6/18/21
2/10/86

NATIONAL STANDARDS COMMISSION

NATIONAL MEASUREMENT (PATTERNS OF INSTRUMENTS) REGULATIONS

REGULATION 9

CERTIFICATE OF APPROVAL No 6/18/21

This is to certify that an approval for use for trade has been granted in respect of the pattern of the

Toledo Model 2299 Overhead-track Weighing Instrument

submitted by Toledo Scale (Australia) Limited
525 Graham Street
Port Melbourne Vic 3207.

Conditions of Approval

This approval is subject to review on or after 1/8/91.

This approval expires in respect of new instruments on 1/8/92.

Instruments purporting to comply with this approval shall be marked NSC No 6/18/21.

This approval may be withdrawn if instruments are constructed and used other than in accordance with the drawings and specifications lodged with the Commission.

The number of scale intervals applicable to the weighing instrument shall be no greater than the number of verification scale intervals approved for the load cell(s) or the headwork or the trackwork (2000e) whichever is the smallest.

Signed

Executive Director

Descriptive Advice

Pattern: approved 24/7/86

. Toledo model 2299 self-indicating overhead-track weighing instrument of 400 kg maximum capacity and with a weigh-rail up to 1220 mm long.

Technical Schedule No 6/18/21 describes the pattern.

Filing Advice

The documentation for this approval comprises:

Certificate of Approval No 6/18/21 dated 2/10/86
Technical Schedule No 6/18/21 dated 2/10/86
Test Procedure No 6/18/21 dated 2/10/86
Figures 1 to 3 dated 2/10/86

NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 6/18/21

Pattern: Toledo Model 2299 Overhead-track Weighing Instrument

Submittor: Toledo Scale (Australia) Limited
525 Graham Street
Port Melbourne Vic 3207

1. Description of Pattern

A model 2299 overhead-track weighing instrument of 400 kg maximum capacity and with a weigh-rail up to 1220 mm long.

1.1 Trackwork

The model 2299 trackwork (Figure 1) is approved for use with a maximum of 2000 verification scale intervals, has the weigh-rail suspended from two load cells and has a horizontal tie rod.

1.2 Load Cells (Figure 2)

Two Toledo model 0725 load cells of 454 kg capacity as described in the documentation of NSC approval No S172 are used and may be marked as specified in that approval or alternatively as specified in 1.4.2 below, when fitted in this instrument.

1.3 Indicator

The Toledo model 8132 digital indicator (Figure 3) is described in the documentation of NSC approval No S102 and may be marked as specified in that approval or alternatively as specified in 1.4.1 below, when fitted in this instrument.

1.4 Markings

1.4.1 Instruments are marked with the following data, together in one location:

Manufacturers name or mark	
NSC approval number	NSC No 6/18/21
Serial number	
Accuracy class	(III)
Maximum capacity	Max ..... kg*
Minimum capacity	Min ..... kg*
Verification scale interval	e = d = ... kg*
Maximum subtractive tare	T = - ..... kg

* Repeated adjacent to each reading face.

1.4.2

The following is the minimum data required to be marked on the load cell:

Manufacturers name or mark
Model number
Serial number
Maximum capacity

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

1.5 Verification Mark

Provision is made for a verification mark to be applied.

TEST PROCEDURE No 6/18/21

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

Where applicable, this Test Procedure should be carried out in conjunction with any tests in the approval documents for the load cell and/or for the digital indicator.

The maximum permissible errors are:

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

1. Zero Range

The maximum range of operation of the zero setting device should not exceed 4% of the capacity of the instrument (± 2% approximately).

2. Test Loads

2.1 Initial Verification

2.1.1 Test loads are to be applied to the instrument at the centre of the weigh rail in not less than 5 approximately equal steps increasing to maximum capacity, followed by decreasing loads in not less than 5 approximately equal steps to zero load.

2.1.2 This test should be repeated at each end of the weigh rail.

2.2 Subsequent Verifications

2.2.1 Perform 2.1.1.

2.2.2 Sufficient testing should be undertaken to ensure that the instrument performs within the maximum permissible errors at each end of the weigh rail.

Note: The instrument should display these loads within the applicable maximum permissible error as listed above.

NATIONAL STANDARDS COMMISSION

6/18/21
21/8/86

NOTIFICATION OF CHANGE

INTERIM CERTIFICATE OF APPROVAL No 6/18/21

CHANGE No 1

The following change is made to the Interim Certificate for the

Toledo Model 2255 Overhead-track Weighing Instrument

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

The model number stated in the Interim Certificate is incorrect and should be changed to read "model 2299".

Signed

J. Birch

Executive Director

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'.

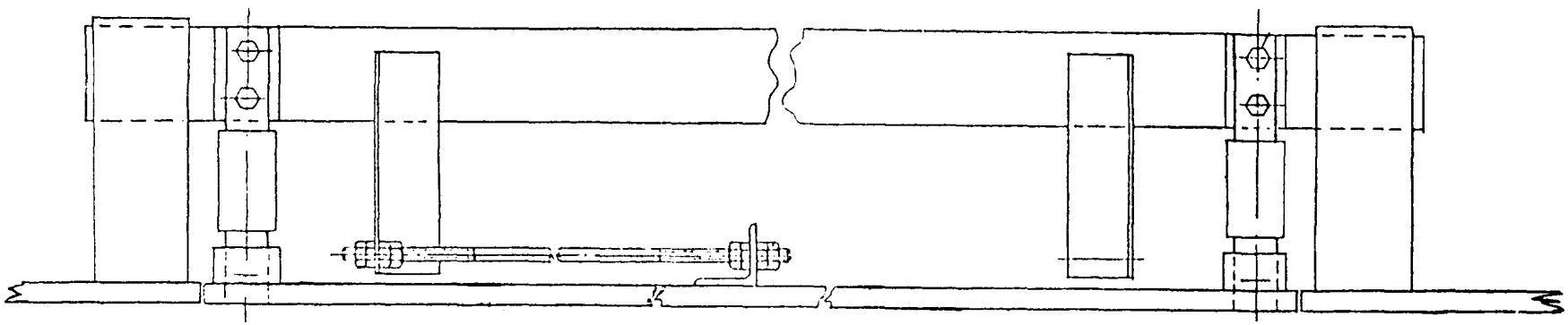
..../2

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~~ 44A	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.

J Beck

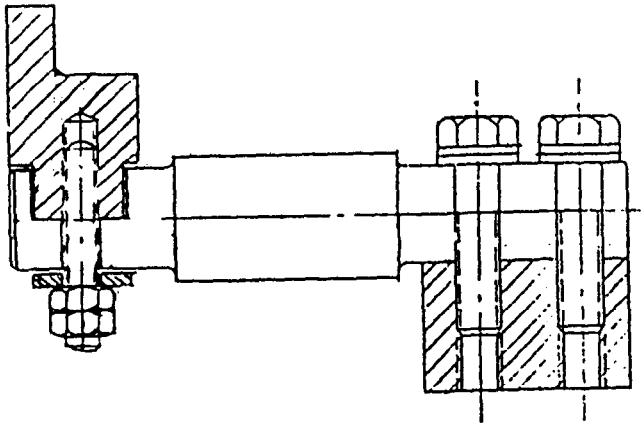
FIGURE 6/18/21-1



Toledo 2299 Trackwork

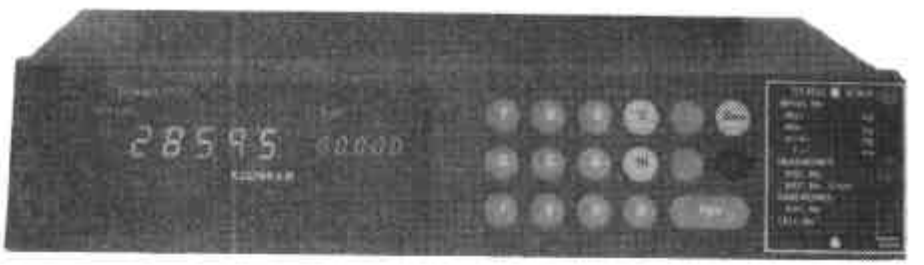
6/18/21
2/10/86

FIGURE 6/18/21 - 2



Load Cell Mounting

FIGURE 6/18/21 - 3



Toledo 8132 Indicator In Alternative Housings