II

(Acts whose publication is not obligatory)

COMMISSION

COMMISSION DIRECTIVE

of 18 February 1985

adapting to technical progress Council Directive 71/127/EEC on the approximation of the laws of the Member States relating to the rear-view mirrors of motor vehicles

(85/205/EEC)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community,

Having regard to Council Directive 70/156/EEC of 6 February 1970 on the approximation of the laws of Member States relating to the type-approval of motor vehicles and their trailers (1), as last amended by Directive 80/1267/EEC (2) and in particular Article 11 thereof,

Having regard to Council Directive 71/127/EEC of 1 March 1971 on the approximation of the laws of the Member States relating to the rear-view mirrors of motor vehicles (3), as amended by Commission Directive 79/795/EEC (4),

Whereas, in the light of the experience gained and the present state of the art, it is now possible not only to amplify certain requirements of Directive 71/127/EEC and bring them more into line with actual test conditions but also to render them more stringent with a view to improving road safety;

Whereas the presence of the passenger-side exterior rear-view mirror on vehicles in categories M_1 (cars) and N_1 (light vans), although still optional, has made it necessary to modify the design of both the mirror and its holder in order to ensure that, whilst guaranteeing an optimum field of vision, the dimensions of the device are such as to minimize vibrations and drag;

Whereas, in the case of category N_3 articulated tractors (heavy goods vehicles), existing provisions have proved inadequate as regards the exterior lateral field of vision to the side and rear of the vehicle and whereas, in order to remedy this shortcoming, it has proved necessary to require the fitting of an additional 'wide-angle' rear-view mirror;

Whereas, in the case of all category N_3 vehicles (rigid lorries with or without trailer and articulated tractors), existing provisions have proved inadequate as regards the field of vision in the area adjacent to the side of the cab structure opposite the driver and whereas, in order to remedy this shortcoming, it has proved necessary to require the fitting of a 'close-proximity' rear-view mirror;

Whereas the measures provided for in this Directive are in accordance with the opinion of the Committee for the Adaptation to Technical Progress of Directives on the removal of technical barriers to trade in the motor vehicles sector,

(1) OJ No L 42, 23. 2. 1970, p. 1.
(2) OJ No L 375, 31. 12 . 1980, p. 34.
(3) OJ No L 68, 22. 3. 1971, p. 1.
(4) OJ No L 239, 22. 9. 1979, p. 1.

HAS ADOPTED THIS DIRECTIVE :

Article 1

Directive 71/127/EEC is hereby amended as follows :

1. Article 7 is replaced by the following :

'*Article 7*

1. With effect from 1 October 1985, no Member State may, on grounds relating to rear-view mirrors :

(a) — refuse, in respect of a type of motor vehicle, to grant EEC type-approval, to issue the document referred to in the third indent of Article 10 (1) of Directive 70/156/EEC, or to grant national type-approval, or

— prohibit the entry into service of the vehicles,

if the rear-view mirrors of this type of vehicle or of these vehicles comply with the provisions of this Directive ;

(b) — refuse, in respect of a type of rear-view mirror, to grant EEC component type-approval or national type-approval, if these rear-view mirrors comply with the provisions of this Directive, or

— prohibit the placing on the market of rear-view mirrors which bear the EEC component type-approval mark issued in accordance with the requirements of this Directive.

2. With effect from 1 October 1986 a Member State :

(a) — shall not issue the document referred to in the third indent of Article 10 (1) of Directive 70/156/EEC in respect of a type of vehicle of which the rear-view mirrors do not comply with the provisions of this Directive,

— may refuse to grant national type-approval in respect of a type of vehicle of which the rear-view mirrors do not comply with the provisions of this Directive ;

(b) — shall not grant EEC component type-approval in respect of a type of rear-view mirror if the latter does not comply with the provisions of this Directive,

— may refuse to grant national component type-approval in respect of a type of rear-view mirror if the latter does not comply with the provisions of this Directive.

3. With effect from 1 October 1988, Member States may prohibit the entry into service of vehicles — with the exception of those referred to in item 2.1.3 of Annex III — of which the rear-view mirrors do not comply with the provisions of this Directive.

With effect from 1 October 1992, Member States may prohibit the entry into service of vehicles referred to in item 2.1.3 of Annex III of which the rear-view mirrors do not comply with the provisions of this Directive. They may likewise prohibit the placing on the market of rear-view mirrors which do not bear the component type-approval mark issued in accordance with the requirements of this Directive.'

2. The Annexes are replaced by the Annexes to this Directive.

References to the Annexes in the text of Directive 71/127/EEC are to be understood as references to the corresponding provisions in the Annexes to this Directive, as follows :

— point 2 of Annex I corresponds to Annex II,

— point 2.6 of Annex I corresponds to Appendix 2 to Annex II.

Article 2

Member States shall bring into force the provisions necessary to comply with this Directive not later than 1 October 1985. They shall forthwith inform the Commission thereof.

Article 3

This Directive is addressed to the Member States.

Done at Brussels, 18 February 1985.

For the Commission

COCKFIELD

Vice-President

ANNEX I

DEFINITIONS

1. *Rear-view mirror* means any device, excluding complex optical systems such as periscopes, intended to give a clear view to the rear and side of the vehicle within the fields of vision defined in item 5 of Annex III.

2. *Interior rear-view mirror* means a device as defined in item 1 which can be fitted in the passenger compartment of a vehicle.

3. *Exterior rear-view mirror* means a device as defined in item 1 which can be mounted on the external surface of a vehicle.

4. *Surveillance rear-view mirror* means a rear-view mirror other than a device of the type defined in item 1 which can be fitted to the inside or outside of the vehicle in order to provide fields of vision other than those specified in item 5 of Annex III.

5. *Rear-view mirror type* means devices which do not differ significantly in respect of the following essential characteristics :

5.1. the dimensions and radius of curvature of the rear-view mirror's reflecting surface ;

5.2. the design, shape or materials of the rear-view mirrors, including the connection with the bodywork.

6. *Class of rear-view mirror* means all devices having one or more common characteristics or functions. They are classified as follows :

Class I :	Interior rear-view mirrors, giving the field of vision defined in item 5.2 of Annex III.
Classes II and III :	'Main' exterior rear-view mirrors, giving the fields of vision defined in item 5.3 of Annex III.
Class IV :	'Wide-angle' exterior rear-view mirrors, giving the field of vision defined in item 5.4 of Annex III.
Class V :	'Close-proximity' exterior rear-view mirrors, giving the field of vision defined in item 5.5 of Annex III.

7. *r* means the average of the radii of curvature measured over the reflecting surface, in accordance with the method described in item 2 of Appendix 1 to this Annex.

8. *The principal radii of curvature at one point on the reflecting surface (r_i)* means the values obtained with the apparatus defined in Appendix 1, measured on the arc of the reflecting surface passing through the centre of this surface parallel to the segment b, as defined in item 2.2.1 of Annex II and on the arc perpendicular to this segment.

9. *The radius of curvature at one point on the reflecting surface (r_p)* means the arithmetical average of the principal radii of curvature r_i and r'_i i.e. :

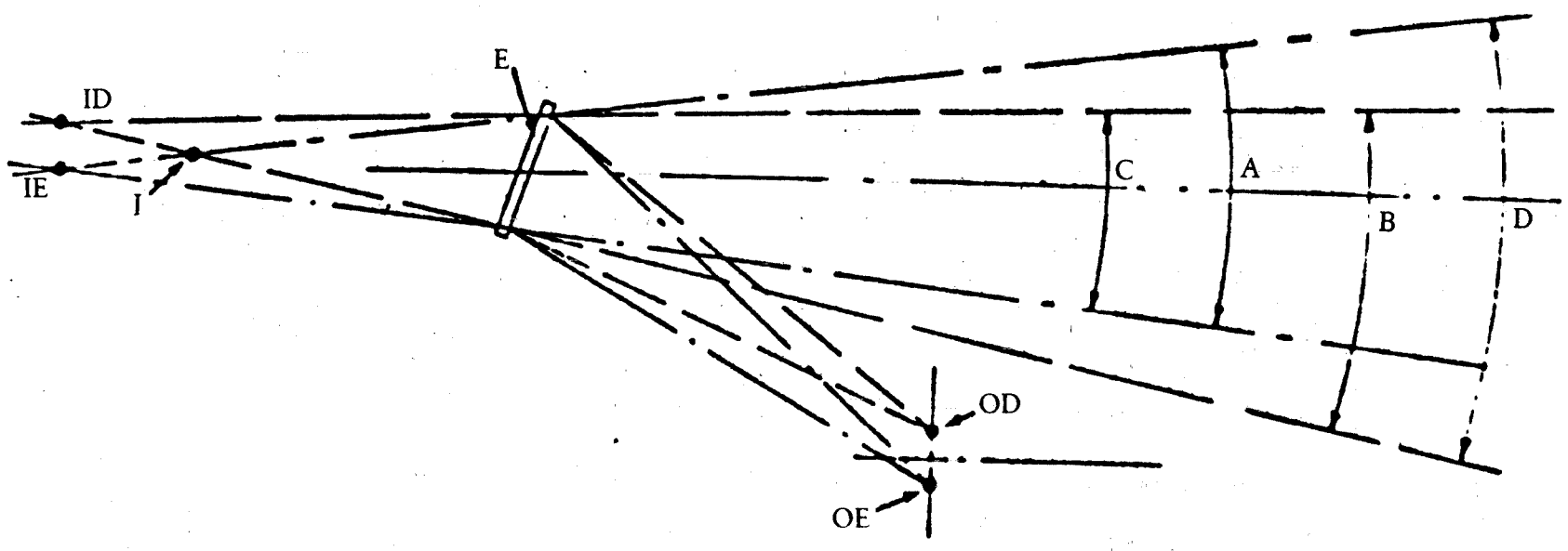
$$r_p = \frac{r_i + r'_i}{2}$$

10. *Centre of the reflecting surface* means the centroid of the visible area of the reflecting surface.

11. *The radius of curvature of the constituent parts of the rear-view mirror* means the radius 'c' of the arc of the circle which most closely approximates to the curved form of the part in question.

12. *The driver's ocular points* means two points 65 mm apart and 635 mm vertically above point R of the driver's seat as defined in Appendix 2 to this Annex. The straight line joining these points runs perpendicular to the vertical longitudinal median plane of the vehicle. The centre of the segment joining the two ocular points is in a vertical longitudinal plane which must pass through the centre of the driver's designated seating position, as specified by the vehicle manufacturer.

13. *Ambinocular vision* means the total field of vision obtained by the superimposition of the monocular fields of the right eye and the left eye (see diagram below).



E	=	interior rear-view mirror
OD, OE	=	driver's eyes
ID, IE	=	virtual monocular images
I	=	virtual ambinocular image
A	=	angle of vision of left eye
B	=	angle of vision of right eye
C	=	binocular angle of vision
D	=	ambinocular angle of vision

14. *Type of vehicle as regards rear-view mirrors* means motor vehicles which are identical in respect of the following basic features :

14.1. the bodywork features which reduce the field of vision ;

14.2. the coordinates of point R ;

14.3. the prescribed positions and types of compulsory and (if fitted) optional rear-view mirror.

15. *Vehicles of categories* M_1, M_2, M_3, N_1, N_2, N_3 means those defined in Annex I to Directives 70/156/EEC.

Appendix 1 to Annex I

PROCEDURE FOR DETERMINING THE RADIUS OF CURVATURE 'r' OF THE REFLECTING SURFACE OF A REAR-VIEW MIRROR

1. MEASUREMENTS

1.1. **Equipment**

The 'spherometer' described in Figure 1 is used.

1.2. **Measuring points**

1.2.1. The principal radii of curvature shall be measured at three points situated as close as possible to positions at one-third, one-half and two-thirds of the distance along the arc of the reflecting surface passing through the centre of this surface and parallel to segment b, or of the arc passing through the centre of the reflecting surface which is perpendicular to it if this arc is the longer.

1.2.2. Where, owing to the size of the reflecting surface, it is impossible to obtain measurements in the directions defined in item 8 of this Annex, the technical services responsible for the tests may take measurements at the said point in two perpendicular directions as close as possible to those prescribed above.

2. CALCULATION OF THE RADIUS OF CURVATURE 'r'

'r' expressed in mm is calculated from the formula :

$$r = \frac{r_{p1} + r_{p2} + r_{p3}}{3}$$

where :

r_{p1} = the radius of curvature at the first measuring point,
r_{p2} = the radius of curvature at the second measuring point,
r_{p3} = the radius of curvature at the third measuring point.