

National Standards Commission



Provisional

Certificate of Approval

No P6/9C/234

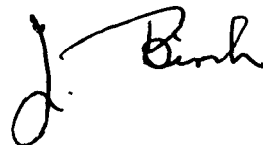
Issued under Regulation 9
of the
National Measurement (Patterns of Measuring Instruments) Regulations

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

ROBWAY Model ULTIMATE Mk II Weighing Instrument

submitted by **ROBWAY Safety Systems Pty Ltd**
32 West Thebarton Road
Thebarton SA 5031.

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.



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 P6/9C/234 and only by persons authorised by the submittor.

It is the submittor's responsibility to ensure that all instruments marked with this approval number are constructed as described in the documentation 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.

The Commission 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.

Special:

Instruments shall not be modified from that approved herein, including by the use of General Certificate No 6B/0.

Instruments are to be tested at intervals not exceeding 6 months; such tests are to be arranged by the submittor, supervised by a Trade Measurement authority, and the results forwarded to the Commission.

This approval may be withdrawn if suitable test results are not received.

DESCRIPTIVE ADVICE

Pattern: provisionally approved 30/7/90

- A ROBWAY model ULTIMATE Mk II class 4 self-indicating weighing instrument of 2000 kg maximum capacity.

Technical Schedule No 6/9C/234 describes the pattern.

Variants: provisionally approved 18/12/91

1. As a class 3 instrument of 2000 kg maximum capacity.
2. A model ULTIMATE Mk III Twin System class 3 instrument of 4000 kg maximum capacity.
3. A model ULTIMATE Mk IV Twin System class 3 instrument of 6000 kg maximum capacity.

Technical Schedule No 6/9C/234 Variation No 1 describes variants 1 to 3.

FILING ADVICE

Provisional Certificate of Approval No P6/9C/234 dated 9/10/90 is superseded by this Certificate and may be destroyed.

The documentation for this approval now comprises:

Provisional Certificate of Approval No P6/9C/234 dated 26/6/92
Technical Schedule No 6/9C/234 dated 9/10/90 (incl. Test Procedure)
Technical Schedule No 6/9C/234 Variation No 1 dated 26/6/92
Figure 1 dated 9/10/90
Figure 2 dated 26/6/92



National Standards Commission

TECHNICAL SCHEDULE No 6/9C/234

Pattern: ROBWAY Model ULTIMATE Mk II Weighing Instrument.

Submitter: ROBWAY Safety Systems Pty Ltd
32 West Thebarton Road
Thebarton SA 5031.

1. Description of Pattern

A ROBWAY model ULTIMATE Mk II self-indicating class 4 weighing instrument of 2 000 kg capacity with a verification scale interval of 2 kg.

1.1 Weighing Mechanism

The weighing mechanism (Figure 1) consists of a single load cell fitted between a pair of metal plates which are then mounted between the mast and the lifting attachment (tines or otherwise) of a fork-lift.

The load receptor (pallet or similar) has a maximum area of 1 200 x 1 200 mm.

1.2 Load Cell

A Precision Transducers model ST 5T load cell of 5 000 kg capacity is used and is mounted as shown in Figure 1.

Only this make, model and capacity of load cell shall be used.

1.3 Indicator

An AND Mercury model AD-4321 digital indicator is used as described in the documentation of NSC approval No S199. The instrument may be fitted with a semi-automatic subtractive taring device of up to maximum capacity.

1.4 Level Indicator

Adjacent to the reading face of the indicator is a notice stating that THE INSTRUMENT MUST BE LEVEL WHEN IN USE, or similar wording. A similar notice in letters not less than 10 mm high is fixed adjacent to the level indicator mounted on the rear of the fork-lift mast so as to be visible to the operator.

1.5 Operation


Weighing is only to take place when the level indicator mounted on the fork-lift mast, indicates that the mast is correctly positioned for weighing.

1.6 Verification Provision

Provision is made for a verification mark to be provided.

1.7 Markings

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

Manufacturer's name or mark	
Serial number	
NSC approval number	NSC No P6/9C/234
Accuracy class	
Maximum capacity	Max kg *
Minimum capacity	Min kg *
Verification scale interval	e = d = kg *
Maximum subtractive tare	T = - kg

TEST PROCEDURE

Instruments should be tested in conjunction with any tests specified in the approval documentation for the indicator used, and in accordance with any relevant tests specified in the Inspector's Handbook.

Maximum Permissible Errors at Verification/Certification

The maximum permissible errors for increasing and decreasing loads, expressed in terms of verification scale interval (e), with the instrument adjusted to zero within $\pm 0.25e$ at no load, are:

- $\pm 0.5e$ for loads from 0 to $50e$;
- $\pm 1.0e$ for loads over $50e$ up to $200e$; and
- $\pm 1.5e$ for loads over $200e$.

1. Eccentricity Test

The eccentricity tests are carried out by means of a test load corresponding to one-third of the maximum capacity, distributed on different eccentric areas which are roughly equal to a quarter of the surface area of the load receptor.



National Standards Commission

TECHNICAL SCHEDULE No 6/9C/234

VARIATION No 1

Pattern: ROBWAY Model ULTIMATE Mk II Weighing Instrument.

Submittor: ROBWAY Safety Systems Pty Ltd
32 West Thebarton Road
Thebarton SA 5031.

1. Description of Variants

1.1 Variant 1

A model ULTIMATE Mk II class 3 instrument of 2000 kg maximum capacity with a verification scale interval of 2 kg.

1.2 Variant 2

A model ULTIMATE Mk III Twin System class 3 instrument of 4000 kg maximum capacity with a verification scale interval of 2 kg.

The weighing mechanism (Figure 2) comprises two units; each unit consists of a load cell fitted between a pair of metal plates. The units are then mounted between the mast and the lifting attachment (tines or otherwise) of a fork-lift.

The load receptor (pallet or similar) has a maximum area of 1200 x 1200 mm.

Two Precision Transducers model ST 5T load cells of 5000 kg capacity are used and are mounted as shown in Figure 2.

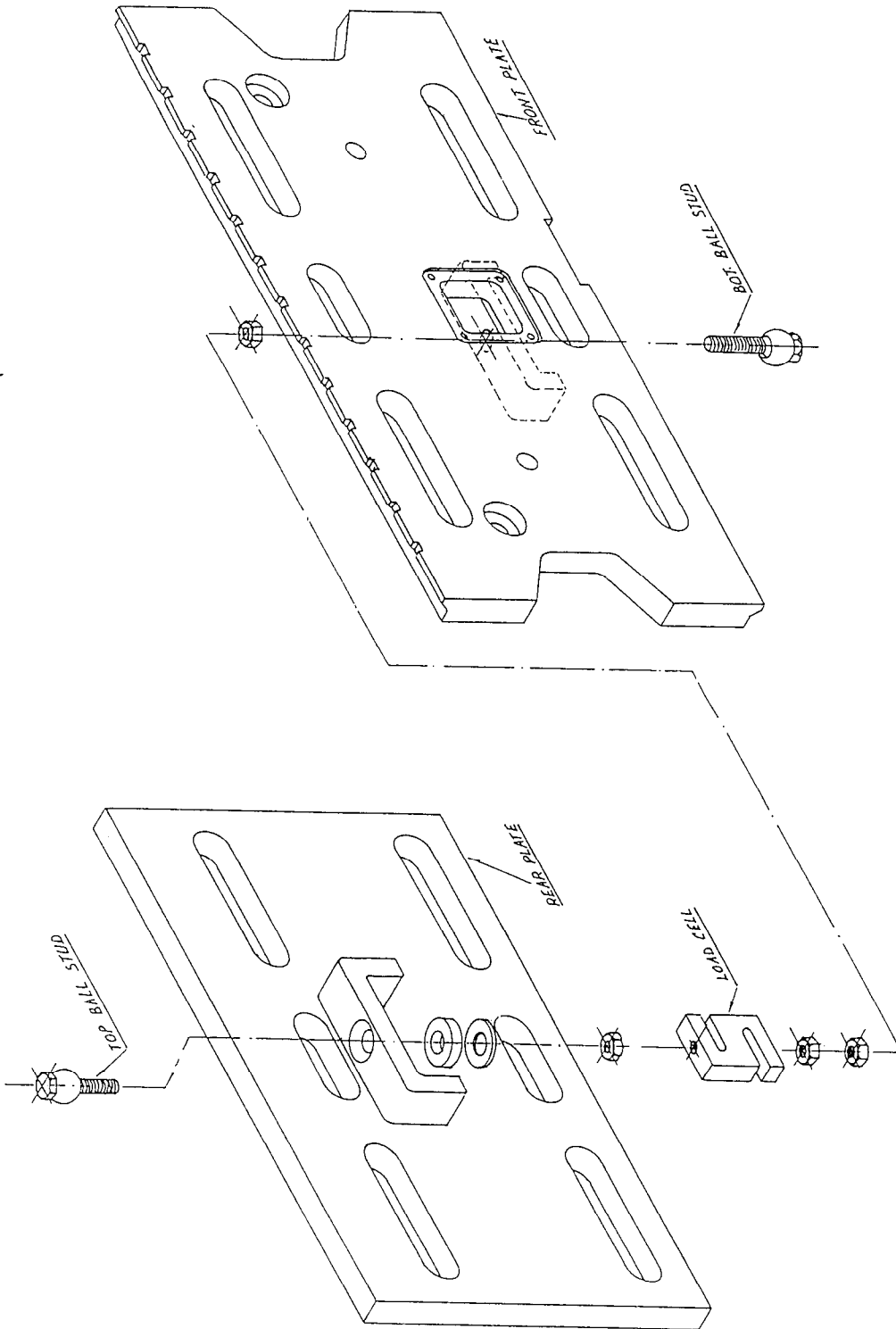
Only this make, model and capacity of load cell shall be used.

1.3 Variant 3

A model ULTIMATE Mk IV Twin System class 3 instrument of 6000 kg maximum capacity with a verification scale interval of 5 kg.

The weighing mechanism is as described for Variant 2, and as shown in Figure 2.

FIGURE 6/9C/234 - 1



ROBWAY Model ULTIMATE Mk11 Weighing Mechanism

FIGURE 6/9C/234 - 2

