

1970 No. 1712

## WEIGHTS AND MEASURES

**The Cubic Measures (Sand, Ballast and Agricultural Materials)  
Regulations 1970**

<i>Made - - - -</i>	13th November 1970
<i>Laid before Parliament</i>	19th November 1970
<i>Coming into Operation</i>	20th November 1970

The Secretary of State, in exercise of his powers under sections 11(1) and (3), 14(1), 47 and 58 of the Weights and Measures Act 1963(a) (hereinafter called "the Act") and paragraph 4 of Schedule 5 and paragraph 3 of Part III of Schedule 7 to the Act, and all other powers enabling him in that behalf, hereby makes the following Regulations:—

*Citation, commencement and revocations*

1.—(1) These Regulations may be cited as the Cubic Measures (Sand, Ballast and Agricultural Materials) Regulations 1970 and shall come into operation on 20th November 1970.

(2) The Weights and Measures (Ballast) Regulations 1963(b), the Weights and Measures (Ballast, Agricultural Liming Materials etc.) Regulations 1965(c) and the Weights and Measures (Ballast, Agricultural Liming Materials etc.) (Amendment) Regulations 1967(d) are hereby revoked.

*Interpretation*

2.—(1) In these Regulations—

"agricultural materials" means any of the materials mentioned in paragraph 1 of Part III of Schedule 7 to the Act, that is to say,—

- (a) agricultural liming materials, other than calcareous sand;
- (b) agricultural salt;
- (c) inorganic fertilisers and mixtures consisting mainly of inorganic fertilisers other than fertilisers or mixtures made up into pellets or other articles for use as individual items; and
- (d) any mixture of any of the foregoing;

"ballast" means any of the materials mentioned in paragraph 1 of Schedule 5 to the Act, that is to say,—

- (a) sand, gravel, shingle, ashes and clinker of any description;
- (b) broken slag, slag chippings, granite chippings, limestone chippings, slate chippings and other stone chippings (including such materials which have been coated with tar, bitumen or cement);

(a) 1963 c. 31.

(c) S.I. 1965/1465 (1965 II, p. 4299).

(b) S.I. 1963/1890 (1963 III, p. 3501).

(d) S.I. 1967/622 (1967 I, p. 1863).

(c) any other material commonly used in the building and civil engineering industries as a hardcore or an aggregate; and

(d) any other material commonly known in the said industries as ballast;

“brim measure” means any measure designed to measure only the quantity which it holds when filled to the brim;

“measure of an approved pattern” means a measure conforming with a pattern which is the subject of a current certificate of approval given or deemed to have been given by the Board of Trade or the Secretary of State under section 12 of the Act or conforming with such a pattern modified in such manner as may have been authorised by the Board or him;

“prescribed measure” means any measure prescribed by Regulation 3(1) hereof;

“tip cart measure” means a measure forming part of a cart intended to be drawn by a horse; and

the abbreviations of, and symbols for, units of measurement used in these Regulations refer to the relevant units mentioned in Schedule 1 hereto.

(2) The Interpretation Act 1889(a) shall apply to the interpretation of these Regulations as it applies to the interpretation of an Act of Parliament and as if these Regulations and the Regulations hereby revoked were Acts of Parliament.

*Prescribing of cubic measures for ballast etc. for purposes of section 11 of the Act; limitations on their use*

3.—(1) All measures for measuring ballast and agricultural materials by volume (whether in metric or imperial quantities) are hereby prescribed pursuant to section 11(1) of the Act.

(2) No measure shall be used to measure such materials in cubic units of the imperial system unless it has been passed as fit for use for trade and is stamped as a measure of a cubic imperial quantity and no measure shall be used to measure such materials in cubic metric units unless it has been so passed and is stamped as a measure of a cubic metric quantity.

*Construction, form and sizes of brim measures*

4.—(1) Prescribed brim measures shall be constructed to measure only one of the following quantities, namely, 0.2m<sup>3</sup> or a multiple thereof not exceeding 1m<sup>3</sup> or  $\frac{1}{4}$ ,  $\frac{1}{2}$  or 1 cubic yard.

(2) Unless made in accordance with an approved pattern, any such measure shall—

- (i) have a smooth and level floor and sides with smooth interiors perpendicular to the floor;
- (ii) be constructed of durable materials and be of sufficient thickness or so reinforced as to remain rigid when in use;
- (iii) have its adjacent sides set at right angles to each other;
- (iv) not have any side shorter than 75 cm, if a metric measure, or 2 feet 3 inches, if an imperial measure; and
- (v) if made of a hard metal, have a soft metal plug on the exterior immediately below the brim to accommodate a stamp.

- (3) Any such measure shall, if it has detachable sides,—
- (i) have on all the component parts a common mark intended to ensure that the correct parts are employed in assembling the measure;
  - (ii) have a base which projects at least 2.5 cm beyond the sides and is in contact with the lower edges of the sides at all points; and
  - (iii) be so designed as to preclude incorrect assembly.

*Construction, form etc. of other measures*

5.—(1) This Regulation shall apply as respects the materials and principles of construction of prescribed measures other than brim measures, tip cart measures or measures of an approved pattern.

(2) A measure to which this Regulation applies shall be sufficiently strong to stand the wear and tear of use and to remain rigid when in use and shall not—

- (a) have a false bottom;
- (b) have internal surfaces or projections therefrom which impede its ready discharge;
- (c) be constructed in a manner which facilitates fraud.

(3) Such a measure shall have four sides and a base and the angles between the sides and the base and between the adjoining sides shall all be 90 degrees except that a measure which has one pair of sides longer than the other may—

- (a) taper in width by up to 10 per cent;
- (b) have its longer sides curved into the base (and the corners of the other sides rounded accordingly) provided that the effect is not to reduce the width of the base to less than three quarters of the width at the top.

(4) Such a measure shall be assembled in a permanent manner so that neither its form nor its volume may be changed in the course of trade; but this requirement shall not preclude any side or sides being so hinged as to swing outwards to facilitate discharge.

*Calibration*

6.—No prescribed measure shall be calibrated to indicate any quantity other than 0.2m<sup>3</sup> or a multiple thereof or  $\frac{1}{2}$  cubic yard or a multiple thereof. Such measures (if not brim measures) shall be calibrated to indicate quantities up to and including the maximum purported content as follows:—

- (a) metric measures of a maximum purported content of less than 4m<sup>3</sup>, as respects 0.2m<sup>3</sup> and every multiple thereof;
- (b) imperial measures of a maximum purported content of less than 4 cubic yards, as respects  $\frac{1}{2}$  cubic yard and every multiple thereof;
- (c) metric measures of 4m<sup>3</sup> or more and imperial measures of 4 cubic yards or more, at least as respects every multiple of 1m<sup>3</sup> and 1 cubic yard respectively which is not less than half the maximum purported content and, where half the maximum purported content is not a whole number of cubic metres or cubic yards, as respects the nearest lower multiple of 1m<sup>3</sup> or 1 cubic yard, as appropriate.

*Calibration strips*

7.—(1) Except in the case of measures of an approved pattern and subject to paragraph (10) hereof, calibration shall be effected by marking in the manner described in Regulation 8 a pair of metal strips (hereinafter referred to as “calibration strips”).

(2) One calibration strip shall be firmly attached to the interior of each of two opposing sides of the measure in a vertical position near to the centre of the side.

(3) Each calibration strip shall be attached to the measure by bolts or rivets and shall, in addition, have a slot cut into the front to retain the head of a tee-bolt.

(4) A calibration strip indicating metric quantities shall be of truncated triangular cross section; the back shall be at least 35 mm wide; the angle between the sides and the back shall be not less than 50 degrees nor more than 70 degrees; and the distance between the front and back shall be at least 12 mm.

(5) A calibration strip indicating imperial quantities shall be of half round cross section and the back shall be at least  $1\frac{1}{2}$  ins wide.

(6) A metal sealing box generally conforming with the appropriate pattern depicted in Schedule 2 hereto shall be secured to the exterior of the measure by a nut threaded on to the bolt mentioned in paragraph (3). The sealing box on each calibration strip indicating metric quantities shall have sides about 25 mm long and the box on each strip indicating imperial quantities shall be about 2 ins in diameter.

(7) Each sealing box shall be further fixed to the exterior of the measure by at least two screws or pins so as to preclude the rotation of the box.

(8) Every sealing box shall be filled with lead to prevent the removal of the nut or bolt mentioned in paragraph (6).

(9) A measure may serve both as a metric and as an imperial measure but—

(i) separate pairs of calibration strips shall be employed to indicate metric and imperial quantities and one of each pair shall be on the same side of the measure not more than 20 cm apart;

(ii) if the calibration strips are on a vehicle, the strips indicating imperial quantities shall be nearer to the rear or to the offside of the vehicle than the ones indicating metric quantities;

(iii) the measure shall be marked in accordance with Regulation 9(1) as respects both its purported metric and its purported imperial content.

(10) In the case of measures of a purported maximum content of  $4\frac{1}{2}$  or  $5\frac{1}{2}$  cubic yards, first passed as fit for use for trade before the commencement of these Regulations, the maximum purported content may be indicated by the top of the strips instead of marks.

*Marking of calibration strips*

8.—(1) Calibrations shall be marked on calibration strips as follows—

(a) in the case of a calibration indicating  $1\text{m}^3$  or a multiple thereof, by horizontal milled recesses at least 3 mm wide cut across the full width of both the tapered sides of the strip;

- (b) in the case of a calibration indicating any other metric quantity, by such a recess cut across the full width of the front of the strip;
  - (c) in the case of a calibration indicating a quantity of 1 cubic yard or a multiple thereof, by two horizontal milled recesses not less than  $\frac{1}{8}$  in wide and  $\frac{1}{2}$  in long;
  - (d) in the case of a calibration indicating any other imperial quantity, by a horizontal recess not less than  $\frac{1}{8}$  in wide and 1 in long cut across the centre of the front of the strip.
- (2) The said recesses shall be so cut that the lower edges of the corresponding recesses on the pair of strips are in the same horizontal plane and indicate the quantity held by the measure when filled level with those lower edges.
- (3) There shall be cut into every calibration strip between the marks indicating a whole number of cubic metres or cubic yards a figure or figures indicating the number thereof. No such figure shall be less than 20 mm high or cut less than 2 mm into the strip.
- (4) Every calibration strip shall bear an indication of the distance from the bottom of the measure immediately below the strip to the indication of the purported maximum content, that is to say, to the lower edge of the topmost calibration mark or, in an appropriate case, to the top of the strip. Such indication shall—
- (a) in the case of a strip indicating metric quantities, comprise the letter 'M' followed by figures indicating the distance in centimetres and the letters 'CM', marked in the manner illustrated in Schedule 2 hereto; and
  - (b) in the case of a strip indicating imperial quantities, comprise the letter 'B' followed by figures indicating the distance in inches and the letters 'IN', marked in the manner so illustrated.

#### *Marking of measures*

- 9.—(1) Every prescribed measure shall have marked durably and conspicuously upon the exterior of one of its sides its purported maximum content; where the measure forms part of a vehicle the marking shall be on the near side.
- (2) The marking shall be upon a plain background in a colour which is in distinct contrast to the background and shall comprise the number of units expressed in figures and an indication of the units of measurement.
- (3) Units of measurement shall be marked in full or, as appropriate, by the symbol 'm<sup>3</sup>' or the abbreviation 'cub yd' or 'cu yd'.
- (4) The characters employed in marking shall be at least 25 mm high and 10 mm wide; but neither the symbol 'm<sup>3</sup>' nor any vulgar fraction shall be regarded for the purpose of this paragraph as forming more than one character.

#### *Testing*

- 10.—(1) Prescribed measures shall only be tested if they are clean and complete.
- (2) Such measures shall be tested—
- (i) by calculation based on the internal measurements; or
  - (ii) by transferring chippings or similar material from a brim measure the volume of which has been ascertained by calculation; or
  - (iii) by a combination of these methods.

(3) The accuracy of all the calibrations on a calibrated measure shall be tested.

- 11.** A prescribed measure shall not be passed as fit for use for trade if it—
- (a) bears any mark which might erroneously be regarded as a calibration mark or as an inspector's stamp;
  - (b) does not comply with any relevant requirement of these Regulations; or
  - (c) is not within the prescribed limits of error.

*Prescribed limits of error*

**12.** The limits of error as respects prescribed measures shall be the following:—

Purported indication of quantity	Limit of error— (in excess only)
(a) <i>Metric</i> 0.2m <sup>3</sup> , 0.4m <sup>3</sup> or 0.6m <sup>3</sup>  any metric quantity exceeding 0.6m <sup>3</sup>	25 cubic decimetres  8 cubic decimetres for each 0.2m <sup>3</sup> of the indicated quantity
(b) <i>Imperial</i> $\frac{1}{4}$ cu. yd, or $\frac{1}{2}$ cu. yd any imperial quantity in excess of $\frac{1}{2}$ cu. yd	$\frac{3}{4}$ cu. ft $\frac{1}{2}$ cu. ft for each $\frac{1}{2}$ cu. yd of the indicated quantity.

*Stamping*

**13.—(1)** Prescribed measures of an approved pattern shall be stamped in any manner envisaged in the pattern.

(2) Except where paragraph (1) hereof applies, prescribed measures shall be stamped on the lead filling of each of the sealing boxes or, if brim measures, shall be stamped or branded, as appropriate, on the outside near the brim above or below the indication of content.

*Obliteration of stamps*

**14.—(1)** Where a prescribed measure—

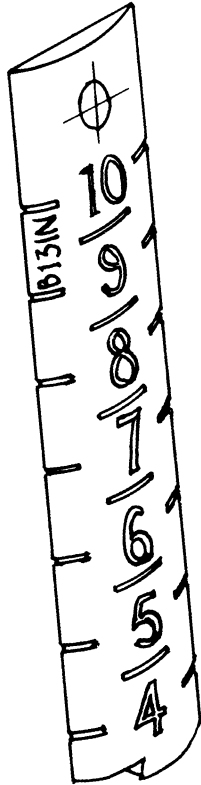
- (i) fails upon testing to fall within the prescribed limits of error; or
- (ii) appears to have been so altered, adjusted or repaired that its accuracy is likely to have been affected;
- (iii) does not comply with the requirements of these Regulations,

an inspector shall obliterate the stamp on the measure by superimposing thereon with pincers or punch a design in the form of a six-pointed star, or, if the nature or degree of non-compliance does not warrant this course, serve on the person

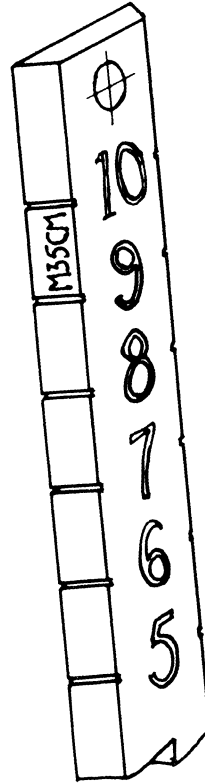


SCHEDULE 2

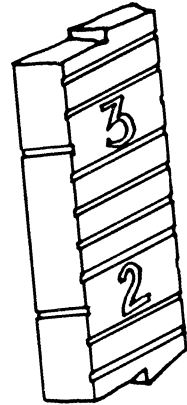
CALIBRATION STRIPS  
(a) Imperial



(b) Metric (only if 4m<sup>3</sup> or over)

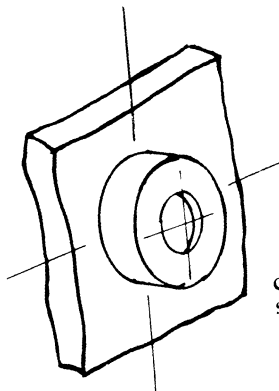


(c) Metric (obligatory under 4m<sup>3</sup>)

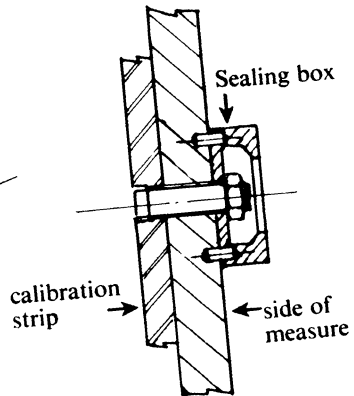


Sealing boxes

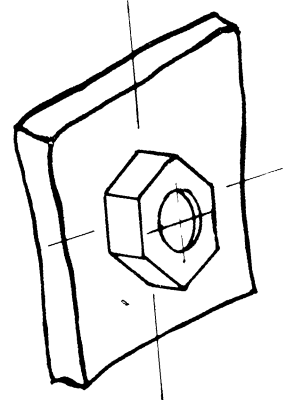
(a) General view of the box (imperial calibration strip)



(b) Cross section of a sealing box showing the nut and bolt securing the box.



(c) General view of the box (metric calibration strip)





## EXPLANATORY NOTE

*(This Note is not part of the Regulations.)*

These Regulations replace the Weights and Measures (Ballast) Regulations 1963 (S.I. 1963/1890), as amended.

They make provision as respects the cubic measures to be employed in measuring sand, ballast, inorganic fertilisers and certain other materials used in the building trade or in agriculture. The materials in question are specified in Regulation 2.

The principal change is that provision is now made for metric cubic measures which may lawfully be used to measure such commodities after 31 December 1970 by virtue of the Weights and Measures (Amendment of Schedules 5 and 7) Order 1970 (S.I. 1970/1708).

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