



Australian Government
Department of Industry,
Innovation and Science

National Measurement Institute

Certificate of Approval NMI 6/9C/12C

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.

Wedderburn Model 475 Weighing Instrument

submitted by W W Wedderburn Pty Ltd
now of 101 Williamson Road
Ingleburn NSW 2565

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 **1/01/22**, and then every 5 years thereafter.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern and variants 1 & 2 approved – interim certificate issued	10/08/95
1	Pattern and variants 1 & 2 approved – certificate issued	25/10/95
2	Pattern and variants 1 & 2 reviewed – notification of change issued	18/09/01
3	Pattern and variants 1 & 2 reviewed & amended (deletion of expiry date) – notification of change issued	5/04/04
4	Pattern and variants 1 & 2 reviewed – notification of change issued	17/07/09
5	Pattern and variants 1 & 2 reviewed & updated – certificate issued	2/12/16

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with pattern approval number 'NMI (or NSC) No 6/9C/12C' 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.

This approval shall NOT be used in conjunction 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*.

A handwritten signature in black ink, appearing to read 'Dr A Rawlinson', with a horizontal line underneath.

Dr A Rawlinson

TECHNICAL SCHEDULE No 6/9C/12C

1. Description of Pattern **approved on 10/08/95**

A Wedderburn model 475 class $\text{\textcircled{III}}$ self-indicating weighing instrument (Figure 1) of 25 kg maximum capacity and approved for use with up to 500 verification scale intervals. May also be known as a Wedderburn model WS-475.

1.1 Headwork

The headwork consists of a two-spring resistant mechanism with two air dashpots, a rack and pinion, and a single or double-sided dial face with a revolving index, enclosed in various housings. A pullrod connects the resistant mechanism to the basework.

Zero balance is achieved by means of a slotted-screw adjustment through the top of the indicator housing.

1.2 Basework

The load receptor is supported on self-aligning bearings by the four load knife-edges of a second-order two-lever system (Figure 2) mounted in a framework which is fitted with four levelling legs and a level indicator. A transverse rod which is attached to the underside of the load receptor passes through holes in the basework frame and limits movement of the receptor. A C-shaped link connects the two levers.

An adjustable extension is fitted in the nose-end of the main lever. After adjustment, the extension is pinned to prevent movement. The basework housing may be of cast or fabricated construction.

1.3 Verification Provision

Provision is made for a verification mark to be applied.

1.4 Sealing Provision

Provision is made for the calibration adjustments to be sealed.

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
Indication of accuracy class	$\text{\textcircled{III}}$
Pattern approval number for the instrument	NMI (or NSC) 6/9C/12C
Maximum capacity	<i>Max</i> kg *
Minimum capacity	<i>Min</i> kg *
Verification scale interval	<i>e</i> = kg *
Serial number of the instrument

* These are repeated adjacent to each reading face.

Note: Instruments of 100 kg capacity or less, and having only one reading face, shall also be marked NOT FOR RETAIL COUNTER USE, or similar wording.

2. Description of Variant 1

approved on 10/8/95

In certain other capacities as listed below, each approved for use with a maximum of 500 verification scale intervals, namely:

50, 100, 250, 500 and 1000 kg.

Instruments above 100 kg capacity use an alternative basework which includes a second-order two-lever system having a link with self-aligning bearings connecting the levers (Figure 3) mounted in a framework which may be fitted with wheels and/or four levelling legs and a level indicator.

An adjustable nose-end extension is fitted to one main lever, the nose-end of which is connected to the pullrod and may be pinned to prevent movement after adjustment. The basework housing may be of cast or fabricated construction.

3. Description of Variant 2

approved on 10/8/95

With the indicator suspended (Figure 4), in which case the basework is replaced by a scoop or hook. Instruments have a maximum capacity of either 10 kg or 25 kg and are approved for use with up to 500 verification scale intervals. Instruments may be known as Wedderburn models 475H or WS-475H.

TEST PROCEDURE

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

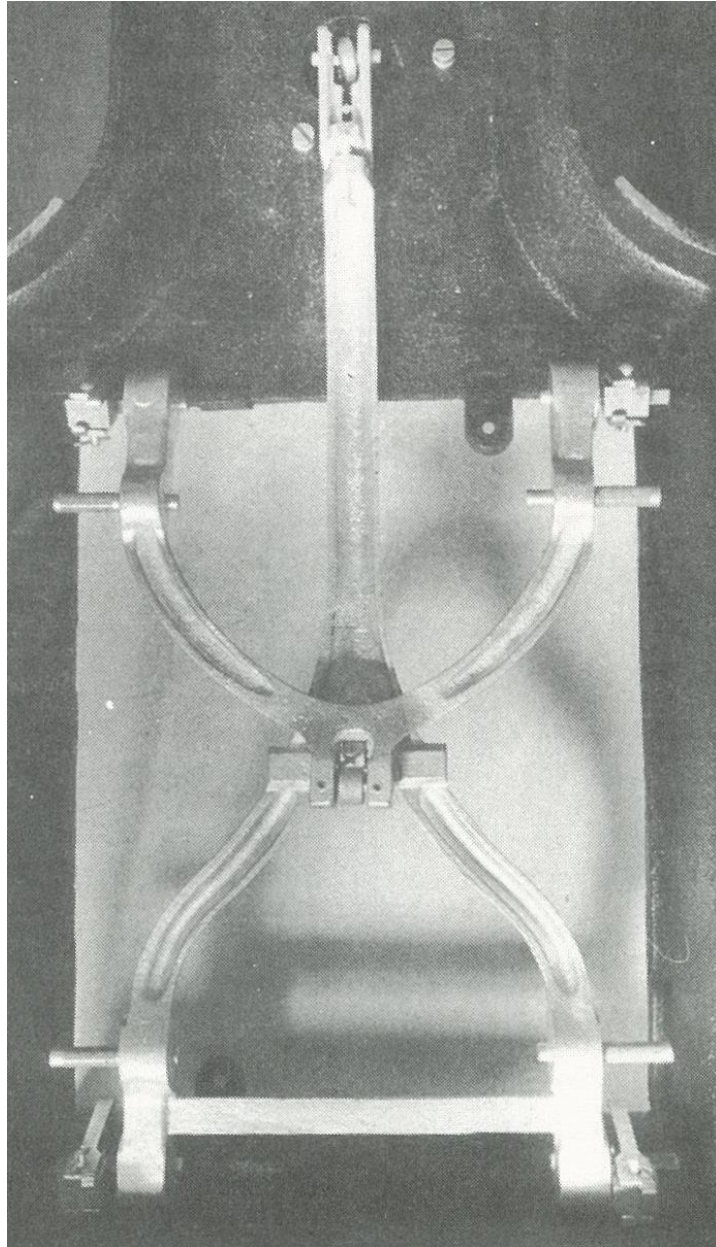
The maximum permissible errors are specified in the *National Trade Measurement Regulations 2009*.

FIGURE 6/9C/12C – 1



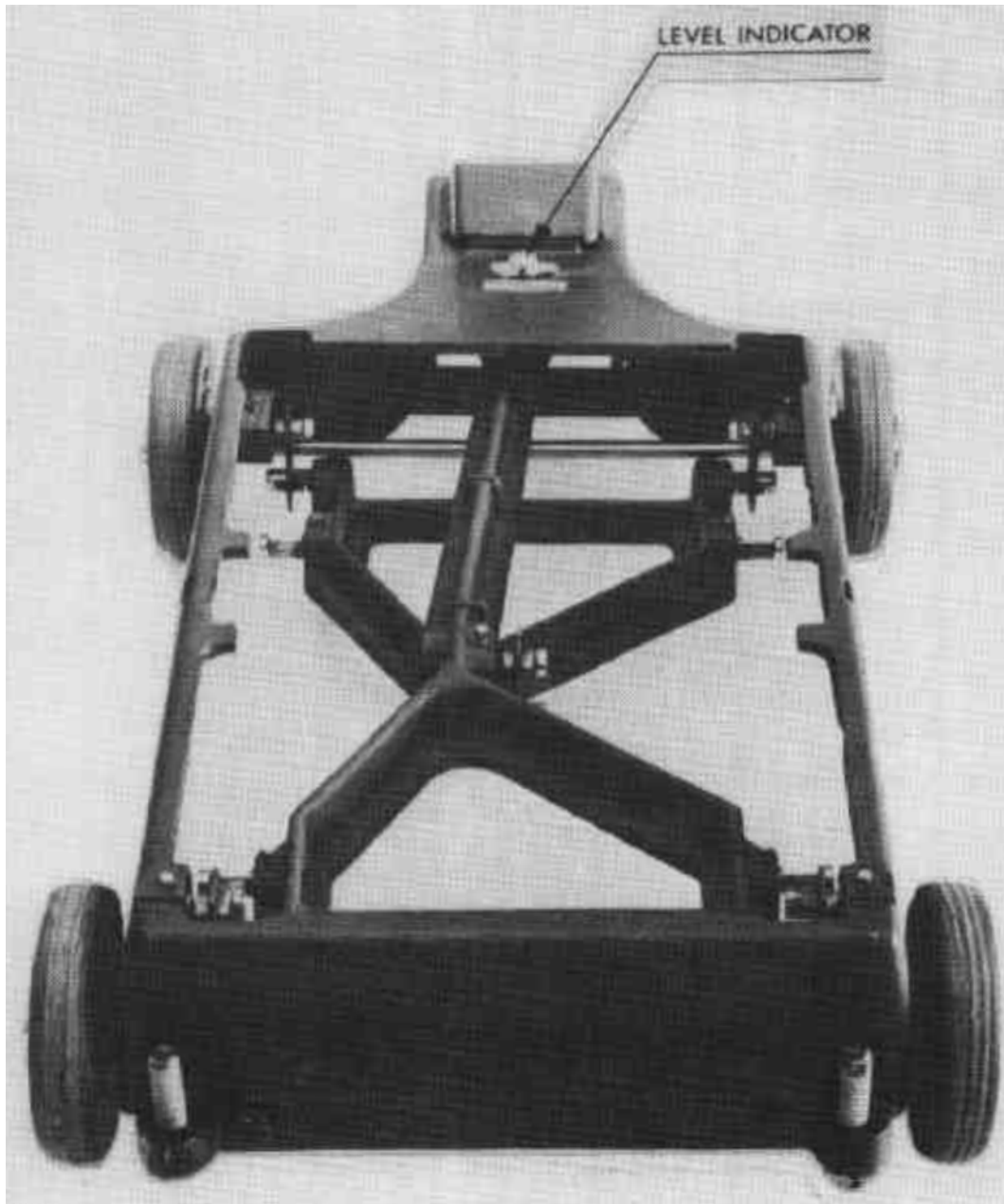
Wedderburn Model 475 (aka WS-475) Weighing Instrument
(pattern & variants 1 & 2)

FIGURE 6/9C/12C – 2



Lever System of Pattern

FIGURE 6/9C/12C – 3



Lever System of Variant 1

FIGURE 6/9C/12C – 4



Model 475H (aka WS-475H) (variant 2)

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