



Australian Government
Department of Industry,
Innovation and Science

National Measurement Institute

Certificate of Approval

NMI LM 6/9C/78C

Issued by the Chief Metrologist under Regulation 60
of the
National Measurement Regulations 1999

This is to certify that an approval for use as legal measuring instruments has been granted in respect of the instruments herein described.

Haenni Model WL-101 Weighing Instrument

submitted by Haenni Australia
7/10 Enterprise Street
Ashmore QLD 4214.

This Certificate does NOT grant 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 approval has been granted with reference to document NMI R 76, *Non-automatic weighing instruments, Parts 1 and 2*, dated July 2004.

This approval becomes subject to review on **1/03/22**, and then every 5 years thereafter.

DOCUMENT HISTORY

Rev	Reason/Details	Date
0	Pattern approved – certificate issued	31/05/02
1	Pattern reviewed – notification of change issued	8/03/07
2	Pattern reviewed & updated – certificate issued	31/05/12
3	Pattern reviewed & updated – certificate issued	2/03/17

CONDITIONS OF APPROVAL

General

Instruments purporting to comply with this approval shall be marked with approval number 'NMI (or NSC) LM 6/9C/78C' 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.

Special

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

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

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  weighing instruments. Use of a single instrument is not permitted for any of these mass determinations.

Signed by a person authorised by the Chief Metrologist to exercise their powers under Regulation 60 of the *National Measurement Regulations 1999*.

Stephen Horrocks

TECHNICAL SCHEDULE No 6/9C/78C

1. Description of Pattern **approved on 29/05/02**

A Haenni model WL-101 self-indicating class  platform weighing instrument (Figure 1) of 10 000 kg maximum capacity with a verification scale interval of 50 kg.

1.1 Platform

The platform has the weighing area supported by an elastic liquid-filled bourdon tube grid. When a load is applied, liquid expressed from the bourdon tubes produces a deflection in the bellows of the analogue indicating device.

1.2 Indicator

The analogue indicating device has a maximum of 200 scale intervals.

1.3 Zero Adjustment

Zero is set by means of a knob on the side of the indicator.

1.4 Descriptive Markings

Instruments carry the following markings:

Manufacturer's mark, or name written in full
Name or mark of manufacturer's agent
Indication of accuracy class	
Pattern approval mark for the instrument	NMI (or NSC) No LM 6/9C/78C
Model number
Maximum capacity	<i>Max</i> kg #
Minimum capacity	<i>Min</i> kg #
Verification scale interval	<i>e</i> = 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.

1.5 Sealing Provision

Provision is made for the calibration adjustments to be sealed as shown in Figure 2.

1.6 Verification Provision

Provision is made for the application of a verification mark.

TEST PROCEDURE No 6/9C/78C

Instruments shall be tested in accordance with any relevant tests specified in the National Instrument Test Procedures.

Maximum Permissible Errors

Tests

- (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 0.25 e and 0.75 e.
- (d) Apply an appropriate discrimination test.
- (e) Apply a repeatability test.
- (f) Where practical, apply an eccentricity test.
- (g) 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.

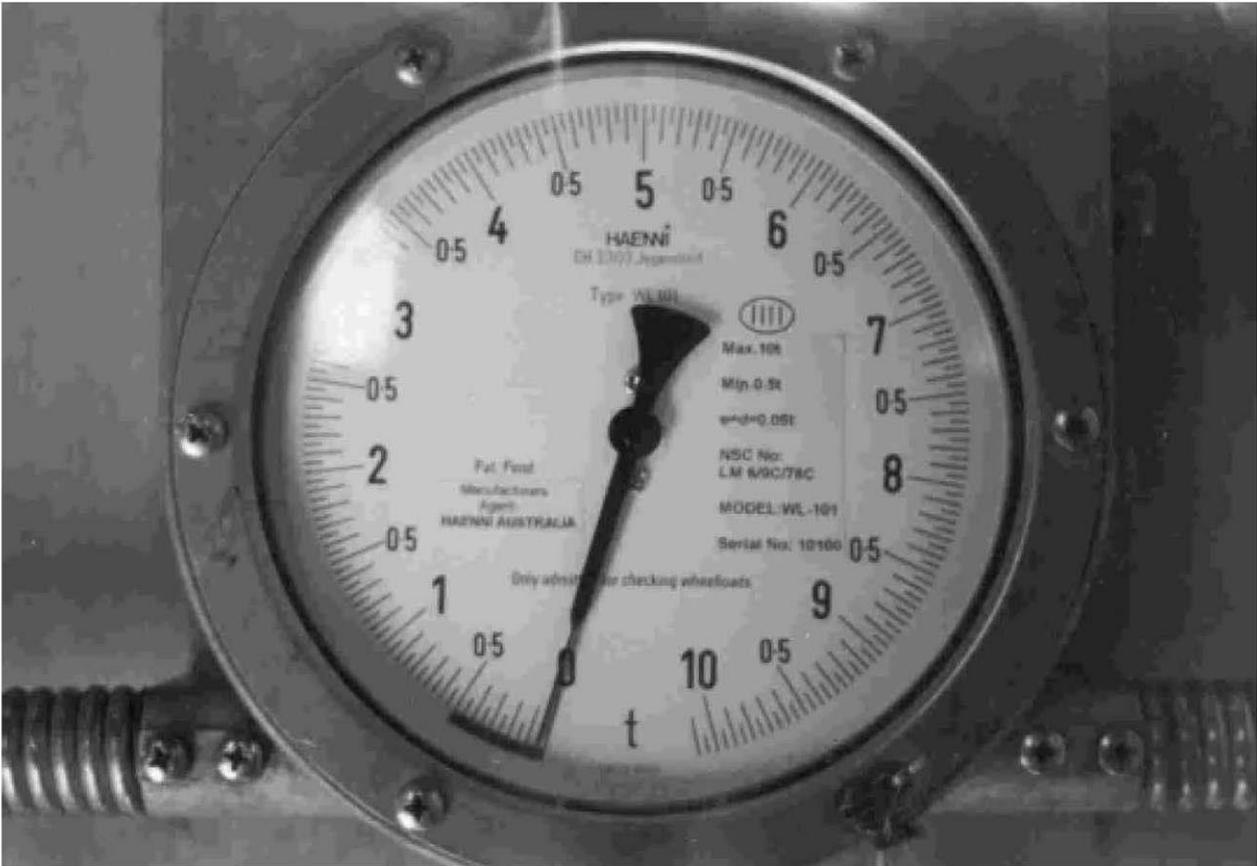
Ensure that after the removal of each test load, the zero indication is within $\pm 0.25 e$.

FIGURE 6/9C/78C – 1



Haenni Model WL-101 Weighing Instrument

FIGURE 6/9C/78C – 2



Showing Indicator and Sealing