

## 1970 No. 1370

## WEIGHTS AND MEASURES

## The Weights Regulations 1970

Made - - - 16th September 1970

Laid before Parliament 28th September 1970

Coming into Operation 30th September 1970

The Board of Trade, in pursuance of the powers conferred upon them by sections 11(1) and (3), 14(1)(a), (b) and (c), 47 and 58(1) of the Weights and Measures Act 1963(a) (hereinafter referred to as "the Act") and of all other powers enabling them in that behalf, hereby make the following Regulations:—

## PART I

## GENERAL

1.—(1) These Regulations may be cited as the Weights Regulations 1970 and shall come into operation on 30th September 1970.

(2) In these Regulations the symbols and abbreviations employed to indicate units of weight refer to the units in relation to which those symbols and abbreviations are set out in Schedule 1 hereto.

(3) The Interpretation Act 1889(b) 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.

2.—(1) Subject to paragraph (2) hereof, Parts II and III of these Regulations shall replace those provisions of the Weights and Measures Regulations 1963(c), of the Regulations amending those Regulations(d) and of the Weights and Measures (Person Weighing Machines) Regulations 1965(e) which apply to weights and, accordingly, those Regulations shall be revoked to the extent specified in Schedule 5 hereto.

(2) In relation to

(a) apothecaries weights ; and

(b) any other weights which are first passed as fit for use for trade and stamped before 1st January 1972,

Parts II and III of these Regulations shall have effect to the extent and subject to the modifications specified in Schedule 4 hereto.

(a) 1963 c. 31.

(b) 1889 c. 63.

(c) S.I. 1963/1710 (1963 III, p. 3286).

(d) S.I. 1964/76 1968/338, 1969/81 (1964 I, p. 137; 1968 I, p. 972; 1969 I, p. 243).

(e) S.I. 1965/123 (1965 I, p. 231).

## PART II

## PRESCRIBING OF WEIGHTS: CHARACTERISTICS

3. All weights shall be a prescribed class of weighing equipment for the purposes of section 11(1) of the Act.

*Materials*

4. Save to the extent that it may—

- (i) contain lead in an adjusting hole, or
- (ii) be painted, coated or otherwise treated to inhibit corrosion.

a weight, other than a weight for use in connection with the manufacture of explosives, shall—

- (a) if of the flat or wire type, be made of gold or platinum or aluminium or of an alloy of any of those metals or of a metal of a density of not less than 7 nor more than 9.5 grammes per cubic centimetre ; or
- (b) if of any other type, be made of a metal of such a density as aforesaid.

*Shape*

5.—(1) Except as provided by paragraph (2) of this Regulation, a weight shall only be of a type or form mentioned in the following table in relation to a weight of its purported mass :—

Type or form	Weights which may be of that type or form
1. <i>Metric weights</i> (other than carat (metric) weights)	
(i) The rectangular form described in Schedule 2 here-to.	Weights of 5kg or more.
(ii) The cylindrical form described in that Schedule.	Weights of not more than 10kg nor less than 20g and of 10, 5, 2 and 1g.
(iii) The hexagonal form described in that Schedule.	Weights of not more than 2kg nor less than 100g.
(iv) The disc form described in that Schedule.	Weights of not more than 20g nor less than 1g.
(v) Flat type.	Weights of not more than 1g nor less than 10mg.
(vi) Wire type.	Weights of 50mg or less.
2. <i>Carat (metric) weights</i>	
(i) Cylindrical with a knob.	Weights of 5 C.M. or more.
(ii) Flat type.	Weights of not more than 20 C.M. nor less than 0.05 C.M.

Type or form	Weights which may be of that type or form
(iii) Wire type.	Weights of 0.25 C.M. or less.
3. <i>Imperial weights</i> (other than grain weights and troy weights)	
(i) Bell, bar, flat-circular or ring type	Any weight other than a weight of 50, 20, 10 or 5lb.
(ii) Octagonal type.	Weights of 50, 20, 10 or 5lb.
4. <i>Grain weights</i> Flat or wire type.	All grain weights.
5. <i>Troy weights</i>	
(i) Cylindrical with a knob.	Weights of 1oz tr or more.
(ii) Flat or wire type.	Weights of 0.5oz tr or less.

(2) Nothing in paragraph (1) of this Regulation or Schedule 2 hereto shall preclude any weight from being regarded as fit for use for trade by reason of the fact that one or more edges are chamfered or rounded.

#### *Adjusting holes*

6.—(1) No metric weight of 20 grammes or less and no imperial weight of one ounce or less shall have an adjusting hole.

(2) No other weight shall have more than one adjusting hole.

(3) An adjusting hole shall be in the form of a cavity in a plane surface of the weight, and shall either be

(a) undercut and plugged with lead, or

(b) closed by a plug or disc made of brass or steel.

(4) Where an adjusting hole is closed with a plug or disc, the plug or disc shall be secured by a lead pellet driven into an undercut recess or, if the cavity is threaded, the thread.

(5) No lead plug or pellet shall protrude from the surface of the weight.

#### *Marking*

7.—(1) All weights other than wire weights shall be marked with a durable and legible indication of their purported mass. Metric weights of disc form shall be so marked on both sides.

(2) The marking shall comprise figures indicating the number of units and words or an appropriate symbol or abbreviation mentioned in Schedule 1 hereto to indicate the relevant unit. In the case of weights of disc form the figures shall be at least 4 mm high.

(3) No weight shall bear any marking other than the marking hereinbefore mentioned, the name or mark of the maker or the stamp applied by an inspector of weights and measures.

(4) Where a weight bears the name or mark of its maker, the height of the mark or lettering shall not exceed one half of the height of the figures employed to indicate its purported weight.

### PART III

#### TESTING, STAMPING AND OBLITERATING OF STAMPS

8. Weights shall not be submitted for testing or tested unless they are in a clean condition.

9. An inspector shall test a weight by comparison with an appropriate local or working standard weight by the method of substitution on a balance or beam scale or, if he considers it sufficient, by direct comparison.

10. A weight shall not be passed as fit for use for trade if upon testing it is found to be too heavy by more than the relevant amount specified in Schedule 3 hereto or to be light or not to comply with the relevant requirements of Part II of these Regulations.

11. A weight which is passed as fit for use for trade shall be stamped upon the lead in the adjusting hole or, if it has no adjusting hole, upon its under surface or, if it is of disc form, on either of its flat surfaces.

12.—(1) Where a weight bearing the prescribed stamp is found by an inspector to differ from its purported weight by more than the relevant amount specified in Schedule 3 hereto he shall either obliterate the stamp or serve upon the person in possession of the weight a notice requiring him to have it adjusted within 28 days.

(2) Where notice is served as aforesaid and the weight is consequently retested after the expiration of that period and found to be outside the relevant limits of error, the inspector shall obliterate the stamp on it.

(3) Where a weight bearing the prescribed stamp is found by an inspector not to comply with the relevant requirements of Part II of these Regulations, he shall obliterate the stamp on it.

(4) A stamp shall be obliterated pursuant to this Regulation by impressing on it a design in the form of a six-pointed star.

*Anthony Grant,*  
Parliamentary Secretary to  
the Board of Trade.

16th September 1970.

### SCHEDULE 1

#### ABBREVIATIONS OF UNITS OF WEIGHT

##### *Metric*

kilogramme ... ..	kg <i>or</i> kilogram
gramme ... ..	g <i>or</i> gram
milligramme ... ..	mg <i>or</i> milligram
carat (metric) ... ..	C.M.

##### *Imperial*

pound ... ..	lb
ounce ... ..	oz
dram ... ..	dr
grain ... ..	gr
ounce troy ... ..	oz. tr <i>or</i> oz. troy

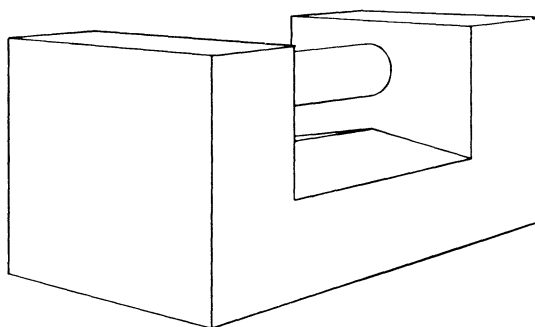
SCHEDULE 2  
FORM OF METRIC WEIGHTS

*Rectangular*

1. The form of rectangular weight referred to in paragraph 1(i) of the Table in Regulation 5 shall be as shown in diagrams (i), (ii) and (iii) below, except that—

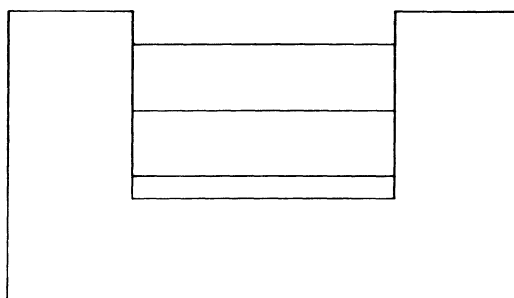
- (a) the length of the weight at the top and the length at the bottom may differ by an amount which does not exceed five per cent of the smaller length; and
- (b) the width of the upper surface and the width of the lower surface may differ by an amount which does not exceed five per cent of the smaller width.

Diagram (i)



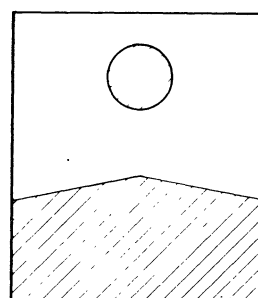
(Viewed obliquely and from above the level of the top surface)

Diagram (ii)



(Viewed from the side)

Diagram (iii)

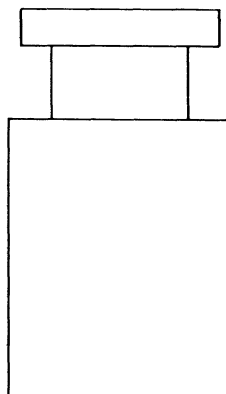


(Viewed from the end)

*Cylindrical*

2. The form of cylindrical weight referred to in paragraph 1(ii) of the said Table shall be such that—

- (a) any horizontal section is circular; and
- (b) any vertical section through the axis is of the form shown in the diagram below, except that—
  - (i) the diameter of the knob may vary provided that it is not less than one and one half times nor more than twice the diameter of the neck; and
  - (ii) the diameter of the body may vary provided that it is not more than twice the diameter of the neck nor less than the diameter of the knob.

*Hexagonal*

3. The form of hexagonal weight referred to in paragraph 1(iii) of the said Table shall be such that—

- (a) any horizontal section is a regular hexagon;
- (b) all the sides are flat;
- (c) the shortest distance across the base is not less than 80 per cent nor more than 120 per cent of the shortest distance across the top; and
- (d) the height is not less than 45 per cent nor more than 55 per cent of the shortest distance across the top or, if the base is smaller in area than the top, across the base.

*Disc*

4. The form of disc weight referred to in paragraph 1(iv) of the said Table shall be a circular disc the thickness of which is not less than one sixth nor more than one third of the diameter.

## SCHEDULE 3

## LIMITS OF ERROR

## 1. Metric weights

- (a) The hexagonal form described in Schedule 2

Purported mass of the weight	Permitted error
2kg	600mg
1kg	400mg
500g	250mg
200g	250mg
100g	250mg

## (b) All other metric weights (other than carat (metric) weights)

Purported mass of the weight	Permitted error
5kg or more	160mg per kg of the purported mass
2kg or 1kg	200mg per kg of the purported mass
500g	100mg
200g	50mg
100g or 50g	30mg
not more than 20g nor less than 10g	20mg
5g or 4g	10mg
3g, 2g or 1g	5mg
not more than 500mg but more than 20mg	2mg
20mg	1mg
10mg	0.5mg
5mg or 2mg	0.2mg
1mg	0.1mg

## (c) Carat (metric) weights

Purported mass of the weight	Permitted error
500 C.M. or 200 C.M.	5mg
100 C.M. or 50 C.M.	2mg
not more than 20 C.M. but more than 0.5 C.M.	1mg
not more than 0.5 C.M. but more than 0.1 C.M.	0.5mg
0.1 C.M. or less	0.2mg

## 2. Imperial weights

## (a) Avoirdupois weights

Purported mass of the weight	Permitted error
56lb	50gr
50lb	40gr
28lb	30gr
20lb or 14lb	20gr
10lb	16gr
7lb, 5lb or 4lb	10gr
2lb	6gr
1lb, 8oz or 4oz	4gr
2oz or 1oz	1gr
less than 1oz	0.5gr

## (b) Grain weights

Purported mass of the weight	Permitted error
more than 10gr	0.05gr
not more than 10gr but more than 0.3gr	0.03gr
0.3gr	0.02gr
0.2gr	0.01gr
0.1gr	0.005gr
0.05gr or 0.03gr	0.003gr
0.02gr	0.002gr
0.01gr	0.001gr



## (c) Troy weights

Purported mass of the weight	Permitted error
500, 400 or 300 oz tr	4gr
200 or 100oz tr	3gr
50 or 40oz tr	2gr
30 or 20oz tr	1gr
10oz tr	0.5gr
5, 4 or 3oz tr	0.3gr
2 or 1oz tr	0.2gr
0.5oz tr, 0.4oz tr or 0.3oz tr	0.1gr
not more than 0.2oz tr but more than 0.03oz tr	0.05gr
0.03oz tr or less	0.03gr

## SCHEDULE 4

## TRANSITIONAL MODIFICATIONS MENTIONED IN REGULATION 2(2)

1. Regulation 5 shall have effect as if the permitted shapes and types of metric weights of any mass included the cylindrical, hexagonal, flat and wire types.

2. Schedule 1 shall have effect as if it included the following further abbreviations:—

kilogramme	...	...	...	...	...	...	...	...	...	kilog
gramme	...	...	...	...	...	...	...	...	...	grm

3. Schedule 3 shall have effect as if table 1(a) thereof (limits of error for hexagonal weights) applied also to hexagonal weights which are not of the form described in Schedule 2, and as if there were added to table 1(a) in relation to such weights the purported masses and permitted errors set out in the following table:—

Purported mass of the weight	Permitted error
20kg	3g
10kg	2g
5kg	1g

4. In the case of apothecaries weights—

(a) Part II of the Regulations shall have no application; and

(b) Schedule 3 shall have effect as if it included the following table:—

Apothecaries weights

Purported mass of the weight	Permitted error
4 or 6 grains or $\frac{1}{2}$ scruple	0.03gr
1, $1\frac{1}{2}$ or 2 scruples or 1 drachm	0.05gr
2 or 4 drachms	0.1gr
1 or 2 ounces apothecaries	0.2gr
4 or 6 ounces apothecaries	0.3gr
8 or 10 ounces apothecaries	0.5gr

SCHEDULE 5

REVOCATIONS

Regulations	Extent of Revocation
The Weights and Measures Regulations 1963 (S.I. 1963/1710: 1963 III, p. 3286).	<p>In Regulation 1, paragraph (1)(d).</p> <p>In Regulation 5(1)(c), the words “a weight or”.</p> <p>The whole of Regulation 5(2).</p> <p>In Regulation 6(2), heads (e), (f) and (g).</p> <p>In Regulation 8(2)(a) and (b), the words “weight or”.</p> <p>The whole of Part V.</p> <p>In Schedule 1, Part III.</p> <p>The whole of Schedule 3.</p>
The Weights and Measures (Amendment) Regulations 1964 (S.I. 1964/76: 1964 I, p. 137).	In Regulation 1, paragraphs (ii) and (iii).

Regulations	Extent of Revocation
<p>The Weights and Measures (Person Weighing Machines) Regulations 1965 (S.I. 1965/123: 1965 I, p. 231).</p>	<p>In Regulation 1, the words “and to all weights associated with such instruments”.</p> <p>In Regulation 2, the words “and weights associated therewith”.</p> <p>In Regulation 3, paragraph (2).</p> <p>In Regulation 8, paragraph (3).</p> <p>In Regulation 9, head (d).</p> <p>In Regulation 10(1), the words “or weight associated with such a machine”.</p> <p>In Regulation 10(3), the words “or of any weight associated with such machine”.</p> <p>In Regulation 11, the words “or weight” and the words “and weights associated with such machines”.</p> <p>In Regulation 12, the words “and every weight associated with such a machine”.</p> <p>In Regulation 14, in heads (a), (b) and (c) and head (ii) of the proviso, the words “or weight associated with such machine”, the whole of heads (d) and (e) and in head (ii) of the proviso, the words “or of the weight, as the case may be”.</p> <p>In Regulation 16, the words “or on any weight associated with such a machine”.</p>
<p>The Weights and Measures (Amendment) Regulations 1968 (S.I. 1968/338: 1968 I, p. 972).</p>	<p>The whole Regulations.</p>
<p>The Weights and Measures (Amendment) Regulations 1969 (S.I. 1969/81: 1969 I, p. 243).</p>	<p>In Regulation 2, the whole of the paragraph included as Regulation 8(5) of the 1963 Regulations and the whole of head (c).</p>

## EXPLANATORY NOTE

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

These Regulations provide for the testing and passing of weights as fit for use for trade and the stamping by inspectors of weights and measures of weights so passed. They prescribe the materials from which weights may be made and the principles of construction which are to be observed in manufacturing weights. They also provide for the obliteration of stamps upon weights which are found to be inaccurate.

The Regulations replace all the existing Regulations relating to these matters. The principal changes are :—

- (i) that provision is made for certain new types of metric weights ;  
and
- (ii) that certain of the detailed requirements of the previous Regulations are not reproduced.

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