

## STATUTORY INSTRUMENTS

1986 No. 1320

## WEIGHTS AND MEASURES

**The Weighing Equipment (Filling and Discontinuous Totalising Automatic Weighing Machines) Regulations 1986**

<i>Made</i>	- - -	<i>25th July 1986</i>
<i>Laid before Parliament</i>		<i>8th August 1986</i>
<i>Coming into Operation</i>		<i>1st September 1986</i>

The Secretary of State, in exercise of the powers conferred by sections 11(1), (4) and (7), 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 and commencement*

1. These Regulations may be cited as the Weighing Equipment (Filling and Discontinuous Totalising Automatic Weighing Machines) Regulations 1986 and shall come into operation on 1st September 1986.

*Interpretation*

2.— (1) In these Regulations—

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

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

“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;

“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;

“device for interpolation of reading” means a device which subdivides

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(a) 1985 c. 72.

without special adjustment the scale of a machine with an analogue indicator;

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

“discontinuous totaliser” means a discontinuous totalising automatic weighing machine which systematically sub-divides material in bulk into separate loads, determines the mass of material in each load, effects a summation of loads and discharges the material into bulk;

“filling machine” means an automatic weighing machine which systematically sub-divides material in bulk into separate loads of a pre-determined mass and effects an automatic feed and weighing of them;

“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 load is applied to it, causes the mass of the load to be indicated, printed or otherwise processed by the machine;

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

“material testing” means the testing of an automatic weighing machine by loading suitable material on the machine;

“maximum capacity” means the maximum load which the machine is authorised to weigh by the certificate of approval;

“maximum net capacity” means the maximum net load which the machine is authorised to weigh by the certificate of approval;

“minimum load” means the minimum load which the machine is authorised to weigh by the certificate of approval;

“minimum totalised load” means the minimum totalised load which the machine is authorised to weigh by the certificate of approval;

“non-automatic zero-setting device” means a device which allows an operator to observe, alter and then check the setting of the machine to zero or a given point;

“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;

“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 33 below;

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

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

- (a) in the case of a machine with an analogue device, the smallest sub-division of the scale; or

(b) in the case of a machine with a digital device, the smallest difference between two consecutive values indicated by the machine;

“semi-automatic zero-setting device” means a device which, following a manual command, allows the automatic setting of the machine to zero or a given point or indicates the value by which it is necessary to adjust the setting to zero or a given point;

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

“tare device” means a device for resetting the weight indicating device and the weight printing device to zero when a load is placed on the load receptor;

“test load” means a load of suitable material used for material testing;

“totalisation scale interval” means the value, expressed in units of measurement of mass, of the scale interval of the totalisation indicating device of the machine;

“weighing unit” means a device which provides information on the mass of the load being weighed by the machine;

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

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

(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
tonne	...	...	...	...	...	...	...	t
kilogram	...	...	...	...	...	...	...	kg
gram	...	...	...	...	...	...	...	g, grm.

#### Application

3.— (1) Subject to paragraph (2) below, Parts II and V of these Regulations apply to all automatic weighing machines of the following description namely filling machines and discontinuous totalisers, Part III applies to filling machines and Part IV to discontinuous totalisers, 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 automatic weighing machine 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, and in this paragraph “packages” means packages as defined in section 68(1) of the Act.

(3) The Weights and Measures Regulations 1963(b) are hereby amended in Regulation 1(2) by the addition after sub-paragraph (h) of the following sub-paragraph:—

“(i) filling machines and discontinuous totalisers to which the Weighing Equipment (Filling and Discontinuous Totalising Automatic Weighing Machines) Regulations 1986 apply, except in so far as such machines and totalisers are capable of also being used as a counter machine, platform weighing machine or weighbridge.”.

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

(b) S.I. 1963/1710; Regulation 1(2) was amended by S.I. 1977/1932, 1979/1612, 1983/914, 1655.

*Purposes of use for trade*

4. No person shall use for trade an automatic weighing machine except for the purpose of weighing material the values of which, expressed in units of measurement of mass, are neither less than the value of the minimum load and the minimum totalised load nor more than the value of the maximum capacity.

## PART II

## GENERAL REQUIREMENTS FOR MATERIALS, PRINCIPLES OF CONSTRUCTION AND MARKING OF AUTOMATIC WEIGHING MACHINES CONSISTING OF FILLING MACHINES AND DISCONTINUOUS TOTALISERS

5. Regulations 6 to 13 below apply to automatic weighing machines consisting of filling machines and discontinuous totalisers.

6.— (1) Every automatic weighing machine which has readily removable parts, the removal of which would affect its accuracy, shall be so constructed that it cannot be used if any of the said parts are removed.

(2) Where an automatic weighing machine has interchangeable or reversible parts, the interchange or reversal thereof shall not affect its metrological characteristics.

7. The constituent parts of an automatic weighing machine shall be sufficiently strong to withstand the wear and tear of ordinary use in trade.

8. Where an 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.

9. Where an automatic weighing machine is provided with a means of giving a visual indication of the value of the measurement made of individual quantities of material or of comparisons with such values, it shall be so constructed as to provide for easy and practicable weighings for test purposes not exceeding the maximum capacity of that machine.

10.— (1) Subject to the following paragraphs of this Regulation, every 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 Regulations 11, 18 and 25 below after it has been made in accordance with such a pattern shall not in itself be a breach of paragraph (1) above.

(3) Any dispensation from the observance of the requirements of Regulation 5(1)(b) of the Weights and Measures Regulations 1963, being a dispensation made by the Secretary of State before the date of coming into operation of these Regulations under the provisions of section 14(3) of the Act or under section 14(3) of the Weights and Measures Act 1963(a) and relating to an automatic

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(a) 1963 c. 31.

weighing machine, shall be deemed to be a dispensation from the observance of the requirements of paragraph (1) above.

**11.** Every automatic weighing machine passed as fit for use for trade on or after the date of coming into operation of these Regulations shall be legibly and durably marked with:—

- (a) the name of the maker or supplier;
- (b) 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; and
- (c) such other markings appropriate to the type of machine, as specified in Regulation 18 or 25.

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

- (a) before 1st December 1980, they shall be marked in full or, except in the case of the ton, by means of one of the following abbreviations or symbols only:—  
cwt, qr, lb, oz, t, kg, kilog, g, grm;
- (b) on or after that date, 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, t, kg, g.

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

**13.** Every automatic weighing machine shall be provided with a plug or stud made of soft metal and made irremovable by undercutting, and with such sealing arrangements as may be contained in the certificate of approval or the notice of examination in respect of that pattern.

### PART III

#### FILLING MACHINES

##### *Principles of construction and marking*

**14.—** (1) Every filling machine which is not provided with a load receptor, the material being put directly into a container attached to the live part of the machine, shall be provided with a tare device.

(2) Every movable filling machine shall be fitted with one or more level indicating devices.

**15.** Where a filling machine is provided with a manually controlled discharge facility it shall be so constructed that the facility cannot be operated during an automatic process.

16. Every filling machine shall be provided with a clear indication of the exact quantity of material it purports to weigh.

17. No filling machine shall be fitted with a rider or with a weight indicating device incorporating a device for interpolation of reading.

18. Every filling machine passed as fit for use for trade on or after the date of coming into operation of these Regulations shall be legibly and durably marked, in addition to the markings required by Regulation 11 above, with:—

(a) either—

(i) the maximum capacity, or

(ii) the maximum net capacity;

(b) the minimum load; and

(c) if applicable—

(i) the range of any tare device; and

(ii) the scale interval of all weight indicating, weight printing and tare devices.

*Manner of erection and use for trade*

19.— (1) Every filling machine in use for trade shall be so positioned as to facilitate cleaning and testing.

(2) No person shall use for trade any filling machine fitted with level indicating devices unless each such device indicates that it has been set to its reference position.

20. Where a filling machine is marked with a temperature range, no person shall use the machine for trade in temperatures outside that range.

21. Where a filling machine is fitted with a weight printing device, the machine shall be so erected and used that the printing device, when used, produces a clear and indelible printout for all loads within the weighing range of the machine.

*Testing*

22.— (1) Every filling machine submitted for testing shall be completely assembled and in a clean condition.

(2) A filling machine, other than one which has been transported without having been dismantled, shall not 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.

(3) 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 filling 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 as the inspector may reasonably require, and any material so provided shall be returned to the person in question.

23.— (1) The inspector shall, subject to paragraph (2) below, test a filling machine in accordance with the provisions of Schedule 1 to these Regulations.

(2) In the case of a machine made in accordance with a pattern in respect of which a certificate of approval is in force, being a machine for which certain of the testing provisions of Schedule 1 are not practicable or effective and which has a statement to that effect appended to the certificate of approval or the notice of examination in respect of that pattern, the machine shall, in place of the said testing provisions, be subject to any test or tests specified in the certificate of approval or the notice of examination.

#### PART IV

##### DISCONTINUOUS TOTALISERS

###### *Principles of construction and marking*

24. Where a discontinuous totaliser is provided with a visual indication of the weight of individual quantities of material, the machine may, for test purposes only, be constructed so that—

- (a) on manual command, the automatic processing of material is interrupted prior to the filling stage and the discharge stage, and
- (b) the weight display scale is further subdivided.

25. Every discontinuous totaliser passed as fit for use for trade on or after the date of coming into operation of these Regulations shall be legibly and durably marked, in addition to the markings required by Regulation 11 above, with:—

- (a) the maximum capacity of the load receptor;
- (b) the minimum load for automatic operation;
- (c) either—
  - (i) the maximum number of discharges of material per hour, or
  - (ii) the maximum load weighed and totalised per hour;
- (d) the minimum totalised load; and
- (e) the totalisation scale interval.

###### *Manner of erection and use for trade*

26.— (1) Every discontinuous totaliser shall be erected in such a way that it is possible to test it in situ, including in particular the depositing on and removal from every load receptor of test loads in a reliable and easy manner, without disrupting the normal operation of the machine.

(2) No person shall use a discontinuous totaliser for trade unless a non-automatic weighing machine which meets the provisions of paragraph 5 in Part II of Schedule 2 to these Regulations is sited in the vicinity of, and is available for use in conjunction with, the totaliser.

(3) Nothing in paragraph (2) above shall apply where a machine constructed in accordance with Regulation 24 above is tested in accordance with paragraph 3 in Part I of Schedule 2 to these Regulations.

(4) Nothing in paragraphs (1) and (2) above shall apply to any discontinuous totaliser first passed as fit for use for trade before 1st January 1988.

27. No person shall use a discontinuous totaliser for trade in such a manner as to cause—

- (a) spillage of material from a load receptor; or
- (b) loading of the weighing unit above its maximum capacity.

28.— (1) Subject to paragraph (3) below, every discontinuous totaliser having either a non-automatic zero-setting device or a semi-automatic zero-setting device 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) check the zero or given point indication, and
- (b) operate the zero or given point setting controls.

(2) Subject to paragraph (3) below, every discontinuous totaliser shall be erected in such a manner that access is provided to facilitate the cleaning of the interior of every load receptor.

(3) Nothing in paragraphs (1) and (2) above shall apply to any discontinuous totaliser first passed as fit for use for trade before 1st January 1988.

29. Where a discontinuous totaliser is fitted with a weight printing device, the machine shall be so erected and used that the printing device, when used, produces a clear and indelible printout for all loads and with the same scale interval as the relevant indicator.

30. Where a discontinuous totaliser is marked with a temperature range, no person shall use the machine for trade in temperatures outside that range.

#### *Testing*

31.— (1) No discontinuous totaliser shall be tested, passed as fit for use for trade and stamped unless it has been completely erected ready for use and installed at the place where it is to be used.

(2) Every discontinuous totaliser submitted for testing shall be in a clean condition.



(3) 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 discontinuous totaliser, 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 as the inspector may reasonably require, and any material so provided shall be returned to the person in question.

**32.—** (1) The inspector shall, subject to paragraph (2) below, test a discontinuous totaliser in accordance with the provisions of Schedule 2 to these Regulations.

(2) In the case of a machine made in accordance with a pattern in respect of which a certificate of approval is in force, being a machine for which certain of the testing provisions of Schedule 2 are not practicable or effective and which has a statement to that effect appended to the certificate of approval or the notice of examination in respect of that pattern, the machine shall, in place of the said testing provisions, be subject to any test or tests specified in the certificate of approval or the notice of examination.

## PART V

### SUPPLEMENTARY PROVISIONS

#### *Prescribed limits of error*

**33.—** (1) The prescribed limits of error relating to filling machines shall be those set out in columns 3 to 6 of Table 1 in Schedule 3 to these Regulations.

(2) The prescribed limits of error relating to discontinuous totalisers shall be those set out in columns 2 and 3 of Table 2 in Schedule 3 to these Regulations.

#### *Passing as fit for use for trade*

**34.** No 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 in relation to passing as fit for use for trade.

#### *Stamping*

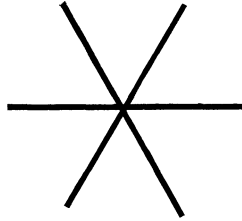
**35.—** (1) The stamp shall be placed on the plug or stud and on every sealing device referred to in Regulation 13 above.

(2) No 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*

36. 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:—



37.— (1) Subject to paragraph (2) below, an inspector shall obliterate the stamp on any 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 38 below, where any 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.

38. An inspector shall obliterate the stamp on any 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 34 above.

39. An inspector may obliterate the stamp on any automatic weighing machine which:—

- (a) 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;
- (b) 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

- (c) 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.

**40.—** (1) For the purpose of these Regulations, the obliteration of any one stamp on any automatic weighing machine shall, subject to paragraph (2) below, be deemed to be the obliteration of all other stamps on that machine.

(2) Where the stamp on one automatic weighing machine forming part of an interconnected 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.

*Lucas of Chilworth,*  
Parliamentary Under-Secretary of State,  
Department of Trade and Industry.

25th July 1986.

## Regulation 23

## SCHEDULE 1

## FILLING MACHINES

## TESTING

*Setting to zero*

1.— (1) Subject to sub-paragraph (2) below, in testing any filling machine, the inspector shall satisfy himself that:—

- (a) it is properly balanced or set to zero when unloaded;
- (b) any beam or leverwork has sufficient room for oscillation and returns to the position of equilibrium when the load is removed;
- (c) any indicator returns to the zero mark or given point when the load is removed.

(2) Sub-paragraphs (1)(a) and (c) above shall not apply in the case of a filling machine of a pattern in respect of which a certificate of approval is in force, if, in the certificate of approval or the notice of examination in respect of that pattern, it is described as not being so constructed as to balance when unloaded.

*Material testing*

2. Before commencing material testing of the filling machine, the inspector shall satisfy himself that the arrangements to be used for determining the weight of material used in test loads selected in accordance with paragraph 3(1)(a) below will give weight determinations such that in respect of each test load the weight determination shall be to an accuracy equal to or better than one-fifth of the limits of error prescribed in respect of that load.

3.— (1) Every filling machine shall be subjected to the following test (hereinafter referred to as “test A”) that is to say the inspector shall—

- (a) select 20 separate consecutive test loads;
- (b) determine the weight of the material in each test load using the arrangements referred to in paragraph 2 above;
- (c) ascertain the difference between the weight of the material determined in accordance with sub-paragraph (b) above and the value for that weight indicated on the machine (hereinafter referred to as “purported weight”).

(2) The difference referred to in sub-paragraph (1)(c) above shall constitute the error for the purposes of test A in calculating the prescribed limits of error in excess set out in columns 3 and 5 of Table 1 in Schedule 3 to these Regulations in relation to the description of machine set out in column 1 other than filling machines for use only for weighing potato crisps and other similar products commonly known as snack foods.

(3) The total of the differences referred to in sub-paragraph (1)(c) above in relation to each test load shall constitute the error for the purposes of test A in calculating the prescribed limits of error in excess set out in columns 3 and 5 of Table 1 in Schedule 3 to these Regulations in relation to filling machines for use

only for weighing potato crisps and other similar products commonly known as snack foods.

(4) Where a filling machine is constructed to feed and weigh material of more than one purported weight, the inspector shall select two groups of 20 separate consecutive test loads, one group of test loads each made up as nearly as practicable equal to the minimum load and one other group.

4.— (1) Subject to sub-paragraph (3) below, if in the course of performing test A the weight of any test load exceeds the purported weight by more than:

- (a) one-half per cent., or the appropriate amount per cent. given in column 3 of Table 1 in Schedule 3 to these Regulations for weighing specified materials, of the purported weight in relation to passing as fit for use for trade, or
- (b) one per cent., or the appropriate amount per cent. given in column 5 of the said Table 1 for weighing specified materials, of the purported weight in relation to the obliteration of the stamp,

the filling machine shall be subjected to the further test B that is to say the inspector shall remove that single piece or item of material appearing to him to be the largest piece or item at the top of that test load, and the inspector shall then re-determine the weight of material used in each such test load using the arrangements referred to in paragraph 2 above and ascertain the difference between the weight of material so determined and the purported weight.

(2) The difference referred to in sub-paragraph (1) above shall constitute the error for the purposes of test B in calculating the prescribed limits of error set out in columns 4 and 6 of Table 1 in Schedule 3 to these Regulations.

(3) Sub-paragraph (1) above shall apply only to filling machines of the following description—

- (a) with a maximum capacity of 110 kg or less, used only for weighing solid fuel;
- (b) with a maximum capacity of 55 kg or less, used only for weighing vegetable produce;
- (c) with a maximum capacity of less than 5 kg, used for weighing all other materials except potato crisps and other similar products commonly known as snack foods.

## Regulation 32

## SCHEDULE 2

## DISCONTINUOUS TOTALISERS

## PART I

## TESTING—GENERAL REQUIREMENTS

1. Discontinuous totalisers to which the requirements of Regulations 9 and 24 do not apply, ie are provided with a display of totalised weight only, shall be subject to material testing in accordance with the provisions of Part II of this Schedule.

2. Discontinuous totalisers which embody the facilities in Regulation 9 but not those in Regulation 24 shall be subject to the requirements of Regulation 32(2) in addition to the provisions of Part II of this Schedule.

3. Discontinuous totalisers to which Regulations 9 and 24 are applicable may, as an alternative to the testing in paragraph 2 above, be tested in accordance with the provisions of Part III of this Schedule.

*Setting to zero*

4.— (1) Subject to sub-paragraph (2) below, in testing any discontinuous totaliser, the inspector shall satisfy himself that:—

- (a) it is properly balanced or set to zero when unloaded;
- (b) any beam or leverwork has sufficient room for oscillation and returns to the position of equilibrium when the load is removed;
- (c) any indicator returns to the zero mark or given point when the load is removed.

(2) Sub-paragraphs (1)(a) and (c) above shall not apply in the case of a discontinuous totaliser of a pattern in respect of which a certificate of approval is in force, if, in the certificate of approval or the notice of examination in respect of that pattern, it is described as not being so constructed as to balance when unloaded.

## PART II

## TESTING—USING A SEPARATE NON-AUTOMATIC WEIGHING MACHINE

*Material testing*

5. Before commencing material testing of the discontinuous totaliser, the inspector shall satisfy himself that the non-automatic weighing machine available in accordance with Regulation 26(2) is such that the arrangements to be used for determining the weight of material used in material testing will give weight determinations of each test load to an accuracy equal to or better than one-fifth of the prescribed limits of error for material testing, whether such test load is determined in one or more weighing operations.

6.— (1) With the load receptor of the discontinuous totaliser empty, the inspector shall ensure that—

- (a) the totalisation indicating device is set to zero, and
- (b) any individual weight indicating device is set to zero or a given point.

(2) A minimum of two individual tests, each consisting of 20 separate loads, shall then be carried out on the machine under normal conditions of use in accordance with sub-paragraph (3) below.

(3) At least two of the individual tests referred to in sub-paragraph (2) above shall consist of tests involving the weighing on the machine of approximately the same quantity of suitable material, at least equal to the minimum totalised load marked on the machine.

(4) Where the quantity of material weighed by the machine can vary, each individual test referred to in sub-paragraph (2) above shall be made with a quantity of suitable material as nearly as practicable equal to the minimum totalised load and another individual test consisting of 20 separate loads with a quantity of suitable material as nearly as practicable equal to the maximum capacity shall then be carried out on the machine.

(5) For each of the tests carried out in accordance with sub-paragraphs (2), (3) and (4) above, the inspector shall determine:—

- (a) the weight of material used in the test using the arrangements referred to in paragraph 5 above;
- (b) the material testing error by ascertaining the difference between the weight of the material determined in accordance with sub-paragraph (a) above and the value for that weight of the material obtained from the totalisation indicating device.

(6) Subject to sub-paragraph (7) below, the inspector shall determine the repeatability error for each of the tests carried out in accordance with sub-paragraph (3) above, being the difference between the material testing errors determined in accordance with sub-paragraph (5) above.

(7) Before 1st January 1988, the inspector shall not carry out his duty specified in sub-paragraph (6) above in respect of any discontinuous totaliser which is made in accordance with a pattern in respect of which a certificate of approval was in force before the date of coming into operation of these Regulations.

### PART III

#### TESTING—USING AN INTERNAL NON-AUTOMATIC WEIGHING FACILITY

##### *Static testing*

7. Where a discontinuous totaliser is constructed with a weighing unit in accordance with Regulations 9 and 24(a), the machine may be tested by means of standard weights or masses for accuracy and as far as practicable otherwise satisfy those requirements which are applicable to a non-automatic weighing machine of the type and class to which the machine relates, using the individual weight indicating device.

8.— (1) The inspector shall use the subdivided scale provided in accordance with Regulation 24(b) to obtain an accuracy determination to one-tenth of a scale interval at not less than six positions of the weighing range, including zero, minimum load and maximum capacity.

(2) He shall then prepare a calibration chart or graph from the results obtained.

*Material testing*

9.— (1) After allowing the machine to weigh and discharge suitable material for at least five fillings of the load receptor by the normal automatic process, the process shall be stopped with the load receptor empty and the inspector shall:—

- (a) using the subdivided scale, ensure that the individual weight indicating device is set to zero or a given point; and
- (b) set the totalisation indicating device to zero.

(2) The automatic processing of material shall then be interrupted when the load receptor is loaded and ready to be discharged, the inspector shall note the individual weight value indicated and then allow the material to be discharged by the automatic process.

(3) When the load receptor is emptied the weighing process shall again be interrupted and the indicated weight value noted. The inspector shall then determine the true net weight of material discharged, taking account of any appropriate errors of the weighing unit obtained from the calibration chart or graph.

(4) The inspector shall then:

- (a) determine the total true net weight of a group of 20 separate loads in accordance with sub-paragraphs (2) and (3) above; and
- (b) record the corresponding value of that weight of material indicated by the totalisation indicating device.

(5) The total net weight of a minimum of two groups of 20 separate loads shall be determined with at least two of the groups consisting of tests involving the weighing on the machine of approximately the same quantity of suitable material, at least equal to the minimum totalised load marked on the machine.

(6) Where the quantity of material weighed by the machine can vary, each group of tests referred to in sub-paragraph (5) above shall be made with a quantity of suitable material as nearly as practicable equal to the minimum totalised load and another test consisting of a group of 20 separate loads with a quantity of suitable material as nearly as practicable equal to the maximum capacity shall then be carried out on the machine.

(7) For each group of tests carried out in accordance with sub-paragraphs (4), (5) and (6) above, the inspector shall determine the material test error by ascertaining the difference between the weight of material determined in accordance with sub-paragraph (4)(a) and the value for that weight of material obtained from the totalisation indicating device in accordance with sub-paragraph (4)(b).



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(8) Subject to sub-paragraph (9) below, the inspector shall determine the repeatability error for each of the group of tests carried out in accordance with sub-paragraph (5) above, being the difference between the material testing errors determined in accordance with sub-paragraph (7) above.

(9) Before 1st January 1988, the inspector shall not carry out his duties specified in sub-paragraph (8) above in respect of any discontinuous totaliser which is made in accordance with a pattern in respect of which a certificate of approval was in force before the coming into operation of these Regulations.

**SCHEDULE 3**  
**PRESCRIBED LIMITS OF ERROR**  
**FILLING MACHINES**  
**TABLE 1**

Description of machine	Maximum capacity of machine	In relation to passing as fit for use for trade		In relation to the obliteration of the stamp	
		for the purposes of test A	for the purposes of test B	for the purposes of test A	for the purposes of test B
(1)	(2)	(3)	(4)	(5)	(6)
Filling machines for use only for weighing potato crisps and other similar products commonly known as snack foods	any capacity	20 per cent., in excess only, of the total purported weight of 20 test loads, and no error in deficiency of the purported weight of any of those test loads	Test not applicable	20 per cent., in excess only, of the total purported weight of 20 test loads, and no error in deficiency of the purported weight of any of those test loads	Test not applicable
Filling machines for use only for weighing solid fuel	110 kg or less				
Filling machines for use only for weighing vegetable produce	55 kg or less	1 per cent., in excess only, of the purported weight of each test load	1 per cent., in excess and no limit in deficiency, of the purported weight of each test load	2 per cent., in excess only, of the purported weight of each test load	2 per cent., in excess and no limit in deficiency, of the purported weight of each test load
All filling machines other than those described above in columns 1 and 2 of this Table	less than 5 kg 5 kg or more	0.5 per cent., in excess or in deficiency, of the purported weight of each test load	Test not applicable	1 per cent., in excess or in deficiency, of the purported weight of each test load	Test not applicable

## DISCONTINUOUS TOTALISERS

TABLE 2

Test applicable (1)	In relation to passing as fit for use for trade (2)	In relation to the obliteration of the stamp (3)
Material testing	Plus or minus 0.5 per cent. of the weight of material used in each test determined as described in paragraph 6(5)(a) in Part II or 9(4)(a) in Part III of Schedule 2	Plus or minus 1 per cent. of the weight of material used in each test determined as described in paragraph 6(5)(a) in Part II or 9(4)(a) in Part III of Schedule 2
Repeatability	0.5 per cent. of the average value of the loads used in the individual tests in accordance with paragraph 6(3) in Part II or 9(5) in Part III of Schedule 2, the weight of which being determined as described in paragraph 6(5)(a) in Part II or 9(4)(a) in Part III of Schedule 2	1 per cent. of average value of the loads used in the individual tests in accordance with paragraph 6(3) in Part II or 9(5) in Part III of Schedule 2, the weight of which being determined as described in paragraph 6(5)(a) in Part II or 9(4)(a) in Part III of Schedule 2

## EXPLANATORY NOTE

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

The Regulations prescribe filling and discontinuous totalising 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 within the class of automatic weighing machines) except in so far as such machines are capable of also being used as a counter machine, platform weighing machine or a weighbridge.

The Regulations make provision as to:

- (a) the purposes for which such 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 18, 24 and 25);
- (c) the manner of erection and use of them for trade (Regulations 19 to 21 and 26 to 30);
- (d) their testing, passing as fit for use for trade and stamping and the obliteration of such stamps (Regulations 22, 23, 31, 32, and 34 to 40 and Schedules 1 and 2);
- (e) the prescribed limits of error (Regulation 33 and Schedule 3).

The Regulations make the following changes of substance:—

- (a) a requirement has been included to ensure that automatic weighing machines shall not be used for trade below specified minimum loads or above their maximum capacity (Regulation 4);
- (b) a requirement has been included to limit the range of adjustment of any zero-setting devices of automatic weighing machines designed to compensate for the wear and tear of ordinary use in trade (Regulation 8);
- (c) a requirement has been included to provide facilities for easy and practicable weighings, for test purposes, on automatic weighing machines where visual indication of individual weighings is incorporated (Regulation 9);
- (d) there are new requirements for the principles of construction and marking for filling machines (Regulations 14 to 17);
- (e) there are new requirements for the manner of erection and use for trade of filling machines (Regulations 19 to 21);
- (f) a requirement has been included to ensure that filling machines intended to be permanently installed and discontinuous totalisers shall be completely erected on site before being tested, passed as fit for use for trade and stamped (Regulations 22(2) and 31(1));
- (g) a requirement has been included to ensure that the inspector testing any automatic weighing machines must, if he so requests, be provided with the appropriate test material (Regulations 22(3) and 31(3));
- (h) a requirement has been included to ensure that all installations of discontinuous totalisers have provisions for the depositing and

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collection of test material in a reliable and easy manner (Regulation 26(1));

- (i) a requirement has been included to ensure that a non-automatic weighing machine is available for use, where necessary, in the vicinity of any discontinuous totaliser used for trade (Regulation 26(2));
- (j) a requirement has been included to ensure that access is provided for cleaning of discontinuous totalisers (Regulation 28(2));
- (k) the grounds on which an inspector may obliterate the stamp on automatic weighing machines have been widened (Regulations 38 and 39);
- (l) the test requirements for all automatic weighing machines are set out in more detail (Schedules 1 and 2);
- (m) the prescribed limits of error for filling machines used only for weighing solid fuel have been reduced (Schedule 3 Table 1);
- (n) a requirement for the inspector to determine the repeatability error has been introduced for the material testings on discontinuous totalisers (Schedule 2 paragraphs 6(6) and 9(8) and Schedule 3 Table 2).

SI 1986/1320  
ISBN 0-11-067320-4



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