



6/4C/60
10/8/89

NATIONAL STANDARDS COMMISSION

NATIONAL MEASUREMENT (PATTERNS OF INSTRUMENTS) REGULATIONS

REGULATION 9

CERTIFICATE OF APPROVAL No 6/4C/60

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

Teraoka Seiko Model DS-460 Weighing Instrument

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

CONDITIONS OF APPROVAL

This approval is subject to review on or after 1/10/93.
This approval expires in respect of new instruments on 1/10/94.

Instruments purporting to comply with this approval shall be marked NSC No 6/4C/60.

This approval may be withdrawn if instruments are constructed other than in accordance with the drawings and specifications lodged with the Commission.

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

The values of the performance criteria (maximum number of scale intervals etc.) applicable to the instrument shall be within the limits specified in this approval and in any approval documentation for the components, where they are approved separately.

Signed

Executive Director

Descriptive Advice

Pattern: approved 28/9/88

- A dual-interval self-indicating weighing instrument of 6 kg maximum capacity.

Variants: approved 28/9/88

1. Of 15 kg maximum capacity.
2. With a remote basework.

Technical Schedule No 6/4C/60 describes the pattern and variants 1 and 2.
...../2

Variant: approved 6/6/89

3. Of 600 g maximum capacity.

Technical Schedule No 6/4C/60 Variation No 1 describes variant 3.

Filling Advice

Certificate of Approval No 6/4C/60 dated 8/12/88 is superseded by this Certificate, and may be destroyed. The documentation for this approval now comprises:

Certificate of Approval No 6/4C/60 dated 10/8/89
Technical Schedule No 6/4C/60 dated 8/12/88 (Incl. Test Procedure)
Technical Schedule No 6/4C/60 Variation No 1 dated 10/8/89
Figure 1 dated 8/12/88



NATIONAL STANDARDS COMMISSION

6/4C/60
8/12/88

TECHNICAL SCHEDULE No 6/4C/60

Pattern: Teraoka Selko Model DS-460 Weighing Instrument.

Submittor: J W Wedderburn & Sons Pty Ltd
90 Parramatta Road
Summer Hill NSW 2130.

1. Description of Pattern

A dual-interval self-indicating weighing instrument (Figure 1) with a verification scale interval of 0.001 kg up to 3 kg and with a verification scale interval of 0.002 kg from 3 kg up to the maximum capacity of 6 kg. The instrument may be fitted with output sockets for the connection of peripheral and/or auxiliary devices.

1.1 Zero

Zero is automatically corrected to within $\pm 0.25e$ whenever the instrument comes to rest within $0.5e$ of zero. If the instrument comes to rest outside that range but within the zero reset range, zero may be reset by pressing the zero button. The zero light illuminates whenever zero is within $\pm 0.25e$.

1.2 Display Check

A display check is initiated whenever power is applied.

1.3 Tare

A semi-automatic and/or a digital subtractive taring device, each of up to maximum capacity may be fitted.

1.4 Set Point

A set point facility may be fitted with an associated UNDER/OVER display.

1.5 Markings

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

Manufacturer's name or mark	
Serial number	
NSC approval number	NSC No 6/4C/60
Accuracy class	Ⓜ
Maximum capacity	Maxkg *
Minimum capacity	Minkg *
Low range: Maximum capacity	Maxkg *
Verification scale interval	e = d =kg *
High range: Maximum capacity	Maxkg *
Verification scale interval	e = d =kg *
Maximum subtractive tare	T = -kg

In addition, instruments are marked NOT FOR RETAIL COUNTER USE, NOT FOR TRADING DIRECT WITH THE PUBLIC, or similar wording.

* Repeated in the vicinity of each reading face.

1.6 Levelling

The instrument is provided with adjustable feet and adjacent to the level indicator is a notice advising that the instrument must be level when in use.

1.7 Verification Provision

Provision is made for a verification mark to be applied.

2. Description of Variants

2.1 Variant 1

With a verification scale interval of 0.002 kg up to 6 kg and with a verification scale interval of 0.005 kg from 6 kg up to the maximum capacity of 15 kg.

2.2 Variant 2

With a remote Teraoka Seiko model SA-15 base work of 15 kg capacity, in which case the integral weighing unit is disabled.

TEST PROCEDURE No 6/4C/60

All load applications to the instrument should be in accordance with the Commission's recommended testing procedure for the elimination of rounding error as set out in Document 104. The maximum permissible error applicable is that for the range in which the measurement is made, using the scale interval of the range.

The maximum permissible errors are:

- $\pm 0.5e$ for loads between 0 and 500e;
- $\pm 1.0e$ for loads between 501e and 2000e; and
- $\pm 1.5e$ for loads above 2000e.

1. Zero Range

The maximum range of operation of the zero setting device should not exceed 4% of the maximum capacity. The device shall be capable of both negative and positive adjustments of at least one quarter of the zero adjustment range. With zero balance indicated apply a load of, say, 3.5% of maximum capacity and press the zero button; the instrument should not rezero.

2. Load Test (Dual-Interval Instruments)

Test loads are to be applied to the instrument in not less than 6 steps increasing to maximum capacity, followed by decreasing loads in not less than 6 steps to zero load. The loads should be selected such that there are 3 approximately equal steps in each range, but avoiding the changeover point of the ranges.



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TECHNICAL SCHEDULE No 6/4C/60

VARIATION No 1

Pattern: Teraoka Selko Model DS-460 Weighing Instrument.

Submittor: J W Wedderburn & Sons Pty Ltd
90 Parramatta Road
Summer Hill NSW 2130.

1. Description of Variant 3

A dual-interval self-indicating weighing instrument with a verification scale interval of 0.1 g up to 300 g and with a verification scale interval of 0.2 g from 300 g up to the maximum capacity of 600 g.

National Standards Commission



NOTIFICATION OF CHANGE

CERTIFICATE OF APPROVAL No 6/4C/60

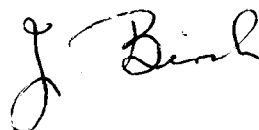
CHANGE No 1

The following changes are made to the approval documentation for the

Teraoka Seiko Model DS-460 Weighing Instrument

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

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.



In Technical Schedule No 6/4C/60 dated 8/12/88, clause 1.4 **Set Point** should be amended by adding the following:

"When the set point facility is not fitted, the instrument is known as a model DS-420."

National Standards Commission



NOTIFICATION OF CHANGE

CERTIFICATE OF APPROVAL No 6/4C/60

CHANGE No 2

The following change is made to the approval documentation for the

Teraoka Seiko Model DS-460 Weighing Instrument

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

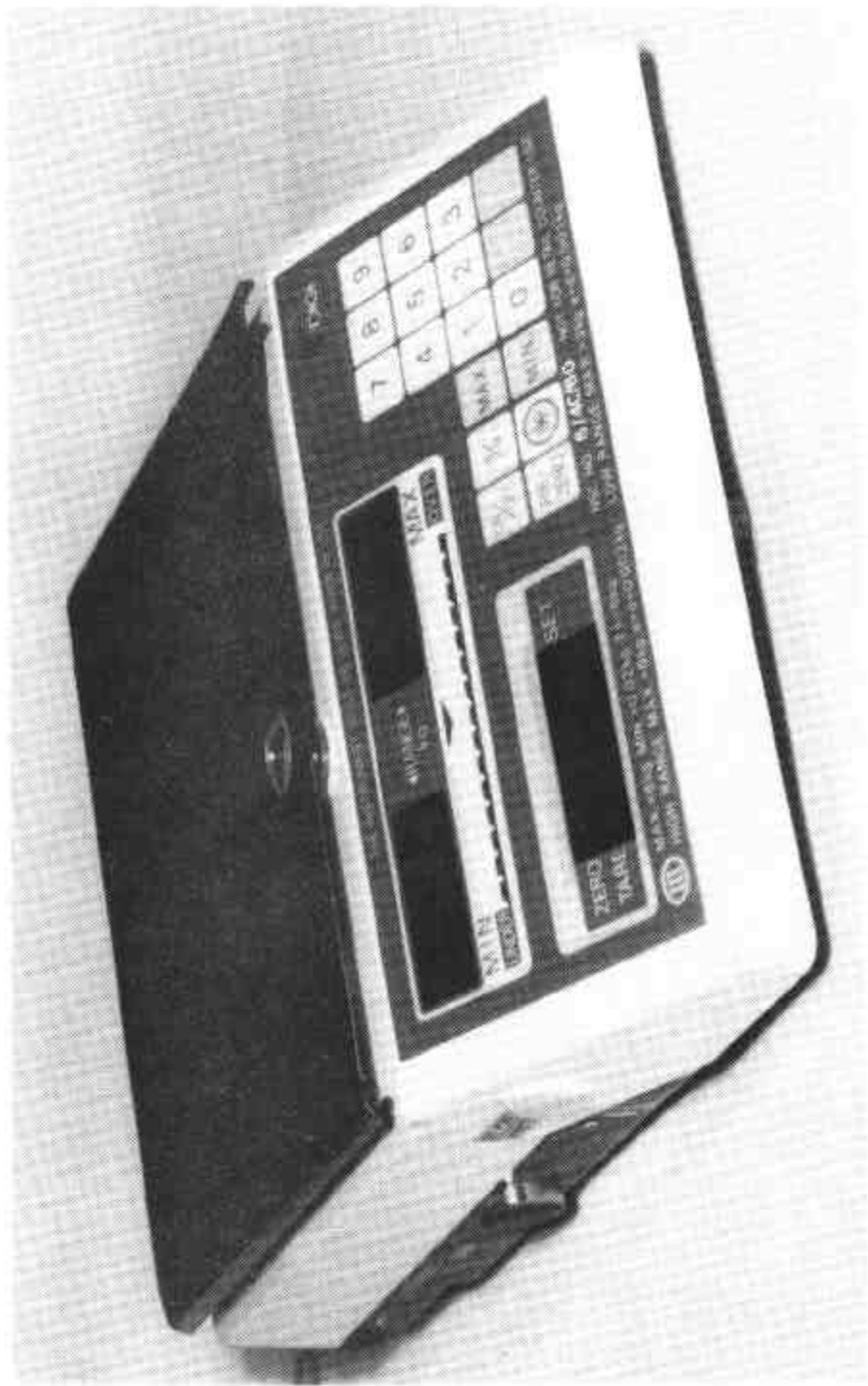
In Certificate of Approval No 6/4C/60 dated 10 August 1989, the Condition of Approval referring to the expiry of the approval should be amended to now read:

"This approval expires in respect of new instruments on 1 October 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.

A handwritten signature in black ink, appearing to read 'J. Deak'. The signature is written in a cursive style with a large initial 'J'.

FIGURE 6/4C/60 - 1



6/4C/60
8/12/88

Teraco Seiko Model DS-460