



Australian Government

National Measurement
Institute

Bradfield Road, West Lindfield NSW 2070

Certificate of Approval

NMI 6/10B/44D

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.

Ultra-Hawke Model 9630 Weighing Instrument

submitted by Ultra Hawke Pty Ltd
 2/9 Production Drive
 Campbellfield VIC 3061

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 **1/11/18**, and then every 5 years thereafter.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern & variants 1 to 3 approved – certificate issued	2/10/02
1	Pattern & variants 1 to 3 amended (address) & reviewed – notification of change issued	2/11/07
2	Pattern & variants 1 to 3 reviewed & updated – variant 4 approved – certificate issued	29/04/14

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI (or NSC) 6/10B/44D' 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 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 Certificates No S1/0/A or No S1/0B.

The values of the performance criteria (maximum number of scale intervals etc.) applicable to an instrument incorporating the pattern approved herein shall be within the limits specified herein and in any approval documentation for the other components.

The pattern as approved herein or with substitute load cells and/or indicator and in other capacities and configurations and configurations, shall comply with General Certificate No 6B/0.


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/44D

1. Description of Pattern approved on 2/10/02

An Ultra-Hawke model 9630 class  non-automatic self-indicating weighing instrument (Figure 1) of 60 000 kg maximum capacity and approved for use with up to 4000 (*) verification scale intervals.

- (*) Instruments used with more than 3000 VSI shall be provided with wind protection in accordance with clause **4. Wind Effects** of General Certificate No 6B/0.

1.1 Basework

The model 9630 basework has the platform fully supported by 6 load cells. Longitudinal and transverse movement is limited by horizontal stays or other suitable method.

1.2 Load Cells

Six Flintec model RC3-30t-C4 load cells of 30 000 kg capacity are used. The load cells are also described in the approval documentation of approval NMI/NSC No S363.

1.3 Indicator


A Ranger model 5000 digital indicator is used. The indicator is also described in the approval documentation of approval NMI/NSC No S363.

1.4 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.

1.5 Descriptive Markings and Notices

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	Ultrahawke Pty Ltd
Name or mark of manufacturer's agent
Indication of accuracy class	
Pattern approval number for the instrument	NMI or NSC 6/10B/44D
Pattern approval mark for the indicator	S...
Pattern approval mark for the load cells	S...
Maximum capacity	Max kg or t #
Minimum capacity	Min kg or t #
Verification scale interval	e = kg or t #
Serial number of the instrument

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

1.6 Verification Provision

Provision is made for the application of a verification mark.

2. Description of Variant 1 **approved on 2/10/02**

In capacities from 15 000 to 300 000 kg, with no less than 4 and with up to 16 NMI-approved load cells.

3. Description of Variant 2 **approved on 2/10/02**

With the load receptor in the form of a single or multiple-bin hopper, tank or silo in capacities from 15 000 to 300 000 kg.

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 4 load cells may be acceptable if prior written agreement from NMI is obtained.

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.

4. Description of Variant 3 **approved on 2/10/02**

Of 200 000 kg maximum capacity with 16 load cells.

Flintec model RC3-30t-C4 load cells of 50 000 kg capacity are used. The load cells are also described in the approval documentation of approval NMI/NSC No S368.

The 16 load cells are arranged in a '4 by 4' pattern, i.e. 4 across the width and 4 along the length of the platform.

For this variant, clauses **6.1 Dead Load** and **6.2 Loaded Capacity of the Load Cell(s)** of General Certificate of Approval No 6B/0 dated 13 March 1992 do NOT apply. Instead, the following limitations apply:

- (i) Load cells are installed according to the following spacing: (Distances are measured centre-to-centre.)

Distance between load cells across width of platform = 1.17 m

Maximum distance between load cells along length of platform = 8 m

Minimum distance between load cells along length of platform = 6 m

- (ii) The load receptor deck has maximum nominal dimensions of 5 × 30 m, and minimum nominal dimensions of 4 × 20 m. The deadload is 7300 kg/m.

All other clauses of General Certificate of Approval No 6B/0 apply to calculations to determine the suitability of any modification, such as indicator or load cell replacement. Load cells of at least 50 000 kg maximum capacity shall be used.

5. Description of Variant 4

approved on 29/04/14

The pattern and variants may be fitted with Flintec model RC3D–30t–C4 digital load cells of 30 000 kg capacity (as also described in the approval documentation of NMI approval No S522) and Flintec model FT-11D digital indicator (as also described in the approval documentation of NMI approval No S525).

TEST PROCEDURE No 6/10B/44D

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*.

~ End of Document ~