

# NATIONAL STANDARDS COMMISSION

## WEIGHTS & MEASURES (PATTERNS OF INSTRUMENTS) REGULATIONS

#### REGULATION 9

## CERTIFICATE OF APPROVAL No 6/4A/3

This is to certify that an approval has been granted by the Commission that the pattern and variants of the

Avery Weighing Instrument Model 1215 BFH

submitted by Avery Australia Ltd, 3–5 Birmingham Avenue, Villawood, New South Wales, 2163,

are suitable for use for trade.

The approval of the pattern and variants is subject to review on or after 30/4/86.

All instruments purporting to comply with this approval shall be marked NSC No 6/4A/3.

Relevant drawings and specifications are lodged with the Commission.

Signed

Executive Director

Descriptive Advice

Pattern:	approved 24/4/67
	re-approved 11/5/81

Partly self-indicating counter machine of 2 kg capacity with centre-zero dial of ± 30 g by 5 g scale intervals.

Variant: approved 3/9/68

re-approved 11/5/81

1. With centre-zero dial of  $\pm$  30 g by 2 g.

Variant: approved 8/6/67 re-approved 11/5/81

2. Of 15 kg capacity with centre-zero dial of ± 50 g by 5 g.

Variant: approved 24/4/67 re-approved 11/5/81

3. With locking handle.

...../2

CANCELLED

0/1

Variant: approved 24/4/67 withdrawn 11/5/81

4. With centre-zero dial marked on positive side only.

Technical Schedule No 6/4A/3 dated 5/6/81 describes the pattern and variants 1 to 4.

# Filing Advice

Certificate of Approval No 6/4A/3 dated 21/5/69 is superseded by this Certificate and may be destroyed except for Figures 2, 3 and 4 which are retained as part of this approval.



# NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 6/4A/3

Pattern: Avery Weighing Instrument Model 1215 BFH

<u>Submittor</u>: Avery Australia Ltd, 3-5 Birmingham Avenue, Villawood, New South Wales, 2163.

### 1. Description of Pattern

The pattern (Figure 1) is a partly self-indicating counter machine of 2 kg capacity, the mechanism of which is shown diagrammatically in Figure 2.

The weighing mechanism (Figure 3) is of the inverted Roberval type. It is fitted with an oil dashpot, and two covered balance boxes, one fitted to the leg supporting the load receptor and the other integral with the weight-receptor support. A helical tension spring is coupled between an arm projecting inwardly from the weight-receptor leg and the base of the instrument.

The indicating mechanism (Figure 4) consists of an indicator, a drum and a balance weight. A steel ribbon is coupled at one end to the arm projecting from the weight-receptor leg, passes over and is secured to the drum, and at the other end is attached to the frame of the instrument through a helical spring. This spring, together with the spring coupled to the arm, comprise the load resistant of the instrument.

A double-sided centre-zero mass dial graduated in 5 g scale intervals up to  $\pm$  30 g is fitted (Figure 5).

The indicating mechanism and dial housing is rotatable through 90° from a position parallel to the main beam.

The instrument is supported on four adjustable feet. It is marked NOT FOR RETAIL COUNTER USE.

The nameplate is marked with the following data:

Manufacturer's name Serial number of instrument NSC approval number in the form: Accuracy class in the form: Maximum capacity in the form: Minimum capacity in the form: Verification scale interval in the form:

NSC No 6/4A/3 III Max = 2 kg ......\* Min = 0.1 kg .....\* d = e = 5 g .....\*

#### 2. Description of Variants

2.1 Variant 1

With a centre-zero dial of  $\pm$  30 g by 2 g scale intervals (Figure 6).

#### 2.2 Variant 2

Of 15 kg capacity with a centre-zero dial of  $\pm$  50 g by 5 g scale intervals, marked:

\* These markings are repeated on both reading faces.

# $(\Pi)$

```
Max = 15 kg
Min = 0.1 kg
d = e = 5 g
```

## 2.3 Variant 3

Fitted with a locking handle which will not hold in any intermediate position, and rotation of which causes a cam to engage a plate attached to the weight-receptor leg so that it is moved downwards against a stop.

#### 2.4 Variant 4

Note: The approval for this variant is now withdrawn.

#### TEST PROCEDURE

### Accuracy Requirements

The maximum permissible errors are:

- <sup>±</sup> 0.5e for loads between 0 and 500e;
  <sup>±</sup> 1e for loads between 501e and 2000e; and
  <sup>±</sup> 1.5e for loads above 2000e.
- 1. Apply test loads in not less than 10 approximately equal steps to maximum capacity with the first step equal to minimum capacity ensuring that a load is applied equivalent to each permissible error change point.
- 2. Repeat 1 above for decreasing loads from maximum capacity to zero.



Weights and Measures (National Standards) Act 1960-1964

Weights and Measures (Patterns of Instruments) Regulations COMMONWEALTH OF AUSTRALIA

NATIONAL STANDARDS COMMISSION

# Certificate of Approval

# CERTIFICATE NUMBER 6/4A/3

In respect of the pattern of

Avery Model 1215 BFH Partly Self-indicating Counter Machine and Variants 1 to 6.

Submitted by: W. & T. Avery (Australia) Pty. Ltd., 3-5 Birmingham Avenue, Villawood, New South Wales. 2163.

This is to certify that the pattern and variants of the instrument illustrated and described in this Certificate have been examined by the National Standards Commission under the provisions of the abovementioned Regulations and have been approved as being suitable for use for trade.

Approval was granted for:

- 1. The pattern and variants 2, 4, 5 and 6 on 24th April, 1967.
- 2. Variant 3 on 8th June, 1967.
- 3. Variant 1 on 3rd September, 1968.

Approval was granted on condition that all instruments made in conformity with the pattern or its variants:

1. are appropriately marked NSC No 6/4A/3; and

21/5/69

Cont'd over

2. comply with the General Specifications for Weighing and Measuring Instruments to be Used for Trade.

This Certificate comprises:

Pages 1 to 4 dated 21st May, 1969. Figures 6/4A/3 - 1 to 6 dated 21st May, 1969.

Signed Jun Hoerlan

for P. A. Champion

21st May, 1969. Date of issue

# DESCRIPTION

The pattern (see Figure 1) is a partly self-indicating counter machine of 2 kg capacity the mechanism of which is shown diagrammatically in Figure 2.

The weighing mechanism (see Figure 3) is of the inverted Roberval type fitted with an oil dashpot, in which two covered balance boxes are fitted, one to the leg supporting the load receptor and the other integral with the weight-receptor support. A helical tension spring is coupled between an arm projecting inwardly from the weight-receptor leg and the base of the instrument.

The indicating mechanism (see Figure 4) consists of an indicator, a drum and a balance weight. A steel ribbon is coupled at one end to the arm projecting from the weight-receptor leg, passes over and is secured to the drum, and at the other end is attached to the frame of the instrument through a helical spring. This spring, together with the spring coupled to the arm, comprise the load resistant of the instrument.

A double-sided centre-zero weight chart (see Figure 5) of 30 g by 5 g graduations on both sides of zero is fitted; it is marked "heavy" and "light", all inscriptions on the heavy side and the centre-zero being in black and all on the light side being in red.

The indicating mechanism and chart housing is rotatable through  $90^{\circ}$  from a position parallel to the main beam.

The instrument is supported on four adjustable feet. It is marked "not for retail counter use".

# SCHEDULE OF VARIANTS

- 1. With a centre-zero chart of 30 g by 2 g graduations (see Figure 6).
- 2. Of 30 lb capacity with a centre-zero chart of 2 oz by  $\frac{1}{4}$  oz graduations.

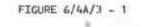
21/5/69

- 3. Of 15 kg capacity with a centre-zero chart of 50 g by 5 g graduations.
- 4 Of 4 lb capacity fitted with centre-zero charts of 8 dr by 1 dr or 1 oz by 2 dr graduations.
- 5 The pattern and variants with the centre-zero weight charts graduated on the heavy side only and the marking "not for retail counter use" being omitted.
- 5 The pattern and variants being fitted with a locking handle which will not hold in any intermediate position, rotation of which causes a cam to engage a plate attached to the weight-receptor leg so that it is moved downwards against a stop.

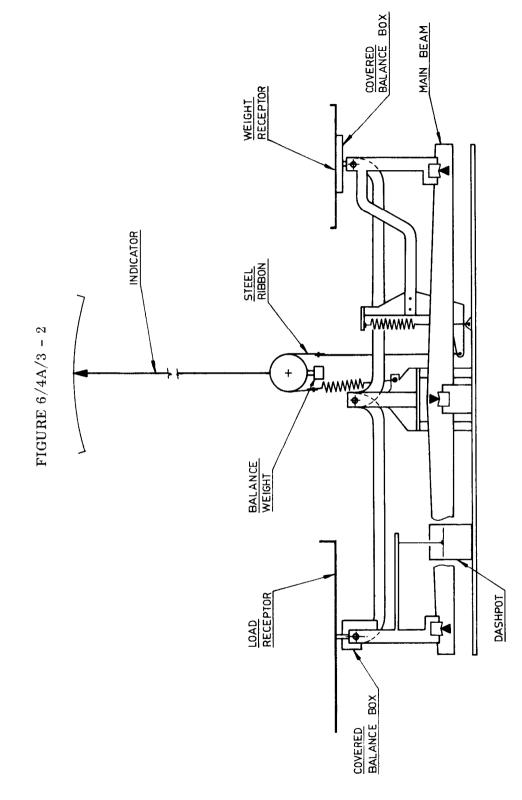
# GENERAL NOTES

Notice of approval of the pattern and variants described in this Certificate was given in the following Memoranda of Approval:

No 60 dated 28th April, 1967. No 73 dated 15th June, 1967. No 135 dated 9th September, 1968.







Lever and Indicating Mechanism

Weighing Mechanism

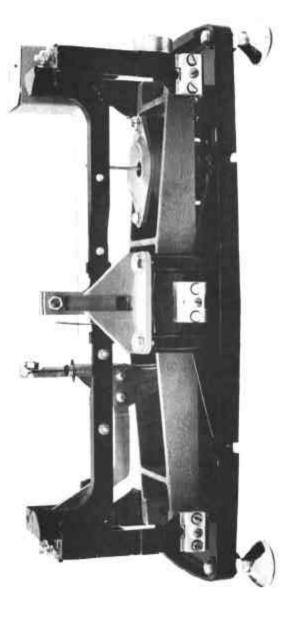
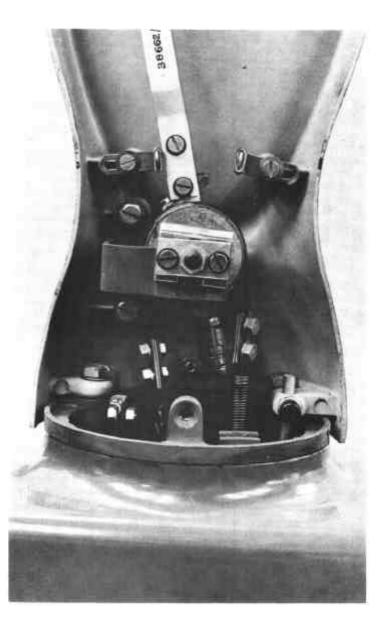


FIGURE 6/4A/3 - 3

21/5/69



Indicating Mechanism

21/5/69



FIGURE 6/4A/3 - 5

FIGURE 5/4A/3 - 6

0 пент **30**9 20 9 CORRECT WEIGHT 9 HEANY 309 20 0

The Chart - Variant 1