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CERTIFICATE OF APPROVAL No 6/4D/50 CANCELLED 0 1

VARIATION No 1

This is to certify that the following modification of the patterns of the

Hobart Weighing Instrument Model 3000

approved in Certificate No 6/4D/50 dated 19 December 1974

submitted by The Hobart Manufacturing Co. Pty Ltd,
38 Hilly Street,
Mortlake, New South Wales, 2137,

has been approved under the Weights and Measures (Patterns of Instruments) Regulations as being suitable for use for trade.

Date of Approval: 28 July 1976

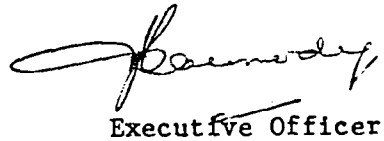
The approved modification, described in Technical Schedule No 6/4D/50 - Variation No 1 and in drawings and specifications lodged with the Commission, provides for a capacity of 9,995 kg by 0,005-kg graduations.

The approval is subject to review on or after 31 December 1977.

The approval of the 5-kg by 0,002-kg graduation instrument given in Certificate No 6/4D/50 dated 19 December 1974 will expire on 31 December 1977 as the scale markings on the optical chart do not comply with the recommended practice and cannot be denominated in one system of units.

All instruments conforming to this approval shall be marked with the approval number "NSC No 6/4D/50".

Signed



Executive Officer

2/9/76

CANCELLED

NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 6/4D/50

Pattern: Hobart 3000 Weighing Instrument

Submittor: The Hobart Manufacturing Co. Pty Ltd,
38 Hilly Street,
Mortlake, New South Wales, 2137.

Date of Approval: 19 December 1974

Condition(s) of Approval:

All instruments conforming to this approval shall be marked "NSC No 6/4D/50".

Description:

The pattern (see Figure 1) is for a price-computing ticket-printing pre-packing counter machine of capacity 5 kg by 0,002-kg increments with a maximum additive tare effect of 0,10 kg. It comprises a weighing unit, computer unit, and ticket-printing unit.

The weighing mechanism illustrated in Figures 2, 3 and 4 is a two-lever system with a spring-resistant mechanism. A transparent graticule marked with a scale for optical projection and a digital code is driven from the nose-end of the main lever by a rack and pinion. The scale, which is marked from minus 100 to zero by increments of 2 and from zero to plus 5 by 0,002 increments, is projected on to a ground-glass screen on the front of the instrument. This indication is marked "not approved for use for trade".

A taring device acting on the spring resistant (see Figures 2 and 4) is operated by a knob on the front of the weighing unit.

The 2500-increment digital code on the transparent graticule is projected on to a set of photocells which convert the displacement of the graticule into a coded weight signal (see Figure 4).

The total price is calculated in the computer unit from the weight signal and the unit-price signal supplied from the unit-price setting knobs on the ticket-printing unit. The weight and total price are indicated digitally on the ticket-printing unit (see Figure 5) and a ticket is printed (see Figure 6) when the label-ejection lever is pressed. The ticket printer and indicator are normally suppressed for weights of less than 0,020 kg. A start switch (see Figure 5) allows weight of less than 0,020 kg to be printed and indicated. The unit-price range is 1 c/kg to $9,99/kg in 1-c increments and the total price is computed to a maximum of $49,95.

The weighing unit is fitted with four adjustable levelling feet and a level indicator marked "instrument incorrect if not truly level".

The instrument is marked "not for retail counter use".

The approval includes the instrument being of capacity 25 lb by 0,01-lb increments with a maximum additive tare effect of 0,5 lb. In this case the optically projected scale is marked from minus 50 to zero by increments of 1 and from zero to plus 25 by increments of 0,01. A sample ticket is illustrated in Figure 7.

Special Tests:

1. Level Sensitivity — When the instrument is tilted so that the bubble in the level indicator moves 2 mm, the zero shall not change by more than 2 graduations, and when zero is reset in the tilted position the instrument shall satisfy the weighing accuracy specification, that is, ± ½ graduation for the first 500 graduations, ± 1 graduation for graduations over 500 and less than 2000, and ± 1½ graduations over 2000 graduations.

2. Price-computing Accuracy — The indications and printing of weight, unit price, and total price, as listed in Tables 1 and 2, will indicate that the price-computing and weight circuits are functioning correctly. The exact figures should be indicated as rounding is effected within the computer.

TABLE 1

Indicated weight kg	Price per kg $	Total price $
0	0	0
0,002	9,99	00,02
0,004	9,98	00,04
0,006	9,97	00,06
0,008	9,96	00,08
0,01	9,95	00,10
0,02	9,94	00,20
0,03	9,93	00,30
0,04	9,92	00,40
0,05	9,91	00,50
0,06	0,91	00,05
0,07	1,90	00,13
0,08	2,80	00,22
0,09	3,80	00,34
0,10	4,11	00,41
0,20	5,80	01,16
0,30	6,80	02,04
0,40	7,80	03,12
0,50	8,80	04,40
0,60	8,70	05,22
0,70	8,60	06,02
0,80	9,60	07,68
0,90	9,50	08,55
1,00	9,49	09,49
1,50	9,30	13,95
2,00	9,20	18,40
2,50	9,10	22,75
3,00	9,99	29,97
3,50	9,70	33,95
4,00	9,80	39,20
4,50	9,96	44,82
5,00	9,99	49,95

Note: To print and indicate weight below 0,020 kg the start switch must be operated.

Test Specification — Price-computing 5 kg by 0,002-kg Instrument

TABLE 2

Indicated weight lb	Price per lb $	Total price $
0	0	0
0,01	9,99	00,10
0,02	9,98	00,20
0,03	9,97	00,30
0,04	9,96	00,40
0,05	9,95	00,50
0,06	9,94	00,60
0,07	9,92	00,69
0,08	9,91	00,79
0,09	1,93	00,17
0,1	2,89	00,29
0,2	3,89	00,78
0,3	4,90	1,47
0,4	5,79	2,32
0,5	6,62	3,31
0,6	7,65	4,59
0,7	7,59	5,31
0,8	7,45	5,96
0,9	8,16	7,34
1,0	8,84	8,84
2,0	8,35	16,70
3,0	8,25	24,75
4,0	8,17	32,68
5,0	9,20	46,00
6,0	9,40	56,40
7,0	9,55	66,85
8,0	9,60	76,80
9,0	9,77	87,93
10,0	9,85	98,50
20,0	4,99	99,80
25,0	3,99	99,75

Note: To print and indicate weight below 0,1 lb the start switch must be operated.

Test Specification — Price-computing 25 lb by 0,01-lb Instrument

TABLE 3

Indicated weight kg	Unit price $	Total price $
0,000	0,00	00,00
0,100	9,99	01,00
0,110	8,98	00,99
0,120	7,97	00,96
0,130	6,90	00,90
0,140	5,90	00,83
0,150	4,95	00,74
0,160	3,80	00,61
0,170	2,80	00,48
0,180	1,80	00,32
0,190	0,80	00,15
0,200	5,71	01,14
0,300	7,62	02,29
0,400	7,53	03,01
0,500	8,44	04,22
0,600	9,34	05,60
0,700	9,20	06,44
0,800	9,16	07,33
0,900	9,07	08,16
1,000	9,58	09,58
2,000	9,69	19,38
3,000	9,79	29,37
4,000	9,89	39,56
5,000	9,99	49,95
6,000	9,99	59,94
7,000	9,99	69,93
8,000	9,99	79,92
9,000	9,99	89,91
9,995	9,99	99,85

Test Procedure — 10 kg by 0,005-kg Instrument

NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 6/4D/50

VARIATION No 1

Pattern: Hobart Weighing Instrument Model 3000

Submittor: The Hobart Manufacturing Co. Pty Ltd,
38 Hilly Street,
Mortlake, New South Wales, 2137.

Date of Approval of Variation: 28 July 1976

The modification described in this Schedule applies to the patterns described in Technical Schedule No 6/4D/50 dated 29 January 1975.

All instruments conforming to this approval shall be marked "NSC No 6/4D/50".

Description:

The approved modification provides for the capacity of the pre-packing counter machine to be 9,995 kg by 0,005-kg graduations with a maximum additive tare of 0,250 kg. The digital indicator and ticket printer are suppressed for weights of less than 0,050 kg. A start switch allows weight of less than 0,050 kg to be printed and indicated. The unit-price range is 1 c/kg to $9,99/kg in 1-c increments and the total price is computed to a maximum of $99,85 in 1-c increments.

An analogue scale* on the weighing unit is marked from minus 250 to zero by increments of 5 and from zero to plus 10 by 0,005 increments. This indicator is marked "not approved for use for trade" (see Figure 8). The weighing unit is fitted with a level indicator and four adjustable feet. Adjacent to the level indicator is a notice advising that the instrument must be level when in use.

A light marked "tare" on the weighing unit is illuminated whenever a tare value greater than 0,25 d_d is selected.

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* This scale provides a zero indicator.

The instrument is marked adjacent to the weight reading face -

(III)

Max	=	9,995 kg
Min	=	0,100 kg
$d_d = e$	=	0,005 kg
T	=	+ 0,250 kg

and "not for retail counter use" (see Figure 9).

Special Tests:

1. Level Sensitivity - When the instrument is tilted so that the bubble in the level indicator moves 2 mm, the zero should not change by more than two graduations, and when zero is reset in the tilted position the instrument should satisfy the weighing-accuracy specification, that is, $\pm$ ½ graduation for the first 500 graduations, $\pm$ 1 graduation for graduations over 500 and up to 2000, and $\pm$ 1½ graduations over 2000 graduations.

2. Price-computing Accuracy - The indications and printing of weight, unit price and total price, as listed in Table 3, will indicate that the price-computing and weight circuit are functioning correctly. The exact figures should be indicated as rounding is effected within the computer.

3. Tare Light - The tare light should illuminate when any tare value greater than 0,25 d_d is selected.

NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 6/4D/50

VARIATION No 2

Pattern: Hobart Weighing Instrument Model 3000

Submittor: The Hobart Manufacturing Co. Pty Ltd,
38 Hilly Street,
Mortlake, New South Wales, 2137.

Date of Approval of Variation: 30 November 1978

The variant described in this Schedule applies to the patterns described in Technical Schedule No 6/4D/50 dated 29 January 1975 and Technical Schedule No 6/4D/50 - Variation No 1 dated 2 September 1976.

This variation is limited to instruments with label printer Serial Nos:

15.070.044	15.098.894
15.076.477	15.108.606
15.076.478	15.108.607
15.076.479	15.108.608
15.083.097	960.364.733
15.098.891	960.365.455
15.098.892	

All instruments conforming to this approval shall be marked "NSC No 6/4D/50".

Description:

The label printer without mass and price indicators (see Figure 10).

A sample label is illustrated in Figure 11.

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FIGURE 6/4D/50 - 1

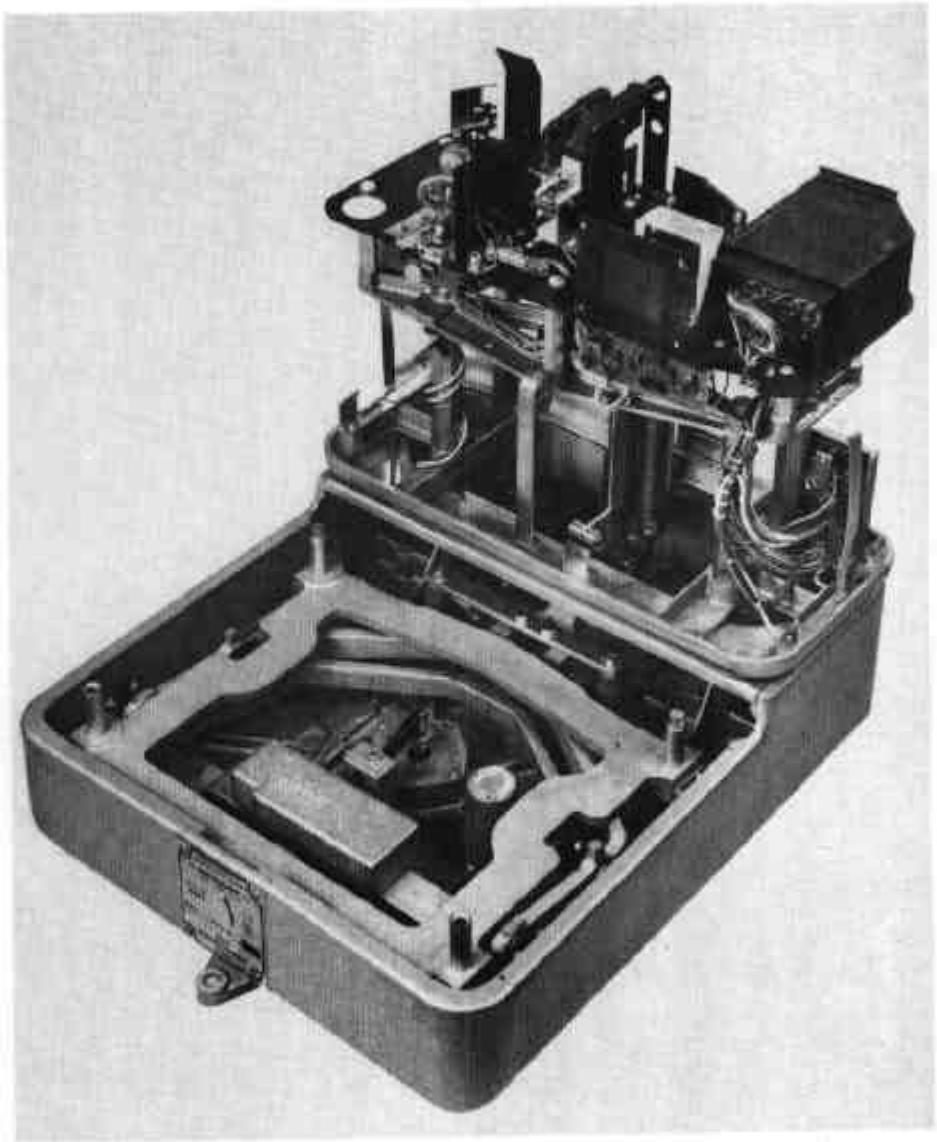
Hobart 3000

FIGURE 6/4D/50 - 2

Weighing Unit

29/1/75

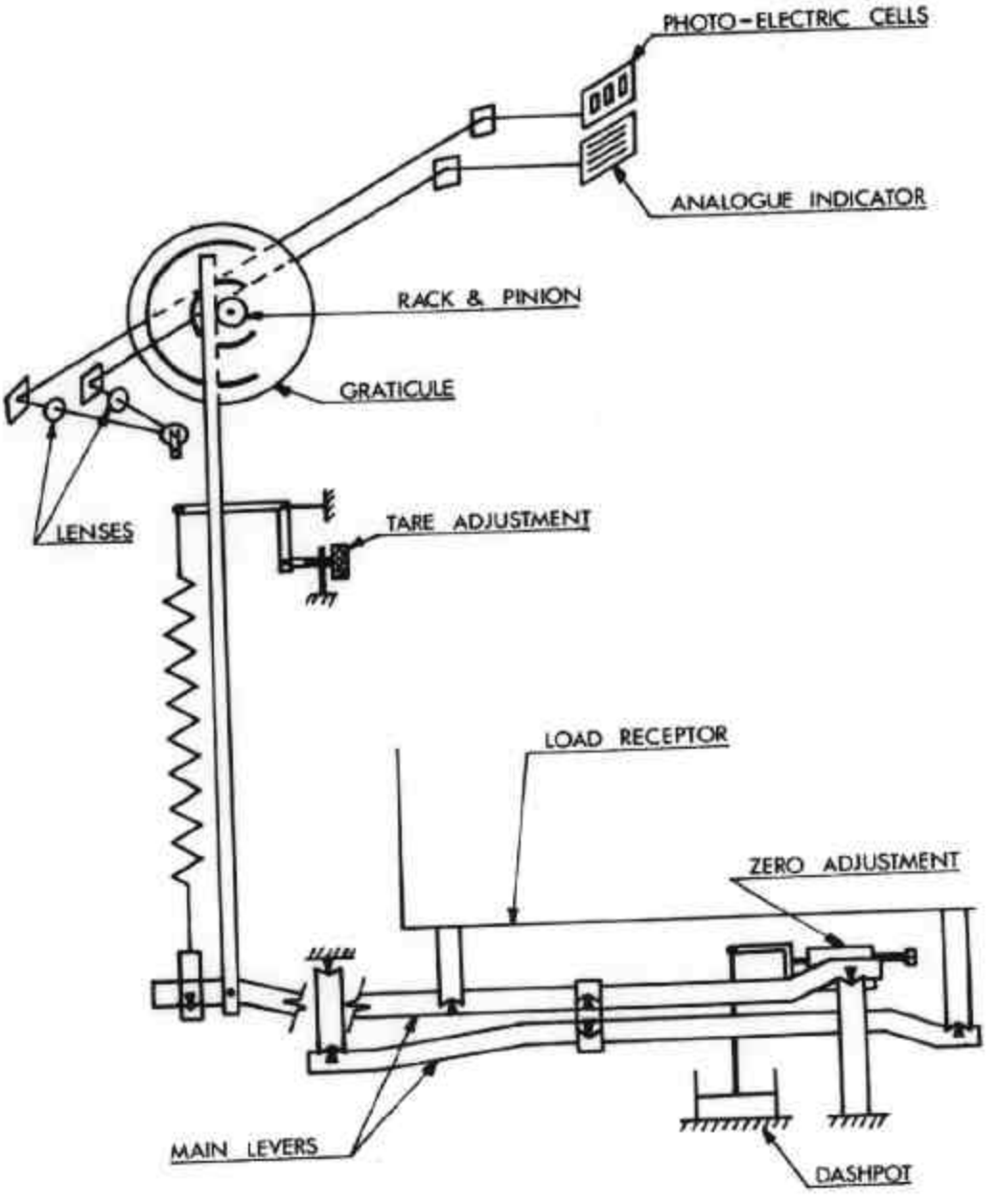
FIGURE 6/4D/50 - 3



Weighing Unit

29/1/75

FIGURE 6/4D/50 - 4



Levers and Optical-projection System — Schematic Diagram

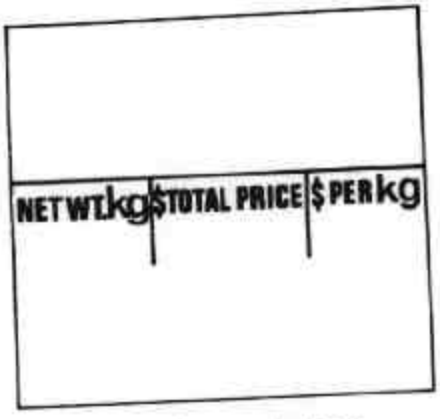
29/1/75

FIGURE 6/4D/50 - 5

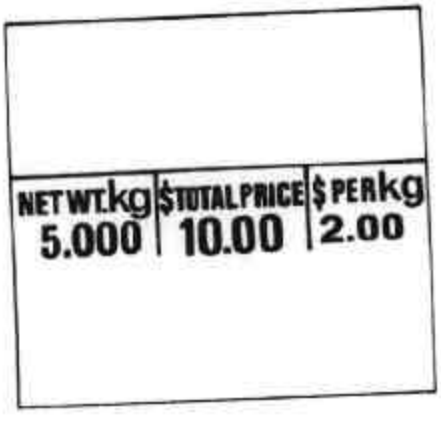
Ticket-printing Unit

29/1/75

FIGURE 6/4D/50 - 6



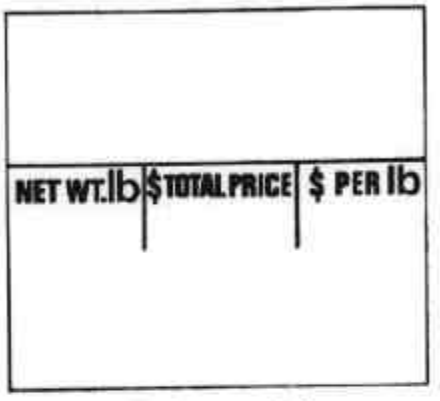
(a) Before printing



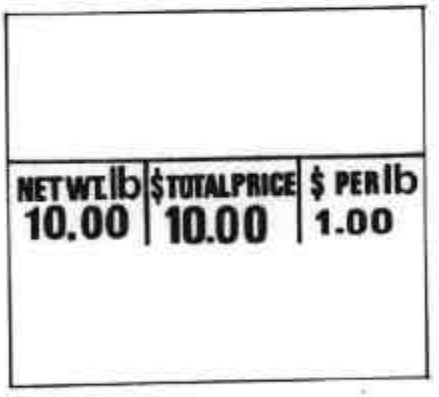
(b) After printing

Sample Ticket (actual size)

FIGURE 6/4D/50 - 7



(a) Before printing



(b) After printing

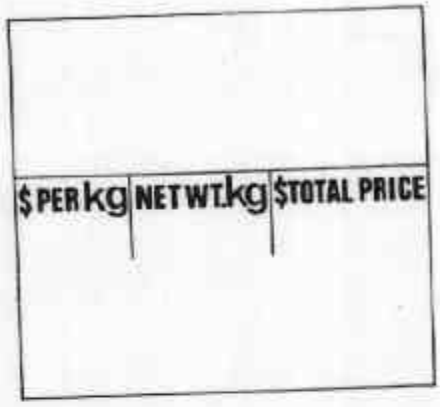
Sample Ticket (actual size)

Hobart 3000 — 9,995-kg Capacity Weighing Instrument

Hobart 3000 — 9,995-kg Capacity Ticket-printing Unit

2/9/76

Hobart 3000 Weighing Instrument
without Mass and Price Indicators



(a) Before printing

(b) After printing

Sample Tickets (actual size)

15/5/79