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COUNCIL DIRECTIVE

of 24 July 1986

on the installation, location, operation and identification of the controls of wheeled agricultural or forestry tractors

(86/415/EEC)

(OJ L 240, 26.8.1986, p. 1)

Amended by:

		Official Journal		
		No	page	date
► <u>M1</u>	Directive 97/54/EC of the European Parliament and of the Council of 23 September 1997	L 277	24	10.10.1997
► <u>M2</u>	Commission Directive 2010/22/EU of 15 March 2010	L 91	1	10.4.2010

▼B**COUNCIL DIRECTIVE****of 24 July 1986****on the installation, location, operation and identification of the controls of wheeled agricultural or forestry tractors**

(86/415/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,

Having regard to the opinion of the European Parliament ⁽¹⁾,Having regard to the opinion of the Economic and Social Committee ⁽²⁾,Whereas the technical requirements with which wheeled agricultural or forestry tractors must comply pursuant to national laws relate, *inter alia*, to the installation, location, operation and identification of controls;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 particular in order to allow the EEC type-approval procedure which was the subject 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 ⁽³⁾ as last amended by the Act of Accession of Spain and Portugal to be applied in respect of each tractor type;

Whereas the harmonization of these requirements is an obvious safety factor and, where the location of the controls and the symbols used for them are concerned, makes it possible to surmount the problem associated with indications in the various languages;

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

HAS ADOPTED THIS DIRECTIVE:

Article 1

1. 'Agricultural or forestry tractors' means any motor vehicle, fitted with wheels or endless tracks, having at least two axles, the main function of which lies in its tractive power and which is specially designed to tow, push, carry or power certain tools, machinery or trailers intended for agricultural or forestry use. It may be equipped to carry a load or passengers.

2. This Directive shall apply only to the tractors defined in paragraph 1, which are fitted with pneumatic tyres and have at least two axles and a maximum design speed of between 6 and ►**M1** 40 km/h ◀.

⁽¹⁾ OJ No C 172, 13. 7. 1981, p. 108.

⁽²⁾ OJ No C 189, 30. 7. 1981, p. 15.

⁽³⁾ OJ No L 84, 28. 3. 1974, p. 10.

▼B*Article 2*

No Member State may refuse to grant EEC type-approval or national type-approval in respect of a tractor, or refuse or prohibit its sale, registration, entry into service or use on grounds relating to the installation, location, operation and identification of controls if the latter satisfy the requirements set out in Annexes I, II, III and IV.

Article 3

This Directive shall not affect the right of Member States to specify — with due observance of 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 tractors are modified in a way unspecified in this Directive.

Article 4

Any amendments necessary to adapt the requirements of the Annexes to technical progress shall be adopted in accordance with the procedure laid down in Article 13 of Directive 74/150/EEC.

Article 5

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive not later than 1 October 1987. They shall forthwith inform the Commission thereof.
2. Member States shall ensure that the text of the main provisions of national law which they adopt in the field covered by this Directive are communicated to the Commission.

Article 6

This Directive is addressed to the Member States.

*ANNEX I***DEFINITIONS, APPLICATION FOR EEC-TYPE APPROVAL, EEC TYPE-APPROVAL**

1. DEFINITIONS

1.1. **Tractor type**

‘Tractor type as regards the installation, location, operation and identification of controls’ means tractors which do not differ in such essential respects as regards those internal fittings which may affect the location and identification of controls.

1.2. **Control**

‘Control’ means any part which, when directly actuated, enables the state or functioning of the tractor or of any equipment coupled to it to be changed.

2. APPLICATION FOR EEC TYPE-APPROVAL

- 2.1. The application for type-approval of a tractor type, with regard to the installation, location, operation and identification of controls, must be submitted by the tractor manufacturer or by his authorized representative.
- 2.2. The application must be accompanied by three copies of a description (photos or drawings) of the tractor parts covered by the requirements of this Directive.
- 2.3. A tractor representative of the type to be approved or such part or parts of the tractor as are considered to be essential for carrying out the checks laid down in this Directive must be submitted to the technical service responsible for conducting the type-approval test.

3. EEC TYPE-APPROVAL

A certificate conforming to the model in Annex V should be attached to the EEC type-approval certificate.



ANNEX II

TECHNICAL REQUIREMENTS

1. GENERAL REQUIREMENTS
 - 1.1. The controls must be easily accessible and must not constitute a danger to the operator, who must be able to actuate them without difficulty or risk; they must be so designed and laid out, or protected, as to preclude any inadvertent switching operation or any unintentional triggering of a movement or any other operation which might be dangerous.
 - 1.2. For identification of the controls by means of symbols, the symbols used must conform to those shown in Annex III.
 - 1.3. Symbols other than those shown in Annex III may be used for other purposes, provided that there is no danger of confusion with those shown in that Annex.
 - 1.4. Symbols are deemed to conform if the proportionality of the dimensions shown in Annex IV is respected.
 - 1.5. The symbols must appear on or in the immediate proximity of the controls.
 - 1.6. The symbols must stand out clearly against the background.
 - 1.7. The controls must satisfy whatever particular requirements, insofar as they apply, are set out in section 2 as regards the installation, location, operation and identification of controls. Other arrangements are permitted, should a manufacturer provide evidence that they have an effect at least equivalent to the requirements specified in this Directive.
2. SPECIAL REQUIREMENTS
 - 2.1. **Starter control**

It must not be possible to start the engine if there is a risk that this might cause an uncontrolled movement of the tractor.

This requirement is deemed to be fulfilled if the engine cannot be started unless:

 - the gear change lever is in neutral position or in neutral gear, or
 - the gear ratio selection lever is in neutral position or in neutral gear, or
 - the clutch mechanism is disengaged, or
 - the hydrostatic device is in neutral position or depressurized, or
 - where hydraulic transmission is fitted, the engagement device reverts automatically to a neutral position.
 - 2.2. **Engine shut-off control**

Actuating this device must stop the engine without sustained manual effort; it must not be possible for the engine to start again automatically.

Should the engine shut-off control not be combined with the starter control, it must be of a colour contrasting clearly with the background and the other controls. If the shut-off control is a button, it must be coloured red.
 - 2.3. **Differential lock control**

Identification of the control, where fitted, is mandatory. The functioning of the differential lock must be clearly indicated, if this is not apparent from the position of the control.
 - 2.4. **Three-point lifting mechanism control**
 - 2.4.1. Either the three-point lifting mechanism controls must be fitted in such a way as to ensure that lifting and lowering manoeuvres can be carried out safely, and/or automatic coupling parts should be fitted on the attachment devices of the lifting equipment so that

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the presence of an operator between the tractor and the equipment is not required. The presence of such a control, where fitted, must be indicated.

2.4.2. The safety requirements for the lifting and lowering of the tools being carried are deemed to be fulfilled where the following conditions are met:

2.4.2.1. *Main controls*

The main controls and any linkage are arranged or protected in such a way that the operator is unable to reach them if he is standing on the ground between the tractor and the mounted implement, or external controls must be fitted;

2.4.2.2. *External controls*

2.4.2.2.1. The controls must be laid out in such a way that the operator can actuate them from a non-dangerous spot, for instance where the three-point hydraulic lift controls or the additional controls for the lifting mechanism are located outside the vertical planes formed by the internal walls of the mudguards,

and

2.4.2.2.2. The three-point hydraulic lifting mechanism is actuated by means of controls which restrict the amount of movement to a maximum of 100 millimetres each time the control is actuated. The measurement points in this case are formed by the coupling points on the lower arms of the three-point coupling,

or

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2.4.2.2.3. The three-point hydraulic lifting mechanism is actuated by means of controls which operate on the 'hold-to-run principle'.

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2.4.2.3. *Narrow tractors*

In the case of tractors with one driven axle having a fixed or adjustable minimum track not exceeding 1 150 millimetres, the main controls must be located in front of the vertical plane passing through the seat reference point, the seat being in a central position;

2.4.2.4. Other arrangements are permitted if the manufacturer provides evidence that they have an effect at least equivalent to the requirements set out in 2.4.2.1., 2.4.2.2. and 2.4.2.3.

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2.5 **Power Take-Off (PTO) control(s)**

2.5.1. It shall not be possible to start the engine with the PTO engaged.

2.5.2. *External controls*

2.5.2.1. The controls must be laid out in such a way that the operator can actuate them from a safe place.

2.5.2.2. The control(s) shall be designed in a way which avoids unintentional actuation.

2.5.2.3. The start control shall work according to the 'hold-to-run principle' for at least the first three seconds of actuation.

2.5.2.4. After actuating the control(s) the time delay to the intended operation shall not be more than the time for the technical engage/disengage system to operate. If this delay time is exceeded, an automatic deactivation of the PTO drive shall occur.

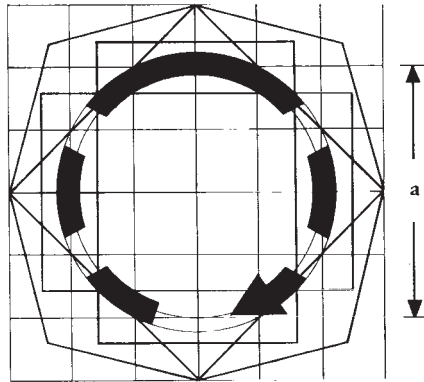
2.5.2.5. It shall always be possible to shut off the PTO(s) from the operator's seat position as well as from the associated external control(s). The shut off is always an override control.

2.5.2.6. Interaction between external PTO control and operator's seat position PTO control shall not be permitted.

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ANNEX III
SYMBOLS

1. Starter control

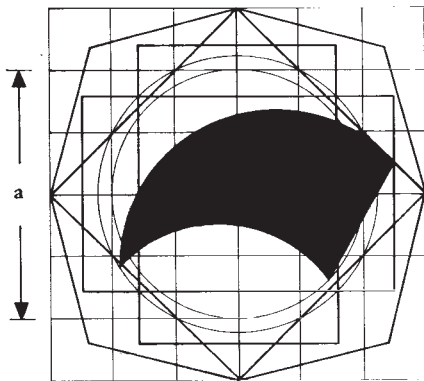


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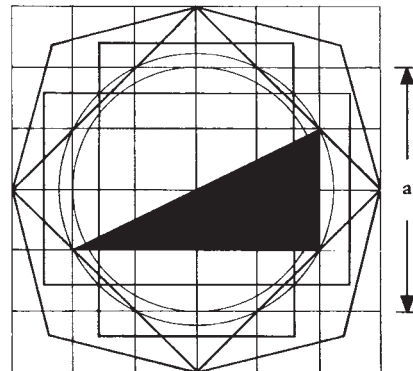
ISO 3767-1:1998, symbol 8.18 may be used as alternative

▼B

2. Engine speed control



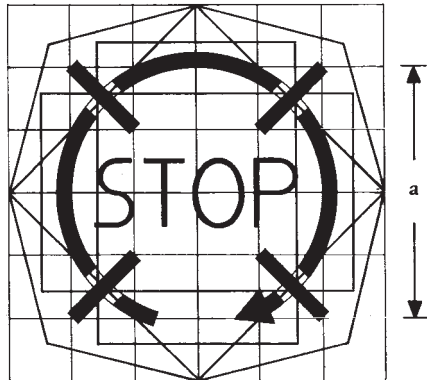
Signification: continuous rotary variation



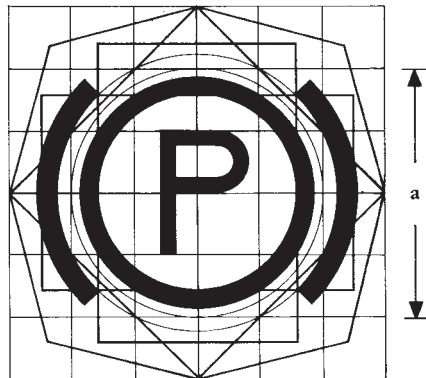
continuous linear variation

▼B**3. Engine shut-off control**

(Spark ignition engine and compression ignition engine)

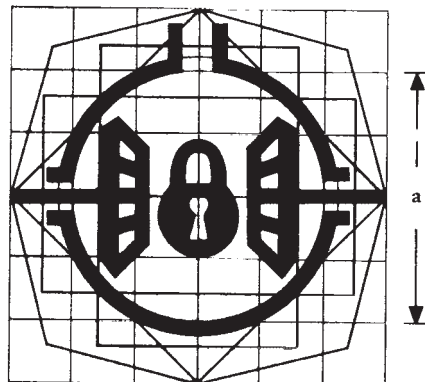
**▼M2**

ISO 3767-1:1998, symbol 8.18 may be used as alternative

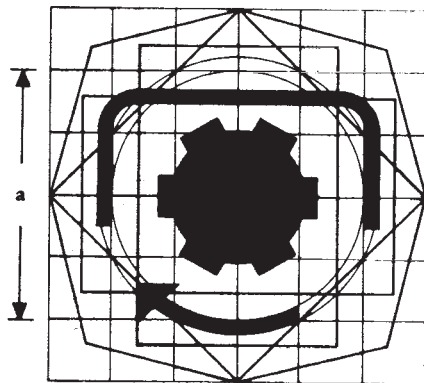
▼B**4. Parking brake control**

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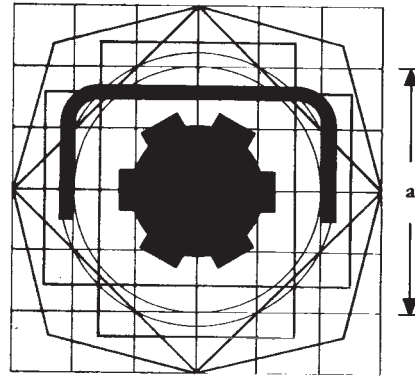
5. Differential lock control



6. Power take-off clutch control



Signification: 'on' position



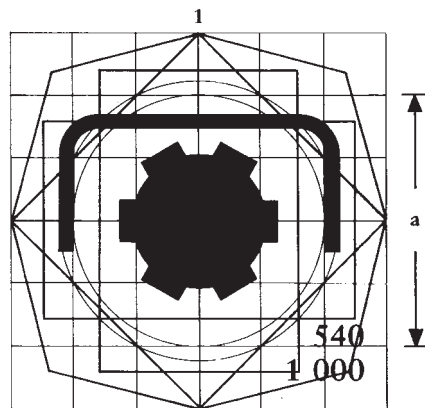
'off' position

▼ M2

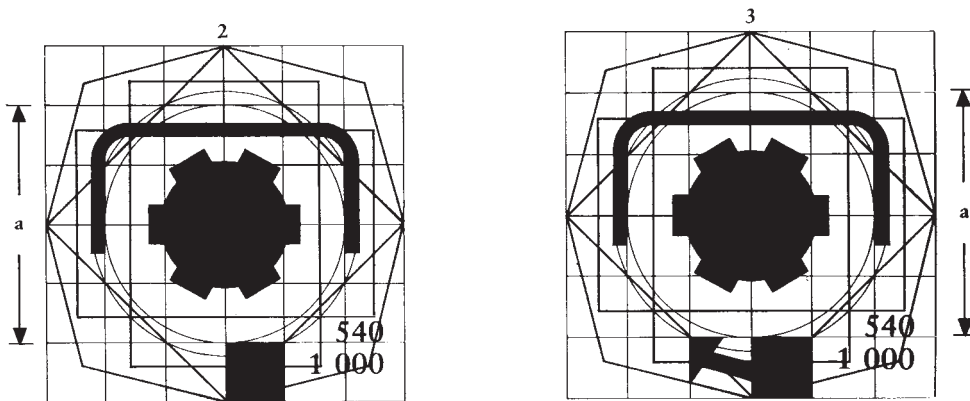
ISO 3767-2:1991, symbol 7.11 combined with ISO 3767-1:1998, symbol 7.1 to 7.5 may be used as alternative

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7. Power take-off actuator and/or rotational-speed selector



Signification: unit disengaged and not actuated



Signification: unit actuated but not engaged

unit engaged and actuated

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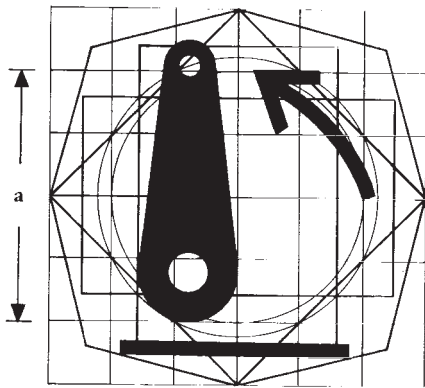
ISO 3767-2:1991, symbol 7.12 PTO display combined with ISO 3767-1:1991, symbol 7.1 to 7.5 may be used as alternative

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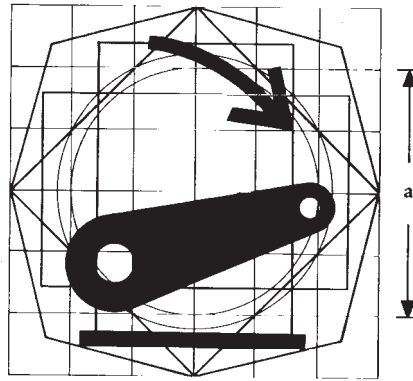
NB: These symbols relate to the actuator and rotational-speed selector of a two-speed power take-off. In Symbol No 1 the selector is shown in neutral and disengaged; in Symbol No 2 the power take-off is seen to be set to rotate at 1 000 rpm, but not engaged, and in Symbol No 3 it is engaged and actuated at the rotational speed of 1 000 rpm.

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8. Lifting mechanism control

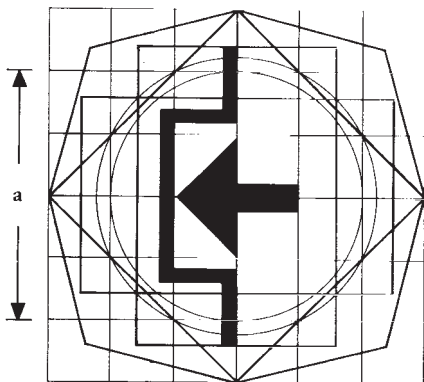


Signification: raised position

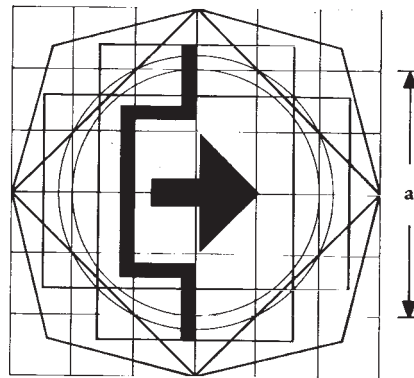


lowered position

9. Switch for remote control of external services



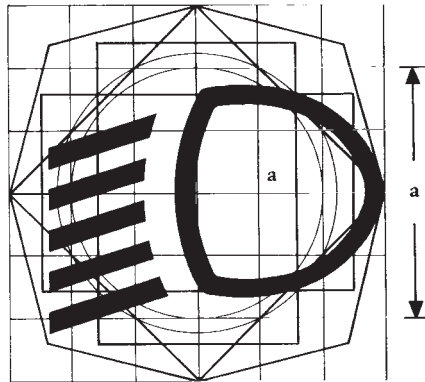
Signification: 'on' position



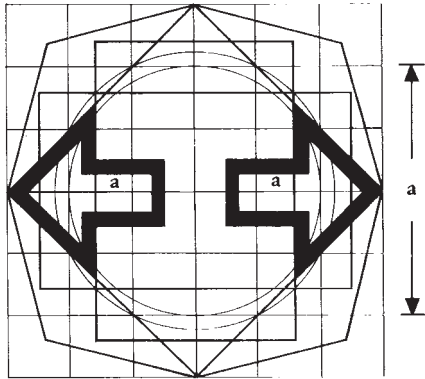
'off' position

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10. Dipped-beam headlamps control

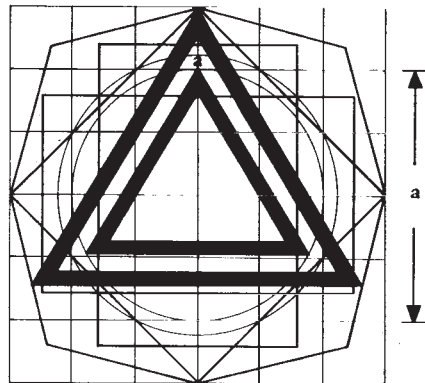


11. Direction-indicator lamp control

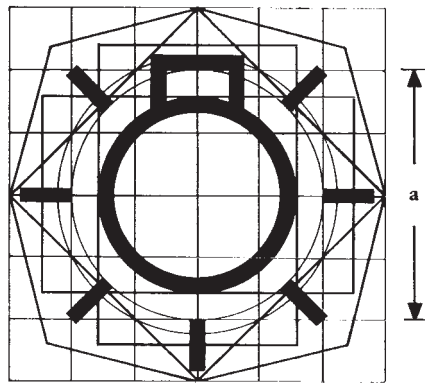


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12. Hazard-warning control

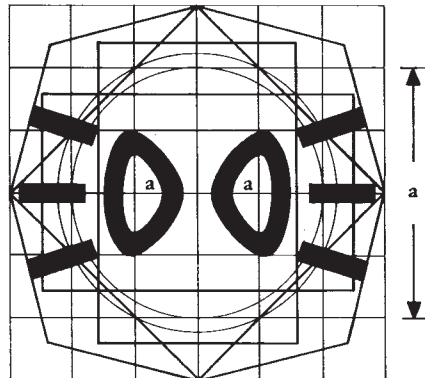


13. Master lighting switch

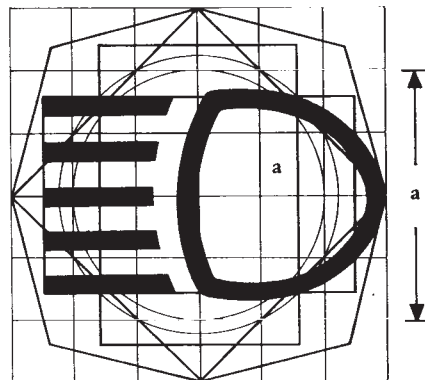


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14. Front position (side) lamps control

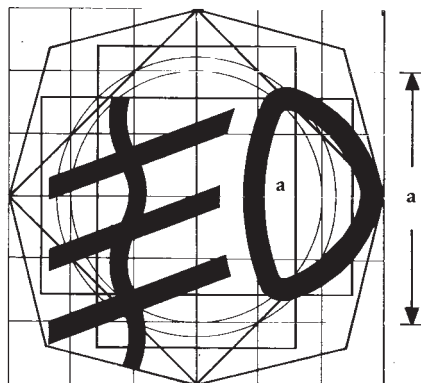


15. Main-beam headlamps control

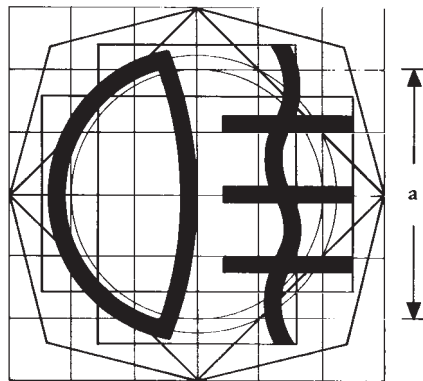


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16. Front fog lamp control

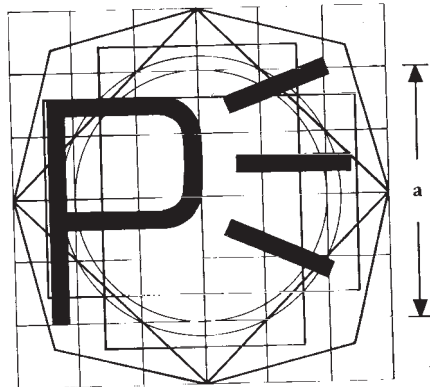


17. Rear fog lamp(s) control

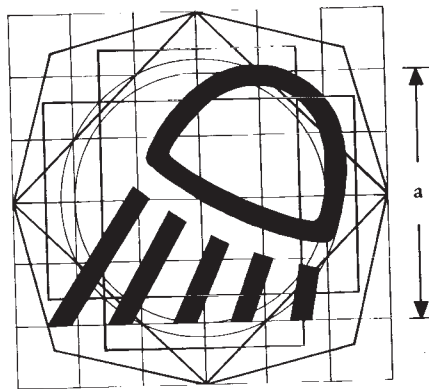


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18. Parking lamp(s) control

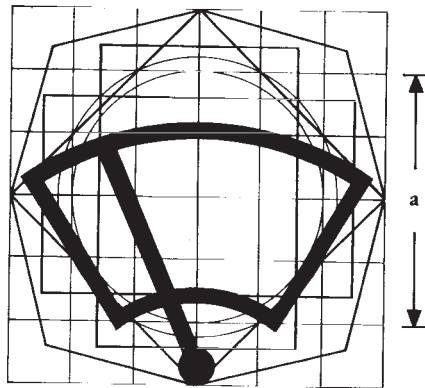


19. Working light control

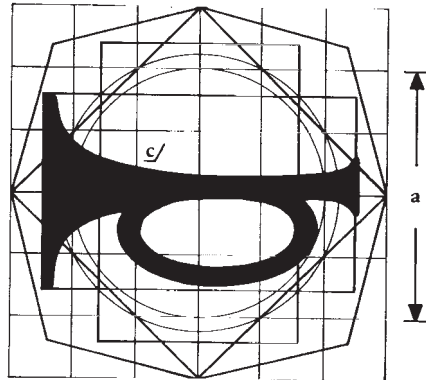


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20. Windscreen wiper control



21. Audible warning device control



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ANNEX IV

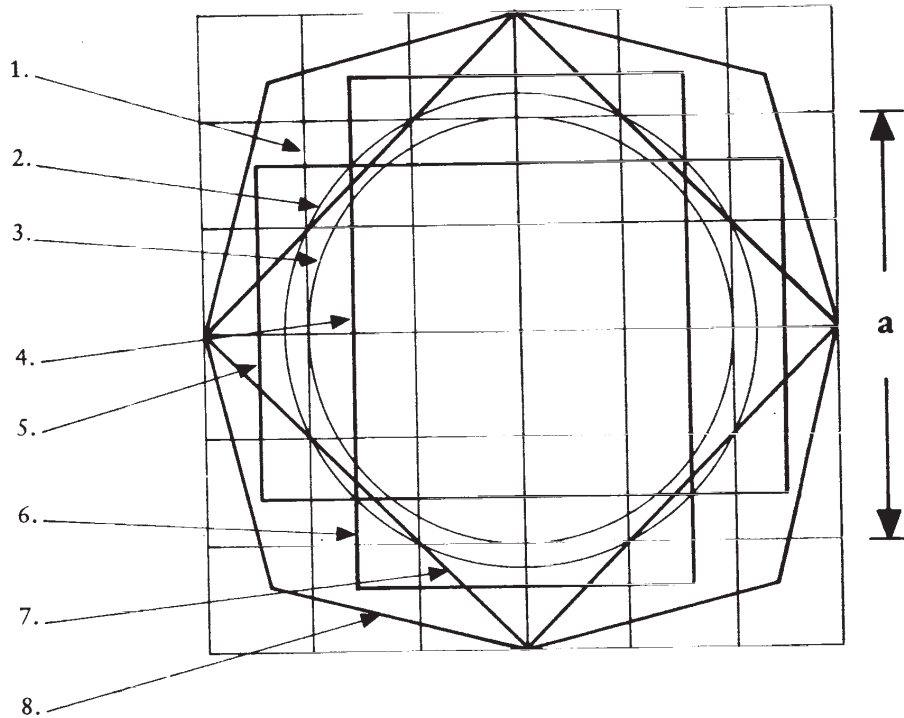
CONSTRUCTION OF THE BASIC MODEL FOR THE SYMBOLS
SHOWN IN ANNEX III

Figure 1

Basic model

The basic model consists of:

1. a basic square measuring 50×50 mm, the dimension (a) being equal to the nominal dimension (a) of the original;
2. a basic circle, 56 mm in diameter, having approximately the same surface area as the basic square (1);
3. a second circle, 50 mm in diameter, inscribed within the basic square (1);
4. a second square whose right angles are situated on the basic circle (2) and whose sides are parallel to the sides of the basic square (1);
5. and 6. two rectangles having the same surface area as the basic square (1); their respective sides are perpendicular and each of them is constructed in such a way as to intersect the opposite sides of the basic square at symmetrical points;
7. a third square whose sides pass through the points of intersection of the basic square (1) and of the basic circle (2) and are inclined at an angle of 45° , thus giving the largest horizontal and vertical dimensions of the basic model;
8. an irregular octagon formed by lines inclined at an angle of 30° to the sides of the square (7).

The basic model is situated on a 12,5 mm gauge grid which coincides with the basic square (1).

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ANNEX V

MODEL

Maximum format: DIN A4 (210 × 297 mm)

Name of
administrationANNEX TO THE EEC TYPE-APPROVAL CERTIFICATE FOR A TRACTOR TYPE WITH REGARD TO
THE INSTALLATION, LOCATION, OPERATION AND IDENTIFICATION OF CONTROLS(Article 4(2) and Article 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

1. Trade name or mark of the tractor
2. Tractor type
3. Name and address of manufacturer
4. Where applicable, name and address of manufacturer's authorized representative
5. Brief description of the tractor type with regard to the installation, location, operation and identification of controls
6. Date tractor submitted for type-approval
7. Technical service conducting type-approval tests
8. Date of report issued by that service
9. Number of report issued by that service
10. Type-approval as regards the installation, location, operation and identification of controls has been granted/refused ⁽¹⁾
11. Place
12. Date
13. Signature
14. The following drawings, bearing the abovementioned type-approval number, are attached to this communication:
A set of drawings of the controls and of the tractor components regarded as relevant for the purposes of Council Directive 86/415/EEC of 24 July 1986 on the installation, location, operation and identification of the controls of wheeled agricultural or forestry tractors.
These drawings will be supplied to the competent authorities of the other Member States at their express request.
15. Comments if any

⁽¹⁾ Delete where inapplicable.