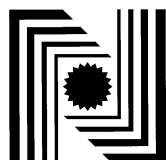


6/10B/51A
12 April 2002



National Standards Commission

12 Lyonpark Road, North Ryde NSW

Cancellation

Certificate of Approval

No 6/10B/51A

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

Modern Weighbridge Model MW4000E Weighing Instrument

submitted by Modern Weighbridge and Scale Service Pty Ltd
25 Davis Street
Wingfield SA 5013

has been cancelled in respect of new instruments as from 1 May 2002.

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 6/10B/51A

Issued under Regulation 63
of the
National Measurement Regulations 1999

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

Modern Weighbridge Model MW4000E Weighing Instrument

submitted by Modern Weighbridge and Scale Service Pty Ltd
25 Davis Street
Wingfield SA 5013.

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 October 2000, and then every 5 years thereafter.

Instruments purporting to comply with this approval shall be marked NSC No 6/10B/51A and only by persons authorised by the submitter.

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.

The pattern as approved herein or with substitute load cells and/or indicator, and in other capacities, shall comply with General Certificate No 6B/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.

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

DESCRIPTIVE ADVICE

Pattern: approved 12 September 1995

- A Modern Weighbridge model MW4000E self-indicating weighing instrument of 30 000 kg maximum capacity.

Technical Schedule No 6/10B/51A describes the pattern.

Variants: approved 29 September 1997

1. In certain capacities with up to 10 load cells.

Technical Schedule No 6/10B/51A Variation No 1 describes variant 1.

Variants: approved 19 January 2000

2. Hopper weighing instruments in certain capacities.
3. Hopper weighing instruments with a tilting hopper.

Technical Schedule No 6/10B/51A Variation No 2 describes variants 2 and 3.

FILING ADVICE

Certificate of Approval No 6/10B/51A dated 30 December 1997 is superseded by this Certificate and may be destroyed.

The documentation for this approval now comprises:

Certificate of Approval No 6/10B/51A dated 4 April 2000

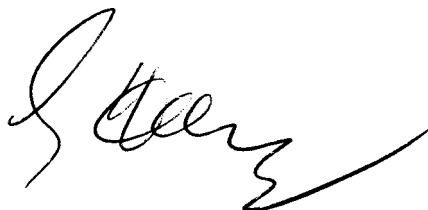
Technical Schedule No 6/10B/51A dated 11 December 1995 (incl. Test Procedure)

Technical Schedule No 6/10B/51A Variation No 1 dated 30 December 1997

Technical Schedule No 6/10B/51A Variation No 2 dated 4 April 2000

Notification of Change No 1 dated 29 October 1999

Signed and sealed by a person authorised under Regulation 63 of the National Measurement Regulations 1999 to exercise the powers and functions of the Commission under this Regulation.

A handwritten signature in black ink, appearing to be 'J. Taylor', written in a cursive style.



National Standards Commission

TECHNICAL SCHEDULE No 6/10B/51A

Pattern: Modern Weighbridge Model MW4000E Weighing Instrument.

Submittor: Modern Weighbridge and Scale Service Pty Ltd
25 Davis Street
Wingfield SA 5013.

1. Description of Pattern

A Modern Weighbridge model MW4000E self-indicating weighing instrument of 30 000 kg maximum capacity and approved for use with up to 3000 verification scale intervals.

1.1 Basework

The model MW4000E basework has the platform directly supported by four (4) load cells.

1.2 Load Cells

Precision Transducers model HPC load cells of 30 000 kg capacity are used. The load cells are also described in the documentation of NSC approval No S318 and are mounted as shown in Figure S318 - 2.

1.3 Indicator

A Gedge Systems model GS1650 Mk3 digital indicator is used. The indicator is also described in the documentation of NSC approval No S193A.

1.4 Markings

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

Manufacturer's name or mark	
Serial number	
NSC approval numbers	- instrument NSC No 6/10B/51A
	- load cells NSC No S.....
	- indicator NSC No S.....
Accuracy class	Ⓜ
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

Access to the calibration adjustments in the indicator are sealed using the sealing screws provided on the front of the indicator.

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 $2000e$.

TECHNICAL SCHEDULE No 6/10B/51A
VARIATION No 1

Pattern: Modern Weighbridge Model MW4000E Weighing Instrument.

Submittor: Modern Weighbridge and Scale Service Pty Ltd
25 Davis Street
Wingfield SA 5013.

1. Description of Variant 1

A Modern Weighbridge model MW4000E self-indicating weighing instrument of 60 000 kg maximum capacity and approved for use with up to 3000 verification scale intervals.

The model MW4000E basework has the platform fully supported by up to 10 load cells.

TECHNICAL SCHEDULE No 6/10B/51A

VARIATION No 2

Pattern: Modern Weighbridge Model MW4000E Weighing Instrument.

Submittor: Modern Weighbridge and Scale Service Pty Ltd
25 Davis Street
Wingfield SA 5013.

1. Description of Variants

1.1 Variant 2

Hopper weighing instruments in capacity ranges as listed below:

- in capacities from 100 to 1499 kg;
- in capacities from 1500 to 14 999 kg; and
- in capacities from 15 000 to 149 999 kg;

Instruments are either:

- (a) fitted with 3, 4 or 5 load cells (arranged symmetrically to ensure even loading of each cell) where the hopper is a vertical cylindrical or tank-type load receptor directly supported by the load cells; or
- (b) fitted with 4 load cells where the hopper is a non-vertical cylindrical, or other hopper-type load receptor. Note: Instruments with more than 4 load cells will be acceptable if prior written agreement from the Commission is obtained.

In addition suitable provision must be made for the application of suitable verified masses to the instrument as required for verification and certification purposes. It may be necessary for such masses to be incorporated within the design of the instrument.

Note: The load receptor may be in the form of a hopper or bag suspended from the base frame.

1.2 Variant 3

Hopper weighing instruments with a tilting hopper incorporating an hydraulic ram mechanism allowing the hopper to be tilted for emptying. The system is provided with an interlock which prevents the taking of a weighing result unless the hopper is in a level (untilted) condition.



National Standards Commission

Notification of Change

Certificate of Approval No 6/10B/51A

Change No 1

The following changes are made to the approval documentation for the

Modern Weighbridge Model MW4000E Weighing Instrument

submitted by Modern Weighbridge and Scale Service Pty Ltd
25 Davis Street
Wingfield SA 5013.

- (a) In Certificate of Approval No 6/10B/51A dated 30 December 1997, the description of Variant 1 in the DESCRIPTIVE ADVICE, should be amended to read:

“In certain capacities with up to 10 load cells.”

- (b) In Technical Schedule No 6/10B/51A Variation No 1 dated 30 December 1997, clause 1. **Description of Variant 1** should be amended to read:

“A Modern Weighbridge model MW4000E self-indicating weighing instrument approved for use with up to 3000 verification scale intervals in the following capacity ranges according to NSC General Certificate of Approval No 6B/0:

- from 1500 kg to 14 999 kg; and
- from 15 000 kg to 149 999 kg.

The model MW4000E basework has the platform fully supported by up to 10 load cells.”

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.