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NATIONAL STANDARDS COMMISSION

NATIONAL MEASUREMENT (PATTERNS OF INSTRUMENTS) REGULATIONS

REGULATION 9

# CERTIFICATE OF APPROVAL No 6/4C/43

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

Toledo Model 8211 Weighing Instrument

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

ore suitable for use for trade.

CONDITIONS OF APPROVAL

General:

This Certificate is issued upon the review of approval No 6/4D/84 which expired on 1/3/84 with the effect that no new instruments purporting to comply with that approval will be accepted for verification after that date.

This approval is subject to review on or after 1/6/89.

Instruments purporting to comply with this approval shall be marked NSC No 6/4C/43. Instruments currently marked 6/4D/84A should be re-numbered at their next verification.

This approval may be withdrawn if instruments are constructed and used other than in accordance with the drawings and specifications lodged with the Commission.

Special

The model 8211 may only be used for retail counter use when provided with an indicator complying with the requirements of NSC approval No S1/0, or when connected to an electronic cash register which complies with the requirements of NSC approval No S2/0.

Signed Executive Di

## Descriptive Advice

Pattern: approved 31/5/84

. A self-indicating weighing instrument of 15 kg capacity with 0.005 kg scale intervals.

Variant: approved 31/5/84

1. Of 9.995 kg capacity.

Technical Schedule No 6/4C/43 describes the pattern and variant.

#### Filing Advice

The documentation for this approval comprises:

Certificate of Approval No 6/4C/43 dated 3/12/84 Technical Schedule No 6/4C/43 dated 3/12/84 Test Procedure No 6/4C/43 dated 3/12/84 Figure 1 dated 3/12/84.



# NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 6/4C/43

Pattern: Toledo Model 8211 Weighing Instrument

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

#### 1. Description of Pattern

A self-indicating weighing instrument (Figure 1) of 15 kg capacity with 0.005 kg scale intervals. The instrument may be fitted with output sockets for the connection of auxiliary and/or peripheral devices.

#### 1.1 Zero

Zero is automatically corrected to within 0.25e whenever the instrument comes to rest within 0.5e of zero. If the instrument comes to rest outside that range but within the zero reset range, zero may be reset by pressing the zero button. The zero light illuminates whenever zero is correct within 0.25e.

## 1.2 Display Check

Successive operations of the VERIFY switch cause the display to alternate between all 8's and blank.

## 1.3 Marking

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

Manufacturer's name or mark	
Serial number	
NSC approval number	NSC No 6/4C/43
Accuracy class	
Maximum capacity in the form	Max kg*
Minimum capacity in the form	Min kg*
Verification scale interval in the form	e = d = kg*

Note: The instrument must also be marked NOT FOR RETAIL COUNTER USE except when the Special Condition of Approval is met. If the instrument displays mass below zero, it must not be used for retail counter use and must be so marked.

#### 1.4 Levelling

The instrument is provided with adjustable feet. Adjacent to the level indicator is a notice advising that the instrument must be level when in use.

## 1.5 Verification

Provision is made for the application of a verification mark. In addition a stamping plug may be fitted at the option of the submittor.

## 2. Description of Variant 1

Of 9.995 kg capacity with 0.005 kg scale intervals.

These should be repeated in the vicinity of each reading face.

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## TEST PROCEDURE No 6/4C/43

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:

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

# 1. Zero Test

As the automatic device resets zero when the weighing mechanism is in equilibrium within 0.5e of zero, zero should be checked as described in Document 104, with a load equal to, say, 10e on the load receptor. The indications with 0.25e and 0.75e additional mass on the load receptor will then be 10e and 11e respectively.

#### 2. Zero Range

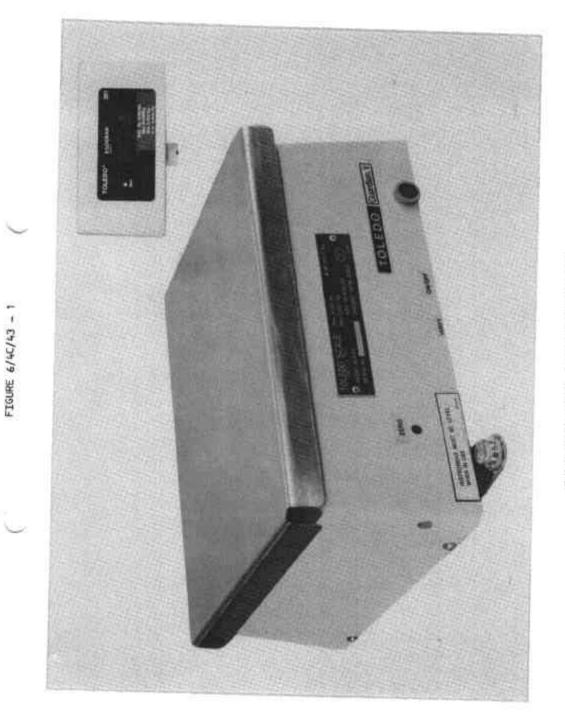
The maximum range of operation of the zero setting device should not exceed 4% of the maximum capacity ( $\pm 2\%$  approximately). With zero balance indicated apply a load of, say, 2.5% of maximum capacity to the instrument and press the zero button; the instrument should not rezero.

#### 3. Load Test

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

# 4. Range of Indication

- (a) The maximum mass indicated should not exceed the marked maximum capacity (Max) by more than 10e; above this indicated mass the indication should be blank or show non-numerical characters.
- (b) The minimum mass indicated should be zero; below this the indication should be blank or show non-numerical characters. If the instrument displays mass below zero, then it must be marked NOT FOR RETAIL COUNTER USE.



Toledo Model 8211 Weighing Instrument