



Australian Government
**National Measurement
Institute**

Bradfield Road, West Lindfield NSW 2070

Notification of Change
Certificate of Approval No 6/9C/277
Change No 2

Issued by the Chief Metrologist under Regulation 60
of the
National Measurement Regulations 1999

The following changes are made to the approval documentation for the
Ishida Model IGX-60 Weighing Instrument

submitted by Heat and Control Pty Ltd
 407 Creek Road
 Mt Gravatt QLD 4122.

In Certificate of Approval No 6/9C/277 dated 6 February 2004;

1. The Condition of Approval referring to the review of the approval should be amended to read:

 “This approval becomes subject to review on 1 January **2014**, and then every 5 years thereafter.”
2. The FILING ADVICE should be amended by adding the following:
 “Notification of Change No 1 dated 11 February 2004
 Notification of Change No 2 dated 28 September 2009”

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

A handwritten signature in black ink, consisting of a series of loops and flourishes, positioned above a horizontal line.



Australian Government

National Standards Commission

12 Lyonpark Road, North Ryde NSW 2113 Australia

Certificate of Approval

No 6/9C/277

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

Ishida Model IGX-60 Weighing Instrument

submitted by Heat and Control Pty Ltd
407 Creek Road
Mt Gravatt QLD 4122.

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 January 2009, and then every 5 years thereafter. Instruments purporting to comply with this approval shall be marked NSC No 6/9C/277 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 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.

This approval shall NOT be used in conjunction with General Certificate No 6B/0.

DESCRIPTIVE ADVICE

Pattern: approved 10 December 2003

- An Ishida model IGX-60 self-indicating weighing instrument of 60 kg maximum capacity.

Variants: approved 10 December 2003

1. Model IGX-150 of 150 kg maximum capacity.
2. Model IGB-60 of 60 kg or model IGB-150 of 150 kg maximum capacity.

Technical Schedule No 6/9C/277 describes the pattern and variants 1 and 2.

FILING ADVICE

The documentation for this approval comprises:

Certificate of Approval No 6/9C/277 dated 6 February 2004
Technical Schedule No 6/9C/277 dated 6 February 2004 (incl. Test Procedure)
Figures 1 to 5 dated 6 February 2004

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 6/9C/277

Pattern: Ishida Model IGX-60 Weighing Instrument

Submittor: Heat and Control Pty Ltd
407 Creek Road
Mt Gravatt QLD 4122

1. Description of Pattern

An Ishida model IGX-60 self-indicating weighing instrument (Figure 1) with a verification scale interval of 0.02 kg and with a maximum capacity of 60 kg.

Instruments are approved for use over a temperature range of -5°C to $+40^{\circ}\text{C}$ and must be so marked.

1.1 Basework

The model IGX-60 basework has the load receptor directly supported by a single load cell. The load receptor has maximum nominal dimensions of 400 x 550 mm.

1.2 Load Cell

The load cell used (Figure 2) is either of the following:

- A Celtron model LOC-ISS10-100kg load cell of 100 kg maximum capacity; or
- A Zhongyuan Electrical Measuring Instruments (ZEMIC) model L6G2 C3 load cell of 100 kg maximum capacity.

1.3 Indicator

An Ishida model IGX digital indicator is used (Figure 3). The indicator has a fluoro display and is mains powered.

1.3.1 Zero

Zero is automatically corrected to within $\pm 0.25e$ whenever power is applied and whenever the instrument comes to rest within $0.5e$ of zero.

The initial zero-setting device of the pattern has a nominal range of not more than 20% of the maximum capacity of the instrument.

The instrument has a semi-automatic zero-setting device with a nominal range of not more than 4% of the maximum capacity of the instrument.

1.3.2 Tare

A semi-automatic subtractive tare device of up to 59.98 kg maximum capacity may be fitted. In addition a pre-set subtractive tare device also of up to 59.98 kg maximum capacity (with pre-set tare values assigned to product-look-up PLU items) may be fitted.

1.3.3 Display Check

A display check is initiated whenever power is applied.

1.3.4 Management Functions

Instruments are fitted with a management facility for UNDER/ACCEPT/OVER operation that is not approved for trade use.

Instruments may also be fitted with a management facility for COUNT that is not approved for trade use.

1.4 Levelling

Instruments 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.

1.5 Markings

Instruments carry the following markings:

Manufacturer's mark, or name written in full	Ishida Co Ltd, China
Name or mark of manufacturer's agent	Heat and Control Pty Ltd
Indication of accuracy class	Ⓜ
Maximum capacity	Max kg *
Minimum capacity	Min kg *
Verification scale interval	e = kg *
Tare capacity	T = - kg
Serial number of the instrument
Pattern approval mark for the instrument	NSC No 6/9C/277
Special temperature limits	-5°C to +40°C

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

Instruments of 100 kg maximum capacity or less are not for trading direct with the public and shall be so marked.

1.6 Verification/Certification Provision

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

1.7 Sealing Provision

Provision is made for the calibration adjustments to be sealed by means of a destructible adhesive label placed over the access opening to the calibration switch, and also on the opening providing access to one of the screws which holds the indicator housing together (Figure 4).

2. Description of Variants

2.1 Variant 1

An Ishida model IGX-150 self-indicating weighing instrument with a verification scale interval of 0.05 kg and with a maximum capacity of 150 kg.

2.1.1 Basework

The model IGX-150 basework has the load receptor directly supported by a single load cell. The load receptor has maximum nominal dimensions of 400 x 550 mm.

2.1.2 Load Cell

The load cell used is either of the following:

- A Celtron model LOC-ISS10-300kg load cell of 300 kg maximum capacity; or
- A Zhongyuan Electrical Measuring Instruments (ZEMIC) model L6G2 C3 load cell of 300 kg maximum capacity.

2.1.3 Indicator

An Ishida model IGX digital indicator is used. The indicator is mains powered.

2.1.4 Tare

A semi-automatic subtractive tare device of up to 149.95 kg maximum capacity may be fitted. In addition a pre-set subtractive tare device also of up to 149.95 kg maximum capacity (with pre-set tare values assigned to product-look-up PLU items) may be fitted.

2.2 Variant 2

The pattern or variant 1 using an Ishida model IGB indicator (Figure 5) – the instrument is then known as a model IGB-60 or IGB-150 (as appropriate) and the basework may also be known by the same name.

2.2.1 Indicator

The Ishida model IGB digital indicator is similar in most respects to the model IGX of the pattern, however:

- The model IGB has a liquid crystal display.
- The model IGB may be powered by an internal battery, or by an Ishida model PS570-5V (Output 5 V DC, 300 mA) mains power adaptor. The submitter should be consulted regarding the acceptability of alternatives.

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 $2\,000 < m \leq 10\,000$.

Ensure that instruments are only being used within the special temperature limits stated elsewhere in this Technical Schedule.



Australian Government

National Standards Commission

12 Lyonpark Road, North Ryde NSW 2113 Australia

Notification of Change

Certificate of Approval No 6/9C/277

Change No 1

The following change is made to the approval documentation for the
Ishida Model IGX-60 Weighing Instrument

submitted by Heat and Control Pty Ltd
407 Creek Road
Mt Gravatt QLD 4122.

In Technical Schedule No 6/9C/277 dated 6 February 2004, clause **1.5 Markings**
should be amended so that the 2nd line now reads:

Manufacturer's mark or name written in full

Ishida Co Ltd

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.

A handwritten signature in black ink, appearing to be 'J. H. T.', written over a large, stylized loop.

6/9C/277
6 February 2004

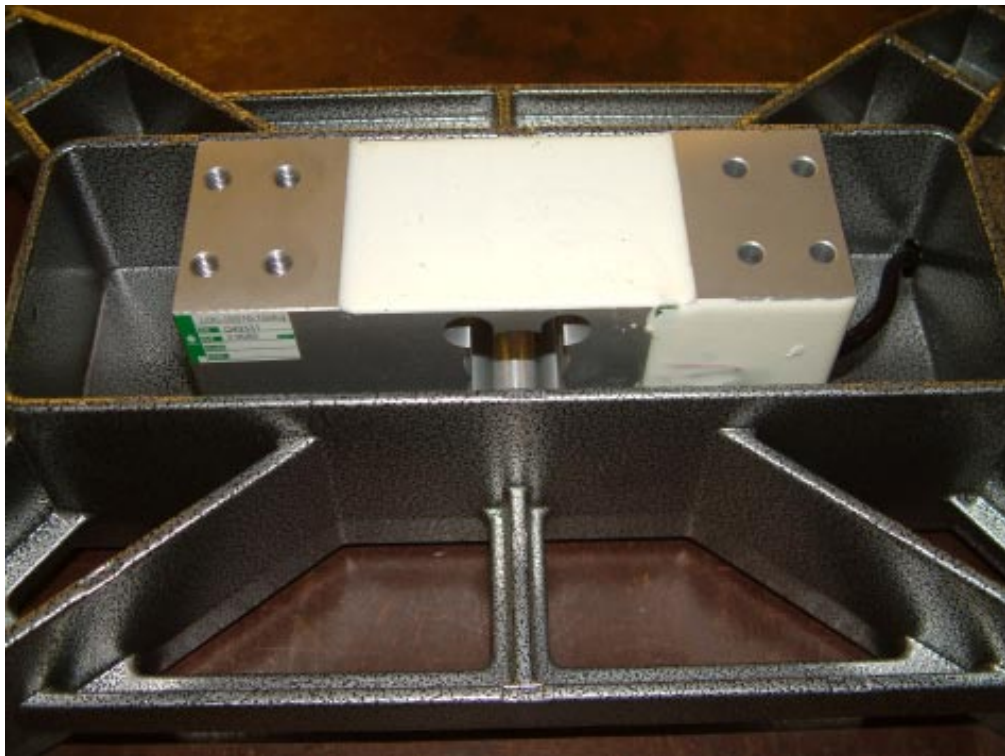
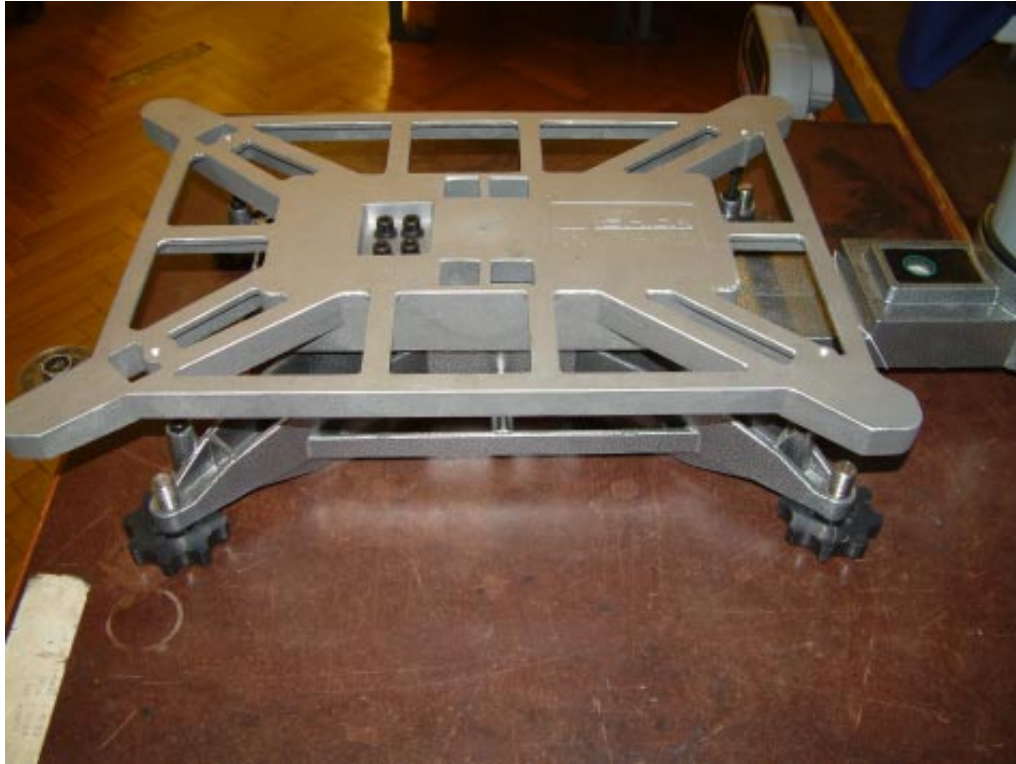
FIGURE 6/9C/277 – 1



Ishida Model IGX-60 Weighing Instrument

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FIGURE 6/9C/277 – 2



Basework and Load Cell Mounting

FIGURE 6/9C/277 – 3



Ishida Model IGX Digital Indicator

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FIGURE 6/9C/277 – 4



Position of Sealing

Showing Sealing

FIGURE 6/9C/277 – 5



Ishida Model IGB Digital Indicator