

## **OICA comments to ECE/TRANS/WP.29/GRSG/2013/5 (Japan) (Proposal for amendments to Regulation No. 46 - Devices for indirect vision)**

At the previous session of GRSG (104<sup>th</sup>, Geneva, 15-19 April 2013), Japan submitted document ECE/TRANS/WP.29/GRSG/2013/5 introducing requirements for the driver's field of view in close proximity to the vehicle.

This proposal was tabled by Japan in view of the future introduction of Regulation N°46 into the IWVTA scheme, and the necessity consequently felt by Japan to upgrade this regulation with some national provisions.

### **General comments:**

1. Lack of accidentology supporting the proposal. While these provisions are in application in Japan since 2005 for New Types (and 2007 for new registrations), no data were shown on the efficiency, compared to the forecasts, for this increased severity in the regulation.
2. Additionally, GRSG requested at its 104<sup>th</sup> session some accidentology about countries other than Japan. It is indeed necessary that increased stringency of the requirements is justified by safety improvements.
3. OICA is not aware that vehicles in the Japanese market, complying with the Japanese requirements, are safer than those in other market with regard to close proximity vision. Yet, the manufacturers in Japan had to introduce additional features, not necessary in other markets, for meeting the Japanese requirements (hence additional costs and decreased harmonization).
4. Regarding the choice provided to the Contracting Parties signatory to the regulation to adopt the current provisions or those proposed by Japan per that document (paragraph 15.2.4.10.): Such choice is contradictory to the spirit of the 58 Agreement and the principle of mutual recognition, in particular in the context of IWVTA.
5. OICA understands that Japan solved their domestic question of direct field of vision via rear-view mirror requirements, but believes that other technologies could indeed advantageously improve close proximity object detection.
6. OICA in addition questions the necessity to add these provisions into the regulation No.46 and believes that this question of direct field of vision, if recognized as international, should be dealt with via a more relevant UN regulation.
7. In view of the above, OICA is willing to cooperate with the interested parties to the elaboration of a solution, possibly in the direction of a separate, "if fitted" annex or part, covering particular close-proximity field of vision. This should be considered in the frame of the IWVTA scheme.

### **Technical comments:**

1. OICA questions the HMI relevancy of the Japanese solution because multiple sources of information by multiplication of mirrors may jeopardise safety.
2. Changing the value of the mirror's radius of curvature from 1200 to 600 mm would have a detrimental effect on road safety since it **would significantly reduce** (between 35 and 47% depending on the position of the mirror / driver) **the detection distance** (the distance from which a critical object is perceived on the mirror by the driver). In order to anticipate any take-over or turning maneuver, the driver needs good vision to some distance behind the vehicle and on its side, in particular in countries where high speed differences exist in highways.
3. The formula proposed in paragraph 2 of the new Annex 13 makes the result of the test depend on the wheelbase of the vehicle; i.e. some vehicles in current production could succeed the test in short version, and fail with a longer version, while the field of vision is unchanged and they present no danger in the current fleet.
4. The test is performed in static conditions while the justification for the influence of the wheelbase comes from dynamic situations.
5. Formula not clearly demonstrated:
  - a. Principle of using a RSM curve for a cloud of points
  - b. Starting from 2 curves (5<sup>th</sup> and 95<sup>th</sup> percentile are defined in document GRSG-104-46) ending with one formula compiling not comparable cases.

6. The proposal lacks a definition of A-pillar. This A-pillar is however a key reference for the application of the proposal.
7. The zone of eye-point movement compensation (Annex 12, paragraph 2) is unclear as to which volume is permitted. OICA recommends including an explanatory drawing into the text of the regulation.

As a conclusion, the manufacturers have questions about the philosophy of the proposal as well as about its technical clarity.

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