Australian Government
National Measurement Institute

Bradfield Road, West Lindfield NSW 2070

Cancellation

Certificate of Approval

No 6/9C/264A

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

This is to certify that the approval for use for trade granted in respect of the

Avery Weigh-Tronix Model H305 Weighing Instrument

submitted by Avery Weigh-Tronix
Foundry Lane
Smethwick
West Midlands B66 2LP UK

has been cancelled in respect of new instruments as from 1 March 2012.

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

Australian Government

National Measurement Institute
12 Lyonpark Road, North Ryde NSW 2113

Certificate of Approval

No 6/9C/264A

Issued by the Chief Metrologist under Regulation 60
of the
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This is to certify that an approval for use for trade has been granted in respect of the

Avery Weigh-Tronix Model H305 Weighing Instrument

submitted by Avery Weigh-Tronix Ltd
Foundry Lane, Smethwick
West Midlands B66 2LP UK.

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 Certificate is issued upon completion of a review of approval NSC 6/9C/264.

CONDITIONS OF APPROVAL

This approval becomes subject to review on 1 February 2011, and then every 5 years thereafter.

Instruments purporting to comply with this approval shall be marked with approval number 'NMI 6/9C/264A' 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.

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The National Measurement Institute 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.

Special Condition of Approval: Variant 1

This approval relates to the suitability of the instrument for use for trade only in respect of its weighing performance and does not relate to safety or any other aspects related to the filling of liquefied petroleum gas (LPG) containers.

DESCRIPTIVE ADVICE

Pattern: approved 27 January 2006

- An Avery Weigh-Tronix model H305 self-indicating weighing instrument of 300 kg maximum capacity. May also be known as Avery Berkel instruments of the same model.

Variants: approved 27 January 2006

1. The model R217Ex instrument, intended for the filling of LPG containers.
2. The model H305 basework of this approval with a compatible approved indicator.

Technical Schedule No 6/9C/264A describes the pattern and variants 1 & 2.

FILING ADVICE

The documentation for this approval comprises:

Certificate of Approval No 6/9C/264A dated 30 January 2006
Technical Schedule No 6/9C/264A dated 30 January 2006 (incl. Table 1 and Test Procedure)
Figures 1 to 4 dated 30 January 2006

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

TECHNICAL SCHEDULE No 6/9C/264A

Pattern: Avery Weigh-Tronix Model H305 Weighing Instrument

Submittor: Avery Weigh-Tronix Ltd
Foundry Lane, Smethwick
West Midlands B66 2LP UK

1. Description of Pattern

An Avery Weigh-Tronix model H305 self-indicating weighing instrument of 300 kg maximum capacity and approved for use with up to 3000 verification scale intervals. May also be known as Avery Berkel instruments of the same model.

1.1 Basework

The model H305 basework (Figure 1) has the load receptor directly supported by a single load cell. The basework has nominal dimensions of 700 x 600 mm.

1.2 Load Cell

An Avery Berkel model T110 load cell of 350 kg capacity is used and is mounted as shown in Figure 2.

1.3 Indicator

An Avery Weigh-Tronix model E1210 digital indicator is used. The indicator is described in the documentation of approval NSC S458.

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	Avery Weigh-Tronix
Indication of accuracy class	(III)
Maximum capacity	*Max* ..... kg *
Minimum capacity	*Min* ..... kg *
Verification scale interval	*e* = ... kg *
Tare capacity (if less then *Max)*	*T* = - ..... kg
Serial number of the instrument	.....
Pattern approval mark for the instrument	6/9C/264A

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

…./2

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 as described in the approval documentation for the indicator.

2. Description of Variants

2.1 Variant 1

The model R217Ex instrument (Figure 4), intended for the filling of liquefied petroleum gas (LPG) containers (see the Special Condition of Approval relating to this variant).

The instrument uses a basework similar to the 300 kg model H305 (described in the pattern and Table 1), but is configured with a maximum capacity of 150 kg and a verification scale interval of 0.05 kg.

The main (floor-level) load receptor has maximum nominal dimensions of 500 mm × 500 mm, while a smaller additional fold-out elevated load receptor may be used instead of the main receptor according to the size of the container being filled.

The basework is fitted with an Avery Berkel model T110 load cell of 350 kg maximum capacity.

A GEC Avery model L217Ex digital indicator is used. This indicator is similar to that described in the documentation of approval NSC S311 and is fitted with special software features and may also be known as an Avery Berkel indicator of the same model. The software features include facilities for entering LPG container types and for associating capacities and tares with each type.

2.2 Variant 2

The model H305 baseworks of this approval (Table 1) used with a compatible approved (by Supplementary Certificate) indicator provided the conditions set out below are met.

The approved basework and its limiting characteristics are given in Table 1.

The conditions to be met are:

- The excitation voltage used is within the range approved for the baseworks.
- The maximum load applied to the basework (live load plus any dead load) does not exceed the load cell maximum capacity.
- The verification scale interval is not less than the minimum value specified.
- The number of verification scale intervals is less than or equal to the n_{max} value specified.
- The signal voltage per verification scale interval is no less than the minimum sensitivity value per verification scale interval for the indicator (as specified in the approval documentation for the indicator), i.e.

  Indicator Sensitivity ≤1000 x Ex x LC_Sens x *e* / E*max*

  where Ex = Excitation from indicator (V)

  LC_Sens = Load cell sensitivity (mV/V)

  E*max* = Load cell maximum capacity (nominal) (kg)

  e = verification scale interval of the instrument (kg)

  Indicator Sensitivity = Minimum sensitivity value per verification scale interval for the indicator (μV)

2.2.1 Markings

(a) The indicator is marked and carries notices in accordance with its approval documentation. The indicator is also marked with the pattern approval mark (NMI 6/9C/264A) for the basework.

(b) The basework is marked with the following:

Manufacturer's mark, or name written in full	Avery Weigh-Tronix
Name or mark of manufacturer's agent	.....
Indication of accuracy class	(III)
Maximum capacity	*Max* ..... kg
Model number	.....
Serial number of the instrument	.....
Pattern approval mark for the instrument	6/9C/264A

TEST PROCEDURE

Instruments should be tested in accordance with any relevant tests specified in the Uniform Test Procedures.

Maximum Permissible Errors at Verification/Certification

For single range instruments, the maximum permissible errors for increasing and decreasing loads on initial verification/certification for loads, *m*, expressed in verification scale intervals, *e*, are:

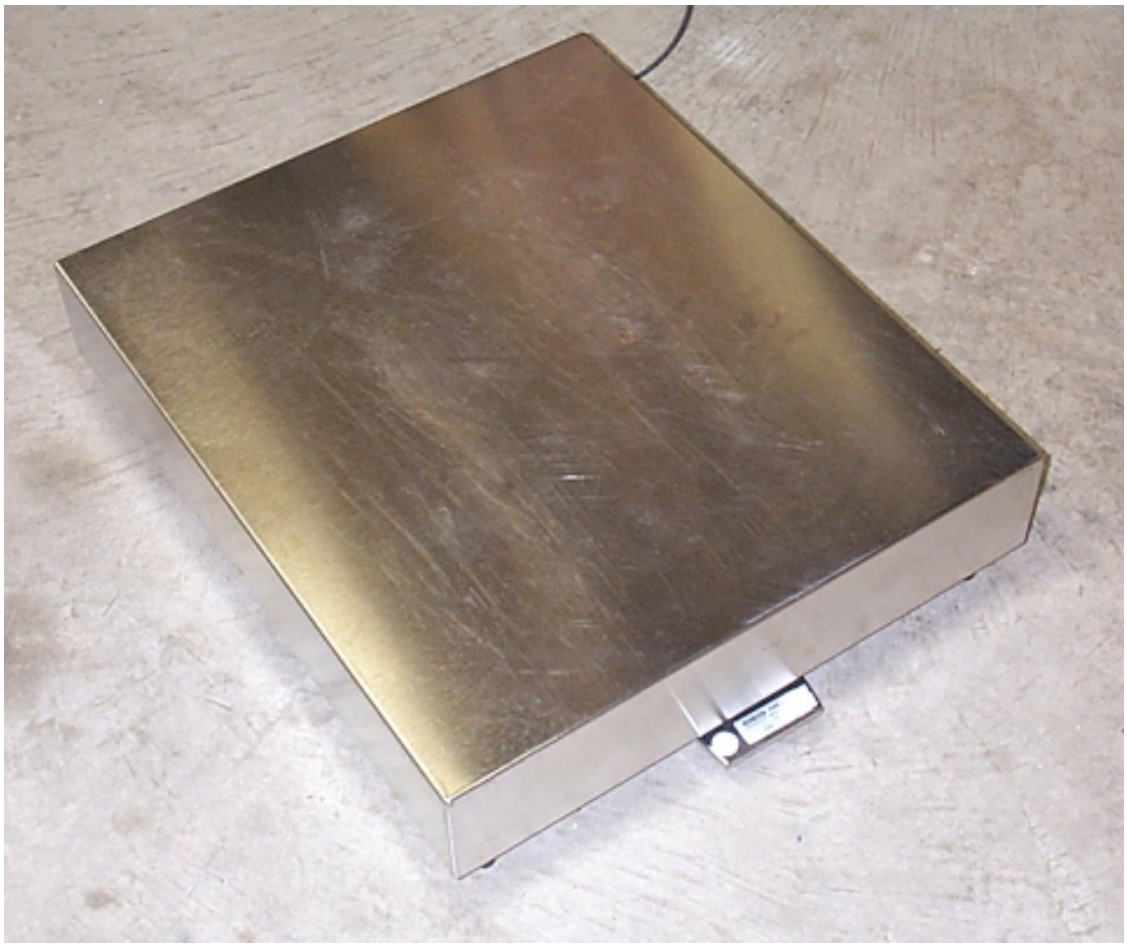
±0.5*e* for loads 0 ≤ *m* ≤ 500;
±1.0*e* for loads 500 < *m* ≤ 2 000; and
±1.5*e* for loads 2 000 <*m* ≤ 10 000.

TABLE 1

Basework:	
Basework model	H305
Basework maximum capacity – pattern (variant 1)	300 (150) kg
Maximum number of verification scale intervals	3000
Minimum value of verification scale interval	0.05 kg
Maximum platform size – pattern (variant 1)	700 × 600 mm (500 x 500) mm
Load cell:	
Model number	T110
Load cell maximum capacity E*max*	350 kg
Number of load cells	1
Load cell sensitivity at E*max*	1.63 mV/V
Input impedance	405 Ω
Excitation voltage	17 V maximum
Cable length (+0.1m)	3.0 m
Number of leads (plus shield)	4

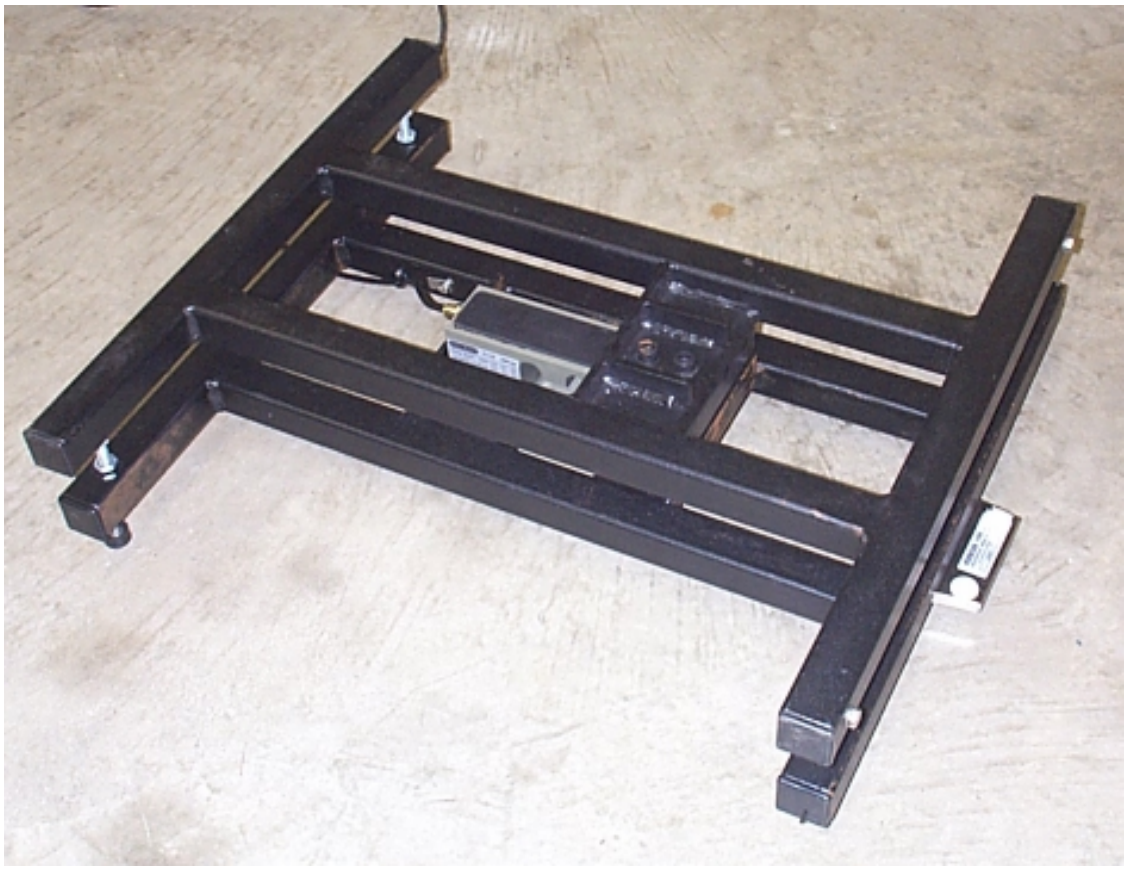
(#) The load cell cable length supplied with the basework shall not be shortened.

FIGURE 6/9C/264A – 1



Avery Weigh-Tronix Model H305 Basework

FIGURE 6/9C/264A – 2



Avery Weigh-Tronix Model H305 Basework

FIGURE 6/9C/264A – 3

Avery Weigh-Tronix Model E1210 Digital Indicator

FIGURE 6/9C/264A – 4

Model R217Ex Weighing Instrument