NATIONAL STANDARDS COMMISSION

WEIGHTS AND MEASURES (PATTERNS OF INSTRUMENTS) REGULATIONS

REGULATION 9

CERTIFICATE OF APPROVAL No 6/9C/87

This is to certify that an approval has been granted by the Commission that the pattern and variants of the

Toledo Model 2375 Weighing Instrument

submitted by Toledo Scale (Australia) Ltd
525 Graham Street
Port Melbourne, Victoria, 3207

are suitable for use for trade.

The approval is subject to review on or after 1/7/89.

Instruments purporting to comply with this approval shall be marked NSC No 6/9C/87.

The approval may be withdrawn if instruments are constructed and used other than in accordance with the drawings and specifications lodged with the Commission.

Condition of Approval

The number of scale intervals applicable to the whole instrument shall be no greater than the number of verification scale intervals approved for the load cell(s) or the headwork, whichever is the smallest.

Signed

Executive Director

Descriptive Advice

Pattern: approved 7/6/84

. A Toledo model 2375 self-indicating hopper weighing instrument of 60 t maximum capacity using four Toledo model 0752 load cells of 22,7 t maximum capacity and a Toledo model 8132 digital indicator.

Variants: approved 7/6/84

1. With the hopper replaced by a tank.
2. With the hopper or tank supported on 3 load cell assemblies.
3. With the load cell assemblies replacing the load cells or lever mechanism of any Commission-approved hopper weighing instrument.
4. With horizontal stays to restrict lateral movement of the load receptor.

Technical Schedule No 6/9C/87 describes the pattern and variants.

Filing Advice

The documentation for this approval comprises:

Certificate of Approval No 6/9C/87 dated 6/8/84
Technical Schedule No 6/9C/87 dated 6/8/84
Test Procedure No 6/9C/87 dated 6/8/84
Figure 1 dated 6/8/84.

NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 6/9C/87

Pattern: Toledo Model 2375 Weighing Instrument

Submittor: Toledo Scale (Australia) Limited
525 Graham Street
Port Melbourne, Victoria, 3207.

1. Description of Pattern

A self-indicating hopper weighing system (Figure 1) of up to 60 tonne maximum capacity using four Toledo model 0752 load cells (part numbers 110501 and 118687) of 22.7 tonnes maximum capacity and a Toledo model 8132 digital indicator with a minimum verification scale interval for the instrument of 10 kg. The dead load of hopper must be at least 4.5 t.

1.1 Load Cell

The model 0752 load cells are described in the documentation of NSC approvals No 6/10B/46 (for part number 110501) and No S143 (for part number 118687).

1.2 Indicator

Toledo model 8132 digital indicator displaying up to 3000 scale intervals with or without output sockets for the connection of peripheral and/or auxiliary equipment, and with the functions as described in the documentation of NSC Approval No S102. The indicator is also approved for use without any tare facility.

1.3 Markings

The instrument is marked with the following data, in one clearly visible location:

Manufacturer's name or mark	
Serial number of instrument	
NSC approval number	NSC No 6/9C/87
Accuracy class	(III)
Maximum capacity in the form	Max .....*
Minimum capacity in the form	Min .....*
Verification scale interval in the form	e = d = ...*
Maximum subtractive tare in the form	T = - .....
Load cell NSC approval number)	
Headwork NSC approval number) where appropriate	
Basework NSC approval number)	

Load cell serial numbers may be marked on a nameplate attached to the indicator or marked on metal tags attached to the indicator via a lead and wire seal.

2. Description of Variants

2.1 Variant 1

With the hopper replaced by a tank.

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* These must be repeated in the vicinity of each reading face.

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2.2 Variant 2

With the hopper or tank supported on three load cell assemblies. In this case the minimum verification scale interval of the instrument is 5 kg. The dead load of the hopper or tank must be at least 3.3 t.

2.3 Variant 3

With the load cell assemblies replacing the load cells or lever mechanism of any Commission-approved hopper weighing instrument, provided the dead load requirements of the pattern and variant 2 are met.

2.4 Variant 4

The pattern or variants fitted with horizontal stays to restrict the lateral movement of the load receptor.

TEST PROCEDURE No 6/9C/87

All load applications to the instrument should be in accordance with the Commission's recommended testing procedure for the elimination of rounding error as set out in Document 104.

The maximum permissible errors are:

± 0.5e for loads between 0 and 500e;
± 1.0e for loads between 501e and 2000e; and
± 1.5e for loads above 2000e.

1. Zero Range

Check that the range of the zero adjustment is not more than 4% of the maximum capacity (± 2% approximately). With zero balance indicated, apply a load of, say, 2.5% of maximum capacity to the instrument, and attempt to set zero; this should not be possible.

2. Zero Test

Check that when the zero light is illuminated, zero is set within 0.25 scale intervals.

3. Range of Indication

(a) The maximum mass indicated should not exceed by more than 10 scale intervals the maximum capacity (Max): above this indicated mass the indicator should be blank or show non-numerical characters.

(b) Below zero the indicator should be blank or display the mass prefixed by a minus sign.

4. Test Loads

Test loads are to be applied to the instrument in not less than 5 approximately equal steps increasing to maximum capacity, followed by decreasing loads of not less than 5 approximately equal steps.

The instrument should display these loads within the applicable tolerance as listed above.

5. Tare

Attempt to tare a mass above the maximum mass indicated as determined in Test 3(a) above - this should not be possible.

National Standards Commission

NOTIFICATION OF CHANGE

VARIOUS CERTIFICATES OF APPROVAL

The following changes are made to the approval documentation for various approvals

submitted by Toledo Scale (Australia) Ltd
525 Graham Street
Port Melbourne VIC 3207.

In the Certificates and Technical Schedules listed overleaf, the following changes should be made: (Note: Only current approvals are listed.)

1. The submittor should be changed to read;

   Mettler Toledo Limited

   (the address remains unchanged)

2. All references to 'Toledo' instruments or components should be amended to read 'Toledo (or Mettler or Mettler Toledo)'.

NOTE: Any 'Toledo' instrument or component described in the approval documentation may now also be known as 'Mettler or Mettler Toledo'.

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APPROVAL NUMBER	PATTERN
6/4C/65	8214 Weighing Instrument
6/4C/68	8215 Weighing Instrument
6/4D/242	8421 Weighing Instrument
6/9C/2A	2191 Weighing Instrument
6/9C/24A	2503 Weighing Instrument
6/9C/28	2020 Weighing Instrument
6/9C/~~24A~~ 441	2985 Weighing Instrument
6/9C/76	2295 Weighing Instrument
6/9C/87	2375 Weighing Instrument
6/9C/97	2155 Weighing Instrument
6/9C/98	9118 Weighing Instrument
6/9C/206	6303 Weighing Instrument
6/9C/231	1938 Weighing Instrument
6/10B/46A	7560 Weighing Instrument
6/14B/9A	2352 Hopper Weighing Instrument
6/18/21	2299 Overhead Weighing Instrument
S253	8530 Digital Indicator
S266	8520 Digital Indicator
S283	8510 Digital Indicator
S111A	0721 Load Cell
S112A	0723 Load Cell
S143	0752 Load Cell
S172	0725 Load Cell
S211	0742 Load Cell
S252	0760 Load Cell
S264	0752 Load Cell
S268	RLC 5000 Load Cell

Signed and sealed by a person authorised under Regulation 9 of the National Measurement (Patterns of Measuring Instruments) Regulations to exercise the powers and functions of the Commission under this Regulation.

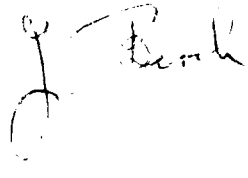
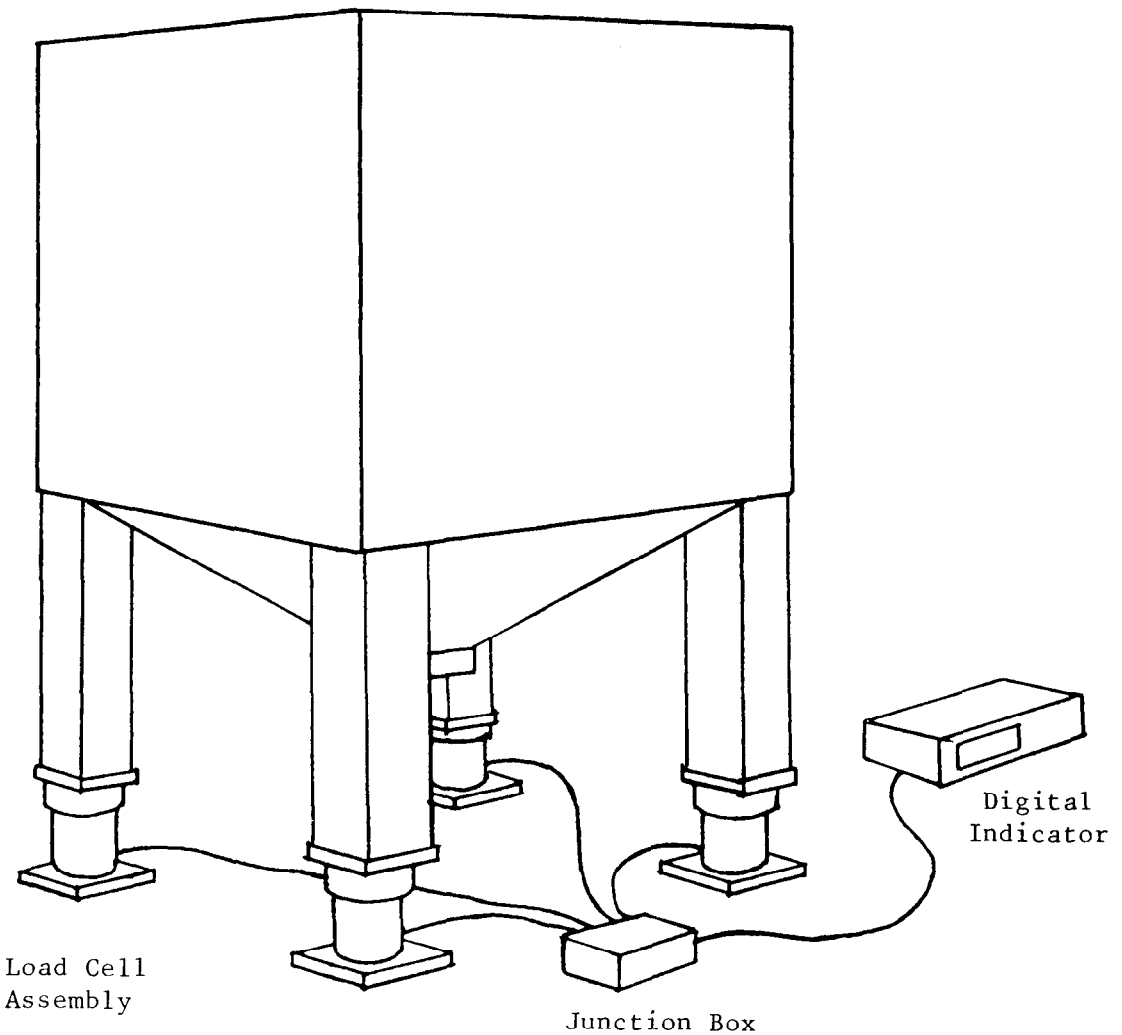


FIGURE 6/9C/87 - 1



Toledo Model 2375 Hopper Weighing Instrument