



NMO

2146

III(2)

Pursuant to Section 12 of the Weights and Measures Act 1985 Certificate No 2146 Revision 3

Issued by:

NMO

In accordance with the provisions of Section 12 of the Weights and Measures Act 1985, the Secretary of State for Business, Energy & Industrial Strategy has issued this UK national type approval certificate to:

**Beaumont TM
2-4 Lyall Court
Flitwick Industrial Estate
Maulden Road
Flitwick
Bedfordshire
MK45 1UQ
United Kingdom**

And hereby certifies as suitable for use for trade the following pattern of a spirit measuring instrument, in respect of dispensing intoxicating liquor in fixed quantities, which is supplied from an inverted bottle connected to its inlet

The necessary data (principal characteristics, alterations, securing, functioning etc) for identification purposes and conditions (when applicable) are set out in the descriptive annex to this certificate.

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.

This revision replaces previous versions of the certificate.

Issue Date: 27 November 2020

Valid Until: 26 November 2030

Grégory Glas
Lead Technical Manager
For and on behalf of the Head of Technical Services

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CERTIFICATION NO 2146

Descriptive Annex

1 INTRODUCTION

This pattern of a spirit measuring instrument is for use in dispensing intoxicating liquor in fixed quantities of 25ml (Figure 1).

The instrument is supplied from an inverted bottle, connected to its inlet, and dispenses when an operating arm at the delivery port is raised to its maximum. A transparent chamber displays the complete charging and discharging of the instrument.

2 CONSTRUCTION

2.1 Mechanical (Figures 2a & 2b)

2.1.1 Components

The instrument is constructed mainly in plastic with stainless steel springs and silicone rubber seals. The circular sight glass is moulded in transparent plastic. The head, which includes the mounting bracket, and sight glass are permanently bonded in place preventing adjustment or tampering once assembled.

The delivery tube is in four parts. The lower part is the tri-prong arm (1) which is fitted to the spindle (2) which extends through the sight glass bowl (7) and is connected to the capacitor (5 & 6). The capacitor is fitted with a spring-loaded top valve assembly (14, 15 and 16), which closes the inlet port during the dispensing operation.

The head (13) is provided with a shallow coned seating to provide a positive sealing face for the capacitor disc valve assembly (14). The inlet tube, of the head, is fitted with a separator (11) which assists the flow from the bottle when the measuring chamber recharges.

The capacitor has a flat top surface beneath the valve assembly which actuates the air valve (8) to admit air into the bowl as the instrument discharges. The air valve is fitted with a return spring (10) and washer (9).

The upper end of the delivery tube is recessed, above and below the cross bore, to accept two O-rings (4). The lower end of the delivery tube is enlarged to retain a snap on tri-prong operating arm (1). The delivery tube and operating arm form a mating cone drip retainer.

The delivery tube is returned to the closed position by a spring (19) acting between the spring collar (3) and the ferrule (18), the mechanism being enclosed by the ferrule.

The top and bottom surfaces of the bowl are slightly angled to allow complete charge and discharge of liquid when the instrument is not mounted perfectly vertical.

The cover plate (12) and head are ultrasonically welded together to form the head assembly.

The head assembly and bowl are ultrasonically welded together to form a tamperproof assembly.

2.2 Legends

2.2.1 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 top of the coverplate: **2146**
- the nominal quantity conspicuously, legibly and durably marked on the front of the unit 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 onto the head. **Beaumont TM**

2.2.2 The capacity characters legend, 25 ml, is durably marked on the sight glass. The characters are nominally 10 mm high. The model name, and manufactures contact information, may be printed onto an adhesive label fitted around the ferrule:

2.2.3 Additional advertising may be fitted to the head assembly, which shall not obscure the sight glass in any way.

The manufacturer's name and certificate number are moulded into Cover Plate (12) and All in one Head (13).

2.3 Sealing and stamping

2.3.1 The instrument is permanently bonded during manufacture to form a tamperproof, non-adjustable assembly. No further sealing is necessary.

The stamp is formed by an impact process directly onto the side face of the head/mounting bracket assembly.

3 OPERATION

With the instrument fully charged with liquor the operating lever is raised. The seal of the capacitor disc valve makes positive contact with the coned seating in the head thus preventing the ingress of further liquid. The O-ring of the dispense tube remains in the bore of the bowl at this stage. Further upward movement causes the flat top surface of the capacitor to open the air valve, and uncovers the cross bores allowing the liquid to discharge. Maximum movement is achieved when the top of the capacitor makes contact with the underside of the disc valve. The cross bores do not completely clear the bowl base in order to ensure complete discharge. On completion of dispense the operating arm is released, the downward movement operates the sequence in the reverse order. Liquid refills the instrument venting air into the bottle. At no time will the inlet/outlet valves be open together.

4 AUTHORISED ALTERNATIVES

4.1 Having an alternative fixed capacity of 35 ml by fitting a different sight glass. The quantity legend is amended accordingly.

4.2 Having an alternative fixed capacity of 50 ml by fitting a different sight glass. The quantity legend is amended accordingly.

- 4.3** Having the cover plate, which also forms the mounting bracket, manufactured in metal and attached to an alternative head by three screws.
- 4.4** Having verification mark applied to a soft metal seal attached by a security wire, or nylon monofilament, affixed to the mounting bracket. The security seal shall be such that it cannot be removed without destroying the verification mark.
- 4.5** Having an alternative lever mechanism as shown in Figure 4. The lever may be assembled for “push” or “pull” operation. One measure is dispensed when the lever is pushed fully back / pulled fully forward.
- 4.6** Having the option of a plastic delivery tube (item 2)
- 4.7** Having the capacitor formed from an inner stem and an outer sleeve (items 5 & 6).
- 4.8** The ferrule (item 5) is replaced by a 5 digit counter unit. The counter unit faces to one side / the front of the dispenser, i.e. the counter digits are at an angle of 90° to the quantity legend
- 4.9** Having a modified plastic head plate. The certificate number and manufacturer’s legend are durably moulded on the top of the head plate.
- 4.10** Having a 125 ml measure (Figure 5) for dispensing wine.
- 4.10.1** The measure (Figure 6) incorporates a larger sight glass (1) and top plate (2), which are ultrasonically welded to the head (3) to form a tamperproof assembly. The spindle (5), which has an extension (4), is manufactured in plated brass.
- 4.10.2** The capacity legend is durably marked onto the sight glass in characters from a 10 mm set.
- 4.10.3** The instrument is ultrasonically welded during manufacture to form a tamperproof, non adjustable assembly. No further sealing is necessary.
- 4.10.4** The stamp is applied to a lead seal enclosing a knot of nylon monofilament, which passes through a protrusion in the side of the head.
- 4.10.5** The instrument may be fitted with a spindle of greater length, when it is intended to be used in a wine cabinet. In such applications the cabinet shall not obscure the sight glass.
- 4.10.5.1** The spindle extension may be manufactured in plastic.
- 4.10.6** The instrument may be fitted with an alternative lever mechanism, as shown in Figure 4. The lever may be assembled for “push” or “pull” operation. One measure is dispensed when the lever is pushed fully back / pulled fully forward.
- 4.11** Having the verification mark applied to a plastic security seal attached by a security wire, and affixed to the mounting bracket. The security seal shall be such that it cannot be removed without destroying the verification mark.
- 4.12** Having an alternative fixed capacity of 70 ml (Figure 7).

5 RECOMMENDED TEST

Due to increased surface tension it is possible that, on occasions, the instrument will not operate correctly when using water as the test liquid. This problem does not occur when using any of the prescribed spirits. Providing the instrument fills correctly the dispensed quantity should be within statutory limits irrespective of the liquid used.

6 ILLUSTRATIONS

Figure 1	25 ml measure
Figure 2a	25 ml measure general assembly,
Figure 2b	25 ml measure component list
Figure 3	50 ml measure
Figure 4	Alternative lever(s)
Figure 5	125 ml wine measure
Figure 6	125 ml wine measure general assembly
Figure 7	70 ml measure

7 CERTIFICATE HISTORY

CERTIFICATE NUMBER	DATE	DESCRIPTION
2146	29 November 1990	Certificate first issued.
2146/1	06 August 1992	Variant Certificate first issued
2146 & 2146/1 Renewal 1	14 September 2000	Renewal
2146 & 2146/1 Renewal 2	28 November 2010	Renewal
2146 Revision 1	09 June 2011	Change of manufacturer on front page. Re-formatting of text to include 2146 & 2146/1, including all previous Amendments [2146 Am 1 to 11, 2146/1 Am 1 & 2] & new Figures.
2146 Revision 2	12 March 2014	Section 4.12 - Addition of a 70 ml spirit dispenser. Amendment to wording in: section 2.2.3 "mounting bracket (2)" is replaced by "Cover Plate (12) and All in one Head (13)". section 4.7. "item 12" is replaced by "items 5 & 6".
2146 Revision 3	27 November 2020	Renewal for a further 10 years.



Figure 1 25 ml measure

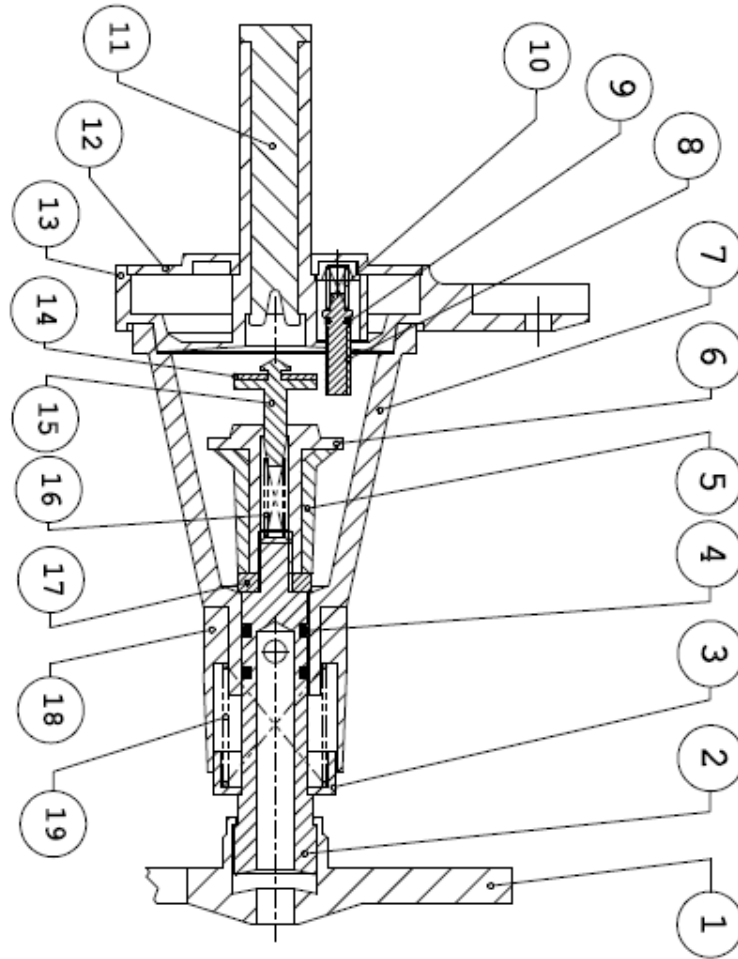


Figure 2a 25 ml measure - General assembly

ITEM	Drg.No.	DESCRIPTION
10		AIR VALVE SPRING
9		AIR VALVE WASHER
8		AIR VALVE
7		BOWL
6		CAPACITOR BODY
5		CAPACITOR SLEEVE
4		O RING 2-OFF
3		SPRING COLLAR
2		SPINDLE
1		TRI. PRONG ARM

ITEM	Drg.No.	DESCRIPTION
20		
19		SPINDLE SPRING
18		FERRULE
17		MAIN SEATING
16		TOP VALVE SPRING
15		TOP VALVE
14		TOP VALVE WASHER
13		ALL IN ONE HEAD
12		COVER PLATE
11		SEPARATOR

Figure 2b 25 ml measure component list

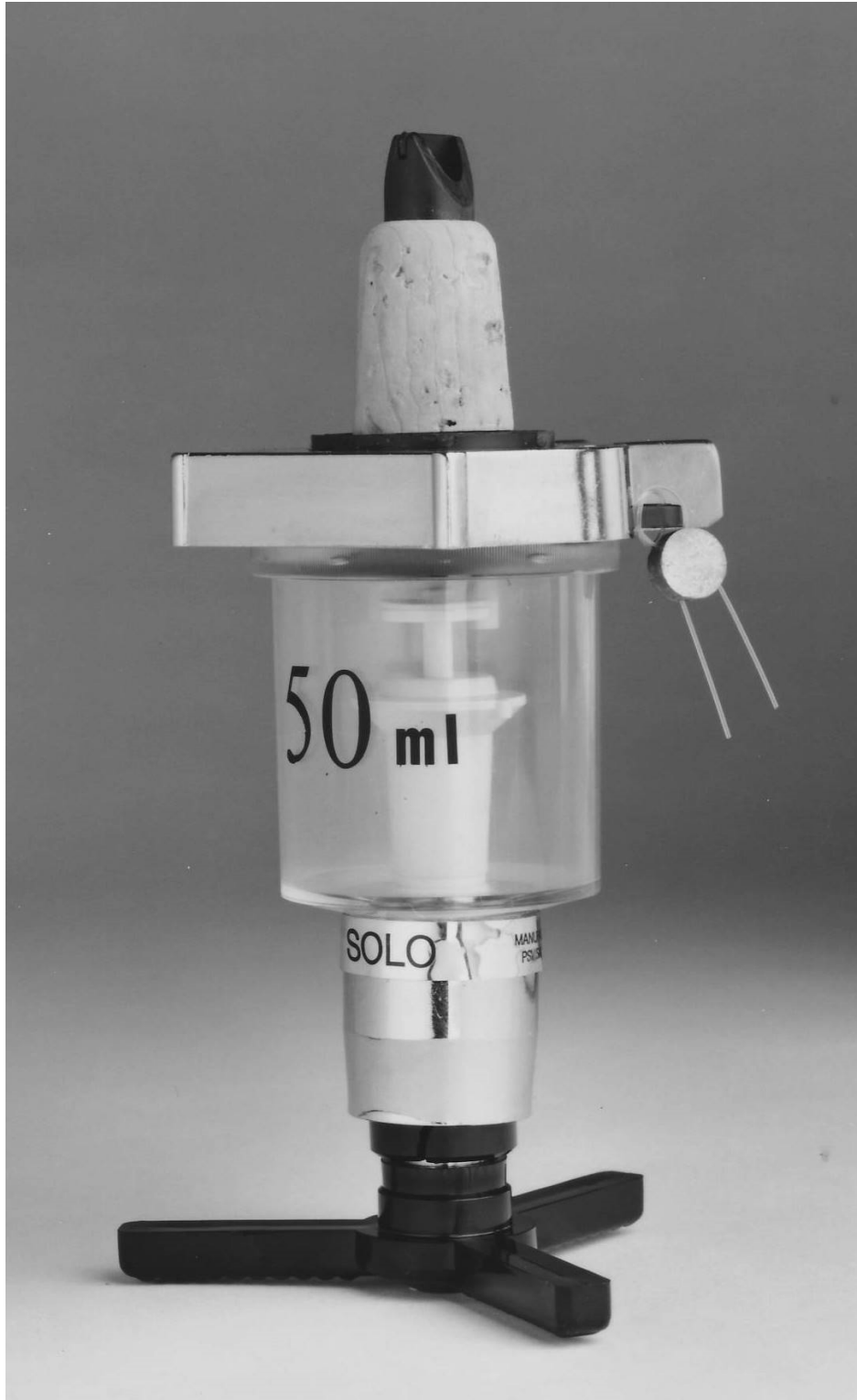


Figure 3 50 ml measure



“Pull” lever



“Push” lever

Figure 4 25 ml measure with alternative lever



Figure 5 125 ml wine measure

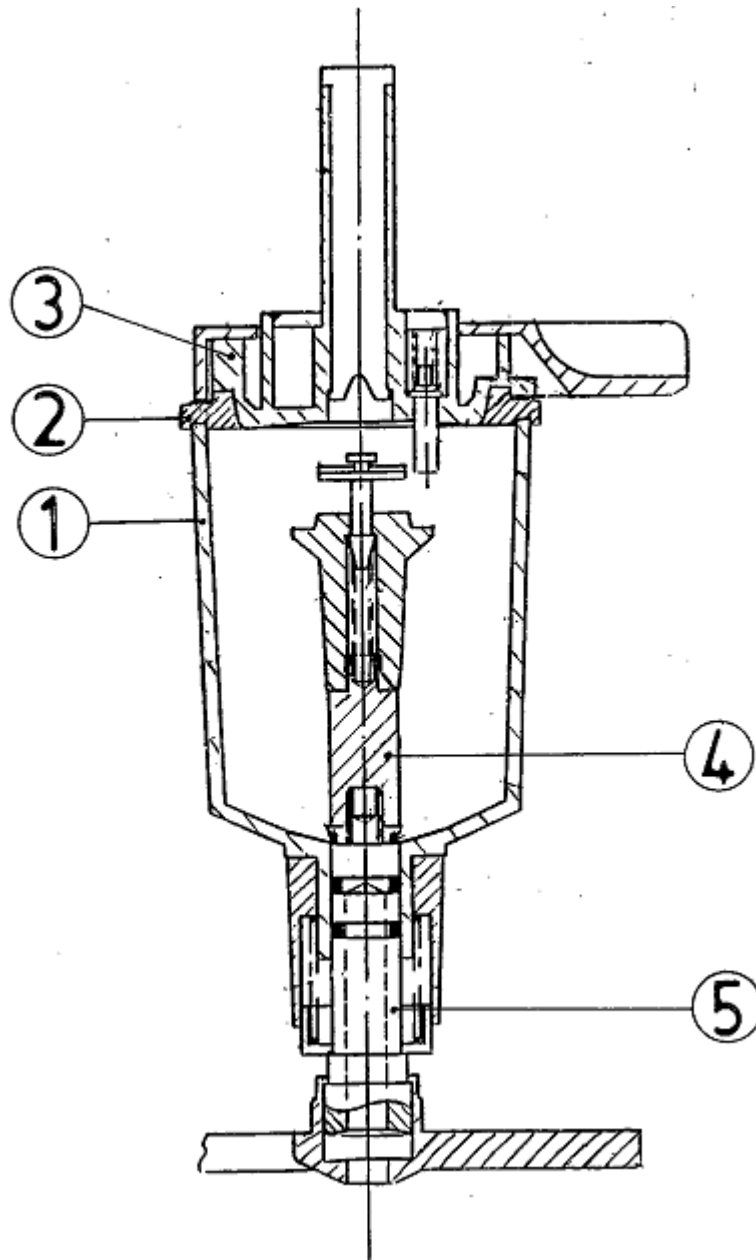


Figure 6 125 ml wine measure – General assembly



Figure 7 70 ml measure

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