Australian Government
National Measurement Institute
Bradfield Road, West Lindfield NSW 2070

Certificate of Approval

NMI 6/10B/65

Issued by the Chief Metrologist 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 instruments herein described.

Griffith Elder Model GET 60/18.5 Weighing Instrument

submitted by Gendio Pty Ltd (formerly Griffith Elder (Aust.))
19 Henty Highway
Beulah VIC 3395

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 approval has been granted with reference to document NMI R 76, *Non-automatic weighing instruments, Parts 1 and 2*, dated July 2004.

This approval becomes subject to review on 1/04/20, and then every 5 years thereafter.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern & variant 1 provisionally approved – interim certificate issued	15/03/99
1	Pattern & variant 1 approved – interim certificate issued	13/04/99
2	Pattern & variant 1 approved – certificate issued	18/05/99
3	Pattern & variant 1 reviewed – notification of change issued	7/05/04
4	Pattern & variant 1 reviewed – variant 1 amended (number of load cells) – notification of change issued	11/02/09
5	Pattern & variant 1 updated & reviewed – variants 2 & 3 approved – certificate issued	26/06/15

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI 6/10B/65' 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 National Measurement Institute (NMI) 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 document NMI P 106.

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

The pattern as approved herein or with substitute approved load cells and/or approved indicators and in other capacities, or with different platform sizes, shall comply with General Certificate of Approval No 6B/0.

Note: New instruments manufactured under this approval shall only use load cells and/or indicators with current Supplementary Certificates of Approval.

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

Dr A Rawlinson

TECHNICAL SCHEDULE No 6/10B/65

1. Description of Pattern provisionally approved on 15/03/99 approved on 13/04/99

A Griffith Elder model GET 60/18.5 class (III) non-automatic self-indicating weighing instrument of 60 000 kg maximum capacity and approved for use with up to 3000 verification scale intervals (VSI).

1.1 Basework

The model GET 60/18.5 basework has the platform fully supported by 6 load cells.

1.2 Load Cells

Precision Transducers model HPC-30 load cells of 30 000 kg maximum capacity are used. The load cells are also described in the documentation of approval NMI No S412.

1.3 Indicator

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

1.4 Weighbridge Requirements

Where the instrument is intended to be installed as a weighbridge, it shall be ensured that all relevant weighbridge requirements of the National Measurement Legislation are met (e.g. in relation to weighbridge approaches, visibility and the location of the weighbridge indicator and platform).

This approval does not certify that such requirements have (or can be) met.

The requirements of the National Measurement Legislation regarding the ground or floor under the platform vary according to whether the instrument is installed as a portable weighbridge, weighbridge without a pit or a weighbridge with a pit. However, bolting of the load cell support pads to suitable concrete piers is considered essential to provide a suitable stable base, irrespective of other aspects of instrument installation.

Note that it is important that suitable provision be made for the loading of test masses.

1.5 Verification Provision

Provision is made for the application of a verification mark.

1.6 Sealing Provision

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

1.7 Descriptive Markings

Instruments are marked with the following data, together in one location, in the form shown at right:

Manufacturer's mark, or name written in full	Gendio Pty Ltd
Indication of accuracy class	(III)
Pattern approval mark for the instrument	NMI 6/10B/65
Pattern approval mark for the indicator	NMI S…
Pattern approval mark for the load cells	NMI S…
Maximum capacity	*Max* ..... t or kg #1
Minimum capacity	*Min* ..... t or kg #1
Verification scale interval	*e* = ... t or kg #1
Serial number of the instrument	……..

#1 These markings are also shown near the display of the result if they are not already located there.

2. Description of Variant 1 provisionally approved on 15/03/99 approved on 13/04/99

Other models of the GET series weighing instruments in certain other capacities.

The platform is fully supported by no less than 4 and with up to 14 NMI approved load cells. Instruments may be in capacities of 15 000 kg up to 149 999 kg using approved load cells and an approved digital indicator (in accordance with General Certificate of Approval No 6B/0).

Instruments are approved for use with up to 4000 verification scale intervals (subject to the approval parameters of the load cells and indicator).

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.

3. Description of Variant 2 approved on 26/06/15

Gendio GET series instruments (Figure 1) which are similar to the pattern or variant 1, but which have a steel subframe constructed to link all load cell footing plates to aid correct alignment of load cells in relation to each other (and which may also facilitate re-location of the instrument). However verification of the instrument is required following any re-location of the instrument.

The requirements of **1.4 Weighbridge Requirements** for the pattern should be observed.

4. Description of Variant 3 approved on 26/06/15

Gendio GETH series instruments which are similar to the pattern or variants but which have the load receptor in the form of a hopper, tank or silo, fully supported by NMI-approved load cells.

Instruments may be in capacities of:

- 1500 kg up to 14 999 kg;
- 15 000 kg up to 149 999 kg; and

using approved load cells and an approved digital indicator (in accordance with General Certificate of Approval No 6B/0).

Instruments are approved for use with up to 4000 verification scale intervals (subject to the approval parameters of the load cells and indicator).

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.

Instruments are either:

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

Note: Instruments with more than the number of load cells mentioned above may be acceptable if prior written agreement from NMI is obtained.

In addition suitable provision must be made for the application of suitable verified masses to the instrument as required for verification purposes.

It may be necessary for such masses to be incorporated within the design of the instrument.

TEST PROCEDURE No 6/10B/65

Instruments shall be tested in accordance with any relevant tests specified in the National Instrument Test Procedures.

The instrument shall not be adjusted to anything other than as close as practical to zero error, even when these values are within the maximum permissible errors.

Maximum Permissible Errors

The maximum permissible errors are specified in Schedule 1 of the *National Trade Measurement Regulations 2009*.

FIGURE 6/10B/65 – 1

Typical Gendio Model GET Weighing Instrument

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