
STATUTORY INSTRUMENTS

1983 No. 1390

WEIGHTS AND MEASURES

**The Measuring Equipment (Liquid Fuel
Delivered From Road Tankers) Regulations 1983**

<i>Made</i>	- - - -	<i>13th September 1983</i> <i>23rd September</i>
<i>Laid before Parliament</i>		<i>1983</i>
<i>Coming into operation</i>		
<i>All Regulations except</i> <i>Regulations 4, 5, 6, 14(1)</i> <i>and 36</i>		<i>14th October 1983</i>
<i>Regulations 4, 5, 14(1) and</i> <i>36</i>		<i>1st July 1984</i>
<i>Regulation 6</i>		<i>1st July 1987</i>

The Secretary of State, in exercise of the powers conferred by sections 11(1) and (3), 12(4), 14(1), 54(1) and 58(1) of the Weights and Measures Act 1963⁽¹⁾ and now vested in him⁽²⁾ and of all other powers enabling him in that behalf, hereby makes the following Regulations:—

PART I
GENERAL

Citation, commencement and revocation

1.—(1) These Regulations may be cited as the Measuring Equipment (Liquid Fuel delivered from Road Tankers) Regulations 1983 and shall come into operation as follows:—

- (a) all Regulations except Regulations 4, 5, 6, 14(1) and 36, on 14th October 1983;
- (b) Regulations 4, 5, 14(1) and 36, on 1st July 1984; and
- (c) Regulation 6, on 1st July 1987.

(1) as amended by the Weights and Measures & c. Act 1976 (c. 77) and the Weights and Measures Act 1979 (c. 45).
(2) S.I. 1970/1537.

(2) The Measuring Equipment (Liquid Fuel delivered from Road Tankers) Regulations 1979 and the Measuring Equipment (Liquid Fuel delivered from Road Tankers) (Amendment) Regulations 1980 are hereby revoked.

Interpretation

2.—(1) In these Regulations—

“the Act” means the Weights and Measures Act 1963;

“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 Secretary of State under section 12 of the Act;

“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;

“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;

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

“reference meter” means a meter for use in testing measuring equipment to which these Regulations apply provided pursuant to section 5(1) of the Act for use by inspectors;

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

“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 m³ 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 prescribed stamp⁽³⁾;

“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 Article 40 of the Weights and Measures (Northern Ireland) Order 1981

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

Cubic Metre	m ³
Millimetre	mm
Square centimetre	cm ²
Degree Celsius	°C

Application

3.—(1) Subject to paragraph (2) below, 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 to measure in metric units.

(2) Nothing in these Regulations shall apply to any of the following measuring equipment—

- (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.

4. Measuring equipment to which these Regulations apply is hereby prescribed for the purposes of section 11(1) of the Act.

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

Purposes of use for trade

5. No person shall use for trade a contents gauging system or a meter measuring system except 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:

Provided that this Regulation does not apply where a measurement is made only for the purpose of payments in respect of any customs or excise duty.

6. No person shall use for trade a dipstick measuring system except for the purpose of measuring delivered quantities of liquid fuel of not less than 30% of the nominal capacity marked on the tank of the compartment with which the dipstick is associated:

Provided that this Regulation does 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

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

Contents gauging systems

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

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.”.

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.

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.

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.

Meter measuring systems

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

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) above, 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) above shall be legibly and durably marked with the number of the certificate of approval, preceded by the words “Certification No.” or “Cert. No.”.

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.

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.

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.

Dipstick measuring systems

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

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

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 material approved by the Secretary of State.

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

(4) Subject to paragraph (6) below, 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:

Provided that for compartments the use of which commenced before 1st July 1980 this paragraph shall have effect as if for “20 mm” there were substituted “25 mm”.

(5) Subject to paragraph (6) below, 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) In the case of 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) above or those of paragraph (5);
- (b) if the blade does not comply with the requirements of both paragraphs (4) and (5) above, the dipstick measuring system shall not be used for trade after 31st December 1993.

21. The cross-sectional area of a dipstick shall not exceed 5 cm².

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 below.

23.—(1) The crosspiece of every dipstick shall be made of metal or other material approved by the Secretary of State 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.

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 below, 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 × 10” or “litres × 100”

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.

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.

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.

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 mark 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, with 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:
Provided that in the case of 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.

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

(2) 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:

Provided that—

- (a) this paragraph shall not apply in the case of compartments the use of which commenced before 1st July 1983; and

- (b) if the tube is not so positioned, the dipstick measuring system shall not be used for trade after 31st December 1993.

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.

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.

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.

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.

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.

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 contained, and such metal, alloy or synthetic material must possess sufficient strength, durability and stability and a co-efficient of linear expansion not exceeding $25 \times 10^{-6} >C$.

(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

- 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 above.
- (3) No person shall use for trade a meter measuring system 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 below apply to contents gauging systems.
- 38.**—(1) No contents gauging system shall be tested unless 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 the certificate of approval.
- (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 the certificate of approval.
- 39.** 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 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, provide for the inspector's use such liquids as the inspector may reasonably require, and any liquids so provided shall be returned to the person in question.
- 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.
- 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.

42. An inspector shall securely re-fasten any container opened under Regulation 41(1) above immediately after the conclusion of the test and the return of the 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 below apply to meter measuring systems.

44.—(1) No meter measuring system shall be tested unless 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.

(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.

45. 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 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, provide for the inspector's use such liquid fuel as the inspector may reasonably require, and any liquid fuel so provided shall be returned to the person in question.

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 as uniform as practicable.

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.

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.

49. An inspector shall securely re-fasten any container opened under Regulation 48(1) above 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.

50.—(1) An inspector shall not test a meter measuring system in accordance with this Part of these Regulations where an occurrence of the type mentioned in Regulation 65 below 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 of these Regulations where an occurrence of the type mentioned in Regulation 66 below 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 below apply to dipstick measuring systems.

- (a) **52.** (1) (a) Except in the case of a dipstick tested by reference to a calibration chart as mentioned in paragraph (2) below, 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 (a) above 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.

53. 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 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, provide for the inspector's use such products as the inspector may reasonably require, and any products so provided shall be returned to the person in question.

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(4) 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

(4) as amended by Council Directive No. 78/629/EEC.

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

PART V

SUPPLEMENTARY PROVISIONS

Prescribed limits of error

56.—(1) The prescribed limits of error relating to a contents gauging system or a meter measuring system shall be 0.5% of the indicated quantity:

Provided that

- (a) 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; and
 - (b) 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 above, at least one error in five shall not exceed 0.3% of the quantity indicated.
- (2) 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) above;
 - (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) above;
 - (c) the lower edge of the line referred to in Regulation 27 above is within 1 mm of the distance specified; and
 - (d) the height of the datum surface is within 1 mm of the height marked in accordance with Regulation 32 above.

Passing as fit for use for trade

57. No measuring equipment shall be passed as fit for use for trade unless—
- (a) it complies with all the appropriate requirements of these Regulations;

- (b) on testing it falls within the prescribed limits of error; and
- (c) 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, an inspector is of the opinion that it is not constructed in a manner which facilitates fraudulent use.

Stamping

58.—(1) Every contents gauging system shall be provided with such sealing arrangements as may be authorised by the Secretary of State in relation to the pattern in accordance with which the measuring equipment is made as set out in the certificate of approval 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 authorised by the Secretary of State in relation to the pattern in accordance with which the measuring equipment is made as set out in any certificate of approval in force.

(3) The stamp shall be placed on every such plug, seal or sealing device referred to in paragraph (2) above and every other sealing device authorised in accordance with paragraph (1) or (2) above.

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 above or, where applicable, on the metal rivet referred to in Regulation 22 above, and adjacent to the datum surface.

60. No measuring equipment shall be stamped in accordance with Regulation 58(3) or 59 above, if it bears any mark which, in the opinion of the inspector, 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:

62. 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) above 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(2) above; or
- (b) fails to comply with any other appropriate requirement of these Regulations:

Provided that 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 any person in possession 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.

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 above.

64.—(1) Subject to paragraphs (2) and (3) below, 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 below.

(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 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 systems where stamps destroyed, obliterated or defaced

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 section 11(2) of the Act 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) below 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 for the area in which the equipment is situated.

(2) The notification referred to in paragraph (1) above 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) above; and
- (e) the name and address of the person giving the notification.

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

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 section 11(2) of the Act 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) below 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 for the area in which the equipment is situated.

(2) The notification referred to in paragraph (1) above 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) above; and
- (e) the name and address of the person giving the notification.

(3) In paragraph (1) above “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.

13th September 1983

Alexander Fletcher
Parliamentary Under-Secretary of State
Department of Trade and Industry

EXPLANATORY NOTE

These Regulations replace the Measuring Equipment (Liquid Fuel delivered from Road Tankers) Regulations 1979 as amended. 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 and aircraft) for use for trade in the making of any measurement of liquid fuel in a quantity exceeding 20 gallons or 100 litres. 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 section 11(1) of the Weights and Measures Act 1963 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 make 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 (Regs. 2, 8–12, 36, 37–42, 56–58 and 60–64);
- (b) a definition of calibration chart has been included (Reg. 2 (2));
- (c) provision has been made for detailed requirements for dipstick marking and graduations (Reg. 28);
- (d) a requirement has been included to ensure that the inspector testing measuring equipment must, if he so requests, be supplied with appropriate products (Regs. 39, 45 & 53);
- (e) provision has been made for reduced testing of meter measuring systems in the circumstances referred to in (h) and (i) below (Reg. 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 (Reg. 52);
- (g) the prescribed limit for error for scale marks on dipstick blades has been reduced from 4 mm to 2 mm when tested against a calibration chart (Reg. 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 (Reg. 65); and
- (i) meter measuring systems may also be used for trade unstamped, where other stamps on the system have been destroyed etc., eg for clearing jammed tickets from printers, for specified periods subject to specified conditions (Reg. 66).