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(Eighty-seventh session, 12 - 15 October 2004)

**DRAFT PROPOSAL FOR SUPPLEMENT 5 TO THE 01 SERIES OF AMENDMENTS  
TO REGULATION No. 46  
(Rear-view mirrors)**

Transmitted by the expert from the European Commission

Note: The text reproduced below was prepared by the expert from the European Commission to eliminate the blind spot on the right side of vehicles belonging to category N<sub>2</sub> and N<sub>3</sub>.

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Note: This document is distributed to the Experts on General Safety Provisions only.

**A. PROPOSAL**

Paragraph 7.2.3.3., amend to read :

“7.2.3.3. 300 mm for “wide-angle” exterior rear-view mirrors (class IV) and ... .”

Paragraph 15.2.(former), renumber paragraph, 15.2.1.

Paragraph 15.2.2., insert a new subparagraph 15.2.2. to read :

“15.2.2. The sequence number assigned to wide-angle rear-view mirrors of class IV and close-proximity rear-view mirrors of class V with a radius of curvature between 300 and 400 mm shall be 02.”

Paragraph 16.2.1.1., replace the table by the following :

“

Vehicle category	Interior rear-view mirrors	Exterior rear-view mirrors			
		Main rear-view mirrors		Wide-angle rear-view mirrors	Close-proximity rear-view mirrors
		Class I	Class II	Class III	Class IV
M <sub>1</sub>	1 (but see 16.2.1.2)	— (but see 16.2.1.2.3)	1 on the side opposite the direction followed by the traffic (but see 16.2.2.1.)	—	—
M <sub>2</sub>	—	2 (1 on the left and 1 on the right)	—	— (but see 16. 2.2.4.)	— (but see 16.2.2.2. and 16.3.7.)
M <sub>3</sub>	—	2 (1 on the left and 1 on the right)	—	— (but see 16.2.2.4.)	— (but see 16.2.2.2 and 16.3.7.)
N <sub>1</sub>	1 (but see 16.2.1.2)	— (but see 16.2.1.2.3.)	1 on the side opposite the direction followed by the traffic (but see 16 2.2.1.)	—	—

$N_2 \leq 7,5t$	— (but see 16.2.2.3)	2 (1 on the left and 1 on the right)	— (but see 16.2.1.3)	1 (but see 16.2.2.4. and 16.2.1.4.)	1 (but see 16.2.2.2. and 16.3.7.)
$N_2 > 7,5t$	— (but see 16.2.2.3)	2 (1 on the left and 1 on the right)	— (but see 16.2.1.3)	1	1 (but see 16.3.7.)
$N_3$	— (but see 16. 2.2.3.)	2 (1 on the left and 1 on the right)	— (but see 16.2.1.3)	1	1 (but see 16.3.7.)

Paragraph 16.2.1.4. amend to read :

“16.2.1.4. A class IV wide-angle rear view mirror is mandatory on the passenger side on those vehicles of category  $N_2 \leq 7.5$  tonnes, where it is possible to mount a class V rear-view mirror according to paragraph 16.3.7.”

Paragraph 16.2.2.2. amend to read :

“16.2.2.2. A class V close-proximity rear-view mirror is acceptable for vehicles of category  $M_2$  and  $M_3$ .”

Paragraph 16.2.2.4. amend to read :

“16.2.2.4. A class IV wide-angle rear-view mirror is acceptable for vehicles of category  $M_2$  and  $M_3$ .”

Paragraph 16.5.4. amend to read :

“16.5.4. The field of vision must be such that the driver can see at least a 15 m-wide, flat, horizontal portion of the road, which is bounded by a plane parallel to the median longitudinal vertical plane of the vehicle and passing through the outermost point of the vehicle on the passenger side and which extends from at least 10 to 25 m behind the driver's ocular points. In addition, the road must be visible to the driver over a width of 4.5 m, which is bounded by a plane parallel to the median longitudinal vertical plane and passing through the outermost point of the vehicle starting from a point 1.5 m behind the vertical plane passing through the driver's ocular points (see figure Annex 6, Figure 4).”

In Annex 6, replace Figure 4 by the figure below:

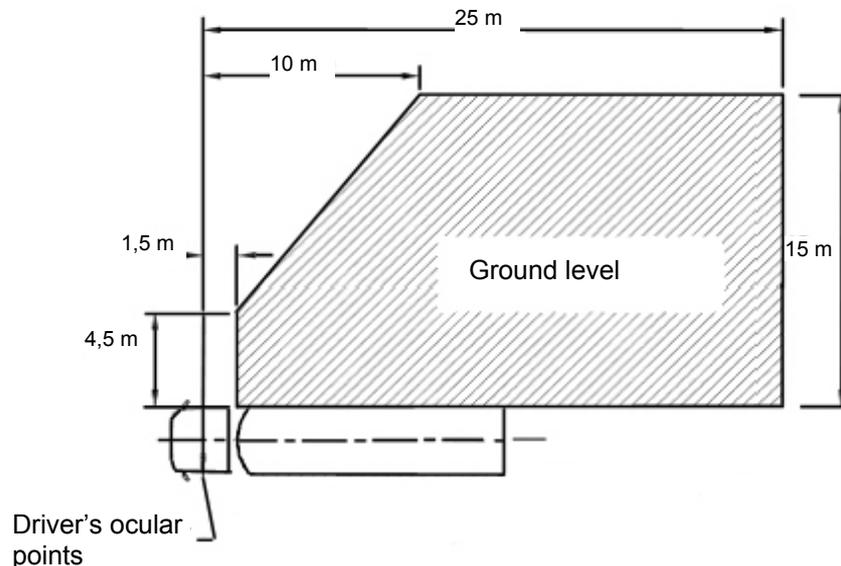


Figure 4. Field of vision of Class IV wide-angle mirror for a left hand drive vehicle

## B. JUSTIFICATION

The area of the construction of commercial vehicles has undergone an in depth evolution in recent years. The features of the rear-view mirrors required by Regulation 46, series of amendments 01, for commercial vehicles fitted with a 'high cab' do not provide the driver with sufficient visibility on the right side of the vehicle. There exists a significant blind spot located between the sector swept by the 'wide-angle' rear-view mirror of class IV and the sector swept by the 'close-proximity' rear-view mirror of class V.

In the practice, the driver may not easily detect pedestrians, cyclists or moped riders when they are in the area not covered by these rear-view mirrors. A number of fatal accidents, involving commercial vehicles, occur when the vehicle is changing direction or manoeuvring on a round-about.

From the technical point of view, the proposed measures to remedy the blind spot on the right side of commercial vehicles, are founded on the assertion that the use of mirrors with a radius of curvature of 300 mm will allow the field of vision on the ground of the wide-angle mirror <sup>1</sup> to be significantly improved.

<sup>1</sup> Rétroviseurs de classe IV.

The use of the 'wide-angle' rear-view mirror and of the 'close-proximity' rear-view mirror plays a major role in the detection of vulnerable users, such as pedestrians, cyclists and mopeds riders, circulating on the right side of commercial vehicles. Mandatory on all vehicles of more than 7.5 tonnes, they will be made also compulsory on all commercial vehicles of less than 7.5 tonnes with a 'high cab'.

The distinction between cabs is catered for by means of the provisions of item 16.2.1.4. When the height of the cab requires the fitting of a class V rear-view mirror (i.e. 2 m above the ground), the 'wide-angle' rear-view mirror must be fitted together with a 'close-proximity' rear-view mirror.

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