National Standards Commission

Supplementary Certificate of Approval

No S253

Issued under Regulation 9
of the
National Measurement (Patterns of Instruments) Regulations

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

Toledo Model 8530 Digital Indicator

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

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

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CONDITIONS OF APPROVAL

This approval is subject to review on or after 1/7/94.
This approval expires in respect of new instruments on 1/7/95.

Instruments purporting to comply with this approval shall be marked NSC No S253 and only by persons authorised by the submittor.

Instruments incorporating a component purporting to comply with this approval shall be marked NSC No S253 in addition to the approval number of the instrument.

It is the submittor's responsibility to ensure that all instruments marked with this approval number are constructed as described in the drawings and specifications lodged with the Commission 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 the Commission's Document 106.

Auxiliary devices used with this instrument shall comply with the requirements of General Supplementary Certificate No S1/0.

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 Commission reserves the right to examine any instrument or component of an instrument purporting to comply with this approval.

Special:

This indicator is only approved for use with Commission-approved Toledo 'Digitol' load cells.

The calculations of Section 6 of General Certificate No 6B/0 shall apply to all ranges and all capacities of multi-interval instruments.

DESCRIPTIVE ADVICE

Pattern: approved 13/6/89

- A Toledo model 8530 single-interval digital indicator.

Technical Schedule No S253 describes the pattern.

Variant: approved 1/7/91

1. As a dual-interval instrument.

Variant: approved 18/7/91

2. With a facility to configure the instrument with another mass unit.

Technical Schedule No S253 Variation No 1 describes variants 1 and 2.

FILING ADVICE

Supplementary Certificate of Approval No S253 dated 24/8/89 is superseded by this Certificate and may be destroyed. The documentation for this approval now comprises:

Supplementary Certificate of Approval No S253 dated 15/8/91
Technical Schedule No S253 dated 24/8/89 (incl. Test Procedure)
Technical Schedule No S253 Variation No 1 dated 15/8/91 (incl. Test Procedure)
Figure 1 dated 24/8/89

NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No S253

Pattern: Toledo Model 8530 Digital Indicator.

Submittor: Toledo Scale (Australia) Ltd
525 Graham Street
Port Melbourne VIC 3207.

1. Description of Pattern

A Toledo model 8530 single-range digital mass indicator which is approved for use with Commission-approved Toledo 'Digitol' load cells only.

The maximum number of verification scale intervals (VSI) applicable is determined by the number of VSI given in the approval documentation for the load cells used, up to a maximum of 10 000 VSI.

The indicator has a linearisation facility with a single fixed point (mid range). It may also be fitted with output sockets for the connection of auxiliary and/or peripheral devices.

The indicator may be in various housings. Figure 1 shows a desk-mounted version.

1.1 Zero

The initial zero setting device has a nominal range of up to $\pm$ 10% of maximum capacity.

Zero is automatically set to within $\pm$ 0.25e whenever the instrument comes to rest within $\pm$ 0.5e. If the instrument comes to rest outside that range but within the zero setting range, zero may be set by pressing the zero button.

1.2 Display Check

A display check is initiated whenever power is applied.

1.3 Tare

The instrument may be fitted with a semi-automatic subtractive taring device and/or a non-automatic keyboard-entered taring device. Each device may operate up to maximum capacity, and the tare values may be stored.

1.4 Function Key

The FUNCTION key allows access to various management facilities including a totalising function and also to a set point facility which has up to 4 set points.

1.5 Verification Provision

Provision is made for a verification mark to be applied.

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1.6 Markings

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

Manufacturer's name or mark		
Serial number		
Accuracy class		(III)
Maximum capacity		Max ..... *
Minimum capacity		Min ..... *
Verification scale interval		e=d=..... *
Maximum subtractive tare		T = -.....
NSC approval numbers –	indicator	NSC No S253
–	other components	..... #

* Repeated in the vicinity of each reading face.
\# May be located separately from the other markings.

TEST PROCEDURE

Instruments should be tested in conjunction with any tests specified in the approval documentation for the weighing instrument to which this indicator is connected, and in accordance with any relevant tests specified in the Inspector's Handbook.

The results should not exceed the maximum permissible errors specified in Document 118, 2nd Edition, October 1986.

Initial Zero-setting

Apply a load equal to the nominal initial zero-setting range plus 5%, then turn the power off, and back on; the instrument should not rezero.

Apply a load equal to the nominal initial zero-setting range less 5%, then turn the power off, and back on; the instrument should rezero. From this new zero point, perform a normal load test as per the Inspector's Handbook.

National Standards Commission

TECHNICAL SCHEDULE No S253

VARIATION No 1

Pattern: Toledo Model 8530 Digital Indicator.

Submittor: Toledo Scale (Australia) Ltd
525 Graham Street
Port Melbourne VIC 3207.

1. Description of Variants

1.1 Variant 1

As a dual-interval mass indicator.

1.1.1 Limits of Ranges

Instruments shall comply with the following:

(i) With a maximum of 5000 verification scale intervals per range.

(ii) $\frac{\text{Maximum capacity of the low range}}{\text{Verification scale interval of the high range}} \geq 500$

1.1.2 Markings

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

Manufacturer's name or mark	
Serial number	
NSC approval number	NSC No S253
Accuracy class	(III)
Maximum capacity	Max ..... kg *
Minimum capacity	Min ..... kg *
Maximum subtractive tare	T = - ..... kg
High range: (similarly for low range)	
Maximum capacity	Max ..... kg *
Verification scale interval	e = d = ... kg *

* These are repeated adjacent to each reading face.

1.2 Variant 2

With a facility to configure the instrument with another mass unit viz. lb, in which case the instrument must be marked "lb not for trade use" or "lb for export use only". The scale interval, verification scale interval, maximum capacity and minimum capacity when used with this unit shall be marked in the vicinity of the reading face.

Note: The approval of this function relates to the metrological performance only; inspectors are advised that the use of this function must comply with the requirements of other statutory authorities.

TEST PROCEDURE

1. Load Test (dual-interval instruments)

Test loads are to be applied to the instrument in not less than 6 steps increasing to maximum capacity, followed by decreasing loads in not less than 6 steps to zero load. The loads should be selected such that there are 3 approximately-equal steps in each range, but avoiding the changeover point of the ranges.

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~~ 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

S253
10 August 1995

National Standards Commission

NOTIFICATION OF CHANGE

SUPPLEMENTARY CERTIFICATE OF APPROVAL No S253

CHANGE No 1

The following change is made to the approval documentation for the

Toledo Model 8530 Digital Indicator

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

In Certificate of Approval No S253 dated 15 August 1991, the Condition of Approval referring to the expiry of the approval should be amended to now read as shown below:

"This approval expires in respect of new instruments on 1 January 1996."

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.

National Standards Commission

NOTIFICATION OF CHANGE

SUPPLEMENTARY CERTIFICATE OF APPROVAL No S253

CHANGE No 2

The following change is made to the approval documentation for the

Toledo Model 8530 Digital Indicator

submitted by Toledo Scale (Australia) Ltd
(now Mettler Toledo Limited)
535 Graham Street
Port Melbourne VIC 3207.

In Certificate of Approval No S253 dated 15 August 1991, the Condition of Approval referring to the expiry of the approval should be amended to now read as shown below:

"This approval expires in respect of new instruments on 1 July 1996."

NOTE: This was previously amended by Notification of Change No 1 dated 10 August 1995.

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.

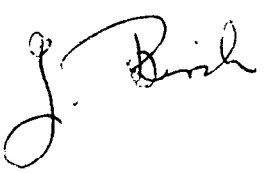

Figure 5253 - 1

Toledo 8530 Indicator