CHAPTER 513

THE WEIGHTS AND MEASURES ACT

SUBSIDIARY LEGISLATION

List of Subsidiary Legislation

THE WEIGHTS AND MEASURES (SALE OF BREAD) RULES

[Legal Notice 743 of 1961, Legal Notice 94 of 1970, Legal Notice 21 of 2002]

1. These Rules may be cited as the Weights and Measures (Sale of Bread) Rules.

2. In these Rules, unless the context otherwise requires—

"bread" includes all kinds and types of bread;

"loaf" includes any number of loaves or units of bread joined together.

3. (1) No person shall make for sale, sell, offer for sale, carry for sale, keep on any trade premises or in any bakery for the purpose of sale, any loaf of bread unless—

(a) its net weight is 200 grams, 400 grams, 600 grams, 800 grams, 1 kilogram or 1.5 kilograms; and

(b) it is clearly and conspicuously marked with—

(i) its net weight;

(ii) the name and address of the baker;

(iii) the last date by which the bread may be sold.

(2) The minimum height of any numerals or letters used in marking the net weight shall be seven (7) millimetres.

(3) Any person who, whether as principal or as servant or agent of another acts in contravention of this rule shall be guilty of an offence.

[L.N. 94/1970, L.N. 21/2002.]

4. (1) Every person selling bread, or keeping or conveying bread for sale, or keeping bread on trade premises or in a bakery, whether as principal or as servant or agent of another, shall—

(a) provide and keep in some conspicuous place at the point of sale an accurate weighing instrument of a pattern suitable for weighing bread; and

(b) if so required by the purchaser, or by an inspector, weigh the bread in the presence of the person so requiring; and

(c) permit any inspector to weigh any bread on any trade premises or in any bakery or vehicle.

(2) Any person who fails to comply with the requirements of this Rule shall be guilty of an offence.

(3) For the purposes of this rule, a person shall not be deemed to weigh bread in the presence of the purchaser or an inspector, as the case may be, unless he causes the weighing instrument used for the purpose to be so placed, and so conducts the operation of weighing, as to permit the purchaser or inspector a clear and unobstructed view of the weighing instrument and of the said operation and of all the indications of weight pertaining to such operation.

5. Any person who is guilty of an offence under these Rules shall be liable to a fine not exceeding fifty thousand shillings or, in the case of a second or subsequent offence, to a fine not exceeding one hundred thousand shillings.

[L.N. 21/2002.]

THE WEIGHTS AND MEASURES (UNITS OF MEASUREMENT) ORDER

[Legal Notice 742 of 1961]

1. This Order may be cited as the Weights and Measures (Units of Measurement) Order.

2. For all purposes in Kenya, the following expressions shall have the meanings hereby assigned to them respectively—

"kilogram" means the solid mass unit represented by the international prototype of the kilogram;

"litre" means the volume occupied by the mass of one kilogram of pure water at its maximum density under normal air pressure;

"metre" means the length equal to 1,650,763.73 wave-lengths in vacuum created by radiation corresponding to the transition between the levels $^{2}P_{10}$ and $^{5}D_{5}$ of the krypton atom 86.

THE WEIGHTS AND MEASURES (EQUIVALENTS FOR DEALING WITH DRUGS) RULES

ARRANGEMENT OF RULES

Rule

THE WEIGHTS AND MEASURES (EQUIVALENTS FOR DEALING WITH DRUGS) RULES

[Legal Notice 71 of 1974]

1. Citation and interpretation

(1) These Rules may be cited as the Weights and Measures (Equivalents for Dealing with Drugs) Rules.

(2) In these Rules, unless the context otherwise requires—

"mixture" means any liquid preparation intended for administration by mouth which consists of one or more drugs dissolved or suspended in an appropriate vehicle, but does not include an elixir, emulsion, linctus or syrup;

"table" means one of the tables in the Schedule.

2. Equivalent for weights and volumes

Except as provided in rules 3 and 4, any unit of measurement mentioned in the second column of a table shall be treated for the purpose of any dealing with drugs as the equivalent of the units set opposite thereto in the first column of that Table, and for any fraction of a grain not specifically mentioned in the first column of Table 1 the equivalent for such purpose shall be treated as the corresponding fraction of the equivalent of one grain set out in the second column of that table.

3. Equivalent for doses of liquids

(1) Where a prescription for any drug states that the quantity of each dose is to be either one fluid drachm (fl. dr.) or two fluid drachms, the equivalent of that quantity for the purposes of dispensing the prescription shall be treated as five millilitres or ten millilitres respectively.

(2) Where a prescription for any drug which is a mixture states that the quantity of each dose is to be one-half of one fluid ounce (fl. oz.) the equivalent of that quantity for the purpose of dispensing the prescription shall be treated as ten millilitres.

(3) Where a prescription for any drug which is a mixture other than a mixture formulated for administration to children states that the quantity of each dose is to be two fluid drachms, the equivalent of that quantity for the purpose of dispensing the prescription shall be treated as ten millilitres:

Provided that if the prescription refers to a formulation of the drug with a dose of one-half of a fluid ounce and the drug is prescribed at the normal strength, the equivalent of two fluid drachms for the purpose of dispensing the prescription shall be treated as ten milliliters of the drug at half the single strength.

(4) Where any prescription to which this rule refers specifies quantity of ingredients of any drug in the total quantity to be dispensed, this Rule shall be treated as applying to the quantity of each such ingredient in each dose.

4. Equivalent for total quantity prescribed for external or bulk oral preparation

(1) Where in a prescription for an external preparation or a bulk oral preparation, the total quantity to be supplied is expressed in ounces avoirdupois or apothecaries the metric quantity supplied shall be on the basis that one ounce avoirdupois or apothecary is equivalent to twenty-five grams.

(2) Where in a prescription for an external preparation or a bulk oral preparation, the total quantity to be supplied is expressed in fluid ounces (fl. oz.) the metric quantity supplied shall be on the basis that one fluid ounce is equivalent to twenty-five millilitres.

(3) For the purposes of this Rule, Table 3 or 4 shall be used.

(4) Where any quantity of an external preparation or bulk oral preparation is expressed in terms of one or more of the units mentioned in the first column of Table 3 or 4 is greater than

one pound or one pint, the equivalent for the purpose of any dealing with the prescription shall be treated as the corresponding multiple of the equivalent for one pound or one pint, as the case may be, plus the equivalent of any residue of less than a pound or pint as ascertained from the appropriate tables.

(5) In paragraph (4), "corresponding multiple" in relation to a quantity means the number of times that quantity will divide into units of one pound or one pint as the case may be.

5. Control of sale and supply

(1) Where any manufacturer, wholesale dealer or retail dealer sells or supplies any drug after the commencement of these Rules he shall, if the order or prescription relating to such a dealing is expressed in terms of a unit of measurement specified in the first column of any of the tables or of any such fraction as is mentioned in rule 2 carry out such dealing in terms of the equivalent quantity ascertained in accordance with that rule.

(2) The provisions of rules 3 and 4 shall not apply to imported medicaments that are sold in their original containers as packaged by the manufacturer.

SCHEDULE

TABLE 1 - WEIGHTS

Grains	*Milligrams*
$\frac{1}{600}$	0.1
$\frac{1}{500}$, $\frac{1}{480}$	0.125

Grains	*Milligrams*
$\frac{1}{400}$	0.15
$\frac{1}{320}$, $\frac{1}{300}$	0.2
$\frac{1}{240}$	0.25
$\frac{1}{200}$	0.3
$\frac{1}{160}$, $\frac{1}{150}$	0.4
$\frac{1}{130}$, $\frac{1}{120}$	0.5
$\frac{1}{100}$	0.6
$\frac{1}{80}$, $\frac{1}{75}$	0.8
$\frac{1}{60}$	1
$\frac{1}{50}$	1.25
$\frac{1}{40}$	1.5
$\frac{1}{30}$	2
$\frac{1}{25}$, $\frac{1}{24}$	2.5
$\frac{1}{20}$	3

Grains	*Milligrams*
$\frac{1}{15}$	4
$\frac{1}{12}$	5
$\frac{1}{10}$	6
$\frac{1}{8}$	7.5
$\frac{1}{6}$	10
$\frac{1}{5}$	12.5
$\frac{1}{4}$	15
$\frac{1}{3}$	20
$\frac{2}{5}$	25
$\frac{1}{2}$	30
$\frac{3}{5}$	40
$\frac{3}{4}$	50
1	60
$1\frac{1}{4}$	75
$1\frac{1}{2}$	100
2	125
$2\frac{1}{2}$	150
3	200
$3\frac{1}{2}$ to 4	250
$4\frac{1}{2}$ to 5	300
$5\frac{1}{2}$ to 6	400
$6\frac{1}{2}$ to $7\frac{1}{2}$	450
8	500
9 to 10	600
11 to 13	800
14 to 16	1.0 g
17 to 20	1.2
21 to 25	1.5
26 to 29	1.8
30 to 33	2

Grains	*Milligrams*
34 to 37	2.3
38 to 43	2.5
44 to 51	3
52 to 57	3.5
58 to 65	4
66 to 76	4.5
77 to 84	5
85 to 102	6
103 to 115	7
116 to 135	8
136 to 150	9
151 to 165	10
166 to 180	11
181 to 190	12
191 to 220	13
221 to 250	15
251 to 275	17
276 to 325	20
326 to 350	22
351 to 375	23
376 to 400	25
401 to 425	26
426 to 450	28
451 to 510	30

Entries in the above Table expressed as one figure to another are inclusive of both figures.

TABLE 2 - VOLUMES

Grains	*Milligrams*
1	0.06
1 $\frac{1}{2}$	0.09
2	0.12
2 $\frac{1}{2}$	0.15
3	0.18
3 $\frac{1}{2}$	0.2
4 4 $\frac{1}{2}$	0.25
5 5 $\frac{1}{2}$	0.3
6 7 7 $\frac{1}{2}$	0.4
8 9	0.5
10 11	0.6
12 13	0.7
14 15 16	0.9

Grains	*Milligrams*
17	
18	1
19 to 22	1.2
23 to 27	1.5
28 to 32	1.8
33 to 37	2
38 to 46	2.5
47 to 55	3
56 to 64	3.5
65 to 74	4
75 to 84	4.5
85 to 93	5
94 to 100	6
111 to 130	7
131 to 149	8
150 to 167	9
168 to 185	10
186 to 200	11
201 to 220	12
221 to 250	14
251 to 275	15
276 to 300	17
301 to 330	18
331 to 370	20
371 to 400	22
401 to 450	25
451 to 500	28

Entries in the above Table expressed as one figure to another are inclusive of both figures.

TABLE 3 - WEIGHTS

Ounces avoirdupois or apothecaries	*Grams*
1 oz, or more but less than $1\frac{1}{2}$	25
$1\frac{1}{2}$ " " " " " " 2	50
3 " " " " " " $5\frac{1}{2}$	100
$5\frac{1}{2}$ " " " " " " 9	200
9 " " " " " " $14\frac{1}{2}$	300
$14\frac{1}{2}$ oz, or more but more than 16 oz. or 1b. avoirdupois	500

Entries in the above Table expressed as one figure to another are inclusive of both figures.

TABLE 4 - VOLUMES

Fluid Ounces	*Millilitres*
1 fl. oz, or more but less than 1 $\frac{1}{2}$ fl.oz	25
1 $\frac{1}{2}$ " " " " " " 3	50
3 " " " " " " 5 $\frac{1}{2}$	100
5 $\frac{1}{2}$ " " " " " " 9	200
9 " " " " " " 14$\frac{1}{2}$	300
14$\frac{1}{2}$ fl.oz, or more but more than 20 fl.oz. or 1 print or $\frac{1}{8}$ gallon	500

DEFINITIONS OF MEASUREMENTS

[Legal Notice 201 of 1988, Legal Notice 224 of 1991]

In accordance with sections 6, 7, 8, 9 and 10 of the Weights and Measures Act (Cap. 513), the Cabinet Secretary for Commerce orders that for all purposes in Kenya, the definitions in the second column of the Schedule of the corresponding units of measurements in the first column of the Schedule are meanings appearing to the Cabinet Secretary to reproduce in English the International definitions of the units of measurements at the date of this Order.

SCHEDULE

Units of Measurements	*Definitions*
The Kilogram	Is equal to the mass of the International prototype of the Kilogram.
The Metre	The length of the path travelled by light in vacuum during a time interval of 1/299 792 458 of a second.
The Second	The duration of 9192 631 770 periods of the radiation corresponding of the transition between the two hyperfine levels of the ground state of caesium 133 atom.
The ampere	That constant current which if maintained in two straight parallel conductors of infinite length, of negligible circular cross-section, and placed one metre apart in vacuum, would produce these conductors a force equal to 2 x 10^{-7} Newton per metre of length.
The Kelvin Unit of thermodynamic temperature	Is the fraction 1/273.16 of the

	thermodynamic temperature of the triple point of water.
The Candela	The luminous intensity in a given direction of source that emits monochromatic radiation of frequency 540 x 10^{12} hertz which has a radiant intensity in that direction of 1/683 watts per steradian.
The Mole	1. The amount of substance of a system which contains as many elementary entities as there are atoms in 0.012 kilogram of carbon 12. 2. When the mole is used the elementary entities must be specified, and may be atoms, molecules, ions, electrons, other particles or specified groups of such particles.

THE WEIGHTS AND MEASURES (FEES) RULES

[Legal Notice 494 of 1991]

1. These Rules may be cited as the Weights and Measures (Fees) Rules.

2. The fees specified in the Schedule hereto shall be payable by every person who submits a pattern of weighing or measuring instrument to the Director for approval under section 30 of the Act.

SCHEDULE

[r. 2]

FEES

Type of Instrument		*Fees Payable*
(a)	Measure of length and measures of capacity	1,500
(b)	Liquid measuring instruments	3,000
(c)	Linear measuring instruments	2,000
(d)	Area measuring instruments	2,000
(e)	Non-automatic weighing instruments of capacities not exceeding 250 kg	1,500
(f)	Non-automatic weighing instruments of capacities exceeding 250 kg. but not exceeding 1,000 kg	3,000
(g)	Non-automatic weighing instruments of capacities exceeding 1,000 kg	4,000
(h)	Electronic weighing or measuring instruments	5,000
(i)	Automatic weighing machines of the predetermined load type	4,000
(j)	Belt conveyor weighing machines	10,000

THE WEIGHTS AND MEASURES RULES

ARRANGEMENT OF RULES

PART I – PRELIMINARY

Rule

THE WEIGHTS AND MEASURES RULES

[Legal Notice 229 of 1993, Legal Notice 56 of 1996, Legal Notice 107 of 1999, Legal Notice 30 of 2005, Legal Notice 129 of 2007, Legal Notice 184 of 2010]

PART I – PRELIMINARY

1. Citation and application

(1) These Rules may be cited as the Weights and Measures Rules.

(2) These Rules shall not, so far as they relate to material, apply to weights, measures, weighing or measuring instruments used in the manufacture of explosives.

[L.N. 56/1996, r. 3.]

2. Interpretation

In these Rules, unless the context otherwise requires—

"absolute maximum permissible error" means the value of the maximum permissible error without regard to sign;

"analogue indicator" means an indicator on which the value of the physical quantity measured is indicated by an indicator and a graduated scale one of which is fixed and the position of the other is a continuous function of the magnitude of the physical quantity being determined;

"capacity", in relation to a weighing instrument (other than a belt conveyor weigher or an egg grading machine), means the maximum load, excluding the additive tare capacity, which the instrument is constructed to weigh as marked or indicated on the instrument in accordance with the Act or these Rules;

"composite measure" means a measure of length where one of its principal graduations is an end surface or edge and the other is a line, hole or mark;

"correct", in relation to an instrument, means correct within the maximum permissible error specified for the instrument in these Rules;

"dial" includes a dial carrying a linear fan chart or circular scale;

"digital indicator" means an indicator on which the value of a physical quantity is represented by a series of aligned digits which change abruptly such that no indications can be obtained between digits;

"dispensing measure" means any measure designed and intended for use in pharmaceutical dispensing;

"end measure" means a measure of length whose principal graduations are two end surfaces or edges of the measure;

"graduation" means lines or notches the distance between which determines the scale division on analogue scales; and numbers on digital scales shall be considered as graduations;

"instrument" means weighing or measuring instrument;

"licensee" means a person who possesses a valid licence under these Rules;

"maximum permissible error" means the extreme values of an error as specified in these Rules for weights, measures, weighing and measuring instruments;

"maximum safe load" means the maximum static load which can be carried by the instrument without the instrument altering its metrological qualities;

"minimum capacity", in relation to a weighing instrument, means the value of the load below which the weighing results are subject to excessive relative errors;

"partial totalization indicating device" means the device indicating the weight of the loads conveyed by the belt over a limited period of time;

"principal graduations" means two graduations the distance between which represents the nominal length of a measure of length;

"reading distance" means the shortest distance at which an observer is able to freely approach the indicating device on an instrument in order to take a reading under normal conditions of use; and the approach shall be considered to be free if there is a clear space of at least 0.8m. in front of the indicating device;

"rejected", in relation to a weight, measure or instrument, means examined or verified by an inspector and found not to comply with the requirements of the Act or of these Rules;

"repaired", in relation to a weight, measure or instrument, means that the weight, measure or instrument since it was last stamped has had some adjustment, other than balancing in the case of a weighing instrument, made to it;

"repairer" means a person licensed to engage in the repair or overhauling of weights, measure or instruments;

"rounding error" means the difference between the digital indication or printing and the indication the instrument would give with analogue indication or printing;

"scale division" means the smallest subdivision of the scale in the case of continuous (analogue) indication, or the difference between two consecutive indicated or printed values in the case of discontinuous (digital) indication or printing;

"stamping station" means any place appointed under section 27 of the Act;

"test indicator", in relation to a belt conveyor weigher, means an indicating device with a scale division smaller than that of the totalization indicating device and intended for the testing of the belt weigher;

"to repair", includes making any adjustment to any weight, measure or instrument other than the adjustment of the balance arrangement which is required under these Rules in respect of specified types of weighing instruments;

"totalization indicating device", in relation to a belt conveyor weigher, means a device for indicating the overall total weights of all loads conveyed by the belt.

3. Weights, measures and instruments to be clean

Weights, measures and instruments shall be submitted for testing and tested in a clean condition, and if necessary the inspector may call upon the owner or user to clean them.

4. Denomination

The denomination of a weight or measure or the capacity of an instrument, if not marked in full, shall be indicated only by one of the abbreviations specified in the First Schedule.

5. Examination on premises

Weights, measures and instruments may be examined on the premises of a repairer or dealer:

Provided that the actual traveling expenses of the inspector and the cost of transport of standards shall be paid by the repairer or dealer.

6. Duties of person submitting weights, measures or instruments

The inspector may require any person submitting any weight, measure or instrument for verification—

(a) to take it sufficiently apart to enable him to examine the working parts; and

(b) to provide sufficient labour for the proper and expeditious handling of the standards or any material which is to be used in the testing of any such weight, measure or instrument.

7. Weights, measures and instruments not to be admitted for verification

The inspector shall not admit for verification—

(a) any weight, measure or instrument which—

(i) is not of a pattern approved by the Director, or which is not complete in itself;

(ii) bears any mark which might be mistaken for a stamp of verification or guarantee of accuracy;

(iii) is not sufficiently strong to withstand the ordinary wear and tear of use in trade;

(iv) is not properly constructed, or of which in his opinion, the material or mode of construction appears likely to facilitate the commission of fraud:

Provided that an inspector acting pursuant to this Rule shall forthwith report the matter to the Director for a final decision;

(b) any weighing instrument which has—

(i) a broken scoop, pan or plate; or

(ii) a China plate which is chipped, cracked or porous to such an extent that it has become readily absorbent; or

(iii) counterpoise weights representing a greater or less weight than the marked capacity of the instrument; or

(iv) removable parts, the removal of which would affect the accuracy of the instrument unless the parts are such that the instrument cannot be used without them; or

(v) reversible or interchangeable parts, the reversal or interchange of which would affect the accuracy of the instrument, unless such parts are clearly and indelibly marked to indicate their positions;

(c) double capacity measures;

(d) micrometer scales unless of a pattern approved by the Director;

(e) Swan-neck beam-scales of a capacity less than 100 kg.

8. Name, trade-mark and serial number to be marked

Every weighing or measuring instrument shall have—

(a) the name or trademark of the manufacturer or supplier; and

(b) an identifying serial number legibly and indelibly marked on a conspicuous part of the instrument:

Provided that paragraph (b) shall not apply to instruments stamped prior to the coming into operation of these Rules.

9. Provision for reception of stamp of verification

No measure or instrument shall be verified unless it has a suitable provision for the reception of a stamp of verification:

Provided that this rule shall not apply to—

(a) linear measures;

(b) capacity measures made of glass, enamelled metal, plastic, vulcanite or other similar material;

(c) dry capacity measures made of material other than metal; and

(d) beam-scales, where the delicate construction of the beam might be affected by the insertion of a plug.

10. Testing procedure

(1) Before stamping any weight, measure or instrument, the inspector shall ascertain that it complies with the requirements of the Act and of these Rules.

(2) A new or repaired weight, measure or instrument shall be verified in the manner prescribed for the class to which it belongs.

(3) A stamped weight, measure or instrument presented for re-verification may be dealt with as on inspection but the inspector need not, if he does not consider it necessary, test a glass measure unless the original stamp has been defaced:

Provided that on such re-verification, the limits of error shall be the same as on verification.

11. Testing "*in situ*"

Every instrument which is permanently fixed in the position in which it is to be used, shall be verified and stamped only when completely erected and installed at the place of use.

12. Design of stamp of verification

(1) The inspector shall stamp all weights, measures and instruments which comply with the requirements of the Act and of these Rules with a stamp of the following uniform design—

(2) There shall be incorporated in this design a number to assist in the identification of the inspector who has used the stamp.

[L.N. 30/2005.]

13. Date marks

The following letters shall indicate the months allocated to them and, wherever possible, the letters shall be stamped in addition to the stamp of verification—

A—January	B—February	C—March
D—April	E—May	F—June
G—July	H—August	I—September
J—October	K—November	L—December

14. Year of stamping

Wherever possible the year of stamping shall be indicated by stamping the last two figures of the year; thus the year 1988 shall be shown as 88:

Provided that from 1996 the year of stamping shall be indicated in full.

[L.N. 56/1996, r. 4.]

15. Certificate of verification

A certificate of verification issued in respect of any weight, measure or instrument which cannot be stamped by reason of its delicate construction or of its size, shall be regarded as proof of verification or re-verification of that weight, measure or instrument and shall remain valid for the period specified therein.

16. Obliteration

(1) The stamp of verification on a weight, measure or instrument shall be obliterated only by means of punches or pincers of the following six-pointed star design:

(2) Upon such obliteration, the weight, measure or instrument shall for all the purposes of the Act and of these Rules be deemed to be unstamped.

(3) Where an instrument is stamped or sealed in more than one place, the obliteration of any one stamp or the breaking of any one seal or sealing device shall render the instrument unstamped.

17. Inspector to obliterate stamp on certain weights, measures or instruments

(1) The inspector shall obliterate the stamp on any weight, measure or instrument which does not comply with any relevant requirement of these Rules, or whose error falls outside the limits of error specified in these Rules:

Provided that the inspector shall not obliterate the stamp on any weight, measure or instrument which satisfies the requirements of the rules in force prior to the coming into operation of these Rules, if the error in such weight, measure or instrument falls within the limits of error specified in these Rules.

(2) Where a weight, measure or instrument does not comply fully with the requirements of these Rules, but the nature or degree of the non-compliance is not in the opinion of the inspector such as to require the immediate obliteration of the stamp or breaking of the seal or seals, he shall leave with the trader a notice calling upon him to have the weight, measure or instrument corrected within a stated period not exceeding twenty-eight days, and he shall obliterate the stamp or break the seal or seals if the correction has not been effected within that period.

18. Sealing to prevent use of instrument pending repair

Where any weighing or measuring instrument is found upon inspection or re- verification not to comply with the requirements of these Rules and the degree of non- compliance is, in the inspector's opinion, of a serious nature the inspector may seal the instrument in such a manner as to prevent further use of instrument until it is repaired and re-stamped.

19. Offence, to seal, or to mutilate stamp of verification

Any person who, unless authorized by an inspector—

(a) breaks any seal or sealing device on any instrument;

(b) obliterates or mutilates any stamp of verification; or

(c) seals or re-seals or attempts to seal or re-seal any instrument, shall be guilty of an offence.

PART II – WEIGHTS

20. Material of construction

(1) A weight shall—

(a) if of the flat or wire type be made of gold, platinum or aluminium or of an alloy comprising any combination of these metals or of a metal of density of not less than 7 or more than 9.5 grams per cubic centimetre and of a hardness at least equal to that of cast brass; and

(b) if of any other type, be made of a metal of such a density and hardness as aforesaid.

(2) A rectangular or hexagonal weight shall be admitted for verification only if made of grey cast iron.

(3) No weight of nominal value of less than 100 grams shall be admitted for verification if made of grey cast iron.

21. Prevention of corrosion

Weights made of iron shall be blacked or black leaded or oxidized or protected by galvanization or by any other process approved by the Director.

22. Surface to be free from flaws

The surface area of every weight shall be smooth and free from flaws.

23. Cylindrical weights

(1) Every cylindrical weight of 5 C.M. or more, or of not less than 1 gram nor more than 10 kilograms shall conform to the specifications contained in the Second Schedule cylindrical weights.

(2) Every weight of 0.5 C.M. or more but not exceeding 2 C.M. or less than 1 gram but not less than 10 milligrams shall be of the flat type.

(3) Every weight of 0.2 C.M. or less or of 5 milligrams or less shall be of the wire type.

24. Specifications for rectangular and hexagonal weights

(1) Every rectangular weight shall be of a type known as model 1 or model 2 and shall conform to the specifications appropriate thereto contained in the Third Schedule.

(2) Every hexagonal weight shall conform to the specifications contained in the Fourth Schedule.

25. Adjusting holes

(1) Every weight of 20 grams or more shall have one adjusting hole.

(2) A weight of 10 grams or less shall not have any adjusting hole.

(3) Every adjusting hole shall conform to the specifications (appropriate to the type and purported mass of weight of which it forms part) contained in the Second, Third or Fourth Schedule.

(4) Adjustment to any weight shall be made only on an adjusting hole by the addition or removal of lead or some other material approved by the Director.

(5) Every adjusting hole in cylindrical weights shall be closed by a disc made of brass, steel or any other suitable material or by a screw-threaded plug of drawn brass, capable in each case of easy removal:

Provided that—

(a) the adjusting hole in the case of a rectangular weight of the type known as model 2 shall be closed by a brass or steel plate of the thickness specified in the Third Schedule; and

(b) the adjusting hole, in the case of hexagonal weights shall conform to specifications as contained in the Fourth Schedule.

(6) Every disc or plug shall be effectively sealed by a lead pellet covering but not protruding from the adjusting hole.

(7) New weights of 1 gram or more not conforming to one of the specifications laid down in the Schedules shall not be accepted for verification and stamping.

26. Denomination

(1) Every weight (except where the smallness of its size renders it impracticable) shall be marked with a durable and legible indication of its purported mass on its upper-most surface, either in full or by use of the permissible abbreviations:

Provided that on a weight of not less than 500 grams nor more than 10 kilograms such indications may be marked on one of the sides.

(2) Every such weight shall indicate one of the following denominations, namely 1 g., 2 g., 5 g., 10 g., 20 g., 50 g., 100 g., 200 g., 500 g., 1 kg., 2 kg., 5 kg., 10 kg., 20 kg., or 50 kg.

(3) No weight shall bear any mark other than the mark indicating its purported mass, the name or device of the person responsible for its manufacture and the stamp of an inspector.

(4) Where a weight is marked with the name or trade mark of the person responsible for its manufacture the height of the lettering or of the mark shall not exceed half the height of the figures indicating its purported mass.

27. Testing

A weight shall be tested by comparison with an appropriate working or secondary reference standard weight by the method of substitution, or by direct comparison, on a balance or beam-scale which has been tested in accordance with the relevant provisions of the Weights and Measures (Working Standards and Testing Equipment) Rules:

Provided that any balance or beam-scale used for testing weights shall not have an absolute error greater than one-fifth of the relevant amount specified in column 2 of Table 1 as the maximum permissible error for the weight being tested.

28. Permissible errors on verification, inspection or re-verification

The errors permissible on verification and on inspection or re-verification of weights shall be those specified in Table 1 below—

TABLE 1

Purported Mass	*Maximum Permitted Errors in Millgrams*	
	On Verification	On Inspection
1	2	3

Purported Mass	*Maximum Permitted Errors in Milligrams*	
	On Verification	On Inspection
1	2	3
50 kg.	+ 8,000	± 8,000
20 kg.	+ 3,200	± 3200
10 kg.	+ 1,600	± 1600
5 kg.	+ 800	± 800
2 kg.	+ 400	± 400
1 kg.	+ 200	± 200
500g.	+ 100	± 100
200g.	+ 50	± 50
100 g.	+ 30	± 30
50 g.	+ 30	± 30
20 g.	+ 20	± 20
10 g.	+ 20	± 20
5 g.	+ 10	± 10
2 g.	+ 5	± 5
1 g.	+ 5	± 5
500 mg., 200 mg., 100 g., 50 mg.	+ 2	± 2
20 mg.	+ 1	± 1
10 mg.	+ 0.5	± 0.5
5 mg.	+ 0.2	± 0.2
2 mg.	+ 0.2	± 0.2
1 mg.	+ 0.2	± 0.2
500 C.M.	+ 5	± 5
200 C.M.	+ 5	± 5
100 C.M.	+ 2	± 2
50 C.M.	+ 2	± 2
20 C.M., 10 C.M., 5 C.M., 2 C.M., 1 C.M.	+ 1	± 1
0.5 C.M., 0.25 C.M., 0.2 C.M., 0.1 C.M.	+ 0.5	± 0.5
0.05 C.M., 0.02 C.M., 0.01C.M., 0.005 C.M.	+ 0.2	± 0.2

29. Mode of stamping

The stamp of verification shall be applied (except where the smallness of the weight renders it impracticable) to the lead in the adjusting hole, or plate as the case may be:

Provided that a weight of purported mass of 10 grams or less shall be stamped on the under surface.

PART III – MEASURES OF LENGTH

30. Material of construction of measures of length

(1) Measures of length shall be made of steel, brass, woven tape, hard wood, or such other material as shall be approved by the Director.

(2) Where an end measure or composite measure is made of wood or other material of durability equal to or less than that of wood, the terminal surfaces shall have metal tips which shall be securely fixed to the measure.

(3) The terminal surfaces of end measures and composite measures shall be flat and perpendicular to the longitudinal axis of the measure.

31. Mode of construction

(1) Rigid or semi-rigid measures of length shall be straight and free from flaws.

(2) Tape measures shall be made in such a way that when the tape is stretched out on a flat surface, its edges are straight and parallel.

32. Winding device

(1) Every tape measure of nominal length exceeding 5 meters shall be provided with a winding device.

(2) The winding device shall be such that—

(a) when the tape is withdrawn to any length up to its limit it shall be held at the length withdrawn and shall be capable of being easily re-wound; and

(b) it does not cause any permanent deformation of the tape.

(3) The handle of the winding device shall be suitable for winding the tape on the reel and shall revolve freely without any side play or stiffness, the winding drum of the reel being provided with a friction device suitable for preventing spin of the drum and to reduce the backlash of the tape to a minimum.

(4) A ring, handle or other suitable device shall be fitted at the zero end of the measure and, in the case of steel tape measures, such a ring or other device shall be fastened to the measure by a metal strip of the same width as that of the tape.

33. Marking of denomination tractive, force, and manufacturer's name or trade mark

(1) Every measure of length shall be conspicuously, legibly and durably marked (in the case of tape measures, near the beginning of the measure) with—

(a) its nominal length on each graduated side;

(b) its tractive force, if it is a tape measure of a nominal length exceeding 5 meters; and

(c) the name or trade mark of the manufacturer of the measure:

Provided that in the case of tape measures, the name or trade mark shall be marked on both the winding device of the measure and the measure itself.

(2) The numerals and letters indicating the nominal length of the measure shall be twice the size of the letters indicating the manufacturer's name or trade mark.

(3) Measures of length may be marked with the reference temperature.

[L.N. 56/1996, r. 5.]

34. Graduations

(1) Where a measure of length is graduated, the graduations shall be clear and durable.

(2) Measures may be graduated at—

(a) every millimetre; or

(b) every five millimetres; or

(c) every ten millimetres:

Provided that in the case of measures graduated at every five millimetres or every ten millimetres, at least the first ten centimetres shall be divided in millimetres.

(3) The length of the graduation marks shall be—

(a) one-third of the breadth of the measure for those indicating millimetre divisions;

(b) one-half of the breadth of the measure, for those indicating five millimetre divisions;

(c) two-thirds of the breadth of the measure for those indicating ten millimetre divisions; and

(d) full breadth of the measure for those indicating ten centimetre divisions.

(4) Graduation marks at every centimetre shall be numbered and in the case of tape measures, every ten centimetres after the graduation mark relating to one metre shall be marked with an additional numeral, followed by the symbol “m” indicating a complete metre or metres.

35. Testing

(1) Every measure of length shall be verified by comparison with a standard at the normal ambient temperature.

(2) The measure shall, while being verified, be supported throughout its length on a flat surface.

(3) Where a tape measure is marked with a tractive force is shall be tested when subjected to that force and a change of plus or minus 10 per cent of the tractive force shall not cause a variation in length exceeding the maximum permissible errors.

(4) Where a tape measure is not marked with a tractive force, it shall be tested when subjected to the following tractive force—

(a) Metallic measures ..... 50 Newtons

(b) Non-metallic measures ..... 10 Newtons

(5) Where a measure is marked with a reference temperature, a change of not more than 8° celsius above or below the reference temperature shall not cause a variation in length exceeding the maximum permissible errors.

36. Permissible errors for measures of length

(1) The maximum permissible errors on verification of measures of length shall be 0.6 millimetre plus 0.4 millimetre per metre (rounded up to the next whole metre) of the nominal length.

(2) The maximum permissible errors on re-verification and inspection of measures of length shall be 1.2 millimetres plus 0.8 millimetres per metre (rounded up to the next whole metre) of the nominal length.

37. Mode of stamping

(1) Measures of length shall be stamped near one end or in the case of graduated measures, near the commencement of the scale on each graduated side.

(2) In the case of tape measures, the stamp of verification shall be placed on a metal plug, disc or label permanently secured to the measure.

PART IV – MEASURES OF CAPACITY

38. Material for making liquid measures of capacity

(1) Liquid measures of capacity shall be made of glass, aluminium alloys, tin or tin alloys, copper or copper alloys, brass, nickel alloys, enamelled metal, plated, tinned or galvanized iron or steel, stainless steel or such other material as shall be approved by the Director:

Provided that liquid measures made of brass, bronze or copper shall be well tinned all over the inside.

(2) The glass used in the manufacture of liquid measures of capacity shall be clear, well annealed and free from any cracks, chippings, blisters and other defects.

39. Types and denominations

(1) Metal measures of capacity shall be of the following types and denominations—

(a) cylindrical measures—

(i) dipping type—1 litre, 500ml., 200 ml., 100 ml., 50 ml. and 20 ml.;

(ii) pouring type—2 litres, 1 litre, 500 ml., 200 ml., 100 ml., 50 ml. and 20 ml.;

(b) conical measures—20 litres, 10 litres, 5 litres, 2 litres, 1 litre, 500 ml., 200 ml. and 100 ml.;

(c) liquor measures—100 ml., 60 ml. and 30ml.

(2) Glass measures of capacity shall be of the following types and denominations—

(a) dispensing measures—

(i) conical type—200 ml., 100 ml., 50 ml., 20 ml., 10 ml. and 5 ml.;

(ii) beaker type—500 ml. and 100 ml.;

(b) liquor measures—100 ml., 60 ml. and 30 ml.;

(c) beer measures—500 ml., 300 ml., 200 ml. and 100 ml.

40. Shape and dimensions

(1) The shapes and dimensions of metal measures of capacity (other than liquor measures) shall be—

(a) in the case of dipping and pouring types, as shown in Figures 1 and 2 and Table 1 of the Fifth Schedule;

(b) in the case of conical measures, as shown in Figure 3 and Table 2 of the Sixth Schedule.

(2) Liquor measures shall be of the shape and dimensions shown in Figure 4 of the Seventh Schedule and shall have a wall of thickness of not less than 1.2 mm.

41. Dispensing measures

(1) A dispensing measure shall be—

(a) of cylindrical or conical shape as shown in Figures 5 and 6 respectively of the Eighth Schedule;

(b) constructed such that when empty, it shall not topple when placed on a plane inclined at an angle of 15° from the horizontal;

(c) provided with a pouring lip.

(2) The volume above the highest graduation line on dispensing measures shall be—

(a) in the case of cylindrical measures, not less than twenty-five per cent of the marked capacity of the measure; and

(b) in the case of conical measures not less than fifty per cent or more than seventy-five per cent of the marked capacity of the measure.

(3) The external surface of conical dispensing measures shall be an inverted cone having an included angle as follows—

(a) for measures of 5, 10 and 20 millilitres, not less than 8° or more than 14°;

(b) for measures of more than 20 millilitres, not less than 13° or more than 14°.

42. False bottoms prohibited

No liquid measure of capacity shall be permitted if—

(a) it has a false bottom; or

(b) it does not completely empty when tilted to an angle of 120° from the vertical.

43. Mode of defining capacity

(1) The capacity of a glass liquid measure shall be defined by its internal volume limited either—

(a) by the brim of the measure; or

(b) by a line of at least 50 mm. in length and at a distance of not less than 10 mm. nor more than 40 mm. from the brim of the measure:

Provided that in the case of measures of 100 ml. or less or measures used for the sale of beer or other frothy drinks, the line defining the capacity shall go right round the measure:

Provided also that the distance from the brim of the measure to the line defining the capacity shall not be less than—

(i) 5 mm., in the case of measures of 50 ml. or less; and

(ii) 20 mm., in the case of measures used for the sale of beer or other frothy drinks.

(2) The capacity of a metal liquid measure shall be defined by its internal volume limited either—

(a) by the brim of the measure; or

(b) by an indelible line marked on the inside of the measure so that the distance of the bottom of the line from the brim does not exceed 10 mm. on measures of one litre and under, or 20 mm. on measures of higher capacity:

Provided that in the case of a metal measure fitted with a lip or retaining edge the capacity shall be defined by the bottom of the lip or retaining edge.

[L.N. 56/1996, r. 6.]

44. Metal measures not to be subdivided

Metal measures of capacity shall not be subdivided.

45. Subdivided glass measures

(1) The graduations on glass liquid measures shall be marked in sharply incised lines and shall be of uniform thickness and in the case of dispensing measures the thickness of the graduation lines shall not exceed 0.3 mm.

(2) For subdivided glass liquid measures of 5 litres or less other than dispensing measures, the subdivisions shall be defined by lines of at least 25 mm. in length.

(3) In the case of dispensing measures, the lines defining the subdivisions shall be—

(a) on the right hand side of, and at right angles to, a vertical line extending above the top graduation line and below the bottom graduation line;

(b) not less than 2 mm. apart; and

(c) of the following minimum lengths—

Graduation Line Relating to	*Minimum Length of Line*
5 millilitres	7.5 mm.
10 millilitres	10.0 mm.
20 millilitres	12.5 mm.
50 millilitres	15.0 mm.
100 millilitres	17.5 mm.
200, 500 and 1,000 millilitres	20.0 mm.

(4) Numbered subdivisions shall have longer lines than the unnumbered subdivisions.

(5) Each numeral of the numbered subdivisions shall be engraved or etched at the end of the line to which it relates and shall be in such a position that it would be bisected by a prolongation of that line.

[L.N. 56/1996, r. 7.]

46. Temperature compensators

(1) Where a liquid measure of capacity is provided with a temperature compensator, a graduated scale shall be fitted indicating "plus" and "minus" on either side of zero.

(2) A suitable thermometer and hydrometer shall be always available to enable the operator to adjust the compensator when necessary.

47. Denomination

(1) Every liquid measure of capacity shall have its denomination and the manufacturer's name, or trade mark, permanently and legibly marked on the outside of the handle or bottom rim or edge.

(2) The size of the numerals and letters indicating the denomination shall be twice the size of the letters indicating the manufacturer's name or trade mark.

(3) On a glass liquid measure in which the capacity is defined by a line, the denomination shall be plainly marked at the line.

48. Testing

(1) Every liquid measure of capacity shall be tested at the normal ambient temperature by filling the appropriate secondary reference standard or working standard with water and emptying the contents into the measure under test.

(2) Where the capacity is defined by a line, the measure shall be tested to the bottom of the line and, in the case of measures made of glass the level of the water shall be taken at the bottom of the meniscus.

(3) A liquid measure provided with a lip or retaining edge shall be tested to the bottom of the lip or retaining edge.

49. Permissible errors for liquid measures of capacity

(1) The maximum permissible errors on the verification of liquid measures of capacity, other than dispensing measures shall be as follows—

Purported Value	*Error in Excess Only*
20 litres.	100 ml.
10 litres.	75 ml.
5 litres.	50 ml.
2 litres.	25 ml.
1 litre.	15 ml.
500 ml.	10 ml.
300 ml.	5 ml.
200 ml.	5 ml.
100 ml.	2.5 ml.
60 ml.	2.0 ml.
50 ml.	2.0 ml.
30 ml.	1.5 ml.
20 ml.	1.0 ml.
10 ml.	0.5 ml.
5 ml.	0.25 ml.
2 ml.	0.1 ml.
1 ml.	0.05 ml.

(2) In the case of subdivided measures, the error at any graduation shall not exceed that specified for a measure of equivalent purported value.

(3) The maximum permissible errors on the verification of dispensing measures shall be as follows—

Appropriate Internal Diameter of Measure in Millimetres at the Graduation Tested	*Error in Excess or in Deficiency*
100 mm.	1.0 millilitre
90 mm.	1.0 millilitre
80 mm.	0.8 millilitre
70 mm.	0.8 millilitre
60 mm.	0.6 millilitre
50 mm.	0.6 millilitre
40 mm.	0.4 millilitre
30 mm.	0.3 millilitre
20 mm.	0.15 millilitre
10 mm.	0.05 millilitre

(4) In the case of graduated measures of glass in the form of burettes, one-half the above amount of error shall be allowed.

(5) The maximum permissible errors on re-verification or inspection of liquid measures of capacity, other than glass measures, shall be twice the errors on verification in excess or half in deficiency.

50. Stamping

The stamp of verification shall be placed—

(a) in the case of measures made of glass or enamelled metal, near the denomination;

(b) in the case of metal measures (other than enamelled metal measures) which are provided with a lip or retaining edge, on the bottom of the inside of the lip or retaining edge;

(c) in the case of metal measures which are not provided with a lip or retaining edge, near the denomination;

(d) in the case of measures other than those specified in the preceding paragraphs of this Rule, on a plug or stud of soft metal provided for such use.

PART V – DRY MEASURES OF CAPACITY

51. Material for construction of dry measures of capacity

Dry measures of capacity shall be made of sheet iron or steel (with or without nickel plating), brass, bronze, copper, nickel, aluminium alloys, tin plate, galvanized iron or such other material as shall be approved by the Director.

52. Mode of construction

(1) Dry measures of capacity shall be of cylindrical shape and the mean internal diameter shall not differ from the mean internal depth by more than five per cent.

(2) Dry capacity measures shall be provided with strengthening bands of suitable material placed around the rim thereof, and the denomination shall be marked on such band.

(3) Dry capacity measures of 5 litres and above shall be provided with two straps of suitable material extending from the rim and crossing the bottom approximately at right angles, such strap being securely riveted to the body of the measure at not less than five points and one of the points being at the bottom crossing:

Provided that the provisions of this rule shall not apply to measures made of sheet iron of gauge 14 or other similarly strong material.

(4) Dry measures of capacity made of galvanized iron shall be of double folded seams.

(5) Dry measures of capacity shall be entirely free from corrugations.

[L.N. 56/1996, r. 8.]

53. Testing

Dry measures of capacity shall be tested either—

(a) by transferring water at ambient temperature from an appropriate working standard to the measure under test; or

(b) by measuring the internal diameter and height of the measure under test and then calculating its volume from the dimensions so obtained.

54. Permissible errors for dry measures of capacity

(1) The maximum permissible errors on verification of dry measures of capacity shall be as follows—

Denomination	*Error in Excess Only*
20 litres	200 ml.
10 litres	100 ml.
5 litres	50 ml.
2 litres	20 ml.
1 litre	10 ml.
500 millilitres	7.5 ml.
200 millilitres	5 ml.
100 millilitres	3 ml.

(2) The maximum permissible errors on re-verification or inspection shall be twice the errors on verification in excess or half in deficiency.

55. Stamping

(1) Dry measures of capacity of 2 litres and under shall be stamped on a soft metal plug passing completely through the body of the measure and the strengthening band placed round the rim.

(2) Dry measures of capacity of 5 litres and over shall be stamped on both sides of two soft metal plugs passing completely through the body of the measure, the strengthening band placed round the rim and the opposite ends of any one strengthening strap.

PART VI – WEIGHING INSTRUMENTS (GENERAL)

56. Capacity marking, material and mode of construction

(1) Every weighing instrument shall—

(a) be clearly and indelibly marked with its capacity; and

(b) have all beams, steelyards, levers, links, legs and stays constructed entirely of metal or other material approved by the Director.

(2) All contact parts of knife-edges, bearings, friction plates, racks, pinions and links shall have a hardness of at least 58 Rockwell C.

(3) All knife-edges shall bear substantially upon the whole of their working length and shall be so fitted that they cannot twist or otherwise get out of alignment and so as to allow the beam or steelyard to move easily.

57. Graduations

(1) All graduations shall consist of notches or lines of uniform thickness and the thickness of the lines shall be between one-tenth and one-fourth of the width of the smallest scale division but not less than 0.2 millimetre.

(2) The graduation lines or notches shall be situated on one side of a real or imaginary line concentric with, or parallel to, the base of the scale and passing through the edges of most of the lines or notches.

(3) The length of the shortest graduation line shall not be less than the width of the smallest scale division.

(4) Numbered graduations shall have longer lines than the minor graduations.

58. Width of scale, division

(1) Subject to rules 92(1), 100(2), 118(5) and 141(1)—

(a) the minimum width of the smallest scale division shall not be less than—

(i) 1.25 mm. in the case of an instrument whose capacity does not exceed 15. kg.:

Provided that in the case of an instrument on which the scale is optically projected, the apparent width of the division shall not be less than 2 mm.

(ii) 1.75 mm. in the case of an instrument whose capacity exceeds 15 kg. but does not exceed 50 kg.; and

(iii) 2.5 mm. in the case of an instrument whose capacity exceeds 50 kg;

(b) the width of the greatest division on any scale shall not exceed 1.2 times the width of the smallest division.

(2) The difference between the actual and the theoretical width of a scale division, as determined by dividing the length of the scale base line by the number of divisions on the scale, shall not exceed 10 per cent of the theoretical value:

Provided that on fan-shaped dials, the width of the scale division may be variable such that the mean width of the five largest consecutive divisions shall not be larger than the mean width of the five smallest consecutive division by more than 20 per cent.

59. Weight value of scale division

(1) On any weight-indicating or printing device the weight value of the smallest scaledivision shall be in the form of $1x10^n$, $2x10^n$ or $5x10^n$ kilograms, grams or milligrams (the index “n” being a positive or negative whole number or zero).

(2) The maximum weight value of the smallest scale division shall, subject to rules 130(3) and 141(2), not exceed—

(a) in the case of semi-self-indicating beam-scales, the values specified in column 2 of Table 2 below—

TABLE 2 - SEMI-SELF-INDICATING BEAM-SCALES

1	2
Capacity of instruments	*Maximum Value of a Scale Division*
Class "A" -Beam scales	
100g. and under	10 mg.
more than 100g. but not exceeding 500g.	20 mg.
Exceeding 500 g. but not exceeding 2 kg.	50 mg.
Exceeding 2 kg. but not exceeding 10 kg.	100 mg.
Exceeding 10 kg. but not exceeding 20 kg.	200 mg.
Class "B" -Beam scales	
2 g.	5 mg.
5 g. but not exceeding 10 g.	10 mg.
Exceeding 10 g. but not exceeding 50 g.	20 mg.

Exceeding 50 g. but not exceeding 100 g.	50 mg.
Exceeding 100 g. but not exceeding 200 g.	100 mg.
Exceeding 200 g. but not exceeding 1 kg.	200 mg.
Exceeding 1 kg. but not exceeding 3 kg.	500 mg.
Exceeding 3 kg. but not exceeding 5 kg.	1 g.
Exceeding 5 kg. but not exceeding 20 kg.	2 g.
Class "B" -Beam scales	
30 g. and under	50 mg.
Exceeding 30 g. but not exceeding 100 g.	100 mg.
Exceeding 100 g. but not exceeding 200 g.	200 mg.
Exceeding 200 g. but not exceeding 500 g.	500 mg.
Exceeding 500 g. but not exceeding 2 kg.	1 g.
Exceeding 2 kg. but not exceeding 5 kg.	2 g.
Exceeding 5 kg. but not exceeding 20 kg.	5 g.
20 kg.	10 g.

(b) in the case of spring balances, the values specified in column 2 of Table 3 below—

TABLE 3 – SPRING BALANCES

1 *Capacity of Instrument*	2 *Maximum Value of a Scale Division*
2 kg. and under	5 g.
Exceeding 2 kg. but not exceeding 5 kg.	10 g.
Exceeding 5 kg. but not exceeding 15 kg.	20 g.
Exceeding 15 kg. but not exceeding 25 kg.	50 g.
Exceeding 25 kg. but not exceeding 30 kg.	100 g.
Exceeding 30 kg. but not exceeding 50 kg.	200 g.
Exceeding 50 kg. but not exceeding 150 kg.	500 g.

Exceeding 150 kg. but not exceeding 300 kg.	1 kg.
Exceeding 300 kg.	2 kg.

(c) in the case of self or semi-self indicating counter machines, the values specified in column 2 of Table 4 below—

TABLE 4 – SELF OR SEMI-SELF-INDICATING COUNTER MACHINES

1 *Capacity of Instrument*	2 *Maximum Valueof a Scale Division*
500 g. and under	5 g.
Exceeding 500 g. but not exceeding 5 kg.	10 g.
Exceeding 5 kg. but not exceeding 15 kg.	20 g.
Exceeding 15 kg. but not exceeding 30 kg.	50 g.
50 kg.	100 g.

(d) in the case of self-indicating platform machines, the values specified in column 2 of Table 5 below—

TABLE 5 – SELF-INDICATING PLATFORM MACHINES

1 *Capacity of Instrument*	2 *Maximum Valueof a Scale Division*
15 kg. and under	20 g.
Exceeding 15 kg. but not exceeding 30 kg.	50 g.
Exceeding 30 kg. but not exceeding 100 kg.	100 g.
Exceeding 100 kg. but not exceeding 200 kg.	200 g.
Exceeding 200 kg. but not exceeding 500 kg.	500 g.
Exceeding 500 kg. but not exceeding 1,500 kg.	1 kg.
Exceeding 1,500 kg. but not exceeding 2,000 kg.	2 kg.
Exceeding 2,000 kg.	5 kg.

(e) in the case of self-indicating weigh-bridges, the values specified in column 2 of Table 6 below:

TABLE 6 – SELF-INDICATING WEIGHBRIDGES AND CRANE WEIGHING MACHINES

1 *Capacity of Instrument*	**2** *Maximum Value of a Scale Division*
2 tonne and under	2kg
Exceeding 2 tonne but not exceeding 10 tonne ..	5kg 10kg
Exceeding 10 tonne but not exceeding 25 tonne ..	20kg 50kg
Exceeding 25 tonne but not exceeding 75 tonne.. .	
Exceeding 75 tonne.....	

Provided that the values of the capacity in column 1 of each of the Tables shall be taken as referring to the capacity on the chart and not the capacity of instrument—

Provided also that the values in Tables 3, 4, 5 and 6 may be increased—

(i) in the case of instruments to be used for the determination of freight charges or for weighing live animals, to twice those listed;

(ii) in the case of instruments which are to be used only for specified purposes, as determined by the Director.

(3) The weight value of each increment of a digital indicating or printing device shall be in conformity with the requirements of Tables 2, 3, 4, 5 and 6 in respect of the chart graduations and if the instrument is fitted with a chart in addition to the digital indicating or printing device, the weight value of each increment of the indicating or printing device shall not be greater than the value of a scale division of the chart.

(4) Weighing instruments fitted with a centre zero shall have—

(a) at least one graduation line on each side of zero graduation line, the weight value of which shall be marked on the chart; and

(b) the zones on either side of zero distinguished by a "+" (plus) or a "–" (minus) sign.

[L.N. 56/1996, r. 9.]

60. Numbering of graduations

On one and the same dial, numbering of the graduations shall be in the form $1x10^n$, $2x10^n$ or $5x10^n$ tonne, kilograms or grams (the index "n" being a positive or negative whole number, or zero).

61. Height of digits

(1) The height (expressed in millimetres) of the digits comprising the weight and price indications on a dial shall be—

(a) proportional to the length of the lines to which they relate; and

(b) equal to, or more than, three times the reading distance (expressed in metres) without being less than 2 mm:

Provided that where a weighing instrument is fitted with a digital indicator, the height of the digits shall be—

(i) in the case of counter-machines or bench platform machines, not less than 5 mm; and

(ii) in the case of platform machines and weigh-bridges, not less than 10 mm.

(2) The size of any digit measured parallel to the base of the scale shall be less than the distance between two consecutive numbered graduation lines:

Provided that in the case of digital indicating devices the size of the digits shall be at least equal to 5 mm.

(3) Where an analogue scale is viewed through an aperture, the width of the aperture shall be such as to allow the digits of at least two numbered graduation lines to be visible at all times.

(4) In the case of an indicating device with the scale projected on a screen, at least two numbered graduation lines shall be wholly visible in the projected zone.

(5) In the case of a multi-range self-indicating instrument, changing of the range shall cause the appropriate digits of the numbers indicating weight values of major graduation lines to automatically change to values appropriate to the new range.

62. Weighing instruments with ticket printing mechanisms

(1) Where a weighing instrument is fitted with a ticket-printing mechanism, any letters, symbols and digits indicating the weight (including the word "Net" or similar word), the unit price and the total price shall be clear and legible and shall not be less than 3 mm. in height.

(2) Where the printing mechanism prints the total price on the ticket, the unit price shall also be printed and the words "total price" and "price per kg." shall appear in appropriate positions on the ticket in letters not less than 2 mm. in height.

63. Analogue instruments to have indicators

(1) All weighing instruments, other than those with digital indication shall be provided with an indicator for indicating the weighing result or the equilibrium position.

(2) Where the equilibrium position is indicated by means of two indicators, they shall have the same thickness and their distance apart shall not be greater than that thickness:

Provided that if the thickness of the indicators is less than 1 mm., the distance apart shall be 1 mm.

64. Indicator construction

(1) The indicator of any weighing instrument shall—

(a) have its extremity equal to the width of the narrowest graduation line or 1 mm., whichever is the less;

(b) be constructed—

(i) in the case of an instrument in which the graduation lines point radially inwards, so as to reach but not to obscure any part of any one of the shortest graduation lines;

(ii) in the case of an instrument in which the graduation lines point radially outwards, so as not to extend beyond the midpoint of the shortest graduation line.

(2) Subparagraph 1(b) shall not apply to—

(a) an indicator consisting of a fine wire or thread stretched over the graduation lines, including a hair line on a ground glass screen;

(b) any weighing instrument in which the indicator is in the same plane as the graduation lines and is not more than 1 mm. from any graduation line.

(3) The maximum distance between the plane of the graduated surface of the dial or chart and the indicator shall be equal to the width of the smallest scale division or 2 mm. whichever is the less.

65. Provisions relating to revolutionary dials or indicators

Weighing instruments in which the moving indicator makes a complete revolution on the dial or in which the dial makes a complete revolution relative to a fixed indicator shall have a blank space between the zero and the maximum graduation line and the moving element shall be permitted to move a distance equivalent to at least four scale divisions into the blank zone and shall encounter a stop at least four scale divisions before the end of the blank zone.

66. Sliding poise

(1) Every sliding poise on any weighing instrument shall—

(a) have the reading edge or indicator clearly defined and paralled to the graduation lines;

(b) be of such form that all indications of weight may be easily and definitely read;

(c) have a lead-filled under-cut hole or other approved means of adjustment by which the lead is secured firmly in place and is totally enclosed;

(d) if associated with a notched steelyard or bar, be such that the poise is positively fixed when it is located in any notch; and when provided with a nib,

have the steelyard or bar provided with a notch protection bar for preventing wear of the notches and the nib of the poise.

(2) Steelyards or bars shall not be graduated on both faces if fitted with more than one sliding poise.

(3) Where a steelyard or bar is made of ferrous metal, the guide or carrier shall be made of non-magnetic material.

67. Damping devices

(1) A damping device, if fitted, shall cause the indicator to stabilize after not more than three swings.

(2) A hydraulic damping device sensitive to temperature changes shall have an automatic regulating device or an easily accessible manual regulating device.

(3) Over-flow of liquid from damping devices on portable instruments shall not occur when the instrument is tilted at 45 degrees from the horizontal.

68. Locking devices

(1) Where a weighing instrument is provided with a locking device, the device shall have only two stable positions corresponding to “lock” or “weigh” and the weighing shall only be possible in the “weigh” position.

(2) The “weigh” and “lock” positions shall be clearly marked on the instrument.

69. Weighing instruments for use in special transactions

(1) Weighing instruments used in any of the following transactions, that is to say—

(a) gold, silver or other precious metals;

(b) precious stones;

(c) jewellery;

(d) drugs or other pharmaceutical products when dispensed or sold by retail,

shall be either, Class “A” or Class “B” beam-scales or other instruments which satisfy the requirements of Class “B” beam-scales.

(2) Weighing instruments used in retail transaction in—

(a) tea;

(b) coffee;

(c) cocoa;

(d) tobacco,

shall be either Class “A”, Class “B” or Class “C” beam-scale or other instruments which satisfy the requirements of Class “C” beam-scales.

70. Pre-requisites to testing

(1) Movable instruments provided with a base shall be tested on a level plane; and instruments which are suspended in use shall be suspended when tested.

(2) A weighing instrument shall be tested as far as is practicable to its maximum load.

(3) The relative error of the standard weights used in testing weighing instruments shall not be greater than $^1/_3$ of the relative maximum permissible error for the load applied on the instrument being tested.

(4) The load receptor on every weighing instrument shall be such as to allow standard weights or other masses representing the test load to be placed thereon under the conditions specified in these Rules.

71. Maximum safe load test

(1) Where a weighing instrument is marked with a maximum safe load which is greater than its maximum capacity it shall first be loaded in the normal manner of use to its maximum safe load before being tested.

(2) In the case of an instrument with a directly suspended load, the test load shall be so suspended during testing.

(3) In the case of instruments with a load receptor freely suspended at one or two points, the test load shall be distributed on the load receptor.

72. Equilibrium and repeatability tests

(1) Every weighing instrument shall retain its equilibrium and give constant weight indications on the repeated application of any given load; and its indicating device shall return to zero when the load is removed.

(2) A weighing instrument whose action is dependent on the extension or compression of a spring, or on any other form of elastic deformation of any component, shall be correct under such conditions of temperature or other atmospheric variations as may reasonably be anticipated in normal use.

(3) Equilibrium in an instrument shall be indicated—

(a) in the case of a vibrating instrument, by the beam, steelyard or other indicating device or devices, returning to the position of equilibrium when disturbed therefrom;

(b) in the case of an accelerating instrument, by the beam, steelyard or other indicating device, just leaving its position of equilibrium and gently moving to its stop;

(c) in the case of a self or semi-self indicating instrument, or on an instrument provided with a "difference" chart, by the indicating device coming to rest at the position of equilibrium or zero graduation, the instrument being on a level plane; and

(d) in the case of a digital indicating instrument, by the figure "O" being indicated on the display panel or screen.

(4) Any error at zero load on a self or semi-self-indicating instrument shall not exceed $^1/_4$ scale division and any zero-setting device, whether manual or automatic, shall be such as to permit the attainment of this accuracy.

73. Test for error

(1) Weighing instruments of the vibrating type shall be tested for error by ascertaining the weight in excess or deficiency required to bring the beam or steelyard of the instrument to a horizontal position when fully loaded.

(2) Weighing instruments of the accelerating type shall be tested for error by ascertaining the weight required, when the instrument is fully loaded, to keep the beam or steelyard in a horizontal position on its stop or carrier.

74. Tests for sensitivity, instability and discrimination

(1) Unless otherwise provided in these Rules, non-self indicating vibrating weighing instruments shall be tested for sensitivity at full load or as near thereto as possible.

(2) In a vibrating instrument, the addition to, or subtraction from, the load of a relevant amount of material specified for sensitivity of the instrument in these Rules shall—

(a) in the case of a beam-scale or balance, cause an appreciable movement of the beam; and

(b) in the case of a counter machine or a simple steelyard, or an instrument fitted with a steelyard, cause the beam or steelyard to move from rest in a horizontal position to the limit of its movement.

(3) An accelerating instrument shall not be tested for sensitivity but shall be tested for instability by ascertaining the weight required to bring back the beam or steelyard from its position of greatest displacement to the horizontal position, the instrument being fully loaded and truly balanced.

(4) Self and semi-self indicating instruments shall be tested for discrimination as follows —

(a) in the case of an instrument fitted with an analogue indicator, a mass equal to the maximum permissible error for the instrument, when placed gently on the instrument at equilibrium, (loaded or unloaded) shall cause a displacement of the indicator corresponding to not less than 70 per cent of that mass; and

(b) in the case of an instrument fitted with a digital indicator, the depositing, without shock, of a load not exceeding 1.4 scale divisions on the instrument in equilibrium (loaded or unloaded), shall increase the initial indication by one scale division.

75. Instruments with price computing or printing mechanism

Where a weighing instrument is fitted with—

(a) a price computing mechanism, the mechanism shall indicate price correctly;

(b) a printing mechanism, printing shall not be possible—

(i) above the maximum capacity of the instrument plus nine scale divisions; and

(ii) when the instrument is not in equilibrium.

76. Instruments fitted with multiple indicators and printers

Where a weighing instrument is fitted with several indicating or printing devices, the maximum permissible errors specified in these Rules shall be subject to the following conditions—

(a) the results provided by each of the indicating or printing device shall not exceed the maximum permissible errors; and

(b) the difference between the indications or printed results provided by the several indicating devices, taken two by two, shall not exceed—

(i) one digital scale division, when the results are supplied by two digital indicating devices; or

(ii) the absolute maximum permissible error when the results are supplied by two analogue indicating devices; or

(iii) the greater of the two values i.e. the absolute maximum permissible error and one scale division, when the results are provided by both analogue indicating device and digital indicating device.

PART VII – BEAM-SCALES

77. Definition and classification

(1) The term “Beam Scale” means any equal armed weighing instrument with the pans below the beam.

(2) Beam-scales shall be divided into three classes—

(a) Class “A” beam-scales must satisfy the requirements of Table 7 below; and include chemical and assay balance and other beam-scales which are provided with glass cases or screens and means for relieving all the knife edges and bearings:

TABLE 7 - CLASS "A" BEAM-SCALES

Capacity of Instrument	*Sensitivity when Fully Loaded*		*Maximum Error Allowed either in Excess or Deficiency when Fully Loaded*	
1	2	3	4	5
	On Verification	On Inspection or Re-verification	On Verification	On Inspection or Re-verification

2 g.	0.02 mg.	0.04 mg.	0.04 mg.	0.08 mg.
5 g.	0.05 mg.	0.1 mg.	0.1 mg.	0.2 mg.
10 g.	0.1 mg.	0.2 mg.	0.2 mg.	0.4 mg.
20 g.	0.2 mg.	0.4 mg.	0.4 mg.	0.8 mg.
30 g.	0.2 mg.	0.4 mg.	0.4 mg.	0.8 mg.
50 g.	0.5 mg.	1 mg.	1 mg.	2 mg.
100 g.	1 mg.	2 mg.	2 mg.	4 mg.
200 g.	2 mg.	4 mg.	4 mg.	8 mg.
500 g.	5 mg.	10 mg.	10 mg.	20 mg.
1 kg.	10 mg.	20 mg.	20 mg.	40 mg.
2 kg.	20 mg.	40 mg.	40 mg.	80 mg.
5 kg.	30 mg.	60 mg.	60 mg.	120 mg.
10 kg.	50 mg.	100 mg.	100 mg.	200 mg.
20 kg.	100 mg .	200 mg.	200 mg.	400 mg.
25 kg.	100 mg.	200 mg.	200 mg.	400 mg.
50 kg.	200 mg.	400 mg.	400 mg.	800 mg.

(b) Class “B” includes only beam-scales other than Class “A” beam-scales which satisfy the requirements of Table 8 below—

TABLE 8- CLASS "B" BEAM-SCALES

Capacity of Instrument 1	*Sensitivity when Fully Loaded*		*Maximum Error Allowed either in Excess or Deficiency when Fully Loaded*	
	2 On Verification	3 On Inspection or Re-verification	4 On Verification	5 On Inspection or Re-verification
2 g.	1 mg.	2 mg.	2 mg.	4 mg.
5 g.	2 mg.	4 mg.	4 mg.	8 mg.
10 g.	3 mg.	6 mg.	6 mg.	12 mg.
20 g.	5 mg.	10 mg.	20 mg.	40 mg.
30 g.	5 mg.	10 mg.	20 mg.	40 mg.
50 g .	10 mg.	20 mg.	40 mg.	80 mg.
100 g.	20 mg.	40 mg.	40 mg.	80 mg.
200 g.	30 mg.	60 mg.	60 mg.	120 mg.
500 g	50 mg.	100 mg.	100 mg.	200 mg.
1 kg.	100 mg.	200 mg.	200 mg.	400 mg.
2 kg.	200 mg.	400 mg.	400 mg.	800 mg.
5 kg.	300 mg.	600 mg.	600 mg.	1.2 g.
10 kg.	500 mg.	1 g.	1 g.	2 g.
20 kg.	1 g .	2 g.	2 g.	4 g.
25 kg.	1 g.	2 g.	2 g.	4 g.
50 kg.	2 g.	4 g.	4 g.	8 g.
100 kg.	5 g.	10 g.	10 g.	20 g.
200 kg.	10 g.	20 g.	20 g.	40 g.

(c) Class “C” includes all other beam-scales which satisfy the requirements of Table 9 below—

TABLE 9 - CLASS "C" BEAM-SCALES

Capacity of Instrument 1	Sensitivity when Fully Loaded		Maximum Error Allowed either in Excess or Deficiency when Fully Loaded	
	2	3	4	5

	On Verification	On Inspection or Re-verification	On Verification	On Inspection or Re-verification
100 g.	100 mg.	200 mg.	200 mg.	400 mg.
200 mg.	200 mg.	400 mg.	400 mg.	800 mg.
500 g.	500 mg.	1 g.	1 g.	2 g.
1 kg.	1 g.	2 g.	2 g.	4 g.
2 kg.	2 g.	4 g.	4 g.	12 g.
5 kg .	3 g .	6 g .	10 g .	20 g.
10 kg.	5 g.	10 g.	10 g.	20 g.
20 kg.	10 g.	20 g.	20 g.	40 g.
25 kg	10 g	20 g	20 g	40 g.
50 kg.	15 g.	30 g.	30 g.	60 g.
100 kg.	25 g.	50 g.	50 g.	100 g.
200 kg.	50 g.	100 g.	100 g.	200 g.
500 kg.	100 g.	200 g.	200 g.	400 g.
1000 kg.	150 g.	300 g.	300 g.	600 g.

(3) All beam-scales other than Class “A” beam-scales shall be indelibly marked either with the inscription Class “B” or with the inscription Class “C”.

78. Balancing arrangements

(1) Any attachment for adjusting the equilibrium of a beam-scale shall be permanently fastened to the instrument, and where a balance box or a balance ball is fitted, it shall be so fitted that it cannot be easily tampered with.

(2) Screw nuts for adjusting purposes shall be admitted only where the instrument concerned is fitted with a glass case, and the screw nuts shall not be wholly removable from the beam.

(3) No beam scale with loaded pans shall be admitted.

(4) Beam-scales shall have a tongue or pointer at the centre of, and at right angles to, the beam, or some equivalent arrangement for indicating the position of equilibrium.

79. Sensitivity tests

(1) The sensitivity figure for beam-scales, other than Class “B” and “C”, shall be determined at zero and full load and shall be as specified in Table 7 of rule 77.

(2) To determine the sensitivity figure for Class “A” beam-scales of maximum capacity exceeding 20 grammes—

(a) at zero load—

(i) a small weight of accurately known value (and which is such that it would not move the pointer of the beam scale out of the index scale) shall be placed in one of the pans and a rest point determined by the oscillation method;

(ii) the small weight shall then be transferred to the other pan and a second rest point determined;

(iii) if the rest point shifts by “n” divisions and if the mass of the small weight is “w” mg, the sensitivity figure “s” of the beam-scale in milligrams per division at zero load shall be given by the relation—

$$S = \frac{2w}{n}$$

(b) at full load—

(i) the small weight shall be placed in one of the pans of the fully loaded beam-scale and a rest point determined by the oscillation method;

(ii) the small weight shall then be transferred to the other pan and a second rest point determined;

(iii) if the rest point shifts by "n" divisions and the mass of the small weight is "w" mg, the sensitivity figure "s" in milligrams per division at full load shall be given by the relation—

$$S = \frac{2w}{n}$$

(3) In case of Class "A" beam-scales of capacity not exceeding 20 grams, the sensitivity figure shall be determined as follows—

(a) at zero load—

(i) a pair of weights, each of an approximate mass of 5 mg. (and whose difference shall not exceed 0.05 mg., 0.12 mg., 0.25 mg., or 0.5 mg. for testing beam-scales of maximum capacities of 2 g., 5 g., 10 g., or 20 g. respectively) shall be placed each in one pan and a rest point determined by the oscillation method;

(ii) the pair of weights shall then be interchanged and a second rest point determined;

(iii) if the rest point shifts by "n" divisions and the difference in the pair of weights is "w", then the sensitivity figure "s" of the beam scale in milligrams per division at zero load shall be given by the relation—

$$S = \frac{2w}{n}$$

(b) at full load—

(i) the pair of weights shall be placed each in one pan of a fully loaded beam scale and a rest point determined;

(ii) the pair of weights shall then be interchanged and a second rest point determined;

(iii) if the rest point shifts by "n" divisions and the difference in the pair of weights is "w" then the sensitivity figure "s" of the beam scale in milligrams per division at full load shall be given by the relation:

$$S = \frac{2w}{n}$$

(4) The sensitivity figure for beam-scales of Classes "B" and "C" shall be as specified in Tables 8 and 9 of rule 77 and shall be determined at full load only, as follows—

(a) the beam scale shall be fully loaded to its maximum capacity with equal masses in each pan and the scale balanced such that the pointer rests at the centre of the index scale;

(b) small weights of value W1 shall be added in one of the pans until the pointer moves an appreciable distance from the centre of the scale;

(c) the small weights W1 shall then be removed and the test repeated on the other pan and the weights W2 required to move the pointer by the same distance on the other side of the centre of the scale shall be determined;

(d) the sensitivity figure "s" of the beam scale at full load shall then be given by the relation:

$$S = \frac{W1 + W2}{2}$$

80. Tests for error

(1) The maximum permissible errors for non-self indicating beam-scales shall be as specified in Tables 7, 8 and 9 of rule 77 and shall be determined as follows—

(a) to determine the error due to inequality of arms in Class "A" beam-scales—

(i) the rest point (RO) of the unloaded beam-scale shall be determined by the oscillation method;

(ii) a second rest point (R1) shall be determined with equal weights representing the maximum capacity of the beam-scale placed on each pan;

(iii) the weights shall then be interchanged and a third rest point (R2) shall be determined;

(iv) the error "E" due to the inequality of arms of the beam scale shall be given by the relation—

$$E = \frac{(R1 + R2 - RO)\,S}{2}$$

where "s" is the sensitivity figure of the beam scale;

(b) in the case of beam-scales other than Class "A"—

(i) the pans shall be loaded with equal weights representing the maximum capacity of the beam scale and the beam scale shall be balanced such that the pointer rests at the centre of the index scale;

(ii) the weights shall then be interchanged and the beam scale balanced again by adding necessary small weights on one of the pans:

Provided that in the case of beams with attached hooks, the weights shall be interchanged together with the chains and pans and in the case of beams with detachable hooks, the weight shall be interchanged together with the hooks, chains and pans;

(iii) the error of the beam scale at the maximum capacity shall then be equal to half the value of the additional small weights.

(2) The maximum permissible errors on semi-self-indicating beam-scales shall be one-half of the smallest scale division on the dial.

(3) A beam scale, other than Class "A", shall, when loaded to its half capacity, show no appreciable difference in its indication if the knife edges or bearings are moved laterally, backwards and forwards within their limits of movement and shall be correct whether the load is in the middle or near the edge of the pan.

81. Stamping

(1) On beamscales, the stamping plug shall be inserted immediately above or below the central knife-edge.

(2) Class A and Class B beamscales may be stamped on the pans where the delicate construction of the beam might be affected by the insertion of the plug.

[L.N. 56/1996, r. 10.]

PART VIII – COUNTER MACHINES

82. Definition

The term "counter machine" means any equal-armed weighing instrument of a capacity not exceeding 50 kg., the pans of which are above the beam and includes, together with the ordinary type, such instruments as are specifically designed for counter use and whose capacity does not exceed 50 kg.

83. Prohibition of certain types

The following types of counter machines shall not be admitted for verification—

(a) accelerating counter machines;

(b) new counter machines in which the working parts below the beam are not completely enclosed;

(c) counter machines with sliding poises.

84. Construction

(1) Where the beam of a counter machine has two side members they shall be connected together by not less than two cross-bars, and the supports for the pans shall be of suitable rigid structure.

(2) The centre forks of counter machines shall be so fixed that they cannot twist or get out of place.

85. Balancing device

(1) Every counter machine shall be fitted with a suitable balancing device.

(2) Where the balancing device is in the form of a balance box, the box shall be securely fixed beneath one of the pans, and shall only be large enough to contain loose material to an amount not exceeding 1 per cent of the marked capacity of the instrument.

86. Minimum fall

In non-self indicating counter machines, the minimum fall of the beam from the horizontal position in either direction shall be as follows—

Capacity of the Instrument	*Minimum Fall*
500 g., 1 kg., 2 kg.	6 mm.
3 kg., 5 kg., 10 kg., 15kg.	10 mm.
20 kg., 25 kg., 30 kg.	12 mm.
50 kg.	13 mm.

87. Self or semi-self indicating counter machines

Every self or semi-self-indicating counter machine shall—

(a) comply with such of the requirements of rules 56 to 67 as are applicable;

(b) be provided with weight indications on the purchaser's and the vendor's side of the instrument:

Provided that the requirements of paragraph (b) shall not apply to instruments which are prominently marked with the words: "Not to be used for direct selling to the public" or "For Factory use only", or to instruments approved for special purposes only or for use under stated conditions only.

88. Additional tests

(1) In addition to any other relevant tests specified in rules 70 to 76, a counter machine shall be subjected to the following tests—

(a) with the pans loaded to half capacity, the instrument shall be correct when the knife edges and bearings are moved laterally, backwards or forwards within the limits of their movements;

(b) when the goods pan is in the form of a scoop, the instrument shall be correct if half the full load is placed against the back of the scoop and the other half in any position on the scoop;

(c) when the goods pan is not in the form of a scoop, half the maximum permissible error shall not be exceeded if the centre of a load equal to half the capacity of the instrument is placed on the goods pan anywhere within a distance from the centre equal to one-third of the greatest length of the pan,

or if the pan has a vertical side, against the middle of that side; the load being entirely on the weight pan but in any position on it;

(d) for the purposes of the tests in paragraph (1)(b) and (c), the capacity of a counter machine fitted with additive tare shall be taken as the capacity of the machine plus the value of the additive tare.

(2) With the instrument unloaded and in true balance its weight indications shall not have a variation in excess of the thickness of the zero graduation line or one-quarter of the smallest subdivision (whichever is the less) when tilted longitudinally or transversely through an angle of three degrees; and with the instrument loaded to full capacity, the indication shall not vary by more than the maximum permissible error when the instrument is tilted in any direction through an angle of three degrees.

89. Permissible errors

(1) The maximum permissible error on verification and on inspection or re-verification of counter machines shall be—

(a) in the case of non-self-indicating instruments, as specified in columns 4 and 6, respectively of Table 10;

(b) in the case of self-or semi-indicating instruments, as specified in columns 5 and 7, respectively, of that Table:

Provided that on instruments fitted with digital indicating devices, the maximum permissible error applicable to such a device shall be an amount equal to the minimum weight increment that can be indicated by the device.

(2) The sensitivity of non-self indicating counter machines shall not exceed—

(a) on verification, the amounts specified in column 2 of Table 10; and

(b) on inspection or re-verification, the amounts specified in column 3 of that Table.

TABLE 10

90. Stamping

The stamping plug on counter machines shall be on an easily accessible part of the beam or body of the instrument.

PART IX – SPRING BALANCES

91. Definition

The term “spring balance” means a self-indicating weighing instrument in which weight indications are dependent on the extension or compression of a spring or springs and which is so constructed that the load is either directly above or below the spring or springs and is directly supported by or suspended from them without the use of levers.

92. Scale division

(1) The minimum width of a scale division in a spring balance shall be either—

(a) 1.5 mm. for spring balances of a capacity not exceeding 30 kg. and 3 mm. for spring balances of a capacity exceeding 30 kg.; or

(b) such other values as the Director may, in accordance with the International Organization of Legal Metrology (O.I.M.L.) recommendations, approve.

(2) The weight value of a scale division shall be in accordance with rule 59.

(3) Where graduations commence at any point of the dial other than at the zero indication, the position of the indicator when there is no load on the instrument shall be clearly indicated by a zero mark.

93. Zero setting device

(1) A suitable zero setting device capable of adjustment only by means of a detachable tool shall be provided.

(2) The range of adjustment of the zero-setting device shall not exceed one per cent of the capacity of the instrument.

94. Additional tests

(1) In addition to any other relevant tests specified in rules 70 to 76, spring balances shall be tested at each numbered graduation and may also be tested at intermediate graduations.

(2) The instrument shall be correct within the maximum permissible error whether the test is made by progressively increasing or decreasing loads, provided that, in either case the spring shall be allowed to vibrate before the reading is taken.

(3) In the case of a spring balance with the pan above the spring the following tests shall be carried out—

(a) when the pan is in the form of a scoop, the maximum permissible errors shall not be exceeded when a load equal to half the capacity of the instrument is placed against the middle of the back of the scoop and the other half is placed in any position on the scoop;

(b) when the pan is not in the form of a scoop, the instrument shall not indicate variations in excess of the maximum permissible error if the centre of a load equal to half the capacity of the instrument is placed on the pan anywhere within a distance from the centre equal to one-third of the greatest length of the pan, or if the pan has a vertical side against the middle of that side.

(4) In the case of a spring balance with the pan below the spring, the maximum permissible error shall not be exceeded when a load equal to the capacity of the instrument is placed in any position on the pan.

(5) A spring balance shall be tested for fatigue as follows—

(a) the instrument shall be loaded to its maximum capacity for a period of twenty-four hours; and

(b) the load shall then be removed and the instrument left unloaded for four hours and it shall not show any permanent set; and

(c) the instrument shall then be tested for accuracy as in rule 94(2).

95. Maximum permissible errors

(1) The maximum permissible errors on verification of spring balances shall be one-half of a scale division.

(2) The maximum permissible errors on inspection or re-verification of spring balances shall be twice those allowed on verification.

96. Stamping

(1) The stamping plug shall wherever possible pass through the dial and the frame of the instrument.

(2) The plug shall be so supported as to avoid damage to the instrument during stamping.

PART X – STEELYARDS

97. Application

Rules 97 to 104 shall apply to steelyards as complete weighing instruments and not to steelyards as components of other weighing instruments.

98. Prohibited steelyards

The following steelyards shall not be admitted for verifications—

(a) any steelyard which is reversible and has three hooks;

(b) any accelerating steelyard;

(c) any steelyard without a zero graduation; and

(d) any steelyard of a capacity of less than 30 kg. unless such a steelyard is of a pattern approved by the Director.

99. Particulars of steelyards

(1) Every steelyard shall—

(a) be made of iron, steel or other material approved by the Director;

(b) have a perfectly straight shank;

(c) have each set of notches or graduations cut in one plane at right angles to the shank;

(d) have end fittings, sliding poises and suspending hooks securely attached to the instrument; and

(e) be provided with a stop or other suitable arrangement to prevent excessive oscillation of the shank.

(2) The sliding poise shall be freely movable without risk of injury to the notches from constant use, and there shall be a stop to prevent it moving behind the zero mark or lowest graduation.

(3) The suspension mechanism of the steelyard shall be differentiated from the load suspension mechanism by asymmetrical construction.

100. Graduation of steelyards

(1) The graduation lines on any steelyard shall be parallel and if there are notches they shall be correctly placed with reference to such notches.

(2) The minimum distance between graduations shall be 2 mm. between notches and 4 mm. between lines.

(3) No scale division on any steelyard shall represent more than ½ per cent of the capacity of the instrument.

(4) The scales corresponding to each of the capacities of the machines shall permit weighing from zero to the maximum capacity without a break in continuity.

101. Balancing device

(1) Where a balancing device is fitted, it shall be capable of being operated only by means of a detachable key.

(2) The range of balance shall not exceed 0.5 per cent of the capacity of the instrument and shall not be less than 0.1 per cent each way.

(3) Where a gravity ball is provided, it shall be sufficiently protected to avoid being tampered with.

102. Testing

(1) Each numbered graduation shall be tested and intermediate graduations may be tested if necessary.

(2) The instrument shall be correct whether the test is with increasing or decreasing load.

103. Errors

The maximum permissible errors on verification and on inspection or re-verification of steelyards shall be twice those specified for platform machines of similar capacity.

104. Stamping

The stamping plug shall be inserted in the face of the shoulder of the steelyard.

PART XI – PLATFORM MACHINES AND WEIGHBRIDGES

105. Definition

(a) The term "platform machine" means a weighing instrument (other than a weighbridge) with the load receptor in the form of a platform 3 m. by 2 m. in size or less and of a capacity not exceeding 5 tonnes.

(b) The term "weighbridge" means a weighing instrument for weighing loads carried on a vehicle where the vehicle is supported on rails or a platform either of which is linked to a system of levers or load-cells and whose capacity is 1000 kg. or more.

106. Strength of foundations, levers and supports

(1) Weighbridges and dormant platform machines shall not be installed before an inspector has inspected the foundation or supporting base and passed it as being sufficiently firm to be capable of carrying the maximum load without any change of form or level.

(2) Where doubt arises as to the strength of levers or other working parts of a weighbridge or a platform machine, the instrument shall be loaded to its maximum capacity (or maximum safe load); and any variation between the indication of the instrument at the moment of placing the load and the indication obtained eight hours later (the load remaining on the machine throughout that period) shall not exceed the maximum permissible error.

107. Construction

(1) The steelyard of a platform machine or weighbridge shall be in a perfectly straight plane on its upper surface or edge and shall not incorporate any readily removable parts except the support for the counterpoises.

(2) There shall be a stop or stops to prevent any sliding poise from travelling behind the zero graduation.

(3) The value of the smallest division on the minor bar shall not exceed the maximum permissible error for an instrument of capacity equal to that of the minor bar:

Provided that in the case of platform machines of 200 kg. capacity and below, the value of the smallest division may exceed the maximum permissible error for that capacity but shall not exceed 100 g.

(4) The steelyard or registering mechanism thereof may be confined in a locked box or case, provided that the indications or graduations are clearly visible.

(5) The load receptor on a platform machine or a weighbridge shall not be absorbent.

108. Travel of steelyard

The minimum movement from the horizontal position of the steelyard indicator shall be—

(a) in the case of platform machines, 10 mm. in both directions for vibrating instruments and 15 mm. in one direction only for accelerating instruments; and

(b) in the case of weighbridges, 12 mm. in both directions for vibrating instruments and 20 mm. in one direction only for accelerating instruments.

109. Movable hutches and counterpoise

(1) If a movable hutch, barrow, frame or bucket is used instead of the ordinary platform, it shall form an essential part of the instrument, without which the instrument cannot be balanced.

(2) All counterpoises for use in connection with movable hutches, barrows, frames or buckets shall be tested.

(3) All loose counterpoises shall be—

(a) identified with the instrument by a number or other sufficient indelible mark of identification;

(b) clearly and permanently marked with the international symbol of correspondence $_{(\leq)}$ and the equivalent weight denomination; thus the counterpoise representing 5 kg., shall be marked $_{(\leq)}$ 5 kg.

(4) The denomination of counterpoises shall be 1, 2, or 5 kilograms or a decimal multiple or sub-multiple thereof; and the smallest denomination shall be equivalent to the weight represented by the maximum graduation on the steelyard of the instrument.

(5) A loose counterpoise shall have only one undercut adjusting hole which shall contain sufficient adjusting material to cover the bottom of the hole.

(6) All loose counterpoises shall be of hexagonal shape.

110. Zero setting device and gravity ball

(1) Every platform machine or weighbridge shall be fitted with a zero setting device which shall be capable of being operated only by means of a detachable key.

(2) The range of the zero-setting device shall not exceed 0.5 per cent of the capacity of the instrument and shall not be less than 0.1 per cent each way.

(3) Where a gravity ball is provided, it shall be adjustable only by means of a mechanical appliance, unless the ball is completely enclosed.

111. Self indicating platform machines and weighbridges

Every self indicating platform machine or weighbridge shall—

(a) comply with such of the requirements of rules 56 to 68 as are applicable;

(b) have the racks and pinions made of suitable hard metal or other material approved by the Director;

(c) have the indicating mechanism and any cylinders or tanks containing liquid suitably protected from dust and excessive variations of temperature.

112. Total capacity of tare bars of platform or machines or weighbridges with tar or weighing bars

Where a platform machine or weighbridge is fitted with a tare bar or bars, or a weighing bar—

(a) the total capacity of the tare bar or bars shall not exceed 50 per cent of the capacity of the instrument;

(b) a single tare bar may be ungraduated except for a zero graduation line and a graduation line at its maximum capacity;

(c) the major tare bar shall be graduated in multiples of the capacity of the minor bar only and the weight value of the scale divisions on the minor bar shall correspond with that of the scale divisions on the dial (if any) or printing device:

Provided that on an instrument with several indicating or printing devices, the scale division on the minor bar shall be equal to the smallest division of the indicating or printing devices;

(d) the poise on a tare bar shall not be capable of being used below its zero graduation or above its maximum capacity;

(e) a weighing bar shall be graduated in multiples of the dial capacity only.

113. Mode of testing

(1) Weigh-bridges and dormant platform machines shall be verified and stamped *"in situ"* in addition to any preliminary test.

(2) In addition to any relevant tests specified in rules 70 to 76, weighbridges and platform machines shall be subjected to the following tests—

(a) the inspector, shall where applicable—

(i) test the instrument at each numbered graduation up to and including one tonne or to such smaller amount as the last graduation on the steelyard or dial may indicate;

(ii) test loose poises, if any, relating to the instrument tonne by tonne, or load it with heavy material to within one tonne of its maximum capacity, and ascertain that an additional tonne is correctly indicated within the maximum permissible error;

(b) weigh bridge and platform machines shall indicate the same weight within half the maximum permissible error when a load equal to one quarter (or as near thereto as is practicable) of the capacity of the instrument is placed successively in the centre and near each end or corner of the platform; and for the purpose of this test, the capacity of a weighbridge or platform machine fitted with an additive tare shall be taken as the capacity of the instrument plus the value of the tare;

(c) where a platform machine or weighbridge is fitted with a relieving gear—

(i) the maximum permissible error shall not be exceeded when the instrument is put steadily out of and into gear; and

(ii) the indicating mechanism shall be immobilized when the instrument is in relief.

114. Overhead weighing machines

Every overhead weighing machine shall comply with such of the provisions of these Rules relating to platform machines and weighbridges as may be applicable.

115. Permissible errors and sensitivity

Subject to rule 76, the sensitivity and maximum permissible errors on verification and on inspection, or re-verification shall be—

(a) in the case of platform machines, the amounts specified in Table 11 below;

(b) in the case of weighbridges, the amounts specified in Table 12 below:

Provided that in the case of an instrument fitted with a digital indicating device, the maximum error applicable to such a device shall be an amount equal to the maximum weight increment that can be indicated by the device—

TABLE 11 – PLATFORM MACHINES

CAPACITY OF INSTRUMENT	SENSITIVITY WHEN FULLY LOADED		MAXIMUM PERMISSIBLE ERROR IN EXCESS OF DEFICIENCY FULLY LOADED			
	On Verification	On Inspection or Reverification	On Verification		On Inspection or Verification	
			Non-Self Indicating Type	Self or Semi-self Indicating Type	Non-Self Indicating Type	Self or Semi-self Indicating Type
1	2	3	4	5	6	7
10 kg.	2 g.	4 g.	4 g.	Weight corresponding to one-half the scale division	8 g.	Weight corresponding to one-half the scale division
20 kg.	4 g.	8 g.	8 g.		16 g.	
50 kg.	10 g.	20 g.	20 g.		40 g.	
100 kg.	20 g.	40 g.	40 g.		80 g.	
150 kg.	60 g.	60 g.	60 g.		120 g.	
200 kg.	40 g.	80 g.	80 g.		160 g.	
250 kg.	50 g.	100 g.	100 g		200 g.	
300 kg.	60 g.	120 g.	120 g.		240 g.	
350 kg.	80 g.	160 g.	160 g.		320 g.	
500 kg.	100 g.	200 g.	200 g.		400 g.	
750 kg.	125 g.	250 g.	250 g.		500 g.	
1,000 kg.	125 g.	250 g.	250 g.		500 g.	
1,500 kg.	200 g.	400 g.	400 g.		800 g.	
2,000 kg.	250 g.	500 g.	500 g.		1 kg.	
2,500 kg.	300 g.	600 g.	600 g.		1.2 kg.	
3,000 kg.	300 g.	600 g.	1,000 g.		2.0 kg.	
5,000 kg.	500 g	1 kg.	1,500 g.		3.0 kg.	

TABLE 12 – WEIGHBRIDGES

CAPACITY OF INSTRUMENT	SENSITIVITY WHEN FULLY LOADED		MAXIMUM PERMISSIBLE ERROR IN EXCESS OF DEFICIENCY FULLY LOADED			
	On Verification	On Inspection or Reverification	On Verification		On Inspection or Verification	
			Non-Self Indicating Type	Self or Semi-self Indicating Type	Non-Self Indicating Type	Self or Semi-self Indicating Type
1	2	3	4	5	6	7
1 tonne	1 kg.	2 kg.	1.2 kg.	Weig corresponding to one-half the scale division	2 kg.	Weig corresponding to one-half the scale division
2 tonne	1.5 kg.	3 kg.	1.4 kg.		2.8 kg.	
3 tonne	1.5 kg.	3 kg.	1.6 kg.		3.2 kg.	
5 tonne	1.5 kg.	3 kg.	2 kg.		4 kg.	
10 tonne	2 kg.	4 kg.	3 kg.		6 kg.	
15 tonne	2.5 kg.	5 kg.	4 kg.		8 kg.	
20 tonne	3 kg.	6 kg.	5 kg.		10 kg.	
25 tonne	3.5 kg.	7 kg.	6 kg.		12 kg.	
30 tonne	4 kg.	8 kg.	7 kg.		14 kg.	
35 tonne	4 kg.	8 kg.	7 kg.		14 kg.	
40 tonne	5 kg.	10 kg.	7 kg.		14 kg.	
50 tonne	5.5 kg.	11 kg.	8.5 kg.		16 kg.	
60 tonne	5.5 kg.	11 kg.	8 kg.		17 kg.	
75 tonne	6 kg.	12 kg.	10 kg.		20 kg.	
80 tonne	6 kg.	12 kg.	10 kg.		20 kg.	
100 tonne	6.5 kg.	13 kg.	11.5 kg.		23 kg.	
150 tonne	8 kg.	16 kg.	15 kg.		30 kg.	
200 tonne	9 kg.	18 kg.	19 kg.		38 kg.	
250 tonne	12 kg.	24 kg.	25 kg.		50 kg.	
300 tonne	15 kg.	30 kg.	30 kg.		60 kg.	
400 tonne	20 kg.	40 kg.	40 kg.		80 kg.	

PART XII – CRANE WEIGHING MACHINES

116. Stamping

(1) On non-self-indicating weighbridges and platform machines the stamping plug shall be inserted either in the shoulder or the nose-end of the steelyard.

(2) On self or semi-self-indicating weighbridges and platform machines the stamping plug shall be inserted in a conspicuous part of the dial, pillar, beam or housing of the instrument.

(3) Where a platform machine or weighbridge is stamped after the completion of the tests, any loose poises associated with the instrument shall be date marked in the same manner as the instrument.

117. Construction

The term "crane weighing machine" means a weighing instrument which is specially constructed for suspension from the hook of a crane and which has a load receptor in the form of a hook.

[L.N. 56/1996, r. 11.]

118. Definition

(1) Crane weighing machines may be constructed upon lever, spring or hydraulic principle and shall comply with such of the provisions of these Rules relating to platform machines as may be applicable.

(2) All working parts of crane weighing machines shall be protected from damp and dust.

(3) The steelyard on crane weighing machines constructed upon the lever principle shall be rigid and may be made of special metal to resist atmospheric influences.

(4) The racks and pinions on instruments fitted with dials shall be made of hard metal or other material approved by the Director.

(5) On a crane weighing machine in which the dial is an integral part of the mechanism suspended from the hook, the width of a scale division shall not be less than 3 mm.

(6) No crane weighing machine shall become a permanent link in the lifting gear.

119. Range of balancing arrangement and twisting of load hook

(1) The range of any balancing or adjusting arrangement for crane weighing machines shall not exceed 2 per cent of the capacity of the instrument.

(2) Hydraulic weighing machines in which it is necessary to twist the hook in order to obtain a correct indication of weight, shall not be stamped unless a prominent notice to that effect is permanently affixed to the instrument.

120. Testing

(1) Crane weighing machines may be verified and stamped on the maker's premises.

(2) In addition to any relevant tests specified in rules 70 to 76—

(a) a crane weighing machine shall, if practicable be tested at each numbered graduation up to the capacity of the instrument; and

(b) the steelyard or indicator shall move freely and the pointer shall return to its initial starting point after the load has been removed.

121. Permissible errors and sensitivity

(1) The maximum permissible errors on verification and on inspection or re-verification of crane weighing machines shall be—

(a) in the case of lever machines of—

(i) less than one tonne capacity, the same as for vibrating platform machines of similar capacities; and

(ii) one tonne capacity and above, the same as for vibrating weighbridges of similar capacities;

(b) in the case of spring machines, double those for lever machines;

(c) in the case of hydraulic machines used as approximate weighers for ascertaining freight and for checking-in purposes, one-half of a scale division.

(2) The sensitivity allowed for crane weighing machines constructed on the lever principle shall be—

(a) for an instrument of a capacity below one tonne, the same as for vibrating platform machines of similar capacity; and

(b) for an instrument of a capacity of one tonne and above, the same as for a vibrating weighbridge of similar capacity.

(3) Crane weighing machines constructed on the spring and the hydraulic principles shall not be tested for sensitivity.

122. Stamping

The stamping plug on crane weighing machines shall be placed on a conspicuous part either on the steelyard or on the dial of the machine.

PART XIII – AUTOMATIC WEIGHING MACHINES

123. Definition

The term “automatic weighing machine” means a machine in which special self-acting machinery is introduced to effect—

(a) an automatic feed; or

(b) the rapid weighing of pre-determined quantities; or

(c) the registration and summation of loads; or

(d) other similar purposes, or some of them.

124. Construction

(1) Every automatic weighing machine and its integral parts shall as far as practicable, satisfy those requirements of these Rules which are applicable to the type, class or description of weighing instrument to which the machine nearly relates.

(2) Any adjusting mechanism on automatic weighing machines shall be so secured and protected that it cannot readily be tampered with.

(3) Where a manual control is fitted to operate the discharge of the load, it shall be inoperable when the weighing machine is in action.

(4) Where an automatic weighing machine is fitted with a mechanism to compensate for material in flight after the feed has stopped, the mechanism shall have a range of adjustment sufficient for any load of any material which the machine is designed to weigh.

(5) Any attachments in an automatic weighing machine for ascertaining the weight of Part loads or residues shall have the same weighing capacity as that of the machine of which they form part.

(6) The interior surfaces of all weighing hoppers shall be such as not to impede the ready discharge of the whole contents and shall be so constructed as to facilitate complete discharge of the contents.

(7) The surfaces of all parts of the weighing mechanism including the weighing hopper and weight hopper or pan shall be shaped in such a manner or suitably protected in such a manner as to minimize the accumulation of dust or material on such parts.

125. Beams to be identified with the instrument

All beams of automatic weighing machines shall be identified with the instruments to which they relate by means of a number or other sufficient mark of identification which shall be indelible.

126. Machine for weighing pre-determined loads

Automatic weighing machines for use for pre-determined loads shall be constructed in such manner that the feed to and the discharge from the weighing hopper (or load receptor) of the material being weighed cannot occur simultaneously.

127. Testing

(1) Automatic weighing machines shall be tested and stamped only when they are permanently erected in their place of use.

(2) Every automatic weighing machine shall be tested by taking any 30 consecutive loads weighed by the machine and re-weighing the same loads on another previously verified weighing instrument:

Provided that if the Inspector thinks fit he he may so weigh and re-weigh more than 30 separate loads of which any 30 separate consecutive loads may be treated as test loads.

(3) Where the testing procedure specified in paragraph (2) is not practicable, the machine may be tested by—

(a) testing the accuracy of the visible indicator or pointer by directly applying to the machine the appropriate standard weights; and

(b) testing the accuracy of any 30 consecutive loads weighed in the weighing hopper by reference to the visible indicator or pointer.

(4) In addition to the tests specified in paragraphs (2) and (3) the accuracy of an automatic weighing machine shall be tested by re-weighing a total test load equal to not less than forty times the maximum capacity for which it is designed, on another previously verified instrument:

Provided that the total test load shall be built up from individual loads varying from the minimum to maximum capacity of the machine:

Provided further that where this test is not practicable the machine shall be tested by the application of standard weights as specified in paragraph (3).

128. Maximum permissible errors

The maximum permissible errors on verification and on inspection or re-verification of an automatic weighing machine shall—

(a) when tested by the application of standard weight, be as given in Table 13 below—

TABLE 13 – AUTOMATIC WEIGHING MACHINES
MAXIMUM PERMISSIBLE ERROR OF INDICATOR

Capacity of Machine	*Maximum Permissible Error in Excess or in Deficiency when Fully Loaded*
1 kg.	2 g.
2 kg.	3 g.
3 kg.	4 g.
5 kg.	6 g.
10 kg.	7 g.
15 kg.	10 g.
20 kg.	15 g.
25 kg	20 g.
50 kg.	30 g.
100 kg.	40 g.
150 kg.	60 g.
200 kg.	70 g.
250 kg.	80 g.
300 kg.	100 g.
500 kg.	160 g.
1,000 kg.	280 g.
1,500 kg.	360 g.
2,000 kg.	450 g.

(b) when tested by the re-weighing of the load, be—

(i) for machines not exceeding 5 kg., 0.5 per cent in excess only of the purported weight of each test load:

Provided that where in the opinion of the inspector the maximum unit weight of the product makes it desirable in any test load which exceeds 0.5 per cent in excess of the purported weight of the test load, the single piece or item which appears to be the largest single piece or item in that test load shall be removed and the test load then re-weighed, and such test load shall not then exceed 0.5 per cent in excess of the purported weight of the test load;

(ii) for machines exceeding 5 kg. capacity, 0.5 per cent in excess or deficiency of the purported weight of each test load;

(iii) for machines used only for the weighing of grain, 0.25 per cent in excess or deficiency of the purported weight of each test load;

(iv) for machines used only for the weighing of solid fuel and of capacity of 100 kg. or less, 2 per cent in excess only of the purported weight of each test load.

129. Stamping

The stamp of verification on automatic weighing machines shall be placed on the plug or stud provided for that purpose on a conspicuous part of the instrument.

PART XIV – BELT CONVEYOR WEIGHING MACHINES

130. Definition

(1) A “belt conveyor weighing machine” means a totalizing weighing machine in which the load is carried on an endless flexible belt supported by a roller or rollers attached to the weighing mechanism.

(2) Belt conveyor weighing machines (hereinafter referred to as belt-weighers) shall be either Class I or Class II.

(3) Class I belt weighers shall be those that satisfy the following requirements—

(a) the totalization scale division shall neither be less than 0.002 per cent nor more than 0.05 per cent of the load totalized in one hour at the maximum flow rate of the instrument; and

(b) the scale division of the zero indicator shall not exceed the totalization scale division and shall also not exceed the following values of the load totalised by the instrument in one hour at its maximum flow rate—

(i) 0.005 per cent for analogue indication; and

(ii) 0.0025 per cent for digital indication;

(c) the scale division of the test indicator shall not exceed the totalization scale division and shall also not exceed the following values of the load totalised by the instrument in one hour at its minimum flow rate—

(i) 0.2 per cent in the case of analogue indication; and

(ii) 0.1 per cent in the case of digital indication.

(4) Class II belt weighers shall be those that satisfy the following requirements—

(a) the totalization scale division shall be neither less than 0.004 per cent nor more than 0.1 per cent of the load totalised in one hour at the maximum flow rate of the instrument; and

(b) the scale division of the zero indicator shall not exceed the totalization scal division and shall also not exceed the following values of the load totalized by the instrument in one hour at maximum flow rate—

(i) 0.01 per cent in the case of analogue indication; and

(ii) 0.005 per cent in the case of digital indication;

(c) the scale division of the test indicator shall not exceed the totalisation scale division and shall also not exceed the following values of the load totalised in one hour at the minimum flow rate of the instrument—

(i) 0.4 per cent in the case of analogue indication; and

(ii) 0.2 per cent in the case of digital indication.

131. Construction

Every beltweigher shall—

(a) be so constructed that—

(i) the effects resulting from any maladjustment likely to disturb its operation shall be easily detectable;

(ii) any totalizing and printing devices which indicate only positive values are disengaged when the belt operates unloaded and are engaged on the application of load;

(iii) every indicating device has the same or equivalent totalization scale divisions;

(b) have its controls so designed that either they cannot come to rest in positions other than those intended, or all indications and printing are impossible with the controls resting in the wrong positions;

(c) be legibly and durably marked with—

(i) its class of accuracy;

(ii) the maximum and minimum flow rate;

(iii) the totalization scale division;

(iv) the nominal speed of the conveyor belt;

(v) the minimum totalized load.

132. Testing

(1) Beltweighers shall be tested and stamped only when they are permanently erected in their places of use.

(2) The machine shall be tested by passing through it a quantity of material not less than the minimum totalized load (hereinafter referred to as “test load”), at both the maximum flow rate and a flow rate below 50 per cent of the maximum flow rate; and then comparing the indications of the beltweigher with the weight of the test load as determined (either before or after passing through the beltweigher) by means of a previously verified instrument:

Provided that before the commencement of the test a beltweigher shall be allowed to operate, loaded or unloaded, for at least half an hour at the average speed.

133. Errors

The maximum permissible errors on beltweighers shall be—

(a) in the case of Class I instruments, 0.5 per cent in excess or deficiency of the test load at any flow rate between 20 per cent and 100 per cent of the maximum flow rate on verification and on inspection or re-verification, twice the error on verification;

(b) in the case of Class II instruments, 1 per cent in excess or deficiency of the test load at any flow rate between 20 per cent and 100 per cent of the maximum flow rate on verification and on inspection or re-verification, twice the errors on verification.

134. Stamping

The stamp of verification on totalizing weighing machines shall be placed on the plug or stud provided for that purpose on a conspicuous part of the instrument.

PART XV – EGG-GRADING MACHINES

135. Definition and types

(1) The term "egg-grading machine" means a machine designed for use in the grading by reference to weight of hen's eggs in shell (other than a machine used only to determine the actual weight of such eggs).

(2) Egg-grading machines shall be divided into two types—

(a) Type "A" includes machines in which—

(i) each weighing unit is designed to grade eggs into one grade only; and

(ii) at least one weighing unit is designed to grade eggs into one of the grades specified in Table 14;

(b) Type "B" includes machines in which—

(i) each weighing unit is designed to grade eggs into more than one grade; and

(ii) at least one such grade is one of those specified in Table 14 below—

TABLE 14 – GRADES OF EGGS

1	**2**
Grade	*Weight Range of Grade*
Extra large.....	Not less than 65 grams.
Large.....	Less than 65 g. but not less than 55 g.
Standard....	Less than 55 g. but not less than 50 g.
Small....	Less than 50 g. but not less than 45 g.
Sub-grade....	Less than 45 g.

136. Testing

(1) No egg-grading machine shall be tested unless—

(a) in the case of a power operated machine, it is completely erected ready for use and installed at the place where it is to be used for trade; and

(b) each tray or other receptacle in the machine into which eggs are deposited on being graded by the weighing unit is clearly and legibly marked to indicate the weight range to which the tray or receptacle relates.

(2) Before testing any egg-grading machine, the inspector may, if he thinks fit, disconnect any counting or marking apparatus that may be associated with the machine.

(3) Every egg-grading machine shall be tested in the appropriate manner specified in the Ninth Schedule and shall not be stamped unless it satisfies the appropriate test specified in the said Schedule.

137. Stamping

The stamp of verification shall be placed on a plug or stud provided for that purpose on a conspicuous part of the machine.

PART XVI – PERSON WEIGHING MACHINES

138. Definition

The term "person weighing machine" means a weighing instrument for weighing persons which is made available for use by the public, whether on payment or otherwise.

139. Marking

No person weighing machine shall be accepted for verification unless it is conspicuously, legibly and durably marked with—

(a) the name and address of the person making the machine available to the public; and

(b) the words "For Weighing Persons only" or some similar expression.

140. Construction

Every person weighing machine shall comply with those requirements of these Rules which relate to materials and principles of construction and which are applicable to a weighing instrument of a type, class or description to which the person weighing machine belongs.

141. Graduation and weight increment

(1) The graduation lines on person weighing machines shall not be less than 8 mm long and—

(a) in the case of an instrument of a capacity not exceeding 20 kg., shall not be less than 2.0 mm apart;

(b) in any other case, shall not be less than 2.5 mm apart:

Provided that where an instrument is so constructed that the graduations are normally viewed through a magnifying lens, or projected on a screen, it shall be deemed to be sufficient compliance with this paragraph if the graduation lines when so viewed, appear to be the required distance apart and of the required length.

(2) No weight increment on a person weighing machine shall exceed the amounts shown in Table 15 below—

TABLE 15 – PERSON WEIGHING MACHINES

1	**2**
Capacity of Instrument	***Maximum Weight Increment***
Less than 5 kg.	20 g.
Exceeding 5 kg. but not exceeding 10 kg. ..	50 g. 100 g.
Exceeding 10 kg. but not exceeding 20 kg...	200 g. 500 g.
Exceeding 20 kg. but not exceeding 50 kg. ..	1 kg. 2 kg.
Exceeding 50 kg. but not exceeding 150 kg. ..	5 kg.
Exceeding 150 kg. but not exceeding 300 kg. ..	
Exceeding 300 kg. but not exceeding 500 kg. ..	
Over 500 kg	

(3) The difference between the weights represented by consecutive numbered graduation lines shall not exceed 5 kg.

(4) Where the graduation lines do not commence at zero, the position of the pointer when there is no load on the instrument shall be clearly indicated by a zero mark.

142. Ticket printing devices

(1) Where a person weighing machine is fitted with a ticket printing device the device shall be such that the weight is printed clearly and legibly.

(2) Where the weight is indicated on a ticket by means of an arrow which points to a graduated scale—

(a) the arrow shall be sharply defined;

(b) the ends of the graduation lines which are nearer to the head of the arrow shall all be in line;

(c) the distance between the head of the arrow and a line passing through the nearer ends of the graduation lines shall not exceed 2 mm.;

(d) the graduation lines shall not be less than 2 mm. long or less than 2 mm. apart;

(e) alternate graduation lines shall be clearly and legibly marked with the weight they represent and no less than two such marked graduation lines shall appear on every ticket;

(f) no less than one graduation line shall appear on either side of the point indicated by the arrow;

(g) the weight increments which the instrument is capable of indicating shall not exceed—

(i) in the case of a self-indicating instrument, the smallest weight increment which the machine is capable of indicating otherwise than on a ticket;

(ii) in any other case, the amount shown in column 2 of Table 15 of rule 141 being the amount appropriate to the capacity of the instrument.

143. Announcement of weight

Where a person weighing machine is fitted with a device for announcing the weight, it shall—

(a) announce the weight correctly; and

(b) not be capable of announcing weight increment which exceeds—

(i) in the case of a self-indicating instrument, the smallest weight increment which the instrument is capable of indicating otherwise than by announcement;

(ii) in any other case, the amount shown in column 2 of Table 15 of rule 141 being the amount appropriate to the capacity of the instrument.

144. Coin operated person weighers

Every person weighing machine which is designed to be operated by means of a coin shall be fitted with a suitable coin box and—

(a) shall bear a notice giving clear instructions as to the method of operation necessary to ensure correct indications of weight and stating the denomination of coin to be inserted;

(b) when the supply of tickets, in the case of a ticket printing coin-operated instrument, is exhausted, either the coin slot shall automatically be closed or any coin placed in the slot shall be returned to the person inserting it.

145. Testing

(1) Every person weighing machine shall be tested in accordance with those provisions of these Rules which relate to the testing of a weighing instrument of the type, class or description to which the person weighing machine belongs:

Provided that any reference in the said provisions to the maximum permissible error shall be construed as a reference to the maximum permissible errors specified in rule 142.

(2) In the case of a coin-operated instrument, the coin mechanism shall be tested by the insertion of a coin (or a disc approved for the purpose by the Director).

146. Maximum permissible errors

(1) The maximum permissible errors on the verification of person weighing machines shall be—

(a) in the case of a self-indicating instrument not provided with a ticket printer or device for announcing weight, one-half of smallest weight increment which the instrument is capable of indicating in excess or in deficiency;

(b) in the case of an instrument fitted with a device for indicating the weight on a ticket or for announcing the weight, one-half of the smallest weight increment which the instrument is capable of indicating on a ticket or announcing, as the case may be, in excess or in deficiency;

(c) in the case of any other instrument, the errors specified in these Rules, which are applicable to a weighing instrument of the type, class or description to which the person weighing machine belongs.

(2) The maximum permissible errors on inspection or re-verification shall be twice those specified in paragraph (1).

147. Stamping

The stamp of verification shall be placed on a plug or stud provided for that purpose on a conspicuous part of the instrument.

PART XVII – DISPENSING PUMPS

148. Definition

"Dispensing Pump" means a liquid fuel measuring instrument which has a meter or one or more measuring chambers and with a maximum rate of delivery not exceeding 100 litres per minute; and "liquid fuel" includes lubricants or any other mixture of liquid fuel and lubricants.

149. Construction

No dispensing pump for use in the presence of a buyer shall—

(a) have more than one outlet for measured liquid unless an automatic mechanism is provided to ensure that liquid can flow from only one outlet at a time;

(b) be installed in such a manner that the nozzle, or delivery outlet, of the instrument can deliver measured liquid fuel directly into any storage tank of the instrument.

150. Installation

(1) A dispensing pump which forms part of a fixed installation shall be so positioned that a buyer may readily obtain a clear and an unobstructed view of—

(a) all the operations carried out by any person using the instrument to measure the liquid fuel being supplied to the buyer; and

(b) any device on the instrument which indicates the quantity supplied or the amount payable, or that delivery is being effected.

(2) Where a dispensing pump is connected to two or more storage tanks suitable valves shall be fitted in each suction line, or at the junction of the suction lines so that any line can be closed when the corresponding tank is empty.

151. Dispensing pumps to have inter-lock and zero setting mechanism

(1) Every dispensing pump, other than piston or container type instruments, shall—

(a) have a zero reset mechanism so constructed that a delivery having been completed and—

(i) the solenoid valve de-energized; or

(ii) in the case of manually operated instruments, the motor switched off (or the starter switch in the "off" position), it shall not be possible to make a further delivery until every individual sales indicator has been reset to zero:

Provided that this sub-paragraph shall not apply to any instrument intended only for measurement of lubricating oil or other liquids of high viscosity;

(b) have the starting mechanism so constructed that the delivery nozzle cannot be hung up on its normal position, or what appears to be its normal position until—

(i) the solenoid valve is de-energized; or

(ii) in the case of manually operated instruments, the motor is switched off (or the starter switch is in the "off" position); and the expression "Normal position" shall, for the purpose of this subparagraph, be taken to mean the nozzle being properly located on its hung up hook with its spout in the holster;

(c) be so constructed that the re-set mechanism cannot be operated whilst the solenoid valve is energized or, in the case of manually operated instruments, the motor is switched off (or the starter switch is in the "off" position).

(2) The housing of every dispensing pump, other than a piston or container type instrument, shall be so constructed as to permit ready access to the interior of the instrument for the purpose of inspection and stamping.

152. Calibration device

(1) Every dispensing pump shall be provided with a calibration device designed in such a manner as to permit adjustment of the ratio between indicated quantity and the actual quantity of liquid passing through the meter.

(2) Where the calibration device modifies the relation in a digital manner the consecutive value of the relationship shall not differ by more than 0.002.

(3) Adjustment of the instrument by means of a by-pass valve on the meter shall not be permitted.

153. Certificate of notice of approval number

Every dispensing pump submitted for verification shall—

(a) be legibly and durably marked with the certificate number or the number of the notice of approval issued, or duly adopted, by the Director in respect of the pattern in accordance with which it is made, preceded by the words "Certificate No" or "Notice No" as the case may be; and

(b) where it is made in accordance with an authorization of the Director, bear a legible and durable indication of the date of such authorization preceded by the letter "M".

154. Marking of grade of product

Every dispensing pump shall be marked with the identity or grade of the product that it is meant to deliver, or if the product is a mixture, with an indication as to the ratio of the mixture; and where the instrument will only give correct deliveries when used with liquids havin particular properties or under particular operating conditions, it shall be conspicuously and clearly marked to indicate such limitations.

155. Manner of marking the quantity

(1) Every indication of quantity on a dispensing pump shall be marked either in full or by means only of one or other of the abbreviations specified in the First Schedule:

Provided that the indication may be shown by figures only where the unit of measurement is boldly marked on the display panel of the instrument, or the container; and provided also that the unit of measurement is in immediate association with such figures so that no confusion can arise therefrom.

(2) In the case of an instrument which is designed to deliver pre-determined quantities by using stops or other setting devices—

(a) the position for the proper setting of each stop or setting device shall be positively and accurately defined and marked; and

(b) adequate provision against inadvertent displacement from this position shall be made; and

(c) the delivery for which the instrument is set shall be clearly and conspicuously indicated.

156. Price indication

A dispensing pump of the price-computing type shall display the "price per litre" on every display panel and the indications of price shall either be in full or by the following abbreviations only—

Shillings ..... shs.
Cents ..... cts.

157. Markings to be conspicuous, legible and on contrasting background

Every marking, notice, inscription or indication on a dispensing pump having reference to its method of operation or to the quantity delivered, shall be conspicuously and legibly marked in a suitable position of the instrument in plain block characters on a plain background and in distinct colour contrasting thereto.

158. Individual sales indicator

(1) Every dispensing pump for use in the presence of a buyer shall be provided with an individual sales indicator so graduated as to indicate all possible deliveries; and any other counting or totalizing device that may be provided shall be so arranged as to avoid any possibility of confusion with an individual sales indicator.

(2) When an instrument is provided with more than one individual sales indicator, all the indicators shall give the same or equivalent quantity readings.

(3) Any electronic individual sales indicator shall be constructed such that in the event of power failure the indications of the quantity delivered up to the time of the power failure can be re-called (on at least one display panel where the instrument has more than one) for a total time of at least 5 minutes over a period of at least 30 minutes after the power failure.

(4) Every individual sales indicator shall be arranged so that indication cannot be advanced—

(a) by means other than by the flow of liquid through the instrument; and

(b) beyond the zero graduation line.

(5) In the case of the dispensing pumps of the twin or multiple container type, the individual sales indicator shall be so arranged as not to register before the discharge from each container respectively has commenced.

(6) No audible or other signals of discharge of liquid which can be operated to signal before the movement of the individual sales indicator is completed shall be permitted.

159. Quantity indicators

(1) On dispensing pumps, other than container type instruments, every pointer or indicator used with a graduated scale or dial to indicate quantity of liquid delivered or its total price shall be symmetrical about the line at which it stands.

(2) Any such pointer or indicator—

(a) shall reach the graduation lines; and its extremity shall not be wider than such graduation lines; or

(b) if in the same plane as the graduation line, shall not be more than 1.5 mm. from their ends.

160. Graduations

(1) Every indicating device on a dispensing pump shall be graduated and numbered in numerical sequence in one direction only.

(2) The graduations shall be straight and of uniform thickness and the thickness shall not exceed one-fourth of the smallest scale division.

(3) The actual or optically magnified width of the smallest scale division shall not be less than 2 mm.

(4) The value of the scale division shall be equal to 1, 2, or 5 litres or decimal multiple or submultiple thereof.

161. Numbering

(1) All figures associated with graduation lines on any indicating device shall be uniformly placed in reference to those lines and shall be as close thereto as practicable but not so as to interfere with the accuracy of the reading.

(2) The actual or optically magnified height of the figures shall not be less than 4 mm.

(3) In the case of an instrument fitted with a digital indicator the figures shall not be less than 18 mm. in height.

(4) Where an indicator has an analogue scale only part of which is visible through an aperture or window, the size of the aperture measured parallel to the direction of the scale, shall be at least equal to 1.5 times the distance between two numbered graduation lines.

(5) Where a dispensing pump is fitted with a ticket-printing mechanism, any letters, symbols or digits indicating the quantity, unit price and total price shall be clear and legible and shall not be less than 4 mm. in height; and if the mechanism prints the total price on the ticket, the unit price must also be printed and the words “total price” and “price per litre” shall appear in appropriate positions in letters not less than 3 mm. in height.

162. Discharge indicators

Every dispensing pump, other than an instrument for the measurement of lubricating oil or other liquids of high viscosity, shall be fitted either—

(a) with a device to show that the container or containers are properly filled or discharged; or

(b) with a device to show that the instrument is properly primed before use, and that the liquid is flowing through the instrument.

163. Swing arm and drainage of hose

(1) Where a dispensing pump is provided with swing arm or other form of rigid extension pipe, such arm or pipe shall be so constructed as either—

(a) to empty itself completely through the delivery outlet; or

(b) to remain permanently filled up to the nozzle; in which case the device referred to in paragraph (b) of rule 162 shall be fitted at the highest point of the swing arm or extension pipe.

(2) A flexible discharge hose, together with any swing arm or extension pipe which empties itself on delivery, shall be so arranged as to facilitate drainage of the liquid.

164. Length of hose

No dispensing pump shall be fitted with a flexible discharge hose exceeding 5 metres in length:

Provided that this Rule shall not apply to instruments for use for the delivery of—

(a) liquid fuel to ships or aircraft;

(b) lubricants.

165. Mode of testing

(1) A dispensing pump shall be tested under practical working conditions with the liquid the instrument is intended to deliver (or a liquid having similar characteristics) by reference to standard measures or testing equipment, or gravimetrically.

(2) No dispensing pump shall be tested unless—

(a) it is complete with all parts and attachments concerned in the operations of measurement and delivery; and

(b) all packing glands, couplings and joints are free from leaks.

(3) A dispensing pump intended to be permanently fixed in the position in which it is to be used shall be tested and stamped only when completely erected ready for use and installed at the place where it is to be used.

166. Pre-requisites to testing

Before testing a dispensing pump the inspector shall ensure—

(a) that liquid has been passed through the instrument:

Provided that the requirements of this paragraph shall not apply to instruments in which the delivery hose remains permanently filled up to the nozzle;

(b) that any safe-guarding interlock or limiting mechanism and other automatic devices are functioning satisfactorily.

167. Correct delivery within maximum and minimum flowrates

(1) Every dispensing pump shall deliver correctly when it is operated at any speed between its maximum speed of operation and a speed of 10 litres per minute:

Provided that where an instrument is found to have maximum speed of operation lower than 40 litres per minute, the test at minimum speed shall be carried out at a rate of not less than 25 per cent of the maximum speed obtained with the instrument.

(2) The speed of operation for any single delivery during testing shall be as uniform as possible.

(3) In the case of an instrument connected to two or more storage tanks, any quantity of liquid delivered shall be within the maximum permissible error when—

(a) each suction line is opened in turn and the remainder closed;

(b) where practicable all suction lines are opened, regardless of the fact that some storage tanks may be empty:

Provided that the requirements of this Rule shall not apply to instruments arranged to blend liquids drawn from two or more storage tanks into a liquid which is then measured and delivered at a single delivery point.

168. Price computing instruments

The inspector shall ascertain that any dispensing pump which is so constructed as to calculate and indicate price, number or any other dependent function of the quantity measured shall indicate such information correctly, and in the case of pre-set instrument, that the mechanism functions correctly.

169. Inspector to be provided with the liquid for testing

(1) For the purpose of the performance by an inspector of his test, the person in-charge of the instrument shall, if requested by the inspector, provide for the inspector's use such liquid as the inspector may reasonably require.

(2) Any liquid withdrawn from any tank or container for the purposes of an inspector's test of an instrument shall, upon the conclusion of the test, be forthwith returned to the tank or container from which it was withdrawn or, be placed in another receptacle provided by the person in-charge of the instrument.

(3) The inspector shall, if requested, furnish the person in-charge of the instrument with a signed and dated statement of the quantity of liquid withdrawn from the tank or container and returned as aforesaid.

170. Power of inspector to break seals

An inspector may open any locked or sealed tank or container from which liquid may have been withdrawn for the purpose of his tests in order to return the said liquid thereto and, immediately after the liquid has been so returned, he shall securely refasten the said tank or container and he shall replace any seal or link broken by him in opening the said tank or container with a seal upon which he shall affix his stamp.

171. Authorization of persons who erect, repair or adjust dispensing pumps

The Director may authorize any fit and proper person employed in the erection, repair and adjustment of dispensing pumps to break any seal or sealing device on any instrument which that person intends to erect, repair or adjust, and to seal or re-seal the same subject to the following conditions—

(a) the person seeking authorization must satisfy the Director that he possesses the necessary technical know-how to engage in the repair of the instrument;

(b) the Director may withdraw any authorization at any time;

(c) the person authorized shall examine and verify instruments in accordance with directions given by an inspector;

(d) the person authorized shall seal or re-seal any dispensing pump only by means of stamping pliers so constructed as to impress upon every seal or sealing device such mark and number as the Director may allot to him for the purpose of identification;

(e) the person authorized shall forward to the inspector in charge of Weights and Measures administration for the area in which the instrument is situated a notice in writing, containing the following information—

(i) the location of, and particulars by which the instrument may be identified;

(ii) the date on which the authorized person intends to erect, repair or adjust the instrument;

(iii) the business name and address of the proprietor of the instrument; and

(iv) the name, authorization number and address of the authorised person.

172. Maximum permissible errors

(1) The maximum permissible errors on a dispensing pump shall not exceed—

(a) on verification 0.25 per cent of the quantity delivered in excess only; and

(b) on re-verification or inspection, 0.5 per cent of the quantity delivered in excess or 0.25 per cent of the quantity delivered in deficiency.

(2) The dilation error of the delivery hose of a dispensing pump in normal conditions of use, shall not exceed 50 ml.

173. Stamping

(1) Every dispensing pump shall be provided with one or more plugs, seals or sealing devices to protect all stops or other adjustable parts affecting the quantity delivered, or with such alternative sealing arrangements as may be authorized by the Director.

(2) The stamp of verification shall be placed on all such plugs, seals and sealing devices as the case may be.

[L.N. 56/1996, s 12.]

PART XVIII – BULK METERS

174. Definition

The term “bulk meter” means a measuring instrument designed to measure liquids (other than water) at a maximum rate of delivery exceeding 100 litres per minute and include a vehicle tank meter.

175. Construction and installation

(1) Bulk meters shall—

(a) be constructed of aluminium alloys, bronze, brass, stainless steel or special steel or any other material approved by the Director;

(b) have devices which—

(i) remove from the liquid being measured all particles which are injurious to the meter and which might impair its accuracy; and

(ii) prevent air from passing through the meter to such an extent as to affect the accuracy of delivery;

(c) have a zero reset mechanism.

(2) Where a flow control valve is fitted it shall—

(a) be installed at the outlet of the meter; or

(b) where installed on the inlet side of the meter, be located at a sufficient distance on the upstream side to ensure a uniform steady flow through the meter.

(3) Bulk meters shall be installed in such a manner that the register is clearly readable by the operator from the control point and they shall not be installed on the suction side of the pump.

176. Safety device and temperature monitor

Every bulk meter mounted on a vehicle and intended for the measurement of liquefied petroleum gas, shall be provided with a suitable safety device and mechanism for determining the temperature of the liquid gas as it leaves the instrument.

177. Calibration device

(1) Every bulk meter shall be provided with a calibration device designed in such a manner as to permit adjustment of the ratio between indicated quantity and the actual quantity of liquid passing through the meter.

(2) Where the calibration device modifies the ratio in a digital manner the consecutive value of the relationship shall not differ by more than 0.002.

178. Marking

(1) Every bulk meter shall be conspicuously, clearly and prominently marked with the following—

(a) the name and address of the manufacturer or his registered trade mark;

(b) the serial number and year of manufacture of the meter;

(c) the certificate of approval number or the number of the notice of approval issued, or duly adopted, by the Director in respect of the pattern in accordance with which it is made, preceded by the words “certificate No.” or “Notice No.” as the case may be;

(d) the type of liquids which the instrument is designed to measure and the limits of Kinematic or dynamic viscosity, if the indication of the nature of the liquids is inadequate to characterize their viscosity;

(e) the maximum and minimum flow rates in litres or cubic meters per minute:

Provided that the values of maximum and minimum rates of flow of a meter shall be fixed in the light of the results of the model approved test and the ratio between the rates of flow shall not be greater than 10 for ordinary meters or 5 for meters for liquefied gas.

(2) Where there is a possibility of confusion with regard to the direction of flow of the liquid through a bulk meter, the direction of flow shall be indicated by an arrow on the casing of the meter.

179. Quantity indication

(1) Every bulk meter shall be provided with an individual quantity indicator so graduated as to indicate all possible deliveries; and any other counting or totalizing device that may be provided shall be so arranged as to avoid any possibility of confusion with the individual quantity indicator.

(2) When a bulk meter is provided with more than one individual quantity indicator all the indicators shall give the same or equivalent quantity readings.

(3) Every quantity indicator shall be so arranged that indication can only be advanced by the flow of liquid through the instrument and no registration shall take place when the supply of the liquid fails.

(4) Any electronic individual indicator shall be constructed such that in the event of power failure the indications of the quantity delivered up to the time of the power failure can be recalled (on at least one display panel where the instrument has more than one) for a total time of at least 5 minutes over a period of at least 30 minutes after the power failure.

180. Manner of marking quantity

(1) Every indication of quantity on a bulk meter shall be marked either in full or by means only of one or other of the abbreviations specified in the First Schedule:

Provided that the indication may be shown by figures only where the unit of measurement is boldly marked on the display panel of the instrument and provided also that the unit of measurement is in immediate association with such figures so that no confusion can arise therefrom.

(2) In the case of a bulk meter which is designed to deliver pre-determined quantities by using pre-setting devices—

(a) the position for the proper setting of each setting device shall be positively and accurately defined and marked; and

(b) adequate provision against inadvertent displacement from this position shall be made; and

(c) the delivery for which the instrument is set shall be clearly and conspicuously indicated; and

(d) the delivery shall automatically stop when the pre-set volume has been delivered.

181. Graduations

(1) Every indicating device on a bulk meter shall be graduated and numbered in numerical sequence in one direction only.

(2) The graduations shall be straight and of uniform thickness and the thickness shall not exceed one-fourth of the smallest scale division.

(3) The actual or optically magnified width of the smallest scale division shall not be less than 2 mm.

(4) The value of the scale division shall be equal to 1, 2 or 5 litres or decimal multiples thereof.

182. Numbering

(1) All figures associated with graduation lines on any indicating device shall be uniformly placed in reference to those lines and shall be as close thereto as practicable but not so as to interfere with the accuracy of the reading.

(2) In the case of an instrument fitted with an analogue indicator, the actual or optically magnified height of the figures shall not be less than 4 mm.

(3) In the case of an instrument fitted with a digital indicator the figures shall not be less than 18 mm. in height:

Provided that in the case of a bulk meter used for pre-set deliveries, the height of the figures shall not be less than 9 mm.

(4) Where an indicator has an analogue scale only part of which is visible through an aperture or window, the size of the aperture measured parallel to the direction of the scale shall be at least equal to 1.5 times the distance between two numbered graduation lines.

183. Testing

(1) All bulk meters shall be tested under conditions which duplicate normal operation conditions as closely as possible and with the liquid the instrument is intended to deliver or a liquid having similar characteristics.

(2) Testing shall be done—

(a) by reference to a master meter or a proving tank of sufficient size to contain at least one minute's flow through the meter at its normal operating rate when used for bulk loading; or

(b) gravimetrically.

(3) No bulk meter shall be tested unless—

(a) it is complete with all parts and attachments concerned in the operations of measurement and delivery; and

(b) all packing glands, couplings and joints are free from leaks.

(4) A bulk meter intended to be permanently fixed in the position in which it is to be used shall be tested and stamped only when completely erected ready for use and installed at the place where it is to be used.

184. Pre-requisites to testing

(1) Before commencing testing of a bulk meter, the inspector shall ensure—

(a) that the meter has been run for several minutes to ensure that all units are functioning smoothly;

(b) that any safeguarding mechanism and other automatic devices are functioning satisfactorily;

(c) in the case of an instrument fitted with an automatic temperatur compensator, that the compensator has been disconnected so that the basic accuracy of the meter may be determined;

(d) in the case of instruments used for the measurement of liquefied petroleum gas, that the vapour pressure between the prover and the supply tank is balanced.

185. Instrument to deliver correctly within minimum and maximum flowrates

(1) Every bulk meter shall deliver correctly when it is operated at any speed between its minimum and maximum flowrates and shall show no appreciable changes in its metrological qualities when operated at or near its maximum rate of flow for such a duration as may be specified in the notice of approval.

(2) The speed of operation for any single delivery during testing shall be as uniform as possible.

(3) The automatic temperature compensating device shall be tested for accuracy by comparing the reading of the instrument while temperature compensated with the uncompensated volume, converted to volume at the standard temperature of 20 degrees centigrade.

186. Inspector to be provided with the liquid for testing

(1) For the purpose of the performance by an inspector of his test, the person in charge of the instrument shall, if requested by the inspector, provide for the inspector's use such liquid as the inspector may reasonably require.

(2) Any liquid withdrawn from any tank or container for the purposes of an inspector's test of an instrument shall, upon the conclusion of the test, be forthwith returned to the tank or container from which it was withdrawn or be placed in another receptacle provided by the person in-charge of the instrument.

(3) The inspector shall, if requested, furnish the person in charge of the instrument with a signed and dated statement of the quantity of liquid withdrawn from the tank or container and returned as aforesaid.

187. Authorization of persons who erect, repair or adjust bulk meters

The Director may authorize any fit and proper person employed in the erection, repair and adjustment of bulk meters to break any seal or sealing device on any instrument which that person intends to erect, repair or adjust, and to seal or reseal the same subject to the following conditions—

(a) the person seeking authorization must satisfy the Director that he possesses the necessary technical know how to engage in the repair of the instruments;

(b) the Director may withdraw any authorization at any time;

(c) the person authorized shall examine and verify instruments in accordance with directions given by an inspector;

(d) the person authorized shall seal or re-seal any bulk meter only by means of stamping pliers so constructed as to impress upon every seal or sealing device such mark and number as the Director may allot to him for the purpose of identification;

(e) the person authorized shall forward to the inspector in charge of Weights and Measures administration for the area in which the instrument is situated a notice in writing, containing the following information—

(i) the location of, and particulars by which the instrument may be identified;

(ii) the date on which the authorised person intends to erect, repair or adjust the instrument;

(iii) the business name and address of the proprietor of the instrument;

(iv) the name, authorization number and address of the authorised person.

188. Maximum permissible errors

The maximum permissible errors on bulk meters shall be ascertained by at least one minute's run at the maximum rate of flow of the instrument and shall not exceed—

(a) on verification, 0.25 per cent of the quantity delivered in excess only; and

(b) on re-verification or inspection, 0.5 per cent of the quantity delivered in excess or 0.25 per cent of the quantity delivered in deficiency.

189. Sealing and stamping

(1) Every bulk meter shall be provided with suitable sealing arrangements to protect all adjustable parts affecting the quantity delivered, or with such alternative sealing arrangement as may be authorized by the Director.

(2) The stamp of verification shall be placed on all such seals and sealing devices as the case may be.

PART XIX – SPIRIT MEASURING INSTRUMENTS

190. Definition

The term "spirit measuring instrument" means any instrument designed for the automatic measurement and delivery of spirits for retail sale; and the term "spirit" means any potable liquor manufactured by the process of distillation but does not include denatured spirits.

191. Permissible retail quantities of spirits

(1) No person shall sell by retail any spirits—

(a) in any quantity other than thirty millilitres or a whole multiple thereof; or

(b) unless in securely sealed and stoppered bottles.

(2) Where any contravention of this Rule takes place the person holding the licence in respect of the premises concerned shall be guilty of an offence.

192. Sight glasses

Every spirit measuring instrument shall be fitted—

(a) with adequate sight glasses, observation windows or other devices for showing clearly that any measuring chamber is properly filled; and

(b) with a device which prevents—

(i) any liquid being discharged from any measuring chamber until the chamber is properly filled; and

(ii) any measuring chamber being filled anew until it has been properly discharged.

193. Instrument not to trap liquid

No spirit measuring instrument shall be fitted with a delivery pipe, outlet spout or nozzle which, when open, is liable to trap any portion of the liquid being delivered.

194. Counting device

Any counting or totalizing device fitted to a spirit measuring instrument shall be so arranged as to avoid any possibility of confusion with any other indication of quantity.

195. Individual sales indicators to be readily reset to zero

Any individual sales indicator fitted to a spirit measuring instrument shall be arranged so that it can be readily reset to its zero indication and so that it is not possible to advance the indication by means other than the proper operation of the instrument.

196. Capacities permitted

An inspector shall not admit for verification and stamping any spirit measuring instrument of a capacity other than thirty millilitres, or sixty millilitres.

197. Testing

(1) Before testing any spirit measuring instrument, the inspector shall ensure either that liquid had first been passed through the instrument or that the instrument is fully primed.

(2) The measuring instrument shall be tested, with spirits or with water as the inspector may deem fit, by determining the quantity of liquid delivered by the instrument by reference to a standard measure.

198. Test liquid to be provided to the inspector

(1) For the purposes of the performance by an inspector of his tests, the person in charge of the instrument shall, if requested, provide for the use of the inspector such liquids as the inspector may reasonably require.

(2) The inspector shall, if requested, furnish to the person in charge of the instrument a signed and dated statement of the quantity of the spirit used and returned to that person.

199. Maximum permissible errors

(1) The maximum permissible error on the verification of spirit-measuring instrument shall not exceed—

(a) in the case of an instrument of 30 millilitre capacity, 1.5 ml.; and

(b) in the case of an instrument of 60 millilitre capacity, 2 ml. in excess only.

(2) The maximum permissible error on the re-verification or inspection of spirit-measuring instruments shall not exceed—

(a) in the case of an instrument of 30 millilitre capacity, 1.5 ml. in excess or 0.5 ml. in deficiency; and

(b) in the case of an instrument of 60 millilitre capacity, 2.0 ml. in excess or 1.0 ml. in deficiency.

200. Stamping

(1) Every spirit-measuring instrument shall be fitted with one or more plugs, seals or sealing devices of suitable form and material to protect all adjustable parts affecting the quantity delivered, or with such alternative sealing arrangement as may be approved by the Director in relation to a particular pattern.

(2) The stamp of verification shall be applied on all plugs, seals and sealing devices fitted in accordance with paragraph (1) of this Rule.

PART XX – FABRIC MEASURING INSTRUMENTS

201. Definition

The term "fabric-measuring instrument" means a measuring instrument designed for the determination of the length of woven fabrics; and the term "fabric" shall be taken to mean a stretchy textile material.

202. Construction

Every fabric measuring instrument shall—

(a) be made of materials having adequate stability and strength to withstand the normal conditions of use and environment without operational defect;

(b) be fitted with—

(i) a device to prevent fabric being inserted in the instrument until the individual sales indicator has been reset to zero;

(ii) a mechanism to prevent overspin when the instrument is being used to measure remnants of fabric.

203. Indications to be conspicuous

Every fabric-measuring instrument intended to be used in the presence of a purchaser shall be so positioned as to permit the purchaser a clear and an unobstructed view of all the indications of measurement pertaining to such operations.

204. Legend

(1) Every legend on a fabric-measuring instrument having reference to the method of operation of the instrument shall be conspicuously and legibly marked in a suitable position on the instrument.

(2) *Notice as to limitation.*—A fabric-measuring instrument which will measure accurately only certain types of fabric shall bear a notice, visible to the vendor and the purchaser, indicating clearly such limitations.

205. Individual sales indicators

(1) Any individual sales indicator fitted to a fabric-measuring instrument shall be arranged such that it can readily be reset to its zero indication and such that it is not possible to advance the indication by means other than the proper operation of the instrument.

(2) Any counting or totalizing device shall be so arranged as to avoid any possibility of confusion with the individual sales indicator.

206. Testing

(1) Every fabric-measuring instrument shall be tested under practical working conditions.

(2) The instrument shall be tested by drawing through it, at any reasonable speed of operation, a suitable fabric whose length has been predetermined by means of a suitable standard measure of length and then comparing the indications of the instrument with the length as determined by means of the standard:

Provided that in the case of an instrument displaying notice as provided in sub rule (2) or rule 204 the material used for the test shall be of the kind referred to in such notice.

207. Permissible errors

(1) The maximum permissible errors on verification and on inspection or re-verification of fabric-measuring instruments shall be as set out in Table 16 of these Rules.

(2) Where printing devices are fitted, the indicated and printed lengths shall—

(a) in the case of digital indicating devices, be the same;

(b) in the case of analogue indicating devices, not differ by an amount greater than half of the scale interval or the maximum permissible error of the indicated length, whichever is the less.

TABLE 16

1	2	3
Type of instrument	*Maximum Permissible Error in Excess or in Deficiency*	
	On verification (a)	On Inspection or Re-verification (b)
Instrument designed to measure in meters	0.05 m.	0.1 m.
Instrument designed to measure in centimeters	0.2 cm.	0.4 cm.

208. Sealing of adjustable parts and stamping

(1) Every fabric-measuring instrument shall be fitted with one or more plugs, seals or sealing devices of suitable form and material to protect all adjustable parts the adjustment of which would affect the accuracy of the instrument, or with such alternative sealing arrangement as may be approved by the Director in relation to a particular pattern.

(2) The stamp of verification shall be applied on all plugs, seals or sealing devices fitted in accordance with paragraph (1).

PART XXI – LEATHER MEASURING INSTRUMENTS

209. Definition

The term “leather measuring instrument” means an instrument designed for the measurement of superficial area of leather other than a simple independent measure.

210. Examination

(1) Every leather measuring instrument shall be examined to ensure that all working parts are complete and secure and are operating freely.

(2) Where an instrument is power-operated, attention shall be given to all movable parts to ensure that they are properly fixed and cannot easily work loose.

211. Position of indicator

A leather measuring instrument shall have—

(a) every analogue indicator so positioned in relation to the chart that no undue errors are introduced as a result of parallax;

(b) every adjusting device so fitted as to be capable of being properly secured after adjustment.

212. Test with standard templets

(1) A leather measuring instrument shall be tested by passing through it a standard templet of a suitable size and of a thickness to which the instrument is set.

(2) The templet shall be passed through the instrument being tested at least five times, and in various positions, the instrument being reset to zero every time the templet has

been passed through it; and the mean of the readings obtained shall be the basis for error determination.

(3) For instruments of capacities above 2 sq. meters, a combination of templets may be used:

Provided that where a combination of templets may be used—

(a) only templets with the same thickness shall be used in the combination; and

(b) if the templets are inserted together in the instrument, they shall not overlap; and

(c) if the templets are used successively they shall, in the case of instruments fitted with wheels or rollers, be so inserted as to pass under the same set of wheels or rollers; and the indicator shall not be allowed to return to zero before all the templets used in the combination have been passed through in the instrument.

213. Permissible errors

The errors permissible on verification and on inspection or re-verification of leather measuring instruments shall be as set out in Table 17 below—

TABLE 17

1	2	3
Capacity of Instrument	*Maximum Permissible Error in Excess or in Deficiency*	
Area Tested	On Verification	On Inspection or Re-verification
Up to and including $1m^2$....	100 $cm.^2$	200 $cm.^2$
Exceeding $1m^2$ but not exceeding $2m^2$....	150 $cm.^2$	300 $cm.^2$
Exceeding $2m^2$ but not exceeding $4m^2$....	200 $cm.^2$	400 $cm.^2$
Exceeding $4m^2$ but not exceeding $8m^2$....	300 $cm.^2$	600 $cm.^2$

214. Stamping

The stamp of verification on leather measuring instruments shall be placed on a softmetal plug or stud, or other sealing device fitted to the dial or other essential and permanent Part of the instrument.

PART XXII – BULK MEASURES

215. Definition

The term “bulk measure” means a measure of capacity designed to be mounted on a vehicle, whether permanently or not, and used for the carriage of liquid fuel.

216. Materials

(1) Bulk measures shall be made of steel or other material approved by the Director.

(2) The interior of each measure made of steel shall, after sand-blasting, be well and evenly coated (to a minimum thickness of 0.125 mm.) with amine cured epoxy resin paint or such other finish as the Director may approve.

(3) The interior of measures made of materials other than steel shall be coated or treated in a manner approved by the Director.

217. Capacity and marking

(1) A bulk measure shall be of a capacity of 0.5 m^3 or any multiple thereof; and the capacity shall be marked in cubic metres near the filling point and in litres near the discharge point of the measure.

(2) Where two or more measures are formed together, they shall be numbered in sequence, starting either at the front of the vehicle or, where the measures are not permanently mounted on a vehicle, at the end opposite the discharge point.

(3) The identification number of each measure shall be marked on the top or side of the calibration dome and also near the end of the discharge line or its associated discharge valve handle.

(4) Notwithstanding the provisions of paragraphs (1) to (3), every bulk measure shall have an identification plate fitted on some conspicuous part of the measure, and the following information shall be clearly and indelibly marked on the plate—

(a) name of the manufacturer;

(b) year of manufacture of the measure;

(c) serial number;

(d) the registration number of the vehicle, in the case of measures mounted on a vehicle;

(e) nominal capacity of the measure:

Provided that where two or more measures are formed together, the identification plate may be fitted on only one of the measures and that the nominal capacity of each measure shall be marked on the plate.

218. General construction

(1) Bulk measures shall—

(a) be sufficiently rigid to prevent buckling under normal conditions of use;

(b) be of such shape as to prevent trapping of air in the filling process and to facilitate drainage when emptying; and

(c) not leak.

(2) Effective venting of the measure shall be provided to permit air to escape during the filling operation from all areas designed to be filled with liquid and to permit the influx of air into the measure during the discharge of the liquid therefrom and the venting shall prevent formation of air pockets.

(3) Where two or more measures are formed together, the double bulkheads between the measures shall be—

(a) at least 50 mm. apart at the narrowest point;

(b) constructed such that they shall not become so distorted as to cause a change in the capacity of any measure exceeding 0.001 per cent when the neighbouring measures are filled or emptied;

(c) provided with means for draining the space between them.

219. Displacement boxes

(1) All displacement boxes fitted in any bulk measure shall be securely fixed to the inside of the measure in such a manner as to prevent trapping of air in the filling process and liquid in the emptying process; and such boxes shall not leak.

(2) *All baffle plates* in the measure shall have sufficient perforations to facilitate the filling of the measure without trapping air and the emptying of the measure without trapping liquid.

220. Calibration dome

(1) At the highest point of each measure, and as nearly as practicable midway between the ends of the measure, there shall be a calibration dome in the form of cylinder of elliptical

section, the major axis being 600 mm. ± 5 mm. minor axis 400 mm. ± 5 mm. and the height 300 mm. ± 5 mm.

(2) Any dome flange extending into the measure shall be provided with perforations, or openings, flush with the measure shell to prevent trapping of air during the filling process.

(3) The calibration dome shall incorporate the following—

(a) a filling port which shall—

(i) if circular, have a diameter of at least 200 mm. or if not circular, have an effective area of 300 mm^2;

(ii) be fitted with a leak-proof cover;

(b) an observation window which shall—

(i) be circular and of a diameter of not less than 200 mm.;

(ii) be so situated as to give a clear and unobstructed view of the indicator and be so fitted that it cannot be removed without removing the top plate of the calibration dome;

(iii) be fitted with a rotary wiper, operated from the outside which shall be capable of effectively cleaning the inside of the window;

(iv) be fitted with a securely closing cover, on the inside of which the capacity of the measure shall be marked in cubic metres;

(c) a venting device or double-acting safety valve.

221. Liquid level indicators

(1) Every bulk measure shall be fitted with an adjustable indicator (level index) which shall define the capacity of the measure.

(2) The indicator shall be made of such material and be of such design as shall be approved by the Director.

(3) The indicator shall be so positioned that when the measure is filled to the level of the indicator there shall remain an expansion space of at least 4 per cent of the nominal capacity of the measure as defined by that indicator.

(4) Access to the indicator through the filling port shall be prevented by means of a tube (with sufficient perforations to prevent trapping of air during the filling process) projecting downwards from the port a distance of at least 500 mm., or by such other device as the Director may approve.

222. Discharge valves

(1) At the lowest point of each bulk measure shall be fitted a bowden-cable-operated spring loaded valve; and the measure shall empty completely when this valve is opened.

(2) The handle for opening the spring-loaded-valve of the measure shall be situated adjacent to the associated discharge line.

223. Discharge lines

(1) Each bulk measure shall have only one discharge line.

(2) Each discharge line shall have an appreciable downwards slope from the bottom of the measure to the discharge point and the discharge line shall be incapable of trapping liquid when all valves are opened.

(3) At the end of each discharge line there shall be a manually operated valve, immediately before which shall be a sight glass so situated as to give a clear and unobstructed view of the flow of liquid.

(4) Where two or more measures are formed together, all discharge lines, together with the associated valve handles, shall be brought to the same side or same end of the measures.

224. Calibration

(1) The following shall not be admitted for calibration unless permanently mounted on a vehicle—

(a) more than three measures joined together; or

(b) any individual measure of a purported capacity of more than two cubic metres.

(2) Bulk measures shall be calibrated by transferring water at 20 degrees centigrade from proving tanks into the measure under test and adjusting the measure's capacity indicator to the level of the water in the measure.

(3) During calibration the temperature of the water in proving tank and in the measure being calibrated shall be recorded.

(4) The water temperature should not vary by more than 2 degrees centigrade during calibration.

(5) To calculate the capacity of the measure at the reference temperature (20 degrees centigrade), the following procedure shall be adopted—

(a) if the water temperature is within ± 10 degrees centigrade from the reference temperature and in compliance with the conditions of paragraph (4), only the correction for proving tank shall be applied;

(b) if the water temperature lies outside the above-mentioned limits, the volume of the measure shall be calculated using the relation—

$$V^{e}_{t20} = V^{e}_{t20}\left\{1 + \beta_e\left(t_e - t_{20}\right) + \beta_e\left(t_{20} - t_e\right)\right\}\frac{Pt_e}{Pt_e}$$

Where,

$V^{e}t_{20}$	is the volume of the measure at 20 degrees centigrade;
$V^{e}t_{20}$	is the volume of water measured by the proving tank, and to which the correction for the proving tank has been applied;
β_e	is the co-efficient of cubic expansion of the material used in the construction of the proving tank;
β_e	is the co-efficient of cubic expansion of the material used in the construction of the measure being calibrated;
t_e	is the mean water temperature in the proving tank;
t_e	is the mean water temperature in the measure being calibrated;
	pte and ptc are densities of water at temperatures of te and tc.

(6) For the purpose of calculating the capacity of measure as required under paragraph (5) the values of the co-efficient of cubic expansion shall be—

(a) 3.3×10^{-5} per C for mild steel;

(b) 5.1×10^{-5} per C for stainless steel; and

(c) 6.9×10^{-5} per C for aluminium.

(7) Where two or more measures are formed together and are mounted on a vehicle as a single compartmentalized tank, the inspector shall, before commencing the calibration ensure that the vehicle is placed on a level surface and that the front and rear tyres of the vehicle are at the correct pneumatic pressure.

(8) The following tests shall be performed on any tank mounted on a vehicle before commencing calibration—

(a) to check for any variation in the capacity of a compartment when neighbouring compartments are filled, the compartment located roughly in the middle of the tank shall be filled to its capacity and its indicator adjusted to the level of

the water in the compartment. The neighbouring compartments shall then be filled, this having the effect of raising the level of water in the compartment in the middle of the tank; the level of the water in this compartment shall then be adjusted to the indicator, the volume of water drawn off being measured using a volumetric standard measure; the volume shall not exceed 0.001 per cent of the capacity of the compartment;

(b) to check whether valves and venting devices are functioning correctly or have been properly fitted, all the compartments in the tank shall be filled and their indicators adjusted accordingly. The vehicle shall then be driven for 5 to 10 minutes including a number of abrupt starts and stops. The vehicle shall then be returned to its initial position and the level of the water in the compartments shall again be noted. If the level is not on the indicators, the valves and venting devices are faulty and the tank should not be calibrated until this situation has been rectified.

(9) The maximum permissible errors on any measure shall be 0.25 per cent in excess only of the purported capacity of the measure.

[L.N. 56/1996, r. 13.]

225. Sealing and stamping

(1) Every bulk measure shall have provisions for affixing seals to—

(a) any indicator so that the indicator cannot be adjusted without mutilating or destroying the seal; and

(b) any removable part to which an indicator may be attached so that the part cannot be removed without mutilating or destroying the seal.

(2) The stamp of verification shall be applied on all seals fitted in accordance with paragraph (1).

226. Stamping or measures mounted on vehicles

(1) No measure mounted on a vehicle shall be stamped if, when it is fully loaded, the vehicle on which it is mounted transmits to the road more than the maximum weight permitted by the Road Traffic Act (Cap. 403) or by the specifications of the manufacturer of the vehicle, whichever is the less.

(2) In calculating the weight transmitted to the road by a vehicle carrying fuel, the following specific gravities shall be used—

(a) 0.72 for vehicles carrying motor spirits;

(b) 0.84 for vehicles carrying middle distillates;

(c) 0.99 for vehicles carrying black oils.

227. Calibration certificate

(1) On completion of the calibration, the inspector shall issue a certificate in respect of the calibration and such certificate shall include the following information—

(a) name and address of the owner of measure(s);

(b) number of the certificate;

(c) manufacturer's name, year of manufacture and serial number;

(d) vehicle registration number in the case of measure(s) permanently mounted on a vehicle;

(e) in the case of two or more measures joined together, the serial numbers of the measures and their respective nominal capacities.

(2) The calibration certificate shall be in the form specified in the Tenth Schedule.

PART XXIII – INSPECTION

228. Annual inspections

(1) It shall be the duty of an inspector to arrange that the premises of every trader in the district are visited for the purpose of inspecting all weights, measures and instruments in use for trade at least once in every year:

Provided that with the sanction of the Director such period may be extended in any district to not more than two years in respect of the whole or any part of any such district.

(2) Arrangements shall also be made for special impromptu surprise visits from time to time.

229. Requirements of Rules may be dispensed with

Where in the special circumstances of any case it appears to the inspector to be impracticable to comply literally with any requirement of these Rules, he shall report the matter so that the Director, should he think fit, may dispense with the observance of such requirement.

230. Obstruction of Inspector

It shall be deemed to be obstruction within the meaning of section 28 of the Act for any person to refuse to allow the inspector to withdraw such liquids as he may require for the purpose of testing any measuring instrument as provided by rules 169, 186 and 198.

PART XXIV – SPECIAL RULES REGULATING
WEIGHTS, MEASURES AND INSTRUMENTS USED BY
GOVERNMENT DEPARTMENTS AND LOCAL AUTHORITIES

231. Application

Rules 232 to 237 shall apply to all weights, measures and instruments used in any hetransaction by the Government or local authorities for the purchase, sale or issue of any goods, stores or other articles determined by weight or measure.

232. Use of legal standards

All tolls, rates, taxes and payment of any description charged or collected according to weight or measure shall be charged and collected only according to weights and measures authorized by the Act.

233. Annual examination

It shall be the duty of the head of the department concerned to arrange once in every year for all weights, measures and instruments to be examined by the inspector; and no weight, measure, or instrument shall be used unless it has been verified and bears a valid stamp of verification.

234. Rejected weights, measures and instruments

A rejected weight, measure or instrument shall be withdrawn from use as soon as is reasonably possible, and if not so withdrawn within a period of 28 days, the matter shall be reported by the inspector to the Permanent Secretary of the Ministry concerned.

235. Submission to Inspector

Weights, measures and instruments shall be submitted to the inspector at the nearest weights and measures office or at the nearest stamping station:

Provided that where an instrument, by reason of its being permanently fixed or of bulky or delicate construction, cannot be conveniently moved, the inspector shall at the request of the department concerned examine the instrument *"in situ".*

236. Application of general rules

New and repaired weights, measures and instruments shall comply fully with such of the requirements of these Rules as are applicable to the class to which they belong.

237. Powers of entry

An inspector may enter any premises at any reasonable time for the purposes of inspecting any weight, measure or instrument; and the head of the department concerned shall afford the Inspector all reasonable facilities and assistance in the examination of any weight, measure or instrument.

PART XXV – FEES

238. Stamping and rejection fees

(1) The fees specified in Part I of the Eleventh Schedule shall be payable to the inspector in respect of every weight, measure and instrument examined and verified and stamped by him with a stamp of verification.

(2) One-half of the fees specified in Part I of the Eleventh Schedule shall be payable to the inspector in respect of every weight, measure and instrument rejected by him:

Provided that, in the case of a weight, measure or instrument which is rejected by the inspector on visual examination alone, no fee shall be charged.

239. Fees for approval of patterns

The fees specified in Part II of the Eleventh Schedule shall be payable by persons submitting patterns of weighing or measuring instruments to the Director for approval pursuant to section 30 of the Act.

240. Adjusting and miscellaneous fees

The fees payable to the inspector in respect of every weight and measure adjusted by him in addition to the stamping fees mentioned in paragraph (1) of rule 238, and other miscellaneous fees shall be as specified in Part III of the Eleventh Schedule.

241. Travelling expenses and the cost of cartage, carriage and lifting of standards

Where an inspector attends at any place for the purpose of verification of any weight, measure or instrument, the person who has the weight, measure or instrument for use for trade, shall pay in addition to any fees specified, any costs of cartage, carriage and lifting of standards and inspector's tests weights as specified in Part IV of the Eleventh Schedule and such payments may include any expenses incurred by the inspector:

Provided that where the weights, measures or instruments verified by the inspector belong to or are used by different persons in the same locality, any expenses incurred by the inspector may be levied *pro rata* on such persons:

Provided further that where the inspector attends at any place on notification or application by any person any expenses incurred by the inspector may be paid by the person giving such notification or making such an application.

[L.N. 56/1996, r. 14.]

242. Receipts for fees

(1) The receipt given by the inspector for fees paid shall include all weights, measures and instruments examined, verified, stamped, rejected and adjusted for the same person on the same occasion, and such a receipt shall include a certificate of verification as required by section 27 of the Act.

(2) The certificate of verification mentioned in paragraph (1) shall be in the form specified in the Twelfth Schedule.

243. Verification book

The inspector shall keep a book, to be known as a verification book, in which all fees collected shall be entered.

PART XXVI – RULES FOR REGISTRATION AND LICENSING OF MANUFACTURERS, REPAIRERS AND SELLERS OF WEIGHTS, MEASURES, WEIGHING AND MEASURING INSTRUMENTS

244. All manufacturers and sellers to be registered

(1) Any person engaging in, or proposing to engage in the business of manufacturing or selling weights, measures, weighing or measuring instruments shall make an application to the Director for registration as a manufacturer or seller of weights, measures, weighing or measuring instruments.

(2) Every application for registration under paragraph (1) shall be made in the prescribed forms set out in Parts 1A and 1B of the Thirteenth Schedule, and shall be made—

(a) in the case of a person carrying on the business of manufacturing or selling weights, measures, weighing or measuring instruments, within ninety days of the publication of these Rules;

(b) in the case of a person who commences business as a manufacturer or seller of weights, measures, weighing or measuring instruments after the publication of these Rules, within ninety days following the date on which he commences such business.

(3) On receipt of any application made to him under paragraph (1), the Director shall, where the applicant satisfies all the requirements, register the person making the application and shall issue him with a certificate in the form set out in Part II of the Thirteenth Schedule.

(4) The Director may reject any application submitted to him for registration where he is satisfied that—

(a) the applicant has made any statement in relation to the application, which is incorrect or false in any material particulars; or

(b) the applicant has contravened any of the provisions of the Weights and Measures Act, or any rules made thereunder.

(5) Any certificate issued under paragraph (3) shall be subject to any conditions specified in the said certificate.

(6) Where a certificate of registration is lost or destroyed, the holder of that certificate shall as soon as practicable report such loss of destruction to the police and thereafter apply to the Director to be issued with a duplicate certificate of registration.

(7) The Director shall maintain separate registers for all manufacturers and sellers of weights, measures, weighing or measuring instruments registered under weighing or measuring instruments registered under these Rules and such Register shall be in the form set out in Part IIIA and IIIB of the Thirteenth Schedule.

[L.N. 56/1996, r. 15.]

245.

[Deleted by L.N. 129/2007, r. 2.]

246.

[Deleted by L.N. 129/2007, r. 3.]

247.

[Deleted by L.N. 129/2007, r. 4.]

248.

[Deleted by L.N. 129/2007, r. 5.]

249. All manufacturers and repairers to submit, manufactured and repaired instruments for verification

(1) Every manufacturer or repairer shall submit all instruments which has manufactured or repaired to an inspector for verification and stamping before the same is sold or returned to trade use.

(2) Where in the opinion of a repairer any instrument which has been presented to him for repair is beyond repair, he shall notify an inspector forthwith.

(3) The inspector upon receipt of any notification of an instrument beyond repair, shall examine and test such instrument himself and give his written decision based on his findings to the Director and a copy of such findings shall be given to the owner of the instrument where the instrument is to be withdrawn from use.

[L.N. 56/1996, r. 15.]

250. Manufacturers and repairers to maintain registers

(1) Every manufacturer shall maintain a register in the form set out in Part XI of the Thirteenth Schedule in which he shall record details of all instruments manufactured by him and shall produce such register for inspection by the inspector upon request.

(2) Every repairer shall maintain a register in the form set out in Part XII of the Thirteenth Schedulein which he shall record details of all instruments repaired by him together with the names and addresses of the persons for whom the repairs were made and shall furnish such information concerning any instrument which he has or is about to repair to the inspector upon request.

[L.N. 56/1996, r. 15.]

251. Certificate of Service to be issued

Where a repairer has serviced, repaired or overhauled any instrument on the premises of any licensee, whether under a contract or not, the repairer shall issue the person responsible for the instrument with a certificate of service in the form set out in Part XIII of the Thirteenth Schedule.

[L.N. 56/1996, r. 15.]

252. All Test Weights and Standards to be verified

(1) All test weights or standards of weight or measure which are used by manufacturers and repairers shall be submitted to an inspector at least once in every year, for the purpose of re-verification.

(2) Manufacturer's and repairer's test weights and measures shall not be stamped but shall be marked with a date in the manner provided under rules 13 and 14 of these Rules.

[L.N. 56/1996, r. 15.]

253. Offences

Any person who—

(a) engages in the business of manufacturing or selling weights, measuring instruments without first being registered; or

(b) repairs or assembles any weight, measure, weighing or measuring instrument without a valid repairer's licence; or

(c) being a repairer, manufacturer or seller of weights, measures, weighing or measuring instruments contravenes any of the requirements of these Rules;

commits an offence and shall upon conviction be liable to a fine not exceeding twenty thousand shillings.

[L.N. 56/1996, r. 15.]

FIRST SCHEDULE

[r. 4]

PERMISSIBLE ABBREVIATIONS

1.	**MEASUREMENT OF MASS**	
	Kilogram	kg.
	Gram	g.
	Milligram	mg.
	Carat (metric)	C.M.
2.	**MEASUREMENT OF LENGTH**	
	Kilometre	Km.
	Metre	m.
	Decemetre	dm.
	Centimetre	cm.
	Millimetre	mm.
3.	**MEASUREMENT OF AREA**	
	Hectare	ha.
	Decare	da.
	Are	a.
	Square kilometre	$km.^2$
	Square metre	$m.^2$ or (sq.m.)
	Square decimetre	$dm.^2$ or (sq.dm.)
	Square centimetre	$cm.^2$ or (sq.cm.)
	Square millimetre	$mm.^2$ or (sq.mm)
4.	**MEASUREMENT OF VOLUME**	
	Cubic metre	$m.^3$ or (cu.m.)
	Cubic decimetre	$dm.^3$ or (cu.dm.)
	Cubic centimetre	$cm.^3$ or (c.c.)
5.	**MEASUREMENT OF CAPACITY**	
	Litre	l.
	Decilitre	dl.
	Centilitre	cl.
	Mililitre	ml.

SECOND SCHEDULE

CYLINDRICAL WEIGHTS

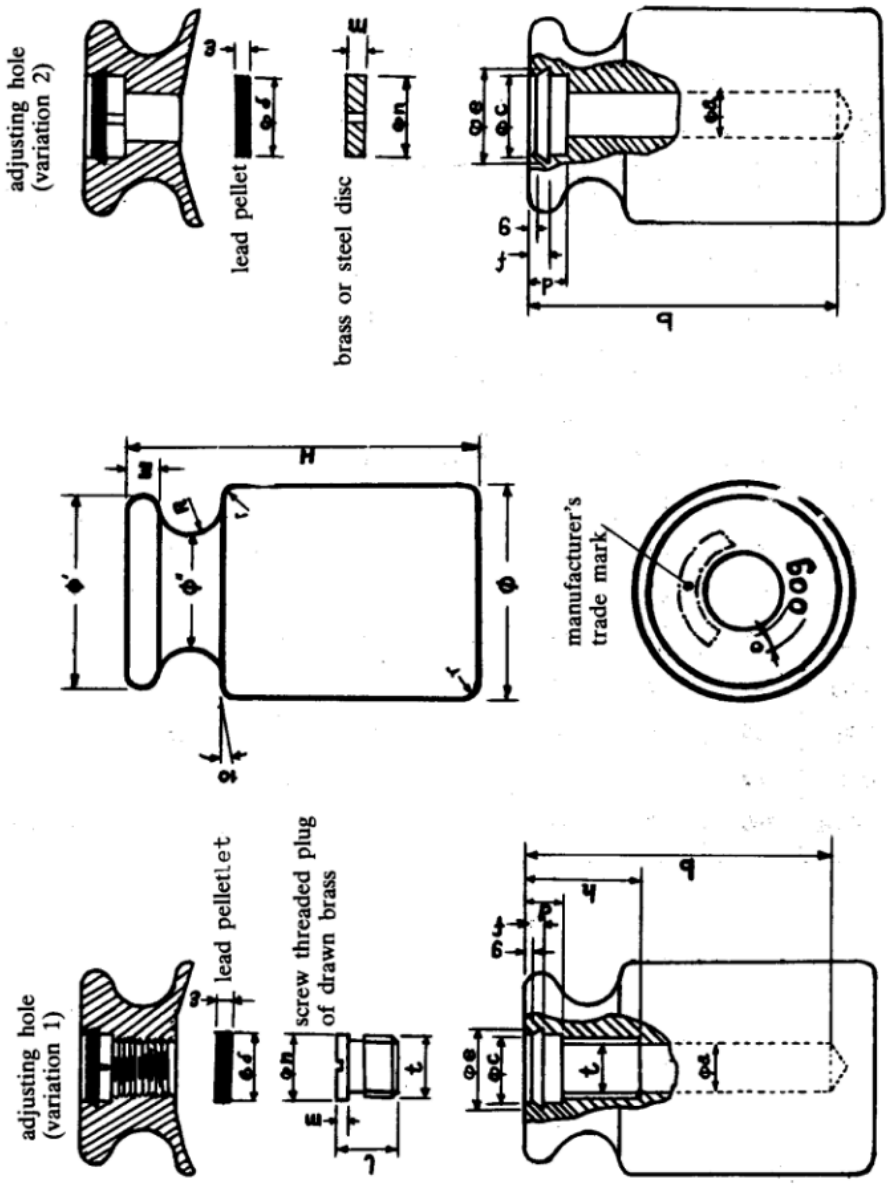


TABLE OF DIMENSIONS

(in millimetres)

WEIGHTS

No-minal value	ø	ø'	ø N	H	E	R	r	o	
1 g.	6	5.5	3	DEPENDING ON MATERIAL	1	0.9	0.5	1	without Adjusting Hole
2 g.	6		3		1			1	
5 g.	8	5.5	4.5		1.4	0.9	0.5	1	
10 g.	10	7	6		1.6	1.25	0.5	1.5	
20 g.	13	9	7.5		2	1.5	0.5	2	
50 g.	18	11.5	10		3	1.8	0.5	1.5	
20 g.	13	16	7.5		2	2.5	0.5	2	
50 g.	18	11.5	10		3	1.8	1	2	
100 g.	22	16	13		4	2.5	0.5	3.2	
200 g.	28	20	16		4.5	3.5	1	3.2	
500 g.	38	25	22		6	4	1	5	
1 kg.	48	34	27		8	5.5	1.5	5	
2 kg.	60	43	36		10	7	1.5	10	
5 kg.	80	54	46		13	9	2	10	
	100	72			17	12	2		
		90				15	2		
							3		

TABLE OF DIMENSIONS

(in millimetres)

ADJUSTING HOLES

Variation 1															Variation 2										
a	b	c	d	e	f	g	h	i	l	m	n	d	E	a	b	c	d	e	f	g	m	n
3	18	5.5	2.5	6.5	1.5	1	9	M4 × 0.5	5	1	5	5	1	3	18	5.5	2.5	6.5	1.5	1	1	5
4.5	25	7.5	3.5	9	2	1	10	M6 × 0.5	5	1.5	7	7	1.5	4.5	25	7.5	3.5	9	2	1	1.5	7
4.5	30	7.5	3.5	9	2	1	10	M6 × 0.5	5	1.5	7	7	1.5	4.5	30	7.5	3.5	9	2	1	1.5	7
7	40	10.5	4.5	12	2.5	1.5	15	M8 × 1	8	2	10	10	2	7	40	10.5	4.5	12	2.5	1.5	2	10
7	50	10.5	4.5	12	2.5	1.5	15	M8 × 1	8	2	10	10	2	7	50	10.5	4.5	12	2.5	1.5	2	10
10	65	18.5	7	20	4	2.5	20	M14 × 1.5	13	3	18	18	3	12	65	18.5	7	20	4	2.5	3	18
14	80	18.5	7	20	4	2.5	20	M14 × 1.5	13	3	18	18	3	12	80	18.5	7	20	4	2.5	3	18
16	120	24.5	8	26.5	4	2.5	35	M20 × 1.5	18	4	24	24	3	18	120	24.5	8	26.5	4	2.5	4	24
18	160	24.5	8	26.5	4	2.5	35	M20 × 1.5	18	4	24	24	3	18	160	24.5	8	26.5	4	2.5	4	24

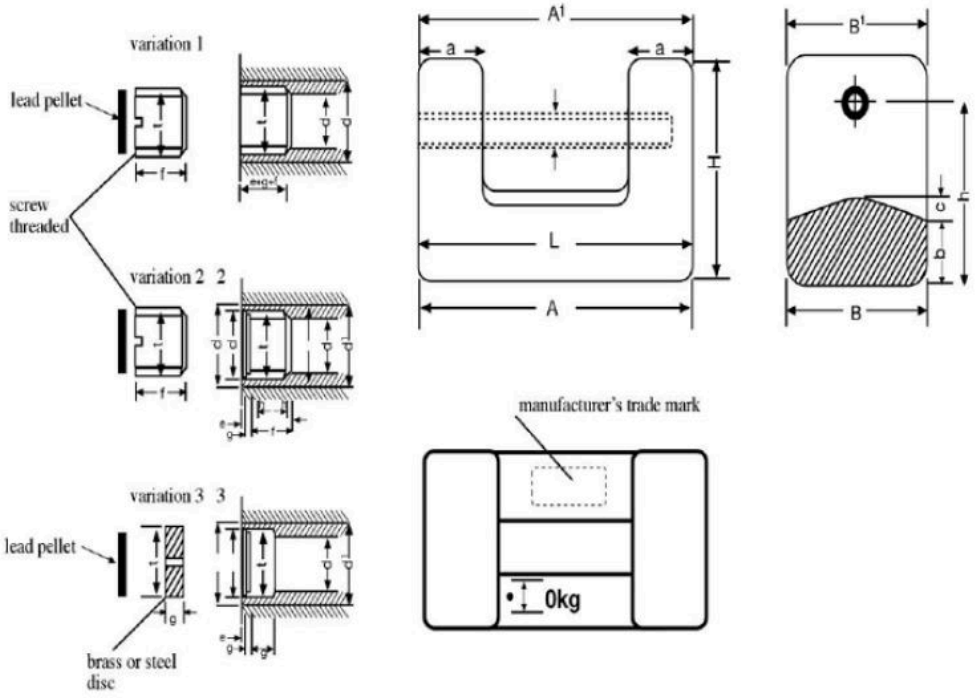
(threads according to 1s0/R 261)

The depth of b of the adjusting holes is given only as an indication, as the volume of the cavities must allow the adjustment of new weight such that at least two-thirds of the total volume of the hole remaing empty after initial adjust ment of weight.

THIRD SCHEDULE

RECTANGULAR WEIGHT

MODEL 1



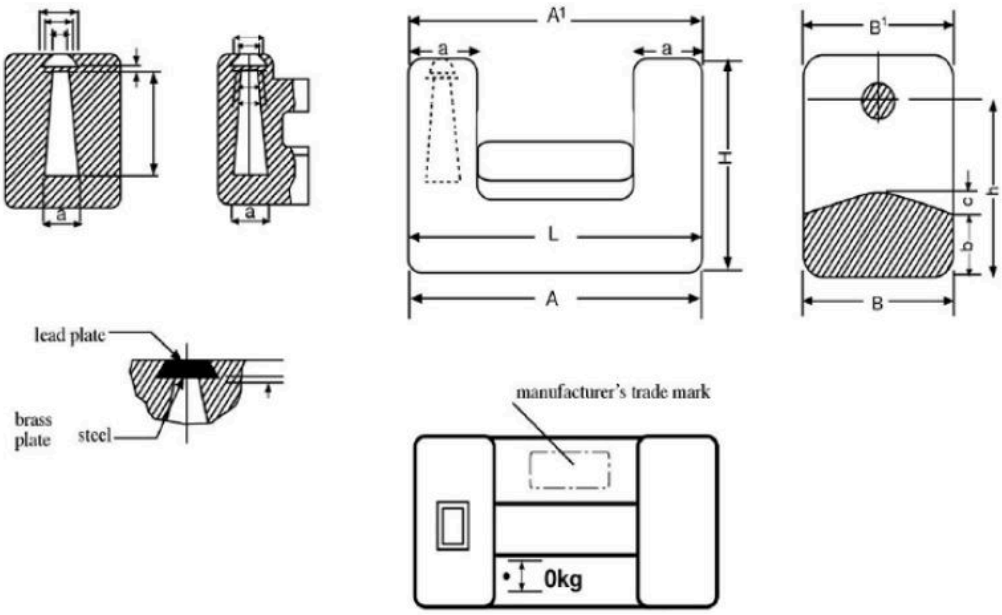
SIZE TABLE

(in milimetres)

Nominal value	A	A	B	B	H	a	b	c	h	d/d	l	r	o	i	f	e	E	ø	ø'	ø N	g
5 kg.	150	152	75	77	34	36	30	6	66	12/20	145	5	12	M 16 × 1.5	14	1	2	16.5	18	16	5
10 kg.	190	193	95	97	109	46	38	8	84	12/20	185	6	16	M 16 × 1.5	14	1	2	16.5	18	16	5
20 kg.	230	234	115	117	139	61	52	12	109	24/32	220	8	20	M 27 × 1.5	21	2	3	27.5	30	27	8
50 kg.	310	314	155	157	192	83	74	16	152	24/32	300	10	25	M 27 × 1.5	21	2	3	27.5	30	27	8

RECTANGULAR WEIGHT

MODEL 2



SIZE TABLE
(in milimetres)
TABLE OF DIMENSIONS

Normal Value	*A*	*A*	*B*	*B*	*H*	*a*	*b*	*c*	*h*	*d*	*r*	*o*	*m*	*n*	*p*
5 kg. ..	150	152	75	77	84	36	30	6	66	19	5	12	16	13	55
10 kg. ..	190	193	95	97	109	46	38	8	84	25	6	16	35	25	70
20 kg. ..	230	234	115	117	139	61	52	12	109	29	8	20	50	30	95
50 kg. ..	310	314	155	157	192	83	74	16	152	40	10	25	70	40	148

FOURTH SCHEDULE
[r. 24]
HEXAGONAL WEIGHT

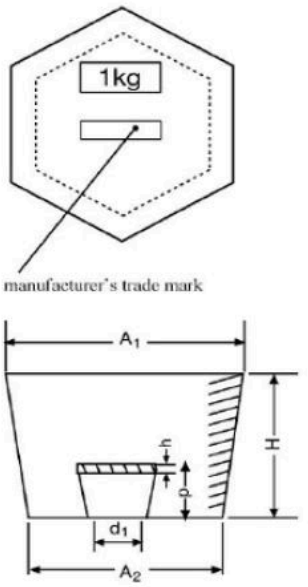


FIGURE 1 (100 g.-2 kg)

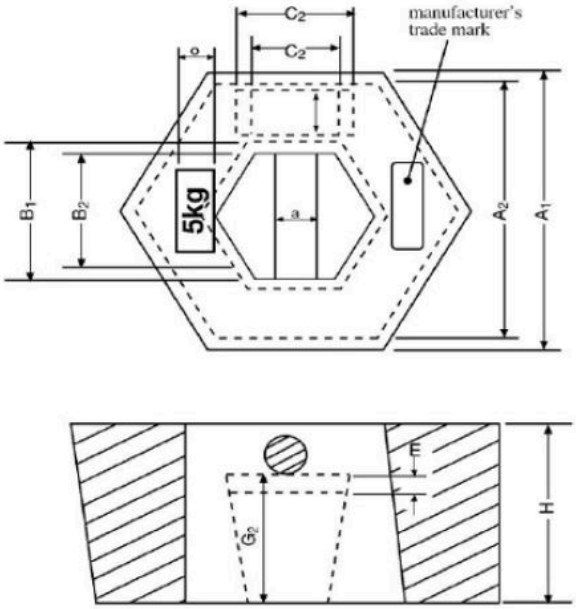
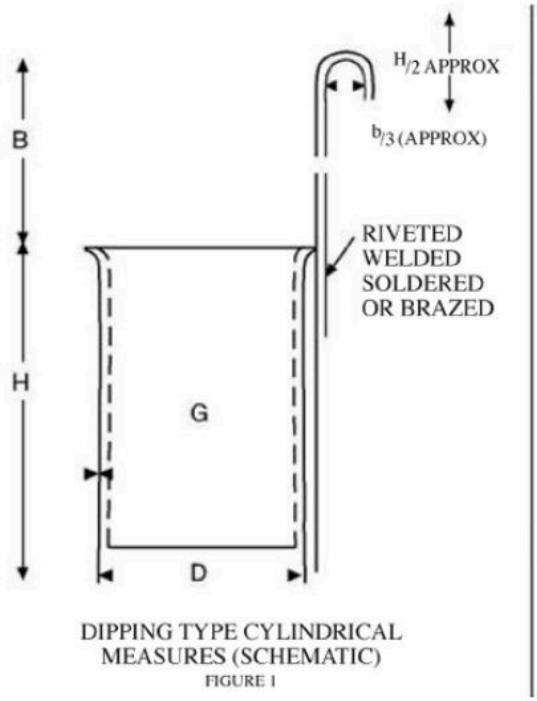


FIGURE 2 (5 kg.-20 kg)

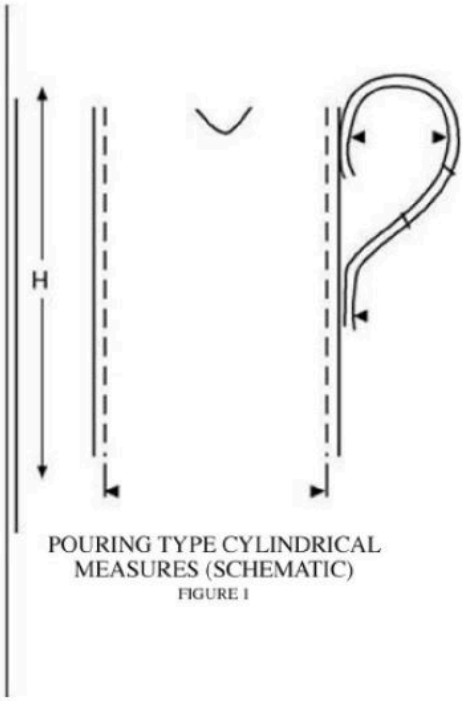
FIFTH SCHEDULE

SHAPE AND NOMINAL DIMENSIONS OF CYLINDRICAL MEASURES



DIPPING TYPE CYLINDRICAL MEASURES (SCHEMATIC)

FIGURE 1



POURING TYPE CYLINDRICAL MEASURES (SCHEMATIC)

FIGURE 1

TABLE 1 - NOMINAL DIMENSIONS OF CYLINDRICAL CAPACITY MEASURES

Denomination	**D**	**H**	**B**		**G**
			Max.	**Min.**	**Min.**
2 litres	120	180	360	250	1.60
1 litre	95	142	254	210	1.60
500 ml.	75	114	224	160	1.60
200 ml.	55	83	166	120	1.25
100 ml.	44	66	132	100	1.25
50 ml.	35	52	104	80	1.25
20 ml... ..	26	38	76	60	1.00

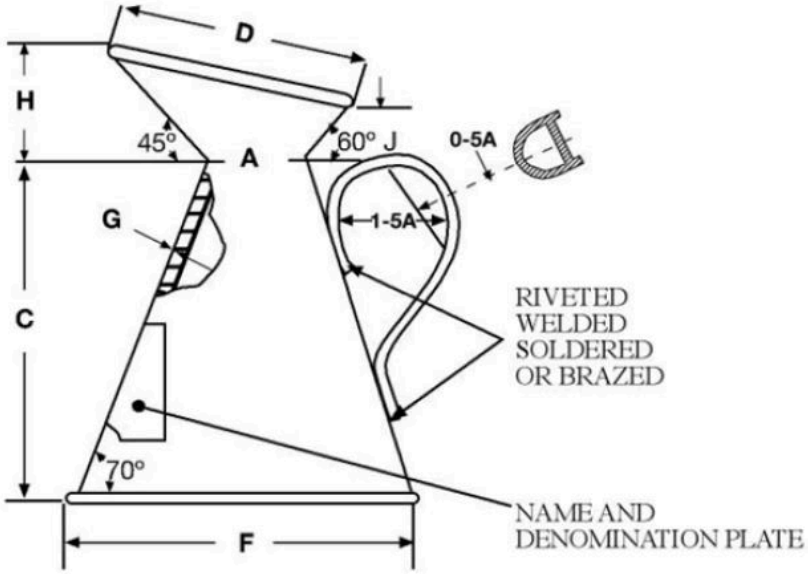
NOTE:

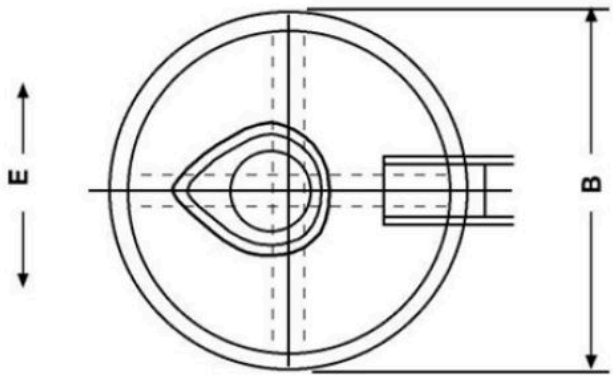
1. All dimensions in millimetres.

2. Tolerance on dimensions ± 10%.

SIXTH SCHEDULE

SHAPE AND NOMINAL DIMENSIONS OF CONICAL MEASURES





Pouring Type Conical Measure (Schematic)

Figure 3

-

TABLE OF DIMENSIONS

(in millimetres)

Denomination	A	B	C	D	E	F	D Min.	H	J
20 litres	97	388	288	208	194	390	1.00	86	29
10 litres	77	308	307	174	154	309	1.00	75	26
5 litres	61	244	245	147	122	247	0.80	65	24
2 litres	45	180	180	118	90	182	0.80	56	22
1 litre	36	143	143	95	72	145	0.63	45	18
500 ml.	28	114	113	74	56	115	0.63	35	14
200 ml.	21	84	84	53	42	86	0.83	24	10
100 ml.	17	66	67	41	34	69	0.63	18	7

NOTE: Tolerance in dimensions shall be + 10% except in the case of 10 litre and 20 litre measures for which the tolrences shall be ± 5 %

SEVENTH SCHEDULE

SHAPE AND NOMINAL DIMENSIONS OF LIQUOR MEASURES

[All dimensions in mm.]

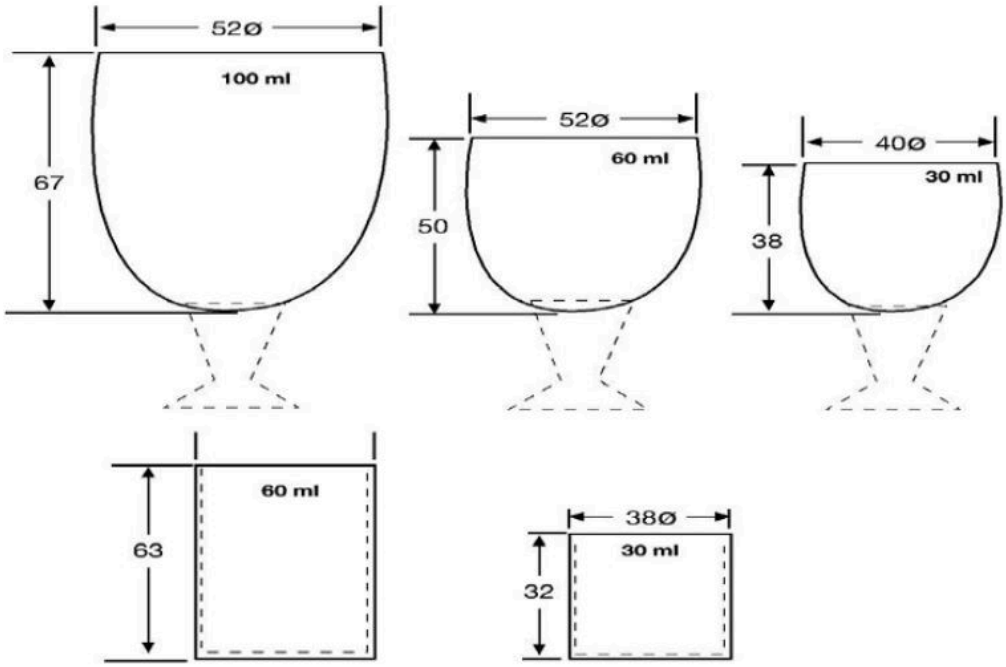
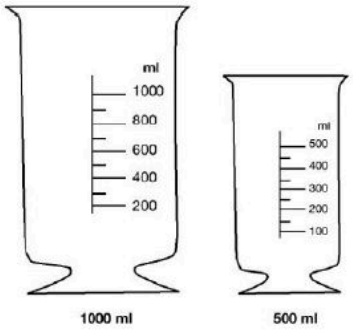


FIGURE 4

EIGHTH SCHEDULE

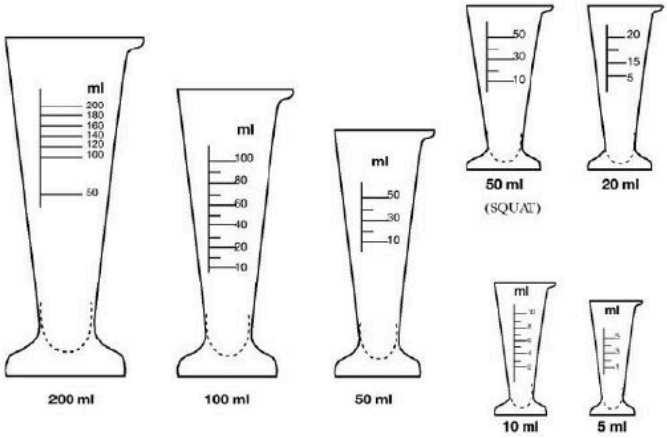
[r. 41(1)(a)]

SHAPES OF DISPENSING MEASURES



BEAKER MEASURES

FIGURE 5



CONICAL TYPE DISPENSING MEASURES

FIGURE 6

NINTH SCHEDULE

TESTS

PART I – TESTS TO BE APPLIED TO EGG-GRADING MACHINES

1. In this Schedule the following expressions shall have the following meanings respectively —

"capacity" means—

(a) in relation to a type "A" machine, the number of those weighing units in the machine whose functions is to grade eggs into one of the specified grades; and in determining that number in the case of a machine in which several weighing units grading eggs into the same specified grade are served by

the same feed track, two or more such units are to be counted as a single weighing unit;

(b) in relation to type "B" machine, the product of multiplying the number of those weighing units whose function is to grade eggs into one or more of the specified grades by the number of different specified grades into which the machine is designed to grade eggs;

"test poise" means a counterpoise for use in the testing of egg grading machines, being a counter poise approved by the Director for such use as respects its form and the material of its construction.

2. For the purpose of any test referred to in this Schedule, an egg-grading machine shall be treated as grading any test poise correctly if, but only if—

(a) it grades that poise into the appropriate grade, that is to say, the grade specified in column 1 of Table 14 of rule 135 appropriate to the weight range specified in column 2 of that table within which the weight of that poise falls; or

(b) in the case of a poise of a weight less than the weight range appropriate to the specified grade "sub-grade", it does not grade that poise into any of the specified grades.

PART II – EVERY EGG GRADING MACHINE SHALL BE TESTED IN THE FOLLOWING MANNER

A – FIRST TEST

1. For the purpose of this test (hereinafter referred to as the "first test"), the inspector shall select a set of test poises consisting of the number of pairs of test poises equivalent to the number of different specified grades into which the machine is designed to grade eggs, each pair of poises being selected in relation to a different grade and so that one of the poises in the pair weighs half a gram more and the other half a gram less than the minimum of the weight range specified in column 2 of Table 14 of rule 135 appropriate to that grade.

2. In the case of a type "A" machine, the set of test poises shall be fed indiscriminately into the machine in the manner in which eggs would be fed into it in the course of its normal operation, each poise being fed into the machine along the feed track or (in the case of a multiple track machine) along each feed track, the number of times specified in column 2 of Part 3 of this Schedule in relation to a machine of that capacity.

3. In the case of a type "B" machine, each poise in the set of test poises shall be fed indiscriminately into each weighing unit in the machine the number of times referred to in paragraph 2, each poise being fed into the unit, either—

(a) by placing it on the feed track serving the weighing unit; or

(b) by placing it by hand directly into the weighing unit.

4. If the machine fails to grade all the poises correctly and—

(a) in the case of a machine bearing a stamp which has not been obliterated or defaced, the aggregate number of incorrect gradings does not exceed that specified in column 3 of Part 3 of this Schedule in relation to a machine of that capacity; or

(b) in the case of any other machine, the aggregate number of incorrect gradings does not exceed that specified in column 4 of Part 3 of this Schedule, in relation to a machine of that capacity, the machine shall be subjected to the second test specified hereunder.

B – SECOND TEST

5. For the purpose of the second test, the inspector shall select a further set of test poises consisting of each pair of test poises used in the first test which, or one of which, was incorrectly graded in that test.

6. In the case of a type "A" machine each pair of test poises so selected shall be fed into the machine along the feed track, or (in the case of a multiple track machine) along each feed track, serving each weighing unit by which that pair of poises, or one of that pair, was incorrectly graded in the first test and each test poise of the pair shall be fed into the machine along the relevant feed track such number of times as (together with the number of times that poise was fed into the machine along that feed track in the course of the first test) equals 25.

7. In the case of a type "B" machine, each pair of test poises so selected shall be fed only into each weighing unit by which that pair of poises, or one of that pair, was incorrectly graded in the first test; and each poise of the pair shall be fed into the relevant weighing unit—

(a) such number of times as (together with the number of times that poise was fed into that weighing unit in the course of the first test) equals 25; and

(b) in the following manner, that is to say, either—

(i) by placing it on the feed track serving that weighing unit; or

(ii) by placing it by hand directly into that weighing unit.

8. The machine is correct and satisfies the appropriate test for the purpose of paragraph (2) of rule 136 if, and only if—

(a) when tested pursuant to the first test, it correctly grades all the test poises;

(b) when tested pursuant to the first and second tests the number (under both such tests) of incorrect gradings of the test poises in each pair by each weighing unit—

(i) in the case of a machine bearing a stamp which has not been obliterated or defaced, does not exceed 13;

(ii) in the case of any other machine, does not exceed 11.

PART 3

1	**2**	**3**	**4**
Capacity of Machine	*Number of Times each Test Poise Must be Used in the First Test*	*Maximum Number of Incorrect Gradings in the First Test for Determining whether the Machine is to be Subjected to the Second Test*	
		Machine Bearing a stamp which has not been Obliterated or Defaced	Unstamped Machines
2	12	13	11
3	8	13	11
4	6	13	11
5	5	13	11
6	4	13	11
7	4	15	12
8	3	13	11
6	3	15	12
10	3	17	13
11	3	18	14
12	2	13	11
13	2	14	11
14	2	15	12
15	2	17	13
16	2	18	14
17	2	19	14
18	2	20	15

19	2	21	16
20	2	22	17
21	2	24	17
22	2	25	18
23	2	26	19
24,25,26 ..	1	13	11
27 or 28 ..	1	15	12
29,30,31 ..	1	17	13
32,33,34 ..	1	18	14
35 or 36 ..	1	20	15
37,38,39 ..	1	21	16
40,41,42 ..	1	23	17
43,44,45 ..	1	25	18
46 or 47 ..	1	26	19
48,49,50 ..	1	28	20
51,52,53 ..	1	30	23
54 or 55 ..	1	31	24
56 or 57 ..	1	32	25
58 or 59 ..	1	34	26
60,61,62 ..	1	35	27
63 or 64 ..	1	37	29
65 or 66 ..	1	38	30
67 or 68 ..	1	39	31
69,70,71 ..	1	41	33
72 or 73 ..	1	42	34
74,75,76 ..	1	44	35
77 or 78 ..	1	45	37
79 or 80 ..	1	47	38
81 or 82 ..	1	48	39
83,84,85 ..	1	49	41
86 or 87 ..	1	51	42
88 or 89 ..	1	52	43
90,91,92 ..	1	54	45
93 or 94 ..	1	55	46
95,96,97 ..	1	57	47
98,99,100	1	59	49

TENTH SCHEDULE

APPLICATION FORMS

REPUBLIC OF KENYA

THE WEIGHTS AND MEASURES ACT

(Cap. 513, Section 27 (7))

WEIGHTS AND MEASURES DEPARTMENT

P.O. Box.....

TEL.:.....

ROAD TANKER CERTIFICATE OF CALIBRATION

I hereby certify that the road tanker whose particulars are given hereunder was brought to me by (Manufacturer's Name) .....of

(Address)..... and was this day verified and stamped by me, the same having been examined and found correct.
Dated at..... , this..... day of..... , 20.....
.....
Inspector of Weights and Measures
Note:—This certificate remains in force for twelve calendar months from the date thereof unless otherwise specified.
Particulars of Tanker
Registration No..... Type or Make.....
Engine No. ..... Chassis No.....
Year of Manufacture.....
Weights and Measures Serial No. .....
Compartments
No. 1 ..... litres No. 2 ..... litres No. 3 ..... litres
No. 4 ..... litres No. 5 ..... litres No. 6 ..... litres
TOTAL CAPACITY:..... litres
REMARKS:.....

ELEVENTH SCHEDULE

[rr. 238, 239, 240, 241]

FEES

[L.N.107/1999, L.N. 129/2007, L.N. 184/2010.]

PART I

Particulars of Equipment	***Initial Verification KSh.***	***Re-verification KSh.***
1. *Weights*:		
For each weight—		
5kg and under	100	40
10kg	160	80
20kg	200	100
exceeding 20kg	400	200
2. *Measures of length*:		
For each measure—		
(a) unsubdivided	400	200
(b) subdivided (including the whole length):	100	60
1 metre and under		
exceeding 1 metre but not exceeding 5 meters	200	100
10 meters	200	200
20 metres	600	300
30 metres	800	400
exceeding 30 meters	1,000	800

3. *Measures of capacity (other than bulk measures)*:		
For each measure—		
(a) Unsubdivided—	100	40
2 litres and under		
exceeding 2 litres but not exceeding 20 litres	200	100
exceeding 20 litres	400	200
(b) Subdivided:		
The fee payable for a subdivided measure shall be the same as that for an unsubdivided measure of equivalent capacity plus an additional charge of KSh. 10 for each of its numbered subdivisions.		
4. *Bulk measures (road tankers)*:		
(i) For each compartment according to capacity—	2,000	
500 litres and under		
exceeding 500 litres— an additional charge of Kshs. 500 shall be payable for every 500 litres (or part thereof) in excess of such capacity.		
(ii) Adjustment of liquid level indicator of a bulk measure	1,000	
5. *Bulk storage tanks*:		
For each tank according to its capacity—	100,000	
100,000 litres and under		
exceeding 100,000 litres but not exceeding 500,000 litres.	150,000	
exceeding 500,000 litres but not exceeding 1,000,000 litres	200,000	
exceeding 1,000,000 litres an additional charge of Kshs. 10,000 for every 1,000,000 litres		
For subdivided tanks—		

an additional charge of Kshs. 2000.00 per graduation		
6. *Spirit measuring instruments*:		
For each instrument	400	200
7. *Liquid measuring instruments*:		
(a) Dispensing pumps (each)—		
(i) electronic	2,000	1,200
(ii) non-electric.....	1,600	1,000
(b) Bulk meters (each)—		
(i) electronic	30,000	15,000
(ii) non-electronic	20,000	10,000
8. *Leather measuring instruments and fabric measuring instruments*:		
For each instrument	2,000	1,600
9. *Egg-grading machines*:		
For each machine—		
type ““A”” machine	2,000	1,000
type ““B”” machine	3,000	1,500
10. *Non-Automatic weighing instruments intended for counter use*:		
For each instrument according to its capacity—		
(a) non-self-indicating—		
5 kg and under	200	150
exceeding 5 kg not but exceeding 15 kg	400	200
exceeding 15kg	1000	400
(b) Semi-self indicating instruments—		
5kg and under	400	200
exceeding 5kg not but exceeding 15kg	800	400
exceeding 15kg	1,200	800
(c) Self-indicating instruments—		
(i) Electronic—		
5kg and under	600	400
Exceeding 5kg not but exceeding 15kg	1000	600
Exceeding 15kg	1,600	1,200
(ii) Non-electronic—		
5kg and under exceeding	400	200
5kg not but exceeding	800	400

Exceeding 15kg	1200	800
(2) All other non-automatic weighing instruments: For each instruments according to its capacity—		
(a) Electronic instruments —		
50 kg and under	1200	800
Exceeding 50 kg but not exceeding 500kg	2000	2000
Exceeding 500kg but not exceeding 1 tonne	4000	2,000
Exceeding 1 ton but not exceeding 5 tonnes	6000	5000
Exceeding 5 tonnes but not exceeding 20 tonnes	10,000	8000
Exceeding 20 tonnes— The fee payable shall be the same as that for a 20 tonne capacity instrument plus an additional charge of Ksh. 400 for every tone (or part thereof) in excess of such capacity.		
(b) Electronic instruments —	1,000	600
50 kg and under		
Exceeding 50 kg but not exceeding 500kg	1,600	1,000
Exceeding 500kg but not exceeding 1 tonne.	3,000	2,000
Exceeding 1 ton but not exceeding 5 tonnes	4,000	3,000
Exceeding 5 tonnes but not exceeding 20 tonnes	8,000	6,000
Exceeding 20 tonnes— The fee payable shall be the same as that for a 20 tonne capacity instrument plus an additional charge of Ksh.400 for every tone (or part thereof) in excess of such capacity.		
11. *Automatic weighing instruments*: For each weighing unit according to its capacity—		
20 kg and under	1,200	600

Exceeding 20 kg but not exceeding 50kg	1,600	1,000
Exceeding 50kg but not exceeding 200kg	2,000	1,500
Exceeding 200kg but not exceeding 1 tonne	3,000	2,000
Exceeding 1 tonne but not exceeding 5 tonnes	4,000	3,000
Exceeding 20 tonnes	8,000	5,000
The fee payable shall be the same as that for a 20 tonne capacity instrument plus an additional charge of KSh. 400 for every ton (or part thereof) in excess of such capacity.		
12. *Belt weighers*:		
For each instrument	12,000	8,000
13. Additional charges payable where a weighing or measuring instrument incorporate a printing device which is also examined and tested.	4000	200
14. Where a weighing or measuring instrument incorporates a printing device which is also examined and tested, an additional charge of Kshs. 400 shall be payable for the examination and testing of the device.		
15. Where a weighing instrument incorporates more that one indicating device, an additional fee equivalent to the stamping fee payable for the instrument shall be charged for the examination and testing of each such device.		
16. Where a weighing instrument has two sets of graduations (as in the case with some milk weighers,) separate fees shall be		

charged for each set of graduations according to the capacity of the instrument.	
17. Where a weighing or measuring instrument is constructed to calculate and indicate the price, an additional fee of Ksh. 400 shall be payable for the examination and testing of the price indicating mechanism	
18. Where two or more load receptors are connected to one indicating mechanism, separate fees shall be charged for each load receptor according to its capacity.	

PART 2 – FEES FOR PATTERN APPROVAL

1. *Measures of length and measures of capacity*:	
For each measure	4,000
2. *Measuring instruments*;	
(a) Liquid measuring instruments (each)	20,000
(b) Linear measuring instruments (each)	10,000
(c) Leather measuring instruments (each)	10,000
3. *Non-automatic weighing instruments*:	
For each instrument according to capacity—	
(a) Non-electronic—	
200 kg and under	12,000
Exceeding 200kg but not exceeding 1 tonne	16,000
Exceeding 1 tonne	20,000
(b) Electronic—	
20 kg and under	20,000
Exceeding 20kg but not exceeding 200kg	30,000
Exceeding 200kg but not exceeding 1 tonne	35,000

Exceeding 1 tonne	40,000
4. *Automatic weighing instruments: (Hopper weighers)*: *	
For each instrument according to capacity—	
20kg and under	15,000
Exceeding 20kg but not exceeding 200kg	20,000
Exceeding 200kg	25,000
Belt-weighers:	
Each instrument	30,000

PART 3 –FEE FOR ADJUSTING WEIGHTS AND MEASURES AND OTHER MISCELLANEOUS CHARGES

	KSh.
1. *Adjusting weights*	
For each weight—	
5kg and under	40
10 kg	60
20 kg	80
Exceeding 20 kg	200
2. *Adjusting measures of capacity*	
For each measure—	
(a) Unsubdivided	100
(b) Subdivided—	
The fee payable shall be the sam as that for unsubdivided measure of equivalent capacity plus an additional charg of KSh. 50 for each subdivision adjusted.	
3. *Miscellaneous charges*:	
(a) Inserting plugs (each)	40
(b) Adjusting loose poises (each)	40
(c) Balancing all types of weighing instruments (each)	100
(d) Denominating linear and capacity measures (each)	100
(e) Adjusting capacity measues for use as standards:	
Each measure according to denomination—	
20 litres and under	1,000

Exceeding 20 litres but not exceeding 500 litres	2,000
Exceeding 500 litres— An additional charge of KSh. 1000 shall be payable for every 500 litres (or part therof) in excess of such capacity.	
(f) Calibrating masses for use in Laboratories:	
Each mass—	
2 kg and under	
Class E	2,000
F	1,500
M	1,000
Exceeding 2kg but not exceeding 20 kg	400
Exceeding 20kg but not exceeding 20 kg	600
Exceeding 20kg but not exceeding 50 kg	2,000
Exceeding 500kg.....	5,000
Calibration of bulk storage tanks	
For each tank according to its capacity 100,000 litres and under	100,000
Exceeding 100,000 litres but not less exceeding 500,000 litres	150,000
Exceeding 500,000 litres but less than Litres 1,000,000	200,000
Exceeding 1,000,000 litres an additional charge of KSh. 50,0000 per 500,000 litres.	
An additional charge of KSh. 1,000 per graduation	
2. *Fees for testing or calibrating articles or weighing or measuring equipment submitted to the Director in pursuance of section 17 of the Act*:	
(a) Testing or calibrating articles (each)	800
(b) The charge for testing or calibrating weighing or measuring equipment shall be the same as the	500

stamping fee applicable for such an equipment plusan additional charge of .....

PART 4—CHARGES FOR TRANSPORTATION, HANDLING AND HIRE OF STANDARDS

1. *Transportation Charges*: The amount payable for transporting mass standards from the nearest weights and measures office to the place appointed by the applicant shall be KSh. 2,000 plus an additional charge per kilometer as follows—	
Mass standards of—	
One tone and under	60
Exceeding 1 tonne but not exceeding 3 tonnes	100
Exceeding 3 tonnes but exceeding 10 tonnes	160
Exceeding 10 tonnes but not exceeding 15 tonnes	200
Exceeding 15 tonnes	300
2. *Handling Charges*: The charges payable for lifting roller and block test weights for the purpose of either loading/offloading them into a vehicle or placing them onto the load receptor of the weighing instrument under test shall be as follows—	
(a) Loading/off loading weights into a vehicle, KSh. 500 per tone or KSh. 4000 per day whichever is the greater;	
(b) Placing weights on or off the load receptor of an instrument KSh. 500 per hour or part thereof.	
3. *Hire of roller and block test weights*.	

For every tone or part thereof (per day)	
(i) For the first three days (minimum period)	500
(ii) Any additional days beyond the minimum period	750
4. *Hire of other weighing equipment*:	
(i) Weighbridge testing unit; KSh. 10,000 per hour.	
(ii) Mobile prover tanks; KSh. 10,000 per day	
(iii) Fork lift; KSh. 10,000 per day	

PART 5—TRAVELLING COSTS

The amount payable when an officer, on application or notification by any person, attends at any place away from his duty station for the purpose of verification of any weighing or measuring equipment shall be as follows—	
Travelling expenses (per kilometer of part thereof).	50

PART 6 – FEES FOR REGISTRATION AS A MANUFACTURER OF WEIGHING OR MEASURING EQUIPMENT AND WORKSHOP APPROVAL

Fees for registration as a manufacturer	1,000

PART 7—FEES FOR REPAIRERS LICENCE

1. Repairers'' licence fees;	KSh.
For each licence according to type	
Type 1	500
Type 2	800
Type 3	1,000
Type 4	800
Type 5	800
Type 6	1,000
Type 7	500
Type 8	
Type 9A—Electricity meter	500
9B—Taxi meter	500
9C—Airtime meter	500
Type 10A—Speed gun	500

10B—Alcohol Breath Analyser	500
10C—Blood pressure machine	500
10D—Thermometers	500
Special Categories	
Type A – Precision balance class "A"	1,500
Type B – Precision balances class "B"	1,500

TWELFTH SCHEDULE

[r. 242(2)]

CERTIFICATE OF VERIFICATION

HEREBY CERTIFY that the equipment indicated hereunder was submitted to me by (name) ..... residing at ..... and was this day verified and (stamped/marked) *by me, the same having been examined and (found correct/rejected/adjusted)* by me.

Dated at ..... on this ..... day of ....., 20 .....

This Certificate is valid until ....., 20 .....

.....
Inspector of Weights and Measures

*Delete whichever is not applicable.

THIRTEENTH SCHEDULE

[rr. 244, 245, 246, 247, 250, 251]

APPLICATION FORMS

[L.N. 56/1996, L.N. 129/2007, r. 7.]

PART I

[Deleted by L.N. 129/2007, r. 7.]

PART IA - APPLICATION FOR REGISTRATION AS A MANUFACTURER

To: The Director of Weights and Measures

P.O. Box 41071

Nairobi

*I/We would like to be registered as manufacturer(s) of weights, measures, weighing and measuring instruments as required under rule 244 of the Weights and Measures Rules.

*I/We *am/are furnishing the particulars as required under the said Rules.

*Delete whichever is not applicable.

1. *Trade/business name of manufacturer .....

2. Complete address:

(a) Postal address .....
(b) Location (Town, Estate, Street and Plot No.) .....
(c) Telephone No. .....

3. Name(s) of proprietor(s) and/or partners:

Name	***ID/Passport Number***
(a)	.....
(b)	.....
(c)	.....
(d)	.....
(e)	.....

(Note.— In the case of a limited company please underline the name of the managing director.)

4. Date of establishment of workshop/factory .....

5. Date and number of registration certificate of business .....

6. Number and date of current trade licenses:

(a) Central Government Licence No. ..... Date .....
(b) Local Authority Licence No. ..... Date .....

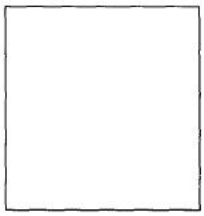
7. Has your workshop been registered under the Factories Act, Cap. 514? .....

.....

8. Types of apparatus to be manufactured:

(a) Weights .....
(b) Measures .....
(c) Weighing instruments .....
(d) Measuring instruments .....

9. The monogram or trade mark intended to be imprinted on the weighing or measuring instrument. (Please stamp the monogram/trade mark in the box below).



10. Details of standards and test weights in your possession for use in testing the manufactured weights, measures or instruments .....

11. Do you have facilities for steel casting and/or hardness testing of vital parts of the articles or instruments to be manufactured? Please state these facilities if any .....

12. When can you produce to an inspector for inspection samples of the manufactured articles or instruments? .....

(To be certified by the manufacturer or representative)

*I/We have read the Weights and Measures Act and Rules made thereunder and agree to abide by the same.

All the information furnished in this form is true to the best of *my/our knowledge.

....

Date *Full name of manufacturer* *Signature of manufacturer or representative*

(FOR OFFICIAL USE ONLY)

Date of receipt of the application .....

Serial Number of the applicant .....

Date of inspection of workshop/factory .....

Recommendations by inspecting officer .....

.....

Name of inspecting officer ..... Signature .....

Application *accepted/rejected

Certificate of Registration No. .....issued.

Date .....

.....
Director of Weights and Measures

PART IB - APPLICATION FOR REGISTRATION OF A SELLER

To: The Director of Weights and Measures

P.O. Box 41071

Nairobi

*I/We would like to be registered as a seller(s) of weights, measures, weighing and measuring instruments as required under Rule 244 of the Weights and Measures Rules.

*I/We *am/are furnishing the particulars as required under the said Rules.

1. *Trade/business name of seller .....

2. Complete address:

(a) Postal address .....

(b) Location (Town, Estate, Street and Plot No.) .....

(c) Telephone No. .....

3. Date and No. of registration certificate of business .....

*Delete whichever is not applicable.

4. Number and date of current trade licences:

(a) Central Government Licence No. ..... Date.....

(b) Local Authority Licence No. ..... Date.....

5. Types of articles/instruments intended to be sold .....

.....

.....

6. Do you intend to import weights, measures, or instruments from places outside Kenya? If so, indicate sources of supply .....

.....

(*To be certified by the manufacturer or representative*)

*I/We certify that *I/We have read the Weights and Measures Act and Rules made thereunder and agree to abide by the same. All information furnished above is true to the best of *my/our knowledge.

....
Full name of seller *Signature of seller or his representative*

PART II

CERTIFICATE OF REGISTRATION NO. .....

(to be filled in triplicate)

I hereby certify that ..... (name) of ..... (address) has been registered as a *manufacturer/seller of weights, measures, weighing and measuring instruments under Rule 244 of the Weights and Measures Rules.

Dated on this ..... day of .....(month) ..... (year) .....

.....
Director of Weights and Measures

CONDITIONS FOR REGISTRATION

The person in whose name this Certificate of Registration has been issued shall—

(a) comply with all the relevant provisions of the Act and the Rules made thereunder;

(b) not encourage or countenance any infringement of the provisions of the Act or the Rules for the time being in force and shall report without delay to an Inspector any infringement that may come to his notice;

(c) exhibit this Certificate of Registration in some conspicuous part of the premises to which it relates;

(d) comply with any general or specific directive that may be given by the Director;

(e) in the case of a manufacturer, present the weights, measures, weighing or measuring instruments manufactured by him to an inspector for verification and stamping before sale;

(f) in the case of a seller, ensure that any weight, measure or instruments sold by him has been made duly verified and stamped by an Inspector before such sale;

(g) notify the Director of any change of address within thirty days from the date of such change.

PART III - CERTIFICATE OF COMPETENCE

No. .....

THIS IS TO CERTIFY that ..... (Name) ..... having been examined and found to possess sufficient knowledge and skill to enable him to carry out repairs to type(s) ..... instruments has been awarded the certificate of competence.

....
Date *Director of Weights and Measures*

PART IIIA - REGISTER OF MANUFACTURERS OF WEIGHTS, MEASURES, WEIGHING AND MEASURING INSTRUMENTS

1 2 3 4 5 6 7

Name of Manufacturer	Address of Workshop/ Factory	Certificate of Registration No.	Date of Registration	Articles to be Manufactured	Trade Mark or monogram used on the article	Remarks

PART IIIB - REGISTER OF SELLERS OF WEIGHTS, MEASURES, WEIGHING AND MEASURING INSTRUMENTS

Name of seller	Registration No. of Certificate	Date of registration	Place where shop is situated	Types of articles or instruments sold	Remarks

PART IV - TYPES OF LICENCES AND THEIR RESPECTIVE TYPES OF INSTRUMENTS

Type 1	All non-automatic weighing instruments other than weigh-bridges and instruments incorporating electronic devices;
Type 2	All non-automatic weighing instruments other than weigh-bridges and instruments incorporating electronic devices;
Type 3	Weighing instruments incorporating electronic devices;
Type 4	Bulk measurers and dispensing pumps other than those incorporating electronic devices;
Type 5	Bulk meters other than those incorporating electronic devices;
Type 6	Dispensing pumps and bulk meters incorporating electronic devices.

PARTS V TO IX

[Deleted by L.N. 129/2007, r. 7.]

PART X - APPLICATION FOR APPROVAL OF REPAIRER'S WORKSHOP

To: Director of Weights and Measures

P.O. Box 41071

Nairobi

I hereby submit my application for the approval of my workshop as required under rule 245 of the Weights and Measures Rules.

I am furnishing the particulars as required under the said Rules.

1. Trade/business name of repairer .....

2. Complete Address: .....

(a) Postal Address .....

(b) Location (Town, Estate, Street and Plot No.) .....

(c) Telephone No. .....

3. Name of Proprietors/Partners/Directors:

Name	***ID/Passport No.***
(a)	.....
(b)	.....
(c)	.....
(d)	.....

(*Note* — In the case of a limited company, please underline the name of the managing director.)

4. Date of establishment of the workshop .....

5. Date and number of registration of business .....

6. Number and date of current trade licences:

(a) Central Government Licence No. .....

(b) Local Authority Licence No. .....

7. Has your workshop been registered under the Factories Act, Cap. 514?

.....

8. Number of Licensed persons employed:

Name	***ID No***	***Type of Licence***	***Licence No.***
(a)	.....	.....	.....
(b)	.....	.....	.....
(c)	.....	.....	.....
(d)	.....	.....	.....
(e)	.....	.....	.....

(Note — In case of more employees please attach a separate list.)

9. Details of equipment to be used repairing weighing or measuring instruments.

(a) Machinery (State quantities in each case):

(i) Grinding machines .....

(ii) Drilling machines .....

(iii) Vices .....

(iv) Others (please specify type) .....

(b) Tool boxes (full of tools) .....

(c) Test weights:

Denomination	*Quantity*
(a)	.....
(b)	.....
(c)	.....
(d)	.....
(e)	.....

*I/We have read the Weights and Measures Act and Rules made thereunder and agree to abide by the same.

All the information furnished in this form is true to the best of *our/my knowledge.

....

Full name of applicant *Signature*

Date .....

(FOR OFFICIAL USE ONLY)

(To be completed by the inspecting officer)

Date of receipt of the application .....

Serial No. of the application .....

Date of inspection .....

Recommendation by the inspecting officer .....

.....

Signature of Inspecting Officer

(Final order of approving authority)

Workshop *approved/not approved

Date .....

.....

..... .

Date

.....

Director of Weights and Measures

*Delete whichever is not applicable

PART XI - REGISTER TO BE MAINTAINED BY MANUFACTURERS

1. Name and address of manufacturer .....

2. Manufacturer's Certificate of Registration No. ..... date issued .....

3. Description of weights, measures or instruments manufactured .....

.....

.....

1	2	3	4	5	6	7	8	9	10	11	12
Serial Number	Month	Unsold stock from previous month	Quantity manufactured during the month	Total (3+4)	SOLD WITHIN KENYA		SOLD OUTSIDE KENYA		TOTAL	BALANCE	REMARKS
					No. of apparatus sold	Despatch voucher numbers and dates	The country to which sold	No. of apparatus sold	(6+9)	(5-1)	

PART XII - REGISTER TO BE MAINTAINED BY REPAIRERS

1. Name and address of repairer .....

2. Repairer's Licence No. ..... date of issue .....

3. Validity of the Licence .....

.....

.....

1	2	3	4	5	6	7	8	9	10
Serial Number	Date on which apparatus is received	Name of the user from whom received	Apparatus and their numbers booked for repair	Receipt No. and date of issue to the user	Repairing charges	Verification fee paid	Verification certificate number	Date of return to the user	Remarks

PART XIII - REPAIRER'S SERVICING CERTIFICATE

This is to certify that I have today visited the premises of .....(name of trader) located at ..... and have serviced the following apparatus which he has in his possession for trade use, viz. .....

The following apparatus have been removed to my workshop for the purpose of repair, viz. .....

.....

Date *Signature* .....

.....

Licensee

Copy to: Provincial/District Inspector of Weights and Measures.*

* Delete whichever is not applicable.

THE WEIGHTS AND MEASURES (SALE AND LABELLING OF GOODS) RULES

ARRANGEMENT OF RULES

Rule

THE WEIGHTS AND MEASURES (SALE AND LABELLING OF GOODS) RULES

[Legal Notice 24 of 1999, Legal Notice 106 of 1999, Legal Notice 122 of 2004]

1. Citation

These Rules may be cited as the Weights and Measures (Sale and Labelling of Goods) Rules.

2. Interpretation

In these Rules, unless the context otherwise requires—

"batch" in relation to pre-packed goods means—

(a) in the case of prepacked goods which have been stored, where the total number of packages does not exceed 100, all such packages, and where the total number exceeds 100 but does not exceed 10,000, all the packages of the same production run;

(b) in the case of pre-packed goods which are on or at the end of the packing line, the maximum hourly output of packages from the line;

"combination package" means a package containing two or more individual packages or items of dissimilar goods;

"drained weight", in relation to a solid product contained in a free-flowing liquid means the weight of such solid product after the liquid has been drained for a period of two minutes;

"group package" means a package containing two or more individual items of similar but not identical (whether in quantity or size) goods;

"human food" means any article used as food or drink for human consumption, and includes any substance or preparation of food, and any flavouring, sweetening matter or condiment, and any colouring matter intended for use in food; and an article shall not be deemed not to be food by reason only that it is capable of being used as a medicine;

"label" means any written, printed or graphic matter affixed to, applied to, attached to, blown into, formed or moulded into, embossed on or appearing upon a package containing any goods for the purpose of branding, identifying, or giving any information with respect to the goods or to the contents of the package;

"manufacturer" in relation to any pre-packed goods, means a person who produces, makes or manufactures such goods and includes a person who puts, or causes to be put, any mark on any pre-packed goods not produced, made or manufactured by him and the mark purports the goods in the package to have been produced, made or manufactured by such person;

"multi-unit package" in relation to pre-packed goods, means a package containing two or more individually packed or labelled items of the same product and of identical quantity intended for sale either as individual items or as a whole package;

"net quantity" *deleted by L.N. 106/1999, r. 2(a)*;

"net weight or measure" in relation to goods in a package means the weight or measure of such goods exclusive of the wrappers and any other materials packed with them;

"packer" means a person who pre-packs any goods whether in a bottle, tin, wrapper or otherwise for sale.

"pre-packed" means packed or made up in advance ready for the purpose of sale whether packed in a wrapper or container, or wound on a reel or spool, or made up in a roll or bundle, and the expression "package", whenever it occurs, shall be construed as a package containing pre-packed goods;

"principal display panel" in relation to a package, means that part of the package on which the name or brand of the goods contained therein is shown and which is most likely to be displayed under normal and customary conditions of display;

"quantity" in relation to goods in a package, includes length, width, height, width, height, area, size, volume, capacity, weight and number;

"sale" includes sale by wholesale.

[L.N. 106/1999, r. 2(a).]

3. Sale by quantity

(1) No person shall sell, or offer or expose for sale, any of the goods specified—

(a) in the First Schedule to these Rules except by reference to weight;

(b) in the Second Schedule to these Rules except by reference to weight or number;

(c) in the Third Schedule to these Rules except by reference to measure of capacity;

(d) in the Fourth Schedule to these Rules except by reference to weight or measure of capacity or in the case of sand and other ballast except by weight or volume;

(e) in the Fifth Schedule to these Rules except by reference to weight or linear measure.

(2) The goods specified in the Schedules mentioned in paragraph (1) shall, except where sold by number, be marked in metric units only and shall comply with rules 7, 8, 9 and 10.

(3) Any person who contravenes any of the provisions of this Rule commits an offence.

[L.N. 106/1999, r. 2(b).]

4. Sale by net weight or measure

(1) All goods sold, or offered or exposed for sale, or in any manner advertised for sale by weight or measure, shall be sold, or offered or exposed or advertised for sale, as the case may be, by reference to net weight or measure.

(2) Any person who contravenes any of the provision of this Rule commits an offence.

[L.N. 106/1999, r. 2(c).]

5. Pre-packed goods

(1) No person shall import, offer, expose or have in his possession for sale, or sell, any pre-packed goods of a description specified in the second column of the Sixth Schedule to these Rules unless such goods have been pre-packed in the quantity and form of container specified in the third or fourth column of the Schedule.

(2) For the purpose of paragraph (1), where any imported goods are found in the possession or control of any person or are found in the premises of any person carrying on trade, that person shall be deemed to have the goods for sale and the onus of proving the contrary shall be upon him.

(3) Any person who contravenes any of the provisions of these Rules commits an offence.

6. Eggs and soap

(1) No person shall sell, or offer for sale, or have in his possession for sale, or transport for sale

(a) any quantity of eggs with reference to grade unless each egg has been graded according to its weight in the manner specified in the Seventh Schedule to these Rules and such grade is clearly marked thereon or on the container in which they are confined, and each such container contains eggs of one and the same grade.

(b) any soap in the form of a tablet or bar, unless such tablet or bar is of a weight specified for pre-packed soap in the fourth column of the Sixth Schedule.

(2) For the purposes of this rule "egg" means a hen's egg in its shell.

(3) Any person who contravenes any of the provisions of this rule commits an offence.

7. Declarations to be on every package

(1) No person shall sell, or offer or expose for sale, or in any manner advertise for sale, or have in his possession for sale, or transport for sale, any pre-packed goods unless the package in which the goods are pre-packed bears thereon, or on a label securely attached thereto, plain and conspicuous declarations as to—

(a) the name and address of the manufacturer of such goods, and where the goods are not pre-packed by the manufacturer, the like particulars of the person responsible for such packing.

(b) the common or generic name of the goods contained in the package;

(c) the number or net weight or measure of the goods contained in the package;

(d) in the case of pre-packed goods specified in the twelfth schedule a date marking showing the last day, month and year by which such goods may be sold;

(e) such other matters as are specified in Rules 8, 9 and 10;

Provided that—

(i) where any goods are pre-packed and sold by retail on the same premises, no statement as to the name and address of the manufacturer or packer of the goods shall be required to be made on the package;

(ii) where, by reason of the smallness of the package, it is not reasonably practicable to indicate the name and address of the manufacturer or packer of any goods on the package, it shall be sufficient compliance with paragraph (a) of this rule if the package bears a trade mark or such other mark or inscription as would enable the purchaser to identify the manufacturer or packer of such goods;

(iii) where any goods manufactured or packed outside Kenya are imported into Kenya, the package containing such goods shall, in addition to the name and address of the manufacturer or packer of the goods, bear the name and address of the importer of such goods.

(2) Every declaration required to be made on a package under this rule shall—

(a) be either in English or Kiswahili or in both English and Kiswahili;

(b) appear on the principal display panel of the package and shall be parallel to the base on which the package is intended by the manufacturer to rest;

(c) be written in prominent characters upon a contrasting back-ground and shall be so placed as to be conspicuous and clearly legible:

Provided that where a declaration is blown or moulded on a glass or plastic surface, or where it is embossed or perforated on a package, such declaration shall not be required to be presented in a contrasting colour.

(3) Where a package is provided with an outside wrapper or container, such wrapper or container shall also contain the declarations which are required to appear on the package, except where such wrapper or container is transparent and the declaration on the package itself is easily and clearly readable through such outside wrapper or container.

(4) The minimum height of any letter or number in the declaration shall be 2mm.

(5) Any person who contravenes any of the provisions of this Rule commits an offence.

[L.N. 106/1999, r. 2(d).]

8. Declaration of quantity

(1) Every declaration of quantity on a package shall specify the quantity of goods to which it relates without any reference to words, figures or any other marks implying an approximation, or any expression which tends to create an exaggerated or misleading impression as to the quantity of the goods contained in the package:

Provided that—

(i) in the case of thread or any other material whose length is likely to vary if subjected to tension, the quantity declaration shall also include the tension under which the length of such thread of material was determined.

(ii) in the case of soap in the form of a bar, cake or tablet, the quantity declaration shall specify the minimum net weight guaranteed at the time of manufacture and either the total fatty matter in the soap expressed as a percentage of the declared weight, or the grade of the soap.

(2) Except in the case of goods specified in the First, Second, Third, Fourth, Fifth and Sixth Schedules, the declaration of quantity of goods contained in a package shall be in terms of—

(a) weight, if the goods are solid, semi-solid or viscous, or a mixture of solid and liquid, or

(b) measure of capacity, if the goods are liquid:

Provided that in the case of a solid product contained in a free-flowing liquid which is sold as such, the declaration of quantity shall be in terms of the drained weight of the solid product.

(3) In the case of a product packed in a container designed to deliver the product under pressure, the declaration of quantity shall state the net quantity in weight that will be expelled when the instructions for use are followed and the propellant therein shall be included in the net quantity statement.

(4) In declaring the net weight of goods contained in a package, the weight of wrappers and other materials used to pre-pack the goods shall be excluded:

Provided that where a package contains a number of small items each of which is separately wrapped and it is not reasonably practical to exclude the weight of such immediate wrappers from the weight of the items, the net weight declared on the package of such items or on the label thereof may include the weight of the immediate wrappers, if the total weight of such individual wrappers does not exceed—

(a) eight per cent, where the immediate wrapper is waxed paper or any other paper with wax or aluminium foil under strip; or

(b) six per cent, where the immediate wrapper is any other type of paper, of the total weight of all the items contained in the package minus the weight of the immediate wrapper.

(5) Any person who contravenes any of the provision of this rule commits an offence.

[L.N. 106/1999, r. 2(e).]

9. Units to be used in quantity declaration

(1) The declaration of quantity of goods on any package shall be specified in full or by means of an appropriate abbreviation of the kind specified in the Eighth Schedule.

(2) When expressing a quantity less than—

(a) one kilogram, the unit of weight shall be the gram;

(b) one metre, the unit of length shall be the centimetre or the millimetre;

(c) one square metre, the unit of area shall be the square centimetre;

(d) one cubic metre, the unit of volume shall be the cubic decimetre;

(e) one cubic decimetre, the unit of volume shall be the cubic centimetre;

(f) one litre, the unit of capacity shall be the millilitre.

(3) When expressing a quantity equal to or more than—

(a) (i) one kilogram but less than one tonne, the unit of weight shall be the kilogram, and any fraction of a kilogram shall be expressed in terms of decimal sub-multiple of the kilogram;

(ii) one tonne, the unit of weight shall be the tonne, and any fraction of a tonne shall be expressed in terms of decimal sub-multiple of the tonne;

(b) one metre, the unit of length shall be the metre, and any fraction of a metre shall be expressed in terms of decimal sub-multiple of the metre;

(c) one square metre, the unit of area shall be the square metre and any fraction of a square metre shall be expressed in terms of decimal sub- multiple of the square metre;

(d) one cubic metre, the unit of volume shall be the cubic metre and any fraction of a cubic metre shall be expressed in terms of decimal sub-multiple of the cubic metre;

(e) one litre, the unit of capacity shall be the litre and any fraction of a litre shall be expressed in terms of decimal sub-multiple of the litre:

Provided that where the quantity to be expressed is equal to one kilogramme, one metre, one square metre, one cubic metre, or one litre as the case may be, such quantity may be expressed in terms of the gram, centimetre, square centimetre, cubic centimetre or millilitre as the case may be.

(4) When expressing a quantity less than—

(a) one gram, the unit of weight shall be the milligram;

(b) one centimetre, the unit of length shall be millimetre;

(c) one square decimetre, the unit of area shall be the square centimetre;

(d) one cubic decimetre, the unit of volume shall be cubic centimetre.

(5) Where any goods are packed by number, such number shall be expressed on the package in words and/or arabic numerals.

(6) Any person who contravenes any of the provision of this rule commits an offence.

[L.N. 106/1999, r. 2(f).]

10. Additional declarations required on certain packages

(1) A combination package shall contain, in addition to the declarations required to be made under any other provisions of these Rules, an indication of the net weight, measure or number, as the case may be, in respect of each item contained in the package;

Provided that where individual items in a combination package are packed or labelled separately and are capable of being sold separately, each item shall bear thereon a declaration as to its quantity.

(2) A group package shall contain, in addition to the declarations required to be made under any other provisions of these Rules, an indication of—

(a) the number of packages or items contained in the group package followed by the net weight, measure or number of the individual packages or items as the case may be; and

(b) the total number of packages or items contained in the group package:

Provided that where individual packages or items in a group package are either packed or labelled separately and are capable of being sold as individual packages or items, each such package or item shall bear thereon a declaration as to its quantity.

(3) Every multi-unit package shall bear thereon, in addition to the declaration required to be made under any other provisions of these Rules, a declaration of the number of individual items contained therein:

Provided that where individual items in a multi-unit package are packed or labelled separately, and are capable of being sold separately, each item shall bear thereon a declaration as to its quantity.

(4) Where a package contains goods like bedsheets, napkins, pillow cases, towels, shawls or other similar goods, the number and dimensions of the finished size of such goods shall also be declared on the package or on a label attached thereto:

Provided that where the package contains two or more items of different dimensions, the packages shall also bear a declaration as to the dimensions of each item and such items shall each bear a declaration of their dimensions.

11. Alteration, removal, etc. of declaration

Any person who, with intent to deceive or mislead any prospective purchaser removes, adds to, alters, defaces or renders illegible any declaration required to be made on a package under these Rules, or has in his possession, or offers or exposes for sale, or sells, any goods in respect of which any declaration has been removed, added to, altered, defaced or rendered illegible commits an offence.

[L.N. 106/1999, r. 2(g).]

12. Penalty for false declaration of quantity

Subject to rule 14, any person who sells, offers or exposes for sale, or has in his possession for sale, or transports for sale, any pre-packed goods which bear or are accompanied by a declaration of quantity which is incorrect commits an offence.

[L.N. 106/1999, r. 2(h).]

13. Procedure for determination of quantity in packages

(1) For the purpose of ascertaining the net quantity of goods in any package, the inspector may carry out tests on a sample of such goods and the sample shall be drawn from a batch of the packages in the manner specified in the Ninth Schedule.

(2) The tests mentioned in paragraph (1) of this rule shall be carried out in accordance with the method specified in the Tenth Schedule and the inspector shall enter the detailed results of the tests in the form set out in the Eleventh Schedule.

14. Deficiency in quantity of pre-packed goods

The declaration of quantity on a package of pre-packed goods shall be deemed to be correct if, as a result of the tests carried out under rule 13 of these Rules, it is found that—

(a) any deficiency thereof is not more than—

(i) in the case of a bottle whose net contents do not exceed 250 millilitresor 250 grams, 10 per cent; or

(ii) in any other case, 3 per cent of the net quantity marked on the package; and

(b) the average quantity of the goods in a sample of—

(i) all packages, in the case of a batch containing less than thirty packages; or

(ii) thirty packages, in the case of a batch containing thirty but not more than five hundred packages; or

(iii) 10 per cent of the total number of packages in a batch, in the case of a batch containing more than five hundred packages and the test is not destructive; or

(iv) twenty packages in the batch, in the case of a batch containing more than five hundred packages, and the test is destructive,

is equal to or more than the net quantity marked on the package.

15. Penalties

Any person who commits an offence under these Rules shall be liable to a fine not exceeding twenty thousand shillings or to imprisonment for a term not exceeding three years or to both.

[L.N. 106/1999, r 2(i).]

16. Exceptions and exemptions

(1) Nothing in these Rules shall apply to—

(a) the sale of food for consumption on or at the premises of the vendor; or

(b) the sale of goods of a quantity not exceeding fifty grammes or fifty millilitres, as the case may be, and for a sum not exceeding fifty shillings.

(2) The Cabinet Secretary may, by notice in the *Gazette*, exempt any particular goods, or any particular consignment of goods, or goods of any particular weight or measure, from all or any of the provisions of these Rules.

17. Revocations

The Weights and Measures (Sale and Labelling of Goods) Rules (L.N. 40/1982), and the Weights and Measures (Sale and Labelling of Goods) (Amendment) (L.N. 503/1994) Rules, are revoked.

FIRST SCHEDULE

[r. 3(1)(a).]

GOODS TO BE SOLD BY WEIGHT

1. Aerosal products.

2. Air freshners in solid form.

3. Animal and pet food.

4. Barley.

5. Biscuits.

6. Breakfast cereals.

7. Cashew kernels.

8. Cashewnuts in shell.

9. Cassava flour.

10. Castor seeds.

11. Cement.

12. Cereals preparation for feeding babies.

13. Chocolate bars.

14. Cleaning and scouring powder, soap flakes and soap powders; detergents (other than liquid detergents not exceeding 5 litres).

15. Cocoa powder, etc.

16. Coffeemates, etc.

17. Glucose and dextrose.

18. Groundnuts, peanuts, etc.

19. Liquid petroleum gas.

20. Lubricating greases.

21. Maize bran.

22. Marcoroni, vermicelli, sphaghetti.

23. Milk formula.

24. Milk powder.

25. Mushrooms.

26. Nails.

27. Paste polish (other than shoe polish).

28. Potato and banana crisps.

29. Rice paddy.

30. Sisal.

31. Solid fertilizers, etc.

32. Solid fuel (except charcoal).

33. Solid insecticides and solid fungicides.

34. Solid polishes and dressings analogous to solid polishes (except shoe polish).

35. Sunflower seed.

36. Sweets (sugar confectionery).

37. Tobacco, including snuff.

38. Wheat bran.

39. Wheat pollard.

SECOND SCHEDULE

[r. 3(1)(b).]

GOODS TO BE SOLD BY WEIGHT OR NUMBER

1. Cassava root.

2. Cigars.

3. Cigarettes.

4. Eggs in shell.

5. Fresh fruits.

6. Maize on cob.

7. Nuts and bolts.

8. Shaving blades.

9. Stationery and envelopes.

10. Sweetening tablets and soft drinks tablets.

THIRD SCHEDULE

[rr. 3(1)(c), 8(2)]

GOODS TO BE SOLD BY MEASURE OF CAPACITY

[L.N. 106/1999, r. 2(j).]

1. Beer and stout.

2. Castor oil.

3. Cleaning and sanitary fluids.

4. Cream (not exceeding 1 litre).

5. Edible oils (not exceeding 1 litre).

6. Hair oils.

7. Intoxicating liquor.

8. Liquid fuel excluding liquid petroleum gas, lubricating oil (not exceeding 20 litres); and mixture of liquid fuel and lubricating oil.

9. Liquid fungicides and liquid insecticides.

10. Liquid polishes and liquid dressing analogous to polishes.

11. Liquid soap and liquid detergents (not exceeding 5 litres).

12. Lotions.

13. Lubricating oil.

14. Mineral waters.

15. Milk (not exceeding 5 litres).

16. Perfumes and toilet waters.

17. Shoe polish.

18. Soft drinks.

19. Squashes and fruits juices.

20. Thinners.

21. Vinegar.

FOURTH SCHEDULE

[rr. 3(1)(d), 8(2).]

GOODS TO BE SOLD BY WEIGHT OR MEASURE OF CAPACITY

1. Body and hair care cream.

2. Charcoal.

3. Condensed milk.

4. Custard powder.

5. Dentifrices.

6. Distemper.

7. Ice-cream (in bricks).

8. Ice-cream in cups.

9. Jam, marmalade, honey and jellies.

10. Lubricating oil (exceeding 20 litres).

11. Maize grain.

12. Milk (exceeding 5 litres).

13. Molasses, treacle, etc.

14. Paint, varnish, lacquer, distemper and remover.

15. Sand and other ballast (by weight or volume).

16. Sauces and ketchup, etc.

17. Shaving and hair removing lotions.

18. Shoe polish.

19. Spices and condiments.

20. Stainers.

21. Toilet preparations.

FIFTH SCHEDULE

[r. 3(1)(e).]

GOODS TO BE SOLD BY WEIGHT OR LINEAR MEASURE

1. Bias binding.

2. Elastic.

3. Fencing wire.

4. Knitting and sewing thread.

5. Ribbon.

6. Rope.

7. Sisal twine.

8. String.

9. Tape.

SIXTH SCHEDULE

[rr. 5, 8(2)]

STANDARD QUANTITIES FOR PRE-PACKED GOODS

[L.N. 106/1999, r. 2(k), L.N. 122/2004.]

//Item No.//	*Description of Goods*	*Quantity when packed in sealed rigid containers made of glass, plastic and metal*	*Quantity when packed in containers made of materials other than those specified in the third column*
(1)	(2)	(3)	(4)
1.	Alcoholic beverages for retail sale	250 ml., 300 ml., 330 ml., 340 ml.,	____

		355 ml., 500 ml., 750 ml., litre	
2.	Bacon and sausages	100g., 200g., 300g., 400g., 500g., 1kg., thereafter by steps of 1kg.	100g., 200g., 300g., 400g., 500g., 1kg., thereafter by steps of 1kg.
3.	Butter, margarine and mixture of butter and margarine	50g., then by steps of 50g. to 500g., thereafter by steps of 500g.	10g., 15g., 50g., then by steps of 50g. to 500g., thereafter by steps of 500g.
4.	Cement		1kg., 2kg., 5kg., 10kg., 20kg., 50kg.
5.	Coffee, tea, (other than tea in chests)	50g., then by steps of 10g. to 100g., then by steps of 20g. to 500g. then by steps of 100g. to 1kg., thereafter by steps of 500g.	As in third column.
6.	Cooking fat and ghee including lard and suet	50g., then by steps of 25g. to 500g., then by steps of 50g. to 1kg., thereafter by steps of 500g.	As in third column.
7.	Edible oils	50ml., then by steps of 25ml. to 500ml., then by 50ml. to 1 litre, thereafter by steps of 1 litre or 1kg. thereafter by steps of 1kg.	50ml., then by steps of 25ml. to 500ml., then by steps of 1 litre of 3 litres.
8.	Flour of oats, rice, beans, soya beans, rye, suji, self-raising flour	100g., 250g., 500g., 1kg., threafter by steps of 1 kg.	100g., 250g., 500g., 1kg., threafter by steps of 1 kg.
9.	Liquid soap and liquid detergents	10ml., then by steps of 10ml. to 100ml., then by steps of 50 ml. to 1 litre thereafter by steps of litre.	As in third column.
10.	Maize flour, maize grains		1kg. then by steps of 1kg. to 10kg., 20kg., 50kg., 90kg.
11.	Match sticks		10, 20, 40, 60, 100, thereafter by lots of 5
12.	Milk (not exceeding 5 litres) other than	100ml., then by steps of 25ml. to	As in third column.

	condensed or evaporated milk	500ml., then by steps of 50ml. to 1 litre, thereafter by steps of 1 litre; except tinned milk in 100ml., 200ml., 300ml, 400ml., 500ml.	
13.	Millet, wimbi simsim and sorghum		250g., 500g., 1kg., thereafter by steps of 1kg.
14.	Pulses (beans, dengu, grams, peas, etc.)		250g., 500g., 1kg., thereafter by steps of I kg. to 10kg., 90kg.
15.	Rice grains		250g., 500g., 1kg., 2kg., 3kg., 4kg., 5kg., 10kg., 20kg., 50kg., 100kg.
16.	Salt	50g., 100g., 200g., 250g., 300g., 350g., 500g., 750g., 1kg., then by steps of 1kg., to 10kg., 25kg., 50kg., 100kg.	As in third column.
17.	Soap (Cake, tablet or bar)		5g. then by steps of 5g. to 150g., then by steps of 25g., to 300g. thereafter by steps of 100g.
18.	Soap in powder or flake form	5g. then by steps of 5g. to 100g., then by steps of 50g. to 300g., then by steps of 100g. to 1kg., 1.25kg., 1.5kg., 2kg., thereafter by steps of 500g.	As in third column.
19.	Sugar	50g., 75g. 100g., 250g., 500g., 1kg.	50g., 75g., 100g., 250g., 500g., 1kg. thereafter by steps of 1kg., to 10kg., 50kg., 100kg.
20.	Wheat flour wheat grain		250g., 500g., 1kg., thereafter by steps of lkg., 5kg., 10kg., 20kg., 50kg., 90kg.
21.	Toilet paper		230 or 350 sheets per roll with a

		minimum area of 125cm. square per sheet or 100, 200 or 300 sheets per roll with an area of 140cm. square per sheet.

SEVENTH SCHEDULE

[rr. 6(1)]

EGGS GRADE

[L.N. 106/1999, r. 2(I).]

Grade (1)	*Weight (2)*
Extra large	Not less than 65 grams.
Large	Less than 65 grams but not less than 55 grams.
Standard	Less than 55 grams but not less than 50 grams.
Small	Less than 50 grams but not less than 45 grams.
Sub-grade	Less than 45 grams.

EIGHTH SCHEDULE

[r. 9(1).]

PERMISSIBLE ABBREVIATIONS

//Quantity (1)//	//Unit (2)//	//Abbreviations (3)//
Length	Metre	m.
	Decimeter	dm.
	Centimeter	cm.
	milimetre	mm.
Mass (weight)	Tonne	t.
	Kilogram	kg.
	gram	g.
	miligramme	mg.
Capacity	Litre	L. or l.
	Centilitre	cL. or cl.
	mililitre	mL. or ml.
Area	Square metre	m^2
	Square centimetre	cm^2
	Square millimetre	mm^2
Volume	Cubic metre	m^3
	Cubic decimetre	dm^3
	Cubic decimetre	m^3

NINTH SCHEDULE

[r. 13(1).]

MANNER OF SELECTION OF SAMPLES

1. In this Schedule the following expressions shall have the following meanings—

"destructive test" means a test where it is necessary to open a package and take out the goods contained therein for the purpose of determining their net quantity, and—

(a) it is not practicable to so re-fill or re-pack the goods after the test as to make the package a saleable one, or

(b) the goods are such that they are likely to become unfit for consumption or use after they have been taken out of the package.

"non-destructive test" means a test which is not destructive.

"sample size" means the number of packages to be selected as samples.

2. For the purpose of any test to determine the net quantity of goods contained in any package, the Inspector shall select a sample from a batch of such packages and the sample size shall be as specified in Table 1.

Number of packages	*Sample size*	
	Destructive test	*Non-Destructive test*
Less than 30	8 packages	All packages in batch
30 but not more than 500	13 packages	30 packages
More than 500	20 packages	10 per cent of number of packages in the batch.

3. The Samples referred to in paragraph 2 shall be selected at random in the manner specified in paragraph 4 and 5.

4. Where it is necessary to take a sample of packages stored in warehouse, godown or any other place, such a sample shall be selected at random from every batch of such packages and shall be picked out from the top, bottom, centre, right, left, front and rear of the stocks so that the sample may adequately represent the package in the batch.

5. Where it is necessary to take samples from the place where the package is being filled—

(a) such sample shall be selected from among the packages which have already been filled, or

(b) the requisite number of empty containers may be taken and each of them marked for proper identification. The tare weight of each marked container shall then be accurately noted and thereafter the containers shall be introduced at random in the packing process. After the containers are filled they shall then be tested to ascertain whether they do contain the net quantity of the goods as declared on the container.

TENTH SCHEDULE

[r. 13(2)]

PROCEDURE FOR DETERMINATION OF QUANTITY

[L.N. 106/1999, r. 2(m).]

1. Determination of the net weight—

(a) where empty containers are available, ten such containers shall be weighed and the arithmetic mean of their total weight shall be taken to represent the tare weight of every package in the sample. The net weight of the goods contained in each package in the sample shall then be obtained by subtracting the tare weight from the gross weight of the package.

(b) where empty containers are not available, three packages from the sample shall be opened and the weight of the contents of each package as well as the weight of each empty container determined. The average weight of the three empty containers shall be taken to represent the tare weight of each of the remaining packages in the sample, and the net weight of each of the remaining packages in the sample, and the net weight of goods contained in each of these packages, shall be obtained by subtracting the tare weight so determined from the gross weight of the package.

(c) where it is necessary to take samples from the place where the packages are being filled, the following procedure shall be used—

(i) the number of empty packages, depending on the size of the sample in accordance with Table 1 of the Ninth Schedule, shall be selected and suitably marked to distinguish them from the other packages being filled;

(ii) the weight of each package shall then be determined and recorded on the empty package and also on the form specified in the Eleventh Schedule;

(iii) the empty packages shall then be filled by introducing them in a random manner in the packing process, and such introduction shall be adequately spread over the duration of one hour's production.

(iv) the marked packages shall then be taken out after completion of the filling and sealing operations and each filled package shall be re weighed;

(v) the net weight shall be obtained by deducting the tare weight, determined in accordance with paragraph (c)(ii) from the gross weight.

(d) The Inspector shall enter the results of his tests in Form A specified in the Eleventh Schedule, along with such other observations as he may wish to make on the basis of his tests.

2. Determination of liquid contents by volume—

(a) if the specific gravity of the liquid in the package is known and can be determined accurately, the method of determination of net contents by weight described in paragraph (1) may be used;

(b) if the method described in paragraph 2(a) is not feasible, the containers shall be opened and the contents of each package poured out carefully into the appropriate volume measure;

(c) The reading of the actual net volume of the goods in every package shall be noted carefully and recorded in Form B specified in the Eleventh Schedule.

3. Determination of length—

(a) if it is not possible to measure the dimensions without opening the package, the package shall be opened;

(b) the length of the item in the package shall be measured by means of a standard steel tape of suitable length;

(c) if the length of the item is so great that it is not possible to measure it with the tape measure and a suitable length instrument is available on the premises, that instrument shall be used after duly verifying it with the steel tape serving as a working standard of length;

(d) the measured length of the goods in every package shall be noted carefully and recorded in Form B specified in the Eleventh Schedule.

4. Determination of quantity of goods packed by number—

The Inspector shall take packages from the sample drawn by him in the manner specified in the Ninth Schedule and shall determine the error by actual counting of the goods in each such package and may, for that purpose open all packages.

ELEVENTH SCHEDULE

PROCEDURE FOR DETERMINATION OF QUANTITY

[L.N. 106/1999, r. 2(n).]

Form A (r. 13(2))

WEIGHT CHECKING DATA SHEET

1. PARTICULARS OF GOODS

(a) Name of seller/manufacturer/packer .....

(b) Postal Address .....

(c) Common or genetic name of the goods .....

2. DETAILS OF TEST

(a) Total number of items available for testing .....

(b) Sample size (i.e. total No. tested) .....

(c) Test result:

Item No.	*Gross weight*	*Tare weight of package*	*Declared net weight*	*Net weight of goods*	//Excess (+)/ Deficiency (-)//

(d) Average net weight (calculated)

(e) Declared net weight .....

(f) Excess (+)/Deficiency (-)

3. GENERAL COMMENTS

4. SELLER/MANUFACTURER/PACKER

(a) Name of manager .....

(b) Signature .....

(c) Date and time .....

TWELFTH SCHEDULE

[r. 7(1)(d)]

GOODS TO BEAR A DATE MARKING

[L.N. 106/1999, r. 2(r).]

1. Liquid milk (all types), yogurt and cream.

2. Evaporated milk.

3. Butter.

4. Condensed milk.

5. Milk powder.

6. Ghee.

7. foods.

8. Cereal flours.

9. Pasta products (macaroni, vermicelli and noodles).

10. Biscuits and cookies.

11. Cakes.

12. Breakfast cereals.

13. Floured mixed spices.

14. Vegetable and fruits.

15. Tomato sauce, ketchup, paste purée, juice or whole tomatoes.

16. Chili sauce, mayonnaise, etc.

17. Dehydrated vegetables and fruits.

18. Fats and oils.

19. Margarine.

20. Drinks, cordial, squash and juices (excluding carbonated soft drinks in bottles).

21. Beer, cider and perry.

22. Non-alcoholic beverages.

23. Meat and fish.

24. Sausages.

25. "Githeri"

26. Chocolate drink, cocoa, sugar mixtures and powdered premix drinks.

27. Chocolate and sweets.

28. Cheese.

29. Jams, marmalade and jellies.

30. Honey.

31. Fried peanuts and crisps.

32. Bread.

33. Tea.

34. Coffee.