

Weighing equipment for legal use

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This guidance is for England, Scotland and Wales

Weights and measures (also known as 'legal metrology') legislation enforced by trading standards services places requirements on weighing equipment for use when goods are bought, sold or produced. It covers weighing equipment that determines the final quantity of goods delivered to customers.

The legislation also applies to equipment used for weighing patients for the purpose of medical monitoring, diagnosis and treatment as well as weighing equipment used for making up medicines on prescription in pharmacies and determination of mass in analyses carried out in medical and pharmaceutical laboratories.

There are also other particular weighing applications where this legislation applies, which include the calculation of tolls, tariffs, taxes, bonuses, penalties, etc based on weight, expert opinions given in court proceedings concerning weights and the application of laws.

Weighing equipment used during a production process (for example, to determine the weight of ingredients) does not need to comply with this legislation, neither do check scales for consumers' use in supermarkets etc, provided there is a further final weight check over an authorised, accurate and correctly marked weighing machine.

Equipment types, uses and construction

The controls over weighing equipment depend on its type of construction and the use to which it is put. All weighing equipment that this legislation applies to must be suitable for its intended purpose in terms of its construction, weighing capacity and level of accuracy; it must indicate weight correctly to within defined limits.

Weighing equipment can be either:

- 'non-automatic' where goods are placed on the equipment by the user and the weight indication is displayed and can be printed if required
... or
- 'automatic' as used in production lines (for example, where goods pass over the equipment to ensure the quantity is correct without intervention by an operator)

Weighing machines for legal use have to be constructed to a particular Government specification and bear particular conformity markings, stamps, stickers or other indications to show that the equipment complies with these requirements. The required indications have changed over the years and examples of them are outlined later in this guide.

Additionally, weights that are used in conjunction with weighing equipment must be correctly constructed and bear particular indications to show that they are suitable for legal use.

When considering using any weighing equipment for legal use it is recommended that the assistance of your local trading standards service be sought; they will be able to advise on the suitability of equipment.

Construction, type approval and verification

Weighing equipment used for legal purposes must be accurate and manufactured in accordance with an approved type approval or examination certificate.

Weighing instruments are either:

- passed as 'fit for use for trade' by an inspector of weights and measures or an approved verifier
... or (and more commonly these days)
- 'qualified' for legal use by an approved manufacturer, a notified body, an inspector of weights and measures or, following adjustment or repair, an approved verifier

The crown stamp, qualifier's identification stickers and other markings

When weighing equipment for legal use has been made and qualified as conforming to all manufacturing and accuracy requirements the required stamps, stickers and other indications are attached to it by the manufacturer or approved qualifier. Some equipment - weighbridges, for example - is required to be tested and have its final approval stamps applied when the equipment has been installed in its place of use.

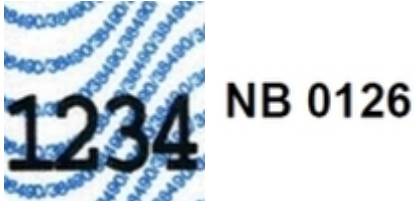
The following examples of stamps and stickers may be found on weighing equipment that has been approved for legal use:



The crown stamp, year of application and official number of the inspector of weights and measures who passed the equipment as fit for trade use is found on a lead plug embedded into older, traditional weighing equipment.



The M sticker indicates that the equipment it is attached to has been manufactured in accordance with legal metrology requirements. On newer equipment the M symbol will have the year of manufacture attached.



The notified body sticker indicates which organisation examined and approved the equipment as being in accordance with all manufacturing and accuracy requirements.

As of 1 January 2021 all UK notified bodies will become UK approved bodies.



The requalification sticker indicates that the equipment has been repaired or adjusted since it was manufactured to maintain manufacturing and accuracy requirements.



The CE mark, which indicates that the equipment has been manufactured in accordance with all relevant EU legislation (low voltage electromagnetic compatibility, restriction on hazardous substances, etc) and the year of manufacture. On newer equipment the year marking will be omitted if it is attached to the M symbol.

The CE mark is valid for goods placed on the market in Northern Ireland provided they meet applicable EU rules and will have unfettered access to the GB market.

For the GB market, products assessed against UK rules by a UK approved body need UKCA marking followed by the M symbol. However, manufacturers can, until 31 December 2021, continue to use the CE mark when placing their products on the GB market (if their product meets the relevant EU requirements). This includes products that have had any necessary third-party assessment carried out by an EU notified body.

Guidance on the UKCA mark can be found on the GOV.UK website.

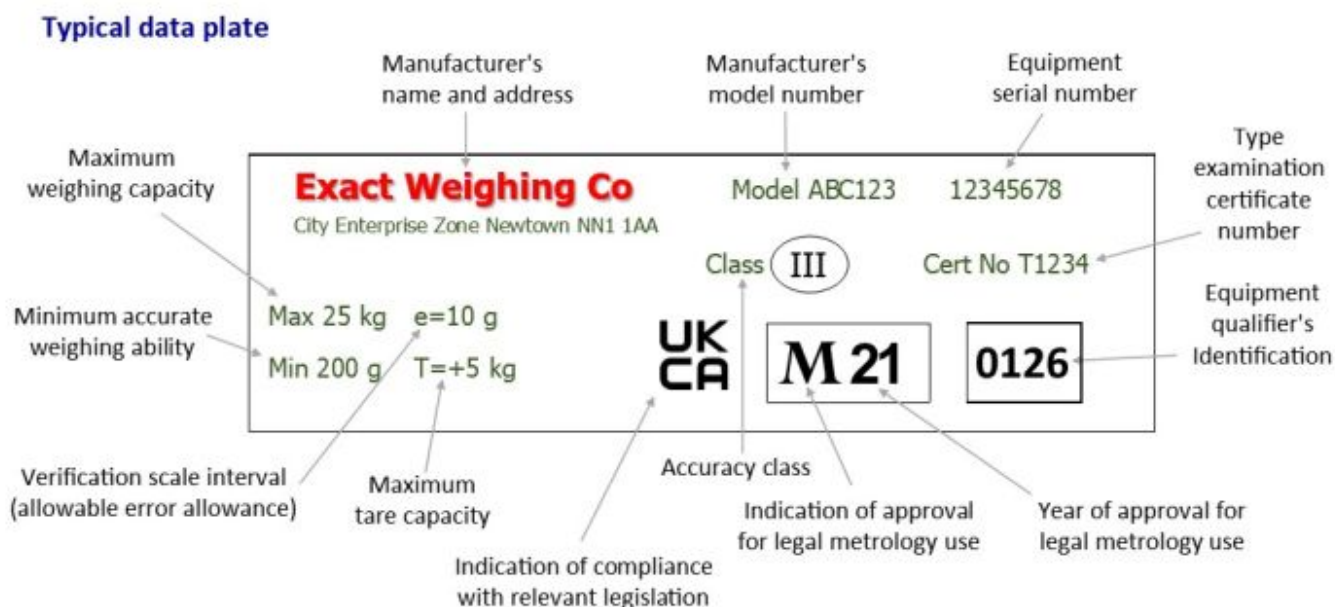
Where Northern Ireland is involved, there is a further mark that is used: the UKNI mark. This is needed because of the 'Northern Ireland Protocol', which came into force on 1 January 2021. For as long as it is in force, Northern Ireland will align with all relevant EU rules relating to placing manufactured goods on the market.

CE + M marked equipment placed on the market in Northern Ireland using a UK approved body requires the UKNI marking. These instruments are also valid for the GB market. See the GOV.UK guidance on the UKNI mark.

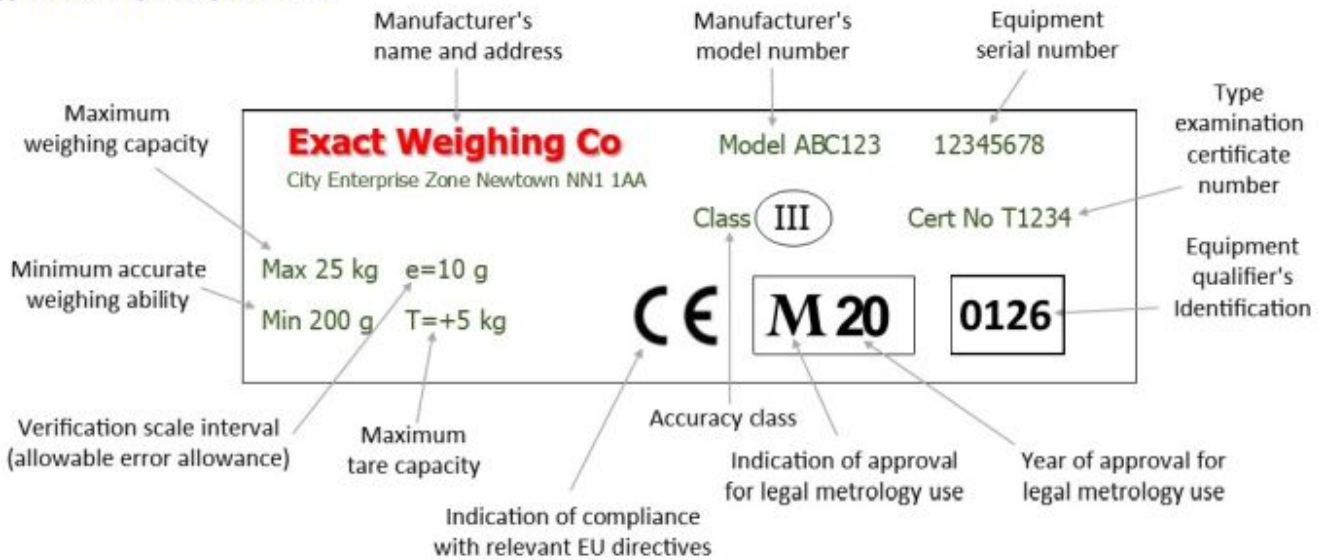
As can be seen, the appearance of these stickers has changed as legislation has developed and been subjected to amendments over the years, with more changes being introduced as new requirements are introduced. When considering the purchase of new or used weighing equipment the stickers and stamps may not be exactly as illustrated above due to these ongoing changes. Local trading standards services will, however, be able to advise on the current stamp and sticker requirements for particular equipment.

Data plate

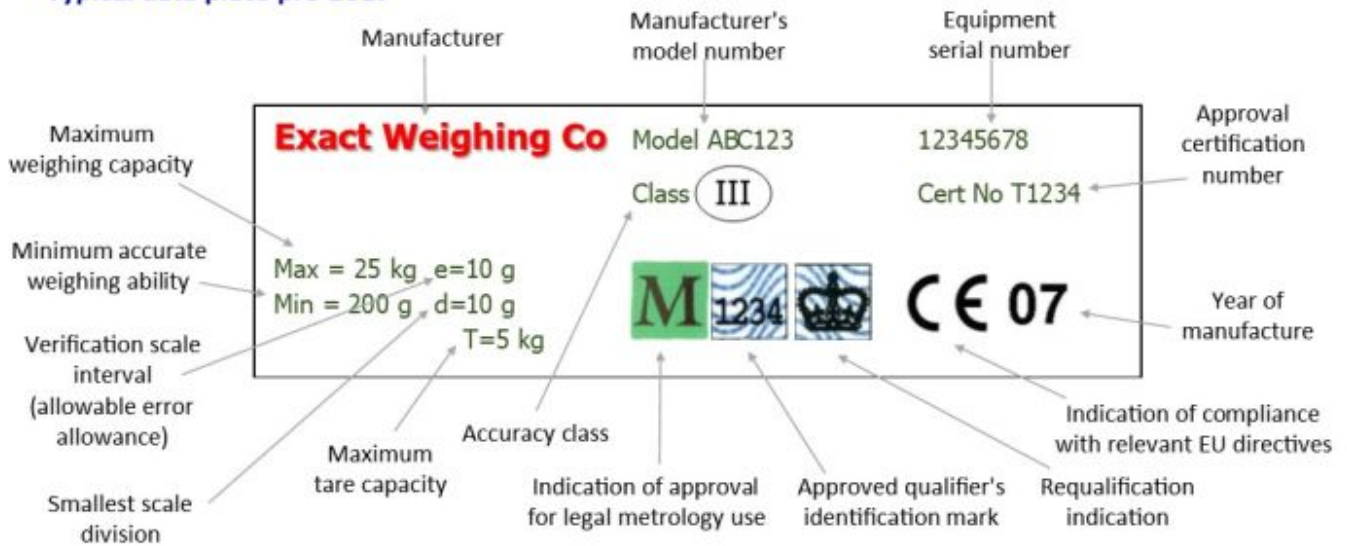
Approved weighing equipment is also required to bear various other indications relating to the weighing capacity, accuracy, etc as detailed on the approval certification, with more modern equipment having the required information on an attached 'data plate' or tamper-proof label. The data plate or tamper-proof label, as typically illustrated below, may also have the required stickers attached so that all required information is contained on the instrument in one easily discernible position. Newer equipment may also have the manufacturer's or importer's name, address and trade mark displayed on the data plate as well as additional information relating to different tare intervals, safe loads, operational temperatures, etc. The data plate also commonly includes information relating to electrical rating, power consumption, etc.



Typical data plate pre-2021



Typical data plate pre-2017



Newer equipment may also have some of the required markings indicated on the equipment's display screen rather than permanently displayed on the equipment body.

The accuracy of approved weighing equipment is divided into four classes and careful consideration must be given to which accuracy class should be used for particular weight determination.

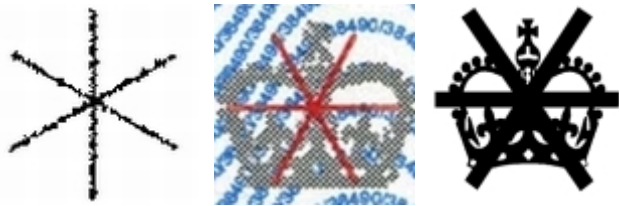
Classes of weighing equipment

Class	(I)	(II)	(III)	(III)
Accuracy	special	high	medium	ordinary
Use	precious metals, precious stones, pharmaceutical purposes, etc	precious metals, precious stones, pharmaceutical purposes, etc	general weighing purposes	ballast and other building materials, waste disposal and recycling purposes

As there have been many changes to the legislation relating to the construction, marking and use of weighing equipment for legal use you should seek advice from your local trading standards service when considering the purchase and use of weighing equipment, especially in relation to second-hand equipment.

Weighing equipment that has been rejected for legal use

When considering the purchase and use of second-hand weighing equipment for trade purposes, one stamp or sticker to look out for is the six-pointed star.



The six-pointed star stamp or sticker is applied to approved equipment that has been 'rejected' as it was found on inspection to be inaccurate or not in compliance with manufacturing requirements; it also indicates that the equipment has not since been adjusted or repaired.

It is an offence to use weighing equipment bearing a six-pointed star indication for legal purposes.

It may be possible for 'rejected' weighing equipment to be adjusted or otherwise repaired and submitted to the appropriate body for requalification.

Automatic weighing equipment

Automatic weighing machines are capable of determining or checking the weight of items without the intervention of an operator and are usually used in specialised circumstances within a production process. Their approval requirements and usage circumstances are different to non-automatic equipment and more detailed advice concerning their suitability for use can be obtained from your local trading standards service.

Weights

Weights that are required to be used in conjunction with approved weighing equipment must bear an indication that they are sufficiently accurate and have been manufactured in accordance with legal requirements.

The indication will normally be found stamped into a lead plug in the base of the weight and take the form of the traditional crown stamp or EU mark of approval.



As with weighing equipment any weights that bear a six-pointed star stamp were found to be inaccurate when they were last inspected and would be illegal for use for legal weighing purposes.

Maintenance and use of weighing equipment

Weighing equipment can give incorrect readings because of poor practice or misuse and the following points should be noted to ensure continued accuracy:

- weighing equipment should be used on a stable, vibration free, level surface. Most equipment incorporates a level-indicator device, which must indicate that the equipment is level when in use
- weighing equipment must be correctly balanced before use, with any indicators reading zero (on electronic weighing equipment the digital indications should not be blank prior to weighing). If the weighing equipment does not indicate zero before use, incorrect readings may be given
- strong draughts, caused by a breeze or air conditioning systems, can affect some weighing equipment and this should be considered when selecting the position the equipment will be used in
- the weighing pan should be kept clean and free from any debris or obstructions beneath it. Build-up of debris or other material under or adjacent to the weighing pan can interfere with the accuracy of the equipment
- regular checks of the accuracy of weighing equipment should be carried out using known quantities, such as stamped weights, to help ensure weighing equipment does not become faulty or unjust
- a record of the checks that are carried out on weighing equipment should be kept; it must identify when they are done, the action taken, the results of the checks and who carried them out, together with any necessary remedial action taken
- a maintenance contract with a weighing machine service company should be considered especially where weighing equipment is in constant use or very high levels of weighing accuracy need to be maintained

Penalties

Failure to comply with trading standards law can lead to enforcement action and to sanctions, which may include a fine and/or imprisonment. For more information please see 'Trading standards: powers, enforcement and penalties'.

Key legislation

Weighing Equipment (Non-automatic Weighing Machines) Regulations 2000

Non-automatic Weighing Instruments Regulations 2016

Last reviewed / updated: January 2021

In this update

The United Kingdom has left the European Union and the post-Brexit transition period has ended; the content has been updated to reflect this

Please note

This information is intended for guidance; only the courts can give an authoritative interpretation of the law.

The guide's 'Key legislation' links may only show the original version of the legislation, although some amending legislation is linked to separately where it is directly related to the content of a guide. Information on amendments to legislation can be found on each link's 'More Resources' tab.

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