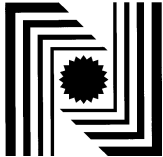


6/9C/250
24 October 2001



National Standards Commission

12 Lyonpark Road, North Ryde NSW

Cancellation

Certificate of Approval

No 6/9C/250

Issued under Regulation 60
of the
National Measurement Regulations 1999

This is to certify that the approval for use for trade granted in respect of the

A & D Mercury Model HV-150KA1 Weighing Instrument

submitted by A & D Mercury Pty Ltd
32 Dew Street
Thebarton SA 5031

has been cancelled in respect of new instruments as from 1 November 2001.

Signed by a person authorised under Regulation 60
of the National Measurement Regulations 1999 to
exercise the powers and functions of the Commission
under this Regulation.



National Standards Commission



Certificate of Approval

No 6/9C/250

Issued under Regulation 9
of the
National Measurement (Patterns of Measuring Instruments) Regulations

This is to certify that an approval for use for trade has been granted in respect of the

A & D Mercury Model HV-150KA1 Weighing Instrument

submitted by A & D Mercury Pty Ltd
 now of
 32 Dew Street
 Thebarton SA 5031.

NOTE: This Certificate relates to the suitability of the pattern of the instrument for use for trade only in respect of its metrological characteristics. This Certificate does not constitute or imply any guarantee of compliance by the manufacturer or any other person with any requirements regarding safety.

CONDITIONS OF APPROVAL

This approval becomes subject to review on 1 December 1999, and then every 5 years thereafter.

Instruments purporting to comply with this approval shall be marked NSC No 6/9C/250 and only by persons authorised by the submitter.

Auxiliary devices used with this instrument shall comply with the requirements of General Supplementary Certificate No S1/0/A.

It is the submitter's responsibility to ensure that all instruments marked with this approval number are constructed as described in the documentation lodged with the Commission and with the relevant Certificate of Approval and Technical Schedule. Failure to comply with this Condition may attract penalties under Section 19B of the National Measurement Act and may result in cancellation or withdrawal of the approval, in accordance with the Commission's Document 106.

The Commission reserves the right to examine any instrument or component of an instrument purporting to comply with this approval.

DESCRIPTIVE ADVICE

Pattern: approved 30 November 1994

- An A & D Mercury model HV-150KA1 self-indicating weighing instrument of 150 kg maximum capacity.

Variant: approved 30 November 1994

1. Model HV-60KA1 of 60 kg maximum capacity.

Technical Schedule No 6/9C/250 describes the pattern and variant 1.

Variant: approved 30 October 1995

2. Model HV-30KA2 of 30 kg maximum capacity.

Technical Schedule No 6/9C/250 Variation No 1 describes variant 2.

Variant: approved 18 February 1997

3. Any basework of this approval with a compatible Commission-approved indicator.

Technical Schedule No 6/9C/250 Variation No 2 describes variant 3.

FILING ADVICE

Certificate of Approval No 6/9C/250 dated 23 December 1995 is superseded by this Certificate, and may be destroyed.

The documentation for this approval now comprises:

- Certificate of Approval No 6/9C/250 dated 16 May 1996
- Technical Schedule No 6/9C/250 dated 10 March 1995 (incl. Test Procedure)
- Technical Schedule No 6/9C/250 Variation No 1 dated 23 December 1995 (incl. Notification of Change)
- Technical Schedule No 6/9C/250 Variation No 2 dated 16 May 1997 (incl. Table 1)
- Figures 1 to 2 dated 10 March 1995

Signed and sealed by a person authorised under Regulation 9 of the National Measurement (Patterns of Measuring Instruments) Regulations to exercise the powers and functions of the Commission under this Regulation.



National Standards Commission

TECHNICAL SCHEDULE No 6/9C/250

Pattern: A & D Mercury Model HV-150KA1 Weighing Instrument.

Submittor: A & D Mercury Pty Ltd
5/49 Derby Street
Silverwater NSW 2141.

1. Description of Pattern

An A & D Mercury model HV-150KA1 self-indicating weighing instrument (Figure 1) of 150 kg maximum capacity with a verification scale interval of 0.05 kg.

1.1 Basework

The A & D Mercury model HV-150KA1 basework (Figure 1) has the platform directly supported by a single load cell.

1.2 Load Cell

An A & D model LC4103-K150 load cell of 150 kg capacity is used and mounted as shown in Figure 2.

1.3 Indicator

An A & D model HV digital indicator is used. The indicator may be fitted with input/output sockets for the connection of auxiliary and/or peripheral devices.

1.4 Markings

Instruments are marked with the following data, together in one location:

Manufacturer's name or mark	
Serial number	
NSC approval number	NSC No 6/9C/250
Accuracy class	(III)
Maximum capacity	Max kg *
Minimum capacity	Min kg *
Verification scale interval	e = kg *

* These are repeated adjacent to each reading face.

1.5 Verification/Certification Provision

Provision is made for a verification/certification mark to be applied.

1.6 Sealing Provision

Provision is made for the calibration adjustments to be sealed.

2. Description of Variant 1

An A & D Mercury model HV-60KA1 self-indicating weighing instrument of 60 kg maximum capacity with a verification scale interval of 0.02 kg.

An A & D model LC4103-K060 load cell of 60 kg capacity is used and mounted in the same manner as the pattern as shown in Figure 2.

TEST PROCEDURE

Instruments should be tested in conjunction with any tests specified in the approval documentation for the indicator used, and in accordance with any relevant tests specified in the Inspector's Handbook.

Maximum Permissible Errors at Verification/Certification

The maximum permissible errors for increasing and decreasing loads, expressed in terms of verification scale interval (e), with the instrument adjusted to zero within $\pm 0.25e$ at no load, are:

- $\pm 0.5e$ for loads from 0 to $500e$;
- $\pm 1.0e$ for loads over $500e$ up to $2000e$; and
- $\pm 1.5e$ for loads over $2000e$.



National Standards Commission

TECHNICAL SCHEDULE No 6/9C/250

VARIATION No 1

Pattern: A & D Mercury Model HV-150KA1 Weighing Instrument.

Submitter: A & D Mercury Pty Ltd
5/49 Derby Street
Silverwater NSW 2141.

1. Description of Variant 2

An A & D Mercury model HV-30KA2 self-indicating weighing instrument of 30 kg maximum capacity with a verification scale interval of 0.01 kg.

An A & D model LC4103-K030 or model 30K-2 load cell of 30 kg capacity is used and mounted in the same manner as the pattern as shown in Figure 2.

NOTIFICATION OF CHANGE

In Technical Schedule No 6/9C/250 dated 10 March 1995, clauses **1.2 Load Cell** and **2. Description of Variant 1** should be amended, and an additional clause **1.7 Tare** should be added, as follows:

1.2 Load Cell

An A & D model LC4103-K150 or model 150K-1 load cell ...

1.7 Tare

Instruments may be fitted with a semi-automatic subtractive tare device of up to maximum capacity.

2. Description of Variant 1

An A & D model LC4103-K060 or model 60K-1 load cell ...

National Standards Commission

TECHNICAL SCHEDULE No 6/9C/250

VARIATION No 2

Pattern: A & D Mercury Model HV-150KA1 Weighing Instrument.

Submittor: A & D Mercury Pty Ltd
32 Dew Street
Thebarton SA 5031.

1. Description of Variant 3

Any basework of this approval, as listed in Table 1, connected to a compatible Commission-approved single-interval indicator provided that a satisfactory analysis report (using the calculations included in clauses 6.3 to 6.6 of General Certificate of Approval No 6B/0 dated 13 March 1992) is completed.

The limiting characteristics of the baseworks are given in Table 1.

TABLE 1

Model: (*)	HV-30KB2	HV-60KA1	HV-150KA1
Maximum capacity	30 kg	60 kg	150 kg
Maximum number of verification scale intervals	3000	3000	3000
Minimum value of verification scale interval	0.01 kg	0.02 kg	0.05 kg
Maximum load receptor (mm)	326x420	390x530	390x530
Load cells:			
Number of load cells	1	1	1
Output rating (nominal)	1 mV/V	1 mV/V	1 mV/V
Input impedance (nominal)	400 Ω	400 Ω	400 Ω
Supply voltage (AC or DC)	12 V	12 V	12 V
Cable length (± 0.1 m)	1.5 m	2 m	2 m
Number of leads (plus shield)	4	4	4

(*) Baseworks may also be known as model FV-##### as appropriate.

Approved Models and Capacities of Baseworks



National Standards Commission

Notification of Change

Certificate of Approval No 6/9C/250

Change No 1

The following change is made to the approval documentation for the

A & D Mercury Model HV-150KA1 Weighing Instrument

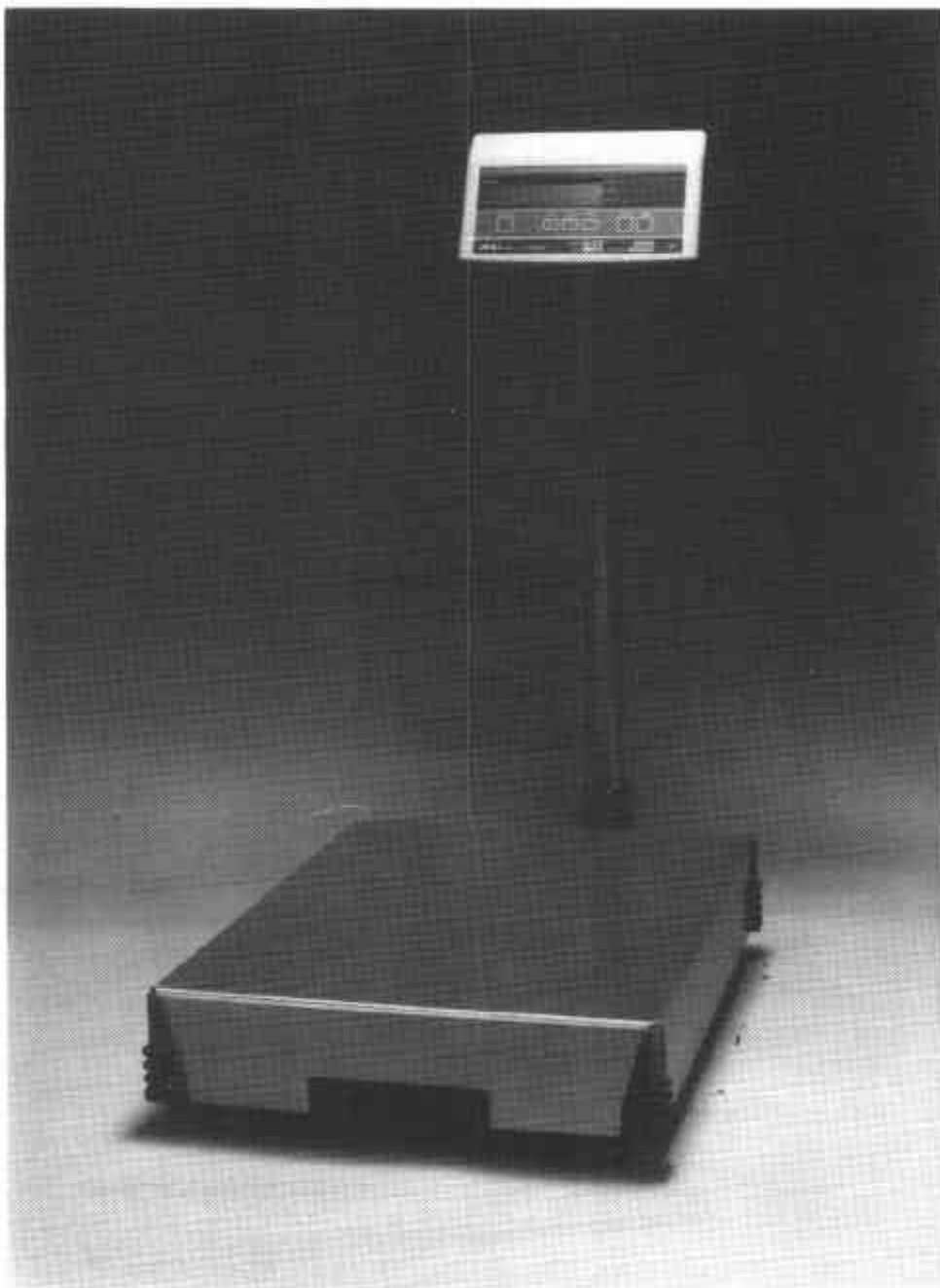
submitted by A & D Mercury Pty Ltd
32 Dew Street
Thebarton SA 5031.

In Technical Schedule No 6/9C/250 Variation No 1 dated 23 December 1995, the second paragraph of clause **1. Description of Variant 2** should be amended to read:

“An A & D model LC4102-K030 load cell of 30 kg capacity is used and mounted in the same manner as the pattern as shown in Figure 2.”

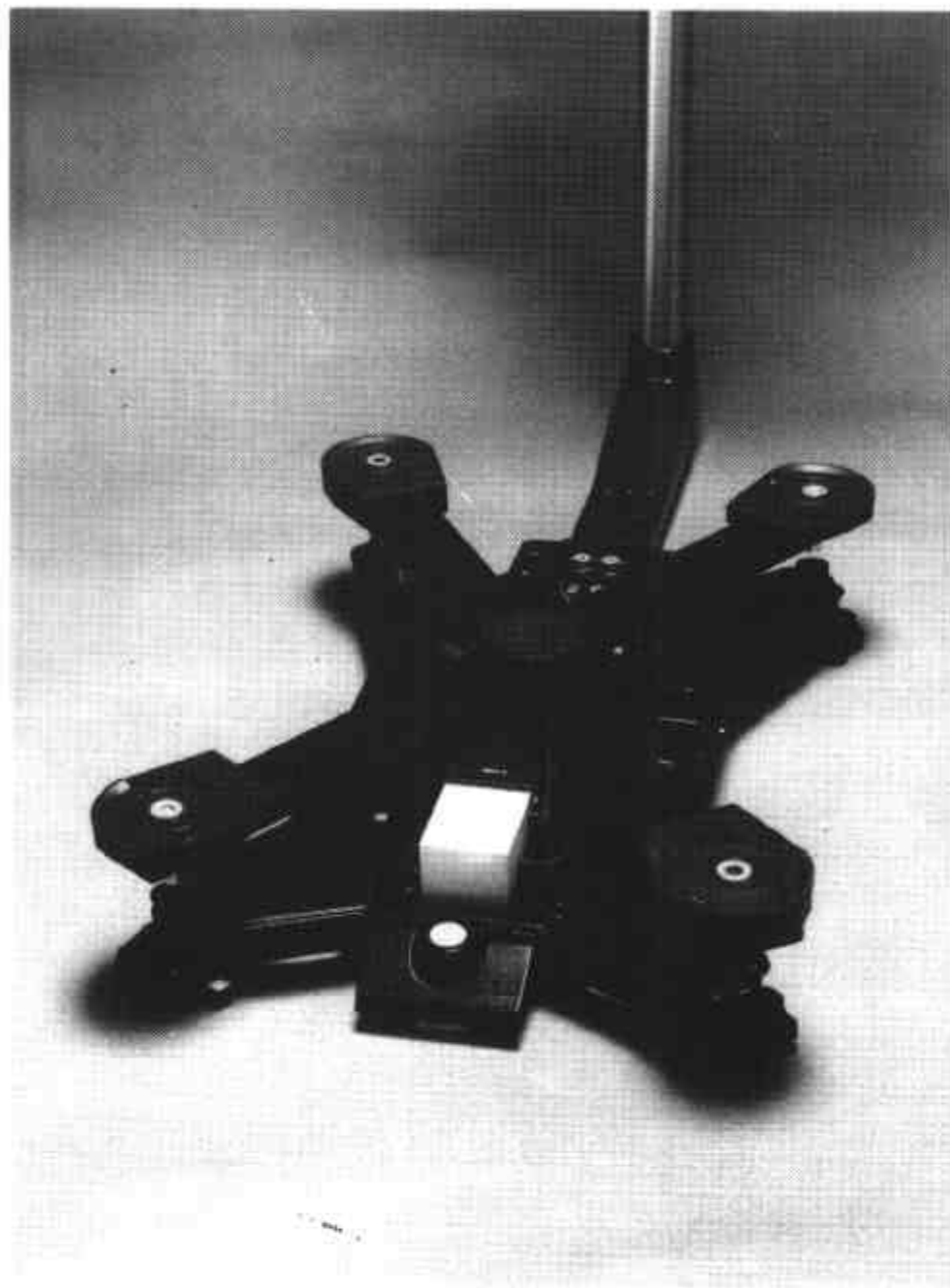
Signed and sealed by a person authorised under Regulation 9 of the National Measurement (Patterns of Measuring Instruments) Regulations to exercise the powers and functions of the Commission under this Regulation.

FIGURE 6/9C/250 - 1



A & D Mercury Model HV-150KA1 Weighing Instrument

FIGURE 6/9C/250 - 2



Typical HV Series Basework