(2904)



III(2)

Certificate Pursuant to section 12 of the Weights and Measures Act 1985

Certification No 2904

Valid Until 15 November 2020

In accordance with the provisions of section 12 of the Weights and Measures Act 1985, the Secretary of State for Business, Innovation and Skills hereby certifies as suitable for use for trade the following pattern of a spirit measuring instrument as described in the descriptive annex to this Certificate, and having the following characteristics:-

A liquid measuring instrument for use in dispensing intoxicating liquor in fixed quantities of 25 ml. The instrument is supplied from an inverted bottle connected to the inlet and dispenses when a lever-arm at the delivery port is raised to its maximum. A transparent sight glass allows the charging and discharging of the instrument to be seen.

Note: This certificate relates to the suitability of the equipment for use for trade only in respect of its metrological characteristics. It does not constitute or imply any guarantee as to the safety of the equipment in use for trade or otherwise.

Submitted by: Express Moulds Ltd.

Jubilee Works 40 Alma Crescent Vauxhall

Birmingham. B7 4RH United Kingdom

Signatory:

for

P R Dixon

Chief Executive

National Weights & Measures Laboratory (part of the National Measurement Office) Department for Business, Innovation and Skills

Stanton Avenue Teddington

Middlesex TW11 0JZ United Kingdom

Issue Date: 16 November 2010 Valid Until: 15 November 2020 Reference No: T1115/0008

CONTENTS

CERTIFICATION NO 2904

- 1 INTRODUCTION
- 2 CONSTRUCTION
 - 2.1 Mechanical
 - 2.2 Legends
 - 2.3 Sealing and stamping
- **3 OPERATION**
- 4 AUTHORISED ALTERNATIVES
- 5 RECOMMENDED TESTS
- **6 ILLUSTRATIONS**
- 7 CERTIFICATE HISTORY

CERTIFICATION NO 2904

Descriptive Annex

1 INTRODUCTION

This type of liquid measuring instrument is for use in dispensing intoxicating liquor in fixed quantities of 25 ml.

The instrument is supplied from an inverted bottle connected to the inlet and dispenses when a lever-arm at the delivery port is raised to its maximum. A transparent sight glass allows the charging and discharging of the instrument to be seen.

2 CONSTRUCTION (Figure 1)

2.1 Mechanical

The instrument is constructed mainly from plastic. Springs are used to return the air valve and the central spindle to their closed positions and to apply sealing pressure to the capacitor valve assembly.

The central spindle is in four parts, the lower part is the delivery tube (18) which extends through the main body chamber (1a) and has an outlet seal (13) and seal retainer (7) and capacitor (10 and 12). The capacitor is fitted with a plunger valve seal (8) which closes the inlet port during the dispense operation.

The main body chamber (1a) has a flat surface to provide a positive sealing face for the plunger valve seal. The main body inlet (1d) is fitted with an inlet flute (2) which assists the flow from the bottle when the measuring chamber discharges.

The plunger valve (9) has a flat top surface which actuates the air valve (6) to admit air into the measuring chamber (1a) as the instrument discharges.

The upper end of the delivery tube (18) is recessed to accept two spindle seals (15) fitted above and below the cross bore. The lower end of the delivery tube (18) is enlarged to retain a push fit anti-dribble moulding (19). The operating arm (20) is fitted to the main body arm (1c). The delivery tube and anti-dribble moulding form a mating cone drip retainer.

The delivery tube is returned to the closed position by the spindle spring (16) acting between the spindle collar (17) and the main body.

2.2 Legends

The instrument shall bear the following legends:

• the number of the certificate of approval preceded by the words 'Certification No', or 'Cert No', legibly and durably marked on the mounting bracket:.

2904

• the nominal quantity conspicuously, legibly and durably marked on the front of the unit, the centre of the sight glass, in plain block characters on a plain background and in distinct contrast thereto:

25 ml

• the name of its manufacturer or supplier, legibly and durably marked on the back of the measure body:

Express Moulds Ltd.

2.3 Sealing and stamping

- **2.3.1** The sight glass (14) is ultrasonically welded to the front face of the main body to form a non-repairable assembly and does not require sealing.
- **2.3.2** The verification mark may be applied via a hot stamp applied to the mounting bracket of the instrument.

3 OPERATION

With the instrument fully charged with liquid, the operating arm is raised. The central spindle moves upwarded, closing the input port (from the bottle) and opening the output port to the dispense nozzle. This action also opens the air valve and liquid is discharged from the instrument. After discharge, the operating arm is released and the central spindle moves downward (under spring pressure). The output port is closed. This action also closes the air valve and opens the inlet port. The instrument is then re-charged with liquid from the bottle.

4 AUTHORISED ALTERNATIVES

- **4.1** Having fixed capacities of 35 ml and 50 ml, the increased volumes are obtained by fitting larger sight glasses. The quantity legends are amended accordingly.
- 4.2 Additional advertising may be fitted to the dispenser provided that it cannot be confused with the quantity legend, and that the sight glass is not obscured in any way.

5 RECOMMENDED TESTS

In addition to those tests specified in Regulations the following tests may be performed to check for conformity to the pattern.

5.1 Accuracy

5.1.1 Accuracy tests shall be carried out to verify that the amount dispensed from the instrument is within the specified accuracy limits.

Note: For verification purposes, water may not be suitable. To avoid contamination of the instrument before delivery to the customer, tests may be performed using any white spirit, ideally vodka or any similar such liquor that contains no Caramel (such as the dark liquors) and no flavour or scented odour.

5.2 Interlocks

5.2.1 Verify the operation of the instrument, as described in Section 3, to ensure that liquid cannot flow from the bottle through, the instrument, to the point of dispense.

5.3 Labels and markings

- **5.3.1** Verify that the markings of the nominal quantity, certificate number and the name of the manufacturer, as described in Section 2.2, are present on the instrument.
- **5.3.2** Ensure that any branding and/or display panels mounted on the front of the instrument do not obscure the sight glass, so that the charging and discharging of the instrument can be seen.

6 ILLUSTRATIONS

Figure 1 Schematic diagram

7 CERTIFICATE HISTORY

CERTIFICATE NUMBER	DATE	DESCRIPTION
2904	16 November 2010	Certificate first issued.

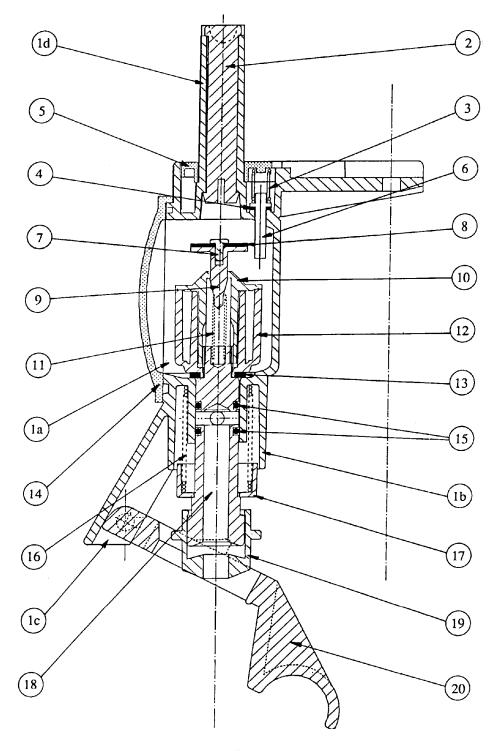


Figure 1 Schematic diagram

© Crown Copyright 2010
NATIONAL WEIGHTS AND MEASURES LABORATORY
(Part of the National Measurement Office)
Department for Business, Innovation & Skills
This material may be freely reproduced except for sale.