

Reflecting Japan's Forward Vision and Side Vision Requirements (1m Pole Requirements) in ECE Regulations

Transmitted by the expert from Japan

Basic Approach

The preparation of new ECE Regulations can be considered appropriate.

Justification

The new ECE Forward Vision regulations in the current Belgian Proposal establish an application range of 180° of direct field of vision for the driver's forward vision and side vision.

In addition, the ECE 46 Rear View Mirror regulations apply to an indirect field of vision using a mirror. On the other hand, Japan's 1m pole requirements utilize both the driver's direct field of vision and the indirect field of vision using a mirror to establish the visibility range of the proximity field of vision. If separate requirements for forward vision and rear view mirror are therefore introduced, problems will arise regarding which regulations to specify in situations such as securing a forward field of vision using a mirror.

Japan's field of vision requirements focus mainly on direct field of vision, especially for passenger cars, and specify the eyepoint movement range on the basis of studies conducted on driver behavior during start acceleration, evaluating the field of vision on the basis of the eyepoint. Japan's requirements will therefore be substantially different from ECE 46 (which specifies only the indirect field of vision) regarding the objects of evaluation, reference points, study methods, and other items.

Individual Requirements Proposal

Area of visibility

- * Forward vision and side vision: Introduction of 1m pole requirements
- * Introduction of Japanese standards in their existing form, with the exception of rear vision requirements (50m).

Mirrors

When using a mirror to secure proximity field of vision, the ECE 46 mirror or the proximity field of vision mirror specified in the new ECE shall be used.

ECE 46 mirror

Vehicle interior: Class 1: R1200 or higher (ECE 46) without changes

Side: Class 2 (M1, N1: R1800), Class 3 (M2, 3, N2, 3: R1200), Class 4 (N3: R400), Class 5 (N3: side cross: R400) without changes

Newly established Class 6 (new side mirror for satisfying proximity field of vision requirements: R600)

Proximity field of vision mirror specified in new ECE

Establishment of new forward vision mirror class

Study concerning need for establishing new side under-run mirror