

---

STATUTORY RULES OF NORTHERN IRELAND

---

**1984 No. 117**

**WEIGHTS AND MEASURES**

**Measuring Equipment (Liquid Fuel by Road  
Tanker) Regulations (Northern Ireland) 1984**

*Made - - - - 3rd April 1984*

*Coming into operation in accordance with Regulation 1*

The Department of Economic Development, in exercise of the powers conferred by Articles 9(1) and (3), 10(6) and 13(1) of the Weights and Measures (Northern Ireland) Order 1981<sup>(1)</sup> and now vested in it<sup>(2)</sup>, and of every other power enabling it in that behalf, hereby makes the following Regulations:—

**PART I  
GENERAL**

**Citation, commencement and revocation**

1.—(1) These Regulations may be cited as the Measuring Equipment (Liquid Fuel by Road Tanker) Regulations (Northern Ireland) 1984 and shall come into operation as follows—

- (a) all Regulations except Regulations 4, 5, 6, 14(1) and 36, on 7th May 1984;
- (b) Regulations 4, 5, 14(1) and 36, on 1st July 1984; and
- (c) Regulation 6, on 1st July 1987.

(2) The Measuring Equipment (Liquid Fuel by Road Tanker) Regulations (Northern Ireland) 1980<sup>(3)</sup> and the Measuring Equipment (Liquid Fuel by Road Tanker) (Amendment) Regulations (Northern Ireland) 1983<sup>(4)</sup> are hereby revoked.

**Interpretation**

2.—(1) In these Regulations—

---

(1) S.I. 1981/231 (N.I. 10)  
(2) By S.I. 1982/846 (N.I. 11) Art. 4  
(3) S.R. 1980 No. 127  
(4) S.R. 1983 No. 138

“approved” in the expressions “approved maximum”, “approved minimum” and “approved working conditions” means approved in accordance with a pattern in respect of which a certificate of approval is in force or, if the measuring equipment is not made in accordance with such a pattern, approved in accordance with the manufacturer's recommendations;

“certificate of approval” means a certificate of approval of a pattern of measuring equipment granted or renewed by the Department of Economic Development under Article 10 of the Order or a certificate of approval of a pattern of measuring equipment deemed under Article 10(8) of the Order to have been granted and published under the provisions of the said Article 10;

“compartment” means a single container with which a dipstick forming part of a dipstick measuring system may be associated to measure quantities of liquid fuel or a container associated with a contents gauging system, but does not include associated pipework between the foot valve and the outlet valve unless specifically stated on a conspicuous notice adjacent to the outlet valve;

“compartment number” means, in the case of a multi-compartment tank, the position of the compartment relative to the front of the vehicle, numbered sequentially from the front of the vehicle;

“contents gauging system” means any measuring equipment, not being a dipstick measuring system or a meter measuring system, which determines the quantity of liquid fuel delivered from an associated compartment by measuring the height of the free surface of the liquid fuel from a reference point;

“datum face” means the flat surface of the crosspiece of a dipstick at right angles to the axis of the dipstick formed by the lower face of the crosspiece;

“datum point” means a point or area on the road tanker from which the relative height of the datum surface can readily be checked;

“datum surface” means the surface at the top of the dipstick guide tube, on which the datum face of the crosspiece rests when a measurement of liquid fuel is being made;

“dipstick measuring system” means any measuring equipment comprising a compartment with a datum surface, and an associated dipstick with a datum face;

“foot valve” means a mechanical device fitted at the junction of a compartment and its outlet pipe by means of which the contents of the compartment may be isolated from any associated pipework;

“mark of EEC initial verification” means the mark described in paragraph 5 of Schedule 1 to the Measuring Instruments (EEC Requirements) Regulations 1980(5);

“meter measuring system” means any measuring equipment which incorporates a mechanical flowmeter device to determine the quantity of liquid fuel delivered, and comprises all parts and devices from the source, including any anti-swirl device, from which the liquid is drawn to the point of discharge and all associated mechanical, optical, electrical or pneumatic equipment;

“minimum delivery” means the smallest quantity of liquid fuel which the measuring equipment is designed to measure;

“the Order” means the Weights and Measures (Northern Ireland) Order 1981;

“pattern” means the particular pattern in accordance with which any particular measuring equipment is made;

“prescribed limits of error” relating to a contents gauging system or a meter measuring system has the meaning set out in Regulation 56(1) and relating to a dipstick measuring system has the meaning set out in Regulation 56(2);

“reference meter” means a meter for use in testing measuring equipment to which these Regulations apply provided pursuant to Article 4(1) of the Order for use by inspectors;

“registration mark” in relation to a vehicle means the registration mark assigned to it under the Vehicles (Excise) Act 1971(6) or the Vehicles (Excise) Act (Northern Ireland) 1972(7);

“replacement dipstick” means a dipstick which is tested, passed as fit for use for trade and stamped to replace a dipstick which has been broken, lost or destroyed or is otherwise unserviceable;

“road tanker” means any vehicle or trailer which carries liquid fuel in a tank forming part of the vehicle or trailer other than that containing the fuel which is used to propel the vehicle, and also includes any tank with a capacity exceeding 3 m<sup>3</sup> carried on a vehicle;

“spare dipstick” means an additional dipstick which is tested, passed as fit for use for trade and stamped at the same time as an original or replacement dipstick;

“the stamp” means the stamp prescribed by the Weights and Measures (Prescribed Stamp) Regulations (Northern Ireland) 1969(8);

“tank” means a single or multiple container comprising one or more compartments; and

“tank number” means, in the case of a trailer part of a vehicle, the tank manufacturer's serial number and in the case of a rigid vehicle, either the tank manufacturer's serial number or the vehicle registration mark.

(2) In these Regulations, a “calibration chart” in relation to any tank means a table of figures which relates the volume of liquid fuel, for each of the tank's compartments, to the linear distance between the surface of the liquid and the datum surface, and which has been—

- (a) prepared by inserting into, or withdrawing from, each compartment known volumes of liquid and determining the linear distance between the surface of the liquid and the datum surface when the road tanker is on a level surface; and
- (b) certified as accurate by an inspector, including a chief or other inspector of weights and measures within the meaning of section 41 of the Weights and Measures Act 1963(9).

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

cubic metre	m <sup>3</sup>
millimetre	mm
square centimetre	cm <sup>2</sup>
degree celsius	°C

### Application

3.—(1) Subject to paragraph (2), these Regulations shall apply to all measuring equipment on road tankers for use for trade in the making of any measurement of liquid fuel in a quantity dispensed from the tanker exceeding 20 gallons if the equipment is constructed to measure in imperial units, or 100 litres if it is constructed in metric units.

(2) These Regulations shall not apply to—

(6) 1971 c. 10

(7) 1972 c. 10 (N.I.)

(8) S.R. & O. (N.I.) 1969 No. 11

(9) 1963 c. 31

- (a) measuring equipment for use only for the delivery of liquefied gas, lubricating oils, or fuels dispensed at other than ambient temperature; or
- (b) measuring equipment for use only for the fuelling of aircraft, ships or hovercraft.

**Prescription of equipment**

4. Measuring equipment to which these Regulations apply is hereby prescribed for the purposes of Article 9(1) of the Order.

**Use for trade of contents gauging system or meter measuring system**

5.—(1) Subject to paragraph (2), a contents gauging system or a meter measuring system shall be used for trade only for the purpose of measuring delivered quantities of liquid fuel of not less than the minimum delivery marked on or adjacent to the indicator of the system.

(2) Paragraph (1) shall not apply where a measurement is made only for the purpose of payments in respect of any customs or excise duty.

**Use for trade of dipstick measuring system**

6.—(1) Subject to paragraph (2), a dipstick measuring system shall be used for trade only for the purpose of measuring delivered quantities of liquid fuel of not less than 30% of the marked nominal capacity of the compartment with which the dipstick is associated.

(2) Paragraph (1) shall not apply where a measurement is made only for the purpose of payments in respect of any customs or excise duty.

**PART II**

**PRINCIPLES OF CONSTRUCTION AND MARKING OF MEASURING EQUIPMENT**

**Types of measuring equipment**

7. Measuring equipment to which these Regulations apply shall consist of a contents gauging system, a dipstick measuring system or a meter measuring system.

**Provisions applicable to contents gauging systems**

8. Regulations 9 to 12 shall apply to contents gauging systems.

**Approved patterns of construction and identification marks**

9.—(1) Every contents gauging system shall be made in accordance with a pattern in respect of which a certificate of approval is in force.

(2) Every contents gauging system shall be legibly and durably marked with the number of the certificate of approval, preceded by the words "Certification No." or "Cert. No." or "DED Certification No." or "DED Cert. No." as the case may be.

### **Markings for minimum delivery and liquid fuel of use**

10. The minimum delivery and the liquid fuel which a contents gauging system is designed to measure shall be marked legibly, permanently and conspicuously in a suitable position on or adjacent to the sales indicator.

### **Sales indicators**

11. Every contents gauging system shall be fitted with a sales indicator reading in litres or gallons and so arranged that:

- (a) the indicator reading is capable of being set to zero before a delivery commences; and
- (b) the indicator reading cannot be advanced by any means other than by the discharge of liquid fuel from the system.

### **Ticket printing mechanism**

12. Every contents gauging system shall incorporate a ticket printing mechanism to enable a ticket to be issued indicating the quantity of liquid fuel delivered in each transaction.

### **Provisions applicable to meter measuring systems**

13. Regulations 14 to 17 shall apply to meter measuring systems.

### **Approved patterns of construction and identification marks**

14.—(1) Every meter measuring system shall be made in accordance with a pattern in respect of which a certificate of approval is in force.

(2) Notwithstanding paragraph (1), a meter measuring system which does not comply with that paragraph at 1st July 1984 may continue to be tested and stamped and used for trade until 1st July 1987 if it has before 1st July 1984 been passed as fit for use for trade in accordance with these Regulations.

(3) Every meter measuring system made in accordance with a pattern as mentioned in paragraph (1) shall be legibly and durably marked with the number of the certificate of approval, preceded by the words "Certification No." "or" "Cert. No." "or" "DED Certification No." "or" "DED Cert. No." as the case may be.

### **Markings for minimum delivery, liquid fuel of use and rate of flow**

15. The minimum delivery, the liquid fuel which a meter measuring system is designed to measure and the minimum and maximum rates of flow shall be marked legibly, permanently and conspicuously in a suitable position on or adjacent to the meter.

### **Sales indicators**

16. Every meter measuring system shall be fitted with a sales indicator reading in litres or gallons and so arranged that—

- (a) the indicator reading is capable of being set to zero before a delivery commences; and
- (b) the indicator reading cannot be advanced by any means other than by the discharge of liquid fuel from the system.

**Ticket printing mechanism**

17. Every meter measuring system shall incorporate a ticket printing mechanism to enable a ticket to be issued indicating either the quantity of liquid fuel delivered in each transaction or two numbers from which the quantity delivered may readily be calculated.

**Provisions applicable to dipstick measuring systems**

18. Regulations 19 to 35 shall apply to dipstick measuring systems.

**Separate dipsticks**

19. Every dipstick shall relate to, and be used for measuring the quantity of liquid fuel in, one compartment only.

**Construction of dipsticks**

20.—(1) Every dipstick shall consist of a blade and a crosspiece.

(2) The blade shall be made of hard wood treated to reduce absorption, glass-reinforced plastic or other suitable material.

(3) The blade shall be free from flaws and sufficiently straight to be satisfactory for measurement.

(a) (4) (a) Subject to sub-paragraph (b) and paragraph (6), the blade shall extend to within 20 mm of the bottom of the compartment beneath the dipstick but not so as to touch the bottom.

(b) For compartments the use of which commenced before 1st July 1980, sub-paragraph (a) shall have effect as if for “20 mm” there were substituted “25 mm”.

(5) Subject to paragraph (6), the blade shall be sufficiently long so that it will indicate when the compartment contains liquid fuel equal to 0.5% of the nominal capacity of the compartment.

(6) For compartments the use of which commenced before 1st July 1983—

(a) the blade shall only have to comply with either the requirements of paragraph (4) or those of paragraph (5);

(b) if the blade does not comply with the requirements of both paragraphs (4) and (5), the dipstick measuring system shall not be used for trade after 31st December 1993.

**Cross-sectional area of dipstick**

21. The cross-sectional area of a dipstick shall not exceed 5 cm<sup>2</sup>.

**Blades not practicable to stamp**

22. Every dipstick blade made from glass-reinforced plastic or other materials which it is not practicable to stamp shall have a metal rivet suitable for receiving the stamp rivetted into the blade adjacent to the line 50 mm below the datum face referred to in Regulation 27.

**Construction of crosspieces**

23.—(1) The crosspiece of every dipstick shall be made of metal or other suitable material and shall be positively located and securely fixed to the blade to withstand fair wear and tear in ordinary use for trade.

(2) If the crosspiece is made in two parts they shall be spigotted together.

(3) The datum face shall be flat and at right angles to the axis of the blade.

### **Unit of measurement**

24.—(1) The unit of measurement to be used in marking a dipstick shall be either the litre or the gallon.

(2) The unit shall be marked on the dipstick at each end of the scale referred to in Regulation 28, beneath the crosspiece on the graduated face of the blade in letters and figures not less than 6 mm high.

(3) Where the unit of measurement is the litre, if the number of digits on any marking would exceed four (9999) the marking may read “litres x 10” or “litres x 100”.

### **Marking of related compartment numbers**

25. The related compartment number shall be marked on the graduated face of every dipstick at each end of the blade in figures not less than 10 mm high.

### **Marking of related tank numbers**

26. The related tank number shall be marked at the crosspiece end of the blade of every dipstick in figures not less than 6 mm high.

### **Line markings**

27. Every dipstick shall have a line marked on its graduated face, at right angles to the axis of its blade, 50 mm from the datum face measured to the further edge of that line.

### **Graduation of dipsticks**

28. Every dipstick used to measure deliveries of less than a full compartment shall be marked and graduated in accordance with the following provisions of this Regulation:—

- (a) the graduation shall be in a reasonable and convenient scale;
- (b) all scale marks, letters and figures shall be legibly and permanently marked;
- (c) each scale shall be at right angles to the axis of the blade of the dipstick and shall extend across the full width of the dipstick;
- (d) each scale mark shall be not less than 1 mm deep and not less than 1 mm nor more than 1.5 mm wide;
- (e) the lower edge of each scale mark (the further edge from the datum face) shall indicate the quantity of liquid fuel being measured;
- (f) each scale mark shall be numbered by figures not less than 6 mm high, the figures consisting of lines not less than 1 mm deep and not less than 1 mm nor more than 1.5 mm wide;
- (g) the figures shall be placed immediately above the scale mark to which they relate and shall not extend above half way between the lower edges of two adjacent scale marks;
- (h) the distance between the lower edges of two adjacent scale marks shall be not less than 18 mm and not more than 150 mm;
- (i) major scale divisions shall be of equal value although for compartments the use of which commenced before 1st January 1981 one additional scale mark may be included to indicate the nominal capacity of the compartment; and
- (j) the bottom two and top three major scale divisions may be subdivided with subdivisions of equal value.

### **Dipstick guide tubes**

**29.**—(1) Every compartment shall be fitted with a fixed vertical dipstick guide tube.

(2) Subject to paragraph (3), the tube shall be positioned so that the dipstick shall pass as nearly as practicable through the longitudinal and transverse centre lines of the compartment.

(3) Paragraph (2) shall not apply in the case of compartments the use of which commenced before 1st July 1983 but if the tube is not so positioned, the dipstick measuring system shall not be used for trade after 31st December 1993.

### **Dimensions of dipstick guide tubes**

**30.**—(1) In the case of compartments used for petroleum spirit the dipstick guide tube shall—

- (a) be, throughout its depth of immersion, of not less than 50 mm internal diameter or equivalent cross-sectional area; and
- (b) have venting uniformly throughout its length of at least 0.01 square metre area per metre of length, excluding any gauze covering or retaining clips.

(2) In the case of compartments used for liquid fuel other than petroleum spirit a dipstick guide tube shorter than the length of the dipstick may be used, but it shall be of such diameter and length that the dipstick is guided sufficiently near to the vertical plane so that any inaccuracy in the indication of quantity cannot exceed the prescribed limits of error.

### **Datum surfaces**

**31.** At the top of every dipstick guide tube there shall be provided a flat surface to create a datum surface, which shall consist of an annulus not less than 5 mm in width.

### **Design of, and markings on, dipstick guide tubes**

**32.**—(1) The design of every dipstick guide tube shall be such as to permit the height of the datum surface to be easily and accurately measured from the identified datum point.

(2) The said height in mm, the tank number and the compartment number shall be marked legibly and permanently on the dipstick guide tube, adjacent to the datum surface.

### **Markings and notices**

**33.**—(1) Every compartment number shall be marked—

- (a) legibly and permanently in line with the dipstick guide tube on the same side of the tank as the outlet valves so that the number is legible from the ground; and
- (b) legibly, permanently and conspicuously adjacent to the compartment's outlet valve.

(2) The nominal capacity of each compartment and the minimum quantity of fuel which may be delivered by the use of a dipstick from each compartment shall be marked legibly, permanently and conspicuously on the same side of the tank as the outlet valves with the same unit of measurement as is used for marking the dipstick.

(3) A legible, permanent and conspicuous notice shall be positioned on the same side of the tank as the outlet valves stating that dipsticks should be read at scale marks only.

### **Separation of compartments**

**34.** Where more than one compartment discharges through a common outlet manifold, means shall be provided to prevent liquid flowing from one compartment into another compartment.



### **Construction of tanks and compartments**

**35.**—(1) Tanks and compartments shall be so constructed that the prescribed limits of error at any scale mark shall not be exceeded whether the adjacent compartments are empty or contain liquid.

(2) Every tank shall be made of any metal, alloy or synthetic material that is suitable for the type of liquid that the tank is designed to contain, and such metal, alloy or synthetic material must possess sufficient strength, durability and stability and a co-efficient of linear expansion not exceeding  $25 \times 10^{-6} \text{ } ^\circ\text{C}$ .

(3) Every compartment shall be so shaped and constructed that—

(a) when the vehicle is standing on a level surface, no air pockets form on filling and no liquid is retained on discharge; and

(b) any baffles or stiffeners inside a compartment do not interfere with its filling or emptying.

(4) The emptiness of a compartment and its associated discharge pipes shall be easily verifiable.

## **PART III**

### **MANNER OF USE FOR TRADE**

#### **Manner of use for trade**

**36.**—(1) Liquid fuel shall not be transferred from one compartment into another during a delivery.

(2) A contents gauging system and a meter measuring system shall be used for trade as follows:—

(a) the sales indicator shall be set to zero before a delivery commences; and

(b) the ticket printing mechanism shall be used to provide an individual printed ticket in accordance with Regulations 12 and 17.

(3) A meter measuring system shall not be used for trade at a rate of flow which is more than its approved maximum or less than its approved minimum rate.

## **PART IV**

### **TESTING**

#### **Contents gauging systems**

**37.** Regulations 38 to 42 shall apply to contents gauging systems.

#### **Conditions of test**

**38.**—(1) A contents gauging system shall be tested only if it is installed ready for use and complete with all its parts and ancillary equipment concerned in the operations of measurement and delivery as described in any certificate of approval relating to it and which is in force.

(2) Every contents gauging system shall be tested by an inspector under the approved working conditions, with a liquid fuel which it is designed to deliver, or with a liquid specified in any certificate of approval relating to it and which is in force.

**Power of inspector to request provision of liquids**

39. For the purposes of the performance by an inspector of his functions under the Order or these Regulations relating to inspection, testing, passing as fit for use for trade and stamping of a contents gauging system, a person submitting such a system to an inspector or who an inspector has reasonable cause to believe has possession of such a system for use for trade shall, if requested, make available for the inspector's use such liquids in his possession as the inspector may reasonably require, and such liquids shall be returned to the person in question.

**Types of test**

40. An inspector shall test a contents gauging system using—
- (a) local standards of capacity; or
  - (b) a reference meter; or
  - (c) other equipment, being measures of capacity forming part of a fixed installation or being mounted on a vehicle or trailer, which has been tested in a manner which the inspector considers suitable, and adjusted, within the last twelve months, so as not to have any apparent error.

**Inspectors' powers to open containers**

41.—(1) An inspector may open any locked or sealed container for the purpose of testing a contents gauging system or for the return of liquid withdrawn during testing, and any liquid so withdrawn shall, upon conclusion of the test, be forthwith returned to the container from which it was withdrawn if the inspector is of the opinion that it is practicable and desirable so to do and the proprietor or person in charge of the equipment does not object; otherwise, it shall be placed in another suitable receptacle reasonably convenient for the purpose and nominated and provided by the proprietor or person in charge of the equipment.

(2) The inspector, if requested, shall give to the proprietor or person in charge of the said equipment a signed and dated statement of the quantity of such liquid withdrawn from the container and returned or placed as aforesaid.

**Duty of inspector to reseal containers**

42. An inspector shall securely re-fasten any container opened under Regulation 41(1) immediately after the conclusion of the test and the return of any liquid withdrawn during testing or its placing in another receptacle; and for this purpose he shall replace any seal or link broken by him in opening the said container with a seal upon which he shall affix the stamp.

**Meter measuring systems**

43. Regulations 44 to 50 shall apply to meter measuring systems.

**Conditions of test**

44.—(1) A meter measuring system shall be tested only if it is installed ready for use and complete with all its parts and ancillary equipment concerned in the operations of measurement and delivery as described in any certificate of approval relating to it and which is in force.

(2) Every meter measuring system shall be tested by an inspector under the approved working conditions, with a liquid fuel which it is designed to deliver, or with a suitable liquid of similar viscosity.

### **Power of inspector to request provision of liquid fuel**

45. For the purpose of the performance by an inspector of his functions under the Order or these Regulations relating to inspection, testing, passing as fit for use for trade and stamping of a meter measuring system, a person submitting such a system to an inspector or who an inspector has reasonable cause to believe has possession of such a system for use for trade shall, if requested, make available for the inspector's use such liquid fuel in his possession as the inspector may reasonably require, and such liquid fuel shall be returned to the person in question.

### **Rates of flow for test purposes**

46. A meter measuring system shall be tested at rates of flow which are not more than the approved maximum and not less than the approved minimum, the rate of flow being maintained in as uniform a manner as practicable.

### **Types of test**

47. An inspector shall test a meter measuring system using—
- (a) local standards of capacity; or
  - (b) a reference meter; or
  - (c) other equipment, being measures of capacity forming part of a fixed installation or being mounted on a vehicle or trailer, which has been tested in a manner which the inspector considers suitable, and adjusted, within the last twelve months, so as not to have any apparent error.

### **Inspectors' powers to open containers**

48.—(1) An inspector may open any locked or sealed container for the purpose of testing a meter measuring system or for the return of liquid withdrawn during testing, and any liquid so withdrawn shall, upon conclusion of the test, be forthwith returned to the container from which it was withdrawn if the inspector is of the opinion that it is practicable and desirable so to do and the proprietor or person in charge of the equipment does not object; otherwise, it shall be placed in another suitable receptacle reasonably convenient for the purpose and nominated and provided by the proprietor or person in charge of the equipment.

(2) The inspector, if requested, shall give to the proprietor or person in charge of the said equipment a signed and dated statement of the quantity of such liquid withdrawn from the container and returned or placed as aforesaid.

### **Duty of inspector to reseal containers**

49. An inspector shall securely re-fasten any container opened under Regulation 48(1) immediately after the conclusion of the test and the return of any liquid withdrawn during testing or its placing in another receptacle; and for this purpose he shall replace any seal or link broken by him in opening the said container with a seal upon which he shall affix the stamp.

### **Restriction on testing**

50.—(1) An inspector shall not test a meter measuring system in accordance with this Part where an occurrence of the type mentioned in Regulation 65 has occurred, unless having tested the operation of the meter and gas separator, he concludes that further testing of the accuracy of the system is necessary.

(2) An inspector shall not test a meter measuring system in accordance with this Part where an occurrence of the type mentioned in Regulation 66 has occurred; in such a case he shall test the system in such way as he considers appropriate to establish the correct operation of its parts affected by the occurrence or, where appropriate, their replacements.

### **Dipstick measuring systems**

**51.** Regulations 52 to 55 shall apply to dipstick measuring systems.

### **Testing of dipsticks**

- (a) **52.** (1) (a) Except in the case of a dipstick tested by reference to a calibration chart as mentioned in paragraph (2), a dipstick associated with a compartment shall be tested by inserting into, or withdrawing from, the compartment known volumes of liquid and determining the position of the scale mark on the dipstick when the road tanker is on a level surface.
- (b) The known volumes in paragraph (1)(a) shall be determined using—
- (i) local standards of capacity; or
  - (ii) a reference meter; or
  - (iii) other equipment, being measures of capacity forming part of a fixed installation or being mounted on a vehicle or trailer, which has been tested in a manner which the inspector considers suitable, and adjusted, within the last twelve months, so as not to have any apparent error.

(2) A dipstick associated with a compartment may be tested by comparing the distance of every scale mark from the datum surface with that given on the calibration chart in respect of the compartment, unless any alteration, addition, damage or repair has been effected to the compartment which in the opinion of the inspector has invalidated the calibration chart, in which case the inspector shall not use a calibration chart to test a dipstick until a new calibration chart has been prepared.

(3) On testing a dipstick associated with a compartment an inspector shall inspect the compartment unless the calibration chart was prepared not more than 42 days before testing, in which case testing may be carried out with the dipstick and calibration chart only being present.

(4) Not more than two dipsticks relating to a compartment forming part of a dipstick measuring system may be passed as fit for use for trade on any one occasion.

### **Power of inspector to request provision of liquids**

**53.** For the purposes of the performance by an inspector of his functions under the Order or these Regulations relating to inspection, testing, passing as fit for use for trade and stamping of a dipstick measuring system, a person submitting such a system to an inspector or who an inspector has reasonable cause to believe has possession of such a system for use for trade shall, if requested, make available for the inspector's use such liquids in his possession as the inspector may reasonably require, and such liquids shall be returned to the person in question.

### **Standards of length**

**54.** An inspector shall use, in testing any dimensional measurement in a dipstick measuring system—

- (a) a rigid local standard of length; or

- (b) a material measure of length to which [Council Directive No. 73/362/EEC](#)(10) applies bearing the mark of EEC initial verification and an indication that it is of accuracy class I which—
  - (i) is divided into 1 mm intervals throughout, and
  - (ii) has been tested in a manner which the inspector considers suitable within the previous 10 years and found not to have errors exceeding those permitted by item 7.4 of the Annex to the said Directive; or
- (c) a rigid linear measure of appropriate length which—
  - (i) is divided into 1 mm intervals throughout, and
  - (ii) has been tested in a manner which the inspector considers suitable within the previous 10 years and found not to have errors in excess or in deficiency of 0.25 mm per whole metre or part of a metre; or
- (d) other equipment for measuring length of suitable form and durability which has been tested in a manner which the inspector considers suitable and found not to have any error in excess or in deficiency of 0.25 mm per whole metre or part of a metre.

#### **Cleanliness of tanks**

- 55.** Tanks submitted for testing shall be clean.

## **PART V**

### **SUPPLEMENTARY PROVISIONS**

#### **Prescribed limits of error**

**56.**—(1) Subject to paragraphs (2) and (3), the prescribed limits of error relating to a contents gauging system or a meter measuring system shall be 0.5% of the indicated quantity.

(2) For a quantity equivalent to the minimum delivery of the system and up to twice that amount, the error shall not exceed 1 % of the minimum delivery.

(3) If, on testing with a view to passing as fit for use for trade, the errors on all the quantities indicated by the measuring equipment during the tests are all errors in excess or all errors in deficiency then, notwithstanding that they are all within the prescribed limits of error set out in paragraphs (1) and (2), at least one error in five shall not exceed 0.3% of the quantity indicated.

(4) The prescribed limits of error relating to a dipstick measuring system shall be such that—

- (a) the lower edge of each scale mark on the dipstick (the further edge from the datum face) is within 4 mm of the true position for each quantity indicated, when tested by inserting into, or withdrawing from, the compartment a known volume of liquid in accordance with Regulation 52(1);
- (b) the lower edge of each such scale mark is within 2 mm of the distance indicated on the calibration chart as being the distance between the surface of the liquid fuel in the compartment at any particular time and the datum surface, when tested by reference to a calibration chart in accordance with Regulation 52(2);
- (c) the lower edge of the line referred to in Regulation 27 is within 1 mm of the distance specified; and

---

(10) OJ No. L335, 5.12.1973, p. 56, as amended by [Council Directive No. 78/629/EEC](#) (OJ No. L206, 29.7.1978, p. 8)

- (d) the height of the datum surface is within 1 mm of the height marked in accordance with Regulation 32.

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

57. Measuring equipment shall not be passed as fit for use for trade unless—
- it complies with all the appropriate requirements of these Regulations;
  - on testing it falls within the prescribed limits of error; and
  - in the case of a meter measuring system first submitted before 1st July 1984 for testing with a view to passing as fit for use for trade, it is constructed in a manner which does not facilitate fraudulent use.

### **Stamping**

58.—(1) Every contents gauging system shall be provided with such sealing arrangements as may be specified in the particular pattern in accordance with which the system is made as set out in any certificate of approval relating to it and which is in force.

(2) Every meter measuring system shall be provided with one or more plugs, seals or sealing devices of suitable form and material to protect all stops and other adjustable parts affecting the quantity delivered, or with such alternative sealing arrangements as may be specified in the particular pattern in accordance with which the system is made and set out in any certificate of approval relating to it and which is in force.

(3) The stamp shall be placed on every such plug, seal or sealing device referred to in paragraphs (1) and (2).

### **Placing of stamp on dipstick measuring systems**

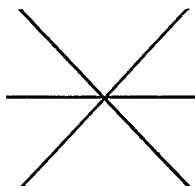
59. In the case of a dipstick measuring system the stamp shall be placed on the graduated face of the dipstick blade adjacent to the line 50 mm below the datum face referred to in Regulation 27 or, where applicable, on the metal rivet referred to in Regulation 22, and adjacent to the datum surface.

### **Restriction on stamping**

60. Measuring equipment shall not be stamped in accordance with regulation 58(3) or 59 if it bears any mark which might reasonably be mistaken for the stamp.

### **Obliteration of stamps**

61. 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:



### **Inspectors' powers and duties regarding obliteration of stamps**

62.—(1) Subject to paragraph (2), an inspector shall obliterate the stamp on any measuring equipment which—

- (a) fails upon testing—
  - (i) in the case of a contents gauging system or a meter measuring system, to fall within the prescribed limits of error in deficiency, or within twice the prescribed limits of error in excess, specified in Regulation 56(1), (2) and (3) as appropriate to the case; or
  - (ii) in the case of a dipstick measuring system, to fall within the prescribed limits of error specified in Regulation 56(4); or
- (b) fails to comply with any other appropriate requirement of these Regulations.

(2) Where any measuring equipment 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 person in charge of the equipment a notice calling on him to have the equipment 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.

#### **Alterations or additions to measuring equipment**

**63.** An inspector shall obliterate the stamp on any measuring equipment 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 57.

#### **Consequences of obliteration of stamps**

**64.**—(1) Subject to paragraphs (2) and (3), for the purposes of these Regulations the obliteration of any one stamp on any measuring equipment shall be deemed to be the obliteration of all other stamps on that equipment except where the stamp has been lawfully obliterated under Regulation 65 or 66.

(2) Where a stamp is obliterated on a dipstick, this Regulation shall not apply so as to prevent the use of a spare or replacement dipstick for measuring the quantity of liquid fuel in the compartment to which the first-mentioned dipstick relates.

(3) Where a stamp on that part of a contents gauging system relating to one container only is obliterated, this Regulation shall not apply so as to prevent the system or any other contents gauging system being used for measuring the quantity of liquid fuel in the other containers on the same road tanker.

#### **Lawful use for trade of meter measuring system where a stamp has been destroyed, obliterated or defaced for purposes of installing a meter and gas separator**

**65.**—(1) It shall be lawful to destroy, obliterate or deface a stamp on a meter measuring system, and it shall not be a contravention of Article 9(2) of the Order to use such equipment for trade during the relevant period by reason only that a stamp on it has been lawfully destroyed, obliterated or defaced (such destruction, obliteration or defacement being in this Regulation referred to as “the occurrence”) if—

- (a) the person responsible for the occurrence is, or is the duly authorised agent of, the proprietor of the equipment or a person who is the manufacturer, or is regularly engaged in the repair, of equipment for measuring liquid fuel;
- (b) the occurrence was confined to the stamp protecting the joint in the vent pipe from the gas separator;
- (c) the occurrence was only to permit the installation of a meter and gas separator bearing undefaced stamps, such meter and gas separator having been previously tested and

stamped either as part of that meter measuring system or another of exactly the same pattern delivering the same liquid fuel; and

- (d) notification in writing complying with paragraph (2) of the occurrence has been given by the proprietor of the equipment or his duly authorised agent before the occurrence to the chief inspector of weights and measures.

(2) The notification referred to in paragraph (1) shall contain the following information:—

- (a) the location of, and particulars by which, the road tanker may be identified;
- (b) the place where the tanker may be inspected;
- (c) the intended date of the occurrence;
- (d) the business name and address of the proprietor or other person referred to in paragraph (1) (a); and
- (e) the name and address of the person giving the notification.

(3) In paragraph (1) “relevant period” means a period of 7 days beginning with the day on which the notification referred to in that paragraph is given in accordance with that paragraph.

**Other circumstances in which a meter measuring system may lawfully be used for trade where a stamp has been destroyed, obliterated or defaced**

66.—(1) It shall be lawful to destroy, obliterate or deface a stamp on a meter measuring system, and it shall not be a contravention of Article 9(2) of the Order to use such equipment for trade during the relevant period by reason only that a stamp on it has been lawfully destroyed, obliterated or defaced (such destruction, obliteration or defacement being in this Regulation referred to as “the occurrence”) if—

- (a) the person responsible for the occurrence is, or is the duly authorised agent of, the proprietor of the equipment or a person who is the manufacturer, or is regularly engaged in the repair, of equipment for measuring liquid fuel;
- (b) the occurrence was confined to the stamp protecting a part of the meter measuring system other than the joint in the vent pipe from the gas separator;
- (c) after the occurrence access cannot be gained to the calibration mechanism of the meter; and
- (d) notification in writing complying with paragraph (2) of the occurrence has been given by the proprietor of the equipment or his duly authorised agent before the occurrence to the chief inspector of weights and measures.

(2) The notification referred to in paragraph (1) shall contain the following information:—

- (a) the location of, and particulars by which, the road tanker may be identified;
- (b) the place where the tanker may be inspected;
- (c) the intended date of the occurrence;
- (d) the business name and address of the proprietor or other person referred to in paragraph (1) (a); and
- (e) the name and address of the person giving the notification.

(3) In paragraph (1) “relevant period” means a period of 28 days beginning with the day on which the notification referred to in that paragraph is given in accordance with that paragraph.



Sealed with the Official Seal of the Department of Economic Development for Northern Ireland  
on 3rd April 1984.

(L.S.)

*Margaret L. Johnston*  
Assistant Secretary

---

## EXPLANATORY NOTE

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

These Regulations replace the Measuring Equipment (Liquid Fuel by Road Tanker) Regulations (Northern Ireland) 1980, [S.R. 1980 No. 127](#), as amended by the Measuring Equipment (Liquid Fuel by Road Tanker) (Amendment) Regulations (Northern Ireland) 1983, [S.R. 1983 No. 138](#). They apply to all measuring equipment on road tankers (other than those used for the delivery of liquefied gas, lubricating or heated oil and for refuelling ships, hovercraft and aircraft) for use for trade in the making of any measurement of liquid fuel in a quantity exceeding 20 gallons or 100 litres (mainly petrol to filling stations and central heating fuel oils to houses and other premises). They make provision as to the principles of construction and marking of measuring equipment, its manner of use for trade, the inspection, testing, passing as fit for use for trade and stamping of such equipment (and obliteration of stamps on such equipment), and the prescribed limits of error. The Regulations prescribe this equipment for the purpose of Article 9(1) of the Weights and Measures (Northern Ireland) Order 1981 so that it will be unlawful to use it for trade purposes from 1st July 1984 unless it has been tested, passed as fit for such use and stamped by an inspector of weights and measures.

The Regulations repeat the provisions of the earlier Regulations subject to some minor drafting alterations and the following changes of substance:—

- (a) a new category of measuring equipment — contents gauging systems — has been included, with appropriate provisions for the construction and marking, manner of use for trade, inspection and testing, prescribed limits of error and passing as fit for use for trade, stamping and obliteration of stamps in respect of these systems (Regulations 2, 8-12, 36, 37-42, 56-58 and 60-64);
- (b) a definition of calibration chart has been included (Regulation 2 (2));
- (c) provision has been made for detailed requirements for dipstick markings and graduations (Regulation 28);
- (d) provision has been made that a person submitting measuring equipment to an inspector for testing, or who an inspector has reasonable cause to believe has possession of such equipment for use for trade shall, if requested, make available for the inspector's use such products in his possession as the inspector may reasonably require (Regulations 39, 45 and 53);
- (e) provision has been made for reduced testing of meter measuring systems in the circumstances referred to in (h) and (i) below (Regulation 50);
- (f) provision has been made for the inspector, when testing a dipstick against a recent calibration chart, not to have to inspect the associated compartment (Regulation 52);
- (g) the prescribed limit of error for scale marks on dipstick blades has been reduced from 4 mm to 2 mm when tested against a calibration chart (Regulation 56);
- (h) meter measuring systems may be used for trade unstamped, where a stamp on the system has been lawfully destroyed, obliterated or defaced to allow the changing of the meter and gas separator assembly (Regulation 65); and
- (i) meter measuring systems may also be used for trade unstamped, where other stamps on the system have been destroyed, etc., e.g., for clearing jammed tickets from printers, for specified periods subject to specified conditions (Regulation 66).

Contravention of Regulations 5, 6, 19 and 36 is an offence under Article 13(1) of the Weights and Measures (Northern Ireland) Order 1981. It is also an offence under Article 9(2) of that Order for a person to use for trade or have in his possession for such use any measuring equipment prescribed by Regulation 4 which has not been passed as fit for such use and which does not bear a stamp indicating that it has been so passed which remains undefaced otherwise than by reason of fair wear and tear. The penalty on summary conviction for these offences is a fine not exceeding £200 and the measuring equipment in respect of which the offence is committed is liable to forfeiture.