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**COUNCIL DIRECTIVE**

**of 25 June 1987**

**on roll-over protection structures mounted in front of the driver's seat on narrow-track wheeled agricultural and forestry tractors**

(87/402/EEC)

(OJ L 220, 8.8.1987, p. 1)

Amended by:

	Official Journal		
	No	page	date
► <b><u>M1</u></b> Council Directive 89/681/EEC of 21 December 1989	L 398	27	30.12.1989
► <b><u>M2</u></b> Commission Directive 2000/22/EC of 28 April 2000	L 107	26	4.5.2000

Amended by:

► <b><u>A1</u></b> Act of Accession of Austria, Sweden and Finland	C 241	21	29.8.1994
(adapted by Council Decision 95/1/EC, Euratom, ECSC)	L 1	1	1.1.1995



**COUNCIL DIRECTIVE**

**of 25 June 1987**

**on roll-over protection structures mounted in front of the driver's seat on narrow-track wheeled agricultural and forestry tractors**

(87/402/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<sup>(1)</sup>,

Having regard to the opinion of the European Parliament<sup>(2)</sup>,

Having regard to the opinion of the Economic and Social Committee<sup>(3)</sup>,

Whereas Council Directive 74/150/EEC of 4 March 1984 on the approximation of the laws of the Member States relating to the type-approval of wheeled agricultural or forestry tractors<sup>(4)</sup>, as last amended by the Act of Accession of Spain and Portugal, lays down that the necessary provisions for the implementation of the EEC type-approval procedure in respect of individual tractor parts or characteristics should be specified in special directives; whereas the provisions relating to roll-over protection structures and their attachments to tractors were laid down by Directives 77/536/EEC<sup>(5)</sup> and 79/622/EEC<sup>(6)</sup>, as last amended by the Act of Accession of Spain and Portugal; whereas these two Directives cover respectively dynamic and static testing procedures — either of which may be employed by manufacturers for the present — and relate to standard tractors, that is, tractors having a maximum ground clearance of 1 000 mm and a fixed or adjustable track width of one of the driving axles of not less than 1 150 mm and weighing between 1,5 and 4,5 tonnes in the case of tractors covered by the 'dynamic testing' directive and not less than 800 kilograms in the case of tractors covered by the 'static testing' directive;

Whereas the tractors covered by this Directive have a maximum ground clearance of 600 mm, a fixed or adjustable minimum track width with one of the axles less than 1 150 mm fitted with tyres of a larger size and a mass greater than 600 but less than 3 000 kilograms; whereas the roll-over protection structures of these tractors, which are used for specific activities, can be made subject to specific requirements or requirements other than those of Directive 77/536/EEC and 79/622/EEC;

Whereas the technical requirements with which such 'narrow track' tractors must comply pursuant to national laws relate, *inter alia*, to roll-over protection structures and to their attachment to the tractor; whereas those requirements differ from one Member State to another; whereas it is therefore necessary that all Member States adopt the same requirements either in addition to, or in place of, their existing rules in order, in particular, to allow the EEC type-approval procedure which was the subject of Directive 74/150/EEC to be introduced in respect of each type of tractor;

Whereas this Directive covers roll-over protection structures of the dual-pillar type mounted in front of the driver's seat and characterized by a reduced zone of clearance attributable to the tractor silhouette, thus rendering it inadvisable, under any circumstances, to impede access to the driving position but worthwhile retaining these structures

<sup>(1)</sup> OJ No C 222, 2. 9. 1985, p. 1.

<sup>(2)</sup> OJ No C 190, 20. 7. 1987.

<sup>(3)</sup> OJ No C 169, 8. 7. 1985, p. 5.

<sup>(4)</sup> OJ No L 84, 28. 3. 1974, p. 10.

<sup>(5)</sup> OJ No L 220, 29. 8. 1977, p. 1.

<sup>(6)</sup> OJ No L 179, 17. 7. 1979, p. 1.

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(fold-down or not) in view of their undoubted ease of use; whereas rear mounted roll-over protection structures of narrow track wheeled agricultural and forestry tractors have been the subject of Directive 86/298/EEC<sup>(1)</sup>;

Whereas a harmonized component type-approval procedure for roll-over protection structures and their attachment to the tractor makes it possible for each Member State to check compliance with the common construction and testing requirements and to inform the other Member States of its findings by sending them copies of the component type-approval certificate completed for each type of roll-over protection structure and its attachment to the tractor; whereas the placing of an EEC component type-approval mark on all structures manufactured in conformity with the approved type obviates any need for technical checks on those structures in the other Member States; whereas common requirements concerning other elements and characteristics of the roll-over protection structure will be laid down at a later date;

Whereas the harmonized requirements are intended principally to ensure safety at work and safety on the road throughout the Community; whereas, for this reason, it is necessary to introduce the obligation for tractors covered by this Directive to be fitted with roll-over protection structures;

Whereas the approximation of the national laws relating to these tractors entails reciprocal recognition by Member States of the checks carried out by each of them on the basis of the common requirements,

HAS ADOPTED THIS DIRECTIVE,

*Article 1*

This Directive shall apply to tractors as defined in Article 1 of Directive 74/150/EEC having the following characteristics:

- ground clearance of not more than 600 mm beneath the lowest points of the front and rear axles, allowing for the differential,
- fixed or adjustable minimum track width with one of the axles less than 1 150 mm fitted with tyres of a larger size. It is assumed that the axle mounted with the wider types is set at a track width of not more than 1 150 mm. It must be possible to set the track width of the other axle in such a way that the outer edges of the narrower tyres do not go beyond the outer edges of the tyres of the other axle. Where the two axles are fitted with rims and tyres of the same size, the fixed or adjustable track width of the two axles must be less than 1 150 mm,
- mass of 600 and 3 000 kilograms, corresponding to the unladen weight of the tractor as defined in section 2.4 of Annex I to Directive 74/150/EEC, including the roll-over protection structure fitted in compliance with this Directive and tyres of the largest size recommended by the manufacturer.

*Article 2*

1. Each Member State shall grant component type-approval for any type of roll-over protection structure and its tractor attachment which satisfies the construction and testing requirements laid down in Annexes I to IV.

2. A Member State which has granted EEC component type-approval shall take the measures required to verify, in so far as is necessary and if need be in cooperation with the competent authorities in the other Member States, that production models conform to the approved type. Such verification shall be limited to spot checks.

<sup>(1)</sup> OJ No L 186, 8. 7. 1986, p. 26.

**▼B***Article 3*

Member States shall, for each type of roll-over protection structure and its tractor attachment which they approve pursuant to Article 2, issue to the manufacturer of the tractor or of the roll-over protection structure, or to his authorized representative, an EEC component type-approval mark conforming to the model shown in Annex VII.

Member States shall take all appropriate measures to prevent the use of marks liable to create confusion between roll-over protection structures which have been component type-approved pursuant to Article 2 and other devices.

*Article 4*

1. No Member State may prohibit the placing on the market of roll-over protection structures or their tractor attachments on grounds relating to their construction if they bear the EEC component type-approval mark.

2. Nevertheless, a Member State may prohibit the placing on the market of roll-over protection structures bearing the EEC component type-approval mark which fail to conform to the approved type.

That State shall forthwith inform the other Member States and the Commission of the measures taken, specifying the reasons for its decision.

*Article 5*

The competent authorities of each Member State shall within one month send to the competent authorities of the other Member States copies of the component type-approval certificate, an example of which is given in Annex VIII, completed for each type of roll-over protection structure which they approve or refuse to approve.

*Article 6*

1. If the Member State which has granted EEC component type-approval finds that a number of roll-over protection structures and their tractor attachments bearing the same EEC component type-approval mark do not conform to the type which it has approved, it shall take the necessary measures to ensure that production models conform to the approved type. The competent authorities of that State shall advise those of the other Member States of the measures taken which may, where there is serious and repeated failure to conform, extend to withdrawal of EEC component type-approval. The said authorities shall take the same measures if they are informed by the competent authorities of another Member State of such failure to conform.

2. The competent authorities of the Member States shall within one month inform each other of any withdrawal of EEC component type-approval and of the reasons for any such measure.

*Article 7*

Any decision taken pursuant to the provisions adopted in implementation of this Directive to refuse or withdraw component type-approval for roll-over protection structures and their tractor attachments, or to prohibit their placing on the market or their use, shall set out in detail the reasons on which it is based. Such decision shall be notified to the party concerned, who shall at the same time be informed of the remedies available to him under the laws in force in the Member States and of the time limits allowed for the exercise of such remedies.

*Article 8*

No Member State may refuse to grant EEC type-approval or national type-approval in respect of a tractor on grounds relating to the roll-over protection structure or its tractor attachment if these bear the EEC component type-approval mark and if the requirements laid down in Annex IX have been satisfied.

▼B*Article 9*

1. No Member State may refuse or prohibit the sale, registration, entry into service or use of any tractor on grounds relating to the roll-over protection structure and its tractor attachment if these bear the EEC component type-approval mark and if the requirements laid down in Annex IX have been met.

However, Member States may, in compliance with the Treaty, impose restrictions on the use of tractors referred to in this Directive in certain areas where safety so dictates, owing to the specific nature of certain terrains or crops. Member States shall inform the Commission of any such restrictions before they are implemented and of the reasons for their adoption.

2. This Directive shall not affect the right of Member States to specify — in due compliance with the Treaty — the requirements they deem necessary to ensure that workers are protected when using the tractors in question, provided this does not mean that the protection structures are modified in a way unspecified in this Directive.

*Article 10*

1. In connection with EEC type-approval, any tractor to which Article 1 refers must be fitted with a roll-over protection structure.

2. The structure, referred to in paragraph 1, unless it is a rear-mounted protection structure, must comply with the requirements laid down in Annexes I to V to this Directive, or in Directives 77/536/EEC or 79/622/EEC.

*Article 11*

Any amendments which are necessary in order to adapt the requirements of the Annexes to this Directive so as to take account of technical progress shall be adopted in accordance with the procedure laid down in Article 13 of Directive 74/150/EEC.

*Article 12*

Within 18 months following notification of this Directive, the Council, acting on a proposal from the Commission, on the basis of the provisions of the Treaty, shall adopt a Directive supplementing this Directive with provisions introducing additional impact tests into the dynamic test procedure.

*Article 13*

1. Member States shall bring into force the provisions necessary to comply with this Directive within 24 months of its notification<sup>(1)</sup> and shall forthwith inform the Commission thereof.

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

*Article 14*

This Directive is addressed to the Member States.

<sup>(1)</sup> This Directive was notified to the Member States on 26 June 1987.

**▼B***ANNEX I***CONDITIONS FOR EEC COMPONENT TYPE-APPROVAL****▼M2**

1. The requirements of point 1 of Code 6 of the OECD (Decision C(87) 53 final of 24 November 1987, as last amended on 3 March 1999), with the exception of point 1.1 shall be applied

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2. GENERAL REQUIREMENTS
  - 2.1. Every protection structure and its attachment to a tractor must be so designed and constructed as to fulfil the essential purpose laid down in section 1.1.
  - 2.2. This condition is considered to be fulfilled if the requirements of Annexes II, III and IV are complied with.

## 3. APPLICATION FOR EEC COMPONENT TYPE-APPROVAL

- 3.1. The application for EEC component type-approval with regard to the strength of a protection structure and the strength of its attachment to a tractor must be submitted by the tractor manufacturer or by the manufacturer of the protection structure or by their authorized representatives.
- 3.2. The application must be accompanied by the undermentioned documents in triplicate and by the following particulars:
  - a drawing, either to scale or with indication of the principal dimensions, showing the general arrangement of the protection structure. This drawing must, in particular, show details of the mounting components,
  - photographs from side and front showing mounting details,
  - a brief description of the protection structure, including type of construction, method of mounting on the tractor and, where necessary, details of cladding and interior padding,
  - details of materials used in the structure and in the roll-over protection structure mountings (see Annex VI).

- 3.3. A tractor representative of the tractor type for which the protection structure to be approved is intended must be submitted to the technical service responsible for conducting the component type-approval tests. This tractor must be equipped with the protection structure.

Furthermore, the manufacturer must indicate the sizes of tyres fitting or able to fit the front and rear axles.

- 3.4. The holder of EEC component type-approval may request its extension to other tractor types. The competent authority which has granted the original EEC component type-approval must grant the extension if the approved protection structure and the type(s) of tractor for which the extension is requested comply with the following conditions:
  - the mass of the unballasted tractor, as defined in section 1.4 of Annex III, does not exceed by more than 5 % the reference mass used in the test;
  - the method of attachment and the points of attachment to the tractor are identical,
  - any components such as mudguards and bonnet which may provide support for the protection structure have identical strength and are identically situated with respect to the protection structure,
  - the critical dimensions and the position of the seat and steering wheel relative to the protection structure, and the position relative to the protection structure of the points deemed rigid and taken into consideration for the purpose of verifying that the zone of clearance is protected, are such that the zone of clearance continues to be protected by the structure after the latter has undergone the deformation resulting from the various tests.

## 4. MARKINGS

- 4.1. Every protection structure conforming to the approved type must bear the following markings:
  - 4.1.1. The trade mark or name;
  - 4.1.2. A component type-approval mark conforming to the model in Annex VII;

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- 4.1.3. Serial number of the protection structure;
- 4.1.4. Make and type(s) of tractor(s) for which the protection structure is intended.
- 4.2. All these particulars must appear on a small plate.
- 4.3. These markings must be visible, legible and indelible.

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**▼M2***ANNEX II***TECHNICAL REQUIREMENTS**

The technical requirements for the EC component type-approval of roll-over protection structures mounted in front of the driver's seat on narrow-track wheeled agricultural or forestry tractors shall be those set out in point 3 of Code 6 of the OECD (Decision C(87) 53 final of 24 November 1987, as last amended on 3 March 1999). These technical requirements shall not apply to the chapters of point 3 relating to the test bulletin, minor modifications and identifications.

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ANNEX VI

MODEL

**REPORT RELATING TO THE EEC COMPONENT TYPE-APPROVAL TEST OF A PROTECTION STRUCTURE (FRONT-MOUNTED BAR) WITH REGARD TO ITS STRENGTH AS WELL AS TO THE STRENGTH OF ITS ATTACHMENT TO THE TRACTOR**

Protection structure		<div style="border: 1px solid black; padding: 5px; display: inline-block;">Identification of test station</div>
Make		
Type		
Tractor make		
Tractor type		
Test method	I/II <sup>(1)</sup>	

EEC component type-approval No: .....

1. Trade mark or name of protection structure: .....

2. Name and address of manufacturer of tractor or protection structure: .....

3. If applicable, name and address of tractor or protection structure manufacturer's authorized representative: .....

4. Specifications of tractor on which the tests are carried out

4.1. Trade mark or name: .....

4.2. Type: .....

4.3. Serial number: .....

4.4. Wheelbase/moment of inertia <sup>(1)</sup> ..... mm/kgm<sup>2</sup> <sup>(1)</sup>

4.5. Tyre sizes: front: .....  
rear: .....

5. Extension of EEC component type-approval to other tractor types

5.1. Trade mark or name: .....

5.2. Type: .....

5.3. Mass of unballasted tractor, with roll-over protection structure fitted, without driver: ..... kg

<sup>(1)</sup> Delete where inapplicable.

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- 5.4. Tyre sizes: front .....  
rear .....
  
- 6. Specifications of protection structure
  - 6.1. General arrangement drawing of both the protection structure and its attachment to the tractor
  - 6.2. Photographs showing mounting details .....
  - 6.3. Brief description of roll-over protection structure including type of construction, details of mounting on the tractor, details of cladding, means of access and escape, details of interior padding and features to prevent continuous rolling .....
  - 6.4. Dimensions
    - 6.4.1. Height of roof members above the loaded tractor seat/above the seat reference point <sup>(1)</sup> ... mm
    - 6.4.2. Height of roof members above the tractor platform ..... mm
    - 6.4.3. Minimum distance from the steering wheel rim to the protection structure ..... mm
    - 6.4.4. Overall height of the tractor with the protection structure fitted ..... mm
    - 6.4.5. Overall width of the protection structure: ..... mm
  - 6.5. Details and quality of materials used, standards used: .....
    - Main frame: ..... (material and dimensions)
    - Mountings: ..... (material and dimensions)
    - Roof: ..... (material and dimensions)
    - Interior padding: ..... (material and dimensions)
    - Assembly and mounting bolts: ..... (grade and dimensions)
  
- 7. Test results
  - 7.1. Impact/load <sup>(1)</sup> and crushing tests
 

Impact/load tests were made to the left/right-hand <sup>(2)</sup> rear and to the right/left-hand <sup>(2)</sup> front and right/left-hand side <sup>(2)</sup>. The reference mass used for calculating impact energies and crushing forces was ..... kg

The test requirements concerning fractures or cracks, maximum instantaneous deflection and the zone of clearance were/were not <sup>(2)</sup> satisfactorily fulfilled.
  - 7.2. Deflection measured after the tests
 

Permanent deflection:

    - rear: left-hand: ..... mm
    - right-hand: ..... mm
    - front: left-hand: ..... mm
    - right-hand: ..... mm

<sup>(1)</sup> Delete where inapplicable, according to the test method used.  
<sup>(2)</sup> Delete where inapplicable.

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side sideways:

front: ..... mm

rear: ..... mm

top downwards:

front: ..... mm

rear: ..... mm

Difference between maximum momentary and residual deflection during sideways impact test:

..... mm

►<sup>(1)</sup> 7.3. Indication and results of any additional dynamic test ◀

8. Report number: .....

9. Report date: .....

10. Signature: .....

**▼B***ANNEX VII***MARKS**

The EEC component type-approval mark consists of:

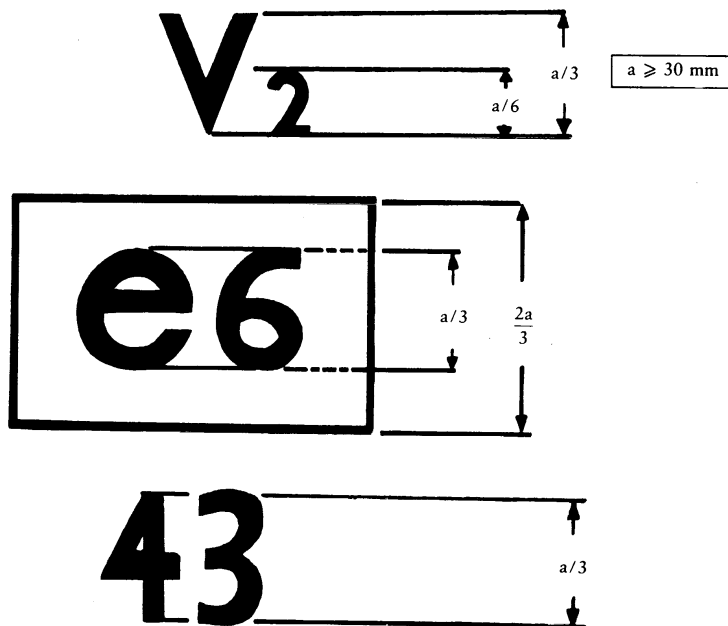
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- a rectangle surrounding the lower case letter 'e' followed by the distinguishing number of the Member State which has granted the component type-approval:

1 for Germany, 2 for France, 3 for Italy, 4 for the Netherlands, 5 for Sweden, 6 for Belgium, 9 for Spain, 11 for the United Kingdom, 12 for Austria, 13 for Luxembourg, 17 for Finland, 18 for Denmark, 21 for Portugal, 23 for Greece, 24 for Ireland,

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- the EEC component type-approval number which corresponds to the number of the EEC component type-approval certificate issued with regard to the strength of the type of protection structure and its attachment to the tractor placed under and in the vicinity of the rectangle,
- the letters V or SV, depending on whether a dynamic (V) or static (SV) test was conducted, followed by the number 2, indicating that this is a protection structure within the meaning of the Directive.

**EXAMPLE OF AN EEC COMPONENT TYPE-APPROVAL MARK**

*Legend:* The protection structure bearing the EEC component type-approval mark shown above is a structure of the bar type subjected to a dynamic test with two front-mounted uprights intended for a narrow-track tractor (V2), for which EEC component type-approval was granted in Belgium (e6) under the number 43.

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## ANNEX VIII

## MODEL EEC COMPONENT TYPE-APPROVAL CERTIFICATE

Name of competent authority
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**NOTIFICATION CONCERNING THE GRANTING, REFUSAL, WITHDRAWAL OR EXTENSION OF EEC COMPONENT TYPE-APPROVAL WITH REGARD TO THE STRENGTH OF A PROTECTION STRUCTURE (FRONT-MOUNTED BAR) AND TO THE STRENGTH OF ITS ATTACHMENT TO THE TRACTOR**

EEC component type-approval No: .....  
 ..... extension <sup>(1)</sup>

1. Trade name or mark and type of protection structure: .....
2. Name and address of manufacturer of protection structure: .....
3. If applicable, name and address of authorized representative of manufacturer of protection structure: .....
4. Trade mark or name and type of tractor for which protection structure is intended: .....
5. Extension of EEC component type-approval for the following tractor type(s): .....
- 5.1. The mass of the unballasted tractor, as defined in 1.4 of Annex III, exceeds/does not exceed <sup>(2)</sup> the reference mass used for the test by more than 5 %
- 5.2. The method of attachment and points of attachment are/not <sup>(2)</sup> identical
- 5.3. All the components likely to serve as supports for the protection structure are/are not <sup>(2)</sup> identical
6. Date of submission for EEC component type-approval: .....
7. Test station: .....
8. Date and number of the report of the test station: .....
9. Date of granting/refusal/withdrawal of EEC component type-approval <sup>(2)</sup>: .....
10. Date of granting/refusal/withdrawal of the extension of EEC component type-approval <sup>(2)</sup>: .....
11. Place: .....
12. Date: .....
13. The following documents, bearing the component type-approval number shown above, are annexed to this certificate (e.g. report of the test station): .....
14. Remarks, if any: .....
15. Signature: .....

<sup>(1)</sup> If applicable, state whether this is the first, second, etc. extension of the original EEC component type-approval.

<sup>(2)</sup> Delete where inapplicable.

*ANNEX IX***CONDITIONS FOR EEC TYPE-APPROVAL**

1. The application for EEC type-approval of a tractor with regard to the strength of a protection structure and the strength of its attachment to the tractor is submitted by the tractor manufacturer or by his authorized representative.
2. A tractor representative of the tractor type to be approved, on which a protection structure and its attachment, duly approved, are mounted, must be submitted to the technical services responsible for conducting the type-approval tests.
3. The technical service responsible for conducting the type-approval test checks whether the approved type of protection structure is intended to be mounted on the type of tractor for which the type-approval is requested. In particular, it must ascertain that the attachment of the protection structure corresponds to that which was used when the EEC component type-approval was granted.
4. The holder of the EEC type-approval may ask for its extension for other types of protection structures.
5. The competent authorities grant such extension on the following conditions:
  - 5.1. The new type of protection structure and its tractor attachment must have received EEC component type-approval.
  - 5.2. It is designed to be mounted on the type of tractor for which the extension of the EEC type-approval is requested.
  - 5.3. The attachment of the protection structure to the tractor must correspond to that which was tested when EEC component type-approval was granted.
6. A certificate, of which a model is shown in Annex X, is annexed to the EEC type-approval certificate for each type-approval or type-approval extension which has been granted or refused.
7. If the application for EEC type-approval for a type of tractor is introduced at the same time as the request for EEC component type-approval for a type of roll-over protection structure intended to be mounted on the type of tractor for which EEC type-approval is requested, the checks laid down in 2 and 3 are not applicable.

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ANNEX X

MODEL

Name of competent authority

ANNEX TO THE EEC TYPE-APPROVAL CERTIFICATE FOR A TRACTOR TYPE WITH REGARD TO THE STRENGTH OF PROTECTION STRUCTURES (FRONT-MOUNTED BAR) AND THE STRENGTH OF THEIR ATTACHMENT TO THE TRACTOR

(Articles 4 (2) and 10 of Council Directive 74/150/EEC of 4 March 1974 on the approximation of the laws of the Member States relating to the type-approval of wheeled agricultural or forestry tractors)

EEC type-approval No: .....

..... extension <sup>(1)</sup>

- 1. Trade name or mark of tractor: .....
- 2. Tractor type: .....
- 3. Name and address of tractor manufacturer: .....
- 4. If applicable, name and address of manufacturer's authorized representative: .....
- 5. Trade name or mark of protection structure: .....
- 6. Extension of EEC-approval for the following type(s) of protection structure: .....
- 7. Date tractor submitted for EEC type-approval: .....
- 8. Technical service responsible for EEC type-approval conformity control: .....
- 9. Date of report issued by that service: .....
- 10. Number of report issued by that service: .....
- 11. EEC type-approval with regard to the strength of the protection structures and the strength of their attachment to the tractor has been granted/refused <sup>(2)</sup>
- 12. The extension of EEC type-approval with regard to the strength of the protection structures and the strength of their attachment to the tractor has been granted/refused <sup>(2)</sup>
- 13. Place: .....
- 14. Date: .....
- 15. Signature: .....

<sup>(1)</sup> If applicable, state whether this is the first, second, etc. extension of the original EEC type-approval.

<sup>(2)</sup> Delete where inapplicable.