

Subsidiary Legislation made under s.24.

## **Measuring Instruments (Liquid Fuel and Lubricants) Regulations**

**LN.1978/022**

*Commencement*                      **1.4.1978**

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**SCHEDULE.**

Maximum Permissible Errors on Measuring Systems.

**Title.**

1. These regulations may be cited as the Measuring Instruments (Liquid Fuel and Lubricants) Regulations.

**Interpretation.**

2.(1) In these regulations—

“measuring instrument” means any measuring equipment other than a capacity measure.

(2) For the purpose of these regulations, the obliteration of any one stamp on a measuring instrument shall be deemed to be the obliteration of all the other stamps, if any, on that instrument.

**Application.**

3. These regulations shall apply to all measuring instruments other than capacity measures for use for trade in the making of any measurement of liquid fuel or lubricants or any mixture of such fuel and lubricants, and such instruments are hereby prescribed for the purposes of section 22(1) of the Act.

**Outlet.**

4. No measuring instrument, which is used in the presence of the buyer shall be capable of delivering measured quantities at more than one outlet.

**Sales indicator.**

5.(1) Every measuring instrument used in the presence of the buyer shall be provided with an individual sales indicator so graduated as to indicate all possible deliveries.

(2) Any other counting or totalising device provided shall be so arranged as to avoid any possibility of confusion with the individual sales indicator.

**Re-setting.**

6. Every individual sales indicator fitted to a measuring instrument shall be arranged so that it can be readily re-set to its zero graduation, and so that it is not possible to advance the indication by means other than by the proper operation of the instrument.

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#### Signals of discharge.

7. No audible or other signals of discharge, which can be operated to signal before the movement of the individual sales indicator shall be fitted to any measuring instrument.

#### Graduated dials.

8. Every graduated dial, scale or other indicating device of a measuring instrument shall—

- (a) be so graduated and numbered that it can be read in numerical sequence in one direction only; and
- (b) be so securely attached to its support or to the spindle or other part of the mechanism which controls its movement.

#### Marking etc., to be legible.

9. Every marking, notice, inscription or indication on a measuring instrument having reference to the method of operation or to the quantity delivered shall be conspicuously and legibly marked in a suitable position in plain block characters on a plain background and in distinct contrast thereto.

#### Stop and setting devices.

10. Every stop or setting device of a measuring instrument shall either be marked in such a manner as to indicate the quantity it represents or shall be clearly associated with a suitable indicating device for the same purpose.

#### Indications of quantity.

11. Every indication of quantity on a measuring instrument shall be marked either in full or by means of one or other of the following abbreviations only:—

Half-gallon	½gal
Gallon	gal
Litre	l

Provided that the indications of quantity on containers or on the dial of a sales indicator may be shown by figures only where the unit of measurement is boldly marked on the container or dial and no confusion can arise.

#### Maker's name.

12. Every measuring instrument shall be legibly marked with the name of the maker or supplier.

**Positioning.**

13.(1) Subject to sub-regulation (2), a measuring instrument, which forms part of a fixed installation shall be so positioned that a purchaser may readily obtain a clear and unobstructed view—

- (a) of all the operations carried out by any person using the instrument to measure the fuel or lubricant being supplied to the purchaser; and
- (b) of any device on the instrument which indicates the quantity supplied or the amount payable or that delivery is being effected.

(2) Sub-regulations (1) shall not apply to any instrument for use only for measuring kerosene except where the instrument is—

- (a) situated on premises where petroleum is sold; or
- (b) used for measuring kerosene in the course of delivery into fuel tanks of vehicles, vessels or aircraft.

**Sight glasses.**

14. Every measuring instrument shall be fitted with adequate sight glasses, observation windows or other devices showing clearly either—

- (a) that the container or containers are properly charged or discharged; or
- (b) that the instrument is properly primed before use, in which case the instrument shall bear, adjacent to each sight glass, observation window or other device, a notice indicating the priming level:

Provided that this regulation shall not apply to instruments for use for the measurement of lubricants where the delivery system remains permanently full up to the outer extremity of the discharge pipe.

**Piston type measuring instrument.**

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15. In the case of measuring instruments of the piston type, a non-return valve shall not be fitted in the pipe line between the piston and any sight glass.

#### **Measuring instruments with swing arms, etc.**

16. Where a measuring instrument is provided with a swing arm or rigid form of extension pipe, such arm or pipe shall be constructed as either—

- (a) to empty itself completely through the delivery outlet; or
- (b) to remain permanently filled up to its connection to the flexible hose; in which case a sight glass shall be fitted at the highest point of the swing arm or extension pipe.

#### **Hoses.**

17. Every flexible hose for delivering liquid fuel or a mixture of such fuel and lubricants from a measuring instrument, together with any swing arm or extension pipe, which empties itself on delivery, shall be so arranged as to facilitate drainage of the liquid.

#### **Length of hose.**

18. No measuring instrument shall be fitted with a flexible discharge hose exceeding 4 metres in length:

Provided that this regulation shall not apply to instruments for use for the delivery of—

- (a) liquid fuel to ships or to aircraft;
- (b) lubricants.

#### **Nozzles**

19. No nozzle of a form liable when open to trap any portion of the liquid being delivered shall be attached to the discharge hose of any measuring instrument.

#### **Method of testing.**

20. Every measuring instrument shall be tested under practical, working conditions with the liquid fuel or lubricant or mixture of such fuel and lubricant that the instrument is intended to deliver.

#### **Instruments to be complete.**

21. No measuring instrument shall be tested unless it is complete with all parts and attachments concerned in the operations of measurement and delivery.

**Instruments to be ready for use.**

22. Every measuring instrument, which is permanently fixed in the position in which it is to be used shall be tested, passed as fit for use for trade and stamped only when completely erected ready for use and installed at the place where it is to be used.

**Liquid to have passed through instrument.**

23. Before testing any measuring instrument fitted with a discharge hose, the inspector shall ensure that liquid fuel or lubricant or a mixture of such fuel and lubricant, as the case may be, has first been passed through the instrument:

Provided that this regulation shall not apply to instruments used for the measurement of such liquid fuel, lubricants or mixtures where the delivery system remains permanently full up to the outer extremity of the discharge pipe.

**Approved Pattern.**

24. No measuring instrument shall be passed as fit for use for trade unless—

- (a) it is made in accordance with a pattern in respect of which a certificate of approval has been granted and confirmed by the Consumer Protection Officer;
- (b) it complies with the appropriate requirements of these regulations; and
- (c) it measures and delivers liquid fuel or lubricants or mixtures of such fuel and lubricants to within the prescribed limit of error when it is run at reasonable speeds of operation.

**Fuel, etc., to be provided.**

25. To enable the inspector to make his tests, the trader or person in charge of a measuring instrument shall, if requested by the inspector, provide for his use such liquid fuel and lubricants as he may reasonably require.

**Fuel, etc., to be returned.**

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26.(1) Any liquid fuel or lubricant withdrawn from any tank or container for the purpose of an inspector's test shall, upon the conclusion of the test, be returned to that tank or container provided it is practicable and desirable so to do.

(2) The inspector shall, if requested, furnish to the trader or person in charge of the instrument a signed and dated statement of the quantity of liquid fuel or lubricant withdrawn from the tank or container and returned thereto.

#### **Opening tanks**

27. An inspector may open any locked or sealed tank or container from which liquid fuel or lubricant may have been withdrawn for the purpose of his tests provided he re-fastens or re-seals that tank or container at the conclusion of his tests.

#### **Limits of error.**

28. The prescribed limits of error on the testing of measuring instruments shall be those set out in the Schedule.

#### **Plugs, etc., for Stamping.**

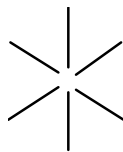
29. Every measuring instrument shall be provided with one or more plugs, seals or sealing devices of suitable form and material to protect all stops or other adjustable parts affecting the quantity delivered. The stamp shall be placed on all such plugs, seals or sealing devices.

#### **Misleading marks.**

30. No measuring instrument shall be stamped if it bears any mark, which in the opinion of the inspector, might reasonably be mistaken for the prescribed stamp or an expression of approval or guarantee of accuracy.

#### **Design of obliteration.**

31. Stamps shall be obliterated by an inspector, in accordance with the requirements, of these regulations, by means of a six-pointed star design shown hereto:—





**Obliteration of Stamps.**

32.(1) An inspector shall obliterate the stamp on any measuring instrument which-

- (a) fails to comply with the appropriate requirements of these regulations; or
- (b) fails upon testing to fall within the limits of error set out in the Schedule:

Provided that where a measuring instrument 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 judgment such as to require the immediate obliteration of the stamp, he shall leave with the trader a notice calling on him to have the instruments corrected within a stated period, not exceeding 28 days, and shall obliterate the stamp if the correction has not been made within such period.

(2) An inspector may obliterate the stamp on any measuring instrument which, since it was left stamped, has in his opinion had its accuracy affected by reason of any alteration, addition, adjustment or repair.

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#### SCHEDULE.

Regulation 28.

#### MAXIMUM PERMISSIBLE ERRORS ON MEASURING SYSTEMS.

1. When a meter is incorporated in a measuring system, the maximum permissible errors, in excess or in deficiency, at the initial verification of this system, under the normal working conditions and within the working limits specified in the certificate of approval, are laid down by the following table, in terms of the measured quantities:

Measured quantities	Maximum permissible errors
From 0.02 to 0.1 litres	2 ml.
From 0.1 to 0.2 litres	2% of the measured quantity
From 0.2 to 0.4 litres	4 ml.
From 0.4 to 1 litre	1% of the measured quantity
From 1 to 2 litres	10 ml.
2 litres or more	0.5 % of the measured quantity

2. The maximum permissible error on the minimum delivery is double the value laid down in paragraph 1 and, whatever might be the measured quantity, the maximum permissible error is never less than that permitted on the minimum delivery.

3. The maximum permissible errors are double those given in paragraphs 1 and 2 where these are applicable to measuring equipment for liquid gases or other liquids measured at a temperature below  $-10^{\circ}\text{C}$  or above  $+50^{\circ}\text{C}$ , as well as for which the minimum rate of flow is not greater than 1 litre per hour.