6/10B/51B
30 January 2008

Australian Government

National Measurement Institute

Bradfield Road, West Lindfield NSW 2070

Cancellation
Certificate of Approval No 6/10B/51B

Issued by the Chief Metrologist 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 March 2008.

Signed by a person authorised by the Chief Metrologist to exercise his powers under Regulation 60 of the *National Measurement Regulations 1999*.

6/10B/51B
11 January 2002

National Standards Commission

12 Lyonpark Road, North Ryde NSW

Certificate of Approval

No 6/10B/51B

Issued under Regulation 60
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.

This Certificate is issued upon completion of a review of NSC approval No 6/10B/51A.

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CONDITIONS OF APPROVAL

This approval becomes subject to review on 1 October 2006, and then every 5 years thereafter.

Instruments purporting to comply with this approval shall be marked NSC No 6/10B/51B 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 NSC P 106.

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

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

The pattern as approved herein or with substitute Commission-approved load cells and/or indicators, and in other capacities, or with different platform sizes, 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.

DESCRIPTIVE ADVICE

Pattern: approved 28 September 2001

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

Variants: approved 28 September 2001

1. In capacities from 100 kg up to 149 999 kg.
2. As hopper weighing instruments in capacities from 100 kg up to 149 999 kg.
3. Hopper weighing instruments with a tilting hopper.
4. With up to 4000 verification scale intervals.

Technical Schedule No 6/10B/51B describes the pattern and variants 1 to 4.

FILING ADVICE

The documentation for this approval comprises:

Certificate of Approval No 6/10B/51B dated 11 January 2002
Technical Schedule No 6/10B/51B dated 11 January 2002 (incl. Test Procedure)

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.

TECHNICAL SCHEDULE No 6/10B/51B

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 load receptor directly supported by load cells.

If approach ramps are provided care shall be taken to ensure that these do not interfere with the platform.

1.2 Load Cells

Four HBM model C16AC3/30t load cells of 30 000 kg capacity are used. The load cells are described in the documentation of NSC approval No S370.

1.3 Indicator

A Gedge Systems model GS1650Mk3 digital indicator is used. The indicator is described in the documentation of NSC approval No S193B.

1.4 Markings

Instruments carry the following markings:

Manufacturer's mark, or name written in full	Modern Weighbridge
Indication of accuracy class	(III)
Maximum capacity	*Max* ..... kg *
Minimum capacity	*Min* ..... kg *
Verification scale interval	*e* = ... kg *
Tare capacity (if less then *Max)*	T = - ..... kg
Serial number of the instrument	.....
Pattern approval mark for the instrument	NSC No 6/10B/51B
Pattern approval mark for the load cells	NSC No ...
Pattern approval mark for the indicator	NSC No ...

* These markings shall also be shown near the display of the result if they are not already located there.

1.5 Levelling

Where instruments are liable to be tilted (i.e. they are not installed in a permanently fixed location) they are provided with adjustable feet and a level indicator. Adjacent to the level indicator is a notice stating 'instrument must be level when in use', or similar wording.

1.6 Sealing Provision

Provision is made for the calibration adjustments to be sealed as described in the approval documentation for the indicator.

1.7 Verification/Certification Provision

Provision is made for the application of a verification/certification mark.

2. Description of Variants

2.1 Variant 1

In capacities as listed below with no less than 4 and with up to 10 Commission-approved load cells:

- from 100 kg up to 1499 kg;
- from 1500 kg up to 14 999 kg; and
- from 15 000 kg up to 149 999 kg.

2.2 Variant 2

As hopper weighing instruments in capacities from 100 kg up to 149 999 kg.

Instruments are either:

(a) fitted with 3, 4 or 5 Commission-approved 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 Commission-approved load cells where the hopper is a non- vertical cylindrical, or other hopper-type load receptor.

Note: Instruments with more than 4 load cells may 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.

2.3 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.

2.4 Variant 4

With up to 4000 verification scale intervals using other Commission-approved load cells.

Instruments used with more than 3000 verification scale intervals shall be provided with wind protection in accordance with clause **4. Wind Effects** of General certificate of Approval No 6B/0.

TEST PROCEDURE

Instruments should be tested in accordance with any relevant tests specified in the Uniform Test Procedures.

Maximum Permissible Errors at Verification/Certification

The maximum permissible errors for increasing and decreasing loads on initial verification/certification for loads, m, expressed in verification scale intervals, e, are:

±0.5 e for loads $0 \leq m \leq 500$;
±1.0 e for loads $500 < m \leq 2\,000$; and
±1.5 e for loads $2\,000 < m \leq 10\,000$.