

National Standards Commission



Certificate of Approval

No 6/4D/236A

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

Teraoka Seiko Model SM-60A Weighing Instrument

submitted by W W Wedderburn Pty Ltd
90 Parramatta Road
Summer Hill NSW 2130.

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.

This Certificate is issued upon completion of a review of NSC approval No 6/4D/236.

CONDITIONS OF APPROVAL

This approval is subject to review on or after 1 May 2001.
This approval expires in respect of new instruments on 1 May 2002.

Instruments purporting to comply with this approval shall be marked NSC No 6/4D/236A and only by persons authorised by the submittor.

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.

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

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

DESCRIPTIVE ADVICE

Pattern: approved 12 April 1996

- A Teraoka Seiko model SM-60A self-indicating multi-interval price-computing weighing instrument with a maximum capacity of 15 kg.

Variants: approved 12 April 1996

1. As a single-interval weighing instrument.
2. With an additional PLU keyboard and known as a model SM-60B.
3. With instruments connected in a network.

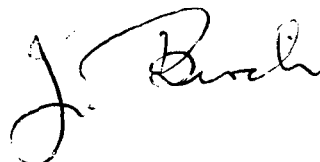
Technical Schedule No 6/4D/236A describes the pattern and variants 1 to 3.

FILING ADVICE

The documentation for this approval comprises:

- Certificate of Approval No 6/4D/236A dated 31 May 1996
- Technical Schedule No 6/4D/236A dated 31 May 1996 (incl. Test Procedure)
- Figure 1 dated 31 May 1996

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 6/4D/236A

Pattern: Teraoka Seiko Model SM-60A Weighing Instrument.

Submitter: W W Wedderburn Pty Ltd
90 Parramatta Road
Summer Hill NSW 2130

1. Description of Pattern

A Teraoka Seiko model SM-60A self-indicating multi-interval price-computing weighing instrument (Figure 1) with a verification scale interval (e_1) of 0.002 kg up to 6 kg and with a verification scale interval (e_2) of 0.005 kg from 6 kg up to the maximum capacity of 15 kg. Instruments have unit price to \$999.99/kg, price to \$9999.99, a price-look-up (PLU) facility, and may be fitted with output sockets for the connection of peripheral and/or auxiliary devices.

1.1 Zero

Zero is automatically corrected to within $\pm 0.25e_1$ whenever power is applied and whenever the instrument comes to rest within $0.5e_1$ of zero.

The instrument has an initial zero-setting device with a nominal range of not more than 20% of the maximum capacity of the instrument.

1.2 Tare

A semi-automatic subtractive taring device of up to 5.998 kg capacity may be fitted.

1.3 Display Check

A display check is initiated whenever power is applied.

1.4 Levelling

The instrument is provided with adjustable feet and a level indicator.

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 by means of a destructible label placed over either a case retaining screw or the join of the casing halves.

1.7 Markings

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

Manufacturer's name or mark	
Serial number	
NSC approval number	NSC No 6/4D/236A
Accuracy class	III
Low range	
Maximum capacity	Max kg *
Verification scale interval	e = kg *
High range	
Maximum capacity	Max kg *
Verification scale interval	e = kg *
Minimum capacity	Min kg *
Maximum subtractive tare	T = - kg

* Repeated adjacent to each reading face.

2. Description of Variants

2.1 Variant 1

As a single-interval instrument of 15 kg maximum capacity and with a verification scale interval of 0.005 kg. A semi-automatic subtractive taring device of up to 0.745 kg may be fitted.

2.2 Variant 2

The model SM-60A with an additional price-look-up (PLU) selection keyboard and print button located adjacent to the instrument display, and then known as a model SM-60B. When used for self-service operation all other buttons are covered and hence the tare facility (if fitted) is not operational.

2.3 Variant 3

A number of SM-60A and/or SM-60B instruments may be connected in a network to utilise common PLU data and to allow the communication of other management information.

Note to Inspectors: (for all networks)

The network may be connected to a computer for the downloading of PLU data and for the communication of other management information.

The weighing and price-computing functions of each weighing instrument in the network are independent, and the removal, repair or replacement of a particular instrument does not necessitate reverification of any other instrument in the network.

TEST PROCEDURE

Instruments should be tested in conjunction 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 $2000e$.

Apply e_1 for zero adjustment and for maximum permissible errors apply e_1, e_2, \dots , as applicable for the load.

FIGURE 6/4D/236A - 1



Teraoka Seiko Model SM-60A Weighing Instrument