NMO

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OIML Certificate No
R51/2006-GB1-13.01
Revision 3

OIML CERTIFICATE OF CONFORMITY

Issuing authority: **NMO**

Person responsible: **Max Linnemann – Head of Certification Body**

Applicant: **Trimble Loadrite Auckland Ltd**
45 Patiki Road
Avondale, Auckland
New Zealand

Manufacturer: **The applicant**

Identification of the certified pattern: **L-Series 2180**

This certificate attests the conformity of the above-mentioned pattern (represented by the samples identified in the associated test report) with the requirements of the following Recommendation of the International Organisation of Legal Metrology (OIML):

OIML R 51 - Edition 2006(E) for **accuracy class Y(b)**

This certificate relates only to the metrological and technical characteristics of the pattern of the instrument concerned, as covered by the relevant OIML International Recommendation.

This certificate does not bestow any form of legal international approval.

Important note: Apart from the mention of the certificates reference number and the name of the OIML Member State in which the certificate was issued, partial quotation of the certificate or of the associated test report is not permitted, though they may be reproduced in full.

This revision replaces previous versions of the certificate.

Issue Date: **02 June 2016**
Reference No: **TS0101/0001**

G Stones
Technical Manager
For and on behalf of the Head of Certification Body

UKAS PRODUCT CERTIFICATION
0135

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The conformity was established by tests and examination described in the associated pattern evaluation report P01061 which includes 17 pages.

Characteristics of the instrument:

This pattern of a battery-operated automatic catchweighing instrument (Category Y), designated the L-Series 2180, comprises an electronic indicator, pressure transducer and sensors mounted on a wheeled loader. This pattern automatically determines the load in the bucket during the lifting process, the hydraulic pressure in the loader's arms is converted by a pressure transducer, the output being used by the indicator to display the corresponding weight.

Construction:

- Pressure transducers: one or two Loadrite model LC965C
- Position reference / Lift speed / Direction sensor: either a Loadrite Model LM960 optical arm-location sensor or a Loadrite Model LR908 spring-loaded rotary encoder type arm-location sensor
- Load receptor ("Bucket") location sensors: Loadrite AAA-20710 sensors
- Inclinometer: Loadrite LR966 angle sensor (set to inhibit weighing for a tilt greater than 6°)
- Indicator: Loadrite L2180 weighing indicator console

Devices:

- Semi-automatic zero-setting device (≤ 4 % of Max)

Technical data:

Maximum capacity (Max)	≤ 350 e
Scale interval	1 kg ≤ e ≤ 200 kg
Minimum capacity (Min)	10 e
Pressure transducer	Loadrite Model LC965C
Transducer measuring range	0…350 bar
Transducer output signal	4…20 mA
Climatic environment	-20 °C to +50 °C, open, condensing
Electromagnetic environment	E3
Mechanical environment	Vehicle mounted
Power supply	11-32 V DC
Display/keyboard location	Indicator console in cabin
Accuracy class	Y(b)

Software:

The software designation is 60364 and its version number is 1.xx, where xx changes when non-legally relevant modifications are added to the software

Interfaces:

- TXDR: Amphenol 7 way interface for pressure transducers
- PRINTER: JST 12 way interface for printer and data module
- PWR/CTRL: JST 15 way interface for power supply inputs as well as trigger, location sensors and inclinometer.

Alternatives:

1. Having a modified software. The software designation is 60364 and its version number is 2.xx, where xx changes when non-legally relevant modifications are made to the software. This software provides facilities to use MMS reporting software using data module and wireless communication, which shall not be used for legal purposes.

2. Having a modified instrument, designated the Express and Force, with reduced (Express) and no (Force) data handling functionality, and reduced keypads.
   The software designation for the Express is 60395 and its version is 2.xx, where xx changes when non-legally relevant modifications are made to the software.
   The software designation for the Force is 60408 and its version is 2.xx, where xx changes when non-legally relevant modifications are made to the software.
   These models may be used with the Loadrite AAA-20709 inclinometer instead of the LR966 inclinometer. It is set to activate for a tilt greater than 6°.

3. Having the instrument designated the L2150, with modified indicator console layout and dedicated key for entering target weights.
   The software designation for the L2150 is 60439 and its version is 1.xx, where xx changes when non-legally relevant modifications are made to the software.
   This model may be used with the Loadrite AAA-20709 inclinometer instead of the LR966 inclinometer. It is set to activate for a tilt greater than 6°.
   The software version may be 2.xx, where xx changes when non-legally relevant modifications are made to the software.

4. The software version for the L2150 may be 2.xx, where xx changes when non-legally relevant modifications are made to the software.

5. Having the instrument fitted with forks instead of a bucket.

6. Having the position sensor Loadrite AAA-20710 replaced by any compatible sensor (including the Trimble Loadrite AAA-20762 laser position switches and SEN-NJ5-18GM50-E proximity sensors).

7. Having the instrument fitted to a container reach stacker. Weighing shall be inhibited when the telescopic boom is not fully retracted.

8. Having the instrument fitted to a container forklift.

CERTIFICATE HISTORY

ISSUE NO.	DATE	DESCRIPTION
R51/2006-GB1-13.01	19 March 2013	Certificate first issued.
R51/2006-GB1-13.01 rev 1	01 October 2013	Software version 2.xx added for the L2150.
R51/2006-GB1-13.01 rev 2	05 November 2015	Applicant's name changed from Actronics Ltd to Trimble Loadrite Auckland Ltd. Tilt changed from 5 ° to 6° for LR966 angle sensor. Alternatives 4 to 6 added.
R51/2006-GB1-13.01 rev 3	02 June 2016	Alternatives 7 and 8 added.