

NATIONAL STANDARDS COMMISSION

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CERTIFICATE OF APPROVAL No 6/18/10

CANCELLED

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This is to certify that the patterns of the

Gedge Weighing Instrument MB25/833G-OH

submitted by Gedge Systems Pty Ltd,
895 Pacific Highway,
Pymble, New South Wales, 2073,

have been approved under the Weights and Measures (Patterns of Instruments) Regulations as being suitable for use for trade.

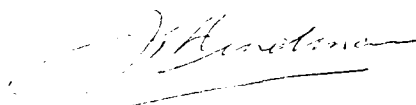
Date of Approval: 2 November 1978

The patterns are described in Technical Schedule No 6/18/10 and in drawings and specifications lodged with the Commission.

The approval is subject to review on or after 1 November 1983.

All instruments conforming to this approval shall be marked with the approval number "NSC No 6/18/10".

Signed



Assistant Executive Officer

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NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 6/18/10

Pattern: Gedge Weighing Instrument MB25/833G-OH

Submittor: Gedge Systems Pty Ltd,
895 Pacific Highway,
Pymble, New South Wales, 2073.

Date of Approval: 2 November 1978

All instruments conforming to this approval shall be marked "NSC No 6/18/10".

Description:

The pattern is a self-indicating overhead weighing instrument of maximum capacity between 4 kg and 10 kg (see Figures 1 and 2). It comprises a weighing unit with a load cell resistant mechanism and an electronic weight indicator displaying up to 2500 increments.

The weighing unit comprises a load receptor freely suspended from an Interface Model MB-25 11 kg load cell which is mounted on a free-standing frame (see Figures 2 and 3). An adjustable load cell overload-protection device set to prevent a load of more than, say, 11 kg being applied to the load cell is fitted to the load cell (see Figure 3). A cover which prevents access to the load cell and the overload-protection device is sealed by a lead-and-wire seal.

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

The weight indicator Dynamic Type 833G (see Figure 1) converts the output from the load cell into a digital weight indication of up to 2500 increments. The instrument is provided with a zero-tracking facility which will automatically rezero the instrument whenever it comes to rest within 0,5 scale interval of zero; this is indicated by the illumination of a zero light. A press button marked zero is provided for rezeroing the instrument when zero has changed by more than 0,5 scale interval. A spring-loaded three-position test switch marked "verify" can be used to blank out the indicator or

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display "all-8" while the switch is held pressed. This checks that the display is working correctly.

Two lead-and-wire seals prevent the covers being removed from the weight indicator (see Figure 4). The cable from the load cell is internally connected within the weight indicator.

The instrument is marked adjacent to the weight reading face, for example:

(III)

Max	=	10 kg
Min	=	0,1 kg
$d_g = e$	=	0,005 kg

and "not for retail counter use".

An output cable may be internally connected inside the weight indicator to provide weight information to peripheral devices which are not a part of the measuring instrument*. These supplementary devices, which may only be provided with the authorisation of the Weights and Measures Authorities of the State or Territory, may, for example, print receipts or process the data, etc. The output information is inhibited until the signal sampled in successive counting periods is the same, that is, the instrument is in equilibrium.

Special Tests:

1. Zero test — as the automatic device resets zero when the weighing mechanism is in equilibrium within 0,5 scale interval of zero, zero should be checked as described in the Commission's Test Procedure for the Elimination of Rounding Error for Weighing Instruments with Digital Indication (Document 104), with, say, a load equal to 10e on the load receptor. The indication with 0,25e and 0,75e additional weight on the load receptor will then be 10e and 11e respectively.
2. Zero range — the maximum range of operation of the push-button zero device should not exceed 4% of the capacity of the instrument ($\pm 2\%$ approximately). Satisfactory setting may be checked by the following method:

* Devices which determine and indicate the value of a physical quantity, devices which calculate price and in the presence of the purchaser or vendor indicate price, devices which control the measurement and devices which are intended to provide the purchaser or vendor with a permanent record, recorded at the time of the measurement, of the physical quantity or physical quantity and price, are a part of the measuring instrument which requires approval by the Commission.

- (a) with zero balance indicated, apply a load of, say, 2,2% of maximum capacity (0,22 kg) to the instrument and press the zero button; the instrument should not rezero; and
 - (b) reduce the load to, say, 1,8% of maximum capacity (0,18 kg), and again press the zero button; the instrument should indicate zero balance.
3. Level sensitivity — as the automatic zero device may prevent the zero from changing when the instrument is tilted at zero load, the effect of tilt should be initially checked with a small load on the instrument, say, 10e.

When the instrument is tilted so that the bubble in the level indicator moves 2 mm, the indication 10e should not change by more than 2e, and when the 10e load is removed and zero allowed to automatically reset, or is manually reset in the tilted position, the instrument should satisfy the weighing-accuracy specification, that is, $\pm 0,5$ scale interval for the first 500 scale intervals, ± 1 scale interval over 500 and up to 2000 scale intervals, and $\pm 1,5$ scale intervals over 2000.

4. Range of indication —
 - (a) The maximum weight indicated should not exceed the maximum capacity (Max); above this indicated weight the indicator should be blank.
 - (b) The minimum weight indicated should be zero; below this indicated weight the indicator should be blank.
5. Load-cell Creep — leaving a maximum-capacity load on the load receptor for a period of 30 minutes should not cause the weight indicated to be incorrect, and on removal of the load the weight indicated should be zero $\pm 0,25e$.
6. Test loads — the application of the test loads specified in Table 1 and the display of these loads within the applicable tolerance checks that the instrument operates in accordance with the approved design.

TABLE 1

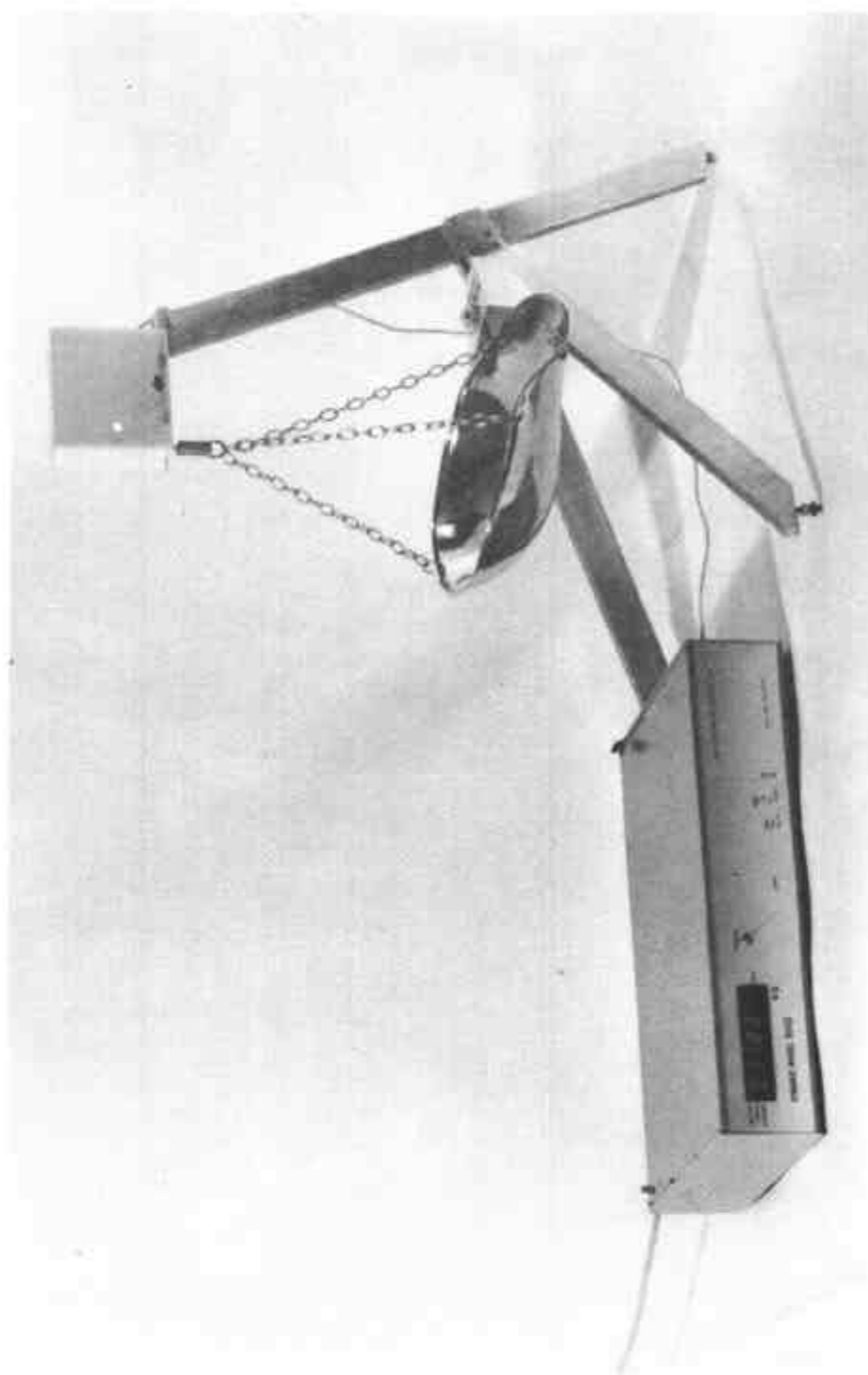
Test load in scale intervals *

0	10	25	60	120	250	698,5
1	12	30	70	140	300	798,5
2	14	35	80	160	350	898,5
3	16	40	90	180	400	998,5
4	18	45	100	200	450	1198,5
5	20	50			500	1398,5
6						1598,5
7						1798,5
8						1998,5
9						2498

* Test load = Number of scale intervals \times scale interval

Note: The test load should include a test at capacity, less the tolerance and less 0,5 scale interval.

FIGURE 6/18/10 - 1



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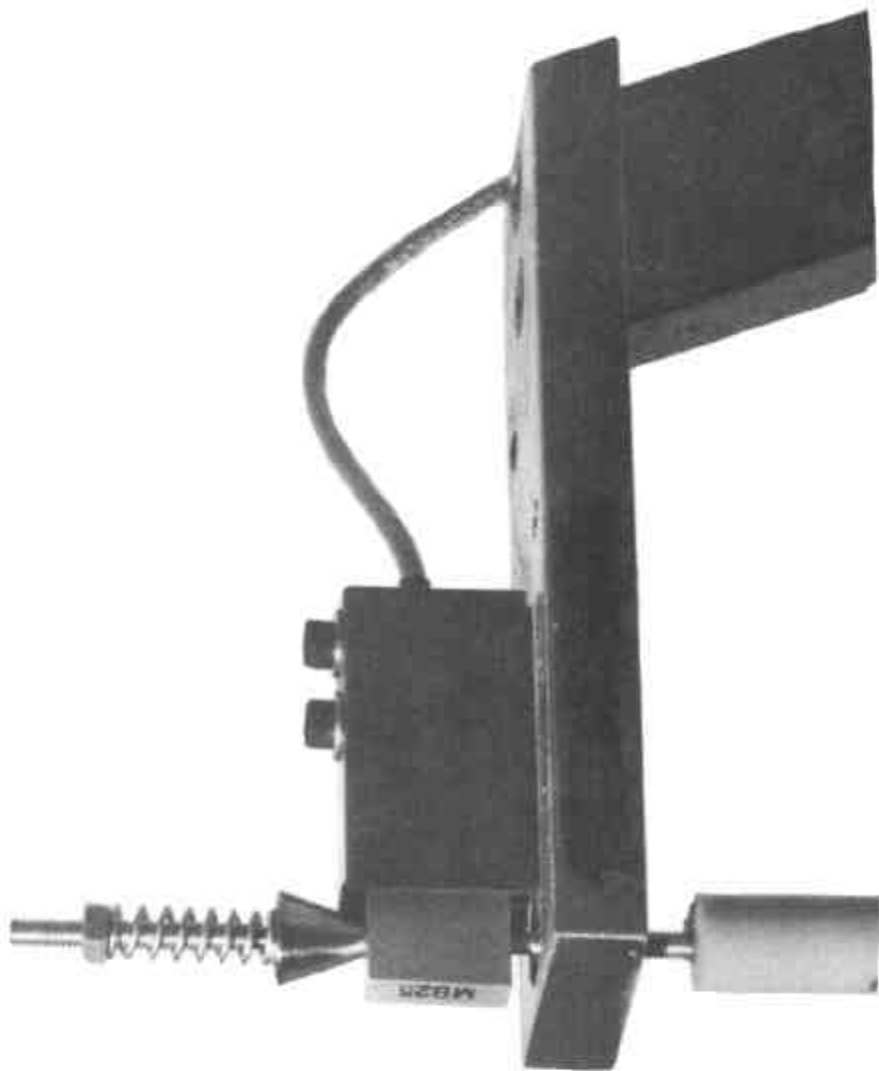
FIGURE 6/18/10 - 2



Gedge Weighing Unit

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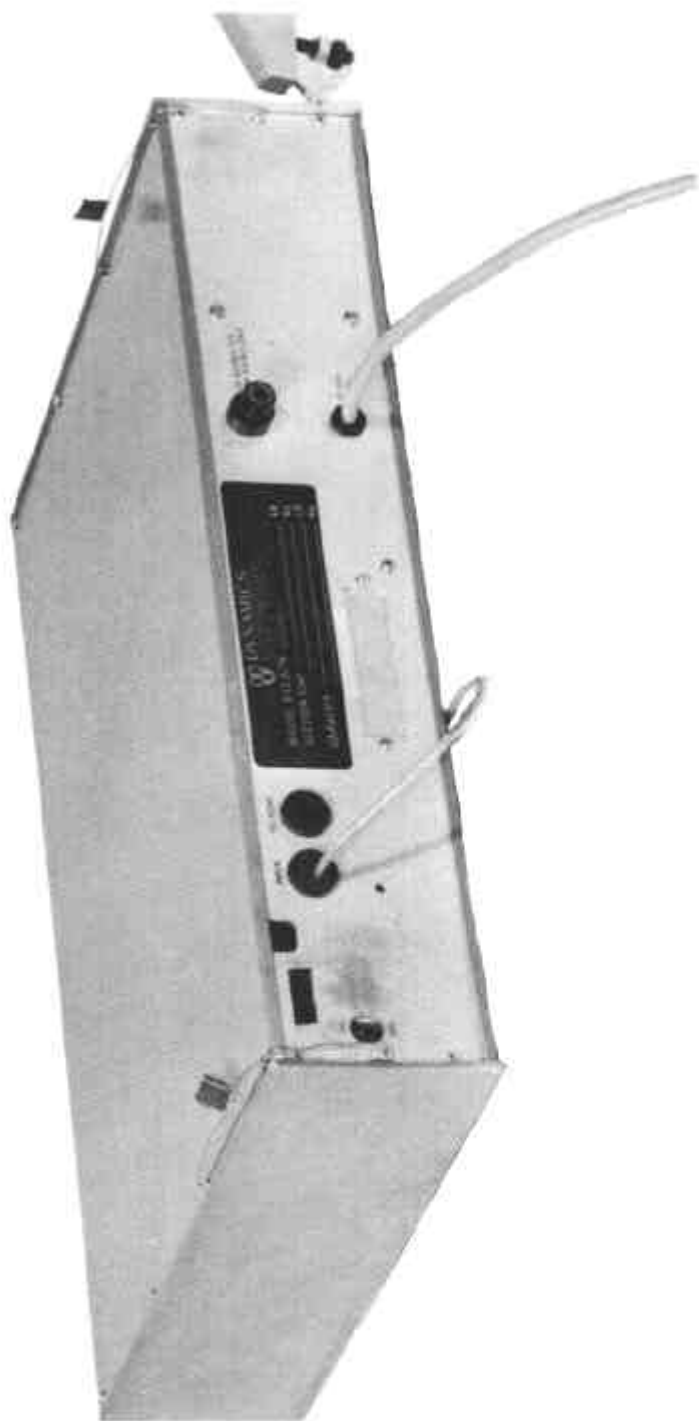
FIGURE 6/18/10 - 3



Interface MB25 Load Cell with Overload Protection

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FIGURE 6/18/10 - 4



Sealing of Dynamic Type 833G Weight Indicator