

EUROPEAN PARLIAMENT

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POSITION OF THE EUROPEAN PARLIAMENT

adopted at first reading on 3 July 2003 with a view to the adoption of European Parliament and Council Directive 2003/.../EC relating to the protection of pedestrians and other vulnerable road users before and in the event of a collision with a motor vehicle and amending Directive 70/156/EEC (EP-PE_TC1-COD(2003)0033)

PE 333.923

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POSITION OF THE EUROPEAN PARLIAMENT

adopted at first reading on 3 July 2003

with a view to the adoption of European Parliament and Council Directive 2003/.../EC relating to the protection of pedestrians and other vulnerable road users *before and in the event of a collision with a motor vehicle and amending Directive 70/156/EEC*

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 95 thereof,

Having regard to the proposal from the Commission¹,

Having regard to the opinion of the European Economic and Social Committee²,

Acting in accordance with the procedure laid down in Article 251 of the Treaty³,

Whereas:

- (1) In order to reduce the number of road accident casualties in the Community, it is necessary to introduce measures so as to improve the protection of pedestrians and other vulnerable road users from injury in the event of a collision with the fronts of motor vehicles.
- (2) *A package of active and passive measures for improving safety (avoidance of accidents and reduction of secondary effects by traffic calming and infrastructure improvements) for vulnerable road users, such as pedestrians, cyclists and motorcyclists, is urgently needed in the framework of the forthcoming road safety action programme.*

¹ OJ C

² OJ C

³ *Position of the European Parliament of 3 July 2003.*

- (3) The internal market comprises an area without internal frontiers in which the free movement of goods, persons, services and capital must be ensured and to which end a Community type-approval system for motor vehicles is in place; the technical requirements for the type-approval of motor vehicles with regard to pedestrian protection should be harmonised to avoid the adoption of different requirements among Member States and to ensure the proper functioning of the internal market.
- (4) Pedestrian protection objectives can be achieved by **a combination of active and passive safety measures**. The recommendations by the European Enhanced Vehicle-safety Committee (EEVC) of June 1999 are **the subject of a wide consensus** in this area. Those recommendations propose performance requirements for the frontal structures of certain categories of motor vehicles to reduce their *aggressiveness*. This Directive presents tests and limit values based on the EEVC recommendations.
- (5) **The Commission should examine the feasibility of extending the scope of this Directive to vehicles with a total permissible mass of up to 3.5 tonnes, and report its findings to the European Parliament and to the Council.**
- (6) **This Directive should be considered as one element of a broader package of measures concerning road users, vehicles and infrastructure, to be undertaken by the Community, the industry and the relevant authorities of the Member States, on the basis of exchanges in best practice, in order to address pre-crash (active), in-crash (passive), and post-crash safety of pedestrian and other vulnerable road users.**
- (7) In view of the speed of technological development in this area, alternative **measures at least equivalent in terms of actual effectiveness** to the requirements of this Directive - **either passive or a combination of active and passive measures** - may be proposed by the industry and shall be assessed following a feasibility study **carried out by independent experts** by 1 July 2004; the introduction of alternative **measures at least equivalent in terms of actual effectiveness** would require **adapting or** amending this Directive.

- (8) Because of the ongoing research and technical progress in the area of pedestrian protection, it is appropriate to introduce a certain degree of flexibility in this field. Accordingly, this Directive establishes the fundamental provisions regarding pedestrian protection in the form of tests to be complied with by new types of vehicles and by new vehicles. The technical prescriptions for the application of those tests should be adopted by Commission decision.
- (9) ***The rapidly advancing technology in active safety means that collision mitigation and avoidance systems could provide major safety benefits, for example in reducing collision speed and adjusting impact direction. The development of such technologies should be encouraged by this Directive.***
- (10) The Associations representing the European, Japanese and Korean motor vehicle manufacturers have undertaken commitments to start applying the EEVC recommendations concerning limit values and tests, or agreed alternative measures of at least equivalent effect, as from 2010, and a first set of limit values and tests as from 2005 to new types of vehicles and to apply the first set of tests to 80% of all new vehicles as from 1 July 2010, to 90% of all new vehicles as from 1 July 2011 and to all new vehicles as from 31 December 2012.
- (11) The provisions laid down in this Directive should also contribute to establishing a high level of protection in the context of the international harmonisation of legislation in this area, which started under the 1998 Agreement of the UN/ECE concerning the establishment of global technical regulations for wheeled vehicles, equipment and parts which can be fitted and/or be used on wheeled vehicles.
- (12) This Directive is one of *the Directives* which must be complied with in order to conform to the EC type-approval procedure established by *Council Directive 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.
- (13) Directive 70/156/EEC should therefore be amended accordingly.

¹ OJ L 42, 23.2.1970, p. 1. Directive as last amended by Regulation (EC) No 807/2003 (OJ L 122, 16.5.2003, p. 36).

HAVE ADOPTED THIS DIRECTIVE:

Article 1

1. This Directive applies to the frontal surfaces of vehicles. For the purpose of this Directive, “vehicle” means any motor vehicle as defined in Article 2 of and Annex II to Directive 70/156/EEC, of category M_1 , of a total permissible mass not exceeding 2.5 tonnes, and N_1 derived from M_1 , of a total permissible mass not exceeding 2.5 tonnes.

2. This Directive has the purpose of reducing injuries to pedestrians and other vulnerable road users who are hit by the frontal surfaces of the vehicles defined in paragraph 1.

Article 2

1. With effect from 1 January 2004 no Member State may, on grounds relating to pedestrian protection:

- refuse, in respect of a type of motor vehicle, to grant EC type-approval, or national type-approval or
- prohibit the registration, sale or entry into service of vehicles,

provided that the vehicles comply with the technical provisions set out in section 3.1. or 3.2 of Annex I.

2. With effect from 1 October 2005, Member States shall no longer grant:

- EC type-approval, or
- national type-approval,

except where the provisions of Article 8(2) of Directive 70/156/EEC are invoked, for any type of vehicle on grounds relating to pedestrian protection if the technical provisions set out in section 3.1. or 3.2. of Annex I are not complied with.

3. Paragraph 2 shall not apply to vehicles which do not differ with respect to their essential aspects of bodywork construction and design forward of the A pillars from vehicle types which have been granted EC type approval or national type approval before 1 October 2005, which have not already been approved to this Directive.

4. With effect from 1 September 2010, Member States shall no longer grant:

- EC type-approval, or
- national type-approval,

except where the provisions of Article 8(2) of Directive 70/156/EEC are invoked, for any type of vehicle on grounds relating to pedestrian protection if the technical provisions set out in section 3.2. of Annex I to this Directive are not complied with.

5. With effect from 31 December 2012, Member States:

- shall consider certificates of conformity which accompany new vehicles in accordance with the provisions of Directive 70/156/EEC to be no longer valid for the purposes of Article 7(1) of that Directive, and
- shall refuse the registration, sale and entry into service of new vehicles which are not accompanied by a certificate of conformity in accordance with Directive 70/156/EEC

on grounds relating to pedestrian protection if the technical provisions set out in section 3.1. or 3.2. of Annex I are not complied with.

6. With effect from 5 years after the date referred to in *paragraph 4*, Member States:

- shall consider certificates of conformity which accompany new vehicles in accordance with the provisions of Directive 70/156/EEC to be no longer valid for the purposes of Article 7(1) of that Directive, and
- shall refuse the registration, sale and entry into service of new vehicles which are not accompanied by a certificate of conformity in accordance with Directive 70/156/EEC

on grounds relating to pedestrian protection if the technical provisions set out in section 3.2 of Annex I are not complied with.

Article 3

Subject to the provisions in Article 2, Member States shall ensure that the tests laid down in section 3.1. or 3.2. of Annex I are carried out in accordance with the technical prescriptions which the Commission shall specify by decision.

Article 4

The approval authorities of each Member State shall send monthly to the Commission a copy of the type-approval certificate, the model for which is set out in Appendix 2 of Annex II, in respect of each vehicle which they have approved in accordance with this Directive during that month.

Article 5

1. The Commission, based on relevant information communicated by the approval authorities and interested parties as well as on independent studies, shall monitor the progress made by the industry in the area of pedestrian protection, and shall carry out, by 1 July 2004, ***an independent*** feasibility assessment concerning the provisions in Annex I, section 3.2. and in particular ***alternative*** measures – ***either passive or a combination of active and passive measures*** - which are at least equivalent ***in terms of actual effectiveness***. ***The feasibility assessment shall be based, inter alia, on practical tests and independent scientific studies.***

2. ***If, as a result of the feasibility assessment referred to in paragraph 1, it is considered necessary to adapt the provisions of Annex I, section 3.2, to include a combination of active and passive measures which afford at least the same level of protection as the existing provisions of Annex I, section 3.2, the Commission shall submit to the European Parliament and the Council a proposal to amend this Directive accordingly.***

3. ***As long as adaptation of this Directive is restricted to the introduction of alternative passive measures which afford at least the same level of protection as the existing provisions of Annex I, section 3.2, such adaptation may be carried out by the Committee on the Adaptation to Technical Progress, in accordance with the procedure laid down in Article 13 of Directive 70/156/EEC.***

4. The Commission shall report *before 1 April 2006, and every two years thereafter*, to the European Parliament and the Council on the results of the monitoring referred to in paragraph 1.

Article 6

Directive 70/156/EEC is amended as follows:

1. In Annex I, points 9.[23] and 9.[23].1 are inserted:

“9.[23] Pedestrian protection

9.[23].1 A detailed description, including photographs and/or drawings, of the vehicle with respect to the structure, the dimensions, the relevant reference lines and the constituent materials of the frontal part of the vehicle (interior and exterior) shall be provided. This description should include detail of any active protection system installed, where appropriate.”

2. In Annex III, Section A, points 9.[23] and 9.[23].1 are inserted:

“9.[23] Pedestrian protection

9.[23].1 A detailed description, including photographs and/or drawings, of the vehicle with respect to the structure, the dimensions, the relevant reference lines and the constituent materials of the frontal part of the vehicle (interior and exterior) shall be provided. This description should include detail of any active protection system installed, where appropriate.”

3. In Annex IV, part I, an item [58], and footnotes, is inserted as follows:

Subject	Directive number	Official journal reference	Applicability											
			M ₁	M ₂	M ₃	N ₁	N ₂	N ₃	O ₁	O ₂	O ₃	O ₄		
“[58]. Pedestrian Protection	[.../.../EC]	L ..., ..., p. ..	X ⁽⁶⁾				X ^(6,7)							

(6) not exceeding 2.5 tonnes total permissible mass.

(7) derived from M₁ category vehicles”.

4. In Annex XI, appendix 1 an item [58] is inserted, as follows:

Item	Subject	Directive number	M ₁ ≤ 2 500 (¹) kg	M ₁ > 2 500 (¹) kg	M ₂	M ₃
"[58]	Pedestrian Protection	[.../.../EC]	X"			

5. In Annex XI, appendix 2 an item [58] is inserted as follows:

Item	Subject	Directive number	M ₁	M ₂	M ₃	N ₁	N ₂	N ₃	O ₁	O ₂	O ₃	O ₄
"[58]	Pedestrian Protection	[.../.../EC]"										

6. In Annex XI, appendix 3 an item [58] is inserted, as follows:

Item	Subject	Directive number	M ₂	M ₃	N ₁	N ₂	N ₃	O ₁	O ₂	O ₃	O ₄
"[58]	Pedestrian Protection	[.../.../EC]"									

Article 7

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by 31 December 2003 at the latest. They shall forthwith inform the Commission thereof.

They shall apply those provisions with effect from 1 January 2004.

When Member States adopt those provisions, they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. Member States shall determine how such a reference is to be made.

2. Member States shall communicate to the Commission the texts of the main provisions of national law which they adopt in the field governed by this Directive.

Article 8

This Directive shall enter into force on the day following that of its publication in the Official Journal of the European *Union*.

Article 9

This Directive is addressed to the Member States.

Done at ,

For the European Parliament
The President

For the Council
The President

ANNEX I

TECHNICAL PROVISIONS

1. SCOPE

This Directive applies to the frontal surfaces of vehicles. For the purpose of this Directive, vehicle means any motor vehicle as defined in Article 2 of and Annex II to Directive 70/156/EEC of category M₁ of a total permissible mass not exceeding 2,5 tonnes and to N₁ vehicles derived from M₁, of a total permissible mass not exceeding 2,5 tonnes.

2. DEFINITIONS

For the purposes of this Directive:

- 2.1 'A-pillar' means the foremost and outermost roof support extending from the chassis to the roof of the vehicle.
- 2.2 'Bumper' means the front, lower, outer structure of a vehicle. It includes all structures that are intended to give protection to a vehicle when involved in a low speed frontal collision with another vehicle and also any attachments to this structure.
- 2.3 'Bonnet Leading Edge' means the front upper outer structure including the bonnet and wings, the upper and side members of the headlight surround and any other attachments.
- 2.4 'Bonnet top' means the outer structure that includes the upper surface of all outer structures except the windscreen, the A-pillars and structures rearwards of them. It therefore includes, but is not limited to, the bonnet, wings, scuttle, wiper spindle and lower windscreen frame. 'Head Performance Criterion (HPC)' is a calculation, over a specified time period, of the maximum resultant acceleration experienced during the impact.
- 2.5 'Windscreen' means the frontal glazing of the vehicle which meets all the relevant requirements of Annex I to Directive 77/649/EEC¹.

¹ Council Directive 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 (OJ L 267, 19.10.1977, p. 1). Directive as last amended by Commission Directive 90/630/EEC (OJ L 341, 6.12.1990, p. 20).

2.6 'Vehicle Type' means a category of vehicles which, forward of the A-pillars, do not differ in such essential respects as:

- the structure,
- the main dimensions,
- the materials of the outer surfaces of the vehicle,
- the component arrangement (external or internal),

insofar as they may be considered to have a negative effect on the results of the impact tests prescribed in this Directive;

3. TEST PROVISIONS

3.1. The following tests are required to be carried out; however, the limit values specified in items 3.1.3. and 3.1.4. are required for monitoring purposes only.

3.1.1. Legform to Bumper:

One of the two following legform tests are required to be performed:

3.1.1.1 Lower legform to bumper: The test is performed at an impact speed of 40km/h. The maximum dynamic knee bending angle shall not exceed 21.0°, the maximum dynamic knee shearing displacement shall not exceed 6.0mm, and the acceleration measured at the upper end of the tibia shall not exceed 200g

3.1.1.2 Upper legform to bumper: The test is performed at an impact speed of 40km/h. The instantaneous sum of the impact forces with respect to time shall not exceed 7.5kN and the bending moment on the test impactor shall not exceed 510Nm.

3.1.2. Child/Small Adult headform to bonnet top: The test is performed at an impact speed of 35km/h using a 3.5kg test impactor. The Head Performance Criterion (HPC) shall not exceed 1000 over 2/3 of the bonnet test area and 2000 for the remaining 1/3 of the bonnet test area.

- 3.1.3. Upper legform to bonnet leading edge: The test is performed at an impact speed up to 40km/h. The instantaneous sum of the impact forces with respect to time should not exceed a possible target of 5.0kN and the bending moment on the test impactor shall be recorded and compared with the possible target of 300Nm.
- 3.1.4. Adult headform to windscreen: The test is performed at an impact speed of 35km/h using a 4.8kg test impactor. The Head Performance Criterion (HPC) shall be recorded and compared with the possible target of 1000.
- 3.2. The following tests are required to be carried out.
 - 3.2.1. Legform to Bumper:

One of the two following legform tests are required to be performed:

 - 3.2.1.1 Lower legform to bumper: The test is performed at an impact speed of 40km/h. The maximum dynamic knee bending angle shall not exceed 15.0°, the maximum dynamic knee shearing displacement shall not exceed 6.0mm, and the acceleration measured at the upper end of the tibia shall not exceed 150g.
 - 3.2.1.2 Upper legform to bumper: The test is performed at an impact speed of 40 km/h. The instantaneous sum of the impact forces with respect to time shall not exceed 5.0kN and the bending moment on the test impactor shall not exceed 300Nm.
 - 3.2.2. Child headform to bonnet top: The test is performed at an impact speed of 40km/h using a 2.5kg test impactor. The Head Performance Criterion (HPC) shall not exceed 1000 for the whole of the bonnet test area.
 - 3.2.3 Upper legform to bonnet leading edge: The test is performed at an impact speed up to 40km/h. The instantaneous sum of the impact forces with respect to time shall not exceed 5.0kN and the bending moment on the test impactor shall not exceed 300Nm.
 - 3.2.4 Adult headform to bonnet top: The test performed at an impact speed of 40km/h using a 4.8kg test impactor. The Head Performance Criterion (HPC) shall not exceed 1000 for the whole bonnet test area.

ANNEX II

ADMINISTRATIVE PROVISIONS FOR TYPE-APPROVAL

1. APPLICATION FOR EC TYPE APPROVAL

- 1.1 The application for EC type-approval pursuant to Article 3(4) of Directive 70/156/EEC of a vehicle type with regard to pedestrian protection shall be submitted by the manufacturer.
- 1.2 A model for the information document is given in Appendix 1.
- 1.3 A vehicle, representative of the vehicle type to be approved, shall be submitted to the technical service responsible for conducting the type-approval tests.

2. GRANTING OF EC TYPE-APPROVAL

- 2.1 If the tests referred to in Annex I are conducted in accordance *with* the specifications provided in that Annex and the technical prescriptions referred to in Article 3, EC type-approval pursuant to Article 4(3) and, if applicable, 4(4) of Directive 70/156/EEC shall be granted.
- 2.2 A model for the EC type-approval certificate is given in Appendix 2.
- 2.3 An approval number in accordance with Annex VII to Directive 70/156/EEC shall be assigned to each type of vehicle approved. The same Member State shall not assign the same number to another type of vehicle.
- 2.4 In case of doubt, account shall be taken, when verifying the compliance with the test procedures, of any data or test results, provided by the manufacturer, which can be taken into consideration in validating the approval test carried out by the approval authority.

3. MODIFICATION OF THE TYPE AND AMENDMENTS TO APPROVALS

3.1 Any modification of the vehicle affecting the general form of the frontal structure of the vehicle which in the judgement of the authority would have a marked influence on the results of the tests shall require a repetition of the test.

3.2 In the case of modification of a vehicle type approved pursuant to this Directive, the provisions of Article 5 of Directive 70/156/EEC shall apply.

4. CONFORMITY OF PRODUCTION

4.1 Measures to ensure the conformity of production shall be taken in accordance with the provisions laid down in Article 10 of Directive 70/156/EEC.

Appendix 1 to Annex II

Information document No

pursuant to Annex I of Council Directive 70/156/EEC

relating to the EC type-approval of a vehicle with respect to

Pedestrian protection

The following information, if applicable, must be supplied in triplicate and include a list of contents. Any drawings must be supplied in appropriate scale and in sufficient detail on size A4 or on a folder of A4 format. Photographs, if any, must show sufficient detail.

If the systems, components or separate technical units have electronic controls, information concerning their performance must be supplied.

0 GENERAL

0.1 Make (trade name of manufacturer):.....

0.2 Type and general commercial description(s):

0.3 Means of identification of type, if marked on the vehicle:

0.3.1 Location of that marking:

0.4 Category of vehicle:

0.5 Name and address of manufacturer:.....

0.8 Address(es) of assembly plant(s):

1. GENERAL CONSTRUCTION CHARACTERISTICS OF THE VEHICLE

1.1 Photographs and/or drawings of a representative vehicle:.....

1.6 Position and arrangement of the engine :

9. BODYWORK

9.1 Type of bodywork :

9.2 Materials used and methods of construction :

9.[23] Pedestrian protection

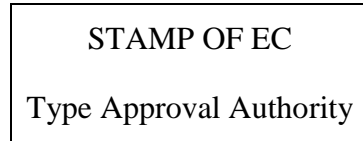
A detailed description, including photographs and/or drawings, of the vehicle with respect to the structure, the dimensions, the relevant reference lines and the constituent materials of the frontal part of the vehicle (interior and exterior) shall be provided. This description should include detail of any active protection system installed, where appropriate.

Appendix 2 to Annex II

MODEL

(maximum format : A4 (210 x 297 mm))

EC TYPE-APPROVAL CERTIFICATE



Communication concerning the

- EC type-approval¹
- extension of EC type-approval¹
- refusal of EC type-approval¹
- withdrawal of EC type-approval¹

of a type of vehicle with regard to Directive .../.../EC, as last amended by Directive .../.../EC

Type-approval Number

Reason for extension

SECTION I

- 0.1 Make (trade name of manufacturer):.....
- 0.2 Type:
- 0.2.1. Commercial name(s) (if available).....
- 0.3 Means of identification of type, if marked on the vehicle
- 0.3.1 Location of that marking:
- 0.4 Category of vehicle:
- 0.5 Name and address of manufacturer:.....
- 0.8 Names and address(es) of assembly plant(s):

¹ Delete where not applicable.

SECTION II

- 1 Additional information (where applicable) (see Addendum)
- 2 Technical service responsible for carrying out the tests:
- 3 Date of test report:.....
- 4 Number of test report:
- 5 Remarks (if any) (see Addendum)
- 6 Place:
- 7 Date:
- 8 Signature:
- 9 The index to the information package lodged with the approval authority, which may be obtained on request, is attached.

Addendum

to EC type-approval certificate no

concerning the type-approval of a vehicle with regard to

Directive .../.../EC.

1 Additional information

1.1 Brief description of the vehicle type as regards its structure, dimensions, lines and constituent materials :

1.2 Site of engine : forward / rear / central¹

1.3 Drive : front-wheel : rear-wheel¹

1.4 Mass of vehicle submitted for testing -

Front axle :

Rear axle :

Total :

1.5 Test results according to Section 3.1/3.2 of Annex I (delete as appropriate):

¹ Delete where not applicable.

1.5.1. Annex I Section 3.1 tests

Test	Value recorded		Pass/Fail ¹
Lower legform to Bumper (where performed)	Bending angle	degrees	
	Shear displacement	mm	
	Acceleration at tibia	<i>g</i>	
Upper legform to bonnet leading edge	Sum of impact forces	kN	___ ²
	Bending moment	Nm	___ ²
Upper legform to bumper. (where performed)	Sum of impact forces	kN	
	Bending moment	Nm	
Child/Small Adult headform (3.5 kg) to bonnet top	HPC values in Zone A (at least 12 values)		
	HPC values in Zone B (at least 6 values)		
Adult headform (4.8 kg) to windscreen	HPC values (at least 5 values)		___ ²

¹ According to the values specified in Annex I, section 3.1. of Directive [...] EC relating to pedestrian protection.

² For monitoring purposes only.

1.5.2. Annex I Section 3.2 tests

Test	Value recorded		Pass/Fail ¹
Lower legform to Bumper (where performed)	Bending angle	Degrees	
	Shear displacement	<i>mm</i>	
	Acceleration at tibia	<i>g</i>	
Upper legform to bonnet leading edge	Sum of impact forces	<i>kN</i>	
	Bending moment	Nm	
Upper legform to bumper (where performed)	Sum of impact forces	<i>kN</i>	
	Bending moment	Nm	
Child headform (2.5 kg) to bonnet top	HPC values (at least 9 values)		
Adult headform (4.8 kg) to bonnet top	HPC values (at least 9 values)		

1.6 Remarks: (eg, valid for left-hand drive and right-hand drive vehicles)

.....

¹ According to the values specified in Annex I, section 3.1. of Directive [...] EC relating to pedestrian protection.