

Proposal on the activation of a telltale, in event of malfunction of direction indicators equipped with multiple light sources.

PROPOSAL FOR DRAFT AMENDMENTS TO REGULATION No. 48

(Installation of lighting and light-signalling devices)

Transmitted by the experts from OICA

Note: The text reproduced below was prepared by the experts from OICA, in order to insert into Regulation No. 48 additional provisions which would address the activation of the operating tell-tale for front and rear direction indicator lamps equipped with more than one light source. It is based on a document of expert from the Working Party "Brussels 1952" TRANS/WP.29/GRE/2005/8.

**A. PROPOSAL**

Paragraph 6.5.8., amend to read:

6.5.8. Tell-tale

Operating tell-tale mandatory for front and rear direction-indicator lamps. It may be visual or auditory or both. If it is visual it shall be a flashing light which, at least in the event of the malfunction of any of the front or rear direction-indicator lamps, is either extinguished, or remains alight without flashing, or shows a marked change of frequency. If it is entirely auditory it shall be clearly audible and shall show a marked change of frequency, at least in the event of the malfunction.

**A malfunction of a front or rear direction indicator lamp is either:**

- **a failure of any single light source incorporated in such direction indicator, or**
- **where the failure of anyone of the light sources is visible, when the direction indicator ceases to operate, or**
- **where a failure of a light source is not visible, the failure of a light source after which the direction indicator lamp ceases to meet 50% of the relevant minimum photometric component requirements, as indicated in the applicable documentation according to Regulation No. 6.**

If a motor vehicle is equipped to draw a trailer, it must be fitted with...."

## **B. JUSTIFICATION**

In respect of road safety a direction indicator with more than one independent light source is a better solution than a single light source. Direction indicators with multiple light sources must be constructed to meet every photometric and visibility requirement even in case of a failure of every one of these light sources. The initiation of such systems therefore should not be obstructed.

The information that the photometric requirement for a direction indicator which includes several light sources failed requires electronic monitoring systems for each light source which is needed to meet the minimum photometric performance. An electronic monitoring system for several light sources of an assembly of LEDs is more expensive than the whole lamp. This is the reason why only very few direction indicators with more than one light source are on the market.

Because all light sources connected in series are considered as one light source such direction indicators are developed to avoid expensive monitoring systems. If one light source fails the whole assembly fails. A provision that any failure of one of the light sources has to be indicated, obstructs the initiation of safer systems with redundancy.

The functioning of a vehicle's illumination devices are inspected at every service or during a technical inspection and regular by the driver. So a malfunction of a light source which is visible from the outside of the vehicle will be discovered in short time.

Even indication of a failure by an operating tell tail may be ignored by some drivers. Therefore a direction indicator which meets all photometric requirements after a failure of one of the light sources has a better share to road safety than a perfect operating tell tale.

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