

# NATIONAL STANDARDS COMMISSION

### NATIONAL MEASUREMENT (PATTERNS OF INSTRUMENTS) REGULATIONS

# REGULATION 9

# INSTRUMENT CERTIFICATE OF APPROVAL No 6/9C/95

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

Rontrex 30 000 kg Platform Weighing Instrument

submitted by Rontrex Systems (Aust) Pty Ltd 30 Boundary Street South Melbourne Vic 3205.

Conditions of Approval

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

The instrument purporting to comply with this approval shall be marked NSC No 6/9C/95.

This approval may be withdrawn if the instrument is constructed and used other than in accordance with the drawings and specifications lodged with the Commission.

The approval is limited to the instrument having serial number 181185 and located at John Lysaght (Aust) Ltd, Westernport Works, Hastings, Victoria.

Signed

Acting Executive Director

#### Descriptive Advice

Pattern: approved 3/12/85

A self-indicating dual range platform weighing instrument of 30 000 kg capacity.

Technical Schedule No 6/9C/95 describes the pattern.

# Filing Advice

The documentation for this approval comprises:

Instrument Certificate of Approval No 6/9C/95 dated 12/3/86 Technical Schedule No 6/9C/95 dated 12/3/86 Test Procedure No 6/9C/95 dated 12/3/86 Figure 1 dated 12/3/86



# NATIONAL STANDARDS COMMISSION

# TECHNICAL SCHEDULE No 6/9C/95

Pattern: Rontrex 30 000 kg Platform Weighing Instrument

Submittor: Rontrex Systems (Aust) Pty Ltd 30 Boundary Street South Melbourne Vic 3205

#### 1. Description of Pattern

A self-indicating dual range platform weighing instrument with 5 kg scale intervals up to 15 000 kg and with 10 kg scale intervals from 15 000 kg up to the maximum capacity of 30 000 kg. The instrument has serial number 181185 and is located at John Lysaght (Aust) Ltd, Westernport Works, Hastings, Victoria.

#### 1.1 Basework

The basework (Figure 1) is fitted with 4 HBM model C3H2 load cells of 10 t maximum capacity. The load receptor is designed for weighing steel coils.

#### 1.2 Indicator

The instrument uses a Salter model WML indicator which is similar to the instrument described in NSC approval No S194, but modified for dual range operation. It may be fitted with output sockets for the connection of peripheral and/or auxiliary devices.

#### 1.2.1 Zero

Zero is automatically corrected to within  $\pm$  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 within  $\pm$  0.25e.

#### 1.2.2 Display Check

A display check is initiated whenever power is applied to the instrument.

#### 1.2.3 Tare

A semi-automatic subtractive taring device allows a mass on the load receptor of up to 30 000 kg capacity to be tared to within 0.25e.

# 1.2.4 Net/Gross Button

When this button is pressed the indicator will display the net or gross mass with the appropriate lamp illuminating.

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# 1.3 Markings

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

Manufacturer's name or mark	
Serial number	181185
NSC approval number	NSC No 6/9C/95
Accuracy class	(III)
Maximum capacity	Max 30 000 kg *
Minimum capacity	Min 250 kg *
Low range – maximum capacity	Max 15 000 kg *
verification scale interval	e=d= 5kg*
High range – maximum capacity	Max 30 000 kg *
verification scale interval	e = d = 10 kg *
Maximum subtractive tare	$T = -30\ 000\ kg$

\* These markings are repeated close to the reading face if not already in that vicinity.

# 1.4 Verification Provision

Provision is made for a verification mark to be applied.

## TEST PROCEDURE No 6/9C/95

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 error applicable is that for the range in which the measurement is made, using the scale interval of that range.

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 Test

- (a) Check by means of Document 104 that when the zero light illuminates, zero is set within 0.25e.
- (b) As the automatic device resets zero when the weighing mechanism is in equilibrium within 0.5e of zero, zero should be checked 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 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 change-over point of the ranges.

# 4. Range of Indication

The maximum mass indicated should not exceed the marked maximum capacity by more than 10e; above this indicated mass the indication should be blank or show non-numerical characters.

## 5. Taring

The semi-automatic tare function should be able to reset the mass indicator to zero within  $\pm$  0.25e at any load within its capacity. This may be checked as described for Zero\_Test. A tare should not be able to be acquired above the marked tare capacity.



