



**Australian Government**  
**National Measurement  
Institute**

Bradfield Road, West Lindfield NSW 2070

**Cancellation**  
**Certificate of Approval No 6/10B/81**

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  
Mettler Toledo Model BSS Weighing Instrument

submitted by           Mettler Toledo Limited  
                                  220 Turner Street  
                                  Port Melbourne   VIC   3207

has been cancelled in respect of new instruments as from 1 February 2014.

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 'A Rawlinson', with a horizontal line underneath.

Dr A Rawlinson



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Mettler Toledo Model BSS Weighing Instrument

submitted by           Mettler Toledo Limited  
                                  220 Turner Street  
                                  PORT MELBOURNE   VIC   3207.

**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.

**CONDITIONS OF APPROVAL**

This approval becomes subject to review on 1 September 2012, and then  
every 5 years thereafter.

Instruments purporting to comply with this approval shall be marked with  
approval number 'NMI 6/10B/81' 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.

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 of Approval No 6B/0.

#### DESCRIPTIVE ADVICE

**Pattern:** approved 14 August 2007

- A Mettler Toledo model BSS self-indicating weighing instrument of 10 000 kg maximum capacity.

**Variant:** approved 14 August 2007

1. A model BSS instrument of 15 000 kg maximum capacity.

Technical Schedule No 6/10B/81 describes the pattern and variant 1.

#### FILING ADVICE

The documentation for this approval comprises:

Certificate of Approval No 6/10B/81 dated 15 August 2007  
Technical Schedule No 6/10B/81 dated 15 August 2007 (incl. Test Procedure)  
Figures 1 and 2 dated 15 August 2007

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 6/10B/81

Pattern: Mettler Toledo Model BSS Weighing Instrument  
Submittor: Mettler Toledo Limited  
220 Turner Street  
PORT MELBOURNE VIC 3207

### 1. Description of Pattern

A Mettler Toledo model BSS self-indicating weighing instrument (Figure 1) intended for weighing coils of steel, approved for use with a maximum capacity of 10 000 kg, a minimum capacity of 100 kg and a verification scale interval (e) of 5 kg.

#### 1.1 Basework

The Mettler Toledo model BSS instrument uses six load cells. The coil of steel is loaded onto pads which form the weighing platform (Figure 1a) and which are the ends of two cantilever beams (Figure 1b). Three load cells are used on each beam, two to measure the downward force and one to measure the upward force at the other end of the cantilever beam. Tie rods are used to absorb horizontal forces.

#### 1.2 Load Cells

Six Mettler Toledo model RLC 5000 load cells (Figure 2) of 5 000 kg capacity are used in the instrument basework.

#### 1.3 Indicator

The load cells are connected to a Mettler Toledo model RAAD analog to digital load cell conversion unit, as described in the documentation of approval NSC S389.

The output from the RAAD unit is provided to a Mettler Toledo model JagXtreme digital indicator where the weight result is displayed. The indicator is also described in the documentation of approval NSC S339.

#### 1.4 Special Features – Coil Weighing Instrument

The instrument is intended for weighing coils of steel in a production line, with a transport mechanism for the coils being provided between the two halves of the instrument. The symmetrical nature of the coils and control of the location of the coils in the production line minimise the possibility of eccentric loading, particularly in the transverse direction.

The instrument is installed in a permanently fixed location.

#### 1.5 Sealing Provision

Provision is made for the calibration adjustments in the indicator to be sealed as described in the approval documentation for the indicator used.

## 1.6 Markings

Instruments carry the following markings:

Manufacturer's mark, or name written in full	Mettler Toledo Limited
Indication of accuracy class	Ⓜ
Pattern approval mark for the instrument	NMI 6/10B/81
Pattern approval mark for the indicator	S389 and S339
Maximum capacity	Max ..... kg *
Minimum capacity	Min ..... kg *
Verification scale interval	e = ..... kg *
Serial number of the instrument	.....

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

## 1.7 Verification/Certification Provision

Provision is made for the application of a verification/certification mark.

## 2. Description of Variants

### 2.1 Variant 1

The Mettler Toledo model BSS as described for the pattern, but of 15 000 kg maximum capacity, and using six Mettler Toledo model RLC 10000 load cells of 10 000 kg capacity. The verification scale interval is 5 kg.

### TEST PROCEDURE

Instruments should be tested in accordance with any relevant tests specified in the Uniform Test Procedures, subject to the following:

Notes: See clause **1.4 Special Features – Coil Weighing Instrument** in regard to special features of this instrument.

The instrument user shall provide a test platform (with semi-cylindrical base) for application of test masses. Differing diameters of the semi-cylindrical base may be used to represent different coil diameters (e.g. 1700 mm and 1000 mm diameter).

In view of the special nature of the instrument, as well as safety considerations, an eccentricity test may be carried out only in the longitudinal direction, by locating the test platform (with 80% of maximum capacity) at the centre and then to either end of the instrument (in doing this the change in test platform location from end to end is around 300 mm).

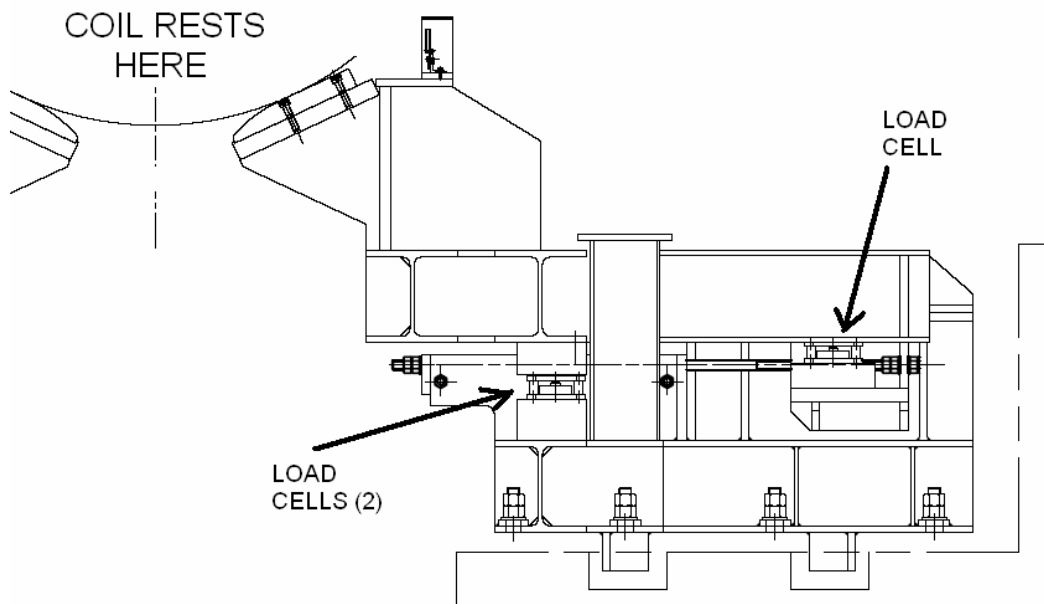
### Maximum Permissible Errors at Verification/Certification

The maximum permissible errors are specified in Schedule 12 of the *National Measurement Regulations 1999*.

FIGURE 6/10B/81 – 1



(a) BSS coil weighing instrument basework (coil rests on the (red) pads)

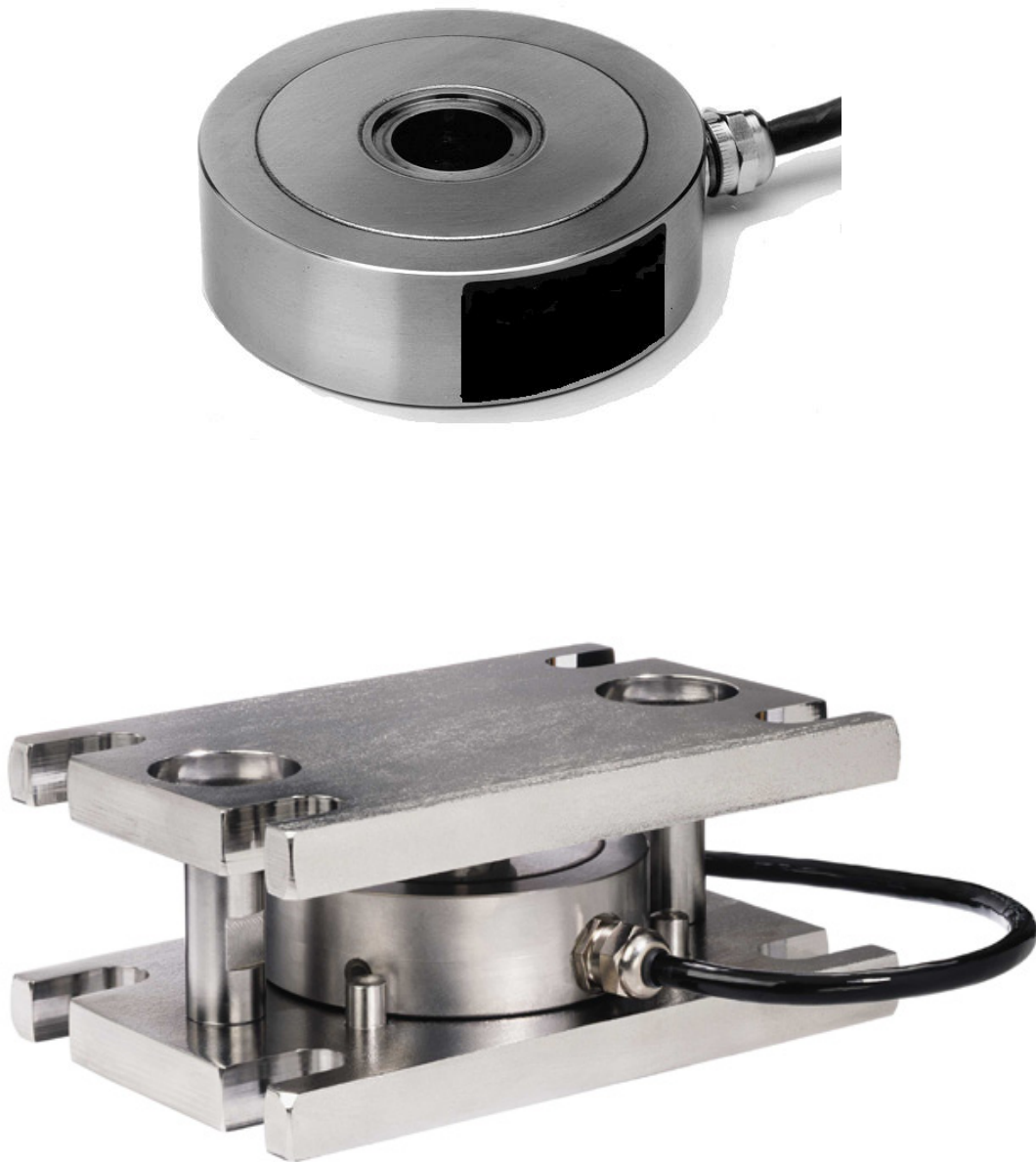


(b) Diagram showing one-half of the BSS basework

Mettler Toledo Model BSS Weighing Instrument

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FIGURE 6/10B/81 – 2



Mettler Toledo Model RLC Load Cell  
(shown on its own and in its mounting arrangement)