

## GLOSSARY

The source of each definition is identified by the superscript number and listed out in full at the end of this glossary.

### Accuracy classification

<sup>(1)</sup> classification as a Class I, Class II, Class III or Class IIII machine in accordance with the provisions of Schedule 1 to these Regulations;

### Actual scale interval (d)

<sup>(3)</sup> Value expressed in units of mass of: the difference between the values corresponding to two consecutive scale marks, for analogue indication, or the difference between two consecutive indicated values, for digital indication.

### Additive tare device

<sup>(1)</sup> 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;

### Approved pattern

<sup>(1)</sup> 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;

*Editors note: see also "Approved type" from <sup>(2)</sup>*

### Approved type

<sup>(2)</sup> a type in respect of which an EC type-approval certificate is in force;

*Editors note: see also "Approved pattern" from <sup>(1)</sup>*

### Authorised person

<sup>(2)</sup> an inspector, or some other person employed by a local weights and measures authority, who is authorised by the chief inspector of weights and measures of that authority to exercise functions under these Regulations in its area;

### Authorised representative

<sup>(2)</sup> in relation to a manufacturer, means his authorised representative established in the Community;

### Automatic catchweight weighing machine

<sup>(1)</sup> an automatic weighing machine which determines, but does not regulate, the mass of individual items but does not include –

(a) an automatic checkweighing machine, that is to say, a machine which subdivides articles the mass of which varies on either side of a predetermined value, or

(b) an automatic weight grading machine, that is to say, a machine which subdivides articles of different mass for which there is no predetermined nominal mass;

### Automatic weighing machine

<sup>(1)</sup> 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

<sup>(1)</sup> a device which is designed to correct small, slow changes within the zero setting range of the machine;

### Automatic zero-setting device

<sup>(3)</sup> Device for setting the indication to zero automatically without the intervention of an operator.

### **Ballast**

<sup>(1)</sup> any of the materials to which the expression ballast applies in Schedule 4 to the Act;  
*Editors note: This definition applies to the use of class III machines and not to substitution material used in calibration / verification.*

### **Certificate of approval**

<sup>(1)</sup> 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**

<sup>(1)</sup> 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;

### **Discrimination**

<sup>(3)</sup> Ability of an instrument to react to small variations of load. The discrimination threshold, for a given load, is the value of the smallest additional load that, when gently deposited on or removed from the load receptor, causes a perceptible change in the indication.

### **Disqualification sticker**

<sup>(2)</sup> (a) a sticker the design of which is published in the United Kingdom by the Secretary of State; or

(b) a sticker, symbol or other device the design of which is approved in another member State by the competent authority, and which indicates that an instrument to which it is affixed does not satisfy the requirements of regulation 5 or of corresponding provisions under the law of another member State;

### **EC type-approval certificate**

<sup>(2)</sup> a certificate issued by the Secretary of State under regulation 10 or by an approved body designated by another member State, as the case may be;

### **EC type-examination**

<sup>(2)</sup> the procedure whereby the Secretary of State or approved body designated by another member State verifies and certifies that a type conforms with the provisions of the NAWI Directive which apply to it;

### **EC unit verification**

<sup>(2)</sup> the procedure whereby the manufacturer or his authorised representative ensures and declares that an instrument generally intended for a specific application, in respect of which a certificate referred to in paragraph 4.2 of Annex II to the NAWI Directive has been issued (that is to say, in the case of an instrument in respect of which application for the appropriate examinations and tests referred to in regulation 12<sup>(3)</sup> is made to the Secretary of State, a certificate referred to in regulation 12(4)(a)(ii)) conforms with the requirements of the NAWI Directive which apply to it;

### **EC verification**

<sup>(2)</sup> the procedure whereby the manufacturer or his authorised representative ensures and declares in accordance with paragraph 3 of Annex II to the NAWI Directive that an instrument –

- (i) has been checked in accordance with paragraph 3.3 (that is to say, in the case of an instrument subject to these Regulations, in accordance with regulation 11(4) under which the approved body carries out examinations and tests);
- (ii) is, where appropriate, in conformity with the type described in the EC type approval certificate; and
- (iii) satisfies the requirements of the NAWI Directive which apply to it;

### **Essential requirements**

<sup>(2)</sup> the requirements in Annex I to the NAWI Directive which are set out in Schedule 2;

### **Gross value (G or B)**

<sup>(3)</sup> Indication of the weight of a load on an instrument, with no tare or preset tare device in operation.

### **Harmonised standard**

<sup>(2)</sup> a technical specification adopted by one or both of the European Committee for Standardisation and the European Committee for Electrotechnical Standardisation upon a remit from the Commission in accordance with Directive 98/34/EC of the European Parliament and of the Council of 22nd June 1998 laying down a procedure for the provision of information in the field of technical standards and regulations and of rules on Information Society services<sup>[13]</sup> (as amended by Directive 98/48/EC<sup>[14]</sup>) or the Directives and Decisions repealed by Article 13 thereof;

### **Initial zero-setting device**

<sup>(3)</sup> Device for setting the indication to zero automatically at the time the instrument is switched on and before it is ready for use.

### **Instrument**

<sup>(2)</sup> a non-automatic weighing instrument (including ancillary equipment) which –

(a) requires the intervention of an operator during weighing; and

(b) serves to determine the mass or weight of any thing by using the action of gravity on that thing (whether or not it may also determine related matters such as price, quantity or magnitude on the basis of mass or weight);

*Editors note: See also “Non-automatic weighing instrument” from <sup>(3)</sup>*

### **Level indicating device**

<sup>(1)</sup> a device which indicates when the structure to which it is attached is tilted away from its correct operating position;

### **Levelling device**

<sup>(3)</sup> Device for setting an instrument to its reference position.

### **Live part**

<sup>(1)</sup> a part of a machine which, when a force is applied to it, could cause an alteration of the indicated or printed value;

### **Maximum capacity**

<sup>(1)</sup> 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 capacity (Max)**

<sup>(3)</sup> Maximum weighing capacity, not taking into account the additive tare capacity.

### **Maximum load**

<sup>(1)</sup> the sum of the maximum capacity plus the maximum of any additive tare;

### **Maximum permissible error**

<sup>(3)</sup> Maximum difference, positive or negative, allowed by regulation between the indication of an instrument and the corresponding true value, as determined by reference standard masses, with the instrument being at zero at no-load, in the reference position.

### **Maximum safe load (Lim)**

<sup>(3)</sup> Maximum static load that can be carried by the instrument without permanently altering its metrological qualities.

### **Maximum tare effect (T = + ..., T = - ...)**

<sup>(3)</sup> Maximum capacity of the additive tare device or the subtractive tare device.

### **Metrological characteristics**

<sup>(1)</sup> those operational characteristics of a machine which are evaluated during testing of the machine in accordance with the appropriate provisions of regulation 37 of and Schedule 2 to these Regulations;

### **Minimum capacity (Min)**

<sup>(3)</sup> Value of the load below which the weighing results may be subject to an excessive relative error.

### **Minimum reading distance**

<sup>(3)</sup> The shortest distance that an observer is able freely to approach the indicating device to take a reading under normal conditions of use. This approach is considered to be free for the observer if there is a clear space of at least 0.8 m in front of the indicating device.

### **Module**

<sup>(3)</sup> Part of an instrument which performs a specific function, can be examined separately and is subject to specified partial error limits.

### **Multi-interval instrument**

<sup>(3)</sup> Instrument having one weighing range which is divided into partial weighing ranges each with different scale intervals, with the weighing range determined automatically according to the load applied, both on increasing and decreasing loads.

### **Multiple range instrument**

<sup>(3)</sup> Instrument having two or more weighing ranges with different maximum capacities and different scale intervals for the same load receptor, each range extending from zero to its maximum capacity.

### **Multiple weighing**

<sup>(1)</sup> 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;

### **Net value (N)**

<sup>(3)</sup> Indication of the weight of a load placed on an instrument after operation of a tare device.

### **Non-automatic weighing instrument**

<sup>(3)</sup> Instrument that requires the intervention of an operator during the weighing process, for example to deposit on or remove from the receptor the load to be measured and also to obtain the result.

The instrument permits direct observation of the weighing results, either displayed or printed; both possibilities are covered by the word "indication".

Note: Terms such as "indicate", "indicating component" and their derivatives do not include printing.

A non-automatic weighing instrument may be:

graduated or non-graduated,

self-indicating, semi-self-indicating or non-self-indicating.

Note: In this Recommendation a non-automatic weighing instrument is called an "instrument".

*Editors note: see also "Instrument" from <sup>(2)</sup>*

### **Non-automatic weighing machine**

<sup>(1)</sup> 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 an automatic catchweight weighing machine;

### **Non-automatic zero-setting device**

<sup>(3)</sup> Device for setting the indication to zero by an operator.

**Number of verification scale intervals (single-interval instrument)**

<sup>(3)</sup> Quotient of the maximum capacity and the verification scale interval:  $n = \text{Max}/e$

**Preset tare device**

<sup>(3)</sup> Device for subtracting a preset tare value from a gross or net weight value and indicating the result of the calculation. The weighing range for net loads is reduced accordingly.

**Preset tare value (PT)**

<sup>(3)</sup> Numerical value, representing a weight, which is introduced into the instrument. "Introduced" includes procedures such as: keying in, recalling from data storage, or inserting via an interface.

**Price-computing instrument**

<sup>(3)</sup> Instrument that calculates the price to pay on the basis of the indicated mass and the unit price.

**Price-labelling instrument**

<sup>(3)</sup> Price-computing instrument that prints the weight value, unit price and price to pay for pre-packages.

**Reduction ratio R**

<sup>(3)</sup> The reduction ratio of a load transmitting device is:  $R = \text{FM}/\text{FL}$  where: FM: force acting on the load measuring device, FL: force acting on the load receptor.

**Reference conditions**

<sup>(3)</sup> A set of specified values of influence factors fixed to ensure valid inter-comparison of the results of measurements.

**Repeatability**

<sup>(3)</sup> Ability of an instrument to provide results that agree one with the other when the same load is deposited several times and in a practically identical way on the load receptor under reasonably constant test conditions.

**Rounding error**

<sup>(1)</sup> the difference between the indicated or printed digital value and the result the machine would give if it were analogue;

**Rounding error of digital indication**

<sup>(3)</sup> Difference between the indication and the result the instrument would give with analogue indication.

**Scale interval**

<sup>(1)</sup> 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;

**Schedule 3 application**

<sup>(2)</sup> in relation to an instrument, means an application described in Schedule 3;

**Self indicating machine**

<sup>(1)</sup> a machine in which the position of equilibrium is obtained without the intervention of the operator;

**Self service weighing machine**

<sup>(1)</sup> 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;

**Self-indicating instrument**

<sup>(3)</sup> Instrument in which the position of equilibrium is obtained without the intervention of an operator.

**Self-service instrument**

<sup>(3)</sup> Instrument that is intended to be operated by the customer.

**Semi-automatic zero-setting device**

<sup>(3)</sup> Device for setting the indication to zero automatically following a manual command.

**Semi-self indicating machine**

<sup>(1)</sup> 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;

**Semi-self-indicating instrument**

<sup>(3)</sup> Instrument with a self-indication weighing range, in which the operator intervenes to alter the limits of this range.

**Sensitivity**

<sup>(3)</sup> For a given value of the measured mass, the quotient of the change of the observed variable  $l$  and the corresponding change of the measured mass  $M$ :  $k = \Delta l / \Delta M$

**Significant fault**

<sup>(3)</sup> A fault greater than  $e$ . Note: For a multi-interval instrument, the value of  $e$  is that appropriate to the partial weighing range.

The following are not considered to be significant faults, even when they exceed  $e$ : faults arising from simultaneous and mutually independent causes in the instrument, faults implying the impossibility to perform any measurement, faults being so serious that they are bound to be noticed by all those interested in the result of measurement, transitory faults being momentary variations in the indication which cannot be interpreted, memorized or transmitted as a measuring result.

**Span stability**

<sup>(3)</sup> The capability of an instrument to maintain the difference between the indication of weight at maximum capacity and the indication at zero over a period of use within specified limits.

**Sticker**

<sup>(2)</sup> except in references to disqualification sticker and re-qualification sticker, means a green sticker measuring at least 12.5 mm by 12.5 mm square bearing a capital letter M printed in black and referred to in paragraph 1 of Annex IV to the NAWI Directive; and

**Subtractive tare device**

<sup>(1)</sup> a tare device which intrudes on the weighing range of any weight indicating and printing device with which it is associated;

**Tare device**

<sup>(1)</sup> 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;

**Tare device**

<sup>(3)</sup> Device for setting the indication to zero when a load is on the load receptor: without altering the weighing range for net loads (additive tare device), or reducing the weighing range for net loads (subtractive tare device). It may function as: a non-automatic device (load balanced by an operator), a semi-automatic device (load balanced automatically following a single manual command), and an automatic device (load balanced automatically without the intervention of an operator).

**Tare value (T)**

<sup>(3)</sup> The weight value of a load, determined by a tare weighing device.

**Vehicle check weighing machine**

<sup>(1)</sup> 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**

<sup>(1)</sup> the metrologically significant value of the scale interval for the verification of the machine which is determined from Schedule 1 to these Regulations;

**Verification scale interval (e)**

<sup>(3)</sup> Value, expressed in units of mass, used for the classification and verification of an instrument.

**Weighing range**

<sup>(1)</sup> 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;

**Weighing range**

<sup>(3)</sup> Range between the minimum and maximum capacities.

**Weight receptor**

<sup>(1)</sup> 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;

**Zero setting device**

<sup>(1)</sup> 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.

**Zero-setting device**

<sup>(3)</sup> Device for setting the indication to zero when there is no load on the load receptor.

**Zero-tracking device**

<sup>(3)</sup> Device for maintaining the zero indication within certain limits automatically.

**Sources:**

<sup>(1)</sup> The Weighing Equipment (Non-automatic Weighing Machines) Regulations 2000

<sup>(2)</sup> The Non-automatic Weighing Instruments Regulations 2000

<sup>(3)</sup> OIML R76-1 Non-automatic weighing instruments Part 1: Metrological and technical requirements - Tests

