National Standards Commission



Certificate of Approval

No 6/9C/202A

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 DS-410 Weighing Instrument

submitted by WW Wedderburn Pty Ltd

90 Parramatta Road

Summer Hill NSW 2130.

This Certificate is issued upon completion of a review of NSC approval No 6/9C/202.

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.

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CONDITIONS OF APPROVAL

This approval is subject to review on or after 1/12/96. This approval expires in respect of new instruments on 1/12/97.

Instruments purporting to comply with this approval shall be marked NSC No 6/9C/202A and only by persons authorised by the submittor.

It is the submittor'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.

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

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

DESCRIPTIVE ADVICE

Pattern:

approved 25/11/91

 A Teraoka Seiko model DS-410 dual-interval weighing instrument of 150 kg maximum capacity.

Variants:

approved 25/11/91

- 1. As dual-interval instruments in certain capacities up to 60 kg.
- 2. As single-interval instruments in certain capacities up to 600 kg.

Technical Schedule No 6/9C/202A describes the pattern and variants 1 and 2.

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FILING ADVICE

The documentation for this approval comprises:

Certificate of Approval No 6/9C/202A dated 19/2/92 Technical Schedule No 6/9C/202A dated 19/2/92 (incl. Tables 1 & 2, and Test Procedure) Figures 1 and 2 dated 19/2/92



National Standards Commission

TECHNICAL SCHEDULE No 6/9C/202A

Pattern: Teraoka Seiko Model DS-410 Weighing Instrument.

Submittor: W W Wedderburn Pty Ltd

90 Parramatta Road

Summer Hill NSW 2130.

1. Description of Pattern

A Teraoka Seiko model DS-410 dual-interval weighing instrument with a verification scale interval of 0.02 kg up to 60 kg capacity and with a verification scale interval of 0.05 kg from 60 kg up to the maximum capacity of 150 kg.

The instrument may be fitted with output sockets for the connection of auxiliary and/or peripheral devices.

1.1 Basework

The basework (Figures 1 and 2) has a Teraoka model RW 150 load cell of 150 kg capacity mounted directly between the main frame and the weighing platform frame.

The load receptor has a nominal size of 415 mm x 415 mm.

1.2 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.

1.3 Indicator

A Teraoka model DS-410 digital indicator is used (Figure 1).

1.3.1 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 $\pm 0.25e$.

1.3.2 Display Check

A display check is initiated whenever power is applied and the ON/OFF button is pressed.

1.3.3 Tare

A semi-automatic subtractive taring device of up to 59.98 kg capacity may be fitted.

1.4 Verification/Certification Provision

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

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 6/9C/202A |
| Accuracy class | |
| Low range | |
| Maximum capacity | Max kg * |
| Verification scale interval | Max kg * e = d = kg * |
| High range | |
| Maximum capacity | Max kg * |
| Verification scale interval | e = d = kg * |
| Minimum capacity | Min kg * |
| Maximum subtractive tare | T = kg |

^{*} These are repeated adjacent to each reading face.

2. Description of Variants

2.1 Variant 1

As dual-interval instruments in certain capacities up to 60 kg, with the baseworks and load cells as listed in Table 1.

2.2 Variant 2

As single-interval instruments in certain capacities up to 600 kg, with the baseworks and load cells as listed in Table 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:

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

TABLE 1

| Maximum capacity | 6 kg | 15 kg | 30 kg | 60 kg |
|--|----------|----------|----------------------|--------------------------------|
| Maximum capacity - Low range | 3 kg | 6 kg | 15 kg | 30 kg |
| - High range | 6 kg | 15 kg | 30 kg | 60 kg |
| Verification scale - Low range interval - High range | 0.001 kg | 0.002 kg | 0.005 kg | 0.010 kg |
| | 0.002 kg | 0.005 kg | 0.010 kg | 0.020 kg |
| Maximum tare capacity | 2.999 kg | 5.998 kg | 9.995 kg | 29.990 kg |
| Basework models | SA | SA | SA S-DK DS-410 | S-BK S-CK S-DK DS-410 |
| Load cell model | HN6 | HN15 | RN31 (*) | RW60 |
| Load cell capacity | 6 kg | 15 kg | 30 kg | 60 kg |

^(*) Also known as a model RW 30.

Nominal basework sizes: SA (280 mm x 380 mm), S-BK (420 mm x 520 mm), S-CK (600 mm x 700 mm), S-DK (320 mm x 420 mm), DS-410 (415 mm x 415 mm).

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| ۲ | |

|) kg | y Kg Kg | S-EK | 009 | 600 kg |
|------------------|---|--------------------------------|-----------------|--------------------|
| 009 | 0.2 | Ó | AW. |)09 |
| 300 kg | 0.1 kg 300 kg | S-BK S-CK | 300 MF | 300 kg |
| | | | Œ | |
| 150 kg | 0.05 kg 99.95 kg | S-BK S-CK DS-410 | RW 150 | 150 kg |
| 60 kg | 0.02 kg 60 kg | S-BK S-CK S-DK DS-410 | RW 60 | 60 kg |
| 30 kg | 0.01 kg 30 kg | SA S-DK DS-410 | RN 31 (*) | 30 kg |
| 15 kg | 0.005 kg 9.995 kg | & A | HN15 | 15 kg |
| 6 kg | 0.002 kg 6.000 kg | SA | 9NH | 6 kg |
| Maximum capacity | verincation scale interval Max. tare capacity | Basework models | Load cell model | Load cell capacity |

(*) Also known as a model RW 30.

Nominal basework sizes: SA (280 mm \times 380 mm), S-BK (420 mm \times 520 mm), S-CK (600 mm \times 700 mm), S-DK (320 mm \times 420 mm), S-EK (600 mm \times 700 mm), DS-410 (415 mm \times 415 mm).

Approved Single-interval Models and Capacities

National Standards Commission



Notification of Change Certificate of Approval No 6/9C/202A Change No 1

The following change is made to the approval documentation for the

Teraoka Seiko Model DS-410 Weighing Instrument

submitted by W W Wedderburn Pty Ltd

90 Parramatta Road

SUMMER HILL NSW 2130.

In Certificate of Approval No 6/9C/202A dated 19 February 1992, the Condition of Approval referring to the expiry of the approval should be amended to read:

This approval expires in respect of new instruments on 1 December 1998.

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.

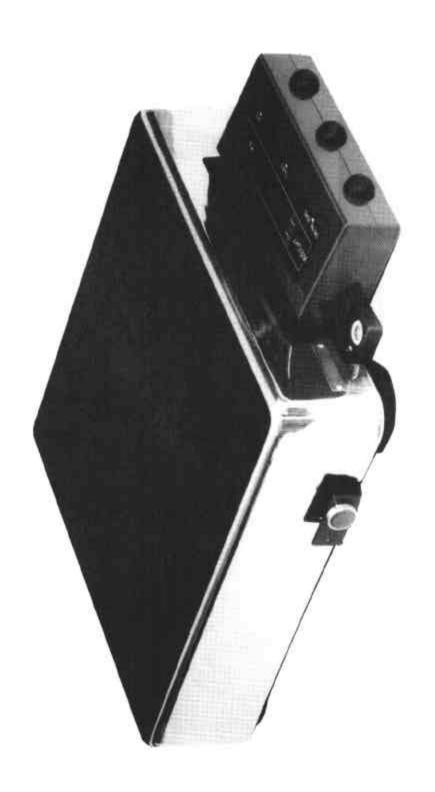
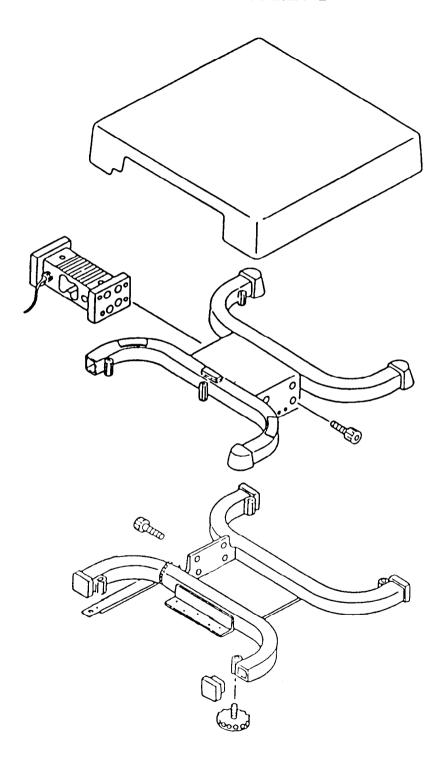


FIGURE 6/9C/202A - 1

FIGURE 6/9C/202A - 2



Typical Basework Construction