

II

(Acts whose publication is not obligatory)

COUNCIL

COUNCIL DIRECTIVE

of 26 May 1986

on the approximation of the laws of the Member States relating to roll-over protective structures (ROPS) for certain construction plant

(86/295/EEC)

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community, and in particular Article 100 thereof,

Having regard to the proposal from the Commission ⁽¹⁾,

Having regard to the opinion of the European Parliament ⁽²⁾,

Having regard to the opinion of the Economic and Social Committee ⁽³⁾,

Whereas in some Member States the design, construction and testing of roll-over protective structures for certain categories of construction plant are the subject of national provisions requiring such construction plant to be fitted with the abovementioned protective structures; whereas this situation is likely to create barriers to intra-Community trade; whereas the purpose of these provisions is to protect the operator of the plant; whereas it is therefore necessary to approximate these provisions;

Whereas Council Directive 84/532/EEC of 17 September 1984 on the approximation of the laws of the Member States relating to common provisions for construction plant and equipment ⁽⁴⁾ has defined a series of joint procedures — in particular, EEC type-approval, EEC type-examination and EEC self-certification — for the placing on the market and bringing into service of such construction plant; whereas provision should be made for the EEC type-examination

procedure, coupled with an EEC inspection procedure, in respect of roll-over protective structures for certain construction plant;

Whereas this Directive is a separate Directive within the meaning of the second paragraph of Article 3 of Directive 84/532/EEC;

Whereas the laboratory tests, performance criteria and deflection-limiting volume are laid down by ISO international standards; whereas reference should therefore be made to these existing standards;

Whereas technical progress necessitates rapid adaptation of the technical requirements; whereas the procedure laid down in Article 24 of Directive 84/532/EEC should therefore be adopted for such adaptations of this Directive,

HAS ADOPTED THIS DIRECTIVE:

Article 1

This Directive applies to roll-over protective structures (ROPS) for the construction plant listed under 2.1 in ISO standard 3471, second edition of 15 September 1980, hereinafter referred to as ISO standard 3471/2.

Article 2

Member States shall take all necessary steps to ensure that the construction plant referred to in Article 1 cannot be placed on the market unless it is fitted with suitable roll-over protective structures which comply with this Directive and with the type of structure that has satisfied EEC type-examination in accordance with Directive 84/532/EEC. These structures shall hereinafter be referred to as EEC protective structures.

⁽¹⁾ OJ No C 104, 28. 4. 1980, p. 29.

⁽²⁾ OJ No C 197, 4. 8. 1980, p. 66.

⁽³⁾ OJ No C 205, 11. 8. 1980, p. 27.

⁽⁴⁾ OJ No L 300, 19. 11. 1984, p. 111.

Article 3

1. The approved bodies referred to in Article 9 of Directive 84/532/EEC shall not issue an EEC type-examination certificate unless the type of EEC protective structure complies with the provisions of Annex I to this Directive.

The EEC type-examination tests may be performed in the manufacturer's laboratory under the supervision of the approved body.

2. All applications for EEC type-examination in respect of an EEC protective structure shall be accompanied by an information document conforming to the model in Annex II to this Directive.

3. For each type of EEC protective structure that has undergone the tests and examinations provided for in Annex I to this Directive, the approved body shall draw up a test report conforming to the model in Annex III to this Directive and shall issue an EEC type-examination certificate conforming to the model in Annex V to this Directive, by way of derogation from Directive 84/532/EEC.

4. By way of derogation from section 4.2 of Annex I to Directive 84/532/EEC, only Member States and the Commission may obtain the test report, part A, referred to in Annex III to this Directive, and, where appropriate, the technical data in part B.

The approved body which has issued the EEC type-examination certificate shall forward the above document upon a duly substantiated request by a Member State or the Commission.

Article 4

1. Each EEC protective structure shall be accompanied by a certificate of conformity in accordance with Article 18 (1) of Directive 84/532/EEC.

2. The manufacturer of the EEC protective structure shall affix to each structure a legible, permanent and indelible EEC conformity mark, a model of which is contained in Annex IV, and shall attach to the structure a label in accordance with section 9 of ISO standard 3471/2.

Article 5

1. When it is proposed to commence production of protective structures for which an EEC type-examination certificate has been issued, the manufacturer or his authorized representative established in the Community shall:

- (a) inform the approved body which issued the EEC type-examination certificate of:
 - the place of manufacture, and/or the place of warehousing within the Community,
 - the date of commencement of production and/or import;
- (b) allow representatives of the approved body access for the purpose of checking to the said places of

manufacture or warehousing and provide all necessary information relevant to such checks;

- (c) make available, at the request of the approved body and within a reasonable period, a sample selected by that body for checking purposes.

2. The holder of the EEC mark shall arrange for production to be checked so as to verify on a continuous and adequate basis that the EEC protective structures manufactured conform to the type tested as regards the materials used and the quality of workmanship.

Article 6

1. Each approved body shall, if appropriate in accordance with instructions from the Member State which approved it, carry out spot checks to see whether the EEC protective structures being manufactured conform to the type for which it issued the EEC type-examination certificate.

These checks shall enable the approved body to ascertain whether the manufacturer is in fact carrying out the conformity check referred to in Article 5 (2).

The approved body may also request and itself select a sample for checking purposes. A second test in accordance with Annex I, involving destroying the EEC protective structure and possible the chassis, shall be performed only if there are reasonable grounds for assuming that the structure does not comply with the performance requirements for the approved type.

2. If the place of manufacture is situated in a Member State other than that of the approved body which granted the EEC type-examination certificate, that body may collaborate with the approved body in the Member State in which the abovementioned checks are to take place.

The same shall apply to warehouses.

3. Each approved body may on its own responsibility delegate the task of performing the checking tests and operations to one or more laboratories.

Article 7

1. If the checks referred to in Article 6 reveal that the EEC protective structures do not conform to the type for which the EEC type-examination certificate was granted, or that not all the requirements of this Directive have been fulfilled, the approved body shall take one of the following measures against the holder of the EEC mark:

- (a) a warning, with a request that the infringements noted shall cease within a given period;

- (b) a warning as referred to in (a), but accompanied by a larger number of checks;
- (c) temporary suspension of the EEC type-examination certificate;
- (d) withdrawal of the EEC type-examination certificate.

These measures may be taken only by the approved body which granted the EEC type-examination certificate.

2. The first two measures shall be taken where the disparities do not affect the basic design of the EEC protective structures or where the infringements are minor ones and in no way impair safety.

One of the last two measures shall be taken where the disparities or infringements noted are substantial and in all cases where they represent a safety hazard.

3. Temporary suspension or withdrawal of the EEC type-examination certificate shall be notified without delay to the other approved bodies and to the Member States.

Article 8

No Member State may, on grounds relating to the requirements laid down in this Directive, refuse, prohibit or restrict the marketing, placing in service or use of construction plant referred to in Article 1 fitted with an adequate EEC protective structure.

Article 9

1. Any amendments necessary to adapt the Annexes to this Directive to technical progress shall be adopted in accordance with the procedure laid down in Article 24 of Directive 84/532/EEC.

2. The procedure laid down in Article 21 of Directive 84/532/EEC shall not be applicable.

Article 10

The provisions of this Directive shall not affect the Member States' entitlement to lay down, with due observance of the Treaty, the requirements they deem necessary to ensure that workers are protected when using the equipment in question, provided that this does not mean that the equipment is modified in a way not specified in the Directive.

Article 11

1. Member States shall adopt and publish the laws, regulations and administrative provisions necessary in order to comply with this Directive within 36 months of its notification ⁽¹⁾ and shall forthwith inform the Commission thereof.

They shall bring these provisions into force 48 months after notification of this Directive.

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

Article 12

This Directive is addressed to the Member States.

Done at Brussels, 26 May 1986.

For the Council
The President
 G. BRAKS

⁽¹⁾ This Directive was notified to the Member States on 30 May 1986.

ANNEX I

1. The EEC protective structure of an item of construction plant must, as regards the laboratory tests and performance requirements, comply with international standard ISO 3471 (second edition, 15 September 1980) on the basis of the deflection-limiting volume defined in international standard ISO 3164 (second edition, 1 November 1979) as amended by Amendment No 1 of 1 December 1980.
2. The provisions of the section 7.5.2.7 of ISO standard 3471 (second edition, 15 September 1980) are regarded as fulfilled where the rate of application of force F (e.g. if this relates to the forward movement speed of the cylinder which develops this load) does not exceed the following values:

Mass of construction plant (m) kg	Rate of load application mm/s
$m \leq 20\,000$	3
$m > 20\,000 \leq 40\,000$	2
$m > 40\,000$	1

3. The following standards are referred to in ISO standard 3471/2:
 - ISO standard 3164, second edition, 1 November 1979, as amended by amendment No 1 of 1 December 1980,
 - ISO standard 3449, third edition of 15 April 1984,
 - ISO standard 6165, 1978 edition,
 - ISO standard 898/1, 1978 edition,
 - ISO standard 898/2, 1980 edition.

ANNEX II

**MODEL INFORMATION DOCUMENT TO BE FURNISHED FOR THE PURPOSE OF EEC
TYPE-EXAMINATION OF A ROLL-OVER PROTECTIVE STRUCTURE (ROPS) FOR CONSTRUCTION
PLANT**

1. **Equipment concerned**
 - 1.1. Name and address of manufacturer:
 - 1.2. Name and address of manufacturer's authorized representative, if any:
 - 1.3. Model:
 - 1.4. Trade mark or name:
 - 1.5. Type designations:
 - 1.6. Mass of equipment: kg (maximum mass with roll-over protective structure, normal attachments and full tanks, but without driver, payload or any towed accessories)
 - 1.7. Attachment of roll-over protective structure to the equipment: detachable/not detachable ⁽¹⁾

2. **Roll-over protective structure (if not manufactured by the maker of the equipment)**
 - 2.1. Name and address of manufacturer:
 - 2.2. Name and address of manufacturer's authorized representative, if any:
 - 2.3. Trade mark or name:
 - 2.4. Type designation:

3. **Any other construction plant to which the roll-over protective structure can be fitted**
 - 3.1. Name and address of manufacturer:
 - 3.2. Name and address of manufacturer's authorized representative, if any:
 - 3.3. Model:
 - 3.4. Trade mark or name:
 - 3.5. Type designations:
 - 3.6. Mass of equipment: kg (maximum mass with roll-over protective structure, normal attachments and full tanks, but without driver, payload or any towed accessories)
 - 3.7. Attachment of roll-over protective structure to the equipment: detachable/not detachable ⁽¹⁾

⁽¹⁾ Delete where inapplicable.

ANNEX III

MODEL TEST REPORT CONCERNING A ROLL-OVER PROTECTIVE STRUCTURE (ROPS) FOR CONSTRUCTION PLANT

Test Report No:

Name and address of approved body:

.....

Name and address of laboratory which carried out the test:

.....

Name of person who carried out the test:

PART A

1. Description of the ROPS — chassis combination

1.1. Construction plant on the chassis of which the test was carried out

1.1.1. Name and address of manufacturer and, where appropriate, name and address of manufacturer's authorized representative:

.....

1.1.2. Model:

1.1.3. Trade mark or name, and type designation:

1.1.4. Serial number (where applicable):

1.1.5. Component number of chassis:

1.2. Roll-over protective structure

1.2.1. Name and address of manufacturer and, where appropriate, name and address of manufacturer's authorized representative:

.....

1.2.2. Trade mark or name, and type designation:

1.2.3. Serial number (where applicable):

1.2.4. Number of protective structure:

2. Information provided by manufacturer

2.1. Mass of construction plant: kg (maximum mass with roll-over protective structure, normal attachments and full tanks, but without driver, payload or any towed accessories).

2.2. Arrangement of the deflection-limiting volume DLV according to drawing No (accurate 1:10 scale drawing attached to test report. Side and front views of the roll-over protective structure and of the surrounding parts, with indication of seat and deflection-limiting volume DLV in the correct positions. Indication of main dimensions of roll-over protective structure.)

3. Calculation of minimum performance requirements

3.1. Force F N under lateral loading

3.2. Energy absorption U J under lateral loading

3.3. Value of M kg under vertical loading

4. **Confirmation**

4.1. The minimum performance requirements specified in ISO 3471, second edition, of 15 September 1980 were satisfied in this test, the maximum mass of the construction plant being kg.

4.2. Date of test:

PART B

1. **Measuring instruments**

1.1. Description of instruments used:

1.2. Accuracy of instruments used in conformity with ISO Standard 3471, second edition of 15 September 1980:

2. **Photographs** (one photograph of the test set-up taken from the front or rear and one taken from the side at which the load is applied)

2.1. Prior to application of lateral load

2.2. At or near maximum lateral load

2.3. Prior to application of vertical load

2.4. At or near maximum vertical load

3. **Test results**3.1. *Lateral loading*

3.1.1. Maximum force applied, after energy absorption was reached or exceeded, without penetration of the deflection-limiting volume DLV by any part of the roll-over protective structure (ROPS) or of the simulated ground plane: N

3.1.2. Energy absorbed without penetration of the deflection-limiting volume DLV by any part of the roll-over protective structure (ROPS) or of the simulated ground plane: J

3.2. *Vertical loading*

Maximum load sustained without penetration of the deflection-limiting volume DLV by any part of the roll-over protective structure (ROPS) or of the simulated ground plane: kg

3.3. *Material temperature*

3.3.1. During the test the temperature of the roll-over protective structure and of the chassis was °C or the steel parts of the roll-over protective structure attained in conformity with EURONORM 45-63 the Charpy V-notch impact strength values with J at -30 °C in the case of the × mm test piece.

3.3.2. Strength classifications of the bolts: and nuts: used.

3.4. *Force-deflection curve*

A force-deflection curve in accordance with ISO Standard 3471, second edition of 15 September 1980 is attached.

(Place), (Date)

.....
(Signature)

ANNEX IV

EEC MARK OF CONFORMITY

The EEC mark provided for in Article 4 (2) of this Directive is a stylized letter **E** in a hexagon which contains:

- in the upper part, the serial number of the separate Directive allocated according to the chronological order of adoption, the capital letter(s) identifying the State whose approved body issued the certificate (B for Belgium, D for Federal Republic of Germany, DK for Denmark, F for France, I for Italy, IRL for Ireland, L for Luxembourg, NL for the Netherlands, UK for the United Kingdom, EL for Greece, ES for Spain, P for Portugal) and the two final figures of the year of issue of the EEC type-examination certificate; the number of the separate Directive to which the EEC type-examination certificate refers will be allocated by the Council when this Directive is adopted,
- in the lower part, the number of the EEC type-examination certificate.

An example of this mark is shown below:

Example:



EEC type-examination certificate granted in 1979 by an approved body in the Federal Republic of Germany, pursuant to this Directive.

EEC type-examination certificate No

The diameter of the circle surrounding the mark must not be less than 20 mm.

The mark of conformity must be affixed at a point immediately adjacent to or on the identification plate.

Where a roll-over protective structure and a falling-object protective structure are combined (ROPS and FOPS), the two corresponding marks of conformity must appear immediately adjacent to each other.

ANNEX V

MODEL EEC TYPE-EXAMINATION CERTIFICATE FOR A ROLL-OVER PROTECTIVE STRUCTURE

Name of approved body:

Notification of type-examination in respect of the harmonized requirements:

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.....

Type-examination No:

1. Category, make and type or trade name:

2. Name and address of manufacturer:

.....

3. Name and address of certificate holder:

.....

4. Date of submission for type-examination:

5. In respect of the following harmonized requirement:

6. Test laboratory:

.....

7. Date and number of laboratory report:

8. Date of type-examination:

.....

9. The following documents, bearing the type-examination number shown above, are annexed to this certificate:

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10. Type and number of the chassis on which the tests were carried out:

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11. Mass of the item of plant on which the tests were carried out:

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12. Any additional information:

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(Place), (Date)

.....
(Signature)
