

II

(Acts whose publication is not obligatory)

COMMISSION

COMMISSION DIRECTIVE

of 17 May 1988

on the adaptation to technical progress of Council Directive 77/649/EEC on the approximation of the laws of the Member States relating to the field of vision of motor vehicle drivers

(88/366/EEC)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community,

Having regard to Council Regulation (EEC) No 70/156/EEC of 6 February 1970 on the approximation of the laws of the Member States relating to the type approval of motor vehicles and their trailers⁽¹⁾, as last amended by Directive 87/403/EEC⁽²⁾, and in particular Article 11 thereof,

Having regard to Council Regulation (EEC) No 77/649/EEC of 27 September 1977 on the approximation of the laws of the Member States relating to the field of vision of motor vehicle drivers⁽³⁾, as amended by Directive 81/643/EEC⁽⁴⁾, and in particular Article 5 thereof,

Whereas vehicle design has developed, in particular as a result of the influence of aerodynamic research intended to save fuel, which has often caused windscreen posts to be quite considerably raked; whereas the current requirements relating to the binocular obstruction due to windscreen posts should be amended in order to alleviate the difficulties encountered by manufacturers in producing vehicles having optimum drag coefficients (C_d);

Whereas practical experience has demonstrated the need also to amend certain requirements relating 'to radio aerials' and 'defrosting/demisting' conductors which are integral with the windscreen in order to enable optimum quality and performance to be obtained which are compatible with highest-performance radio installations,

and to permit an increase in the performance and efficiency of windscreen defrosting and demisting while maintaining good optical quality and without obstructing the field of vision;

Whereas the measures provided for in this Directive are in accordance with the opinion of the Committee on the Adaptation to Technical Progress of the Directives aimed at the Removal of Technical Barriers to Trade in the Motor Vehicles Sector,

HAS ADOPTED THIS DIRECTIVE:

Article 1

The list of Annexes and Annexes I and IV to Directive 77/649/EEC are amended in accordance with the Annex to this Directive.

Article 2

Member States shall bring into force the provisions necessary in order to comply with this Directive not later than 1 October 1988 and shall forthwith inform the Commission thereof.

Article 3

This Directive is addressed to the Member States.

Done at Brussels, 17 May 1988.

For the Commission

COCKFIELD

Vice-President

⁽¹⁾ OJ No L 42, 23. 2. 1970, p. 1.

⁽²⁾ OJ No L 220, 8. 8. 1987, p. 44.

⁽³⁾ OJ No L 267, 19. 10. 1977, p. 1.

⁽⁴⁾ OJ No L 231, 15. 8. 1981, p. 41.

ANNEX

The list of Annexes is amended as follows :

'Appendix : Figures 1 and 2' is added after Annex III,

'Appendix : Figures 1 to 7' is added after Annex IV.

Annex I is amended as follows :

Points 5.1.2 to 5.1.2.1.2 are replaced by the following points :

5.1.2. The angle of obstruction for each "A" pillar, as described in point 5.1.2.1, shall not exceed 6° (cf. Annex IV, Appendix, Figure 3).

The angle of obstruction of the "A" pillar on the passenger side, as described in point 5.1.2.1.2, need not be determined if the two pillars are located symmetrically in relation to the median longitudinal vertical plane of the vehicle.

5.1.2.1. The angle of obstruction of each "A" pillar shall be measured by superimposing in a plane the following two horizontal sections :

Section 1 : Starting from the Pm point situated at the location defined in point 5.3.1.1, draw a plane forming an angle of 2° upwards in relation to the horizontal plane passing forward through Pm. Determine the horizontal section of the "A" pillar starting from the foremost point of the intersection of the "A" pillar and the inclined plane (cf. Annex IV, Appendix, Figure 2).

Section 2 : Repeat the same procedure, taking a plane declining at an angle of 5° downwards in relation to the horizontal plane passing forward through Pm (cf. Annex IV, Appendix, Figure 2).

5.1.2.1.1. The angle of obstruction of the "A" pillar on the driver's side is the angle formed on the plane view by a parallel, starting from E₂, to the tangent joining E₁ with the outer edge of Section S₂ and the tangent joining E₂ with the inner edge of Section S₁ (cf. Annex IV, Appendix, Figure 3).

5.1.2.1.2. The angle of obstruction of the "A" pillar on the passenger side is the angle formed on the plane view by the tangent joining E₃ to the inner edge of Section S₁ and a parallel, starting from E₃, to the tangent joining E₄ to the outer edge of Section S₂ (cf. Annex IV, Appendix, Figure 3).

Point 5.1.3 is replaced by the following :

5.1.3. Other than the obstructions created by the "A" pillars, the fixed or movable vent or side window division bars, outside radio aerals, rear-view mirrors and windscreen wipers, there should be no obstruction in the driver's 180° forward direct field of vision below a horizontal plane passing through V₁, and above three planes through V₂, one being perpendicular to the plane X - Z and declining forward 4° below the horizontal, and the other two being perpendicular to the plane Y - Z and declining 4° below the horizontal (see Annex IV, Figure 4).

The following are not considered to be obstructions to the field of vision :

— embedded or printed "radio aerial" conductors no wider than the following :

- embedded conductors : 0,5 millimetres,
- printed conductors : 1,0 millimetres.

These "radio aerial" conductors shall not cross zone A, as defined in Directive 78/318/EEC, relating to the wiper and washer systems of motor vehicles⁽¹⁾. However, three "radio aerial" conductors may cross zone A if their width does not exceed 0,5 millimetres

(¹) OJ No L 81, 28. 3. 1978, p. 49.

- within zone A “defrosting/demisting” conductors normally in “zigzag” or sinusoidal form having the following dimensions :
 - maximum visible width : 0,030 millimetres,
 - maximum conductor density :
 - if the conductors are vertical : 8/cm,
 - if the conductors are horizontal : 5/cm.’

Point 5.3.1.1 is replaced by the following :

- ‘5.3.1.1. Table II sets out the base coordinates for a design seat-back angle of 25°. The positive direction of the coordinates is set out in Annex IV, Appendix, Figure 1.

The Pm point is the point of intersection between the straight line P₁, P₂ and the longitudinal vertical plane passing through the R point.

TABLE II

Point P	X	Y	Z
P ₁	35 mm	- 20 mm	627 mm
P ₂	63 mm	47 mm	627 mm
Pm	43,36 mm	0 mm	627 mm’

Point 5.5.2 is replaced by the following :

- ‘5.5.2. The straight line joining E₁ and E₂ is rotated about P₁ until the tangent joining E₁ to the outer edge of Section 2 of the A-pillar on the driver’s side is normal to the straight line E₁ - E₂ (cf. Annex IV, Appendix, Figure 3).’

Points 5.5.2.1 and 5.5.2.2 are deleted.

Point 5.5.4 is replaced by the following :

- ‘5.5.4. The straight line E₃ - E₄ is rotated about P₂ until the tangent joining E₄ to the outer edge of Section 2 of the A-pillar on the passenger’s side is normal to the straight line E₃ - E₄ (cf. Annex IV, Appendix, Figure 3).’

Point 6.1.4 is replaced by the following :

- ‘6.1.4. The angle of obstruction (see 5.1.2) shall be measured in the inclined planes as indicated in Annex IV, Appendix, Figure 2. The relationship between P₁ and P₂, which are connected to E₁ and E₂, and E₃ and E₄, respectively, is shown in Annex IV, Appendix, Figure 5.’

Point 6.1.4.1 and 6.1.4.2 are replaced by the following :

- ‘6.1.4.1. Straight line E₁ - E₂ shall be set as described in 5.5.2. The angle of obstruction of the A-pillar on the driver’s side shall then be measured as specified in point 5.1.2.1.1.
- 6.1.4.2. Straight line E₃ - E₄ shall be set as described in 5.5.4. The angle of obstruction of the A-pillar on the passenger side shall then be measured as specified in point 5.1.2.1.2.’

The new point 6.1.5 as follows is added :

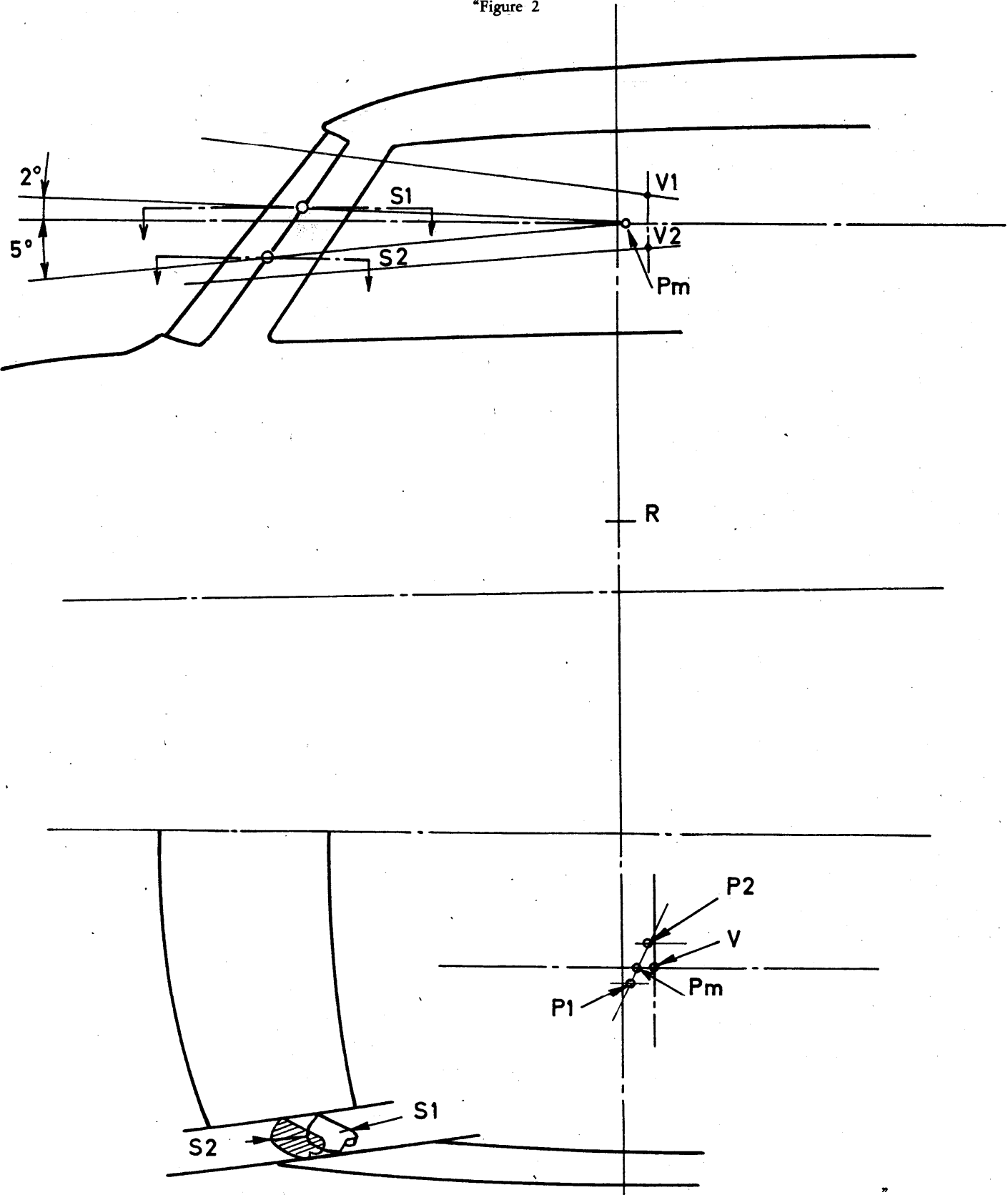
- ‘6.1.5. The manufacturer may measure the angle of obstruction either on the vehicle or in the drawings. In case of doubt the technical services may require the tests to be carried out on the vehicle.’

Annex IV is amended as follows :

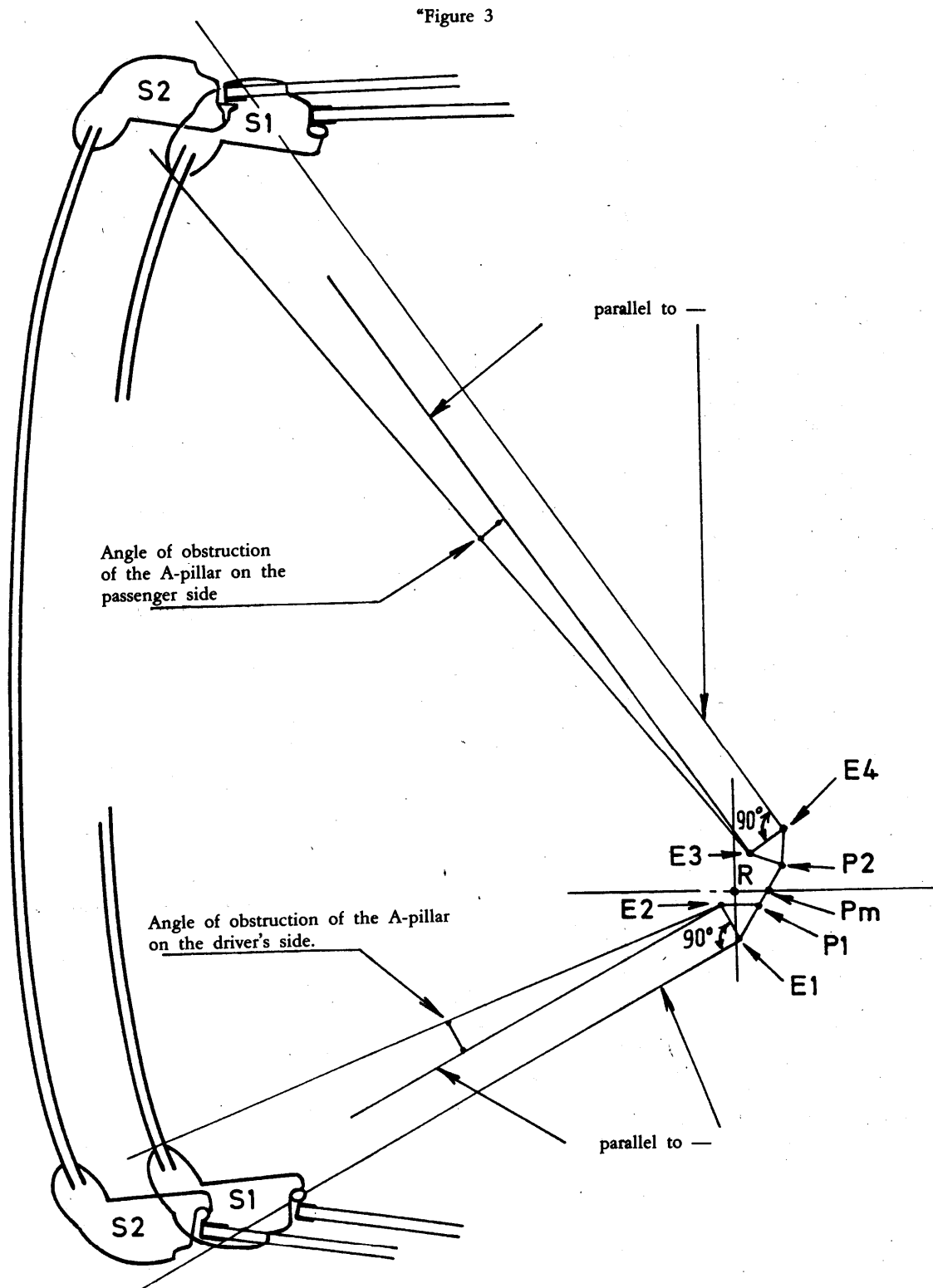
Insert 'Appendix' before the figures.

Figure 2 shall be replaced by the following Figure 2 :

"Figure 2



The following new Figure 3 is added after Figure 2:



Figures 3, 4, 5 and 6 become, respectively, Figures 4, 5, 6 and 7.