

National Standards Commission



Certificate of Approval

No 6/10B/49A

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

Modern Weighbridge Model MW-2000 Weighing Instrument

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

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. Birch', is written over the signature line.

CONDITIONS OF APPROVAL

This approval is subject to review on or after 1/8/97.

This approval expires in respect of new instruments on 1/8/98.

Instruments purporting to comply with this approval shall be marked NSC No 6/10B/49A 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.

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

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.

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.

DESCRIPTIVE ADVICE

Pattern: approved 23/7/92

A Modern Weighbridge model MW-2000 self-indicating weighing instrument of 60 000 kg maximum capacity.

Variant: approved 23/7/92

1. With a steelyard.

Technical Schedule No 6/10B/49A describes the pattern and variant 1.

FILING ADVICE

The documentation for this approval comprises:

Certificate of Approval No 6/10B/49A dated 9/9/92
Technical Schedule No 6/10B/49A dated 9/9/92 (incl. Test Procedure)
Figures 1 to 3 dated 9/9/92



National Standards Commission

TECHNICAL SCHEDULE No 6/10B/49A

Pattern: Modern Weighbridge Model MW-2000 Weighing Instrument.

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

1. Description of Pattern

A Modern Weighbridge model MW-2000 self-indicating weighing instrument of 60 000 kg maximum capacity with a verification scale interval of 20 kg.

1.1 Basework

- (i) The lever system is approved for use with up to 3000 verification scale intervals and comprises two or more main levers and may incorporate a number of transfer levers. The levers may be fabricated or cast and are connected by simple or compound vertical links. Figures 1 and 2 show various arrangements.
- (ii) The load cell is a single Kelba model KA-1000-C3 1000 kg load cell (as described in the documentation of NSC approval No S155A) fitted in a pullrod from the nose-end knife-edge of the transfer lever. Alternatively, the load cell may be fitted directly in a pullrod from the nose-end knife edges of the main levers.
- (iii) The platform is supported on the main lever knife-edges through a ball bearing support assembly. The lever fulcrum knife-edges are located on bearings mounted in fixed floor-mounted pedestals (Figure 3).

1.2 Indicator

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

1.3 Verification/Certification Provision

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

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/49A
	- load cells	NSC No S
	- indicator	NSC No S
Accuracy class		(III)
Maximum capacity		Max kg *
Minimum capacity		Min kg *
Verification scale interval		e = kg *
Maximum subtractive tare		T = - kg

* These are repeated adjacent to each reading face.

2. Description of Variant 1

With a steelyard. The transfer lever is connected through a pullrod to a full capacity steelyard, or alternatively through an intermediate lever in the headwork cabinet. Tare bars may be fitted, in which case the markings shall be amended to include the maximum additive tare value.

The load cell and digital indicator may be retained, in which case the pullrod is connected to a headwork lever that has a load cell connected to one end and a steelyard to the other. Only one method of mass indication may be in use at any time; the other indicator shall be rendered inoperative.

TEST PROCEDURE

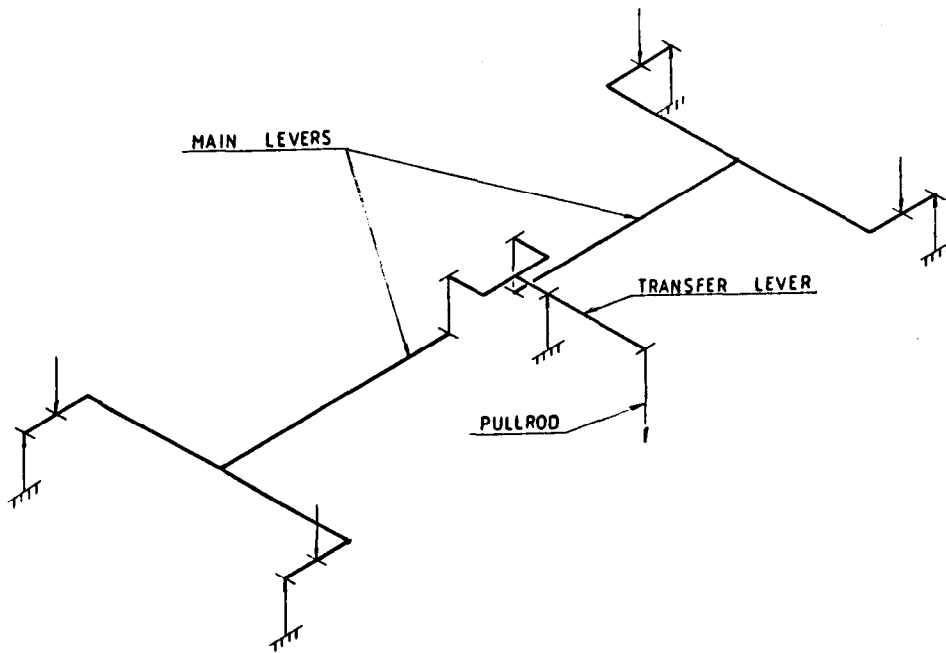
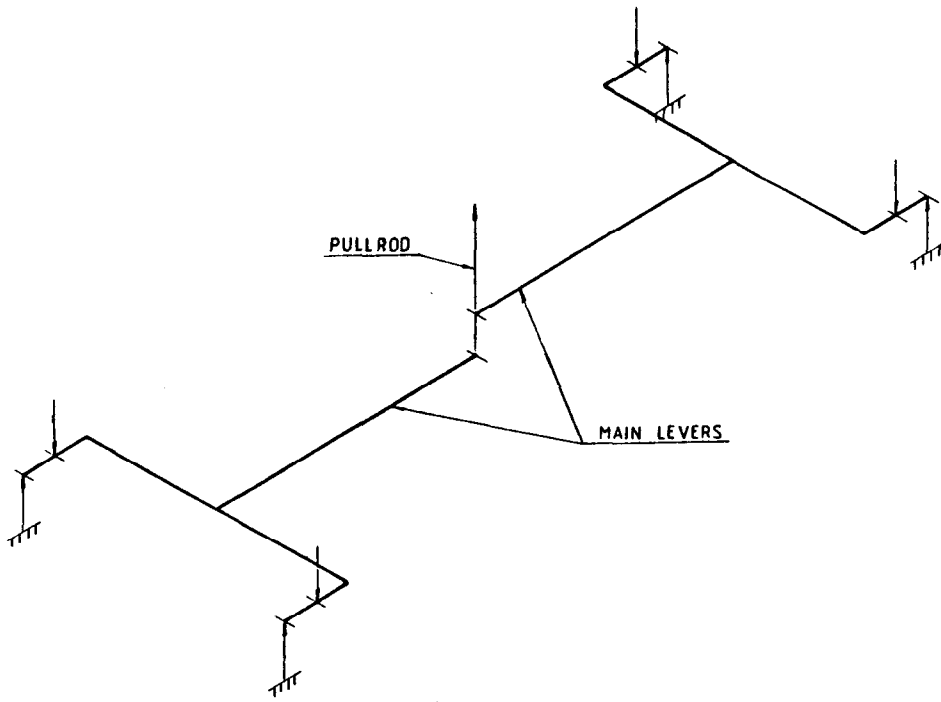
Instruments should be tested in conjunction with any tests specified in the approval documentation for the indicator used, and in accordance with any relevant tests specified in the Inspector's Handbook.

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:

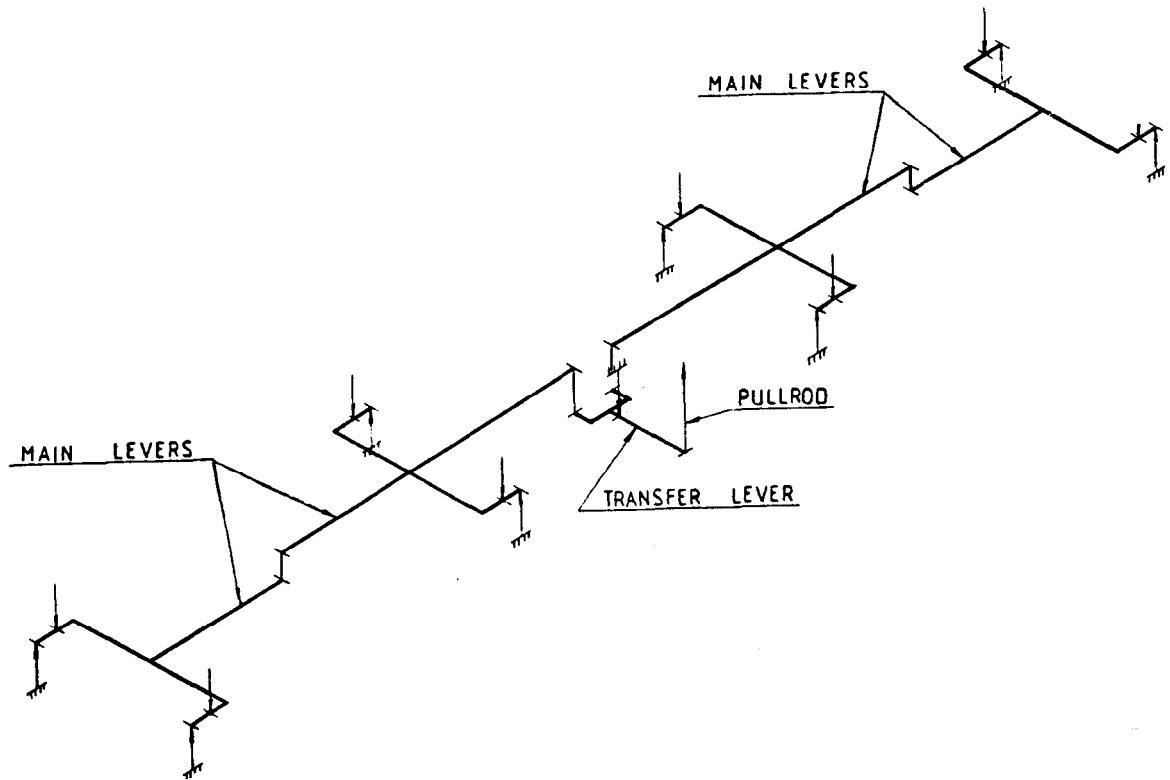
- $\pm 0.5e$ for loads from 0 to $500e$;
- $\pm 1.0e$ for loads over $500e$ up to $2000e$; and
- $\pm 1.5e$ for loads over $2000e$.

FIGURE 6/10B/49A - 1



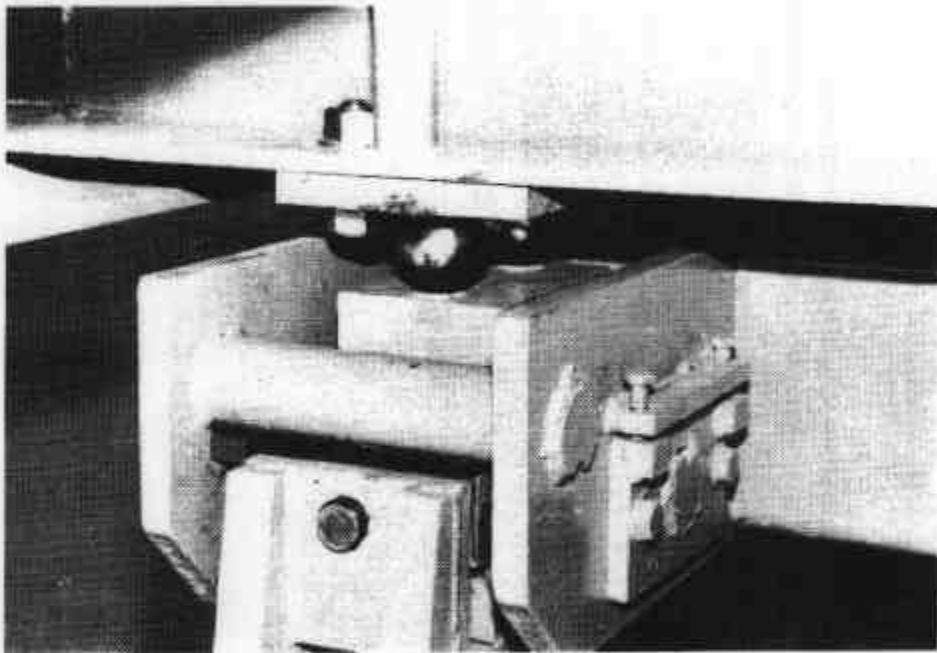
MW-2000 Alternative Lever Arrangements

FIGURE 6/10B/49A - 2



Alternative Lever Arrangement

FIGURE 6/10B/49A - 3



Floor-mounted Pedestal