

1988 No. 876

**WEIGHTS AND MEASURES**

**The Weighing Equipment (Non-automatic Weighing  
Machines) Regulations 1988**

<i>Made - - - -</i>	<i>12th May 1988</i>
<i>Laid before Parliament</i>	<i>26th May 1988</i>
<i>Coming into force</i>	<i>1st November 1988</i>

The Secretary of State, in exercise of the powers conferred by sections 11(1) and (4), 12(12), 15(1), 86(1) and 94(1) of the Weights and Measures Act 1985(a) and of all other powers enabling him in that behalf, hereby makes the following Regulations:-

**PART I  
GENERAL**

**Citation, commencement and revocation**

1.—(1) These Regulations may be cited as the Weighing Equipment (Non-automatic Weighing Machines) Regulations 1988 and shall come into force on 1st November 1988.

(2) The Regulations set out in Schedule 5 to these Regulations are hereby revoked to the extent specified in column 2.

**Interpretation**

2.—(1) In these Regulations unless the context otherwise requires-

“accelerating machine” means a machine which provides an indication by switching from one state of rest to the other;

“accuracy classification” means classification as a Class I, Class II, Class III or Class IIII machine in accordance with the provisions of Schedule 2 to these Regulations;

“the Act” means the Weights and Measures Act 1985;

“additive tare device” means a tare device which does not intrude upon any of the weighing ranges of the weight indicating and printing devices with which it is associated;

“analogue” means capable of assigning any value or position within a continuous range;

“approved minimum load” means the minimum load which a machine is authorised to weigh;

“approved pattern” means a pattern in respect of which a certificate of approval granted or deemed to have been granted under section 12 of the Act is in force;

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(a) 1985 c.72; section 94(1) contains a definition of “prescribed”.

“automatic catchweight weighing machine” means an automatic weighing machine which determines but does not regulate the mass of individual items;

“automatic weighing machine” means weighing equipment that includes a machine which accomplishes a weighing operation without intervention by an operator and which sets in motion an automatic process characteristic of the machine;

“automatic zero tracking device” means a device which is designed to correct small, slow changes within the zero setting range of the machine;

“ballast” means any of the materials to which the expression ballast applies in Schedule 4 to the Act;

“certificate of approval” means a certificate of approval of a pattern of weighing equipment granted or renewed by the Secretary of State under section 12 of the Act or any instrument having effect under paragraph 11 of Schedule 11 to the Act as if it were a certificate of approval so granted on 4th April 1979;

“counting machine” means a machine which, by weighing articles of uniform size and composition—

(a) determines the number of such articles placed on or removed from its load receptor, or

(b) detects when a pre-determined number of such articles have been placed on or removed from its load receptor;

“customer check weighing machine” means a non-automatic weighing machine which, in accordance with section 7(4)(a) of the Act, is made available for use for trade by any prospective buyer of goods so that he may check their weight before purchasing them;

“device for interpolation of reading” means a device which subdivides without special adjustment the weight scale of an indicating device;

“digital” means capable of assigning only certain discrete values or positions within a continuous range by a series of discontinuous steps;

“first part of the range” means that part of the weighing range defined, in verification scale intervals according to the accuracy classification of the machine, by the Table in Schedule 4 to these Regulations;

“graduated” means having its operating range subdivided into one or more continuous series of scale intervals;

“level indicating device” means a device which indicates when the structure to which it is attached is tilted away from its correct operating position;

“live part” means a part of a machine which, when a force is applied to it, could cause an alteration of the indicated or printed value;

“load receptor” means a part of a machine on which loads are placed for the purpose of their being weighed;

“locking device” means a device which engages a live part or parts of a machine to prevent relative movement between live parts and the frame or casing of the machine;

“mark of EEC initial verification” means the mark described in paragraph 5 of Schedule 1 to the Measuring Instruments (EEC Requirements) Regulations 1988(a);

“maximum capacity” means the greatest load which a weight indicating or printing device is constructed to indicate or print, as the case may be, when all associated tare devices are set to zero;

“maximum load” means the sum of the maximum capacity plus the maximum of any additive tare;

“metrological characteristics” means those operational characteristics of a machine which are evaluated during testing of the machine in accordance with the appropriate provisions of Regulation 35 of and Schedule 3 to these Regulations;

“multiple weighing” means determining the mass of a load by totalising the results of more than one static weighing operation during each of which the load is only partially supported by the load receptor;

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(a) S.I. 1988/186.

“non-automatic weighing machine” means weighing equipment that includes a machine which accomplishes a weighing operation and which requires the intervention of an operator during the weighing process, especially to deposit loads on, or remove loads from, the load receptor and also to determine the result of the weighing process, and for the purposes of these Regulations shall include a weigh-price-labeller;

“non-self indicating machine” means a machine in which the position of equilibrium is obtained entirely by the intervention of an operator;

“notice of examination” means a notice of examination caused to be published by the Secretary of State giving particulars of a pattern in respect of which a certificate of approval has been granted;

“prescribed limits of error” has the meaning set out in Regulation 36 below;

“published particulars” means, in relation to an approved pattern, the particulars of the approved pattern which are published under section 12 of the Act;

“range of self indication” means the range within which the position of equilibrium is obtained without the intervention of the operator;

“relieving device” means a device which can prevent forces applied to a load or weight receptor being transmitted to certain delicate bearings;

“rider” means a small poise which can be moved along a graduated bar or beam;

“rounding error” means the difference between the indicated or printed digital value and the result the machine would give if it were analogue;

“scale interval” means the value, expressed in units of measurement of mass, equal to—

- (a) in the case of a machine with an analogue indicating device, the smallest subdivision of the scale; or
- (b) in the case of a machine with a digital indicating or printing device, the smallest difference between two consecutive indicated or printed values;

“self indicating machine” means a machine in which the position of equilibrium is obtained without the intervention of the operator;

“self service weighing machine” means a non-automatic weighing machine which, in accordance with section 7(1) and (4)(a) of the Act, is made available for use for trade by any prospective buyer of goods so that the weight and price of goods selected by him is determined and made known to him;

“semi-self indicating machine” means a machine in which the operator only intervenes above a certain range of self indication or printing, in order to re-establish the function of self indication or printing;

“the stamp” means the prescribed stamp(a);

“subtractive tare device” means a tare device which intrudes on the weighing range of any weight indicating and printing device with which it is associated;

“tare device” means a device for—

- (a) resetting the weight indicating and weight printing devices to zero when a load is on the associated load receptor, or
- (b) subtracting a preset value of weight from the weight indicating or printing device;

“vehicle check weighing machine” means a non-automatic weighing machine which, in accordance with section 7(4)(a) of the Act, is made available for use for trade only for the purpose of checking compliance with statutory provisions regarding the weight and axle weight of road vehicles;

“verification scale interval” means the metrologically significant value of the scale interval for the verification of the machine which is determined from Schedule 2 to these Regulations;

“weigh-price-labeller” means an automatic catchweight weighing machine which has facilities to price and label individual articles, and for the purpose of these Regulations such a machine is deemed to be a non-automatic weighing machine;

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(a) See S.I. 1968/1615.

“weighing mode” means one of the number of ways of operating a machine which is necessary to bring into use each of its indicating, printing and taring devices, load receptors and combinations of load receptors, weighing ranges and values of verification scale interval;

“weighing range” means the range between the maximum capacity and—

- (a) the approved minimum load, or
- (b) in a case where there is no approved minimum load marking, the lowest value of weight which can be indicated or printed;

“weight indicating device” means a device which is not a weight printing device and which indicates the weight of a load on an associated load receptor of the machine;

“weight printing device” is a device which can print the weight of a load which is on an associated load receptor of the machine;

“weight receptor”, in relation to a machine where equilibrium is obtained totally or partially by means of weights, means a live part of the machine on which the weights are placed for a weighing operation; and

“zero setting device” means a device by which a machine may be balanced, set to indicate zero, or set to a datum position when the load receptor is empty.

(2) The abbreviations of, and symbols for, units of measurement used in these Regulations refer to the relevant units as follows:—

hundredweight	cwt
quarter	qr
pound	lb
ounce	oz
ounce troy	oz tr
dram	dr
grain	gr
tonne	t
kilogram	kg, kilog
gram	g, grm
carat (metric)	CM
milligram	mg
millimetre	mm

### Application

3.—(1) Subject to paragraphs (2) to (4) below, these Regulations apply to all non-automatic weighing machines for use for trade, and such machines are hereby prescribed for the purposes of section 11(1) of the Act.

(2) Nothing in these Regulations shall apply to any non-automatic weighing machine of the following descriptions:—

- (a) counting machines without weight indicating or weight printing devices and which are for use only for counting the number of articles;
- (b) machines for use only for weighing coins or currency notes for the purpose of determining their number;
- (c) machines for use for grading by reference to their weight for the purpose of trading transactions by reference to that grading, of hens' eggs in shell which are intended for human consumption;
- (d) machines for use only for weighing paint (other than paste paint);
- (e) machines for use only as vehicle check weighing machines and bearing a conspicuous notice to that effect;
- (f) machines for use only for making up packages if, and only if, the packages are subsequently checked in accordance with section 49(1)(b) of the Act;
- (g) machines specified in paragraph 7 of Schedule 4 to the Weights and Measures (Packaged Goods) Regulations 1986(a) for use only in checking packages in accordance with section 49(1)(b) or (2)(a) of the Act;

and in this paragraph “packages” means packages as defined in section 68(1) of the Act.

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(a) S.I. 1986/2049.

(3) Other than Regulations 4 and 21 to 30 below, nothing in these Regulations shall apply to any non-automatic weighing machine which bears the mark of EEC initial verification.

(4) Other than Regulations 4(4), 21, 22 and 30, nothing in these Regulations shall apply to any weighing machine with counting facilities which:

- (a) has been in use for trade solely for counting before 1st November 1988; and
- (b) bears the legends:  
“Not to be used for weighing for trade” and “Not to be used for direct trade with the public”; and
- (c) has not been passed as fit for use for trade and stamped.

#### **Purposes of use for trade**

4.—(1) On or after 1st September 1991, where a non-automatic weighing machine is marked with a weighing range, no person shall use that machine for trade for the purpose of determining the value of loads, expressed in units of measurement of mass, which are outside that range.

(2) Notwithstanding paragraph (1) above, a machine may be used for trade in the range between zero indication and the approved minimum load only

- (a) during the determination of postal or other tariffs, and
- (b) where there is a common tariff for any weight value at and below the approved minimum load.

(3) No person shall use for trade for the purpose of determining postal tariffs a machine having a digital weight indicating or printing device, unless—

- (a) each of its weight indicating or printing devices has a scale interval of 1 g or less; or
- (b) in accordance with the published particulars of the approved pattern the machine is marked “For determining postal tariffs only”.

(4) No person shall use for trade a machine carrying a marking required by the published particulars of the approved pattern or these Regulations for a purpose which does not accord with the marking.

(5) No person shall use for trade any non-automatic weighing machine other than a machine of accuracy classification as a Class I or Class II machine in any transaction—

- (a) in gold, silver or other precious metals,
- (b) in precious stones,
- (c) in jewellery, or
- (d) by retail in drugs or other pharmaceutical products, in which case for non-graduated Class II machines, having a maximum capacity of not less than 25 g and not more than 1 kg, the verification scale interval ‘e’ in Table 2 of Schedule 2 to these Regulations shall be Max/2000.

(6) No person shall use a Class III non-automatic weighing machine for trade for any purpose other than:

- (a) for weighing ballast;
- (b) for weighing other goods, in accordance with the published particulars of the approved pattern;
- (c) for use as a customer check weighing machine; or
- (d) if it is of a type described in paragraph 16(a) or (b) in Part V of Schedule 2 to these Regulations and stamped before 1st November 1988.

(7) No person shall on or after 1st September 1991 use for trade any non-automatic weighing machine for the purpose of multiple weighing.

(8) No person shall use a Class I or Class II machine, fitted with a rider, a device for interpolation of reading or an indicating device on which the last figure is clearly differentiated from the other figures, for direct trade with the public.

(9) No person shall have a self service weighing machine available for trade unless it complies with the requirements of these Regulations.

## PART II

### MATERIALS, PRINCIPLES OF CONSTRUCTION AND MARKING OF NON-AUTOMATIC WEIGHING MACHINES

5.—(1) Where a non-automatic weighing machine has interchangeable or reversible parts, the interchange or reversal thereof shall not affect its metrological characteristics.

(2) The constituent parts of a non-automatic weighing machine shall be sufficiently strong to withstand the wear and tear of ordinary use in trade.

6.—(1) No non-automatic weighing machine shall have monetary indications in units other than decimal currency units.

(2) No price computing non-automatic weighing machine shall—

(a) indicate in digital form during a weighing operation a part of a penny in the amount of the price to be paid by the buyer; or

(b) indicate the price in digital form and have any monetary indications in units of a part of a penny in vulgar fraction form which are capable of being used during a weighing operation to calculate the price.

7. The load receptor of a non-automatic weighing machine shall be so constructed as to provide for easy and practicable weighings for all test purposes not exceeding the maximum capacity of that machine, unless otherwise specified in the published particulars of the approved pattern.

8. Where a non-automatic weighing machine is fitted with a zero setting device designed to compensate for the wear and tear of ordinary use in trade, the device shall have a total range not exceeding 4 per cent. of the maximum capacity of that machine, or as specified in the published particulars of the approved pattern, as the case may be.

9. Every non-automatic weighing machine shall comply with the requirements in Schedule 2 to these Regulations for accuracy classification.

10.—(1) Subject to paragraph (2) below, every non-automatic weighing machine shall be fitted with an adjustable levelling device or devices and one or more level indicating devices to cover all directions.

(2) Nothing in paragraph (1) above shall apply to a machine which is permanently installed, freely suspended, or is a Class II, Class III or Class IIII machine which meets the requirements of paragraph 16 in Part III of Schedule 3 to these Regulations.

11.—(1) Subject to the following paragraphs of this Regulation, every non-automatic weighing machine shall be made in accordance with a pattern in respect of which a certificate of approval is in force.

(2) The marking of a machine in accordance with the requirements of Regulation 15(2) below after it has been made in accordance with such a pattern shall not in itself be a breach of paragraph (1) above.

(3) Nothing in paragraph (1) above shall apply to a machine of the type known as "common form" which was first stamped before 4th April 1989.

(4) Any dispensation from the observance of the requirements of Regulation 5(1)(b) of the Weights and Measures Regulations 1963(a), being a dispensation made by the Secretary of State before 1st November 1988 under the provisions of section 14(3) of the Act or under section 14(3) of the Weights and Measure Act 1963(b) and relating to a non-automatic weighing machine, shall be deemed to be a dispensation from observance of the requirements of paragraph (1) above.

12. Any pit provided for the installation of a non-automatic weighing machine shall be provided with adequate drainage.

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(a) S.I. 1963/1710; relevant amending instruments are S.I. 1964/76, 1970/1370, 1972/767, 1974/1326, 1977/1932, 1979/1612, 1983/914, 1655, 1984/1446, 1986/1320, 1682.

(b) 1963 c.31.

13.—(1) Subject to paragraph (2) below, the approved minimum load for a non-automatic weighing machine shall be that specified in Schedule 2 to these Regulations.

(2) Nothing in paragraph (1) above shall apply in the case of a machine in relation to which the published particulars of the approved pattern specify the amount of the minimum load appropriate to that particular pattern.

14.—(1) The graduated weight indicating, printing and tare devices of any non-automatic weighing machine which is first passed as fit for use for trade on or after 1st November 1988 shall—

(a) have scale intervals in one of the following forms—

(i)  $1 \times 10^n$ ,  $2 \times 10^n$  or  $5 \times 10^n$ , the index  $n$  being a positive or a negative whole number or zero, or

(ii)  $\frac{1}{8}$  oz,  $\frac{1}{4}$  oz,  $\frac{1}{2}$  oz, 1 oz, 2 oz, 4 oz, 8 oz,  $\frac{1}{4}$  lb or  $\frac{1}{2}$  lb; and

(b) subject to paragraph (2) below, give weighing results which comply with the principle of reading by simple juxtaposition.

(2) The requirements of paragraph (1)(b) above shall not apply—

(a) to semi-self indicating machines with mechanical weight indicating devices which have a range of self indication of 2 lb, but no weight printing device;

(b) to semi-self indicating machines, made in accordance with an approved pattern, having mechanical weight indicating devices with a range of self indication of 500 g; or

(c) to that part of any weighing result which is obtained by adding the values of weights or poises.

15.—(1) Every non-automatic weighing machine first passed as fit for use for trade before 1st May 1989 shall be legibly and durably marked either as in paragraph (2) below or with—

(a) the name of the maker or supplier; and

(b) either—

(i) the maximum capacity of the weight indicating and printing devices, or

(ii) the purported capacity, where the maximum load exceeds the maximum capacity.

(2) Every non-automatic weighing machine which is passed as fit for use for trade on or after 1st May 1989 shall be legibly and durably marked with—

(a) the name of the maker or supplier;

(b)  $\text{\textcircled{I}}$ ,  $\text{\textcircled{II}}$ ,  $\text{\textcircled{III}}$  or  $\text{\textcircled{IV}}$  (the accuracy classification of the machine, in accordance with the requirements of Schedule 2 to these Regulations);

(c) "Max . . ." (the maximum capacity of the weight indicating and weight printing devices);

(d) "Min . . ." (the approved minimum load);

(e) "e = . . ." (the verification scale interval associated with the weight indicating, printing and tare devices, which is determined by the requirements in Schedule 2 to these Regulations);

(f) where relevant—

(i) the number of the certificate of approval or of the notice of examination in respect of the pattern in accordance with which the machine is made, preceded by the words "Certification No.", "Cert. No." or "Notice No.", as the case may be;

(ii) "T = - . . ." if different from "Max . . ." or "T = + . . ." (the maximum range of the subtractive or additive tare device respectively);

(iii) "d = . . ." and "d<sub>T</sub> = . . ." if different from "e = . . ." (the scale intervals of the graduated weight indicating and/or printing devices and graduated tare devices respectively).

**16.—(1)** Where units of measurement are marked on non-automatic weighing machines first passed as fit for use for trade—

- (a) before 27th April 1978, they shall be marked, in the case of the dram, in full or by means of the abbreviation or symbol, dr, only;
- (b) before 1st December 1980, they shall be marked in full or, except in the case of the ton or stone, by means of one of the following abbreviations or symbols only:—  
cwt, qr, lb, oz, oz tr, gr, t, kg, kilog, g, grm, CM, mg;
- (c) on or after those dates, they shall be marked in metric units or in pounds or ounces, in full or by means of one of the following abbreviations or symbols only:—  
lb, oz, oz tr, t, kg, g, CM, mg.

(2) Nothing in paragraph (1) above shall authorise the use for trade of the ton, hundredweight, quarter, stone or grain in any circumstances, other than those permitted by paragraph 14(1) and (3) of Schedule 11 to the Act or of the dram in any circumstances other than those permitted by paragraph 12(1) and (2) of that Schedule.

**17.** Only a non-automatic weighing machine of Class I, or Class II with a maximum capacity not exceeding 12 kg, shall be provided with—

- (a) a rider;
- (b) a device for interpolation of reading; or
- (c) an indicating device on which the last figure is clearly differentiated from the other figures.

**18.** Where a non-automatic weighing machine which is first passed as fit for use for trade after 1st September 1989 shows price expressed as an amount of money per unit of weight, such unit of weight shall be expressed per ounce, per quarter pound, per pound, per hundred grams, per kilogram or per tonne.

**19.—(1)** Every non-automatic weighing machine which is in use for trade for operation by a prospective buyer for the purpose of making known to him the weight and where appropriate the price of goods selected by him whether as a customer check weighing machine or as a self service weighing machine shall—

- (a) be a self indicating weighing machine; and
- (b) be specified as being for such use in the published particulars of the approved pattern in the case of a weighing machine having a digital indicating device.

(2) In addition, any machine which is made available as a self service weighing machine shall—

- (a) be a price computing weighing machine having digital displays of weight, unit price and price to pay, together with an associated label printer;
- (b) have any bag provided for the goods selected by the prospective buyer such that the goods are readily visible through it; and
- (c) only be used in connection with the sale of different commodities, other than commodities having the same unit price, provided that they are readily distinguishable from each other.

(3) Any machine which is provided solely as a customer check weighing machine shall be limited to a non-printing weighing machine.

**20.** Every non-automatic weighing machine shall be provided with—

- (a) either:
  - (i) an irremovable plug or stud made of soft metal; or
  - (ii) in the case of a Class I machine a special plate permanently and irremovably attached to the base of the machine; and
- (b) such sealing arrangements as may be provided for the stamp as set out in the certificate of approval or the notice of examination in respect of that pattern.



## PART III

### MANNER OF ERECTION AND USE FOR TRADE

21. Where a non-automatic weighing machine is fitted with one or more level indicating devices, no person shall use the machine for trade unless each device indicates that it has been set to its reference position.

22. Where a non-automatic weighing machine is marked with a temperature range, no person shall use the machine for trade in temperatures outside that range.

23. Where a non-automatic weighing machine is marked with the manner of use, no person shall use the machine for trade in a manner which does not accord with the marking.

24. Where a non-automatic weighing machine is fitted with a weight or any other printing device, the machine shall be so erected and used that the printing device, when used, produces a clear and durable printout.

25. No person shall use for trade a non-automatic weighing machine when any live part is wholly or partly submerged in liquid, except as specified in the published particulars of the approved pattern.

26. Every non-automatic weighing machine shall be erected in such a manner that, during a weighing operation, the load being weighed is stationary relative to the load receptor and supported only by the load receptor.

27. Except as specified in the published particulars of the approved pattern, every non-automatic weighing machine shall be erected in such a manner that the operator can, notwithstanding the nature of the machine or its surroundings, readily take up a single position from which he can—

- (a) see, directly or with the aid of mirrors, closed-circuit television or other suitable permanently installed facilities, the whole of the unladen load receptor;
- (b) operate the weighing machine's controls; and
- (c) obtain a weight reading from the weighing machine.

28.—(1) Subject to paragraph (2) below, every Class I or Class II non-automatic weighing machine, used in association with a weight or weights to determine the value of any load in terms of metric units of mass other than carat (metric) units, shall be used for trade for such purpose only in association with weights which bear the mark of EEC initial verification in accordance with—

- (a) the provisions of Council Directive No. 74/148/EEC(a) on above-medium accuracy weights in the case of Class II machines; or
- (b) the provisions of the said Directive except for those provisions relating to weights of Class M1 in the case of Class I machines.

(2) The requirements of this Regulation shall not apply to any non-automatic weighing machine for use for trade in any transaction by retail in drugs or other pharmaceutical products.

29. No non-automatic weighing machine which has weight scale intervals expressed solely in decimal parts of a pound shall be used for the purposes of any sale by retail involving the weighing of goods by that machine in the presence of the buyer, unless a weight printing device associated with or forming part of the machine is used in such a manner that the buyer is presented with a ticket from that device recording in writing the weight of the goods.

30.—(1) Subject to paragraph (2) below, every non-automatic weighing machine shall be properly balanced or set to zero immediately prior to use.

(2) Paragraph (1) above shall not apply in the case of a machine of an approved pattern if, in the published particulars thereof, it is described as not being so constructed as to balance when unloaded.

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(a) O.J. No. L84, 28.3.1974, p.3.

## PART IV

### TESTING

31.—(1) Every non-automatic weighing machine submitted for testing shall be completely assembled and in a clean condition.

(2) For the purposes of the performance by an inspector of his functions under the Act or these Regulations relating to inspection, testing, passing as fit for use for trade and stamping of any non-automatic weighing machine, a person submitting such a machine to an inspector or who an inspector has reasonable cause to believe has control of such a machine for use for trade shall, if requested, provide for the inspector's use such material or items required by Regulations 33 and 34 below as the inspector may reasonably require, and any material or items so provided shall be returned to the person in question.

32. No non-automatic weighing machine which is to be permanently installed in the position in which it is to be used shall be tested, passed as fit for use for trade and stamped unless it has been completely erected ready for use and installed in the position in which it is to be used.

33.—(1) Every non-automatic weighing machine, where the maximum load does not exceed 5 tonnes, shall be tested by the use of weights complying with the Weights and Measures (Local and Working Standard Weights and Testing Equipment) Regulations 1986(a) as set out in the following Table:

(1) <i>Accuracy classification</i>	(2) <i>Weights to be used</i>
Class I Class II	} Local standard weights, or working standard weights which fall within the prescribed limits of error relating to the equivalent local standard weight.
Class III and having more than 5000 scale intervals	
Class III and having no more than 5000 scale intervals Class IIII	} Local standard weights, working standard weights or test weights.

(2) Where the maximum load of a machine exceeds 5 tonnes, the test loads shall consist of a minimum of 5 tonnes of weights complying with the Regulations referred to in paragraph (1) above and may consist of loose material for the remainder up to the maximum load.

34. Every non-automatic weighing machine designed to be operated by means of a coin, currency note, credit card or other such device as specified in the published particulars of the approved pattern shall be tested by use of the coin, currency note, credit card or device as appropriate.

35.—(1) Subject to paragraph (2) below, every non-automatic weighing machine shall be tested in accordance with the appropriate testing procedures specified in Schedule 3 to these Regulations or, where appropriate, those specified in the published particulars of the approved pattern.

(2) In the case of a machine marked with an approved minimum load, the prescribed limits of error specified in Schedule 4 to these Regulations shall not apply as from 1st September 1991 for test loads of less than the amount of that load.

(a) S.I. 1986/1685.

**PART V**  
**SUPPLEMENTARY PROVISIONS**

**Prescribed limits of error**

36. The prescribed limits of error relating to non-automatic weighing machines shall be those set out in Schedule 4 to these Regulations.

**Passing as fit for use for trade**

37.—(1) Subject to paragraphs (2) to (4) below, no non-automatic weighing machine shall be passed as fit for use for trade unless—

- (a) it complies with all the appropriate requirements of these Regulations; and
- (b) on testing, it falls within the prescribed limits of error.

(2) Notwithstanding paragraph (1)(a) above, a non-automatic weighing machine which was first passed as fit for use for trade before 1st November 1988 may continue to be passed as fit for use for trade even if it does not comply with the requirements of Regulations 7 and 17 above.

(3) Notwithstanding paragraph (1)(b) above, a non-automatic weighing machine marked (III) or (III) which was first passed as fit for use for trade before 1st November 1988 may, provided that it meets the tilt testing requirements for a machine having an adjustable levelling device or devices and one or more level indicating devices to cover all directions, continue to be passed as fit for use for trade—

- (a) if it bears the legend “Only to be used on a level surface”; or
- (b) until 1st March 1990 if there is no legend.

(4) Notwithstanding paragraph (1)(b) above, a non-automatic weighing machine which was first passed as fit for use for trade before 1st November 1988 may continue to be passed as fit for use for trade provided that the error in excess or in deficiency over the first part of the range is within or equal to one verification scale interval.

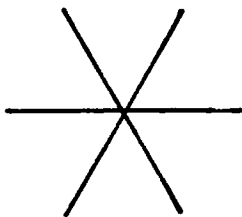
**Stamping**

38.—(1) The stamp shall be placed on the plug, stud or plate and on every sealing device referred to in Regulation 20 above.

(2) No non-automatic weighing machine shall be stamped in accordance with paragraph (1) above if it bears any mark which, in the opinion of the inspector, might reasonably be mistaken for the stamp, or any statement or mark (other than an inspector’s stamp) which purports to be or, in the opinion of the inspector, might reasonably be mistaken for an expression of approval or guarantee of accuracy by any body or person.

**Obliteration of stamps**

39. Stamps shall be obliterated by an inspector, in accordance with the requirements of these Regulations, by means of punches or pincers of suitable sizes of a six-pointed star design as shown in the following illustration:



**40.—(1)** Subject to paragraphs (2) and (3) below, an inspector shall obliterate the stamp on any non-automatic weighing machine which—

- (a) fails upon testing to fall within the prescribed limits of error in relation to obliteration of the stamp; or
- (b) fails to comply with any other appropriate requirement of these Regulations.

(2) Except as provided by Regulation 41 below, where any non-automatic weighing machine does not fully comply with the requirements of these Regulations, but the nature or degree of the non-compliance is not, in the inspector's opinion, such as to require the immediate obliteration of the stamp, he shall give to the proprietor or any person in control of the machine a notice calling on him to have the machine corrected within a stated period not exceeding 28 days, and shall obliterate the stamp if the correction has not been made within the stated period.

(3) Notwithstanding paragraph (1)(a) above, a non-automatic weighing machine which was first passed as fit for use for trade before 1st November 1988 may remain in use provided that the error in excess or deficiency over the first part of the range is within or equal to two verification scale intervals.

**41.—(1)** An inspector shall obliterate the stamp on any non-automatic weighing machine which has, since it was last stamped, had any alteration or addition made to it such that it could not be passed as fit for use for trade under Regulation 37 above.

(2) Subject to paragraph (3) below, an inspector shall obliterate the stamp on any non-automatic weighing machine which has, since it was last stamped, been the subject of any adjustment, alteration, addition, repair or replacement which could, in the opinion of the inspector, have affected its accuracy or function.

(3) Where a machine has been subjected to one or other of the occurrences in paragraph (2) above and the chief inspector of weights and measures for the area in which the machine is situated has been furnished in writing with details of the occurrence, an inspector may obliterate the stamp.

**42.** An inspector may obliterate the stamp on any non-automatic weighing machine which—

- (a) is in use for trade for a particular purpose and:
  - (i) which does not meet the requirements of Regulation 4 above; or
  - (ii) for which purpose, in the opinion of the inspector, it is otherwise unsuitable;or
- (b) is in use for trade in circumstances where the machine is subjected to any extraordinary environmental or operating conditions which, in the opinion of the inspector—
  - (i) prevent the machine operating consistently and correctly, or
  - (ii) are likely prematurely to degrade the metrological characteristics of the machine.

**43.—(1)** For the purpose of these Regulations, the obliteration of any one stamp on any non-automatic weighing machine shall be deemed to be the obliteration of all other stamps on that machine.

(2) Where the stamp on one non-automatic weighing machine forming part of an inter-connected system is obliterated, paragraph (1) above shall not apply so as to prevent the system or any other machine in the system being used, provided that the integrity of the remainder of the system is unimpaired.

**44.** Where the inspector has obliterated a stamp on a non-automatic weighing machine which is made available for use by the public (whether on payment or otherwise) he may attach to the machine a notice bearing the words—

“Out of use”.

**PART VI**  
**AMENDMENT OF OTHER INSTRUMENTS**

45. The Regulations specified in Schedule 1 to these Regulations shall be amended in the manner specified in that Schedule.

12th May 1988

*John Butcher*  
Parliamentary Under-Secretary of State,  
Department of Trade and Industry

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**SCHEDULE 1** (Regulation 45)  
**REGULATIONS AMENDED**

**THE WEIGHTS AND MEASURES REGULATIONS 1963**

1. In Regulation 1(1), delete subparagraphs (e) to (m).
2. In Regulation 1(2), delete subparagraphs (a) and (c).
3. In Regulation 1(2)(i), for the words "counter machine, platform weighing machine or weighbridge", substitute "non-automatic weighing machine".
4. After Regulation 1(2)(i) insert the following:—
  - (j) automatic checkweighing machines and weight grading machines;
  - (k) non-automatic weighing machines to which the Weighing Equipment (Non-automatic Weighing Machines) Regulations 1988 apply."
5. Delete Regulation 1A.
6. In Regulation 5(1)(a) delete "subject to paragraph (2) of this regulation" and from "Provided that" to "the appropriate requirements of these Regulations;".
7. In Regulation 5(1)(b), delete subparagraphs (iii) to (vi).
8. In Regulation 5, delete paragraphs (1A) and (1B).
9. In Regulation 6(2), delete subparagraph (h) and insert the following:—

"(e) equipment bearing an EEC type stamping plate."
10. After Regulation 6(2), add the following paragraph:—

"The stamp shall be placed on the plug or stud referred to in paragraph (1) above and on every sealing device referred to in Regulation 63B below."
11. In Regulation 8(1), delete subparagraph (c).
12. In Regulation 8(2), delete "(c) or" and subparagraph (a)(i).
13. In Regulation 8(6), delete "for the purpose of converting it to compute prices in a decimal currency or".
14. For Regulation 8A, substitute the following:

" 8A. For the purpose of these Regulations, the obliteration of any one stamp on weighing or measuring equipment shall be deemed to be the obliteration of all other stamps on that equipment."

15. After Regulation 63A, insert the following Regulation:-  
“ 63B. Weighing equipment shall be provided with such sealing arrangements as may be set out in the certificate of approval or the notice of examination in respect of that pattern.”.
16. Delete Regulations 65 to 71A inclusive.
17. Delete the whole of Parts VII to XI and XIII.
18. Delete Regulation 121(a) and (b).
19. In Schedule 2-
  - (a) in paragraph 1 in Part I, delete “Parts II to XI” and substitute “Parts IX and XI”; and
  - (b) delete Parts II to VIII and X.

## SCHEDULE 2

(Regulation 9)

### ACCURACY CLASSIFICATION OF NON-AUTOMATIC WEIGHING MACHINES

#### PART I

##### GENERAL

1. Non-automatic weighing machines are divided into four classes of accuracy according to specifications set out in Parts II to V of this Schedule. The division depends on their characteristics as well as the provisions relating to maximum capacity, the lower limit of the minimum load, the number of scale intervals and the scale interval itself.
2. Where self and semi-self indicating machines are provided with an indicating device on which the last figure is clearly differentiated from the other figures, the classification of the machines into accuracy classes, their number of scale intervals and their minimum load shall be determined by reference to the verification scale interval.
3. In each weighing mode of a machine each of the tare, weight indicating and printing devices operable in that mode has an associated verification scale interval. In a different weighing mode the same devices may have different verification scale intervals. When testing a machine it is therefore necessary to determine the verification scale interval for each device in each of the weighing modes in which it is operable.
4. A weight indicating or printing device which, in any single weighing mode, has its weighing range divided into parts, each part having a different scale interval, will also have a different verification scale interval for each part. When testing in a particular weighing mode the relevant verification scale intervals are those associated with those devices in that mode.
5. Each verification scale interval is-
  - (a) marked on the machine in accordance with the published particulars of the approved pattern or, if there are no such markings,
  - (b) specified in the relevant Table in Parts II to V.
6. The presence of a tare device or of a verification device on the machine does not affect the classification of the machine, which depends on its own characteristics. These devices are considered as belonging to the class of accuracy of the machine to which they are attached irrespective of their own characteristics.
7. For machines provided with several weight indicating or printing devices, each of the devices-
  - (a) has its own minimum load, the value of which is determined from the appropriate Table in Parts II, III, IV or V, depending on its metrological characteristics; and
  - (b) has the same digital scale interval, which must be at most equal to the smallest of any analogue scale interval.

8. For machines provided with graduated tare devices the smallest scale interval of the devices must be equal to the smallest scale interval of the machine to which it is fitted.

The verification scale interval of these devices shall be equal to the smallest verification scale interval of the machine.

9. For machines fitted with a graduated verification device the scale interval of such an incorporated device must be at most equal to one-fifth of the scale interval of the machine.

## PART II

### MACHINES DESIGNATED CLASS I

10. A machine made in accordance with an approved pattern and marked  $\text{\textcircled{I}}$  in accordance with the published particulars of that pattern is a Class I machine.

11. The specifications for non-graduated and graduated Class I machines are given in Table 1.

Table 1

Maximum capacity "Max"	Lower limit of the minimum load "Min"	Scale interval "d"	Number of scale intervals "n"	Verification scale interval "e"
<b>Non-graduated machines</b>				
$100 \text{ mg} \leq \text{Max} \leq 1 \text{ g}$	10 e			0.1 mg
$1 \text{ g} < \text{Max} < 10 \text{ g}$	50 e			$\frac{\text{Max}}{10\,000}$
$10 \text{ g} \leq \text{Max} < 100 \text{ g}$	50 e			1 mg
$100 \text{ g} \leq \text{Max}$	50 e			$\frac{\text{Max}}{10\,000}$
<b>Graduated machines</b>				
$0.5 \text{ mg} \leq \text{Max}$	d	$d \leq 0.005 \text{ mg}$	$10 \leq n$	d
$1 \text{ mg} \leq \text{Max}$	10 d	$0.01 \text{ mg} \leq d \leq 0.05 \text{ mg}$	$100 \leq n$	d
$10 \text{ mg} \leq \text{Max}$	50 d	$0.1 \text{ mg} \leq d \leq 0.5 \text{ mg}$	$100 \leq n$	d
$100 \text{ g} \leq \text{Max}$	50 d	$1 \text{ mg} \leq d$	$100\,000 \leq n$	d

#### Notes

- When a machine is provided with a rider its verification scale interval shall be the smaller of the following—
  - the verification scale interval of the machine not taking into account the rider, or
  - the scale interval of the rider device.
- When graduated machines of the self and semi-self indicating type are provided with a device for interpolation of reading, this shall not be taken into account when determining the verification scale interval of the machine.
- When graduated machines of the self or semi-self indicating type are provided with an indicating device on which the last figure is clearly differentiated from the other figures, the verification scale interval shall correspond to the last but one figure of the indication.
- In the case of machines where the weight indicating or printing is in carat (metric) units or units of the imperial system the relevant capacity and verification scale interval shall be the amounts in carat (metric) or imperial units respectively which are equivalent to those specified in the Table in terms of mg, g and kg.
- Where the equivalent metric value for an imperial scale interval falls between ranges then the value shall be considered as belonging to the lower range.

## PART III

### MACHINES DESIGNATED CLASS II

12. A machine which is:

- made in accordance with an approved pattern and marked  $\text{\textcircled{II}}$  in accordance with the published particulars of that pattern, or

(b) first stamped before 1st November 1988 and marked "Class B" in accordance with the provisions for beam scales in the Weights and Measures Regulations 1963, is a Class II machine.

13. The specifications for non-graduated and graduated Class II machines are given in Table 2.

**Table 2**

<i>Maximum capacity "Max"</i>	<i>Lower limit of the minimum load "Min"</i>	<i>Scale interval "d"</i>	<i>Number of scale intervals "n"</i>	<i>Verification scale interval "e"</i>
<b>Non-graduated machines</b>				
1 g ≤ Max < 5 g	10 e			<u>Max</u> 1 000
5 g ≤ Max < 100 g	10 e			5 mg
100 g ≤ Max < 200 g	10 e			<u>Max</u> 20 000
200 g ≤ Max	50 e			<u>Max</u> 20 000
<b>Graduated machines</b>				
<i>Non-self indicating machines</i>				
1 g ≤ Max < 50 g	10 d	1 mg ≤ d ≤ 5 mg	200 ≤ n < 50 000	d
10 g ≤ Max < 50 g	50 d	10 mg ≤ d ≤ 50 mg	1 000 ≤ n < 5 000	5 mg
50 g ≤ Max ≤ 500 g	10 d	1 mg ≤ d ≤ 5 mg	10 000 ≤ n ≤ 100 000	d
50 g ≤ Max < 5 kg	50 d	10 mg ≤ d ≤ 500 mg	1 000 ≤ n < 10 000	<u>Max</u> 10 000
100 g ≤ Max ≤ 50 kg	50 d	10 mg ≤ d ≤ 500 mg	10 000 ≤ n ≤ 100 000	d
5 kg ≤ Max	50 d	1 g ≤ d	5 000 ≤ n < 10 000	<u>Max</u> 10 000
10 kg ≤ Max	50 d	1 g ≤ d	10 000 ≤ n ≤ 100 000	d
<i>Self and semi-self indicating machines</i>				
1 g ≤ Max ≤ 500 g	10 d	1 mg ≤ d ≤ 5 mg	200 ≤ n ≤ 100 000	d
10 g ≤ Max ≤ 50 kg	50 d	10 mg ≤ d ≤ 500 mg	1 000 ≤ n ≤ 100 000	d
5 kg ≤ Max	50 d	1 g ≤ d	5 000 ≤ n ≤ 100 000	d

**Notes**

- When a machine is provided with a rider its verification scale interval shall be the smaller of the following
  - the verification scale interval of the machine not taking into account the rider, or
  - the scale interval of the rider device.
- When graduated self or semi-self indicating machines are provided with a device for interpolation of reading, this shall not be taken into account when determining the verification scale interval of the machine.
- When graduated self or semi-self indicating machines are provided with an indicating device on which the last figure is clearly differentiated from the other figures, the verification scale interval shall correspond to the last but one figure of the indication.
- Machines of a maximum capacity equal to or greater than 1 kg of an actual scale interval of 100 mg and of a verification scale interval of 1 g may belong to this class of machine, provided that the last figure is clearly differentiated from the other figures.
- In the case of machines where the weight indicating or printing is in carat (metric) units or units of the imperial system the relevant capacity and verification scale interval shall be the amounts in carat (metric) or imperial units respectively which are equivalent to those specified in the Table in terms of mg, g and kg.
- Where the equivalent metric value for an imperial scale interval falls between ranges then the value shall be considered as belonging to the lower range.



PART IV

MACHINES DESIGNATED CLASS III

14. A machine which is—

- (a) made in accordance with an approved pattern and marked (III) in accordance with the published particulars of that pattern, or
- (b) first stamped before 1st November 1988 and marked "Class C" in accordance with the provisions for beam scales in the Weights and Measures Regulations 1963, or
- (c) of a type referred to as "common form" and which was first stamped before 1st November 1988,

is a Class III machine.

15. The specifications for non-graduated and graduated Class III machines are given in Table 3.

Table 3

Maximum capacity "Max"	Lower limit of the minimum load "Min"	Scale interval "d"	Number of scale intervals "n"	Verification scale interval "e"
<b>Non-graduated machines</b>				
20 g ≤ Max < 100 g	50 e			0.1 g
100 g ≤ Max < 1 kg	50 e			<u>Max</u> 1 000
1 kg ≤ Max < 2 kg	50 e			1 g
2 kg ≤ Max	50 e			<u>Max</u> 2 000
<b>Graduated machines</b>				
<i>Non-self indicating machines</i>				
20 g ≤ Max < 100 g	10 d	0.1 g ≤ d ≤ 0.2 g	200 ≤ n < 1 000	0.1 g
100 g ≤ Max < 1 kg	20 d	0.2 g ≤ d ≤ 1 g	200 ≤ n < 1 000	<u>Max</u> 1 000
100 g ≤ Max ≤ 10 kg	20 d	0.1 g ≤ d ≤ 1 g	1 000 ≤ n ≤ 10 000	d
400 g ≤ Max < 5 kg	50 d	2 g ≤ d ≤ 5 g	200 ≤ n < 1 000	<u>Max</u> 1 000
2 kg ≤ Max ≤ 50 kg	50 d	2 g ≤ d ≤ 5 g	1 000 ≤ n ≤ 10 000	d
5 kg ≤ Max < 10 t	50 d	10 g ≤ d ≤ 10 kg	500 ≤ n < 1 000	<u>Max</u> 1 000
10 kg ≤ Max ≤ 100 t	50 d	10 g ≤ d ≤ 10 kg	1 000 ≤ n ≤ 10 000	d
15 t ≤ Max < 100 t	1 000 kg	20 kg ≤ d ≤ 100 kg	750 ≤ n < 1 000	<u>Max</u> 1 000
20 t ≤ Max ≤ 1 000 t	1 000 kg	20 kg ≤ d ≤ 100 kg	1 000 ≤ n ≤ 10 000	d
150 t ≤ Max	10 d	200 kg ≤ d	750 ≤ n < 1 000	<u>Max</u> 1 000
200 t ≤ Max	10 d	200 kg ≤ d	1 000 ≤ n ≤ 10 000	d
<i>Self and semi-self indicating machines</i>				
20 g ≤ Max ≤ 10 kg	10 d	0.1 g ≤ d ≤ 1 g	50 ≤ n ≤ 10 000	d
400 g ≤ Max ≤ 50 kg	20 d	2 g ≤ d ≤ 5 g	200 ≤ n ≤ 10 000	d
5 kg ≤ Max ≤ 200 kg	20 d	10 g ≤ d ≤ 20 g	500 ≤ n ≤ 10 000	d
25 kg ≤ Max ≤ 100 t	50 d	50 g ≤ d ≤ 10 kg	500 ≤ n ≤ 10 000	d
15 t ≤ Max ≤ 1 000 t	1 000 kg	20 kg ≤ d ≤ 100 kg	750 ≤ n ≤ 10 000	d
150 t < Max	10 d	200 kg ≤ d	750 ≤ n ≤ 10 000	d

**Notes**

1. In the case of machines where the weight indicating or printing is in units of the imperial system the relevant capacity and verification scale interval shall be the amounts in imperial units which are equivalent to those specified in the Table in terms of g, kg and t.

2. Where the equivalent metric value for an imperial scale interval falls between ranges then the value shall be considered as belonging to the lower range.

**PART V**

**MACHINES DESIGNATED CLASS IIII**

16. A machine which is—

- (a) made in accordance with an approved pattern and marked (IIII) in accordance with the published particulars of that pattern, or
- (b) first stamped before 1st November 1988 in accordance with the provisions for crane weighing machines constructed upon the hydraulic principle in the Weights and Measures Regulations 1963, or
- (c) of the type referred to as “approximate weighers” and first stamped before 1st November 1988,

is a Class IIII machine.

17. The specifications for non-graduated and graduated Class IIII machines are given in Table 4.

**Table 4**

<i>Maximum capacity “Max”</i>	<i>Lower limit of the minimum load “Min”</i>	<i>Scale interval “d”</i>	<i>Number of scale intervals “n”</i>	<i>Verification scale interval “e”</i>
<b>Non-graduated machines</b>				
$1 \text{ kg} \leq \text{Max} < 2 \text{ kg}$	10 e			5 g
$2 \text{ kg} \leq \text{Max}$	10 e			<u>Max</u> 400
<b>Graduated machines</b>				
<i>Non-self indicating machines</i>				
$1 \text{ kg} \leq \text{Max} < 2 \text{ kg}$	10 d	$5 \text{ g} \leq d \leq 10 \text{ g}$	$100 \leq n < 400$	5 g
$2 \text{ kg} \leq \text{Max} < 4 \text{ t}$	10 d	$10 \text{ g} \leq d \leq 10 \text{ kg}$	$100 \leq n < 400$	<u>Max</u> 400
$2 \text{ kg} \leq \text{Max} \leq 10 \text{ t}$	10 d	$5 \text{ g} \leq d \leq 10 \text{ kg}$	$400 \leq n \leq 1\,000$	d
$4 \text{ t} \leq \text{Max}$	10 d	$20 \text{ kg} \leq d$	$200 \leq n < 400$	<u>Max</u> 400
$8 \text{ t} \leq \text{Max}$	10 d	$20 \text{ kg} \leq d$	$400 \leq n \leq 1\,000$	d
<i>Self and semi-self indicating machines</i>				
$1 \text{ kg} \leq \text{Max} \leq 10 \text{ t}$	10 d	$5 \text{ g} \leq d \leq 10 \text{ kg}$	$100 \leq n \leq 1\,000$	d
$4 \text{ t} \leq \text{Max}$	10 d	$20 \text{ kg} \leq d$	$200 \leq n \leq 1\,000$	d

**Notes**

1. In the case of machines where the weight indicating or printing is in units of the imperial system the relevant capacity and verification scale interval shall be the amounts in imperial units which are equivalent to those specified in the Table in terms of g, kg and t.

2. Where the equivalent metric value for an imperial scale interval falls between ranges then the value shall be considered as belonging to the lower range.

## TESTING

## PART I

## GENERAL

1. Subject to the provisions of paragraph 17 of this Schedule on eccentric load testing and any special arrangements required to comply with Regulation 7, test loads shall be distributed over the central areas of load and weight receptors.

2.—(1) Subject to the provisions of paragraph 16 of this Schedule on tilt testing, machines fitted with level indicating devices shall only be tested when the devices indicate that the machines have been set to their reference positions.

(2) Movable machines or machines having movable load or weight receptors—

- (a) shall, if freestanding, subject to subparagraph (1) above and the provisions of paragraph 16(d) and (e) of this Schedule on tilt testing, be supported during testing on a level plane and, if practicable, have their load and/or weight bearing surfaces set level; and
- (b) shall, if designed to be suspended in use, be suspended during testing.

3. When taking test readings from digital weight indicators or printers, other than the readings required for comparison testing by paragraph 10 and the readings required for discrimination testing by paragraph 14 of this Schedule, the inspector shall eliminate any rounding error either by using the change points between consecutive indicated or printed digits or by using test facilities on the device under test which increase the resolution of the weight indication or printout.

4. In the case of a machine having an automatic zero tracking device or devices, these devices shall be effectively disabled during testing, by adopting a non-zero indication or printout as zero-for-the purposes of testing, so that the test results are not materially affected by the action of any of the automatic zero tracking devices.

5. In the case of a machine of an approved pattern which, in the published particulars thereof, is described as having a weighing mode in which, with the load receptor empty—

- (a) the machine cannot be balanced, or
- (b) an indicating, printing or tare device cannot be set to zero,

then nothing in the provisions of Parts II and III of this Schedule shall require such balancing or setting, or prevent the machine from being fully tested.

6. When testing any machine, the inspector shall first ascertain:—

- (a) its accuracy classification, the verification scale intervals and weighing ranges of all the indicating, printing and tare devices, in accordance with the provisions of Schedule 2 to these Regulations;
- (b) the number of its weighing modes;
- (c) for each of the indicating, printing and tare devices, the value of test load at which the prescribed limits of error change in value, in accordance with the provisions of Schedule 4 to these Regulations; and
- (d) the maximum loads of all the weight and load receptors and combinations of load receptors.

7. Where feasible, the inspector may combine tests or carry out several tests concurrently.

## PART II

## ACCURACY TESTING

8. Weight indicating and weight printing devices

- (a) Subject to paragraph 5 of this Schedule, the inspector shall first balance the machine with the load and weight receptors empty and all the tare, weight indicating and printing devices set to zero.

- (b) For each weighing mode of the machine, each of the weight indicating and printing devices which are operable in that mode shall be tested for accuracy unless, in the inspector's opinion, a lesser number of tests on any device is sufficient to establish or re-establish its fitness for use. During accuracy testing each device shall be tested at least once with increasing and decreasing loads unless it is described in the published particulars of the approved pattern as not to be so tested.
- (c) For each weight reading the error must not exceed the appropriate prescribed limit of error.

### PART III

#### OTHER TESTING

#### 9. Interpretation

In this Part of this Schedule, "absolute value" means the range of the limit of error from the maximum plus to the maximum minus allowed.

#### 10. Comparison testing

- (a) Machines having a weighing mode in which it is possible to obtain more than one determination of any test load by means of more than one tare, weight indicating or printing devices shall, for each such weighing mode, be tested as described in subparagraphs (b) and (c) below.
- (b) Testing shall be carried out for at least three different values of test load.
- (c) The inspector shall compare each reading with all the other readings of the same test load, the other readings being obtained from different weight indicating, printing and tare devices. The difference between any two of these readings must not exceed—
  - (i) zero, where the two readings are obtained from two digital devices having the same scale interval;
  - (ii) the larger of the scale intervals, where the two readings are obtained from digital devices having different scale intervals;
  - (iii) the smaller of the absolute values of the appropriate prescribed limits of error where the two readings are obtained from two analogue devices; or
  - (iv) either the absolute value of the appropriate prescribed limits of error of the analogue device or the scale interval of the digital device whichever is the greater, where one of the two readings is obtained from an analogue device and the other is obtained from a digital device.

#### 11. Alternative load balancing arrangement testing

- (a) Machines having a weighing mode in which it is possible to obtain more than one determination of a single load by means of alternative load balancing arrangements shall, for each such weighing mode, be tested as described in subparagraphs (b) and (c) below.
- (b) If feasible, testing of each alternative load balancing arrangement shall be carried out for at least three different values of test load.
- (c) For each test load the inspector shall compare the two readings obtained from the alternative load balancing arrangements. The difference between these readings must not exceed the absolute value (or the smaller of the absolute values) of the appropriate prescribed limits of error for the load applied.

#### 12. Repeatability testing

- (a) Repeatability testing shall be carried out as appropriate to the machine under test, with the test load being removed and then re-deposited as nearly as practicable in the same position.
- (b) The readings for each test load shall be compared. The difference between the highest and the lowest of them must not exceed half the absolute value of the appropriate prescribed limits of error for the load applied. All readings must also fall within the prescribed limits of error.
- (c) Additional repeatability testing may be carried out on machines having other weight indicating or printing devices associated with the load receptor under test.

### 13. Price-to-pay testing

- (a) By checking with several different weights and unit prices, the inspector shall satisfy himself that the machine computes the price-to-pay correctly.
- (b) In the case of a machine with digital indication or printing of price-to-pay, the price computation shall be deemed to be correct if the difference between any indicated or printed price-to-pay and the product of its associated unit price and indicated or printed weight is not greater than half the value of the smallest monetary unit.

### 14. Discrimination testing

- (a) Discrimination testing shall not be carried out on accelerating machines.
- (b) Subject to (a) above, discrimination testing shall be carried out with the machine loaded to the approved minimum load and maximum capacity, or as near as practicable thereto, using each load and weight receptor, or combination of receptors, separately with the associated indicating or printing device which has the smallest prescribed limit of error for the value of load used in the testing.
- (c) For non-self indicating machines, while balanced to give an indication of the load as at (b) above, an additional load equal to 0.4 times the absolute value of the prescribed limit of error added gently to the loaded receptor shall always produce:-
  - (i) an appreciable movement of the beam, in the case of a simple equal-arm beam;
  - (ii) a rise or fall to the limits of the range of movement of the beam or indicating element, in the case of a machine which is not a simple equal-arm beam.
- (d) For self or semi-self indicating machines, while loaded as at (b) above, the additional load placed gently on the loaded receptor shall:-
  - (i) in the case of analogue indication or printing be equivalent to the absolute value of the prescribed limit of error for the load on the receptor and shall always cause a permanent displacement of the indicating element corresponding to at least 0.7 times its value;
  - (ii) in the case of a digital indication or printing, be equivalent to 1.4 times the digital scale interval and shall always cause an increase in the reading of the initial indication.

### 15. Level indicator testing

- (a) The sensitivity of the level indicating devices shall be such that, in the case of Class I and Class II machines, for a longitudinal or transverse tilt not exceeding 2 parts in 1000, the moving part of the indicator is displaced by at least 2 mm;
- (b) In the case of Class III and Class IIII machines, when a machine is tilted longitudinally or transversely until the moving part of the indicator shows a displacement of at least 2 mm, the zero load reading of the associated indicating or printing device does not change by more than two verification scale intervals.
- (c) In the case of Class II, Class III and Class IIII machines additionally, for all loads, the variation between the indicated or printed results obtained in the reference position and the tilted position shall not exceed the value of the prescribed limit of error for the test load, the machine having been adjusted to zero or balanced in the no-load condition for both the reference and tilted positions.

### 16. Tilt testing

- (a) Tilt testing shall not be carried out on any machines which are permanently installed, freely suspended or Class I machines provided with adjustable levelling devices and one or more level indicating devices.
- (b) Machines subject to tilt testing which are submitted with a view to being passed for the first time as fit for use for trade shall be tested as described in subparagraphs (c) to (e) below. An inspector may, at his discretion, carry out tilt testing at other times on machines which are subject to such testing.
- (c) The machines shall be tested using each load and weight receptor, where feasible, in association with the indicating or printing device which has the smallest verification scale interval of these devices capable of registering the maximum capacity.
- (d) Subject to paragraph 5 of this Schedule, for a Class III or Class IIII machine, having first been adjusted to zero or balanced at no-load in its untilted reference position with all the tare, weight indicating and printing devices set to zero, the indication shall not vary by more than two verification scale intervals when tilted longitudinally and transversely to-
  - (i) 2 parts in 1000; or
  - (ii) 50 parts in 1000, for a machine without any level indicating devices.

- (e) Subject to paragraph 5 of this Schedule, for a Class II, Class III or Class IIII machine, having first been adjusted to zero or balanced at no-load in the tilted position with all the tare, weight indicating and printing devices set to zero, the indication shall not vary by more than one verification scale interval when, with the maximum load applied, the machine is tilted longitudinally and transversely to—
- (i) 1 part in 1000 for a Class II machine;
  - (ii) 2 parts in 1000 for a Class III or Class IIII machine;
  - (iii) 50 parts in 1000 for a machine without any level indicating devices.

#### 17. Eccentric load testing

- (a) Machines shall be subjected to eccentric load testing using each load and weight receptor, or combination of receptors, separately in association with the indicating or printing device which has the smallest prescribed limits of error for the value of load used in the testing.
- (b) Subject to paragraph 5 of this Schedule, the inspector shall first balance the machine with the load and weight receptors empty and all the tare, weight indicating and printing devices set to zero.
- (c) The receptor shall then be loaded as specified in subparagraph (d) below. The weight reading shall be noted for each specified position of the test load. For each weight reading the error must not exceed the appropriate prescribed limit of error.
- (d) In the case of—
- (i) a receptor freely suspended from one or two supports, a test load equal to half of the maximum load shall be distributed as nearly as practicable over half of the receptor without excessive stacking or overlapping of the edges. The test load shall then be moved to and distributed over the other half of the receptor;
  - (ii) a receptor other than that described in subparagraph (i) above and having a maximum capacity of 30 kg or less, a test load equal to one-third of the maximum load shall be placed in several positions on (or as close as is practicable to) the edges of the receptor without excessive stacking or overlapping of the edges;
  - (iii) a receptor other than that described in subparagraph (i) above, having not more than four supports and a maximum capacity of more than 30 kg, a test load equal to one-third of the maximum load shall be distributed successively and individually along each edge of the load receptor in turn, each area of distribution not exceeding one-quarter of the total area of the receptor;
  - (iv) a receptor having more than four supports and a maximum capacity of more than 30 kg, a test load equal to the fraction  $1/(n - 1)$  of the maximum load (where  $n$  is the number of supports) shall be distributed successively and individually about each support to cover an area of approximately  $1/(n + 1)$  of the surface area of the receptor. If this is not possible because the points of support are transversely too close together, a test load equal to  $2/(n - 1)$  of the maximum load shall be distributed successively and individually about each transverse line joining two supports to cover an area of approximately  $2/(n + 1)$  of the surface area of the receptor;
  - (v) a combination of receptors, a test load equal to one-third of the total maximum load for the combination shall be distributed as described in subparagraph (iii) above along those edges normally crossed by a load during loading and unloading of the combination of receptors.

#### 18. Locking or relieving gear testing

Load and weight receptors which have associated locking or relieving devices shall, when supporting one-half of their maximum load, be eased into and out of lock or relief. This action must not cause the machine, in its unlocked or unrelieved position, to give any indication or printout which is in error by more than the appropriate prescribed limit of error.

Such devices must not be able to be placed in intermediate positions.

#### 19. Backbalance testing

- (a) Backbalance testing shall be carried out only on accelerating machines.

- (b) In backbalance testing the maximum load shall first be placed on the load receptor and the machine balanced so that the beam or indicating element only just maintains its horizontal position on its stop or carrier. The beam or indicating element shall then be moved to its position of greatest displacement from the horizontal position, after which the load on the load receptor shall be reduced by the minimum amount which is required to restore the beam or indicating element to its horizontal position.
- (c) The minimum amount which is required to be removed from the load receptor must not exceed three times the verification scale interval of the machine.

## SCHEDULE 4

(Regulations 35, 36)

### PRESCRIBED LIMITS OF ERROR

1. Subject to paragraphs 2 and 3 below, the prescribed limits of error expressed in terms of "e", the relevant verification scale interval of the device under test, shall be those set out in the Table below.

**Table**

<i>Limits of Error in Excess or Deficiency</i>			
<i>Classification of Machine</i>	<i>upon passing as fit for use for trade</i>	<i>in relation to the obliteration of stamps</i>	<i>Number of verification scale intervals -see Note below</i>
Column 1	Column 2	Column 3	Column 4
<b>CLASS I</b>			
(first part)	0.5 e	1 e	not more than 50 000 e
(second part)	1 e	2 e	more than 50 000 e and not more than 200 000 e
(third part)	1.5 e	3 e	more than 200 000 e
<b>CLASS II</b>			
(first part)	0.5 e	1 e	not more than 5 000 e
(second part)	1 e	2 e	more than 5 000 e and not more than 20 000 e
(third part)	1.5 e	3 e	more than 20 000 e
<b>CLASS III</b>			
(first part)	0.5 e	1 e	not more than 500 e
(second part)	1 e	2 e	more than 500 e and not more than 2 000 e
(third part)	1.5 e	3 e	more than 2 000 e
<b>CLASS IIII</b>			
(first part)	0.5 e	1 e	not more than 50 e
(second part)	1 e	2 e	more than 50 e and not more than 200 e
(third part)	1.5 e	3 e	more than 200 e

*Note*

When testing a weight indicating or printing device, in a weighing mode in which tare devices other than those within paragraph (b) of the definition of "tare device" in Regulation 2 above are operable, the ranges listed in column 4 of the Table shall be increased by the corresponding tare value.

2. An indicating or printing device which, in any single weighing mode, has more than one verification scale interval, each of which relates exclusively to a particular part of the weighing range, shall have, for each particular part, those error allowances which would apply if the complete weighing range had the verification scale interval which relates to that particular part.

3. In the case where—

- (a) a machine has had its stamp obliterated under Regulation 41(1) of these Regulations because of an alteration or adjustment involving only the replacement or addition of a dial, chart or pointer, and
- (b) the purpose of the alteration or adjustment was to modify an imperial machine to indicate weight in metric units, and
- (c) (i) within the period of fifteen days following the making of the alteration or adjustment the requirements of paragraph 4 below were complied with, or  
(ii) the period for complying with those requirements has not yet expired,

the appropriate prescribed limits of error upon the first retesting of such a machine with a view to its being passed as fit for use for trade shall be those set out in the Table in paragraph 1 above as being applicable in relation to the obliteration of stamps.

4. The requirements referred to in paragraph 3(c)(i) above are that the chief inspector of weights and measures for the area in which the machine will first be used for trade after it has been altered or adjusted, or, if the address at which it will be so used is not known, for the area in which the alteration or adjustment is carried out, is furnished by the person carrying out the alteration or adjustment with the following particulars, namely—

- (a) his name and address;
- (b) particulars by which the machine may be identified;
- (c) the name and address of the person who will first use the machine for trade after its alteration or adjustment and the address at which it will be so used or, if those particulars are not known, an address at which the machine will be available for inspection;
- (d) confirmation that the modification consisted only of the replacement or addition of a chart, dial or pointer.

## SCHEDULE 5

(Regulation 1(2))

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The Weights and Measures (Amendment) Regulations 1964(a)	The whole Regulations
The Weights and Measures (Person Weighing Machines) Regulations 1965(b)	The whole Regulations
The Weights and Measures (Amendment) Regulations 1972(c)	Regulation 2(ii) to (iv)
The Weights and Measures (Person Weighing Machines) (Amendment) Regulations 1972(d)	The whole Regulations
The Weights and Measures (Weighing Equipment for Use by Customers) Regulations 1976(e)	The whole Regulations
The Weights and Measures (Amendment) Regulations 1977(f)	The whole Regulations
The Weights and Measures (Amendment) Regulations 1984(g)	The whole Regulations
The Weights and Measures (Amendment) Regulations 1985(h)	The whole Regulations

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- (a) S.I. 1964/76.
  - (b) S.I. 1965/123.
  - (c) S.I. 1972/767.
  - (d) S.I. 1972/1551.
  - (e) S.I. 1976/2061.
  - (f) S.I. 1977/1932.
  - (g) S.I. 1984/1446.
  - (h) S.I. 1985/1532.



## EXPLANATORY NOTE

*(This note is not part of the Regulations)*

1. These Regulations prescribe non-automatic weighing machines for the purposes of section 11(1) of the Weights and Measures Act 1985 and exclude them from the application of the Weights and Measures Regulations 1963 (where they were formerly prescribed as individual types or classes of weighing equipment). The effect of prescription is to make it unlawful to use such machines for trade purposes, unless they have been tested, passed as fit for such use and stamped by an inspector of weights and measures. (These requirements of prescription are also satisfied by a non-automatic weighing machine complying with Council Directive No. 73/360/EEC as amended and bearing the mark of EEC initial verification and, where appropriate, the sign of EEC pattern approval. This mark and sign are described in Schedule 1 to the Measuring Instruments (EEC Requirements) Regulations 1988, S.I. 1988/186.)

2. The Regulations make provision as to:

- (a) the purposes for which such non-automatic weighing machines may be used for trade (Regulation 4);
- (b) the materials and principles of construction of them and their marking (Regulations 5 to 20);
- (c) the manner of erection and use of them for trade (Regulations 21 to 30);
- (d) their testing, passing as fit for use for trade and stamping and the obliteration of such stamps (Regulations 31 to 35 and 37 to 44 and Schedule 3); and
- (e) the prescribed limits of error (Regulation 36 and Schedule 4).

3. The Regulations make the following changes of substance:-

- (a) the particular requirements relating to person-weighing machines are revoked (Regulation 1(2) and Schedule 5);
- (b) machines for use only for weighing paint (other than paste paint) or for use only as vehicle check weighing machines are no longer prescribed (Regulation 3(2));
- (c) there are new requirements on the purpose of use for trade of machines (Regulation 4);
- (d) there are new requirements for the principles of construction of machines, in particular:
  - (i) each machine is to be designated as of one of four classes of accuracy with an approved minimum load, as defined in Schedule 2 (Regulations 9 and 13) (formerly only beam scales were divided into classes);
  - (ii) subject to exceptions, each machine is to be made in accordance with a pattern in respect of which a certificate of approval is in force (Regulation 11) (formerly only patterns of machines with particular features needed to be approved);
  - (iii) the class of accuracy and other relevant legends are to be marked on each machine, mainly in symbol form (Regulation 15(2)) (formerly markings were restricted to the name of the maker and the capacity);
  - (iv) for those machines used by prospective buyers of goods (Regulation 19);
- (e) there are new requirements for the manner of erection and use for trade of machines (Regulations 21 to 30);
- (f) a requirement has been included to ensure that the inspector testing any machine must, if he so requests, be provided with appropriate test or operating material (Regulations 31(2) and 34);
- (g) a requirement has been included specifying the weights to be used in testing machines of the different classes of accuracy and requiring a minimum of 5 tonnes of weights to be used where the maximum load exceeds this amount (Regulation 33) (formerly a minimum of 2240 pounds of weights was required);
- (h) the test requirements for all machines are set out in more detail (Regulation 35 and Schedule 3);

- (i) new prescribed limits of error are included which vary throughout the weighing range for each of the four classes of accuracy (with modification for machines first passed as fit for use for trade before 1st November 1988) (Regulations 36, 37(4), 40(3) and Schedule 4) (formerly the limits of error were only expressed in relation to fully loaded machines and varied according to the type of machine); and
- (j) the grounds on which an inspector may obliterate the stamp on machines have been widened (Regulations 41 to 43).

4. In general the Regulations come into force on 1st November 1988, but the following transitional arrangements are made:-

- (a) as from 1st September 1991 it will be an offence, subject to exceptions for tariff machines, to use any machine outside its stated weighing range (Regulation 4(1) and (2));
- (b) as from 1st September 1991 it will be an offence to use a machine for the purpose of multiple weighing (Regulation 4(7));
- (c) until 4th April 1989 machines, which under the Weights and Measures Regulations 1963 did not need to be made in accordance with a pattern in respect of which a certificate of approval is in force, may continue to be so made, passed as fit for use for trade and stamped (Regulation 11(3));
- (d) as from 1st May 1989 machines submitted for passing as fit for use for trade must be marked with their class of accuracy and other relevant legends (Regulation 15(2));
- (e) as from 1st September 1989 the price/weight base of machines first submitted for passing as fit for use for trade is restricted (Regulation 18);
- (f) as from 1st September 1991 the prescribed limits of error do not apply to test loads less than the approved minimum load, where this is marked on the machine (Regulation 35(2)); and
- (g) until 1st March 1990 a machine marked Class III or IIII which was first passed as fit for use for trade before 1st September 1988 may continue to be so passed even if not bearing a legend about use on a level surface, provided it meets certain tilt testing requirements (Regulation 37(3)).

