

National Standards Commission



Certificate of Approval

No LM 6/9C/229A

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

This is to certify that an approval for use as a legal measuring instrument has been granted in respect of the

PAT Model SAW 10 A Weighing Instrument

submitted by Electronic Load Weighing Co of Australia Pty Ltd
93 Cecil Avenue
Castle Hill NSW 2154.

This Certificate does NOT grant an approval for use for trade.

NOTE: This Certificate relates to the suitability of the pattern of the instrument for use as a legal measuring instrument 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 Certificate is issued upon completion of a review of NSC approval No 6/9C/229.

CONDITIONS OF APPROVAL

This approval is subject to review on or after 1 July 2000.
This approval expires in respect of new instruments on 1 July 2001.

Instruments purporting to comply with this approval shall be marked NSC No LM 6/9C/229A 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.

Special:

This Certificate relates to the suitability of the instrument as a class 4 non-automatic weighing instrument. Instruments complying with this approval and verified as complying with the requirements for a class 4 non-automatic weighing instrument may be used for determining the wheel (or axle) loads of a vehicle for enforcement of legal load limits for roads.

This approval shall NOT be used in conjunction with General Certificate No 6B/0.

DESCRIPTIVE ADVICE

Pattern: approved 20 June 1995

- A PAT model SAW 10 A self-indicating class 4 platform weighing instrument of 10 000 kg maximum capacity with a verification scale interval of 50 kg.

Variant: approved 20 June 1995

1. Of 10 000 kg maximum capacity with a verification scale interval of 100 kg.

Technical Schedule No LM 6/9C/229A describes the pattern and variant 1.

FILING ADVICE

The documentation for this approval comprises:

Certificate of Approval No LM 6/9C/229A dated 10 November 1995
Technical Schedule No LM 6/9C/229A dated 10 November 1995 (incl.
Test Procedure)
Figure 1 dated 10 November 1995



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



National Standards Commission

TECHNICAL SCHEDULE No LM 6/9C/229A

Pattern: PAT Model SAW 10 A Weighing Instrument

Submittor: Electronic Load Weighing Co of Australia Pty Ltd
93 Cecil Avenue
Castle Hill NSW 2154

1. Description of Pattern

A PAT model SAW 10 A self-indicating class 4 platform weighing instrument of 10 000 kg maximum capacity with a verification scale interval of 50 kg.

1.1 Platform

The platform is a strain gauge device with integral digital indicator (Figure 1).

1.2 Indicator

The digital indicator is battery-operated. Applying power initiates an automatic cycle including zero setting, battery condition and display check.

1.3 Level Indicator

Adjacent to the level indicator is a notice stating that THE MEASUREMENT MAY NOT BE CORRECT UNLESS THE INSTRUMENT IS LEVEL, or similar wording.

1.4 Markings

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

Manufacturer's name or mark	
Serial number	
NSC approval number	NSC No LM 6/9C/229A
Accuracy class	Ⓜ
Maximum capacity	Max kg
Minimum capacity	Min kg
Verification scale interval	e = kg

1.5 Verification/Certification Provision

Provision is made for a verification/certification mark to be provided.

1.6 Sealing

Provision is made for the calibration adjustments to be sealed.

2. Description of Variant 1

Of 10 000 kg maximum capacity with a verification scale interval of 100 kg.

TEST PROCEDURE

Instruments should be tested in conjunction with any relevant tests specified in the Inspector's Handbook. Refer to the manufacturer's instructions before beginning the test.

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:

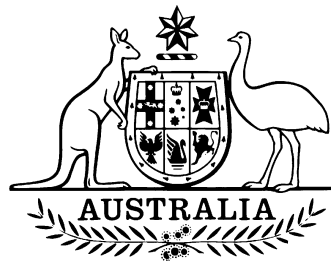
$\pm 0.5e$ for loads from 0 to $50e$; and
 $\pm 1.0e$ for loads over $50e$ up to $200e$.

- (a) Apply a test load of not less than half the capacity of the instrument to the load receptor at least three times to exercise the instrument.
- (b) Zero the instrument.
- (c) Apply an appropriate zero test using test loads of $0.25e$ and $0.75e$.
Where the instrument has an automatic zero-correction device apply the zero test at, say, $2e$.
- (d) Apply an appropriate discrimination test.
- (e) Apply a repeatability test.
- (f) Where practical, apply an eccentricity test.
- (g) Apply a sensitivity test for the level indicating device.
- (h) With the zero indication correct, apply test loads to the centre of the load receptor in not less than five approximately-equal steps increasing to the maximum capacity.

Ensure that the indications are within the maximum permissible error for the load applied.

Each test load is to be applied at least twice and, where test masses are used and the test load consists of more than one test mass, the test load is to be applied as one mass.

Ensure that after the removal of each test load the zero indication is within $\pm 0.25e$.



National Standards Commission

12 Lyonpark Road, North Ryde NSW

Notification of Change

Certificate of Approval No LM 6/9C/229A

Change No 1

The following changes are made to the approval documentation for the

PAT Model SAW 10 A Weighing Instrument

submitted by Electronic Load Weighing Co of Australia Pty Ltd
93 Cecil Avenue
Castle Hill NSW 2154.

In Certificate of Approval No LM 6/9C/229A dated 10 November 1995, the Special Conditions of Approval should be amended as follows;

1. The first paragraph should be amended by deleting the words "(or axle)".

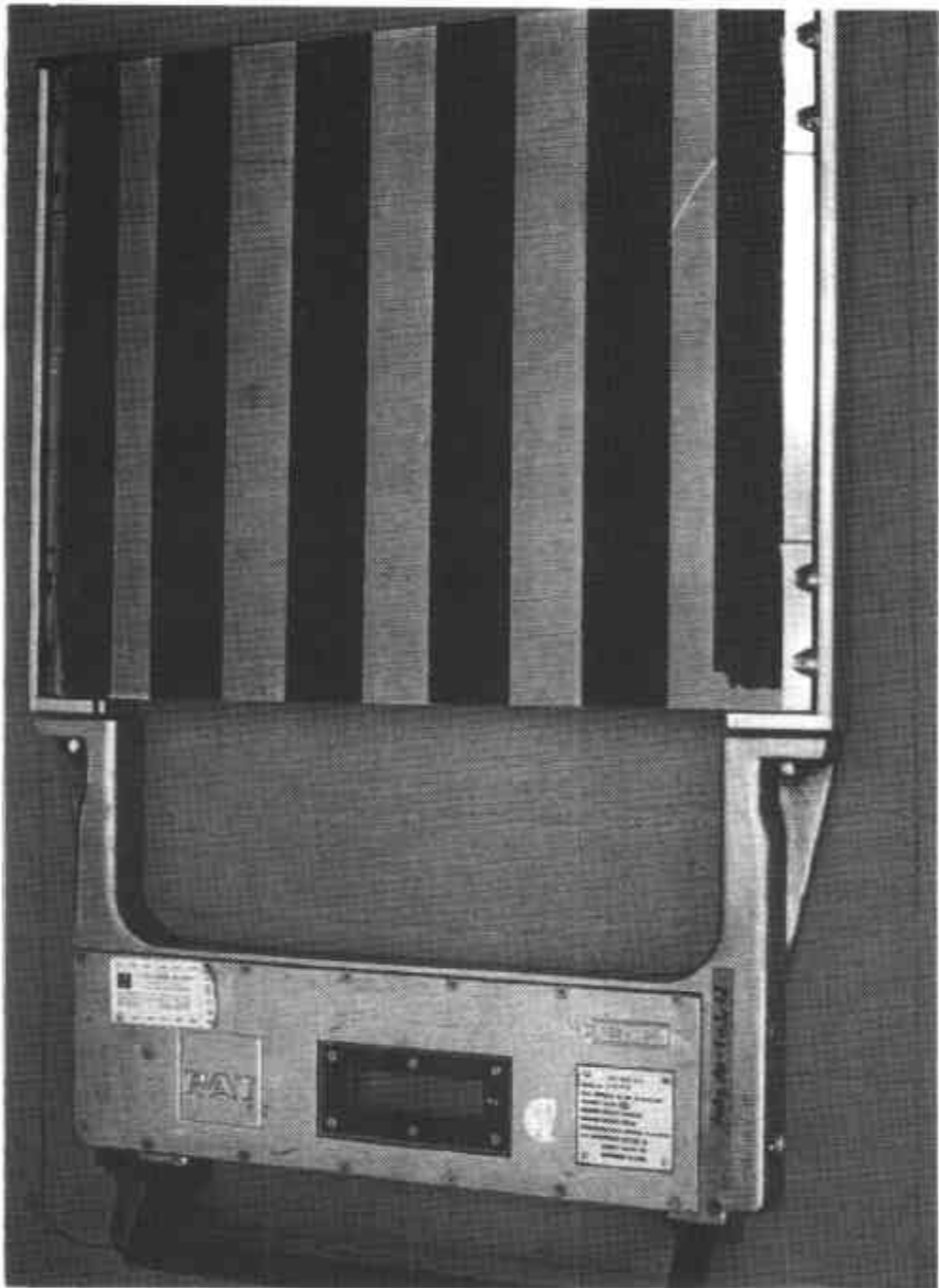
2. The following should be added after the second paragraph:

"Multiple instruments may be used with their indications being summed to provide the mass of an individual axle, an axle group or a total vehicle. When multiple instruments are used, caution should be exercised as the uncertainty of the values obtained by the summation of readings could exceed the maximum permissible errors for class 4 weighing instruments. Use of a single instrument is not permitted for any of these mass determinations."

Signed by a person authorised under Regulation 60 of the National Measurement Regulations 1999 to exercise the powers and functions of the Commission under this Regulation.

A handwritten signature in black ink, appearing to read 'Jim Bennett'.

FIGURE LM 6/9C/229A - 1



PAT Model SAW 10 A Weighing Instrument