

## COUNCIL DIRECTIVE

of 19 June 1978

adapting to technical progress Directive 73/362/EEC on the approximation of the laws of the Member States relating to material measures of length

(78/629/EEC)

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

HAS ADOPTED THIS DIRECTIVE:

Having regard to the Treaty establishing the European Economic Community,

Having regard to the proposal from the Commission,

Having regard to Council Directive 71/316/EEC of 26 July 1971 on the approximation of the laws of the Member States relating to common provisions for both measuring instruments and methods of metrological control <sup>(1)</sup>, as amended by the Act of Accession, and in particular Articles 17, 18 and 19 thereof,

Whereas, since the preparation and adoption of Council Directive 73/362/EEC of 19 November 1973 on the approximation of the laws of the Member States relating to material measures of length <sup>(2)</sup>, new material measures of length have been developed; whereas the said Directive should therefore be amended to take account of technical progress;

Whereas on 19 January 1978 the Commission submitted a proposed amendment to the Committee on the adaptation to technical progress of the Directives concerning the elimination of technical barriers to trade in measuring instruments, for its opinion; whereas, no opinion having been delivered, the Commission, in accordance with the procedure laid down in Article 19 (3) (b) of Directive 71/316/EEC, proposed to the Council the measures to be adopted,

*Article 1*

In the Annex to Directive 73/362/EEC, points 3.6, 4.1, 5.1, 6.3, 7.1, 7.2, 7.3, 8, 9.1, 9.2, 9.4 and 9.5 are hereby amended in accordance with the Annex hereto.

*Article 2*

Member States shall adopt the laws, regulations and administrative provisions needed in order to comply with this Directive in such a manner that these provisions shall take effect one year after the date of notification of this Directive and shall forthwith inform the Commission thereof.

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

*Article 3*

This Directive is addressed to the Member States.

Done at Luxembourg, 19 June 1978.

*For the Council*

*The President*

P. DALSAGER

<sup>(1)</sup> OJ No L 202, 6. 9. 1971, p. 1.

<sup>(2)</sup> OJ No L 335, 5. 12. 1973, p. 56.

## ANNEX

- 3.6. Tape measures shall be made so that when the tape is stretched out on a flat surface its edges are practically straight and parallel.
- 4.1. Along their nominal length, measures of length shall carry clear, regular and indelible graduation and numbering, so as to enable a sure, simple and unambiguous reading to be made. However, some non-numbered scale marks, not exceeding the number of scale marks between two consecutive numbered scale marks on the measure, may extend beyond the principal scale mark at the end of the measure.
- 5.1. The nominal length of the measures shall be one of the following values: 0.5, 1, 1.5, 2, 3, 4, 5, 6, 7, 8, 9 m or a multiple of 5 m.
- 6.3. All these inscriptions shall be given visibly and legibly, starting at the beginning of the measure.

However, in agreement with the national authority concerned, certain inscriptions may appear on an integral part of the instrument. In this case, the EEC pattern approval certificate shall state where these inscriptions are to be placed.

Furthermore, where the width of the measure of length does not enable the EEC pattern approval sign to appear legibly, that sign may appear, notwithstanding the provisions of point 3.1 of Annex I to the Council Directive of 26 July 1971 on the approximation of the laws of the Member States relating to common provisions for both measuring instruments and methods of metrological control, and in accordance with point 3.5 of this Annex, in the form of the following signs, arranged in succession:

- the stylized letter  $\epsilon$ ,
- the distinguishing letter(s) of the Member State which has granted EEC pattern approval,
- the last two digits of the year of EEC pattern approval,
- the reference number of the EEC pattern approval, (e.g.  $\epsilon$  F 75 5345).

## 7. MAXIMUM PERMISSIBLE ERRORS

- 7.1. The measures of length defined in this Directive shall be divided into three classes, designated I, II and III, according to their degree of accuracy.

On EEC initial verification of measures of length, the maximum permissible error, plus or minus:

- (a) on the nominal length, and
- (b) on the distance between any two non-consecutive scale marks,

shall be expressed as a function of the length in question by a formula in the form  $(a + bL)$  mm in which:

- $L$  is the length in question, rounded up to the next whole metre above,
- $a$  and  $b$  are coefficients fixed for each class of accuracy according to the following table:

Class of accuracy	a	b
I	0.1	0.1
II	0.3	0.2
III	0.6	0.4

## 7.2.

- 7.2.1. The maximum permissible error, plus or minus, on the length  $i$  of the intervals not exceeding 1 cm shall be fixed for each class of accuracy according to the following table:

Length $i$ of the interval in question	Maximum permissible error (in mm) for class of accuracy		
	I	II	III
$i \leq 1 \text{ mm}$	0.1	0.2	0.3
$1 \text{ mm} < i \leq 1 \text{ cm}$	0.2	0.4	0.6

In the case of intervals exceeding 1 cm, the maximum permissible error shall be expressed as a function of the length of the interval by the formula  $(a + bL)$  mm, where the values of the parameters  $a$  and  $b$  are equal to those given in point 7.1 and where  $L$  is the length in question, rounded up to the next whole metre above.

- 7.2.2. The maximum permissible difference between the lengths  $i$  of two consecutive intervals not exceeding 1 cm shall be fixed for each class of accuracy according to the following table:

Length $i$ of the interval in question	Maximum permissible difference (in mm) for class of accuracy		
	I	II	III
$i \leq 1 \text{ mm}$	0.1	0.2	0.3
$1 \text{ mm} < i \leq 1 \text{ cm}$	0.2	0.4	0.6

In the case of intervals exceeding 1 cm, the maximum permissible difference between the lengths  $i$  of two consecutive intervals shall be expressed as a function of the length of the interval by the formula  $(a + bL)$  mm, as defined in point 7.2.1.

- 7.3. However, for an end or composite measure of length, the maximum permissible error, plus or minus, on the length of the terminal interval bounded by a surface shall be increased:

- by 0.1 mm for measures of class I,
- by 0.2 mm for measures of class II,
- by 0.3 mm for measures of class III.

Moreover, the provisions set out in points 7.1 and 7.2.2 do not apply:

- when one of the non-consecutive scale-marks as referred to in point 7.1 (b) is formed by a surface, and
- when one of the two consecutive intervals as referred to in point 7.2.2 is a terminal interval bounded by a surface.

## 8. VERIFICATION MARKS

Every measure of length shall be made so that it can accommodate the verification marks laid down by the Council Directive of 26 July 1971 on the approximation of the laws of the Member States relating to common provisions for both measuring instruments and methods of metrological control. A place near the beginning of the measure shall be provided for this purpose on the measure itself or on an integral additional device.

## 9.1. End, line or composite tape measures made of fibreglass and plastics

Nominal length between 0.5 and 100 m.

The tractive force, of about 20 N, shall be shown on the measure.

The free ends of end and composite measures shall be provided with a band or tip resistant to wear.

These measures shall belong to class of accuracy I, II or III.

**9.2. Measures made in one piece, rigid or semi-rigid, in metal or other material**

Nominal length between 0.5 and 5 m.

The reference temperature may, in certain cases, be other than 20 °C.

These measures also include dipsticks used for checking the level of liquids.

The end of a rigid dipstick shall be provided with a butt or tip resistant to impact and wear. It shall not cause sparking on impact.

These measures shall belong to class of accuracy I or II.

**9.4. Steel tape measures****9.4.1. End, line or composite measures on a winder.**

Nominal length between 0.5 and 10 m; the blades of measures between 5 and 10 m shall be of a cambered cross-section.

These measures may be contained in a case, one of whose dimensions may be included in the part used for measuring, particularly for measuring internal dimensions; the free end of these measures shall be provided with a fixed or sliding hook or tongue.

These measures shall belong to class of accuracy I or II.

**9.4.2. End or line measures, designed for measuring lengths greater than the nominal length of the measure.**

Nominal length: 5, 10, 20, 50, 100 or 200 m.

The tractive force, of about 50 N, shall be shown on the measure.

These measures shall be equipped with handles or rings at the two ends.

If the handles are included in the nominal length, they shall be constructed in such a way that their jointing does not introduce any inaccuracy of measurement.

These measures shall belong to class of accuracy I or II.

**9.4.3. Line or composite measures on a winder not designed for the measuring of lengths greater than the nominal length.**

Nominal length between 5 and 200 m.

The reference temperature may, in certain cases, be other than 20 °C.

The tractive force, of about 50 N, shall be shown on the measure.

The free end shall include a handle, ring or hook which shall not be included in the nominal length.

These measures shall belong to class of accuracy I or II.

**9.5. Composite dip-tapes made of metal, with sinkers, used for checking the level of liquids**

Nominal length between 5 and 50 m.

The reference temperature may, in certain cases, be other than 20 °C.

The tractive force, sufficient to stretch the tape correctly, must be shown on the measure.

This tractive force shall be exerted on the measure with the aid of a sinker which must bear an indication of its mass.

The principal scale mark, beginning the scale, shall be constituted by the base of a sinker of appropriate shape and of a material not liable to cause sparking on impact.

The sinker shall be attached to the tape in a fixed or detachable way so that this attachment or jointing does not introduce any inaccuracy of measurement.

The entire length of the tape shall be graduated in millimetres and the graduation shall continue on one flat side of the sinker.

The other end of the measure may be equipped with a winder.

These measures shall belong to class of accuracy I or II.

However, the maximum permissible error of the instrument in position for use with the sinker shall never be less than 0.6 mm.