex reflectors with a reflecting surface of 10 cm² or more shall be regarded as complying with this requirement.
 - (4) The colour of reflected light by the rear reflex reflector shall be red.
 - (5) The rear reflex reflectors shall not have broken reflex reflectors, or reflex reflectors whose reflecting surfaces are badly smeared.
2. The following rear reflex reflectors enumerated below which exhibit no damage, etc. liable to hamper its function shall be regarded as complying

with the requirements prescribed in each Item of the preceding Paragraph.

- (1) Rear reflex reflectors having the same construction and provided at the same position as those mounted on designated motor vehicles, etc.;
- (2) Rear reflex reflectors for which device type designation has been granted pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, or rear reflex reflectors having the performance equivalent to it.

3. The requirements prescribed in the Announcement of Paragraph 3, Article 38 of the Safety Regulations in connection with the installation position, installation method, etc. of the rear reflex reflectors shall be the requirements provided for in each of the following Items. In this case, the measuring methods for the reflecting surface, numbers and installation position of the rear reflex reflectors shall be in accordance with the Attachment 94 “Measuring Method of Illuminating Surfaces, Numbers and Installation Positions of Lamps, etc. (Related to Sections 2 and 3 of Chapter 2).”

- (1) The rear reflex reflectors installed to motor vehicles other than motor cycles with or without sidecar and mini-sized motor vehicles with caterpillar tracks and sleds shall be mounted so that the upper edge of the reflecting surface thereof is at a height of 1.5 m or less above the ground and the lower edge is at a height of 0.25 m or more above the ground.
- (2) The rear reflex reflectors installed to motor cycles with or without sidecar and mini-sized motor vehicles with caterpillar tracks and sleds shall be mounted so that the centre of the reflecting surface thereof is at a height of 1.5 m or less above the ground.
- (3) The rear reflex reflectors provided at the outermost part of a motor vehicle shall be mounted so that the outermost edge of the reflecting surface thereof is within 400 mm from the outermost part of the motor vehicle. However, those installed to motor cycles and mini-sized motor vehicles with caterpillar tracks and sleds may be mounted so that the centre of the reflecting surface thereof is on the longitudinal centre plane, and those installed to motor cycles with sidecar may be mounted so that the centre of the reflecting surface thereof is on the longitudinal centre plane of the motor cycle.
- (4) The reflecting surface of the rear reflex reflector installed to motor vehicles other than large-sized special motor vehicles (except pole trailers), small-sized special motor vehicles and trailers shall be visible

from every position in the range enclosed by the planes 10° above and 10° below (in cases where the upper edge of the reflecting surface of the rear reflex reflector is at a height of less than 0.75 m, the plane 5° below) the horizontal plane, including the horizontal line which passes the centre of the rear reflex reflector and is perpendicular to the forward direction of the motor vehicle, and enclosed by the planes 30° inward of the rear reflex reflector and 30° outward of the rear reflex reflector from the vertical plane that includes the centre of the rear reflex reflector and is parallel to the forward direction of the motor vehicle.

- (5) The reflecting surface of the rear reflex reflector installed to trailers other than large-sized special motor vehicles (except pole trailers) and small-sized special motor vehicles shall be visible from every position in the range enclosed by the planes 15° above and 15° below (in cases where the upper edge of the reflecting surface of the rear reflex reflector is at a height of less than 0.75 m, the plane 5° below) the horizontal plane, including the horizontal line which passes the centre of the rear reflex reflector and is perpendicular to the forward direction of the motor vehicle, and enclosed by the planes 30° inward of the rear reflex reflector and 30° outward of the rear reflex reflector from the vertical plane that includes the centre of the rear reflex reflector and is parallel to the forward direction of the motor vehicle.
 - (6) The mounting positions of the rear reflex reflectors on both sides at the rear shall comply with the requirements of Item (5), Paragraph 3 of Article 128, in addition to those provided for in each of the preceding Items.
 - (7) The rear reflex reflector shall be so mounted that it will not indicate to the front of the motor vehicle.
 - (8) The rear reflex reflector shall be mounted in such a way that the performance provided for in Paragraph 1 may not be hampered. For example, the lamp mountings or lens mountings shall not be loose or exhibit no excessive play.
4. The following rear reflex reflectors enumerated below which exhibit no damage, etc. liable to hamper its function shall be regarded as complying with the requirements prescribed in each Item of the preceding Paragraph.
- (1) Rear reflex reflectors having the same construction and provided at the same position as those mounted on designated motor vehicles, etc.;

- (2) Rear reflex reflectors having the same construction and provided at the same position as the rear reflex reflector mounted on motor vehicles for which device type designation has been granted in connection with the installation of lamps, reflex reflectors and direction indicator lamps pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, or rear reflex reflectors having the performance equivalent to it.

Article 133 (Large-Sized Rear Reflex Reflectors)

1. The requirements prescribed in the Announcement of Paragraph 2, Article 38-2 of the Safety Regulations in connection with the colour of reflecting light, brightness, shape of reflecting surface, etc. of the large-sized rear reflex reflectors shall be the requirements enumerated in each of the following Items. In this case, the reflecting surface of the large-sized rear reflex reflectors shall be handled in accordance with the Attachment 94 “Measuring Method of Illuminating Surfaces, Numbers and Installation Positions of Lamps, etc. (Related to Sections 2 and 3 of Chapter 2).”

- (1) The large-sized rear reflex reflector shall be in the form of a rectangular with four sides each 130 mm or more in length, which consists of a reflecting surface and a fluorescent surface.
- (2) The area of the reflecting surface of a large-sized rear reflex reflector (in cases where two or more large-sized rear reflex reflectors are provided, the total area of the reflecting surfaces thereof) shall be 800 cm² or more.
- (3) The area of the fluorescent surface of a large-sized rear reflex reflector (in cases where two or more large-sized rear reflex reflectors are provided, the total area of the fluorescent surfaces thereof) shall be 400 cm² or more.
- (4) The large-sized rear reflex reflector shall comply mutatis mutandis with the requirements provided for in Item (3), Paragraph 1 of the preceding Article.
- (5) The fluorescent light of the large-sized rear reflex reflector shall be clearly visible in the daytime from a distance of 150 m to the rear.
- (6) The colour of reflecting light by the large-sized rear reflex reflector shall be yellow.
- (7) The colour of fluorescent light of the large-sized rear reflex reflector

shall be red.

- (8) The large-sized rear reflex reflectors shall not have broken reflex reflectors, or reflex reflectors whose reflecting surfaces are badly smeared.

2. The following large-sized rear reflex reflectors enumerated below which exhibit no damage, etc. liable to hamper its function shall be regarded as complying with the requirements prescribed in each Item of the preceding Paragraph.

- (1) Large-sized rear reflex reflectors having the same construction and provided at the same position as those mounted on designated motor vehicles, etc.;
- (2) Large-sized rear reflex reflectors for which device type designation has been granted pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, or large-sized rear reflex reflectors having the performance equivalent to it.

3. The requirements prescribed in the Announcement of Paragraph 3, Article 38-2 of the Safety Regulations in connection with the installation position, installation method, etc. of the large-sized rear reflex reflectors shall be the requirements provided for in each of the following Items. In this case, the measuring methods for the reflecting surface, numbers and installation position of the large-sized rear reflex reflectors shall be in accordance with the Attachment 94 “Measuring Method of Illuminating Surfaces, Numbers and Installation Positions of Lamps, etc. (Related to Sections 2 and 3 of Chapter 2).”

- (1) The number of large-sized rear reflex reflectors shall be four or less.
- (2) The large-sized rear reflex reflectors shall be mounted so that the upper edge thereof is at a height of 1.5 m or less above the ground.
- (3) The large-sized rear reflex reflectors shall be mounted symmetrically with respect to the longitudinal centre plane of the motor vehicle (except large-sized rear reflex reflectors installed to motor vehicles in which the right and left sides at the rear end are not symmetric).
- (4) The large-sized rear reflex reflector shall be so mounted that it will not indicate to the front of the motor vehicle.
- (5) The large-sized rear reflex reflector shall be mounted in such a way

that the performance provided for in Paragraph 1 may not be hampered. For example, the mountings or lens mountings shall not be loose or exhibit no excessive play.

4. The large-sized rear reflex reflectors having the same construction and provided at the same position as those mounted on designated motor vehicles, etc., which exhibit no damage, etc. liable to hamper its function shall be regarded as complying with the requirements prescribed in each Item of the preceding Paragraph.

Article 133-2 (Retro-Reflective Marking Materials)

1. The requirements prescribed in the Announcement of Paragraph 2 of Article 38-3 of the Safety Regulations in connection with the colour of the reflecting light, brightness, shape of the reflecting section, etc. of the retro-reflective marking material shall be the requirements enumerated in each of the following Items:

- (1) The retro-reflective marking material shall be tape or sheet. In the case of tape, its width shall be 50 mm or more, but 60 mm or less.
- (2) The retro-reflective marking material shall not be damaged, or the retro-reflecting surface shall not be smeared significantly.
- (3) The colour of reflecting light of the strip retro-reflective marking material (tape-like retro-reflective marking material placed on the sides or on the rear face of a motor vehicle so that the whole length or whole width of the motor vehicle may be recognized; the same shall apply hereinafter) or contour marking retro-reflective marking material (tape-like retro-reflective marking material placed on the sides or on the rear of a motor vehicle so that the contour of the motor vehicle's sides or rear is identified; the same shall apply hereinafter) shall be either white or yellow for those to be placed on the sides of a motor vehicle; and either red or yellow for those to be placed on the rear face of a motor vehicle.
- (4) The distinctive marking retro-reflective marking material (retro-reflective marking material placed inside the contour marking reflective material placed on the sides of a motor vehicle; the same shall apply hereinafter) shall such one whose coefficient of retro-reflection is essentially lower than that of the contour marking retro-reflective marking material.

2. The following retro-reflective marking materials enumerated below exhibit no damage, etc. liable to hamper its function shall be regarded as complying with the requirements prescribed in each Item of the preceding Paragraph.

- (1) Retro-reflective marking materials having the same construction and provided at the same position as those mounted on designated motor vehicles, etc.;
- (2) Retro-reflective marking materials for which device type designation has been granted pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, or retro-reflective marking materials having the performance equivalent to it.

3. The requirements prescribed in the Announcement of Paragraph 3 of Article 38-3 of the Safety Regulations in connection with the installation position and installation method of retro-reflective marking materials shall be the requirements enumerated below:

- (1) Retro-reflective marking materials shall be strip retro-reflective marking materials or contour marking retro-reflective marking material. Contour marking retro-reflective marking materials may be used, at the same time, with distinctive marking retro-reflective marking materials.
- (2) Strip retro-reflective marking materials may be made of an element or several elements in such a way that conforms to the shape of the motor vehicle, and shall be installed as close as possible parallel to the ground.
- (3) Strip retro-reflective marking materials shall be installed in such a way that identifies at least 80% of the length and width of the motor vehicle.
- (4) In the case of non-continuous strip retro-reflective marking materials, the distance between all the retro-reflective marking materials shall not exceed 50% of the length of the shortest retro-reflective marking material.
- (5) Strip retro-reflective marking materials shall be installed in such a way that the lower edge thereof may be at a height of 0.25 m or more above the ground.
- (6) Contour marking retro-reflective marking materials may be made of an element or several elements in such a way that conforms to the shape

of the motor vehicle, and shall be installed as close as possible parallel or perpendicular to the ground.

- (7) Contour marking retro-reflective marking materials shall be installed in such a way that identifies as close as possible the overall shape of the side and rear face of the motor vehicle.
- (8) In the case of non-continuous contour marking retro-reflective marking materials, the distance between all the retro-reflective marking materials shall not exceed 50% of the length of the shortest retro-reflective marking material.
- (9) Of contour marking retro-reflective marking materials, the retro-reflective marking material installed at the lowest part shall be installed in such a way that the lower edge thereof may be at a height of 0.25 m or more above the ground.
- (10) Distinctive marking retro-reflective marking materials shall only be placed within the contour marking retro-reflective marking materials on the side of a motor vehicle, provided they do not impair the effectiveness of the mandatory lamps, etc.

4. The following retro-reflective marking materials enumerated below which exhibit no damage, etc. liable to hamper its function shall be regarded as complying with the requirements prescribed in each Item of the preceding Paragraph.

- (1) Retro-reflective marking materials having the same construction and provided at the same position as those mounted on designated motor vehicles, etc.;
- (2) Retro-reflective marking materials having the same construction and provided at the same position as the retro-reflective marking material mounted on motor vehicles for which device type designation has been granted in connection with the installation of lamps, reflex reflectors and direction indicator lamps pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, or retro-reflective marking materials having the performance equivalent to it.

Article 134 (Stop Lamps)

1. The requirements prescribed in the Announcement of Paragraph 2, Article 39 of the Safety Regulations in connection with the colour of light,

brightness, etc. of the stop lamps shall be the requirements enumerated in each of the following Items. In this case, the illuminating surface of the stop lamps shall be handled in accordance with the Attachment 94 “Measuring Method of Illuminating Surfaces, Numbers and Installation Positions of Lamps, etc. (Related to Sections 2 and 3 of Chapter 2).”

- (1) The illuminating light of a stop lamp shall be clearly visible in the daytime from a distance of 100 m to the rear, and the beams from the stop lamps shall not disturb other traffic. The stop lamp with a light source of 15 watts or more, and an illuminating surface of 20 cm² or more (for stop lamps installed to motor vehicles manufactured on or after January 1, 2006, the light source shall be 15 watts or more and 60 watts or less, and the illuminating surface shall be 20 cm² or more.) that operates normally shall be regarded as complying with this requirement.
- (2) The stop lamp shared in common with the rear position lamp shall be so constructed that the luminous intensity when both lamps are lit at the same time is 5 times or more that of the rear position lamp when lit independently.
- (3) The colour of light of a stop lamp shall be red.
- (4) The illuminating surface of the stop lamp shall be visible from every position in the range enclosed by the planes 15° above and 15° below the horizontal plane, including the horizontal line which passes the centre of the stop lamp and is perpendicular to the forward direction of the motor vehicle, and enclosed by the planes 45° inward of the stop lamp and 45° outward of the stop lamp from the vertical plane that includes the centre of the stop lamp and is parallel to the forward direction of the motor vehicle.
- (5) The stop lamps shall not have broken lamps, or lamps whose lens surfaces are badly smeared.

2. The following stop lamps enumerated below which exhibit no damage, etc. liable to hamper its function shall be regarded as complying with the requirements prescribed in each Item of the preceding Paragraph.

- (1) Stop lamps having the same construction and provided at the same position as those mounted on designated motor vehicles, etc.;
- (2) Stop lamps for which device type designation has been granted pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, or

stop lamps having the performance equivalent to it.

3. The requirements prescribed in the Announcement of Paragraph 3, Article 39 of the Safety Regulations in connection with the installation position, installation method, etc. of the stop lamps shall be the requirements provided for in each of the following Items. In this case, the measuring methods for the illuminating surface, numbers and installation position of the stop lamps shall be in accordance with the Attachment 94 “Measuring Method of Illuminating Surfaces, Numbers and Installation Positions of Lamps, etc. (Related to Sections 2 and 3 of Chapter 2).”

- (1) The stop lamps and auxiliary stop lamps shall be constructed so as to be turned on only when the service brake system (in cases where a tractor is coupled with a trailer, the service brake system of the tractor or trailer concerned.) or the auxiliary brake system (which refers to a brake system that reduces the speed of the running vehicle, assisting the service brake system, such as a retarder and exhaust brake) is operated. However, in the case of an auxiliary brake system whose deceleration ability is 2.2 m/s^2 or less when a motor vehicle under the unloaded state is decelerated on a dry, flat, paved road at a speed of 80 km/h (in the case of motor vehicles whose maximum speed is less than 80 km/h, its maximum speed), the stop lamps may be constructed so as not to be turned on during the operation of the auxiliary brake system.
- (2) The stop lamps installed to motor vehicles other than motor cycles with or without sidecar and mini-sized motor vehicles with caterpillar tracks and sleds shall be mounted so that the upper edge of the illuminating surface thereof is at a height of 2.1 m or less above the ground and the lower edge is at a height of 0.35 m or more above the ground (at a maximum mountable height for stop lamps installed to semi-trailers, which cannot be mounted at that height of 0.35 or more above the ground because of the vehicle construction).
- (3) The stop lamps installed to motor cycles with or without sidecar and mini-sized motor vehicles with caterpillar tracks and sleds shall be mounted so that the centre of the illuminating surface thereof is at a height of 2 m or less above the ground.
- (4) The mounting positions of the stop lamps on both sides at the rear end of a motor vehicle shall comply with the requirements of Items (4) and (5), Paragraph 3 of Article 128, in addition to those provided for in the two preceding Items.
- (5) The stop lamps shall not flash.

- (6) The direct light or reflected light of the stop lamp shall not hamper the driving operations of the motor vehicle equipped with the stop lamp concerned and of other motor vehicles.
 - (7) The stop lamps shall be mounted in such a way that they will not indicate to the front of the motor vehicle.
 - (8) The stop lamps shall be mounted in such a way that the performance (in cases where the upper edge of the illuminating surface of the stop lamp is at a height of less than 0.75 m above the ground, “15° below” in the requirement of Item (4) of the preceding Paragraph shall read as “5° below”) provided for in Paragraph 1 (except the provision concerned with Item (4) of the said Paragraph in the case of large-sized special motor vehicles (except pole trailers) and small-sized special motor vehicles) may not be hampered. For example, the lamp mountings or lens mountings shall not be loose or exhibit no excessive play.
4. The following stop lamps enumerated below which exhibit no damage, etc. liable to hamper its function shall be regarded as complying with the requirements prescribed in each Item of the preceding Paragraph.
- (1) Stop lamps having the same construction and provided at the same position as those mounted on designated motor vehicles, etc.;
 - (2) Stop lamps having the same construction and provided at the same position as the stop lamp mounted on motor vehicles for which device type designation has been granted in connection with the installation of lamps, reflex reflectors and direction indicator lamps pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, or stop lamps having the performance equivalent to it.

Article 135 (Auxiliary Stop Lamps)

1. The requirements prescribed in the Announcement of Paragraph 2, Article 39-2 of the Safety Regulations in connection with the colour of light, brightness, etc. of the auxiliary stop lamps shall be the requirements enumerated in each of the following Items. In this case, the illuminating surface of the auxiliary stop lamps shall be handled in accordance with the Attachment 94 “Measuring Method of Illuminating Surfaces, Numbers and Installation Positions of Lamps, etc. (Related to Sections 2 and 3 of Chapter 2).”

- (1) The beams of auxiliary stop lamps shall not disturb other traffic.
 - (2) The auxiliary stop lamp shall comply with the requirements of items (3) and (4), Paragraph 1 of the preceding Article, in addition to those provided for in the preceding Item. In this case, “planes 15° above and 15° below” appearing in the requirement of Item (4) of the said Paragraph shall read as “planes 10° above and 10° below,” and “plane 45°” shall read as “plane 10°.”
 - (3) The auxiliary stop lamps shall not have broken lamps, or lamps whose lens surfaces are badly smeared.
2. The following auxiliary stop lamps enumerated below which exhibit no damage, etc. liable to hamper its function shall be regarded as complying with the requirements prescribed in each Item of the preceding Paragraph.
- (1) Auxiliary stop lamps having the same construction and provided at the same position as those mounted on designated motor vehicles, etc.;
 - (2) Auxiliary stop lamps for which device type designation has been granted pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, or auxiliary stop lamps having the performance equivalent to it.
3. The requirements prescribed in the Announcement of Paragraph 3, Article 39-2 of the Safety Regulations in connection with the installation position, installation method, etc. of the auxiliary stop lamps shall be the requirements provided for in each of the following Items. In this case, the measuring methods for the illuminating surface, numbers and installation position of the auxiliary stop lamps shall be handled in accordance with the Attachment 94 “Measuring Method of Illuminating Surfaces, Numbers and Installation Positions of Lamps, etc. (Related to Sections 2 and 3 of Chapter 2).”
- (1) The number of auxiliary stop lamps shall be one. This shall not apply to cases where one each auxiliary stop lamp is mounted on both sides of the longitudinal centre plane of the motor vehicle pursuant to the provision of the proviso in Item (3).
 - (2) The auxiliary stop lamp be mounted so that the lower edge of the illuminating surface thereof is at a height of 0.85 m or more above the ground, or above the level 0.15 m lower than the lowermost end of the rear window, and is above the horizontal plane including the upper edge of the illuminating surface of the stop lamp.

- (3) The centre of the illuminating surface of the auxiliary stop lamp shall be on the longitudinal centre plane of the motor vehicle. However, in cases where the centre of the illuminating surface of the auxiliary stop lamp cannot be located on the longitudinal centre plane of the motor vehicle because of the vehicle construction, the centre of the illuminating surface thereof may be located within 150 mm from the longitudinal centre plane of the motor vehicle, or one each auxiliary stop lamp may be mounted on both sides on the longitudinal centre plane of the motor vehicle. In this case, the auxiliary stop lamps provided on both sides shall be mounted each at the mountable position nearest to the longitudinal centre plane of the motor vehicle.
 - (4) The auxiliary stop lamp shall not be shared in common with a rear position lamp.
 - (5) The auxiliary stop lamp shall be constructed so as to be turned on only when the stop lamp is turned on.
 - (6) The auxiliary stop lamps shall not flash.
 - (7) The direct light or reflected light of the auxiliary stop lamp shall not hamper the driving operations of the motor vehicle equipped with the auxiliary stop lamp concerned and of other motor vehicles.
 - (8) The auxiliary stop lamp shall be mounted in such a way that it will not indicate to the front of the motor vehicle.
 - (9) The auxiliary stop lamp shall be mounted in such a way that the performance provided for in Paragraph 1 may not be hampered. For example, the lamp mountings or lens mountings shall not be loose or exhibit no excessive play.
4. The following auxiliary stop lamps enumerated below which exhibit no damage, etc. liable to hamper its function shall be regarded as complying with the requirements prescribed in each Item of the preceding Paragraph.
- (1) Auxiliary stop lamps having the same construction and provided at the same position as those mounted on designated motor vehicles, etc.;
 - (2) Auxiliary stop lamps having the same construction and provided at the same position as the auxiliary stop lamp mounted on motor vehicles for which device type designation has been granted in connection with the installation of lamps, reflex reflectors and direction indicator lamps

pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, or auxiliary stop lamps having the performance equivalent to it.

Article 136 (Reversing Lamps)

1. The requirements prescribed in the Announcement of Paragraph 2, Article 40 of the Safety Regulations in connection with the colour of light, brightness, etc. of the reversing lamps shall be the requirements enumerated in each of the following Items.

- (1) The illuminating light of a reversing lamp shall be clearly visible in the daytime at a distance of 100 m to the rear, and the beams from the reversing lamps shall not disturb other traffic. In this case, the reversing lamp whose light source is 15 watts or more and 75 watts or less, and whose illuminating surface is 20 cm² or more (for reversing lamps installed to motor vehicles manufactured on or before December 31, 2005, the luminous intensity shall be 5,000 cd or less (300 cd or less in the case of reversing lamps mainly indicating to the rear)) that operates normally shall be regarded as complying with this requirement.
- (2) The colour of light of a reversing lamp shall be white.
- (3) The reversing lamps shall not have broken lamps, or lamps whose lens surfaces are badly smeared.

2. The following reversing lamps enumerated below which exhibit no damage, etc. liable to hamper its function shall be regarded as complying with the requirements prescribed in each Item of the preceding Paragraph.

- (1) Reversing lamps having the same construction and provided at the same position as those mounted on designated motor vehicles, etc.;
- (2) Reversing lamps for which device type designation has been granted pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, or reversing lamps having the performance equivalent to it.

3. The requirements prescribed in the Announcement of Paragraph 3, Article 40 of the Safety Regulations in connection with the installation position, installation method, etc. of the reversing lamps shall be the requirements provided for in each of the following Items.

- (1) The number of reversing lamps shall be two or less.

- (2) The reversing lamps shall be constructed so as to be turned on only when the transmission system (for trailers, the transmission system of the tractor) is in the reverse position and the operating device for the engine is in the start position.
- (3) The reversing lamps installed to motor vehicles used exclusively for carriage of passengers with a passenger capacity of less than 10 persons (except motor cycles with or without sidecar, mini-sized motor vehicles with caterpillar tracks and sleds and trailers) and motor vehicles used for the transport of goods with a gross vehicle weight of 3.5 tons or less (except mini-sized motor vehicles with caterpillar tracks and sleds, and trailers) shall be installed so that the upper edge of the illuminating surface thereof may be at a height of 1.2 m or less above the ground and the lower edge may be at a height of 0.25 m or more above the ground.
- (4) The illuminating surface of the reversing lamp installed to motor vehicles other than large-sized special motor vehicles (except pole trailers) and small-sized special motor vehicles shall be visible from every position in the range enclosed by the planes 15° above and 5° below the horizontal plane, including the horizontal line which passes the centre of the reversing lamp and is perpendicular to the forward direction of the motor vehicle, and enclosed by the planes 45° inward of the reversing lamp (in cases where the reversing lamp is mounted on both sides at the rear end, 30° inward of the reversing lamp) and 45° outward of the reversing lamp from the vertical plane that includes the centre of the reversing lamp and is parallel to the forward direction of the motor vehicle. However, in the case of motor vehicles in which the white front fog lamp that has been type-designated pursuant to the provision of Paragraph 1 of Article 75-2 of the Act (hereinafter referred to as the “type designated front fog lamp” in this Article) is installed as a reversing lamp, the illuminating surface of the reversing lamp shall be visible from every position in the range enclosed by the planes 5° above and 5° below the horizontal plane, including the horizontal line which passes the centre of the reversing lamp and is perpendicular to the forward direction of the motor vehicle, and enclosed by the planes 45° inward of the reversing lamp (in cases where the type designated front fog lamp is mounted as a reversing lamp on both sides at the rear end, 10° inward of the reversing lamp) and 45° outward of the reversing lamp from the vertical plane that includes the centre of the reversing lamp and is parallel to the forward direction of the motor vehicle.

- (5) The reversing lamps shall comply with the requirement of Item (5), Paragraph 3 of Article 128, in addition to those provided for in each of the preceding Items.
 - (6) The reversing lamps shall not flash.
 - (7) The direct light or reflected light of the reversing lamp shall not hamper the driving operations of the motor vehicle equipped with the reversing lamp concerned and of other motor vehicles.
 - (8) The reversing lamps shall be mounted in such a way that the performance (in cases where the type designated front fog lamp is mounted as a reversing lamp, the performance of the type designated front fog lamp concerned) provided for in Paragraph 1 may not be hampered. For example, the lamp mountings or lens mountings shall not be loose or exhibit no excessive play.
4. The following reversing lamps enumerated below which exhibit no damage, etc. liable to hamper its function shall be regarded as complying with the requirements prescribed in each Item of the preceding Paragraph.
- (1) Reversing lamps having the same construction and provided at the same position as those mounted on designated motor vehicles, etc.;
 - (2) Reversing lamps having the same construction and provided at the same position as reversing lamps mounted on motor vehicles for which device type designation has been granted in connection with the installation of lamps, reflex reflectors and direction indicator lamps pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, or reversing lamps having the performance equivalent to it.

Article 137 (Direction Indicator Lamps)

1. The requirements prescribed in the Announcement of Paragraph 2, Article 41 of the Safety Regulations in connection with the colour of light, brightness, etc. of the direction indicator lamps shall be the requirements enumerated in each of the following Items. In this case, the illuminating surface of the direction indicator lamps shall be handled in accordance with the Attachment 94 “Measuring Method of Illuminating Surfaces, Numbers and Installation Positions of Lamps, etc. (Related to Sections 2 and 3 of Chapter 2).”

- (1) Direction indicator lamps when lit shall be visible in the daytime at a

distance of 100 m (30 m for direction indicator lamps mounted on each side of the vehicle pursuant to the requirements of Items (3) and (4) of Paragraph 3 (except the direction indicator lamps to be mounted at the centre on each side) and pursuant to the requirement of Item (5) or Item (6) of Paragraph 3 (except the direction indicator lamps to be mounted at the centre on each side pursuant to the requirement of Item (4)) in the intended direction. Furthermore, the beams from the direction indicator lamps shall not disturb other traffic. In this case, the direction indicator lamp that has the performance posted in the Table 1 given below (Table 2 in the case of motor vehicles manufactured on or before December 31, 2005) and operates normally shall be regarded as complying with this requirement.

Table 1

Kind of direction indicator lamps	Category of motor vehicles	Requirements	
		Wattage of light source	Area of illuminating surface
a. Direction indicator lamps for showing direction for the front or rear	Motor vehicles whose length is 6 m or more, manufactured on or after April 1, 1960	15 W or more, but not more than 60 W	40 cm ² or more
	Motor cycles with or without sidecar and mini-sized motor vehicles with caterpillar tracks and sleds, manufactured on or after April 1, 1960		7 cm ² or more
	Motor cycles with or without sidecar, manufactured on or before March 31, 1960	15 W or more	-
	Others	15 W or more, but not more than 60 W	20 cm ² or more
b. Direction indicator lamp to be provided on each side of the motor vehicle in accordance with the provision of Items (3), (4), (5) or (6), Paragraph 3 (except those prescribed in Item (9), Paragraph 4)	Motor vehicles whose length is 6 m or more, manufactured on or after April 1, 2010	6 W or more, but not more than 60 W	20 cm ² or more (*1)
	Motor vehicles whose length is 6 m or more, manufactured between October 1, 1969, and March 31, 2010	3 W or more, but not more than 60 W	20 cm ² or more (*1)
	Motor vehicles manufactured on or before September 30, 1969	3 W or more	20 cm ² or more (*2)
	Others	3 W or more, but not more than 30 W	10 cm ² or more (*1)
c. Direction indicator lamp to be provided on each side of the motor vehicle in accordance with the provision of Item (9) of Paragraph 4		15 W or more, but not more than 60 W	40 cm ² or more (*1)

- *1: The area refers to the projected area of each illuminating surface on the longitudinal centre plane of the motor vehicle and the projected area on a vertical plane intersected with the longitudinal centre plane of the motor vehicle at an angle of 45 degrees.

- *2: The area refers to the projected area of each illuminating surface on the longitudinal centre plane of the motor vehicle (in the case of direction indicator lamps for showing direction exclusively for the side at the rear, the projected area on a vertical plane intersected with the longitudinal centre plane of the motor vehicle at an angle of 45 degrees).

Table 2

Kind of direction indicator lamps	Category of motor vehicles	Requirements	
		Wattage of light source	Area of illuminating surface
a. Direction indicator lamps for showing direction for the front or rear	Motor vehicles whose length is 6 m or more, manufactured on or after April 1, 1960	15 W or more	40 cm ² or more
	Motor cycles with or without sidecar and mini-sized motor vehicles with caterpillar tracks and sleds, manufactured on or after April 1, 1960		7 cm ² or more
	Motor cycles with or without sidecar, manufactured on or before March 31, 1960		-
	Others		20 cm ² or more
b. Direction indicator lamp to be provided on each side of the motor vehicle in accordance with the provision of Items (3), (4), (5) or (6), Paragraph 3 (except those prescribed in Item (9), Paragraph 4)	Motor vehicles whose length is 6 m or more, manufactured on or after October 1, 1969	3 W or more	20 cm ² or more (*1)
	Motor vehicles manufactured on or before September 30, 1969	3 W or more	20 cm ² or more (*2)
	Others	3 W or more	10 cm ² or more (*1)
c. Direction indicator lamp to be provided on each side of the motor vehicle in accordance with the provision of Item (9) of Paragraph 4		15 W or more	40 cm ² or more (*1)

- *1: The area refers to the projected area of each illuminating surface on the longitudinal centre plane of the motor vehicle and the projected area on a vertical plane intersected with the longitudinal centre plane of the motor vehicle at an angle of 45 degrees.
 - *2: The area refers to the projected area of each illuminating surface on the longitudinal centre plane of the motor vehicle (in the case of direction indicator lamps for showing direction exclusively for the side at the rear, the projected area on a vertical plane intersected with the longitudinal centre plane of the motor vehicle at an angle of 45 degrees).
- (2) The colour of light of a direction indicator lamp shall be amber.
 - (3) The indicating surface of a direction indicator lamp shall be visible from every position in the range specified in the right column of the table below according to the category of direction indicator lamps specified in the left column of the said table.

Category of direction indicator lamps	Range
<p>a. Direction indicator lamps to be mounted on front or rear of motor vehicles</p>	<p>Range enclosed by planes 15° above and 15° below the horizontal plane, including the horizontal line which passes the centre of the direction indicator lamp and is perpendicular to the forward direction of the motor vehicle, and enclosed by planes 45° inward of the direction indicator lamp and 80° outward of the direction indicator lamp from the vertical plane that includes the centre of the direction indicator lamp and is parallel to the forward direction of the motor vehicle;</p>
<p>b. Direction indicator lamps to be mounted on both sides of motor vehicles other than those specified in “c” and “d” (except direction indicator lamps provided for in Item (9), Paragraph 4)</p>	<p>Range enclosed by planes 15° above and 15° below the horizontal plane, including the horizontal line which passes the centre of the direction indicator lamp and is perpendicular to the forward direction of the motor vehicle, and enclosed by planes 5° outward of the direction indicator lamp and 60° outward of the direction indicator lamp from the vertical plane which includes the centre of the direction indicator lamp and is parallel to the forward direction of the motor vehicle and lies backward from the centre of the direction indicator lamp;</p>
<p>c. Direction indicator lamps to be mounted on both sides of motor vehicles specified in the following Items (1) to (4) inclusive (except those with a length of 6 m or less) and motor vehicles specified in Items (5) and (6) (except those specified in Item (9) of Paragraph 4):</p> <p>(1) Motor vehicles used exclusively for carriage of passengers with a passenger capacity of 10 persons or more;</p>	<p>Range enclosed by planes 30° above and 5° below the horizontal plane, including the horizontal line which passes the centre of the direction indicator lamp and is perpendicular to the forward direction of the motor vehicle, and enclosed by planes 5° outward of the direction indicator lamp and 60° outward of the direction indicator lamp from the vertical plane which includes the centre of the direction indicator lamp and is parallel to the forward direction of the motor vehicle and lies backward from the centre of the direction indicator lamp;</p>

Category of direction indicator lamps	Range
<p>(2) Motor vehicles having a shape similar to those used exclusively for carriage of passengers with a passenger capacity of 10 persons or more;</p> <p>(3) Motor vehicles used for carriage of goods with a gross vehicle weight of 3.5 tons or less;</p> <p>(4) Motor vehicles having a shape similar to those used for carriage of goods with a gross vehicle weight of 3.5 tons or less;</p> <p>(5) Motor vehicles used for carriage of goods with a gross vehicle weight exceeding 3.5 tons;</p> <p>(6) Motor vehicles having a shape similar to those used for carriage of goods with a gross vehicle weight exceeding 3.5 tons;</p>	
<p>d. Direction indicator lamps to be mounted on both sides of motor cycles with or without sidecar, three-wheeled motor vehicles and mini-sized motor vehicles with caterpillar tracks and sleds (limited to those in which direction indicator lamps are mounted only on one side).</p>	<p>Range enclosed by planes 15° above and 15° below the horizontal plane, including the horizontal line which passes the centre of the direction indicator lamp and is perpendicular to the forward direction of the motor vehicle, and enclosed by planes 5° inward of the direction indicator lamp and 45° outward of the direction indicator lamp from the vertical plane which includes the centre of the direction indicator lamp and is parallel to the forward direction of the motor vehicle (limited to the plane that lies forward from the centre of the direction indicator lamp), and range enclosed by planes 5° inward of the direction indicator lamp and 60° outward of the direction indicator lamp from the vertical plane which includes the centre of the direction indicator lamp and is parallel to the forward direction of the motor vehicle (limited to the plane that lies backward from the centre of the direction indicator lamp)</p>

(4) The direction indicator lamps shall not have broken lamps, or lamps whose lens surfaces are badly smeared.

2. The following direction indicator lamps enumerated below which exhibit no damage, etc. liable to hamper its function shall be regarded as complying with the requirements prescribed in each Item of the preceding Paragraph.

(1) Direction indicator lamps having the same construction and provided at the same position as those mounted on designated motor vehicles, etc.;

(2) Direction indicator lamps for which device type designation has been granted pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, or direction indicator lamps having the performance equivalent to it.

3. The requirements prescribed in the Announcement of Paragraph 3, Article 41 of the Safety Regulations in connection with the installation position, installation method, etc. of the direction indicator lamps shall be the requirements provided for in each of the following Items and the next Paragraph.

(1) Motor vehicles shall be provided with direction indicator lamps at least one each at the right and left sides thereof. Each lamp shall be mounted so that its indicating surface is visible at a distance of 30 m from the front and the rear on the longitudinal centre line of the motor vehicle. However, this provision shall not apply to motor vehicles with a maximum speed of less than 20 km/h, in which the distance between the centre of the steering wheel and the outermost part of the motor vehicle is less than 650 mm and the driver's seat is not located inside the vehicle compartment, and to trailers.

(2) Motor vehicles shall be provided with a direction indicator lamp on each side at the rear end. However, this provision shall not apply to motor cycles with or without sidecar, mini-sized motor vehicles with caterpillar tracks and sleds, large-sized special motor vehicles, small-sized special motor vehicles, motor vehicles with a width of 0.8 m or less, and motor vehicles in the proviso of the preceding Item.

(3) Motor vehicles (except ordinary-sized motor vehicles with a gross vehicle weight of 8 tons or more or with a maximum loading capacity of 5 tons or more (except tractors drawing semi-trailers, motor vehicles with a passenger capacity of 11 persons or more, and motor vehicles which have a shape similar to the motor vehicles with a passenger capacity of 11 persons or more (hereinafter referred to as the

“large-sized trucks, etc.”), motor cycles with or without sidecar, mini-sized motor vehicles with caterpillar tracks and sleds, motor vehicles with a width of 0.8 m or less and motor vehicles in the proviso of Paragraph 1) shall be provided with a direction indicator lamp on each side thereof.

- (4) Large-sized trucks, etc. shall be provided with direction indicator lamps at the front (except trailers) and at the centre on each side thereof.
- (5) Tractors (except motor vehicles in the proviso of Item (2) (except large-sized special motor vehicles and small-sized special motor vehicles)) coupled with trailers (except cases where tractors or trailers are large-sized trucks, etc.) shall be provided with direction indicator lamps in compliance with the requirements of the texts of Items (1) and (2) and the requirement of Item (3) in the coupled condition.
- (6) Tractors and trailers which are categorized as large-sized trucks, etc., shall be provided with direction indicator lamps each at the centre on each side in compliance with the requirement of the texts of Item (4). In addition, when tractors (except motor vehicles in the proviso of Item (2) (except large-sized special motor vehicles and small-sized special motor vehicles)) are coupled with trailers (limited to cases where tractors or trailers are large-sized trucks, etc.), tractors or trailers shall be provided with direction indicator lamps each on each side in the coupled condition in compliance with the requirements of the texts of Items (1) and (2).
- (7) Motor vehicles provided for in the proviso of Item (1) (except trailers) with a length of 6 m or more and tractors (limited to motor vehicles in the proviso of Item (2) (except large-sized special motor vehicles and small-sized special motor vehicles)) or trailers whose length is 6 m or more when coupled shall be provided with direction indicator lamps in compliance with the requirement of the text of Item (1).

4. Direction indicator lamps shall be mounted in such a way the following requirements may be complied with. In this case, the measuring methods for the illuminating surface, numbers and installation position of the direction indicator lamps shall be in accordance with the Attachment 94 “Measuring Method of Illuminating Surfaces, Numbers and Installation Positions of Lamps, etc. (Related to Sections 2 and 3 of Chapter 2).”

- (1) Direction indicator lamps shall flash at a fixed rate of 60 to 120 cycles per minute.

- (2) Direction indicator lamps shall be mounted symmetrically with respect to the longitudinal centre plane of the motor vehicle (except motor vehicles in which the right and left sides are not symmetric).
- (3) Of the direction indicator lamps for the front or the rear, installed to motor vehicles other than motor cycles with or without sidecar and mini-sized motor vehicles with caterpillar tracks and sleds, the innermost ones shall be mounted so that the distance between the innermost edges of the respective illuminating surfaces is 600 mm or more (400 mm or more for motor vehicles with a width of less than 1,300 mm), and the outermost ones (except those for the rear which are installed to tractors drawing semi-trailers) shall be mounted each so that the outermost edge of the indicating surface thereof is within 400 mm from the outermost part of the vehicle.
- (4) Direction indicator lamps installed to motor cycles with or without sidecar and mini-sized motor vehicles with caterpillar tracks and sleds shall be mounted so that the centre-to-centre distance between the respective illuminating surfaces is 300 mm or more for those for the front (250 mm or more for those with a light source of 8 watts or more) and 150 mm or more for those for the rear. Furthermore, in cases where two or more headlamps or rear position lamps are provided, those for the front shall be located farther outward than the outermost headlamps, and those for the rear, farther outward than the outermost rear position lamps.
- (5) Direction indicator lamps installed to motor vehicles other than motor cycles with or without sidecar and mini-sized motor vehicles with caterpillar tracks and sleds shall be mounted so that the upper edge of the indicating surface thereof is at a height of 2.1 m or less above the ground (2.3 m or less above the ground for those installed to large-sized special motor vehicles and small-sized special motor vehicles and those provided on each side of motor vehicles) and the lower edge is at a height of 0.35 m or more above the ground (at a maximum mountable height for those installed to semi-trailers, which cannot be mounted at that height of 0.35 m or more above the ground because of the vehicle construction).
- (6) Direction indicator lamps installed to motor cycles with or without sidecar and mini-sized motor vehicles with caterpillar tracks and sleds shall be mounted so that the centre of the indicating surface thereof is at a height of 2.3 m or less above the ground.

- (7) Direction indicator lamps to be provided on each side of motor vehicles provided for in Items (3) and (5) of the preceding Paragraph shall be mounted so that the most forward edge of the illuminating surface thereof is within 2.5 m (within 2.5 m or 60% of the vehicle length (in cases where a tractor is coupled with a trailer, the length in the coupled condition of the tractor and the trailer. Hereinafter the same in this Paragraph) in the case of large-sized special motor vehicles and small-sized special motor vehicles; within 60% of the vehicle length in the case of motor vehicles with a length of 6 m or more (except motor vehicles used exclusively for carriage of passengers with a passenger capacity of less than 10 persons, motor vehicles used for carriage of goods with a gross vehicle weight of 3.5 tons or less, motor vehicles having a shape similar to these motor vehicles)) from the front end of the motor vehicle.
- (8) Direction indicator lamps to be provided on each side at the front of motor vehicles provided for in Item (4) of the preceding Paragraph shall be mounted between the front end of the motor vehicle and the outer rear end of the driver's compartment or passenger compartment.
- (9) Direction indicator lamps to be provided on each side at the centre of motor vehicles provided for in Items (4) and (6) of the preceding Paragraph shall be mounted so that the most forward edge of the illuminating surface thereof is within 2.5 m from the outer rear end of the driver's compartment or passenger compartment (within 4.5 m from the front end of the motor vehicle in the case of trailers) and that the illuminating surface is visible from every position at a height of 1 m to 1.6 m above the ground, that is located on the vertical plane parallel to the longitudinal centre plane of the motor vehicle and 1 m outward from the outermost part of the vehicle, and that corresponds to a distance from 1 m ahead of the mounting position of the direction indicator lamp concerned to the rear end of the motor vehicle.
- (10) Direction indicator lamps (except direction indicator lamps provided for in the preceding Item) to be provided on each side of motor vehicles provided for in Item (6) of the preceding Paragraph shall be mounted so that the most forward edge of the illuminating surface thereof is within 60% of the length from the front end of the tractor.
- (11) In cases where the driver in his seat cannot confirm directly and readily the operation of direction indicator lamps (excepts direction indicator lamps mounted on each side of the motor vehicle), a device shall be provided to tell the driver of the operating condition of the direction indicator lamps.

- (12) Direction indicator lamps shall be such ones which can be turned on and turned off regardless of the illumination condition of other lamps. However, this provision shall not apply to direction indicator lamps installed to motor cycles with or without sidecar and mini-sized motor vehicles with caterpillar tracks and sleds.
- (13) Direction indicator lamps provided on each side of a motor vehicle may be so constructed that, when the hazard warning lamps are in operation, the direction indicator lamps concerned will flash simultaneously with the hazard warning lamps concerned.
- (14) The direct light or reflected light of the direction indicator lamp shall not hamper the driving operations of the motor vehicle equipped with the direction indicator lamp concerned and of other motor vehicles.
- (15) Direction indicator lamps shall be mounted in such a way that the performance (in cases where the upper edge of the illuminating surface of the direction indicator lamp is at a height of less than 0.75 m above the ground, “15° below” in the requirement concerned with “a”, “b” and “d” of the table of Item (3) of Paragraph 1 shall read as “5° below”; and in cases where the side marker lamp (limited only to those whose colour of light is amber) mounted at the front or rear section of motor vehicles (except motor cycles with or without sidecar, three-wheeled motor vehicles, mini-sized motor vehicles with caterpillar tracks and sleds, trailers, and motor vehicles with a length of 6 m or more) used exclusively for carriage of passengers with a passenger capacity of less than 10 persons, or of motor vehicles (except three-wheeled motor vehicles, trailers and motor vehicles with a length of 6 m or more) used for carriage of goods with a gross vehicle weight of 3.5 tons or less, has a performance complementing the performance of the direction indicator lamp mounted at the front or rear section, provided for in “a” of the said table, “80° outward” in the requirement concerned with “a” of the said table shall read as “45° outward”) provided for in Paragraph 1 (except the requirement concerned with “a” of the table of Item (3) of the said Paragraph in the case of motor cycles with or without sidecar, three-wheeled motor vehicles, and mini-sized motor vehicles with caterpillar tracks and sleds, and except the requirement concerned with “a” and “b” of the said table in the case of large-sized special motor vehicles (except pole trailers) and small-sized special motor vehicles) may not be hampered. For example, the lamp mountings or lens mountings shall not be loose or exhibit no excessive play.

5. The following direction indicator lamps enumerated below which exhibit no damage, etc. liable to hamper its function shall be regarded as complying with the requirements prescribed in each Item of the preceding Paragraph.

- (1) Direction indicator lamps having the same construction and provided at the same position as those mounted on designated motor vehicles, etc.;
- (2) Direction indicator lamps having the same construction and provided at the same position as the direction indicator lamp mounted on motor vehicles for which device type designation has been granted in connection with the installation of lamps, reflex reflectors and direction indicator lamps pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, or direction indicator lamps having the performance equivalent to it.

Article 138 (Auxiliary Direction Indicator Lamps)

1. The requirements prescribed in the Announcement of Paragraph 2, Article 41-2 of the Safety Regulations in connection with the colour of light, brightness, etc. of the auxiliary direction indicator lamps shall be the requirements enumerated in each of the following Items. In this case, the illuminating surface of the auxiliary direction indicator lamps shall be handled in accordance with the Attachment 94 “Measuring Method of Illuminating Surfaces, Numbers and Installation Positions of Lamps, etc. (Related to Sections 2 and 3 of Chapter 2).”

- (1) The requirements of Item (2), Paragraph 1 of the preceding Article shall apply mutatis mutandis to the auxiliary direction indicator lamps.
- (2) The auxiliary direction indicator lamps shall not have broken lamps, or lamps whose lens surfaces are badly smeared.

2. The auxiliary direction indicator lamp having the same construction and provided at the same position as the auxiliary direction indicator lamp mounted on designated motor vehicles, etc. which exhibits no damage, etc. liable to hamper its function shall be regarded as complying with each Item of the preceding Paragraph.

3. The requirements prescribed in the Announcement of Paragraph 3, Article 41-2 of the Safety Regulations in connection with the installation position, installation method, etc. of the auxiliary direction indicator lamps shall be the requirements provided for in each of the following Items. In this case, the measuring methods for the illuminating surface, numbers and

installation position of the auxiliary direction indicator lamps shall be in accordance with the Attachment 94 “Measuring Method of Illuminating Surfaces, Numbers and Installation Positions of Lamps, etc. (Related to Sections 2 and 3 of Chapter 2).”

- (1) The requirements of Items (2), (5), (6), (13) and (14) Paragraph 4 of the preceding Article shall apply mutatis mutandis to the auxiliary direction indicator lamps.
- (2) The auxiliary direction indicator lamps shall flash in interlocking with the direction indicator lamp.
4. The auxiliary direction indicator lamp having the same construction and provided at the same position as the auxiliary direction indicator lamp mounted on designated motor vehicles, etc. which exhibits no damage, etc. liable to hamper its function shall be regarded as complying with each Item of the preceding Paragraph.

Article 139 (Hazard Warning Lamps)

1. The requirements prescribed in the Announcement of Paragraph 2, Article 41-3 of the Safety Regulations in connection with the colour of light, brightness, etc. of the hazard warning lamps shall be the requirements prescribed in Paragraph 1 of Article 137 (except “b”, “c” and “d” in the table of Item (3)) (except those concerned with the direction indicator lamps mounted on each side of motor vehicles).

2. The hazard warning lamps having the same construction and provided at the same position as hazard warning lamps mounted on designated motor vehicles, etc. which exhibit no damage, etc. liable to hamper its function shall be regarded as complying with the requirements of the preceding Paragraph.

3. The requirements prescribed in the Announcement of Paragraph 3, Article 41-3 of the Safety Regulations in connection with the installation position, installation method, etc. of the hazard warning lamps shall be the requirements provided for in each of the following Items. In this case, the measuring methods for the illuminating surface, numbers and installation position of the hazard warning lamps shall be in accordance with the Attachment 94 “Measuring Method of Illuminating Surfaces, Numbers and Installation Positions of Lamps, etc. (Related to Sections 2 and 3 of Chapter 2).”

- (1) The provisions (except those for the direction indicator lamps mounted

on each side of motor vehicles) of Items (1), (2) and (5) through (7), Paragraph 3 as well as Paragraph 4 (except Items (7) through (10) and (13)) of Article 137 shall apply mutatis mutandis to hazard warning lamps. However, in cases where hazard warning lamps operate as lamps indicating that theft, accidents inside the vehicle compartment and other emergency situations are taking place (hereinafter referred to as the “emergency lamp”), such hazard warning lamps may be constructed not to comply with the requirements prescribed in Item (1), Paragraph 4 of the same Article. In this case, such construction that turns on the hazard warning lamps within a length of time not exceeding three seconds in order to indicate to the outside that the theft-control device (which means a device to make motor vehicles incapable of running by engine power, specified by the 74/61/EEC (European Economic Community Directives)) is set or released shall be regarded as complying with the requirements of the proviso.

- (2) Hazard warning lamps shall be so constructed that all of them operate simultaneously.
 - (3) Hazard warning lamps mounted symmetrically shall be so constructed that they flash simultaneously.
4. The following hazard warning lamps enumerated below which exhibit no damage, etc. liable to hamper its function shall be regarded as complying with the requirements prescribed in each Item of the preceding Paragraph.
- (1) Hazard warning lamps having the same construction and provided at the same position as those mounted on designated motor vehicles, etc.;
 - (2) Hazard warning lamps having the same construction and provided at the same position as the parking lamp mounted on motor vehicles for which device type designation has been granted in connection with the installation of lamps, reflex reflectors and direction indicator lamps pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, or hazard warning lamps having the performance equivalent to it.

Article 140 (Restrictions on Other Lamps, etc.)

1. The requirements prescribed in the Announcement of Article 42 of the Safety Regulations shall be the following requirements.
2. No motor vehicles shall be provided with such lamps which are amber in the colour of light for illumination of, or indication to, the rear and the upper

edges of the illuminating surfaces of which are at a height of 2.5 m or less above the ground or which are red in the colour of light, except the following lamps:

- (1) Side marker lamps;
- (1-2) Rear position lamps;
- (1-3) Rear fog lamps;
- (1-4) Parking lamps;
- (1-5) Rear-end outline marker lamps;
- (2) Stop lamps;
- (2-2) Auxiliary stop lamps;
- (3) Direction indicator lamps;
- (4) Auxiliary direction indicator lamps;
- (4-2) Hazard warning lamps;
- (5) Warning lamps of emergency motor vehicles;
- (6) Identification lamps of motor vehicles carrying gunpowder or radioactive materials, etc.;
- (7) Marker lamps for the rear of motor vehicles for passenger carrying business mounted at a height of more than 2.5 m above the ground (except for the lamp provided for in (1-5))
- (8) “The Last Bus” indication lamps on passenger buses;
- (9) “Vacant” indication lamps and fare-indication lamps of taxis;
- (10) Emergency lamps of motor vehicles for passenger carrying business;
- (11) Red lamps provided at the step lift for moving up/down of wheelchairs in buses for passenger carrying business, which cannot be turned on at the driver’s seat, and other lamps not turned on during running;
- (12) Lamps that operate in interlocking with the overload prevention device

mounted on mobile cranes provided for in Item (8), Paragraph 1 of Article 1 of the Enforcement Order of the Industrial Safety and Health Law.

3. No motor vehicles shall be provided with such lamps which are white in the colour of light for illumination of, or indication to, the rear, except the following lamps. In this case, white lamps having the same construction and provided at the same position as white lamps (so-called coach lamps) mounted on each side of designated motor vehicles, etc. shall be regarded as complying with this requirement.

- (1) Number plate lamps;
- (2) Reversing lamps;
- (3) Compartment lamps;
- (4) Route-board illumination lamps of passenger buses;
- (5) Carrier-name-plate illumination lamps of taxis;
- (6) Lamps for work whose construction comes under each of the following Items, and other lamps not turned on during running;
 - A. Lamps which cannot be turned on at the driver's seat;
 - B. Lamps equipped with a device which enables the driver in his seat to confirm that they are illuminated;

4. No motor vehicle (except passenger buses) shall have lamps whose colour of light is purple, above the front windshield.

5. No motor vehicle shall have lamps likely to be mistaken for the speed indicator lamps of the speed indicating device above the front windshield.

6. No motor vehicle shall have a flashing lamp or a lamp whose intensity may vary, except the following lamps:

- (1) Adaptive front lighting system;
- (2) Side marker lamps;
- (3) Direction indicator lamps;

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- (4) Auxiliary direction indicator lamps;
 - (5) Hazard warning lamps;
 - (6) Warning lamps of emergency motor vehicles;
 - (7) Lamps of motor vehicles for road maintenance service;
 - (8) Electric indicators capable of continuously indicating the destination, etc. of passenger buses;
 - (9) Emergency lamps (only limited to those mounted on motor vehicles for passenger carrying business, or those shared in common with compartment lamps);
 - (10) Lamps that operate in interlocking with the overload prevention device mounted on crane trucks provided for in Item (8), Paragraph 1 of Article 1 of the Enforcement Law of Labor, Safety and Health Act (Cabinet Order No. 318 of 1972);
 - (11) Lamps which are constructed so that their flashing or the variation in luminous intensity can be made only manually.

7. No motor vehicle shall have a red reflex reflector at the front, or a white reflex reflector at the rear. In this case, the reflective objects having the same construction and provided at the same position as red front reflective objects mounted on designated motor vehicles, etc. shall be regarded as complying with this requirement.

8. The direct light or the reflected light from the lamps installed to a motor vehicle shall not interfere with the driving operation of the motor vehicle concerned and any other motor vehicle.

9. The lamps enumerated in Item (1) through (2-2) and (7) of Paragraph 2 (for the lamps of Item (1) of the same Paragraph, only those of red colour provided on both sides at the rear end of the motor vehicle; and for the lamps of Item (1-4) of the same Paragraph, only those provided at the rear end of the motor vehicle) shall not illuminate nor indicate to the front. In this case, those having the same construction and provided at the same position as the lamps which have red illuminating surfaces extending to the sides and indicate to the rear, mounted on designated motor vehicles, etc., shall be regarded as complying with this requirement.

10. The lamps installed to motor vehicles shall be 300 cd or less in luminous

intensity, except the headlamps, front fog lamps, cornering lamps, side marker lamps, number plate lamps, parking lamps at the rear end, stop lamps, reversing lamps, direction indicator lamps, auxiliary direction indicator lamps, hazard warning lamps, speed indication lamps of speed indication devices, vehicle compartment lamps, warning lamps of emergency motor vehicles, lamps of motor vehicles for road maintenance service, identification lamps of motor vehicles loaded with gunpowder, radioactive substances, etc., emergency lamps of motor vehicles for passenger carrying business, and lamps not turned on during running (except the parking lamps at the front end).

11. The identification lamps of motor vehicles loaded with gunpowder, radioactive substances, etc., shall not be in combination with other lamps.

Article 141 (Horns)

1. The requirements prescribed in the Announcement of Paragraph 2 of Article 43 of the Safety Regulations in connection with the tone, sound level, etc. of the audible warning device of a horn shall be that the sound of the audible warning device of a horn emits a continuous sound, and the sound level and tone are uniform. In this case, the following audible warning devices of a horn shall be regarded as not complying with this requirement:

- (1) Those which emit intermittent sound automatically;
- (2) Those whose sound level or tone varies automatically;
- (3) Those whose sound level or tone can be easily changed by the driver at the driver's seat.

2. The requirements prescribed in the Announcement of Paragraph 3 of Article 43 of the Safety Regulations in connection with the tone, sound level, etc. of a horn shall be the requirements prescribed in each of the following Items.

- (1) The sound level of a horn (if two or more horns are operating simultaneously, the sum thereof) shall be 93 dB or more, but not exceeding 112 dB (83 dB or more, but not exceeding 112 dB in the case of a horn installed to motor cycles with a power of 7 kW or less) measured at a distance of 7 m to the front of the motor vehicle;
- (2) The horn shall not be a siren or bell.

3. When the sound level is not likely to be within the range given in Item (1) of the preceding Paragraph, it shall be measured by a sound level meter in accordance with each of the following Items.

- (1) Prior to the operation, the sound level meter shall be thoroughly warmed up and shall be calibrated.
- (2) The microphone shall be placed at a height where the sound level is the greatest in a range from 0.5 m to 1.5 m above the ground at a distance of 7 m from the forward edge of the motor vehicle on the longitudinal centre line of the motor vehicle, horizontally and in parallel with the longitudinal centre line of the motor vehicle so that it faces toward the motor vehicle.
- (3) The audibility compensator circuit shall be set to “A”-weighting characteristics.
- (4) The engine shall be stopped.
- (5) The measurement site shall be a virtually level place that is not affected by reflecting sounds due to surrounding objects.
- (6) The measured values shall be handled as follows.
 - A. The measurement shall be conducted twice. The measured value of less than 1 dB shall be discarded.
 - B. If the difference between two measured values exceeds 2 dB, these measured values shall be nullified. Nevertheless, if each of these measured values is not in the range provided for in Item (1) of the preceding Paragraph, these measured values shall be valid.
 - C. The mean value of these two measured values (if the measured values have been compensated in accordance with Item D. below, the compensated value) shall be regarded as the sound level.
 - D. When the difference in measured value between sound level to be measured and the ambient noise level is 3 dB or more and less than 10 dB, the compensation value specified in the table below shall be deducted from the measured value. If the said difference is less than 3 dB, the measured values shall be nullified.

Difference in measured value between noise level to	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---

be measured and ambient noise level							
Compensating values	3	2	1				

4. Notwithstanding the provisions of the preceding Paragraph, the measurement can be conducted according to the following Items for the motor vehicles manufactured on or before December 31, 2003.

- (1) Prior to the operation, the sound level meter shall be warmed up thoroughly and shall be calibrated.
- (2) The microphone shall be placed at a height of 1 m above the ground at a distance of 2 m from the forward edge of the motor vehicle on the longitudinal centre line of the motor vehicle, horizontally and in parallel with the longitudinal centre line of the motor vehicle so that it faces the motor vehicle.
- (3) The audibility compensator circuit shall be set to “C”-weighting characteristics.
- (4) The engine shall be stopped.
- (5) The measurement site shall be a virtually level place that is not affected by reflecting sounds due to surrounding objects.
- (6) With regard to the handling of the measured values, the provisions of Item (6) of the preceding Paragraph shall apply mutatis mutandis.

Article 142 (Emergency Signals)

1. The requirements prescribed in the Announcement of Paragraph 1 of Article 43-2 of the Safety Regulations in connection with the colour of light, brightness, installation position, etc. of an emergency signal shall be the requirements prescribed in each of the following Items:

- (1) Emergency signal equipment shall be capable of displaying a red light which is visible from a distance of 200 m at night;
- (2) Emergency signal equipment shall be self-illuminating type;
- (3) Emergency signal equipment shall be stored where it is easily accessible to the user.

- (4) Emergency signal equipment shall be constructed so that it may not be damaged nor actuated as a result of vibration, shocks, etc.
2. Those enumerated in each of the following Items shall be regarded as not complying with the requirements of the preceding Paragraph:
 - (1) Red signal lamps where the lens of the luminescent surface of the red lamp is less than 35 mm in diameter;
 - (2) Red signal lamps incorporating bulbs which do not have performance rating of 2.5V, 0.3A or equivalent;
 - (3) Red signal lamps incorporating batteries which do not have performance rating of R14P (“Manganese UM-2 dry cell”) specified in JIS C8501 “Carbon Zinc Batteries” or LR6 (“Alkaline Manganese UM-3 dry cell”) specified in JIS C8511 “Alkaline Primary Batteries” or equivalent;
 - (4) Red signal lamps which exhibit damage or whose lens surfaces are smeared badly or whose performance has dropped significantly due to worn or dead batteries;
 - (5) Smoke flares which do not have performance ratings of JIS D5711 “Red Fusee for Motor Vehicles” or equivalent;
 - (6) Smoke flares whose performance has dropped significantly due to damage or absorbed humidity.

Article 143 (Warning Reflex Reflectors)

The requirements prescribed in the Announcement of Article 43-3 of the Safety Regulations in connection with the shape of the warning reflex reflector, colour of reflected light, brightness, etc. shall be the requirements prescribed in each of the following Items:

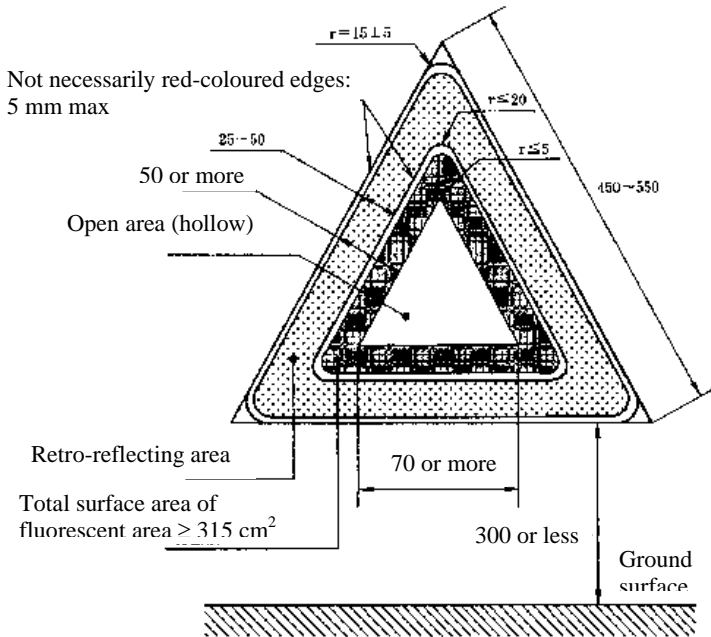
- (1) The reflecting surface of a warning reflex reflector shall be a hollow equilateral triangle with a stripe of 50 mm or more in width, with the apex directed upwards, each side of which shall be 400 mm or more;
- (2) The reflected light from a warning reflex reflector shall be clearly visible at a distance of 150 m at night when illuminated by headlamps with high beam;

- (3) Warning reflex reflectors shall reflect a red light;
- (4) Warning reflex reflectors shall be constructed so that they stand upright on the ground.

Article 144 (Warning triangles)

1. The requirements prescribed in the Announcement of Paragraph 1 of Article 43-4 of the Safety Regulations in connection with the shape, brightness of fluorescent or reflecting light, colour, etc. of a warning triangle shall be the requirements prescribed in each of the following Items:

- (1) The warning triangle shall be a hollow equilateral triangle, with its apex directed upwards, consisting of a reflecting surface and a fluorescent surface, as indicated in the form prescribed in the following figure;



Remarks: The unit of the length in the figure is mm.

- (2) The reflected light from a warning triangle shall be clearly visible at a distance of 200 m at night when illuminated by headlamps with high beam;
- (3) The fluorescent light of a warning triangle shall be clearly visible in the daytime from a distance of 200 m;
- (4) The colour of the reflecting light and fluorescent light of a warning triangle shall be red;
- (5) Warning triangles shall stand upright on the ground;
- (6) Warning triangles shall be able to be assembled easily;
- (7) Warning triangles shall be stored at a place readily accessible to the user.

2. Warning triangles having the same construction as the warning triangles for which device type designation has been granted pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, which exhibits no damage, etc. liable to hamper their function, shall be regarded as complying with the requirements prescribed in each Item of the preceding Paragraph.

Article 145 (Unauthorized-Use Warning Devices)

1. The requirements prescribed in the Announcement of Paragraph 2 of Article 43-5 of the Safety Regulations in connection with the performance, etc. of unauthorized-use detection and warning of an unauthorized-use warning device shall be the requirements prescribed in Attachment 78 “Technical Standard for Unauthorized-Use Warning Devices” (except the provisions of Paragraph 3-2, Item (b) of Paragraph 4-1-2-1, Paragraph 5-2-12, and Attached Sheet 1). In this case, the following unauthorized-use warning devices shall be regarded as not complying with this requirement.

- (1) Unauthorized-use warning devices which emit audible and optical alarm in other cases than cases where a theft of a motor vehicle equipped with an unauthorized-use warning device is attempted or taking place, or when the operation to change the setting condition of an unauthorized-use warning device has been carried out. However, this provision shall not apply to devices (only limited to such one that cannot be confused with the sound of a horn in the case of a device which gives an audible alarm; only limited to such one that cannot be confused with the warning lamp of an emergency motor vehicle in the case of a device which gives an optical alarm and limited to such one whose light intensity will not exceed 0.5 cd in the case of a lamp installed outside the passenger compartment) for providing information on the setting condition of the unauthorized-use warning device.
- (2) Unauthorized-use warning devices which can be operated so that the unauthorized-use warning device can be activated while the engine is running.

2. The unauthorized-use warning device having the same construction and provided at the same position as unauthorized-use warning devices mounted on designated motor vehicles, etc. which exhibits no damage, etc. liable to hamper their function shall be regarded as complying with the requirement of the preceding Paragraph.

Article 146 (Rear-View Mirrors, etc.)

1. The requirements prescribed in the Announcement of Paragraph 2 of Article 44 of the Safety Regulations in connection with the performance, etc. concerning the field of vision of the driver by means of the rear-view mirror concerned, protection of pedestrians, etc. of rear-view mirrors mounted on motor vehicles (except motor cycles with or without sidecar and three-wheeled motor vehicles that are equipped with a handle bar type steering equipment and with no passenger room (except those in which the driver in his seat can clearly recognize the traffic conditions near the left side of the motor vehicle itself. Hereinafter the same in this Article)) shall be the requirements prescribed in each of the following Items. However, the provisions of Items (2) and (3) shall not apply to rear-view mirrors mounted on motor cycles with or without sidecar, large-sized special motor vehicles, small-sized special motor vehicles for agricultural use and motor vehicles with a maximum speed of less than 20 km/h, and the provision of Item (3) shall not apply to ordinary-sized motor vehicles (except those used exclusively for carriage of passengers) and motor vehicles with a passenger capacity of 11 persons or more.

- (1) The mounting of a rear-view mirror shall be easily adjustable and designed to be kept in a certain direction.
- (2) The rear-view mirror, the height of whose lowest part that protrudes beyond the outermost part of the vehicle body in the vicinity of the mounting section is 1.8 m or less above the ground, shall be constructed so that the impact in instances where the section concerned hits pedestrians, etc. may be reduced.
- (3) The mirror provided inside the compartment shall comply with the requirements prescribed in Attachment 80 "Technical Standard for Impact Reduction of Inside Rear-View Mirrors."
- (4) The mirror shall enable a driver in his or her seat to clearly recognize the traffic conditions of other vehicles at each side of the right and left of the motor vehicle (of the trailer when drawing a trailer), straight backwards up to 50 m, and the traffic conditions near the left side (except the area which the driver in his seat may directly confirm) of the motor vehicle itself (of the tractor and trailer when drawing a trailer of a larger width than the tractor). However, rear-view mirrors may enable a driver to recognize clearly the traffic conditions straight backwards up to 50 m at each side of the right and left of a motor cycle with or without sidecar and a mini-sized motor vehicle with caterpillar and sleds, and at the right side only for a small-sized special motor vehicle, straight backwards up to 50 m. In this case, rear-view mirrors

whose mounting is not secure or rear-view mirrors whose surface has considerable distortion, cloudiness or cracking shall be regarded as not complying with this requirement.

- (5) In the case of outside rear-view mirrors mounted on ordinary-sized motor vehicles used exclusively for carriage of passengers with a passenger capacity of 10 persons or less, ordinary-sized motor vehicles used for the transport of goods (except motor vehicles with a gross vehicle weight exceeding 2.8 tons), small-sized motor vehicles and mini-sized motor vehicles (except trailers, motor cycles with or without sidecar, and mini-sized motor vehicles with caterpillar tracks and sleds), the angle between a vertical plane passing through the centre of the eye point and the centre of the rear-view mirror and the longitudinal centre plane of the motor vehicle is 55° or less (75° or less in the case of left-hand drive vehicles) in the forward direction in the case of a rear-view mirror mounted on the right side and 75° or less (55° or less in the case of left-hand drive vehicles) in the forward direction in the case of a rear-view mirror mounted on the left side, respectively. In this case, the mirror surface of a rear-view mirror shall be adjusted to and held in the normal position of use.

2. Rear-view mirrors having the same construction and provided at the same position as the rear-view mirrors mounted on designated motor vehicles, etc. which exhibit no damage, etc. liable to hamper their function shall be regarded as complying with the requirements of each Item of the preceding Paragraph.

3. The requirements prescribed in the Announcement of Paragraph 3 of Article 44 of the Safety Regulations in connection with the performance, etc. concerning the field of vision of the driver by means of the rear-view mirror concerned, protection of pedestrians, etc. of rear-view mirrors mounted on motor cycles with or without sidecar and three-wheeled motor vehicles that are equipped with a handle bar type steering equipment and with no passenger room shall be the requirements prescribed in each of the following Items.

- (1) The mounting of a rear-view mirror shall be easily adjustable and shall be able to be kept in a certain direction.
- (2) The rear-view mirror shall be constructed so that it may reduce the impact in the event of contact with pedestrians, etc., thus causing no injury to the pedestrians, etc.
- (3) The rear-view mirror shall be constructed to enable the driver to

recognize the backward traffic conditions clearly and easily.

4. The rear-view mirrors enumerated below shall be regarded as not complying with the requirement prescribed in Item (3) of the preceding Paragraph. However, the rear-view mirrors mounted on motor vehicles manufactured on or before December 31, 2006, may not conform to the provisions of Items (2) through (4).

- (1) Rear-view mirrors whose surface has considerable distortion, cloudiness or cracking.
- (2) Rear-view mirrors whose surface area is less than 69 cm².
- (3) Rear-view mirrors with a circular form surface whose diameter is less than 94 mm or more than 150 mm.
- (4) Rear-view mirrors with a surface of other form than circular shape, not enveloping a circular of 78 mm diameter, nor included in a rectangle with 120 mm vertical side and 200 horizontal side (or 120 mm horizontal side and 200 vertical side).

5. The requirements prescribed in the Announcement of Paragraph 4 of Article 44 of the Safety Regulations in connection with the installation position, installation method, etc. of the rear-view mirrors in the preceding Paragraph shall be the requirements prescribed in each of the following Items.

- (1) The rear-view mirror shall be mounted in such a way that the centre line of the reflective surface of the rear-view mirror is located at more than 280 mm outside the vertical plane passing through the centre of the steering system and parallel to the forward direction. In this case, rear-view mirrors whose mounting is not secure shall be regarded as not complying with this requirement.
- (2) The rear-view mirror shall be mounted in such a way that the driver in his seat may adjust its direction easily.
- (3) The rear-view mirror shall be mounted both on the right and left sides of the vehicle (in the case of motor vehicles with a maximum speed of 50 km/h or less, on its both side or right side).

6. The following rear-view mirror which exhibits no damage, etc. liable to hamper its function shall be regarded as complying with the requirements prescribed in each Item of Paragraph 3 and each Item of the preceding

Paragraph.

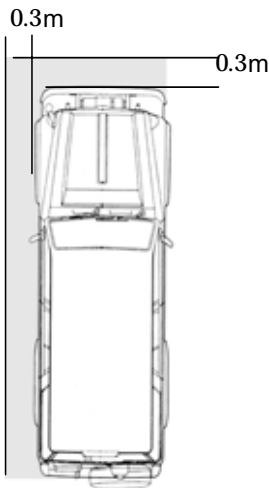
- (1) Rear-view mirrors having the same construction and provided at the same position as the rear-view mirrors mounted on designated motor vehicles, etc.;
- (2) Rear-view mirrors having the same construction and provided at the same position as the rear-view mirrors for which device type designation has been granted pursuant to the provision of Paragraph 1 of Article 75-2 of the Act.

7. The obstacle prescribed in the Announcement of Paragraph 5 of Article 44 of the Safety Regulations shall be a round column having a height of 1 m and a diameter of 30 cm, that is enumerated in the following Table.

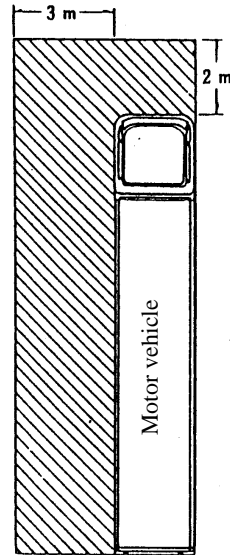
Motor vehicles	Obstacles
(1) Small-sized motor vehicles, mini-sized motor vehicles and ordinary-sized motor vehicles (except motor vehicles of the next Item, motor cycles with or without sidecar, three-wheeled motor vehicles and mini-sized motor vehicles with caterpillar tracks and sleds)	Obstacles which are located between a vertical plane at a distance of 0.3 m from the front end of the motor vehicle and the motor vehicle as well as between a vertical plane at a distance of 0.3 m from the left side of the motor vehicle and the motor vehicle and which are in contact with the motor vehicle concerned
(2) Ordinary-sized motor vehicles with a gross vehicle weight of 8 tons or more or with a maximum loading capacity of 5 tons or more in which a sizable part of the engine is located underneath the driver's compartment (except motor vehicles with a passenger capacity of 11 persons or more, motor vehicles having a shape similar to motor vehicles with a passenger capacity of 11 persons or more, one-side cab type motor vehicles in which the engine is located at the side of the driver's compartment, crane trucks, etc. in which the engine is located behind the driver's compartment or passenger compartment)	Obstacles which are located between a vertical plane at a distance of 2 m from the front end of the motor vehicle and the motor vehicle as well as between a vertical plane at a distance of 3 m from the left outermost side of the motor vehicle and the motor vehicle

(Reference diagram) Range of field of vision

a) Related to Item (1)



b) Related to Item (2)



8. The requirements prescribed in the Announcement of Paragraph 6 of Article 44 of the Safety Regulations in connection with the performance, etc. of a mirror for confirming the obstacle and other devices concerning the field of vision of the driver, protection of pedestrians, etc. by means of the said device shall be the requirements prescribed in each of the following Items.

- (1) Mirrors or other devices shall enable the driver in his seat to discern at least part (except sections where confirmation from the driver's seat is hindered by the A-pillar, windshield wipers, rear-view mirrors or steering wheel) of an obstacle enumerated in each Item of the preceding Paragraph. However, this provision shall not apply to motor vehicles which are so constructed that the driver in his seat can discern at least part of an obstacle enumerated in each Item of the preceding Paragraph directly or by means of a rear-view mirror.
- (2) Mirrors or other devices, the height of whose lowest part that protrudes beyond the outermost part of the vehicle body in the vicinity of the mounting section is 1.8 m or less above the ground, shall be constructed so that the impact in instances where the section concerned hits pedestrians, etc. may be reduced.

9. Rear-view mirrors whose mounting is not secure or rear-view mirrors whose surface has considerable distortion, cloudiness or cracking shall be regarded as not complying with the requirement of Item (1) of the preceding Paragraph.

10. The mirrors or other devices having the same construction and provided at the same position as the mirrors or other devices mounted on designated motor vehicles, etc. which exhibit no damage, etc. liable to hamper their function shall be regarded as complying with the requirements of each Item of Paragraph 8.

Article 147 (Windshield Wipers, etc.)

1. The requirements prescribed in the Announcement of Paragraph 1 of Article 45 of the Safety Regulations in connection with the performance, etc. of windshield wipers concerning ensuring of a view shall be that, in the case of windshield wipers provided at the windshield glass of motor vehicles, they shall be automatic windshield wipers to ensure a view immediate before the windshield glass (In cases where wipers are provided on right and left sides, they shall operate together). In this case, wiper blades whose performance has dropped significantly due to aging, etc. shall be regarded as not complying with this requirement.

2. Windshield wipers having the same construction and provided at the same position as the windshield wipers mounted on designated motor vehicles, etc. which exhibit no damage, etc. liable to hamper their function shall be regarded as complying with the requirement of the preceding Paragraph.

3. The requirements prescribed in the Announcement of Paragraph 2 of Article 45 of the Safety Regulations in connection with the performance, etc. of windshield washing systems and windshield defrosting and demisting systems concerning ensuring of a view shall be the requirements prescribed in each of the following Items:

(1) The windshield washing system shall be so constructed that it may eject an adequate amount of washing liquid to ensure a view in immediate front of the windshield, when the outside surface of the windshield is soiled. In this case, the windshield washing system where the washing liquid comes within the wiping area of the windshield wiper when it is squirted shall be regarded as complying with this requirement;

- (2) The defrosting and demisting system of ordinary-sized motor vehicles, small-sized motor vehicles or small-sized motor vehicles used exclusively for carriage of passengers with a passenger capacity of 10 persons or less shall have such a performance capable of ensuring a view in immediate front of the windshield when the windshield is significantly misted with water droplets, etc.;
- (3) The defrosting and demisting system shall not be likely damaged nor actuated as a result of vibration, impact, etc. while running.

4. Defrosting and demisting systems having the same construction and provided at the same position as the defrosting and demisting system mounted on designated motor vehicles, etc. which exhibit no damage, etc. liable to hamper their function shall be regarded as complying with the requirement of Item (2) of the preceding Paragraph.

5. With regard to the performance, etc. of sunvisors mounted on motor vehicles (except motor vehicles with a passenger capacity of 11 persons or more, large-sized special motor vehicles, small-sized special motor vehicles for agricultural use and motor vehicles with a maximum speed of less than 20 km/h) concerning the protection of occupants, the requirements prescribed in the Announcement of Paragraph 3 of Article 45 of the Safety Regulations shall be the requirements prescribed in Attachment 87 "Technical Standard for Sunvisor Impact Absorption."

6. Sunvisors having the same construction and provided at the same position as the sunvisor mounted on designated motor vehicles, etc. which exhibit no damage, etc. liable to hamper their function shall be regarded as complying with the requirement of the preceding Paragraph.

7. Sunvisors which are padded with impact-absorbing materials and have no spot-contact-feeling of the inner hard structure shall be regarded as complying with the requirement of Paragraph 5.

Article 148 (Speedometers, etc.)

1. The requirements prescribed in the Announcement of Paragraph 1 of Article 46 of the Safety Regulations in connection with the installation position, accuracy, etc. of speedometers shall be the requirements prescribed in each of the following Items.

- (1) The speedometer shall be constructed so that the driver may easily confirm the speed while the motor vehicle is moving. In this case, the

following speedometers shall be regarded as not conforming with this requirement.

- A. Speedometers whose speed readings are not indicated in km/h;
 - B. Speedometers which do not fall under any of those with illuminating equipment, those of self-illuminating type or those with the indication plate and pointer coated with self-illuminating paint (except motor vehicles of Paragraph 1 of Article 56 of the Safety Regulations, which are operated only during daytime), or speedometers likely to cause dizziness to the driver;
 - C. Speedometers of digital type, which have no sufficient brightness or contrast during daytime and nighttime;
 - D. Speedometers which are not included in the direct field of vision for the driver in his seat and in his driving position.
- (2) The indication of the speedometer shall be not less than the actual speed of the motor vehicle and free of significant error during running on an even, paved road. In this case, the following speedometers shall be regarded as not complying with this requirement.
- A. In the case of motor vehicles manufactured on or before December 31, 2006, speedometers in which the speed measured by means of a speedometer tester, according to the driver's signal at the moment when the speedometer of the motor vehicle indicates 40 km/h (the maximum speed in the case of motor vehicles with a maximum speed of 40 km/h or less) does not meet the following requirements.

- ① In the case of motor vehicles other than motor cycles with or without sidecar, three-wheeled motor vehicles, and mini-sized motor vehicles with caterpillar tracks or sleds, the measured speed reading shall meet the following formula:

$$10 (V_1 - 6) / 11 \leq V_2 \leq (100/90) V_1$$

where:

V_1 = Speed reading by on-vehicle speedometer (unit: km/h)

V_2 = Speed reading measured by speedometer tester (unit: km/h)

- ② In the case of motor cycles with or without sidecar, three-wheeled motor vehicles and mini-sized motor vehicles with caterpillar tracks or sleds, the measured speed reading shall meet the following formula:

$$10 (V_1-8) / 11 \leq V_2 \leq (100/90) V_1$$

where:

V_1 = Speed reading by on-vehicle speedometer (unit: km/h)

V_2 = Speed reading measured by speedometer tester (unit: km/h)

- B. In the case of motor vehicles manufactured on or after January 1, 2007, notwithstanding the provision of Item A., speedometers in which the speed measured by means of a speedometer tester, according to the driver's signal at the moment when the speedometer of the motor vehicle indicates 40 km/h (the maximum speed in the case of motor vehicles with a maximum speed of 40 km/h or less) does not meet the following requirements.

- ① In the case of motor vehicles other than motor cycles with or without sidecar, three-wheeled motor vehicles, and mini-sized motor vehicles with caterpillar tracks or sleds, the measured speed reading shall meet the following formula:

$$10 (V_1-6) / 11 \leq V_2 \leq V_1$$

where:

V_1 = Speed reading by on-vehicle speedometer (unit: km/h)

V_2 = Speed reading measured by speedometer tester (unit: km/h)

- ② In the case of motor cycles with or without sidecar, three-wheeled motor vehicles and mini-sized motor vehicles with caterpillar tracks or sleds, the measured speed reading shall meet the following formula:

$$10 (V_1-8) / 11 \leq V_2 \leq V_1$$

where:

V_1 = Speed reading by on-vehicle speedometer (unit: km/h)

V_2 = Speed reading measured by speedometer tester (unit: km/h)

2. The speedometers enumerated in each of the following Items which exhibit no damage, etc. liable to hamper their function shall be regarded as complying with the requirements prescribed in Item (1) of the preceding Paragraph.

- (1) Speedometers having the same construction and provided at the same position as the speedometer mounted on designated motor vehicles, etc.;
- (2) Speedometers having the same construction and provided at the same position as the speedometer for which device type designation has been granted pursuant to the provision of Paragraph 1 of Article 75-2 of the Act.

Article 149 (Fire Extinguishers)

1. The nomenclature and quantity prescribed in the Announcement of Item (3), Paragraph 1 of Article 47 of the Safety Regulations shall be the nomenclature and quantity posted in the following table.

Nomenclature	Quantity (kg)
(1) Oil paper, oil cloth, etc.	750
(2) Waste silk	750
(3) Oil cake	2,000
(4) Flammable solid, etc.	1,500
(5) Flammable liquid, etc.	2,000
(6) Cotton, etc.	2,000
(7) Wood wool	2,000
(8) Straw, etc.	2,000
(9) Synthetic resin, etc.	2,000
(10) Matches	150

2. The requirements prescribed in the Announcement of Paragraph 2 of Article 47 of the Safety Regulations in connection with the kind of the extinguishing agent of the fire extinguisher, construction, installation position, etc. shall be the requirements prescribed in each of the following Items:

- (1) Fire extinguishers to be provided on motor vehicles enumerated in Items (1) through (5), Paragraph 1 of Article 47 of the Safety Regulations shall be the ones that are applicable for extinguishing the carried good posted in the following table. However, in the case of motor cycles with or without sidecar, mini-sized motor vehicles or small-sized special motor vehicles, the filling capacity of the applicable fire extinguisher may be the capacity posted in Items A through E of the next Item.

Carried goods		Dangerous articles										Inflam- mable articles	High- pres- sure gas				
		1st class			2nd class			3rd class									
		Gunpowder	Peroxide of alkali metals or those containing these	Other miscellaneous article	Iron powder, metal powder or magnesium or those containing any of these	Combustible solids	Other miscellaneous article	Water prohibition goods	Goods other than water prohibition goods								
Fire extinguishers																	
Fire extinguishers ejecting atomized reinforcing agent with a filling capacity of 8 liters or more		○		○			○	○			○	○	○	○		○	
Fire extinguishers ejecting carbon dioxide with a filling capacity of 3.2 kg or more							○				○		○			○	
Fire extinguishers ejecting monochloride monobromomethane with a filling capacity of 2 liters or more							○				○		○			○	
Fire extinguishers ejecting dibromide tetrafluoride ethane with a filling capacity of 1 liter or more							○				○		○			○	
Fire extinguishers ejecting fire extinguishing powder	With a filling capacity of phosphates, etc. of 3.5 kg or more			○			○	○				○		○		○	○
	With a filling capacity of bicarbonate of sodium or potassium of 3.5 kg or more		○		○		○				○		○		○	○	○

Remarks:

- *1: The ○ mark shows that the fire extinguisher concerned is applicable for extinguishing the carried goods.
- *2: “Phosphates, etc.” means phosphates, sulphates and other flame-proof materials.
- (2) Fire extinguishers mounted on motor vehicles of Paragraph 1 of Article 47 of the Safety Regulations (except motor vehicles provided for in the preceding Item) shall be such ones enumerated below:
- A. Fire extinguishers ejecting atomized reinforcing agent with a filling capacity of 6 liters or more;
 - B. Fire extinguishers ejecting carbon dioxide with a filling capacity of 2.2 kg or more;
 - C. Fire extinguishers ejecting monochloride monobromomethane with a filling capacity of 1 liter or more;
 - D. Fire extinguishers ejecting dibromide tetrafluoride ethane with a filling capacity of 0.4 liter or more;
 - E. Fire extinguishers ejecting fire extinguishing powder with a filling capacity of 1.8 kg or more.
- (3) Fire extinguishers mounted on motor vehicles of Paragraph 1 of Article 47 of the Safety Regulations shall comply with the following requirements in addition to the provisions of the preceding two Items:
- A. The structure and performance of fire extinguishers shall comply with the technical standards provided for in Paragraph 2 of Article 21-2 of the Fire Prevention Act;
 - B. Fire extinguishers shall not be damaged nor actuated by vibration, impacts, etc. while the motor vehicle is running;
 - C. Fire extinguishers shall be installed where it may easily be detached when needed;
 - D. Fire extinguishers shall be located at the following places:
 - ① Places convenient for watchman’s use in the case of motor

vehicles carrying gunpowders, etc. or tractors drawing the said motor vehicle;

- ② Places convenient for use by drivers, assistants, conductors, watchmen or persons in charge in the case of motor vehicles other than those in Item ①.
- (4) Fire extinguishers with an indication pursuant to the provision of Paragraph 3 of Article 38 of the Ministry Ordinance Prescribing Technical Standards for Fire Extinguishers (Ministry of Home Affairs Ordinance No. 27 of 1964) shall be regarded as complying with the requirements of Items A and B of the preceding Item.

Article 150 (Pressure Containers and Accessories Thereof)

1. The requirements prescribed in the Announcement of Article 48 of the Safety Regulations in connection with the standards, indication, installation, etc. of the pressure containers and accessories thereof of motor vehicles shall be the requirements prescribed in each of the following Items:

- (1) Pressure containers shall comply with the standards prescribed by the Minister of Health, Labour and Welfare, based on the provision of Article 42 of the Industrial Safety and Health Law (Law No. 57 of 1972) in connection with the second class pressure containers provided for in Item (7) of Article 1 of the Enforcement Order of the Industrial Safety and Health Law (Cabinet Order No. 318 of 1972);
- (2) Pressure containers for compressed air shall have a drain cock;
- (3) Pressure containers shall have an indication of the maximum permissible pressure at a place easily seen under a condition where the pressure container is mounted on a motor vehicle;
- (4) Pressure containers shall be installed at a place convenient for inspection;
- (5) Pressure containers and conduits thereof shall be so mounted that they may not be damaged by vibrations, impacts, etc. while the motor vehicle is running;
- (6) Pressure containers shall have a pressure gauge to indicate the internal pressure of the container at a position easily seen by the driver;

- (7) The pressure gauge scale shall indicate the minimum effective working pressure of the system operated by the compressed gas.
- (8) The pressure gauge of Item (6) shall be equipped with an illuminating device or a luminous painted dial plate and pointer.

2. When a detailed statement which bears a “pass stamp” provided for in Article 4 of the Machinery Verification Regulations (Ministry of Labour Ordinance No. 45 of 1972) is submitted, the pressure container shall be regarded as complying with the requirements of Item (1) of the preceding Paragraph.

Article 151 (Tachographs)

1. The requirements prescribed in the Announcement of Paragraph 2 of Article 48-2 of the Safety Regulations in connection with the recording performance, accuracy, etc. of tachographs shall be the requirements prescribed in each of the following Items:

- (1) The tachograph shall be so constructed that it can automatically record the following data of the motor vehicle concerned over 24 successive hours:
 - A. Speed of the motor vehicle at every moment;
 - B. Vehicle running distance during any period.
- (2) The record of momentary speed by the tachograph shall be not less than the actual vehicle speed, and free of significant errors, when the motor vehicle is running on an even, paved road.

2. Tachographs for which device type designation has been granted pursuant to the provision of Paragraph 1 of Article 75-2 of the Act, or those having the performance equivalent to it, which have normal functions shall be regarded as complying with the requirement of the preceding Paragraph.

Article 152 (Speed Indication Devices)

1. The requirements prescribed in the Announcement of Paragraph 2 of Article 48-3 of the Safety Regulations in connection with the indicating method of the speed indication device, colour of light, brightness, accuracy, etc. shall be the requirements prescribed in each of the following Items:

- (1) The speed indication device shall be wired so as to automatically turn on the number of lamps (hereinafter referred to as the “speed indication lamps”) posted in the right column of the following table when the motor vehicle is running at a speed posted in the left column of the same table. In this case, the speed at which the left speed indication lamp begins to be illuminated shall be the lowest speed possible technically and shall not exceed 20 km/h in any case.

Speed exceeding 60 km/h	3 lamps
Speed exceeding 40 km/h, but 60 km/h or less	2 lamps
Speed of 40 km/h or less	1 lamp

- (2) The speed indication lamp shall not be provided with a manual switch, etc. which can readily turn off the speed indication lamps, except the power supply switch of the motor vehicle.
- (3) The number of speed indication lamps when lit shall be clearly visible at a distance of 100 m ahead of the motor vehicle.
- (4) The colour of light of a speed indication lamp shall be yellowish green.
- (5) The indication of the speed indication lamp shall be free of significant errors when the motor vehicle is running on a level, paved road.
- (6) The speed indication device shall have a pilot lamp or other tell-tale device which informs the driver in his seat of the operating condition thereof.

2. The requirements prescribed in the Announcement of Paragraph 3 of Article 48-3 of the Safety Regulations in connection with the installation position, installation method, etc. of the speed indication device shall be the requirements prescribed in each of the following Items:

- (1) The speed indication lamps shall be mounted above the windshield glass and at a height of 1.8 m or more above the ground. In this case, the installation position shall be measured according to the central position of the illuminating surface.
- (2) The speed indication lamps shall be arranged horizontally. The order of lighting shall be the left lamp, right lamp and middle lamp. In this case, three speed indication lamps of the speed indication device shall be arranged virtually horizontally and spaced equally. The interval

between the lamps shall be 300 mm \pm 50 mm. Furthermore, the middle lamp shall be located near the motor vehicle longitudinal centre line.

- (3) The illuminating surface of a speed indication lamp shall have a projected area of 40 cm² or more on the vertical plane perpendicular to the motor vehicle longitudinal centre line.

Article 153 (Emergency Motor Vehicles)

The requirements prescribed in the Announcement of Paragraphs 1 and 2 of Article 49 of the Safety Regulations in connection with the colour of the warning lamp mounted on emergency motor vehicles, brightness, sound level of the siren and paint colour of the vehicle body shall be the requirements prescribed in each of the following Items:

- (1) The warning lamp shall display a red light clearly visible from a distance of 300 m to the front. In this case, red lamps which function in interlocking with the warning lamp shall be regarded as complying with this requirement;
- (2) The sound level of a siren shall be, when measured at a distance of 20 m to the front, 90 dB or more and 120 dB or less. In this case, when it is recognized that the sound level of the siren is likely to be out of this range, the sound level shall be measured by means of a sound level meter according to the method given below:
 - A. Prior to the operation, the sound level meter shall be warmed up thoroughly and calibrated after the warming-up period.
 - B. The microphone shall be placed at a height of 1 m above the ground at a distance of 20 m from the forward edge of the motor vehicle on the motor vehicle longitudinal centre line, horizontally and in parallel with the motor vehicle longitudinal centre line so that it faces the motor vehicle;
 - C. The audibility compensator circuit shall be set to the "C"-weighting characteristics;
 - D. The engine shall be stopped;
 - E. The measurement site shall be virtually level place that is not affected by reflecting sounds due to surrounding objects;

F. The measured values shall be handled as follows:

- ① The measurement shall be conducted twice. The measured value of the noise level of less than 1 dB shall be discarded;
- ② If the difference in noise levels between two measured values exceeds 2 dB, the these two measured values shall be nullified. However, if each of these measured values is within the range provided for in this Announcement, it shall be valid;
- ③ The mean value of these two measured values (the compensated value in cases where the measured values have been compensated in accordance with Item ④) shall be regarded as the noise level;
- ④ When the difference in measured value between the noise level to be measured and the ambient noise level is 3 dB or more and less than 10 dB, the compensation value specified in the following table shall be deducted from the measured value. If the said difference is less than 3 dB, the measured values shall be nullified.

(Unit: dB)

Difference in measured value between noise level to be measured and ambient noise level	3	4	5	6	7	8	9
Compensation value	3	2	1				

- (3) The paint colour of the vehicle body of emergency motor vehicles shall be red in the case of fire-fighting motor vehicles; and white in the case of other emergency motor vehicles. However, this provision shall not apply to police motor vehicles, motor vehicles used by the Public Prosecutor’s Office for criminal investigations or motor vehicles used by the Defense Agency for emergency purpose, motor vehicles used for emergency surveillance at prisons or other reformatories, motor vehicles used for interning suspects or exercising surveillance over prisoners at Immigration Centres or Regional Immigration Bureaus, motor vehicles used for emergency public services, motor vehicles used by the Japan Coast Guard and handled as emergency motor vehicles, and motor vehicles used by the Ministry of Public Management, Home Affairs, Posts and Telecommunications to detect illegal radio stations.

- (4) When most part of the body of an emergency motor vehicle is painted in the colour prescribed in the preceding Item, it shall be regarded as complying with the requirements of the preceding Item.

Article 154 (Motor Vehicles for Road Maintenance)

The requirements prescribed in the Announcement of Article 49-2 of the Safety Regulations in connection with the colour of the lamp mounted on motor vehicles for road maintenance, brightness, etc. shall be the requirements prescribed in each of the following Items:

- (1) The lamp shall be a flashing yellow lamp.
- (2) The lamp shall be clearly visible from a distance of 150 m.

Article 155 (Motor Vehicles for Passenger Carrying Business)

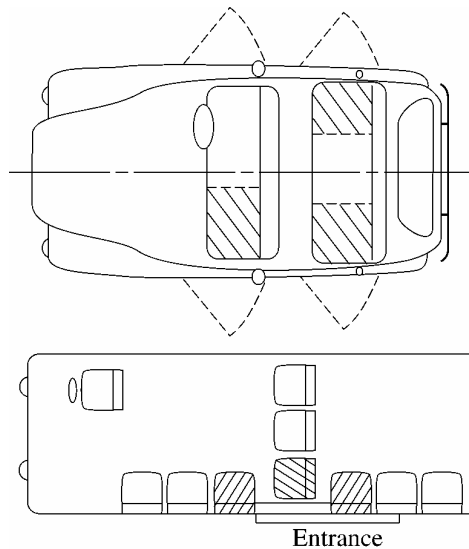
1. The requirements prescribed in the Announcement of Article 50 of the Safety Regulations in connection with the performance and construction necessary for being used for the passenger carrying business shall be the requirements prescribed in Attachment 91 “Construction Requirements for Articulated Buses,” Attachment 92 “Construction Requirements for Double-Decker” and Attachment as well as the following requirements. In this case, if motor vehicles used for passenger carrying business are no longer used for passenger carrying business without making any changes in construction and devices, they shall be regarded as not liable to fail to comply with the Safety Regulations.

- (1) The suspension system and passengers’ seats shall not give uncomfortable vibrations and impacts to passengers thereon;
- (2) The passenger compartment shall be constructed so that proper lighting is available;
- (3) The passenger compartment shall have adequate compartment lamps;
- (4) The side window of the driver’s seat shall be constructed to open 270 mm or more in both effective width and effective height by a simple operation;
- (5) The entrances only for the seats directly accessible from the entrance (except the entrance only for the driver) shall be 900 mm or more in

effective height and 470 mm or more in effective opening width (which means the minimum opening width on the horizontal plane at a height of 800 mm above the lower edge of the entrance, when the door is fully opened; hereinafter the same). In this case, the following seats which are readily accessible from the entrance shall be regarded as examples of the seats directly accessible from the entrance. The effective height and effective opening width of the entrance shall be the height and width of the section which can be used effectively as the entrance.

- (1) Seats provided next to the entrance;
- (2) Seats provided next to the side of those seats specified in Item (1) above and whose seating capacity is up to two persons.

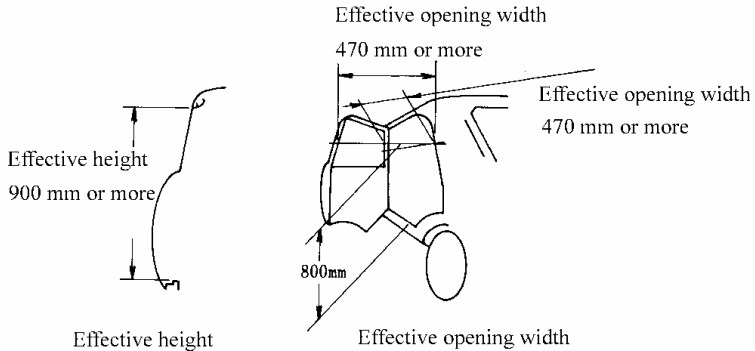
(Referential diagram)



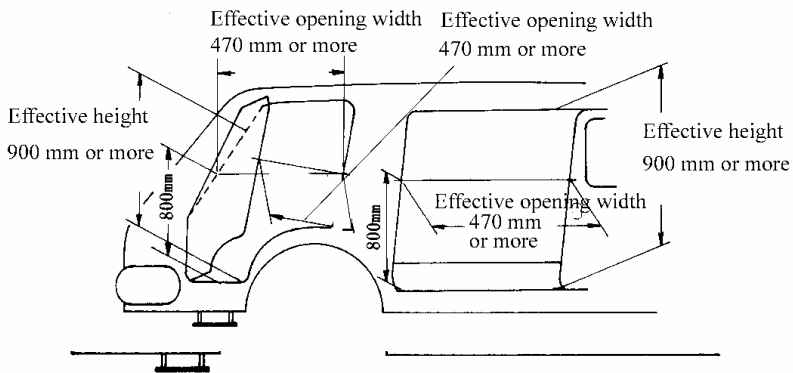
(Note) Those shaded portions denote seats provided next to the entrance.

(Reference diagram)

(Box type)



(Station wagon type)



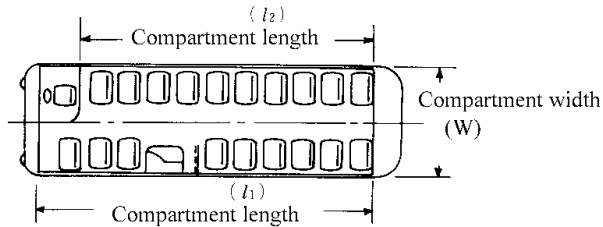
2. Motor vehicles for passenger carrying business with a passenger capacity of 11 persons or more shall comply with the following requirements, in addition to the provisions of the preceding Item:

- (1) The compartment lamp shall illuminate the interior of the compartment evenly and the light source shall be 5 W (2 W for fluorescent lamps) or more per square meter of the compartment floor area (the product that is obtained by multiplying the compartment length (the mean length if the compartment length differs between the right and left sides) by the compartment width).

(Formula)

$$\text{Compartment floor area} = \left(\frac{l_1 + l_2}{2} \right) \times w$$

(Reference diagram)



- (2) The step attached to an entrance shall be 300 mm or more in effective depth. However, if it is difficult for a step other than the lowest one to have the said dimension, due to the door of the entrance, etc., it may be so constructed that an effective depth of 300 mm or more is secured at the part where an effective width of the entrance is as long as 350 mm or more (290 mm or more if the height to the next upper step is 250 mm or less).
- (3) Motor vehicles other than those of the next Paragraph shall be equipped with a seat for the conductor near the entrance in such a way that it may not hinder entry/exit of the passengers and business of the conductor. In this case, the seat for the conductor may be a standing space or a seat.
- (4) Of motor vehicles other than those of the next Paragraph, motor vehicles in which the distance between the driver's seat and the seat for the conductor (referring to the shortest distance between the centres of these seats, respectively, measured parallel to the floor surface. In this case, if the position of the seat for the conductor cannot be determined clearly, the rear edge of the entrance opening section at the side of the vehicle body shall be regarded as the position of the conductor) is 3 m or more shall be equipped a communication device, such as buzzers, (whereby the conductor can communicate to the driver). If there are two entrances and two conductors are onboard, buzzers or other communication devices may be such that the communication from one conductor is relayed by the other conductor.

- (5) Entrance doors actuated by a mechanical power shall be provided, near the entrance concerned, with a device to open the door manually in the event of failure, etc. Furthermore, the location of the device and how to open the door shall be indicated.

3. Motor vehicles for passenger carrying business (except trailers) with a passenger capacity of 11 persons or more intended to operate without a conductor shall comply with the following requirements (the requirements of Items (1) through (6) for motor vehicles for passenger carrying business with a passenger capacity of 30 persons or more without a standing capacity, that are running regularly along fixed routes; the requirements of Items (1) through (3) and Item (5) for motor vehicles for passenger carrying business with a passenger capacity of 29 person or less without a standing capacity, that are running regularly along fixed routes; and the requirements of Items (1), (3) and (5) for motor vehicles other than those for passenger carrying business that are running regularly along fixed routes), in addition to the provisions of the preceding two Items.

- (1) The entrance door shall be so constructed that passengers may not open it easily. Furthermore, in the case of the entrance door of one-man-operated buses, the method of opening the door for an emergency case shall be indicated in the vicinity of the door.
- (2) The entrance door shall be so constructed that the driver in his seat may control its opening and closing.
- (3) The entrance door shall be so constructed that the motor vehicle may not be started with any door (except the doors of the entrance which is located near the driver's seat so that the driver may discern directly the opening and closing conditions thereof) opened, and an indicator lamp or other device which informs the driver in his seat of the doors' opening and closing conditions shall be provided. In this case, if the forward edge of the opening section of the entrance is located behind a vertical plane that includes a point 200 mm from the forward edge of the driver's seat and is perpendicular to the vehicle longitudinal centre plane, the entrance concerned shall not be regarded as "the entrance which is located near the driver's seat." Moreover, with regard to "the motor vehicle may not be started with any door opened," if an unlocking device can be operated in the driver's seat, such system shall be regarded as examples not complying with this requirement.
- (4) An indicator lamp or other device which informs the driver in his seat whether a passenger is on the step of an entrance shall be provided for

each entrance (except the entrances which are located near the driver's seat so that the driver may discern directly the presence of passengers).

- (5) Mirrors or other devices which allow the driver in his seat to discern the conditions near the entrance and inside the compartment shall be provided.
- (6) Broadcasting equipment which allows the driver in his seat to announce to passengers (limited only to those which will not require the driver to hold a microphone in his hand when announcing) shall be provided.
- (7) Buzzers or other devices which allow passengers to signal to the driver that they wish to get off shall be provided near the passengers.

4. Motor vehicles for passenger carrying business with a passenger capacity of 10 persons or less shall comply with the following requirements, in addition to the provisions of Paragraph 1.

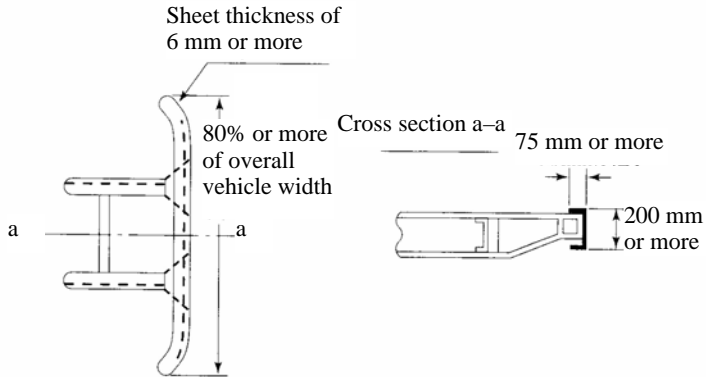
- (1) The space between the front edge of a seat used for passengers and a seat located ahead thereof or the partition, etc. (referring to the shortest horizontal distance between the front edge of the seat at a height of the front edge of the seat and the rear edge of the seatback of the seat located ahead thereof, partition, etc. (excluding local protrusions) in a condition that the seatback is reclined 30° backward from the vertical plane in the case of the driver's seat (including a seat that operates as a unit integral with the driver's seat or a seat parallel to the driver's seat) equipped with reclining mechanisms; in a condition that sliding mechanisms are adjusted so that the space may become the shortest distance in the case of seats equipped with sliding mechanisms) shall be 200 mm or more (400 mm or more in the case of a seat facing with the seat located ahead thereof).
- (2) The method of opening the door shall be indicated at or near the entrance door opening control device.
- (3) The driver's seat and seats adjacent to the side of the motor vehicle shall be equipped with head restraints complying with the requirements of Article 109.

Article 156 (Motor Vehicles with Gas-Transporting Containers)

1. The requirements prescribed in the Announcement of Paragraph 1 of Article 50-2 of the Safety Regulations in connection with the strength, installation position, etc. of the bumper and other buffer systems of motor vehicles provided with gas-transporting containers and motor vehicles having other construction and devices for transporting gas containers shall be the requirements prescribed in each of the following Items:

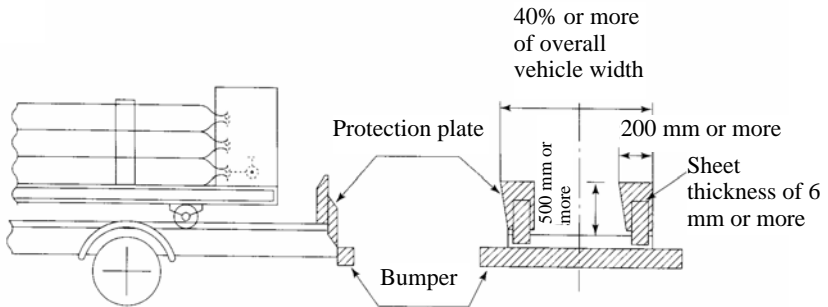
- (1) Motor vehicles provided with a gas-transporting container and motor vehicles having other construction and devices for transporting gas containers shall be equipped with bumpers and other buffer systems at the rear of the chassis so that the gas container and accessories thereof may be protected from damage in the event of collision. In this case, the “motor vehicles provided with a gas-transporting container” shall mean any motor vehicle provided with a gas container fixed to the chassis for transporting high-pressure gas (high-pressure gas tank lorry). Furthermore, the “motor vehicles having other construction and devices for transporting gas containers” shall mean any motor vehicle capable of loading containers used exclusively for the storage of gas containers and equipped with mechanical devices for facilitating the loading and unloading of containers and securing devices for securing the containers to the motor vehicle (hereinafter referred to as the “container motor vehicle with loading and unloading device”).
- (2) The “bumper” in the preceding Item shall mean a device having the construction, as indicated in Fig. 1, consisting of the main body and an installation section connecting the main body to the chassis and shall comply with the requirements prescribed below:
 - A. The bumper shall have adequate strength and rigidity and shall be installed securely to the chassis;
 - B. The edge of the main body as well as the installation section shall be so constructed that pedestrians and other motor vehicles may not be injured;
 - C. The main body shall be installed symmetrically in relation to the motor vehicle longitudinal centre line. Furthermore, its length shall be at least 80% of the width of the motor vehicle concerned;
 - D. The bumper shall not hamper the indication of the motor vehicle registration number plate and lamps, etc.

Fig. 1



- (3) The device (protection plate) to be mounted on a container motor vehicle with loading and unloading device, as indicated in Fig. 2, shall be regarded as “other buffer system.” In this case, a bumper complying with the requirements of the preceding Item shall be installed in addition to the protection plate.

Fig. 2

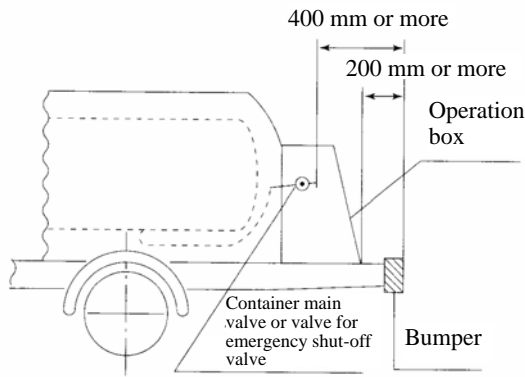


2. The requirements prescribed in the Announcement of Paragraph 2 of Article 50-2 of the Safety Regulations shall be that the buffer system of the preceding Paragraph be located at a sufficient distance from the rear surface of the gas-transporting container and accessories thereof. In this case, the

phrase “located at a sufficient distance” shall mean the compliance with the requirements prescribed in each of the following Items:

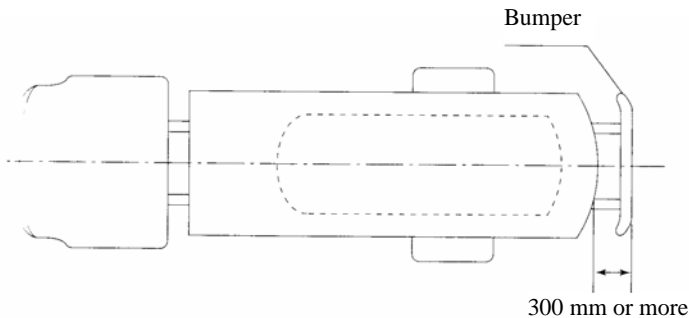
- (1) In the case of containers with rear valve (referring to containers in which the valve used for sending and receiving gas (hereinafter referred to as the “container main valve”) is provided at the rear surface thereof), the distance from the container main valve and valve for the emergency shut-off device to the rear surface of the bumper shall be at least 40 cm, as indicated in Fig. 3.

Fig. 3 Containers with rear valve



- (2) In the case of containers other than those with rear valve, the distance from the rear surface of the container to the rear surface of the bumper shall be at least 30 cm, as indicated in Fig. 4.

Fig. 4 Those other than containers with rear valve



- (3) In cases where the container main valve, valve for the emergency shut-off device, and other main accessories are housed in the operation box, in addition to complying with the requirements of the preceding two Items, the distance from the operation box to the rear surface of the bumper shall be at least 20 cm, as indicated in Fig. 3.

Article 157 (Motor Vehicles Carrying Gunpowder)

1. The requirements prescribed in the Announcement of Article 51 of the Safety Regulations in connection with the construction, devices, etc. of motor vehicles carrying gunpowder shall be the requirements prescribed in each of the following Items:

- (1) No fuel system shall employ an acetylene gas generator nor gas generator;
- (2) The loading platform and any other places where gunpowder is loaded shall be separated from the engine by non-flammable walls;
- (3) The electric wiring on the outside of the vehicle body and at the loading platform and any other places where gunpowder is loaded shall be covered with insulators and firmly fixed to the vehicle body;
- (4) Electric terminals, circuit breakers and any other electric equipment which is likely to spark, located on the outside of the vehicle body and at the loading platform and any other places where gunpowder is loaded, shall be properly covered.

2. Each of the following Items shall be regarded as not complying with the requirements of Item (3) or (4) of the preceding Paragraph:

- (1) The insulator of the electric wiring is broken;
- (2) The electric wiring is likely to be damaged by the contact, etc. with other metal sections;
- (3) The terminal cover of the battery or the terminal cover of the electric wiring is broken.

Article 158 (Motor Vehicles Carrying Dangerous Articles)

1. The requirements prescribed in the Announcement of Article 52 of the Safety Regulations in connection with the construction, devices, etc. of motor vehicles carrying dangerous articles shall be the requirements prescribed in each of the following Items:

- (1) No fuel system shall employ an acetylene gas generator nor gas generator;
- (2) The electric wiring on the outside of the vehicle body and at the loading platform and any other places where dangerous articles are loaded shall be covered with insulators and firmly fixed to the vehicle body;
- (3) Electric terminals, circuit breakers and any other electric equipment which is likely to spark, located on the outside of the vehicle body and at the loading platform and any other places where dangerous articles are loaded, shall be properly covered.

2. Each of the following Items shall be regarded as not complying with the requirements of Item (2) or (3) of the preceding Paragraph:

- (1) The insulator of the electric wiring is broken;
- (2) The electric wiring is likely to be damaged by the contact, etc. with other metal sections;
- (3) The terminal cover of the battery or the terminal cover of the electric wiring is broken.

3. With regard to motor vehicles carrying dangerous articles of the specified quantities or greater posted in Attached Table 3 of the Cabinet Order for Control of Dangerous Articles, in addition to the provision of Paragraph 1, the loading platform and any other places where dangerous articles are loaded shall be separated from the engine by non-flammable walls.

4. Motor vehicles which are provided with a tank on the chassis for the purpose of carrying explosive liquids shall comply with the requirements prescribed in each of the following Items, in addition to the provisions of Paragraphs 1 and 3:

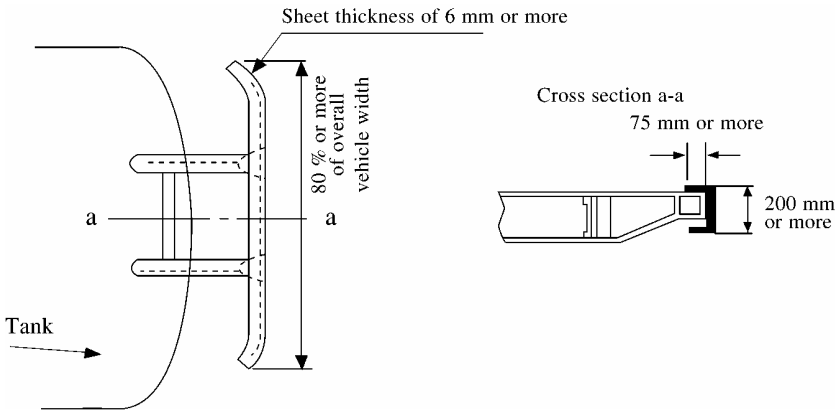
- (1) The motor vehicles shall have pneumatic rubber tyres and be equipped with bumpers or other buffer systems at the rear of the chassis so that

the tanks and accessories thereof may be protected from damage in the event of collision;

- (2) The tanks and accessories thereof shall be constructed so that they comply with the requirements of Article 15 (except Item (1) of Paragraph 1) of the Cabinet Order for Control of Dangerous Articles or shall have special construction or equipment approved under the provision of Article 23 of the said Order to have at least the performance equivalent to those complying with the requirements of Article 15 (except Item (1) of Paragraph 1) of the said Order;
- (3) The tanks shall be firmly secured to the chassis to be free from any movement or damage;
- (4) The exhaust pipes and silencers shall be free from any leakage of exhaust gas from the joints, etc., and shall have proper heat insulating measures at the part where the distance from the surface of the tank is less than 200 mm;
- (5) No exhaust pipes and silencers of a motor vehicle carrying explosive liquids enumerated in the Item "Class 4" of the Attached Table of the Fire Prevention Act shall be located just under the valve or joints of the tank or accessories thereof.

5. Devices mounted symmetrically relative to the motor vehicle longitudinal centre line, whose length is 80% or more of the width of the motor vehicle concerned and which has adequate strength and rigidity and is mounted securely to the chassis to protect the tank from damage, shall be regarded as complying with the requirements of Item (1) of the preceding Paragraph.

(Reference diagram)



6. As for the tank, when a tank certificate is submitted, the tank concerned and accessories thereof shall be regarded as complying with the requirements of Item (2) of Paragraph 4.

Article 159 (Passenger Capacity and Maximum Loading Capacity)

1. The requirements prescribed in the Announcement of Paragraph 1 of Article 53 of the Safety Regulations in connection with the passenger capacity of a motor vehicle shall be the requirements prescribed in each of the following Items:

- (1) The passenger capacity shall be the total capacity of the driver's seat, seats, devices corresponding to seats and standing space. In this case, beds provided on patient carrying vehicles, vehicles for transporting physically handicapped persons or ambulances as well as spaces and devices for securing wheelchairs at a space provided exclusively for accommodating wheelchairs shall be handled as devices corresponding to seats.
- (2) The seating capacity for contiguous seats shall be the value determined pursuant to the following Items:
 - A. For motor vehicles other than infant-carrying motor vehicles, an integer obtained by dividing the width of the seat concerned by 40 cm shall be used. However, the value obtained by the

following calculation may be used: subtract 76 cm from the seat width; the thus-obtained value is divided by 40 cm to determine an integer to which 2 is added.

- B. For infant-carrying motor vehicles, an integer obtained by dividing the seat width by 27 cm shall be used.
- (3) The capacity of a standing space shall be an integer obtained by dividing the total area of the standing space by 0.14 cm^2 .
- (4) In the case of bus type motor vehicles with a standing space of a passenger capacity of 11 persons or more, which are equipped with auxiliary seats, the passenger capacity shall be calculated with these auxiliary seats in their folded state. However, in the case of motor vehicles enumerated below in which passengers will not be carried in excess of the passenger capacity, it is permissible to calculate the passenger capacity with these auxiliary seats in their use state:
- A. General chartered motor vehicles for passenger carrying business;
 - B. Of passenger buses, those used for long-distance expressway and regular sightseeing business use;
 - C. Motor vehicles for specific passenger carrying business.
- (5) The passenger capacity of infant-carrying motor vehicles shall be the sum of an integer that is obtained by dividing the passenger capacity of children by 1.5 and the passenger capacity of adults.

2. The requirements prescribed in the Announcement of Paragraph 1 of Article 53 of the Safety Regulations in connection with the maximum loading capacity of a motor vehicle shall be the requirements prescribed in each of the following Items:

- (1) The maximum loading capacity shall be calculated as follows:
- A. The maximum loading capacity of trucks (except the case of Item B) shall be calculated according to the circulars enumerated below. Here, in the case of designated motor vehicles, etc. in which the construction, etc. of the vehicle body has been changed (except motor vehicles designated by the Minister of Land, Infrastructure and Transport), the maximum loading capacity shall be designated within the loading capacities of

standard motor vehicles that employ the chassis of the motor vehicle concerned.

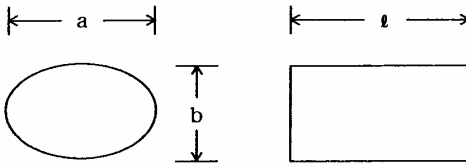
- ① Attachment 95 “Technical Standard for Running Performance of Motor Vehicles”
 - ② Attachment 96 “Technical Standard for Running Performance of Coupled Motor Vehicles”
- B. In cases where the use is changed from the passenger motor vehicle or the bus to the truck (including cases where the maximum loading capacity is designated to special-purpose motor vehicles), the maximum loading capacity shall be calculated as follows, in addition to Item A ①.
- ① In the case of designated motor vehicles, etc. for which the permissible limits of the gross vehicle weight and axle weight are clear from the specification table or the like, the maximum loading capacity shall be designated within a range not exceeding the said permissible limits.
 - ② In the case of motor vehicles for which the permissible limits of the gross vehicle weight and axle weight are indicated by means of a label showing that the Federal Motor Vehicle Safety Standards are complied with, the maximum loading capacity shall be designated within a range not exceeding the said permissible limits (including the permissible limit of the maximum loading capacity in cases where the permissible limit of the maximum loading capacity is also indicated).
 - ③ In the case of motor vehicles for which the permissible limits of the gross vehicle weight and axle weight are clear by means of a compliance certificate of a complete motor vehicle issued by the motor vehicle manufacturer pursuant to the European Economic Community directive, the maximum loading capacity shall be designated within a range not exceeding the said permissible limits.
 - ④ In the case of designated motor vehicles, etc. for which the permissible limits of the gross vehicle weight and axle weight are not clear, the maximum loading capacity shall be designated within a range not exceeding the maximum gross vehicle weight in the variant classification of the same type.

-
- ⑤ In the case of motor vehicles other than those provided for in Items ① through ④, the maximum loading capacity shall be designated within a range not exceeding the weight obtained by multiplying the capacity of the riding accommodation that has been removed by 55 kg.
- (2) The fifth wheel load shall be calculated in the same way as the provisions of the preceding Item.
- (3) Of semi-trailers approved for relaxation of the application in connection with Items of the Safety Regulations in which the regulated value is exceeded on conditions that only indivisible goods are transported pursuant to the provision of Article 55 of the Safety Regulations, the maximum loading capacity (reference maximum loading capacity) of standard relaxation semi-trailers in cases where divisible goods are transported within the range of the Safety Regulations shall be calculated according to the provision of Item (1).
- (4) For motor vehicles that employ a tank, etc. as a loading accommodation (except tank motor vehicles carrying dangerous articles, tank motor vehicles carrying high-pressure gas and tank motor vehicles used exclusively for transport of powdered goods), the tank volume (for the tank volume of 1,000 liters or less, the volume less than 10 liters is rounded off; in the same way, for the tank volume exceeding 1,000 liters but 5,000 liters or less, the volume less than 50 liters is rounded off (If the last two figures are 50 liters or more and less than 100 liters, they are counted as 50 liters.); and for the tank volume exceeding 5,000 liters, the volume less than 100 liters is rounded off (the same applies in Items (5) and (8) below)) shall be multiplied by the specific gravity of the loaded goods concerned enumerated in the table below to obtain a value (which can be multiplied by a value from 0.9 to 1.0) which shall be used as the weight of loaded goods (the weight less than 10 kg is rounded off; the same applies in Items (5), (6), (7) and (8)).

Moreover, for tanks whose volume is difficult to be calculated, it shall be determined by approximation of the volume of the tank concerned according to the examples below (the same applies in Items (5), (6) and (8) below).

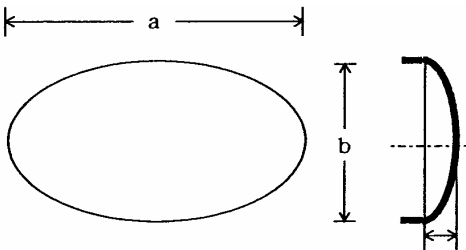
A. Oval tanks

① Calculation of cylinder



$$V = \frac{\pi a b}{4} \ell$$

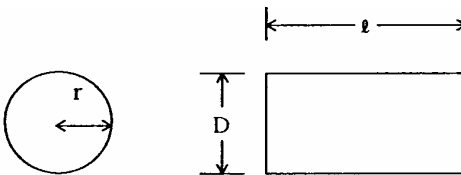
② Calculation of end plates



$$V = \frac{\pi a b}{4} \frac{\ell}{2}$$

B. Cylinder tanks

① Calculation of cylinder

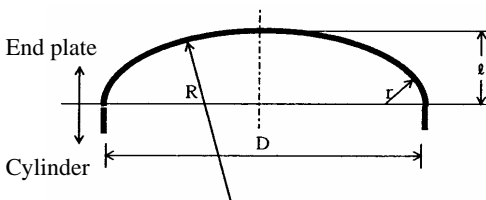


$$V = \pi r^2 \ell$$

$$= \frac{\pi}{4} D^2 \ell$$

② Calculation of end plates

a. 10% dish type end plate



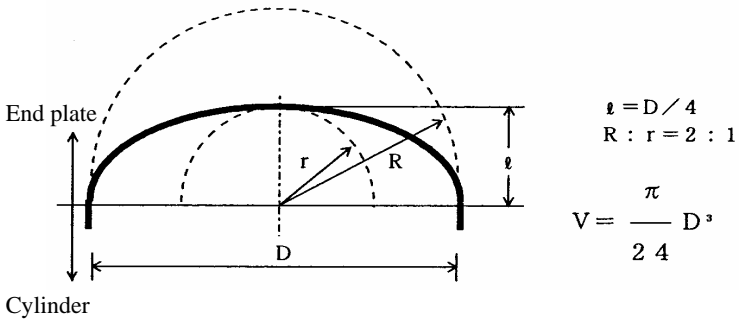
$$D = R$$

$$r = 0.1 D$$

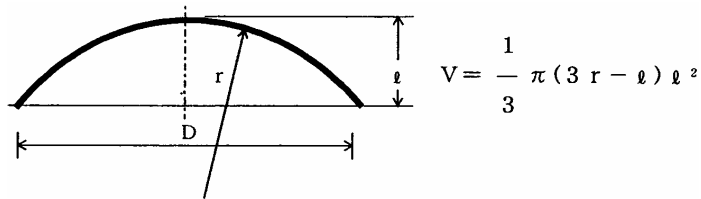
$$\ell = 0.194 D$$

$$V = 0.09896 D^3$$

b. 2:1 semi-oval end plate



c. Spherical end plate



(Table of Specific Gravity (Example))

Nomenclature of loaded articles	Specific gravity
Asphalt solution	0.90
Formalin	1.05
Water, sea water, milk, excrement	1.00

- (5) As regards tank motor vehicles carrying dangerous articles, the value obtained by multiplying the tank volume (which shall be multiplied by a value from 0.90 to 0.95) by the specific gravity of the loaded article concerned enumerated in the table below shall be used as the weight of the loaded article. Here, in the case of tank motor vehicles whose installation is approved pursuant to the provisions of the Fire Prevention Act as a tank motor vehicle for carrying several kinds of dangerous goods within the range in which the category of the dangerous article is the same category pursuant to the provisions of the Fire Prevention Act, the value calculated, based on the tank volume, by

a value of an article for which the installation has been approved among those given in the installation permit concerned shall be used as the weight of the loaded article.

(Table of Specific Gravity (Example))

Nomenclature of loaded goods	Specific gravity
Category 4	
Petroleum class 1	
Gasoline	0.75
Alcohols	
Alcohol	0.80
Acetate	
Acetic ester	0.90
Petroleum class 2	
Kerosene	0.80
Light oil	0.85
Acetic acid	1.06
Petroleum class 3	
Heavy oil	0.93
Petroleum class 4	
Lubricating oil	0.95

- (6) As regards tank motor vehicles carrying high-pressure gas, the value obtained by the calculation method of the mass of the liquefied gas provided for in Article 45 of the Safety Regulations for Containers shall be used as the weight of the loaded article. In this case, the tank capacity shall be the value stamped or the value stamped on the sticker pursuant to the provision provided for in Article 45 of the High-Pressure Gas Control Act.
- (7) For concrete mixers and agitator trucks, the maximum mixing capacity of the drum shall be multiplied by 2.4 tons/m³ (2.2 tons/m³ in the case of dry types where only cement and aggregate are loaded into the drum; and the value concerned in cases where the virtual specific gravity of goods to be transported is apparent by a reliable data) and shall be multiplied by a figure of 0.9 to 1.0. Next, the weight of the full water tank shall be added to the aforesaid value. The thus-obtained

sum shall be used as the weight of the loaded article.

However, for dry types, a study shall be made under two conditions: one under which only cement and aggregate are loaded into the drum; and the other under which ready-mixed concrete is prepared in the drum. Here, the weight of the water in the water tank when only cement and aggregate are loaded into the drum shall be represented by the weight when the water tank is filled fully with water. On the other hand, the weight of the water in the water tank when ready-mixed concrete is prepared in the drum shall be represented by the value which is obtained by subtracting the product of the maximum mixing capacity of the drum multiplied by 200 kg/m^3 from the weight of the water tank which is filled fully with water.

- (8) For tank motor vehicles used exclusively for transport of powdered goods, the tank volume shall be multiplied by the virtual specific gravity in the next table (the value concerned in cases where the virtual specific gravity of goods to be transported is apparent by a reliable data). This product shall be further multiplied by a figure of 0.9 to 1.0. The thus-calculated figure shall be used as the weight of the loaded article.

(Table of Virtual Specific Gravity)

Nomenclature of loaded goods	Virtual specific gravity
Loose cement	1.0
Flyash	0.8
Livestock feed	0.5
Vinyl powder	0.45
Flour	0.5
Carbon black	0.32

- (9) For special-purpose motor vehicles with a specified loading capacity, except those without a specified maximum loading capacity, the maximum loading capacity shall be calculated according to the provisions of Items (1) through (8).

Article 160 (Temporary Passenger Capacity)

The requirements prescribed in the Announcement of Paragraph 2 of Article 54 of the Safety Regulations in connection with the temporary passenger capacity shall be the sum of the seating capacity and the standing capacity calculated without applying the provision of Paragraph 2 of Article 112. In this case, the standing capacity shall be the integral value obtained by dividing the sum of the standing spaces by 0.14 m^2 .