
CHAPTER 3
DETAILS OF SAFETY REGULATIONS THAT APPLY TO
MOTOR-DRIVEN CYCLES

Section 2
Details of Safety Regulations That Apply to
Motor-Driven Cycles to Be Newly Used for Operation,
Except for Type-Approved Motor-Driven Cycles

Article 255

The provisions of this Section shall apply to cases where motor-driven cycles are to be newly used for operation, except type-approved motor-driven cycles.

Article 256 (Length, Width and Height)

1. The method prescribed in the Announcement of Paragraph 1 of Article 59 of the Safety Regulations in connection with the measurement of a motor-driven cycle shall mean that the motor-driven cycle under the conditions enumerated in Items (1) through (3) be measured according to Item (4).

- (1) Unloaded state;
- (2) With regard to the outward-opening windows and ventilators, the state where they are opened;
- (3) Any outside rear-view mirrors and flexible antennas shall be removed. In this case, the outside rear-view mirrors shall include lamps and reflectors attached thereto.
- (4) The dimensions given in each of the following Items shall be measured (The unit shall be cm and values less than 1 cm shall be discarded.), using a measuring tape or the like, with the motor-driven cycle in its straight-ahead position placed on a horizontal, flat surface (hereinafter referred to as the "reference surface").
 - A. With regard to the length, the most forward end and most rearward end of the motor-driven cycle are projected on the reference surface. The length shall be the distance between the

projected points in a direction parallel to the longitudinal centre line of the motor vehicle.

- B. As regards the width, the outermost sections of the motor-driven cycle are projected on the reference surface. The width shall be the distance between the projected points in a direction parallel to a straight line perpendicular to the motor vehicle longitudinal centre line.
- C. The height shall be the distance between the highest section of the motor-driven cycle and the reference surface.

Article 257 (Ground-Contact Section and Contact Pressure)

The requirements prescribed in the Announcement of Article 60 of the Safety Regulations in connection with the ground-contact sections and contact pressure of the running system shall be the requirements prescribed in each of the following Items.

- (1) No ground-contact section shall be constructed in such a way that it damages road surfaces;
- (2) Motor-driven cycles with a rubber traction belt caterpillar or flat traction belt caterpillar shall comply with the requirement of the preceding Item;
- (3) For pneumatic rubber tyres or solid rubber tyres whose ground-contact section is 25 mm or thicker, the ground-contact pressure shall not exceed 200 kg/cm² per cm of the width of the ground-contact section of the tyre. In this case, the “width of the ground-contact section of the tyre” shall mean the maximum width of the section that is actually in contact with the ground;
- (4) For caterpillar tracks, the ground-contact pressure shall not exceed 3 kg per cm² of the ground-contact area of the caterpillar tracks. In this case, the ground-contact area of the caterpillar tracks shall be a virtual ground-contact area and the value calculated from the following formula (The unit shall be cm² and the value shall be an integer.):

(Calculation formula)

$$A = a \cdot b$$

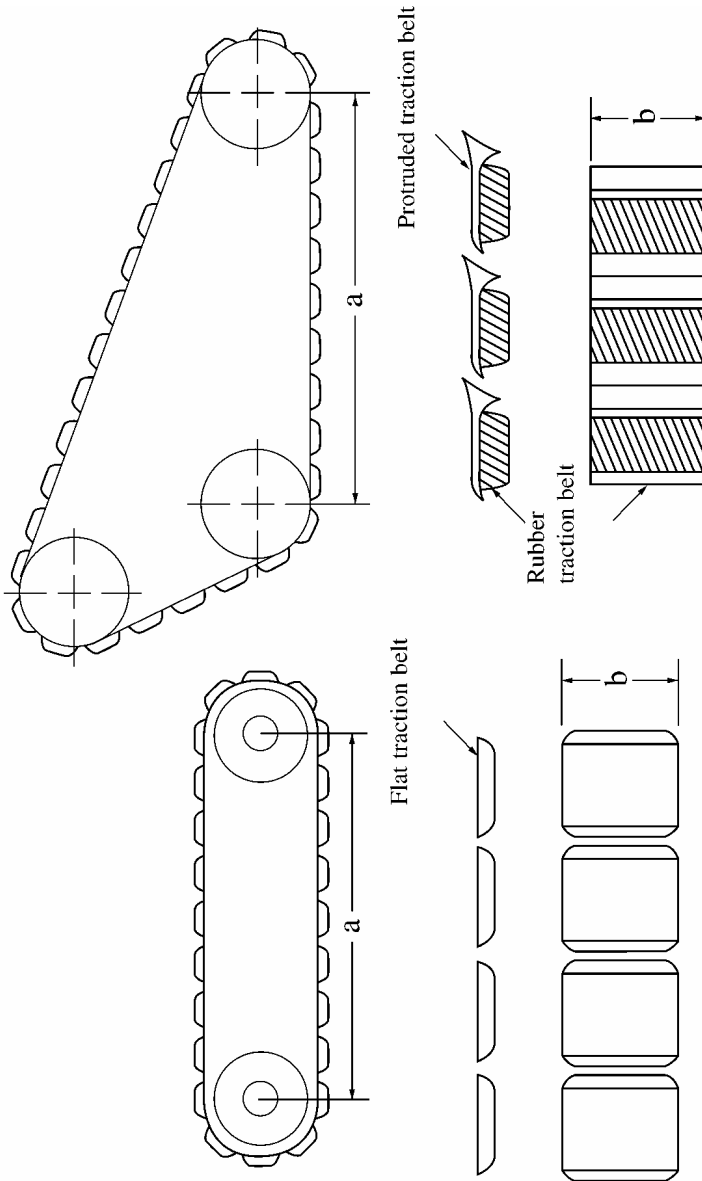
where:

A : Virtual ground-contact area

a : Ground-contact length of traction belt

b : Ground-contact width of traction belt

(Referential diagram)



- (5) As regards ground-contact sections other than those in the preceding two Items as well as those of sleds, the ground-contact pressure shall not exceed 100 kg per cm of the width of the ground-contact section;

- (6) For motor-driven cycles drawing a attached vehicle, the requirements of the preceding three Items shall be met even when coupled with a attached vehicle.

Article 258 (Brake System)

1. The requirements prescribed in the Announcement of Paragraph 1 of Article 61 of the Safety Regulations in connection with the braking performance of decelerating and stopping the running motor-driven cycle shall be the requirements enumerated in the next Paragraph through Paragraph 3.

2. Motor-driven cycles (except motor-driven cycles and attached vehicles enumerated in the next Paragraph) shall be provided with two or more brake systems which comply with the requirements prescribed in Attachment 98 “Technical Standard of Motor-Driven Cycle Brake System” and the following requirements.

- (1) The brake system shall be durable enough to fully withstand the operation and be mounted so as not to be damaged by vibration, impact, contact, etc. Furthermore, the brake system shall not be such ones enumerated in the following Items.
- A. Pipes or brake cables (excluding protective materials in cases where such protective materials are wound around the pipes or brake cables to protect them) of the brake system which are in contact with the drag links, propeller shafts, exhaust pipes, tyres, etc. or those which exhibit traces caused by contacting them during running or which are likely to contact with them;
 - B. Pipes or joints of the brake system which exhibit fluid leakage or air leakage;
 - C. Brake rods or brake cables which exhibit damage or whose joints exhibit looseness;
 - D. Brake rods or pipes of the brake system which use such parts which have undergone repairs, such as welding and padding (except copper pipes where two layers are employed and brazing is made securely);
 - E. Brake hoses or brake pipes which exhibit damage;

- F. Brake hoses which are attached in an excessively twisted state;
 - G. Brake pedals which have no free travel or brake pedals where there is no gap relative to the floor surface;
 - H. Brake levers which have no free travel or working travel;
 - I. Brake levers whose ratchets will not operate positively or which exhibit damage;
 - J. In addition to those enumerated in Items A. through I., brake systems which are not durable or which have not been mounted so as not to be damaged by vibration, impact, contact, etc.
- (2) The service brake system shall have two control devices in the case of motor-driven cycles having two wheels and shall work on the wheels including the front one by means of one of the control devices and on the wheels including the rear one by means of the other control device. As for other motor-driven cycles, the service brake system shall work on at least half the number of wheels including the rear ones. In this case, the construction that the braking force-operating surface of the brake disc, brake drum, etc. is connected to the axle by means of rigid parts, such as bolts, shafts and gears, shall be regarded as an example of "work on wheels."
- (3) The brake fluid of the service brake system shall not affect the function of the service brake system by corroding the brake piping or forming bubbles due to heat from the engine or other sources.
- (4) The service brake system operated by fluid pressure shall have any of the following construction that the brake fluid level can be checked readily without opening the lid of the reservoir tank.
- A. Construction where the reservoir tank of the brake fluid is transparent or semitransparent;
 - B. Construction equipped with a gauge by which the level of brake fluid can be checked;
 - C. Construction equipped with a fluid level drop warning device which gives a warning to the driver in his seat in the event that the brake fluid level drops;

- D. In addition to those enumerated in Items A. through C., construction that the brake fluid level can be checked readily without opening the lid of the reservoir tank.
3. Class 1 motor-driven cycles with a maximum speed of 50 km/h or less shall be provided with two or more brake systems complying with the requirements prescribed in the preceding Paragraph.
4. The requirements prescribed in the Announcement of Paragraph 2 of Article 61 of the Safety Regulations in connection with the braking performance of decelerating and stopping the running motor-driven cycle, when attached vehicles and motor-driven cycles drawing them are in the coupled state, shall be the following requirements enumerated below.
- (1) In the case of being drawn by motor-driven cycles of Paragraph 2, the service brake system shall have a braking capacity complying with the following formulae A. and B. on a dry, level paved road. In this case, the force to be applied by the driver shall not exceed 350 Newton for the foot-operated type and 200 Newton for the hand-operated type.

A.
$$S_1 \leq 0.1V_1 + \alpha V_1^2$$

In this case, the running system shall be disconnected from the engine.

where:

S_1 : Stopping distance (in meters)

V_1 : Initial braking speed (90% of the maximum speed of the motor-driven cycle concerned, but 60 in the case of motor-driven cycle in which 90% of the maximum speed exceeds 60 km/h) (in kilometers/hour).

α : Value specified in the right column of the following Table according to the operating state of the brake system in the middle column of the same Table for each category of motor-driven cycle in the left column of the same Table:

Category of motor-driven cycles	Operating state of brake system	α
Motor-driven cycles unable to operate both front and rear wheel brake systems by one control device	In case of operating front wheel brake system only	0.0087
	In case of operating rear wheel brake system only	0.0133
Motor-driven cycles able to operate both front and rear wheel brake systems by one control device	In case of operating both front and rear brake systems by main control device	0.0076
	In case of operating only front or rear wheel brake system or both front and rear wheel brake systems by control device other than main one	0.0154

B. $S_2 \leq 0.1V_2 + 0.0067V_2^2$

where:

S_2 : Stopping distance (in meters)

V_2 : Initial braking speed (80% of the maximum speed of the motor-driven cycle concerned, but 160 in the case of motor-driven cycles in which 80% of the maximum speed exceeds 160 km/h) (in kilometers/hour).

- (2) In the case of being drawn by motor-driven cycles of the preceding Paragraph, the service brake system shall have a braking capacity complying with the following formula on a dry, level paved road. In this case, the force to be applied by the driver shall not exceed 350 Newton for the foot-operated type and 200 Newton for the hand-operated type.

$$S \leq 0.1V + \alpha V^2$$

In this case, the running system shall be disconnected from the engine.

where:

S : Stopping distance (in meters)

V : Initial braking speed (90% of the maximum speed of the motor-driven cycle concerned, but 40 in the case of motor-driven cycle in which 90% of the maximum speed exceeds 40 km/h) (in kilometers/hour).

α : Value specified in the right column of the following Table according to the operating state of the brake system in the middle column of the same Table for each category of motor-driven cycle in the left column of the same Table:

Category of motor-driven cycles	Operating state of brake system	α
Motor-driven cycles unable to operate both front and rear wheel brake systems by one control device	In case of operating front wheel brake system only	0.0111
	In case of operating rear wheel brake system only	0.0143
Motor-driven cycles able to operate both front and rear wheel brake systems by one control device	In case of operating both front and rear brake systems by main control device	0.0087
	In case of operating only front or rear wheel brake system or both front and rear wheel brake systems by control device other than main one	0.0154

Article 259 (Emission Control Device)

1. The requirements prescribed in the Announcement of Paragraph 2 of Article 61-2 of the Safety Regulations in connection with the emission control performance on carbon monoxide and hydrocarbons contained in the exhaust emission emitted from the exhaust pipe of a gasoline-fueled motor-driven cycle to the atmosphere shall be that the measured value of carbon monoxide, expressed in volumetric ratio, and the measured value of hydrocarbons, expressed in volumetric ratio by normal-hexane equivalent, contained in the exhaust emission generated when the engine is in idling operation according to the operating conditions provided for in Attachment 44 "Measurement Procedure for Motor Cycle Mode Exhaust Emission" and emitted from the exhaust pipe to the atmosphere shall not exceed the value posted in the "Carbon monoxide" and "Hydrocarbons" columns of the following table, respectively, according to the category of motor-driven cycle posted in the left column of the same table.

Category of motor-driven cycles	Carbon monoxide	Hydrocarbons
A. Motor-driven cycles with a two-cycle engine	4.5%	7,800 ppm
B. Motor-driven cycles with a four-cycle engine	4.5%	2,000 ppm

2. The requirements prescribed in the Announcement of Paragraph 3 of Article 61-2 of the Safety Regulations in connection with the construction, function, performance, etc. of the exhaust emission control device to be mounted on a motor-driven cycle in order to comply with the provisions of the preceding Paragraph that will not hamper the function of the said device and other devices shall be that the device concerned shall function efficiently while the engine is in operation. Moreover, those in which the catalyst, etc. is not mounted securely or the catalyst, etc. exhibits damage shall be regarded as not complying with this requirement.

3. As regards the blow-by gas recirculation device to be mounted on motor-driven cycles having an internal combustion engine as the prime mover, fueled by gasoline, the requirements prescribed in the Announcement of Paragraph 4 of Article 61-2 of the Safety Regulations in connection with its function, performance, etc. of preventing the emission of hydrocarbons, etc. shall be that its installation is secure and exhibits no damage.

4. The requirements prescribed in the Announcement of Paragraph 5 of Article 61-2 of the Safety Regulations in connection with the installation position, installation method, etc. of the exhaust pipe to be unlikely to injure occupants, etc. by the exhaust gas, etc. emitted from the exhaust pipe of a motor-driven cycle and not to hamper the function of the brake system, etc. shall be the requirements prescribed in each of the following Items.

- (1) No exhaust pipe shall have its opening directed rightwards or leftwards.
- (2) In cases where any marking is affixed, no exhaust pipe shall have its opening at such a position that the indication of the numbers, etc. of the said marking is hampered by the emitting gases, etc.
- (3) No exhaust pipe shall set fire on the motor-driven cycle (including the attached vehicle drawn by the motor-driven cycle concerned) or the loaded goods and shall hamper the function of other systems, such as the brake system and electrical system, because of the interference with the exhaust pipe or emitting exhaust gas, etc.

- (4) Exhaust pipes shall be mounted securely and exhibit no damage.

Article 260 (Headlamps, etc.)

1. The requirements prescribed in the Announcement of Paragraph 2 of Article 62 of the Safety Regulations in connection with the colour of light, brightness, etc. of the headlamps shall be the requirements prescribed in each of the following Items.

- (1) The headlamps shall have performance sufficient to discern any obstacle on the road at a distance of 15 m (50 m for a second class motor-driven cycle with a maximum speed of 20 km/h or more) to the front at night;
- (2) The headlamp beam shall be directed in the forward direction of the motor-driven cycle, and the main photometric axis thereof shall be directed downwards;
- (3) The colour of light of a headlamp shall be white or selective-yellow;
- (4) Headlamps shall not have broken lamps, or lamps whose lens surfaces are badly smeared.

2. The requirements prescribed in the Announcement of Paragraph 3 of Article 62 of the Safety Regulations in connection with the installation position, installation method, etc. of the headlamps shall be the requirements prescribed in each of the following Items. In this case, as regards the measurement method of the illuminating surface of the headlamp and the installation position, the requirements prescribed in Attachment 94 "Measuring Method of Illuminating Surfaces, Numbers and Installation Positions of Lamps, etc. (Related to Sections 2 and 3 of Chapter 2)" shall apply *mutatis mutandis*.

- (1) For a headlamp with the intensity of 10,000 cd or more, it shall be constructed so that the intensity can be dimmed or the direction of the beam can be dipped;
- (2) The headlamp shall be mounted at a height of 1 m or less above the ground;
- (3) The headlamp shall be designed to stay lit at all times while the engine is in operation;

- (4) The number of headlamps shall be one or two;
- (5) Headlamps shall be provided in equal numbers on the right and left sides, except for cases where only one headlamp is mounted. Furthermore, headlamps to be mounted on motor-driven cycles whose front end is symmetrical shall be mounted symmetrically with respect to the motor vehicle longitudinal centre line;
- (6) The headlamp shall not flash;
- (7) The direct light or reflected light of the headlamp shall not hamper the driving operations of the motor-driven cycle equipped with the headlamp concerned;
- (8) The headlamp 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.

3. Headlamps having the same construction and provided at the same position as the headlamp mounted on motor-driven cycles for which type approval has been granted pursuant to the provision of Paragraph 1 of Article 62-3 of the Enforcement Regulations, which exhibit no damage liable to hamper its function, shall be regarded as complying with the requirements enumerated in each of the Items of the preceding Paragraph.

Article 261 (Number Plate Lamps)

1. The requirements prescribed in the Announcement of Paragraph 1 of Article 62-2 of the Safety Regulations in connection with the colour of light, brightness, etc. of the number plate lamps shall be the requirements prescribed in each of the following Items:

- (1) The number plate lamp of a motor-driven cycle shall illuminate in such a way that the numbers, etc. of the marking, provided at the rear end, specified by the municipal regulations of local governments (including special wards) can be visible from a distance of 8 m at night;
- (2) The colour of light of a number plate lamp shall be white;
- (3) Number plate lamps shall not have broken lamps, or lamps whose lens surfaces are badly smeared.

2. Number plate lamps mounted on motor-driven cycles for which type

approval has been granted pursuant to the provision of Paragraph 1 of Article 62-3 of the Enforcement Regulations, which exhibit no damage liable to hamper its function, shall be regarded as complying with the requirements enumerated in each of the Items of the preceding Paragraph.

3. The requirements prescribed in the Announcement of Paragraph 2 of Article 62-2 of the Safety Regulations in connection with the installation method, etc. of the number plate lamp shall be the requirements prescribed in each of the following Items. In this case, as regards the measurement method of the illuminating surface, number and installation position of the number plate lamp, the requirements prescribed in Attachment 94 “Measuring Method of Illuminating Surfaces, Numbers and Installation Positions of Lamps, etc. (Related to Sections 2 and 3 of Chapter 2)” shall apply *mutatis mutandis*.

- (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 are on.
- (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-driven cycle equipped with the number plate lamp concerned and of other motor-driven cycles, etc.
- (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. Number plate lamps having the same construction and provided at the same position as the number plate lamp mounted on motor-driven cycles for which type approval has been granted pursuant to the provision of Paragraph 1 of Article 62-3 of the Enforcement Regulations, which exhibit no damage liable to hamper its function, shall be regarded as complying with the requirements enumerated in each of the Items of the preceding Paragraph.

Article 262 (Rear Position Lamps)

1. The requirements prescribed in the Announcement of Paragraph 2 of Article 62-3 of the Safety Regulations in connection with the colour of light, brightness, etc. of the rear position lamps shall be the requirements prescribed 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)” which apply mutatis mutandis.

- (1) The illuminating light of a rear position lamp shall be clearly visible at night at a distance of 150 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-driven cycles 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-driven cycle, 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-driven cycle.
- (4) The rear position lamps shall not have broken lamps, or lamps whose lens surfaces are badly smeared.

2. The requirements prescribed in the Announcement of Paragraph 3 of Article 62-3 of the Safety Regulations in connection with the installation position, installation method, etc. of the rear position lamps shall be the requirements prescribed 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)” which apply mutatis mutandis.

- (1) The rear position 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 rear position 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 rear position lamps 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 rear position lamps provided on both sides at the rear end of a motor-driven cycle 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-driven cycle.
 - (4) The rear position lamps provided at the rear end of a motor-driven cycle shall be mounted symmetrically with respect to the longitudinal centre plane of the vehicle (except the rear position lamps of motor-driven cycles in which the right and left sides at the rear end are not symmetric).
 - (5) 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 motor-driven cycles with a maximum speed of less than 35 km/h and motor-driven cycles 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.
 - (6) 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 Paragraph 1 shall read as "5° below") provided for in the same Paragraph may not be hampered. In this case, rear position lamps whose lamp mountings or lens mountings exhibit looseness or excessive play shall be regarded as not complying with this requirement.
3. Rear position lamps having the same construction and provided at the same position as the rear position lamp mounted on motor-driven cycles for which type approval has been granted pursuant to the provision of Paragraph 1 of Article 62-3 of the Enforcement Regulations, which are functioning normally, shall be regarded as complying with the requirements enumerated in each of the Items of the preceding Paragraph.

Article 263 (Stop Lamps)

1. The requirements prescribed in the Announcement of Paragraph 2 of Article 62-4 of the Safety Regulations in connection with the colour of light, brightness, etc. of the stop lamps shall be the following requirements. 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)” which apply *mutatis mutandis*.

- (1) The illuminating light of a stop lamp shall be clearly visible in the daytime from a distance of 30 m to the rear, and the beams from the stop lamps shall not disturb other traffic. In this case, 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-driven cycles 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 3 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-driven cycle, 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-driven cycle.
- (5) The stop lamps shall not have broken lamps, or lamps whose lens surfaces are badly smeared.

2. The requirements prescribed in the Announcement of Paragraph 3 of Article 62-4 of the Safety Regulations in connection with the installation position, installation method, etc. of the stop lamps shall be the following requirements. 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)” which apply mutatis mutandis.

- (1) The stop lamps shall be constructed so as to be turned on only when the service brake system (in cases where a motor-driven cycle is coupled with an attached vehicle, the service brake system of the motor-driven cycle or attached vehicle concerned) or the auxiliary brake system (which refers to a brake system that reduces the speed of the running motor-driven cycle or the attached 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-driven cycle under the unloaded state is decelerated on a dry, flat, paved road at a speed of 80 km/h (in the case of motor-driven cycles 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 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 stop lamps provided on both sides at the rear end of a motor-driven cycle shall be mounted so that the outermost edge of the illuminating surface of the outermost stop lamp is within 400 mm from the outermost part of the motor-driven cycle.
 - (4) The stop lamps provided on both sides at the rear end of a motor-driven cycle shall be mounted symmetrically with respect to the longitudinal centre plane of the vehicle (except motor-driven cycles in which the right and left sides at the rear end are not symmetric).
 - (5) 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 Paragraph 1 shall read as “5° below”) provided for in the same Paragraph may not be hampered. In this case, stop lamps whose lamp mountings or lens mountings exhibit looseness or excessive play shall be regarded as not complying with this requirement.
3. Stop lamps having the same construction and provided at the same position as the stop lamp mounted on motor-driven cycles for which type approval has been granted pursuant to the provision of Paragraph 1 of Article

62-3 of the Enforcement Regulations, which are functioning normally, shall be regarded as complying with the requirements enumerated in each of the Items of the preceding Paragraph.

Article 264 (Rear Reflex Reflectors)

1. The requirements prescribed in the Announcement of Paragraph 2 of Article 63 of the Safety Regulations in connection with the colour of the reflecting light, brightness, shape of the reflecting section, etc. of the rear reflex reflectors shall be the following requirements enumerated below. 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)” which apply *mutatis mutandis*.

- (1) The reflecting surface of a rear reflex reflector (except those installed to attached vehicles) 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 an attached vehicle shall be either an equilateral triangle or a hollow equilateral triangle with a stripe whose width is at least 25 mm. In either case, each side of the triangle shall be 50 mm or more in length.
- (3) The reflected light of a rear reflex reflector, when illuminated by a headlamp with high beam located 100 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 requirements prescribed in the Announcement of Paragraph 3 of Article 63 of the Safety Regulations in connection with the installation position, installation method, etc. of the rear reflex reflectors shall be the following requirements. 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)” which apply *mutatis mutandis*.

- (1) The rear reflex reflectors shall be mounted so that the centre of the reflecting surface thereof is at a height of 1.5 m above the ground.

- (2) The rear reflex reflectors provided at the outermost part of a motor-driven cycle shall be mounted so that the outermost edge of the reflecting surface thereof is within 400 mm from the outermost part of the motor-driven cycle. However, those installed to two-wheeled motor-driven cycles may be mounted so that the centre of the reflecting surface thereof is on the longitudinal centre plane, and those installed to two-wheeled motor-driven cycles with sidecar may be mounted so that the centre of the reflecting surface thereof is on the longitudinal centre plane of the two-wheeled motor-driven cycle.
 - (3) The rear reflex reflector shall be mounted in such a way that the performance provided for in Paragraph 1 may not be hampered. In this case, rear reflex reflectors whose reflector mountings or lens mountings exhibit looseness or excessive play shall be regarded as not complying with this requirement.
3. Rear reflex reflectors having the same construction and provided at the same position as the rear reflex reflector mounted on motor-driven cycles for which type approval has been granted pursuant to the provision of Paragraph 1 of Article 62-3 of the Enforcement Regulations, which exhibit no damage liable to hamper the performance, shall be regarded as complying with the requirements enumerated in each of the Items of the preceding Paragraph.

Article 265 (Direction Indicator Lamps)

1. The requirements prescribed in the Announcement of Paragraph 2 of Article 63-2 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)” which apply *mutatis mutandis*.
 - (1) Direction indicator lamps shall be provided at least one each at the right and left at such a position that the indicating surfaces of the direction indicator lamps can be visible at a distance of 30 meters from the front or the rear on the longitudinal centre line of the vehicle.
 - (2) 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 motor-driven cycle) in the intended direction. Furthermore, the beams from the direction indicator lamps shall not

disturb other traffic. In this case, direction indicator lamps whose indicating surface intended to indicate the direction to the front or to the rear has a projected area of 7 cm² or more, when measured on the vertical plane perpendicular to the longitudinal centre plane of the vehicle, and which are functioning normally shall be regarded as complying with this requirement.

- (3) The colour of light of a direction indicator lamp shall be amber.
- (4) 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
a. Direction indicator lamps to be mounted on both sides of motor-driven cycles other than those specified in "b"	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-driven cycle, and enclosed by planes 5° outward 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-driven cycle, and lies backward from the centre of the direction indicator lamp
b. Direction indicator lamps to be mounted on both sides of motor-driven cycles (limited only to those in which direction indicator lamps are mounted only on sides)	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-driven cycle, 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-driven cycle (limited only to the plane which lies forward of the motor-driven cycle 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-driven cycle (limited only to the plane that lies backward of the motor-driven cycle from the centre of the direction indicator lamp)

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

2. The requirements prescribed in the Announcement of Paragraph 3 of Article 63-2 of the Safety Regulations in connection with the installation position, installation method, etc. of the direction indicator lamps shall be the following requirements. 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)" which apply *mutatis mutandis*.

- (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 vehicle (except motor-driven cycles in which the right and left sides are not symmetric).
- (3) Direction indicator lamps installed to motor-driven cycles 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.
- (4) Direction indicator lamps 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.
- (5) In cases where the driver in his seat cannot confirm directly and readily the operation of direction indicator lamps (except direction indicator lamps mounted on each side of the motor-driven cycle), a device shall be provided to tell the driver of the operating condition of the direction indicator lamps.

3. Direction indicator lamps having the same construction and provided at the same position as the direction indicator lamp mounted on motor-driven cycles for which type approval has been granted pursuant to the provision of Paragraph 1 of Article 62-3 of the Enforcement Regulations, which are

functioning normally, shall be regarded as complying with the requirements enumerated in each of the Items of the preceding Paragraph.

Article 266 (Horns)

1. The requirements prescribed in the Announcement of Paragraph 2 of Article 64 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 64 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 two-wheeled motor-driven cycles with a power of 7 kW or less) measured at a distance of 7 m to the front of the motor-driven cycle;

- (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-driven cycle 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-driven cycle.

- (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 be measured and ambient noise level	3	4	5	6	7	8	9
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-driven cycles 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-driven cycle 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-driven cycle.
- (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 267 (Rear-View Mirrors)

1. The requirements prescribed in the Announcement of Paragraph 2 of Article 64-2 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 occupants, pedestrians, etc. of rear-view mirrors mounted on motor-driven cycles (except two-wheeled motor-driven cycles and three-wheeled motor-driven cycles 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-driven cycle 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 two-wheeled motor-driven cycles and motor-driven cycles with a maximum speed of less than 20 km/h.

- (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 motor-driven cycle 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) For the mirror provided inside the compartment, the requirements prescribed in Attachment 80 “Technical Standard for Impact Reduction of Inside Rear-View Mirrors” shall apply mutatis mutandis.
- (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-driven cycle (the attached vehicle when drawing an attached vehicle), 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-driven cycle itself (the motor-driven cycle and attached vehicle when drawing an attached vehicle of a larger width than the motor-driven cycle drawing it). However, in the case of two-wheeled motor-driven cycles, rear-view mirrors may enable a driver to recognize clearly the traffic conditions of other vehicles straight backwards up to 50 m at each side of the right and left of the motor-driven cycle. 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.

2. The requirements prescribed in the Announcement of Paragraph 3 of Article 64-2 of the Safety Regulations in connection with the performance, etc. concerning the field of vision of the driver, protection of pedestrians, etc. by means of the rear-view mirror mounted on motor-driven cycles 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.

3. 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-driven cycles 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).

4. The requirements prescribed in the Announcement of Paragraph 4 of Article 64-2 of the Safety Regulations in connection with the installation position, installation method, etc. of the rear-view mirrors in Paragraph 2 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 motor-driven cycle (in the case of motor-driven cycles with a maximum speed of 50 km/h or less, on its both side or right side).

5. Rear-view mirrors mounted on motor-driven cycles for which type approval has been granted pursuant to the provision of Paragraph 1 of Article 62-3 of the Enforcement Regulations, which exhibit no damage liable to hamper its function, shall be regarded as complying with the requirements enumerated in each of the Items of Paragraph 2 and each of the Items of the preceding Paragraph.

Article 268 (Silencers)

1. The requirements prescribed in the Announcement of Paragraph 1 of Article 65 of the Safety Regulations in connection with the structure, noise

level, etc. so that the motor-driven cycle may not produce significant level of noise shall be the requirements prescribed in each of the following Items.

- (1) Motor-driven cycles shall be so constructed that the steady running noise level, expressed in dB, that has been measured according to Attachment 39 “Measurement Procedure for Steady Running Noise Level” may not exceed 85.
- (2) Motor-driven cycles (except motor-driven cycles equipped with no exhaust pipe, and motor-driven cycles equipped with an exhaust pipe, but whose engine will not operate when the motor-driven cycle is in a stopped state) posted in the “Category of motor-driven cycles” column of the following table shall be so constructed that the proximity stationary noise level, expressed in dB, that has been measured according to the method prescribed in Attachment 38 “Measurement Procedure for Proximity Stationary Noise Level” may not exceed the values posted in the “Noise level” column of the following table, respectively.

Category of motor-driven cycles	Noise level
A. Class 1 motor-driven cycles	84
B. Class 2 motor-driven cycles	90

2. The requirements prescribed in the Announcement of Paragraph 2 of Article 65 of the Safety Regulations in connection with the construction, noise control performance, etc. so that the silencer mounted on a motor-driven cycle having an internal combustion engine as the prime mover controls generation of noise effectively shall be that the silencer exhibit no damage and corrosion.

Article 269 (Speedometers, etc.)

1. The requirements prescribed in the Announcement of Paragraph 1 of Article 65-2 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 during running. 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, 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-driven cycle 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-driven cycles 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-driven cycle indicates 40 km/h (the maximum speed in the case of motor-driven cycles with a maximum speed of 40 km/h or less) does not meet the following requirements.
- ① In the case of motor-driven cycles other than two-wheeled motor-driven cycles and three-wheeled motor-driven cycles, 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 speedometer provided on motor-driven cycle (unit: km/h)
- V_2 = Speed reading measured by speedometer tester (unit: km/h)
- ② In the case of two-wheeled motor-driven cycles and three-wheeled motor-driven cycles, 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 speedometer provided on motor-driven cycle (unit: km/h)

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

B. In the case of motor-driven cycles 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-driven cycle indicates 40 km/h (the maximum speed in the case of motor-driven cycles with a maximum speed of 40 km/h or less) does not meet the following requirements.

① In the case of motor-driven cycles other than two-wheeled motor-driven cycles and three-wheeled motor-driven cycles, 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 speedometer provided on motor-driven cycle (unit: km/h)

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

② In the case of two-wheeled motor-driven cycles and three-wheeled motor-driven cycles, 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 speedometer provided on motor-driven cycle (unit: km/h)

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

Article 270 (Riding Accommodation)

1. The requirements prescribed in the Announcement of Paragraph 1 of Article 66 of the Safety Regulations in connection with the construction of the riding accommodation of a motor-driven cycle shall be that the riding accommodation shall be constructed so that it may secure safe boarding and may not cause the occupants to fall off or stumble by vibrations, impact, etc. In this case, saddle-type rear seats provided with grip handles and foot rests and constructed to ensure safe boarding shall be regarded as complying with this requirement.

2. The requirements prescribed in the Announcement of Paragraph 2 of Article 66 of the Safety Regulations in connection with the dimensions, etc. of seats (except saddle-type seats) used for persons other than the driver shall be that the size is 380 mm or more in width and 400 mm or more in depth per person.