

Transmitted by the expert from Japan (60th GRE, 1 - 3 October 2008
agenda item 10(d))

Proposed amendments to Regulation No.53

The modifications to the current text of Regulation No.53 are marked in **bold** or ~~strikethrough~~ characters.

A. PROPOSAL

Paragraph 5.13., amend to read:

5.13. Colours of the lights

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

.....

front position lamp: ~~white~~ **amber**

Paragraph 6.3.7., amend to read:

6.3. DIRECTION-INDICATOR LAMP

6.3.7. May not be "reciprocally incorporated" with any other lamp, **except amber front position lamp.**

Paragraphs 6.6.1. and 6.6.7., amend to read:

6.6. FRONT POSITION LAMP

6.6.1. Number

~~One or~~ two

6.6.7. Other requirements

~~None.~~

When the front position lamp is reciprocally incorporated in the front direction indicator lamp, the position lamp, on the same side as the direction indicator lamp or on the both sides, shall be switched off only when the direction indicator lamp is flashing.

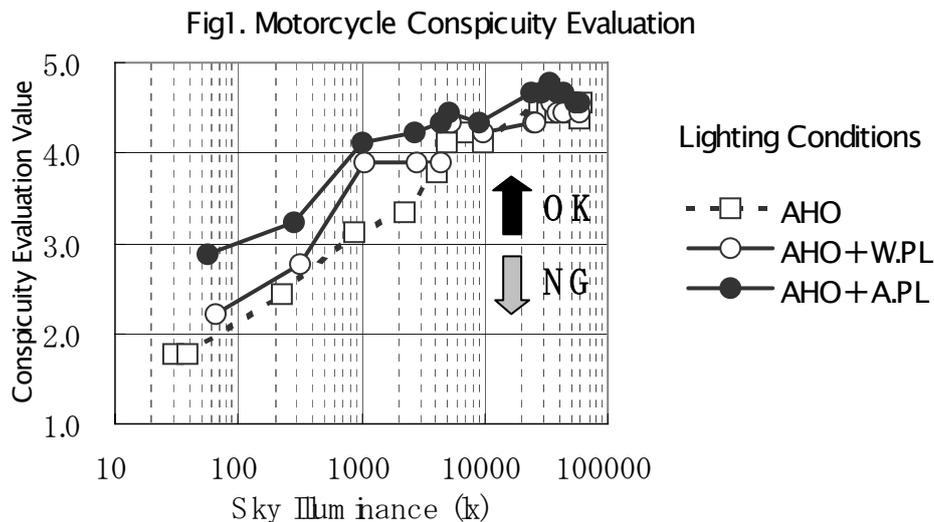
B. JUSTIFICATION

1. Change of the colour of the front position lamp to amber

We propose to change the colour of the front position lamp from white to amber for the purpose of improving the conspicuity of motorcycles.

The use of amber colour in front position lamps is allowed in Japan, the United States, etc., and it is considered advantageous in ensuring the conspicuity of motorcycles in relation to four-wheeled vehicles. In addition, no disadvantages have been found about the amber front position lamp.

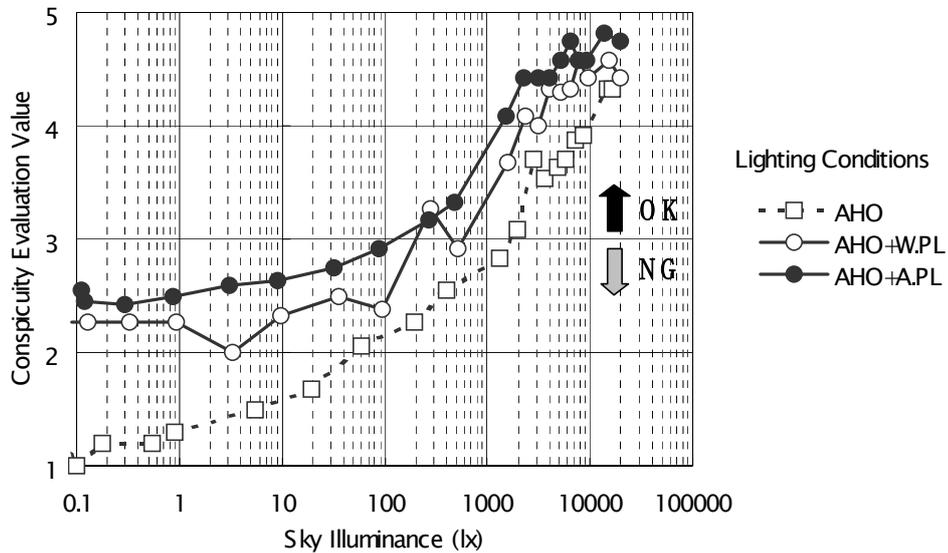
The results of the conspicuity evaluation for motorcycles followed by four-wheeled vehicles with DRL on (Fig. 1) indicate higher motorcycle conspicuity evaluation values for the lighting condition of AHO + white position lamp than that of AHO only, and these values are even higher for AHO + amber position lamp. The effect of the amber position lamp on the improvement of conspicuity is especially prominent under conditions where sky illuminance is low (about 5,000 lm or below). (For details, see “GRE-60-23.”)



Furthermore, in the case of night driving where four-wheeled vehicles use the passing beam instead of DRL when following motorcycles, the results of the conspicuity evaluation for those motorcycles (Fig. 2) also show higher conspicuity evaluation values for the lighting condition of AHO + white position lamp than that of AHO only, and these values are even higher for AHO + amber position lamp. (For details, see “GRE-60-24.”)

We also propose to change the number of front position lamps from “one or two” to “two”. This is because even more improvement of the conspicuity of motorcycles can be achieved if the number of front position lamps is changed to two, in addition to their colour being changed to amber.

Fig. 2 Motorcycle Conspicuity Evaluation



2. Acceptance of the direction indicator lamp reciprocally incorporated with the amber front position lamp

If the colour of the front position lamp is changed to amber, it will become possible for the direction indicator lamp and the front position lamp to share a lens, enabling manufacturers to reduce lamp installation space and to benefit users by offering inexpensive lamps. To achieve this, we propose that the reciprocal incorporation of the indicator lamp with other lamps, which is currently prohibited, be allowed only for the amber front position lamp. The use of this reciprocally-incorporated lamp is allowed in Japan, the United States, etc., where there are no major safety problems, and there appear to be no demerits, either.

In addition, considering the conspicuity of direction indicator lamps, we propose that, when a direction indicator lamp is activated, the front position lamp be switched off on the side of the flashing indicator or on both sides.
