II

(Non-legislative acts)

ACTS ADOPTED BY BODIES CREATED BY INTERNATIONAL AGREEMENTS

Only the original UN/ECE texts have legal effect under international public law. The status and date of entry into force of this Regulation should be checked in the latest version of the UN/ECE status document TRANS/WP.29/343, available at: http://www.unece.org/trans/main/wp29/wp29wgs/wp29gen/wp29fdocstts.html

Regulation No 73 of the Economic Commission for Europe of the United Nations (UN/ECE) — Uniform provisions concerning the approval of

I. Vehicles with regard to their lateral protection devices (LPD)

II. Lateral protection devices (LPD)

III. Vehicles with regard to the installation of LPD of an approved type according to Part II of this Regulation

Incorporating all valid text up to:

01 series of amendments — Date of entry into force: 9 December 2010

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1. SCOPE

1.1. This Regulation applies to:

1.1.1. PART I: vehicles of categories N_2, N_3, O_3 and O_4 [1] equipped with lateral protection devices which have not been separately approved according to Part II of this Regulation or are so designed and/or equipped that their component parts may be regarded as totally or partially fulfilling the function of a device.

1.1.2. PART II: Lateral protection devices which are intended to be fitted to vehicles of categories N_2, N_3, O_3 and O_4 [1].

1.1.3. PART III: the installation on vehicles of categories N_2, N_3, O_3 and O_4 [1] of lateral protection devices which have been type-approved according to Part II of this Regulation and to the completion of vehicles partially approved according to Part I and completed with lateral protection devices which have been type-approved according to Part II of this Regulation;

1.2. This Regulation does not apply to:

1.2.1. tractors for semi-trailers;

1.2.2. vehicles designed and constructed for special purposes where it is not possible, for practical reasons, to fit lateral protection devices.

2. DEFINITIONS

For the purposes of this Regulation:

2.1. Definitions common to Parts I, II and III

2.1.1. 'Unladen mass' means the mass of the vehicle in running order, unoccupied and unladen but complete with fuel, coolant, lubricant, tools and a spare wheel (if provided as standard equipment by the vehicle manufacturer);

2.1.2. 'Maximum mass' means the mass stated by the vehicle manufacturer to be technically permissible (this mass may be higher than the 'permissible maximum mass' laid down by the national administration);

2.1.3. 'Unprotected road users' means pedestrians, cyclists or motor cyclists using the road in such a way that they are liable to fall under the sides of the vehicle and be caught under the wheels;

2.1.4. 'Lateral protection device (LPD)' consist of longitudinal member(s) and link(s) (fixing elements) to the chassis side members or other structural parts of the vehicle, designed to offer effective protection to unprotected road users against the risk of falling under the sides of the vehicle and being caught under the wheels. Parts of the vehicle can also be used as LPD.

[1] As defined in the Consolidated Resolution on the Construction of Vehicles (R.E.3.), document ECE/TRANS/WP.29/78/Rev.2, paragraph 2.

2.2. Definitions specific to Part I

2.2.1. 'Approval of a vehicle' means the approval of a complete, incomplete or completed vehicle type with regard to its lateral protection;

2.2.2. 'Vehicle type' means a category of vehicle which does not differ with respect to the essential points such as the width of the rear axle, the overall width, the dimensions, the shape and the materials of the whole side of the vehicle (including the cab if fitted), and the characteristics of the suspension in so far as they have a bearing on the requirements specified in paragraph 12.

2.3. Definitions specific to Part II

2.3.1. 'Approval of an LPD' means the approval of a type of LPD with respect to the requirements laid down in paragraph 14;

2.3.2. 'Type of LPD' means an LPD that does not differ with respect to the essential characteristics such as shape, dimensions, attachment, materials and the markings specified in paragraph 5.2.4.

2.4. Definitions specific to Part III

2.4.1. 'Approval of a vehicle' means the approval of a vehicle type with regard to the installation of LPD of a type approved according to Part II of this Regulation, including, if necessary, the completion of a vehicle partially approved according to Part I;

2.4.2. 'Vehicle type' means vehicles which do not differ in such essential aspects as:

(a) the width of the rear axle;

(b) the structure, the dimensions, the shape and the height from the ground of the sides of the vehicle and the characteristics of the suspension, in so far as they have a bearing on the requirements specified in paragraph 15 of this Regulation;

(c) the approved LPD fitted to the vehicle.

3. REQUIREMENTS

3.1. GENERAL

3.1.1. The requirements of this Regulation shall be considered satisfied either:

3.1.1.1. If the vehicle is equipped with LPD in accordance with the requirements of Part I and/or Part III; or

3.1.1.2. If the vehicle is so designed and/or equipped at the side that, by virtue of their shape and characteristics, its component parts may be incorporated and/or regarded as replacing the LPD. Components whose combined function satisfies the requirements set out in paragraphs 12 and 15 are considered to form an LPD.

3.2. VEHICLE TEST CONDITIONS

Compliance with the requirements contained in Part I and Part III, shall be determined with the vehicle positioned in accordance with Annex 3.

4. APPLICATION FOR APPROVAL

4.1. Application for approval pursuant to Part I of this Regulation

4.1.1. The application for approval of a vehicle type to Part I of this Regulation shall be submitted by the vehicle manufacturer or by his duly accredited representative.

4.1.2. It shall be accompanied by the undermentioned documents in triplicate and by the following particulars:

4.1.2.1. A detailed description of the vehicle type with respect to its state of completion, structure, dimensions, lines and constituent materials;

4.1.2.2. Drawings of the vehicle showing the vehicle type in side and rear elevation and design details of the lateral parts of the structure;

4.1.2.3. A detailed description of the LPD: their dimensions, lines, constituent materials, design details of their links to the vehicle and position on the vehicle.

4.1.3. A vehicle representative of the type to be approved shall be submitted to the technical service responsible for conducting the approval tests.

4.1.3.1. A vehicle not comprising all the components proper to the type may be accepted for approval provided that it can be shown that the absence of the components omitted has no detrimental effect on the results of the approval, so far as the requirements of this part are concerned.

4.1.3.2. It shall be the responsibility of the applicant for approval to show that acceptance of the variants referred to in paragraph 4.1.3.1 is compatible with compliance with the requirements of this part.

4.2. Application for approval pursuant to Part II of this Regulation

4.2.1. The application for approval pursuant to Part II of this Regulation shall be submitted by the manufacturer of the LPD or by his duly accredited representative.

4.2.2. It shall be accompanied by the undermentioned documents in triplicate and by the following particulars:

4.2.2.1. A detailed description of the LPD: their dimensions, lines, constituent materials and the details of their intended links to the vehicle;

4.2.2.2. A sample of the type of LPD: the sample must be clearly and indelibly marked on all its main components with the applicant's trade name or mark and the type designation;

4.2.2.3. A LPD representative of the type to be approved shall be submitted to the technical service responsible for conducting the approval tests.

4.3. Application for approval pursuant to Part III of this Regulation

4.3.1. The application for approval pursuant to Part III of this Regulation shall be submitted by the vehicle manufacturer or by his duly accredited representative.

4.3.2. It shall be accompanied by the undermentioned documents in triplicate and by the following particulars:

4.3.2.1. Drawings of the vehicle showing, according to the criteria referred to in paragraph 2.4.2, the vehicle type in side elevation with an indication of the position of the approved LPD and design details of their links to the vehicle;

4.3.2.2. A list of the LPD intended to be fitted to the vehicle;

4.3.2.3. At the request of the approval authority the type approval communication form (i.e. Annex 1, Appendix 2 to this Regulation) for the LPD shall also be supplied.

4.3.3. A vehicle representative of the type to be approved and fitted with approved LPD shall be submitted to the technical service responsible for conducting the approval tests.

4.3.3.1. A vehicle not comprising all the components proper to the type may be accepted for approval provided that it can be shown that the absence of the components omitted has no detrimental effect on the results of the approval, so far as the requirements of this part are concerned.

4.3.3.2. It shall be the responsibility of the applicant for approval to show that acceptance of the variants referred to in paragraph 4.3.3.1 is compatible with compliance with the requirements of this part.

5. APPROVAL

5.1. Approval pursuant to Part I of this Regulation

5.1.1. If the complete, incomplete or completed vehicle submitted for approval pursuant to this part meets the requirements of paragraph 12, approval of that vehicle type shall be granted.

5.1.2. An approval number shall be assigned to each type approved. Its first two digits (at present 01 corresponding to the 01 series of amendment) shall indicate the series of amendments incorporating the most recent major technical amendments made to the Regulation at the time of issue of the approval. The same Contracting Party shall not assign the same number to another vehicle type as defined in this Regulation.

5.1.3. Notice of approval or refusal or extension of approval of a vehicle type pursuant to this part shall be communicated to the Contracting Parties to the Agreement which apply this Regulation, by means of a form conforming to the model in Annex 1, Appendix 1, to this Regulation.

5.1.4. There shall be affixed, conspicuously and in a readily accessible location specified on the approval form, to every vehicle conforming to a vehicle type approved under this Regulation, an approval mark consisting of:

5.1.4.1. A circle surrounding the letter 'E' followed by the distinguishing number of the country which has granted approval ([2]);

5.1.4.2. The number of this Regulation, followed by the letter 'R', a dash and the approval number to the right of the circle prescribed in paragraph 5.1.4.1.

5.1.5. If the vehicle conforms to a vehicle type approved, under one or more other Regulations annexed to the Agreement, in the country that has granted approval under this Regulation, the symbol prescribed in paragraph 5.1.4.1 need not be repeated; in such a case the Regulation and approval numbers and the additional symbols of all the Regulations under which approval has been granted in the country that has granted approval under this Regulation shall be placed in vertical columns to the right of the symbol prescribed in paragraph 5.1.4.1.

5.1.6. The approval mark shall be clearly legible and be indelible.

5.1.7. The approval mark shall be placed close to or on the vehicle data plate affixed by the manufacturer.

5.1.8. Annex 2 to this Regulation gives examples of arrangements of approval marks.

5.2. Approval pursuant to Part II of this Regulation

5.2.1. If the LPD submitted for approval pursuant to this part meet the requirements of paragraph 14, approval of that type of LPD shall be granted.

5.2.2. An approval number shall be assigned to each type approved. Its first two digits (at present 01 corresponding to the 01 series of amendments) shall indicate the series of amendments incorporating the most recent major technical amendments made to the Regulation at the time of issue of the approval. The same Contracting Party shall not assign the same number to another type of device.

5.2.3. Notice of approval, or refusal or extension of approval of a type of LPD pursuant to this part shall be communicated to the Contracting Parties to the Agreement which apply this Regulation, by means of a form conforming to the model in Annex 1, Appendix 2, to this Regulation.

5.2.4. There shall be affixed, conspicuously and in a readily accessible location specified on the approval form, to the main components of LPD conforming to a type of LPD approved under this Regulation an approval mark consisting of:

5.2.4.1. A circle surrounding the letter 'E' followed by the distinguishing number of the country which has granted approval ([2]);

5.2.4.2. The approval number to the right of the circle prescribed in paragraph 5.2.4.1.

([2]) 1 for Germany, 2 for France, 3 for Italy, 4 for the Netherlands, 5 for Sweden, 6 for Belgium, 7 for Hungary, 8 for the Czech Republic, 9 for Spain, 10 for Serbia, 11 for the United Kingdom, 12 for Austria, 13 for Luxembourg, 14 for Switzerland, 15 (vacant), 16 for Norway, 17 for Finland, 18 for Denmark, 19 for Romania, 20 for Poland, 21 for Portugal, 22 for the Russian Federation, 23 for Greece, 24 for Ireland, 25 for Croatia, 26 for Slovenia, 27 for Slovakia, 28 for Belarus, 29 for Estonia, 30 (vacant), 31 for Bosnia and Herzegovina, 32 for Latvia, 33 (vacant), 34 for Bulgaria, 35 for Kazakhstan, 36 for Lithuania, 37 for Turkey, 38 (vacant), 39 for Azerbaijan, 40 for the former Yugoslav Republic of Macedonia, 41 (vacant), 42 for the European Union (Approvals are granted by its Member States using their respective ECE symbol), 43 for Japan, 44 (vacant), 45 for Australia, 46 for Ukraine, 47 for South Africa, 48 for New Zealand, 49 for Cyprus, 50 for Malta, 51 for the Republic of Korea, 52 for Malaysia, 53 for Thailand, 54 and 55 (vacant), 56 for Montenegro, 57 (vacant) and 58 for Tunisia. Other numbers shall be assigned to other countries in the chronological order in which they ratify or accede to the Agreement Concerning the Adoption of Uniform Technical Prescriptions for Wheeled Vehicles, Equipment and Parts which can be Fitted and/or be Used on Wheeled Vehicles and the Conditions for Reciprocal Recognition of Approvals Granted on the Basis of these Prescriptions, and the numbers thus assigned shall be communicated by the Secretary-General of the United Nations to the Contracting Parties to the Agreement.

5.2.5. The approval mark shall be clearly legible and be indelible.

5.2.6. Annex 2 to this Regulation gives examples of arrangements of approval marks.

5.3. Approval pursuant to Part III of this Regulation

5.3.1. If the vehicle submitted for approval pursuant to this part is equipped with an approved LPD and meets the requirements of paragraph 15, approval of that vehicle type shall be granted.

5.3.2. An approval number shall be assigned to each type approved. Its first two digits (at present 01 corresponding to the 01 series of amendments) shall indicate the series of amendments incorporating the most recent major technical amendments made to the Regulation at the time of issue of the approval. The same Contracting Party shall not assign the same number to another vehicle type.

5.3.3. Notice of approval or refusal or extension of approval of a vehicle type pursuant to this Regulation shall be communicated to the Contracting Parties to the Agreement which apply this Regulation, by means of a form conforming to the model in Annex 1, Appendix 3, to this Regulation.

5.3.4. There shall be affixed, conspicuously and in a readily accessible place specified on the approval form, to every vehicle conforming to a vehicle type approved under this Regulation an approval mark consisting of:

5.3.4.1. A circle surrounding the letter 'E' followed by the distinguishing number of the country which has granted approval [2];

5.3.4.2. The number of this Regulation, followed by the letter 'R', a dash and the approval number to the right of the circle prescribed in paragraph 5.3.4.1.

5.3.5. If the vehicle conforms to a vehicle type approved, under one or more other Regulations annexed to the Agreement, in the country which has granted approval under this Regulation, the symbol prescribed in paragraph 5.3.4.1 need not be repeated; in such a case the Regulation and approval numbers and the additional symbols of all the Regulations under which approval has been granted in the country which has granted approval under this Regulation shall be placed in vertical columns to the right of the symbol prescribed in paragraph 5.3.4.1.

5.3.6. The approval mark shall be clearly legible and be indelible.

5.3.7. The approval mark shall be placed close to or on the vehicle data plate affixed by the manufacturer.

5.3.8. Annex 2 to this Regulation gives examples of arrangements of approval marks.

6. MODIFICATION AND EXTENSION OF APPROVAL OF A TYPE OF VEHICLE OR LPD

6.1. Every modification of the type of vehicle or LPD shall be notified to the administrative department which approved the type. The department may then either:

6.1.1. Consider that the modifications made are unlikely to have an appreciable adverse effect and that in any case the vehicle or LPD still complies with the requirements; or

6.1.2. Require a further test report from the technical service responsible for conducting the tests.

6.2. Confirmation or refusal of approval, specifying the modifications, shall be communicated by the procedure specified in paragraph 5.1.3, 5.2.3 or 5.3.3, as applicable, to the Contracting Parties to the Agreement applying this Regulation.

6.3. The competent authority issuing the extension of approval shall assign a series number for such an extension and inform thereof the other Contracting Parties to the 1958 Agreement applying this Regulation by means of a communication form conforming to the model in Annex 1 to this Regulation.

7. CONFORMITY OF PRODUCTION

The conformity of production procedures shall comply with those set out in the Agreement, Appendix 2 (E/ECE/324-E/ECE/TRANS/505/Rev.2), with the following requirements:

7.1. Every vehicle or LPD approved under this Regulation shall be so manufactured as to conform to the type approved by meeting the requirements of the respective parts above;

7.2. The approval authority that has granted type approval may at any time verify the conformity control methods applicable to each production facility.

8. PENALTIES FOR NON-CONFORMITY OF PRODUCTION

8.1. The approval granted in respect of a type of vehicle or LPD pursuant to this Regulation may be withdrawn if the requirements laid down in paragraph 12, 14 or 15, as applicable, are not complied with.

8.2. If a Contracting Party to the Agreement applying this Regulation withdraws an approval it has previously granted, it shall forthwith notify the other Contracting Parties applying this Regulation, by means of a communication form conforming to the model in Annex 1 to this Regulation.

9. PRODUCTION DEFINITELY DISCONTINUED

If the holder of the approval completely ceases to manufacture a type of vehicle or LPD approved in accordance with this Regulation, he shall so inform the authority that granted the approval. Upon receiving the relevant communication that authority shall inform thereof the other Contracting Parties to the Agreement applying this Regulation by means of a communication form conforming to the model in Annex 1 to this Regulation.

10. NAMES AND ADDRESSES OF TECHNICAL SERVICES RESPONSIBLE FOR CONDUCTING APPROVAL TESTS, AND OF ADMINISTRATIVE DEPARTMENTS

The Contracting Parties to the 1958 Agreement applying this Regulation shall communicate to the United Nations Secretariat the names and addresses of the technical services responsible for conducting approval tests and of the administrative departments that grant approval and to which forms certifying approval or extension or refusal or withdrawal of approval, issued in other countries, are to be sent.

11. TRANSITIONAL PROVISIONS

11.1. As from the official date of entry into force of the 01 series of amendments, no Contracting Party applying this Regulation shall refuse to grant ECE approval under this Regulation as amended by the 01 series of amendments.

11.2. As from 12 months after the date of entry into force of the 01 series of amendments, Contracting Parties applying this Regulation shall grant approvals only if the type of vehicle or LPD to be approved meets the requirements of this Regulation as amended by the 01 series of amendments.

11.3. Even after the entry into force of the 01 series of amendments to this Regulation, approvals issued to the 00 series of amendments shall remain valid and Contracting Parties applying this Regulation shall continue to grant extensions to such approvals and shall continue to accept them.

11.4. No Contracting Party applying this Regulation shall refuse national or regional type approval of a vehicle type approved to the 00 series of amendments to this Regulation.

PART I — APPROVAL OF VEHICLES WITH REGARD TO THEIR LATERAL PROTECTION DEVICES (LPD)

12. REQUIREMENTS

12.1. LPD shall not increase the overall width of the vehicle and the main part of their outer surface shall not be more than 150 mm inboard from the outermost plane (maximum width) of the vehicle. Their forward end may be turned inwards on some vehicles in accordance with paragraphs 12.4.3 and 12.4.4. Their rearward end shall not be more than 30 mm inboard from the outermost edge of the rear tyres (excluding any bulging of the tyres close to the ground) over at least the rearmost 250 mm.

12.2. The outer surface of the LPD shall be smooth, and so far as possible continuous from front to rear; adjacent parts may however overlap provided that the overlapping edge faces rearwards or downwards, or a gap of not more than 25 mm measured longitudinally may be left, provided that the rearward part does not protrude outboard of the forward part; domed heads of bolts or rivets may protrude beyond the surface to a distance not exceeding 10 mm and other parts may

protrude to the same extent provided that they are smooth and similarly rounded; all external edges and corners that may be contacted by a sphere of 100 mm diameter shall be rounded with a radius not less than 2,5 mm; those protruding less than 5 mm shall have blunted outward facing edges.

12.3. LPD may consist of a continuous flat surface, or of one or more horizontal rails, or a combination of surface and rails; when rails are used they shall be not more than 300 mm apart and not less than:

(a) 50 mm high in the case of vehicles of categories N_2 and O_3;

(b) 100 mm high and essentially flat in the case of vehicles of categories N_3 and O_4.

Combinations of surfaces and rails shall form a practically continuous LPD subject, however, to the provisions of paragraph 12.2.

12.4. The forward edge of LPD shall be constructed as follows:

12.4.1. Their position shall be:

12.4.1.1. On a vehicle of category N_2 or N_3: not more than 300 mm to the rear of the vertical plane perpendicular to the longitudinal plane of the vehicle and tangential to the outer surface of the tyre on the wheel immediately forward of the device;

12.4.1.2. On a drawbar trailer: not more than 500 mm to the rear of the plane defined in paragraph 12.4.1.1;

12.4.1.3. On a semi-trailer: not more than 250 mm to the rear of the transverse median plane of the support legs, if support legs are fitted, but in any case the distance from the front edge to the transverse plane passing through the centre of the kingpin in its rearmost position may not exceed 2,7 m;

12.4.1.4. On a central axle trailer: in the area forward of the transverse plane passing through the centre of the front axle but not more than the front of the bodywork, if any, to ensure the normal manoeuvrability of the trailer.

12.4.2. Where the forward edge lies in an open space of more than 25 mm, the edge shall consist of a continuous vertical member extending over the whole height of the device; the outer and forward faces of this member shall measure at least 50 mm rearwards and be turned 100 mm inwards or have a minimum radius of 50 mm in the case of vehicles of categories N_2 and O_3 and at least 100 mm rearwards and be turned 100 mm inwards or have a minimum radius of 100 mm in the case of vehicles of categories N_3 and O_4.

12.4.3. On a vehicle of category N_2 or N_3 where the 300 mm dimension referred to in paragraph 12.4.1.1 falls within the cab, the device shall be so constructed that the gap between its forward edge and the cab panels do not exceed 100 mm and, if necessary, shall be turned in through an angle not exceeding 45°. In this case, the provisions of paragraph 12.4.2 are not applicable.

12.4.4. At the manufacturer's option, on a vehicle of category N_2 or N_3 where the 300 mm dimension referred to in paragraph 12.4.1.1 falls behind the cab and the device extends forward to within 100 mm of the cab, then the provisions of paragraph 12.4.3 may be met.

12.5. The rearward edge of LPD shall not be more than 300 mm forward of the vertical plane perpendicular to the longitudinal plane of the vehicle and tangential to the outer surface of the tyre on the wheel immediately to the rear; a continuous vertical member is not required on the rear edge.

12.6. The requirements of paragraphs 12.4 and 12.5 are independent and cannot be combined. However, in the case of a vehicle having two steered axles an LPD shall not be required between those two axles if the longitudinal distance between their centre lines does not exceed 2 100 mm.

12.7. The front and rear overhang of the LPD shall not exceed the distance between the links and the centre of the ram measured during the test prescribed in paragraph 12.10. In the case of several such distances the greatest of the test distances shall not be exceeded.

12.8. The lower edge of LPD shall at no point be more than 550 mm above the ground.

12.9. The upper edge of LPD shall not be more than 350 mm below that part of the structure of the vehicle, cut or contacted by a vertical plane tangential to the outer surface of the tyres, excluding any bulging close to the ground, except in the following cases:

12.9.1. Where the plane in paragraph 12.9 does not cut the structure of the vehicle, then the upper edge shall be level with the surface of the load-carrying platform, or 950 mm from the ground, whichever is the less;

12.9.2. Where the plane in paragraph 12.9 cuts the structure of the vehicle at a level more than 1,3 m above the ground, then the upper edge of the device shall not be less than 950 mm above the ground;

12.9.3. On a vehicle specially designed and constructed, and not merely adapted, for the carriage of a container or demountable body, the upper edge of the device may be determined in accordance with paragraphs 12.9.1 and 12.9.2, the container or body being considered as part of the vehicle;

12.9.4. On a vehicle fitted with a crane for loading, unloading or other operations, having a permanently fitted operator's workstation or operating platform from which the crane may be controlled, the upper edge of the LPD may be determined in accordance with paragraphs 12.9.1 and 12.9.2, the workstation or operating platform being considered as if it was the load carrying platform.

12.10. LPD shall be essentially rigid, securely mounted (they shall not be liable to loosening due to vibration in normal use of the vehicle) and, except as regards the parts listed in paragraph 12.11, made of metal or any other suitable material. LPD shall be considered suitable if they are capable of withstanding a horizontal static force of 1 kN applied perpendicularly to any part of their external surface by the centre of a ram the face of which is circular and flat, with a diameter of 220 mm ± 10 mm, and if the deflection of the device under load measured at the centre of the ram is then not more than:

(a) 30 mm over the rearmost 250 mm of the device; and

(b) 150 mm over the remainder of the device.

At the request of the manufacturer, compliance with this requirement may be demonstrated by calculation. The validity of the calculation method shall be established to the satisfaction of the Technical Service.

12.11. Components permanently fixed to the vehicle, e.g. spare wheels, battery box, air tanks, fuel tanks, lamps, reflectors and tool boxes may be incorporated in a device, provided that they meet the dimensional requirements of this part. The requirements of paragraph 12.2 shall apply as regards gaps between protective devices and permanently fixed components.

12.12. The device may not be used for the attachment of brake, air or hydraulic pipes.

12.13. LPD may be so designed to have several positions at the side of the vehicle. In this event, there must be a guaranteed method of securing them in their normal operating position so that any unintentional change of position is precluded. The force applied by the operator to vary the position of the device shall not exceed 40 daN.

13. DEROGATIONS

13.1. By derogation from the above provisions, vehicles of the following types need comply only as indicated in each case:

13.1.1. An extendible trailer shall comply with all the requirements of paragraph 12 when closed to its minimum length; when the trailer is extended, however, the LPD need only comply with paragraphs 12.8, 12.9, and 12.10, and with either paragraph 12.4 or 12.5, but not necessarily both; extension of the trailer shall not produce gaps along the length of the LPD;

13.1.2. A tank vehicle, that is a vehicle designed solely for the carriage of a fluid substance in a closed tank permanently fitted to the vehicle and provided with hose or pipe connections for loading or unloading, shall be fitted with LPD that comply so far as is practicable with all the requirements of paragraph 12; strict compliance may be waived only where operational requirements make this necessary;

13.1.3. On a vehicle fitted with extendible legs to provide additional stability during loading, unloading or other operations for which the vehicle is designed, LPD may be arranged with additional gaps where these are necessary to permit extension of the legs;

13.1.4. On a vehicle equipped with lashing and securing points in accordance with ISO 9367-1:1989 or ISO 9367-2:1994 for water borne transportation on Ro/Ro vessels, gaps shall be permitted within LPD to accept the attachment of restraint devices.

13.1.5. On a vehicle fitted with a crane for loading, unloading or other operations for which the vehicle is designed, making it impracticable to comply with all the requirements of paragraph 12, the LPD may be arranged with additional gaps where these are necessary to permit the movement or stowage of the crane.

13.2. If the sides of the vehicle are so designed and/or equipped that by their shape and characteristics the component parts together meet the requirements of paragraph 12, they may be regarded as replacing the LPD.

PART II — APPROVAL OF LATERAL PROTECTION DEVICES (LPD)

14. REQUIREMENTS

14.1. The outer surface of the LPD shall be smooth, and so far as possible continuous from front to rear; adjacent parts may however overlap provided that the overlapping edge faces rearwards or downwards, or a gap of not more than 25 mm measured longitudinally may be left, provided that the rearward part does not protrude outboard of the forward part; domed heads of bolts or rivets may protrude beyond the surface to a distance not exceeding 10 mm and other parts may protrude to the same extent provided that they are smooth and similarly rounded; all external edges and corners that may be contacted by a sphere of 100 mm diameter shall be rounded with a radius not less than 2,5 mm; those protruding less than 5 mm shall have blunted outward facing edges.

14.2. LPD may consist of a continuous flat surface, or of one or more horizontal rails, or a combination of surface and rails; when rails are used they shall be not more than 300 mm apart and not less than:

(a) 50 mm high in the case of LPD for vehicles of categories N_2 and O_3; or

(b) 100 mm high and essentially flat in the case of LPD for vehicles of categories for N_3 and O_4.

Combinations of surfaces and rails shall form a practically continuous LPD subject, however, to the provisions of paragraph 14.1.

14.3. The forward edge shall consist of a continuous vertical member extending over the whole height of the device; the outer and forward faces of this member shall measure at least 50 mm rearwards and be turned 100 mm inwards or have a minimum radius of 50 mm in the case of vehicles of categories N_2 and O_3 and at least 100 mm rearwards and be turned 100 mm inwards or a minimum radius of 100 mm in the case of vehicles of categories N_3 and O_4.

14.4. LPD shall be essentially rigid and, except as regards the parts listed in paragraph 14.5, made of metal or any other suitable material. LPD shall be considered suitable if they are capable of withstanding a horizontal static force of 1 kN applied perpendicularly to any part of their external surface by the centre of a ram the face of which is circular and flat, with a diameter of 220 mm ± 10 mm, and if the deflection of the device under load measured at the centre of the ram is then not more than:

(a) 30 mm over the rearmost 250 mm of the device; and

(b) 150 mm over the remainder of the device.

At the request of the manufacturer, compliance with this requirement may be demonstrated by calculation. The validity of the calculation method shall be established to the satisfaction of the Technical Service.

14.5. Components permanently fixed to the vehicle, e.g. spare wheels, battery box, air tanks, fuel tanks, lamps, reflectors and tool boxes may be incorporated in a device, provided that they meet the dimensional requirements of this part.

14.6. LPD may be so designed to have several positions at the side of the vehicle. In this event, there must be a guaranteed method of securing them in their normal operating position so that any unintentional change of position is precluded. The force applied by the operator to vary the position of the device shall not exceed 40 daN.

PART III — APPROVAL OF A VEHICLE WITH REGARD TO THE INSTALLATION OF LATERAL PROTECTION DEVICES (LPD) OF A TYPE APPROVED ACCORDING TO PART II OF THIS REGULATION

15. REQUIREMENTS

15.1. LPD shall not increase the overall width of the vehicle and the main part of its outer surface shall not be more than 150 mm inboard from the outermost plane (maximum width) of the vehicle. Their forward end may be turned inwards on some vehicles in accordance with paragraphs 15.2.3 and 15.2.4. Their rearward end shall not be more than 30 mm inboard from the outermost edge of the rear tyres (excluding any bulging of the tyres close to the ground) over at least the rearmost 250 mm.

15.2. The forward edge of LPD shall be constructed as follows:

15.2.1. Their position shall be:

15.2.1.1. On a vehicle of category N_2 or N_3: not more than 300 mm to the rear of the vertical plane perpendicular to the longitudinal plane of the vehicle and tangential to the outer surface of the tyre on the wheel immediately forward of the device;

15.2.1.2. On a drawbar trailer: not more than 500 mm to the rear of the plane defined in paragraph 15.2.1.1;

15.2.1.3. On a semi-trailer: not more than 250 mm to the rear of the transverse median plane of the support legs, if support legs are fitted, but in any case the distance from the front edge to the transverse plane passing through the centre of the kingpin in its rearmost position may not exceed 2,7 m.

15.2.2. Where the forward edge lies in an open space more than 25 mm, the edge shall consist of a continuous vertical member extending over the whole height of the device; the outer and forward faces of this member shall measure at least 50 mm rearwards and be turned 100 mm inwards or have a minimum radius of 50 mm in the case of vehicles of categories N_2 and O_3 and at least 100 mm rearwards and be turned 100 mm inwards or have a minimum radius of 100 mm in the case of vehicles of categories N_3 and O_4.

15.2.3. On a vehicle of category N_2 or N_3 where the 300 mm dimension referred to in paragraph 15.2.1.1 falls within the cab, the device shall be so constructed that the gap between its forward edge and the cab panels do not exceed 100 mm and, if necessary, shall be turned in through an angle not exceeding 45°. In this case, the provisions of paragraph 15.2.2 are not applicable.

15.2.4. At the manufacturer's option, on a vehicle of category N_2 or N_3 where the 300 mm dimension referred to in paragraph 15.2.1.1 falls behind the cab and the device extends forward to within 100 mm of the cab, then the provisions of paragraph 15.2.3 may be met.

15.3. The rearward edge of LPD shall not be more than 300 mm forward of the vertical plane perpendicular to the longitudinal plane of the vehicle and tangential to the outer surface of the tyre on the wheel immediately to the rear; a continuous vertical member is not required on the rear edge.

15.4. The requirements of paragraphs 15.2 and 15.3 are independent and cannot be combined. However, in the case of a vehicle having two steered axles an LPD shall not be required between those two axles if the longitudinal distance between their centre lines does not exceed 2 100 mm.

15.5. The front and rear overhang of the LPD shall not exceed the distance between the links and the centre of the ram measured during the test prescribed in paragraph 14.4. In the case of several such distances the greatest of the test distances shall not be exceeded.

15.6. The lower edge of LPD shall at no point be more than 550 mm above the ground.

15.7. The upper edge of LPD shall not be more than 350 mm below that part of the structure of the vehicle, cut or contacted by a vertical plane tangential to the outer surface of the tyres, excluding any bulging close to the ground, except in the following cases:

15.7.1. Where the plane in paragraph 15.7 does not cut the structure of the vehicle, then the upper edge shall be level with the surface of the load-carrying platform, or 950 mm from the ground, whichever is the less;

15.7.2. Where the plane in paragraph 15.7 cuts the structure of the vehicle at a level more than 1,3 m above the ground, then the upper edge of the device shall not be less than 950 mm above the ground;

15.7.3. On a vehicle specially designed and constructed, and not merely adapted, for the carriage of a container or demountable body, the upper edge of the LPD may be determined in accordance with paragraphs 15.7.1 and 15.7.2, the container or body being considered as part of the vehicle;

15.7.4. On a vehicle fitted with a crane for loading, unloading or other operations, having a permanently fitted operator workstation or operating platform from which the crane may be controlled, the upper edge of the LPD may be determined in accordance with paragraphs 12.9.1 and 12.9.2, the workstation or operating platform being considered as if it was the load carrying platform.

15.8. LPD shall be securely mounted; they shall not be liable to loosening due to vibration in normal use of the vehicle.

15.9. Components permanently fixed to the vehicle, e.g. spare wheels, battery box, air tanks, fuel tanks, lamps, reflectors and tool boxes may be incorporated in a device, provided that they meet the dimensional requirements of this part or they are approved according to Part I. The requirements of paragraph 12.2 or 14.1 shall apply as regards gaps between protective devices and permanently fixed components.

15.10. LPD may not be used for the attachment of brake, air or hydraulic pipes.

16. DEROGATIONS

16.1. By derogation from the above provisions, vehicles of the following types need comply only as indicated in each case:

16.1.1. An extendible trailer shall comply with all the requirements of paragraph 15 when closed to its minimum length; when the trailer is extended, however, the LPD shall comply with paragraphs 15.6, 15.7, and 15.8, and with either paragraph 15.2 or 15.3, but not necessarily both; extension of the trailer shall not produce gaps along the length of the LPD;

16.1.2. A tank-vehicle, that is a vehicle designed solely for the carriage of a fluid substance in a closed tank permanently fitted to the vehicle and provided with hose or pipe connections for loading or unloading, shall be fitted with devices that comply so far as is practicable with all the requirements of paragraph 15; strict compliance may be waived only where operational requirements make this necessary;

16.1.3. On a vehicle fitted with extendible legs to provide additional stability during loading, unloading or other operations for which the vehicle is designed, the LPD may be arranged with additional gaps where these are necessary to permit extension of the legs;

16.1.4. On a vehicle equipped with lashing and securing points in accordance with ISO 9367-1:1989 or ISO 9367-2:1994 for water borne transportation on Ro/Ro vessels, gaps shall be permitted within the LPD to accept the attachment of restraint devices;

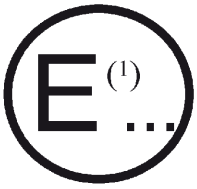
16.1.5. A vehicle fitted with a crane for loading, unloading or other operations for which the vehicle is designed, where the movement or stowage of the crane renders it impracticable to fit LPD, shall be fitted with LPD that comply so far as is practicable with all the requirements of paragraph 12; strict compliance may be waived only where operational requirements make this necessary.

ANNEX 1

Appendix 1

COMMUNICATION

(Maximum format: A4 (210 × 297 mm))



issued by: Name of administration:

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Communication concerning: (2) APPROVAL GRANTED
APPROVAL EXTENDED
APPROVAL REFUSED
APPROVAL WITHDRAWN
PRODUCTION DEFINITELY DISCONTINUED

of a complete/incomplete/completed (2) vehicle type with regard to its lateral protection device (LPD) pursuant to Part I of Regulation No 73

Approval No ..... Extension No .....

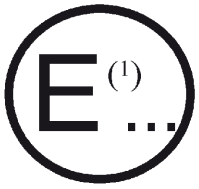
1. Trade name or mark of the vehicle .....
2. Vehicle type .....
3. Manufacturer's name and address .....
4. If applicable, name and address of manufacturer's representative .....
5. Brief description of the vehicle type as regards its state of completion, structure, dimensions, lines and any constituent materials .....
6. Brief description of the LPD, as regards its lines, dimensions and constituent materials .....
7. Vehicle category .....
8. Vehicle submitted for approval on .....
9. Technical service responsible for conducting approval tests .....
10. Date of report issued by that service .....
11. Number of report issued by that service .....
12. Approval granted/refused/extended/withdrawn (2) .....
13. Position of approval mark on the vehicle .....
14. Place .....
15. Date .....
16. Signature .....
17. The following documents, bearing the approval number shown above, are available upon request .....

(1) Distinguishing number of the country which has granted/extended refused/withdrawn approval (see approval provisions in the Regulation).
(2) Strike out what does not apply.

Appendix 2

COMMUNICATION

(Maximum format: A4 (210 × 297 mm))



issued by: Name of administration:

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Communication concerning: (2) APPROVAL GRANTED
APPROVAL EXTENDED
APPROVAL REFUSED
APPROVAL WITHDRAWN
PRODUCTION DEFINITELY DISCONTINUED

of a type of: lateral protection device (LPD)
pursuant to Part II of Regulation No 73

Approval No ..... Extension No .....

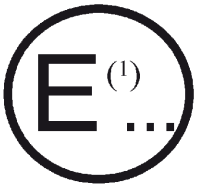
1. Trade name or mark of LPD .....
2. Type of LPD .....
3. Name and address of manufacturer .....
4. If applicable, name and address of manufacturer's representative .....
5. Characteristics of the LPD (dimensions and its links) .....
6. Test conducted on a rigid bench/on a vehicle/on a representative part of the vehicle (2) .....
7. Position on the LPD of the points of application of the test forces .....
8. Vehicle category on which the LPD may be installed .....
9. Device submitted for approval on .....
10. Technical service responsible for conducting approval tests .....
11. Date of report issued by that service .....
12. Number of report issued by that service .....
13. Approval granted/refused/extended/withdrawn (2) .....
14. Position of approval mark on the LPD .....
15. Place .....
16. Date .....
17. Signature .....
18. The following documents, bearing the approval number shown above, are available upon request .....

(1) Distinguishing number of the country which has granted/extended refused/withdrawn approval (see approval provisions in the Regulation).
(2) Strike out what does not apply.

Appendix 3

COMMUNICATION

(Maximum format: A4 (210 × 297 mm))



issued by: Name of administration:

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Communication concerning: (2) APPROVAL GRANTED
APPROVAL EXTENDED
APPROVAL REFUSED
APPROVAL WITHDRAWN
PRODUCTION DEFINITELY DISCONTINUED

of a vehicle type with regard to the installation of a lateral protection device (LPD) of an approved type pursuant to Part III of Regulation No 73

Approval No ..... Extension No .....

1. Trade name or mark of the vehicle .....
2. Vehicle type .....
3. Manufacturer's name and address .....
4. If applicable, name and address of manufacturer's representative .....
5. Brief description of the vehicle type as regards its dimensions and lines .....
6. Trade name or mark of the LPD(s) and its/their approval number(s), including the approval number of a partial vehicle approval granted according to Part I .....
7. Vehicle category .....
8. Vehicle submitted for approval on .....
9. Technical service responsible for conducting approval tests .....
10. Date of report issued by that service .....
11. Number of report issued by that service .....
12. Approval granted/refused/extended/withdrawn (2) .....
13. Position of approval mark on the vehicle .....
14. Place .....
15. Date .....
16. Signature .....
17. The following documents, bearing the approval number shown above, are available upon request .....

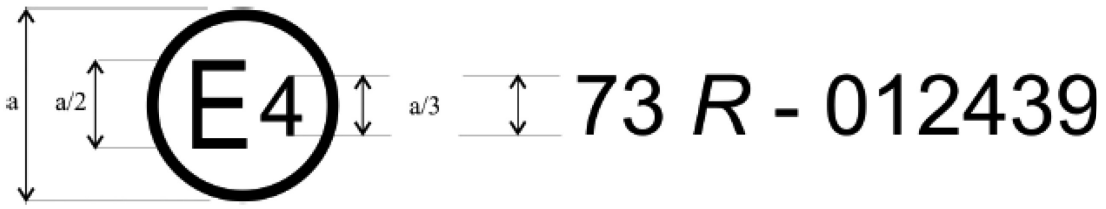
(1) Distinguishing number of the country which has granted/extended/refused/withdrawn approval (see approval provisions in the Regulation).
(2) Strike out what does not apply.

ANNEX 2

EXAMPLES OF APPROVAL MARKS

MODEL A

(see paragraphs 5.1.4 and 5.3.4 of this Regulation)

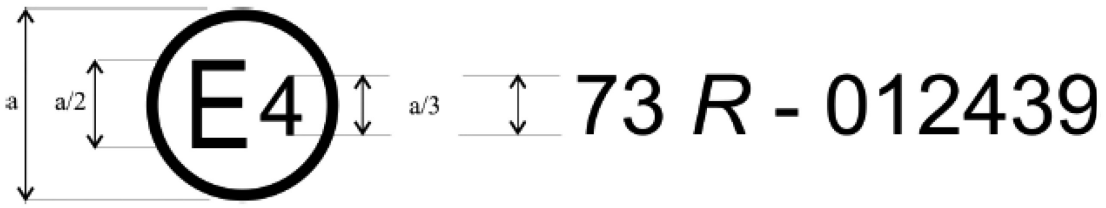


a = 8 mm min

The above approval mark affixed to a vehicle or to an LPD shows that the vehicle type concerned has, with regard to its lateral protection, been approved in the Netherlands (E 4) pursuant to Regulation No 73 under approval number 012439 as a complete vehicle. The first two digits of the approval number indicate that the approval was granted in accordance with the requirements of Regulation No 73 as amended by the 01 series of amendments.

MODEL B

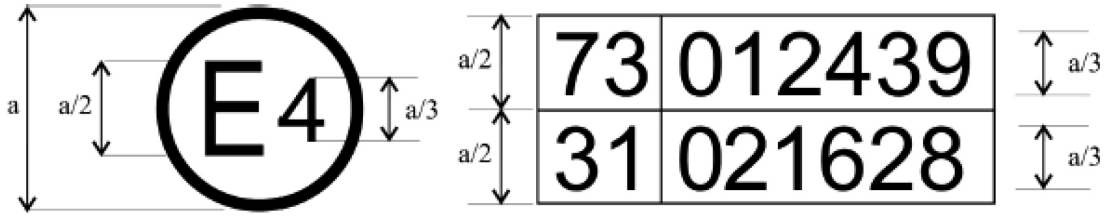
(see paragraph 5.2.4 of this Regulation)



The above approval mark affixed to an LPD shows that the LPD type concerned has, with regard to its lateral protection, been approved in the Netherlands (E 4) pursuant to Regulation No 73 under approval number 012439. The first two digits of the approval number indicate that the approval was granted in accordance with the requirements of Regulation No 73 as amended by the 01 series of amendments.

MODEL C

(see paragraphs 5.1.5 and 5.3.5 of this Regulation)



The above approval mark affixed to a vehicle shows that the vehicle type concerned has been approved in the Netherlands (E 4) pursuant to Regulations No 73 and No 31 ([1]). The first two digits of the approval numbers indicate that, at the dates when the respective approvals were granted, Regulation No 73 included the 01 series of amendments and the approval was granted for a completed vehicle, and Regulation No 31 included the 02 series of amendments.

([1]) This latter number is given as an example only.

ANNEX 3

TEST CONDITIONS

1. TEST CONDITIONS FOR LPD

1.1. At the request of the manufacturer the test may be conducted either:

1.1.1. On a vehicle of the type for which LPD is intended; in this case the conditions set out in paragraph 2 shall be observed; or

1.1.2. On a part of the chassis of the vehicle type for which the LPD is intended; this part shall be representative of the vehicle type(s) in question; or

1.1.3. On a rigid test bench.

1.2. In the case of paragraphs 1.1.2 and 1.1.3 the parts used to connect the LPD to part of the vehicle chassis or bodywork or to the rigid test bench shall be equivalent to those which are used to secure the LPD when it is installed on the vehicle.

2. TEST CONDITIONS FOR VEHICLES

2.1. The vehicle shall be positioned on a horizontal, rigid and smooth surface.

2.2. The steered wheels shall be in the straight-ahead position.

2.3. The tyres shall be inflated to the pressure recommended by the vehicle manufacturer.

2.4. The vehicle may, if necessary to achieve the test forces required in paragraphs 2.8 and 14.4, be restrained by any method, this method to be specified by the vehicle manufacturer.

2.5. Vehicles equipped with hydropneumatic, hydraulic or pneumatic suspension or a device for automatic levelling according to load shall be tested in the normal unladen running condition specified by the manufacturer.

2.6. Semi-trailers shall be positioned such that the load platform is essentially horizontal.