

OIML Member State:
Sweden

OIML Certificate No:
R51/2006-B-SE1-19.01
Issue 1

Applicant

Name: Konecranes Liftrucks AB
Address: Box 103, SE-285 23 Markaryd, SWEDEN

Issuing authority

Name: RISE Research Institutes of Sweden AB
Address: Box 857, SE-501 15 Borås, Sweden
Person responsible: Lennart Aronsson
Manufacturer of the certified type is the applicant.

Identification of the certified type

A graduated, self-indicating, electronic, single-interval automatic catchweighing instrument.

The certified type CGMV (Container Gross Mass Verification)
Accuracy class Y(b)
Number of verification scale intervals $n \leq 200$
(Identification continued on next page.)

This certificate attests the conformity of the above-mentioned type (represented by the samples identified in the associated report) with the requirements of the following Recommendation(s) of the International Organization of Legal Metrology (OIML):
R51, edition 2006.

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(s).

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

The conformity was established by tests described in the associated test 6P09600-1, 6P09600-1–5.

Lennart Aronsson

Bengt Gutfelt

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2017-11-18



6P09600-4

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Accred. no. 1002
Certification of
Products
ISO/IEC 17065

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Identification of the certified pattern

General description

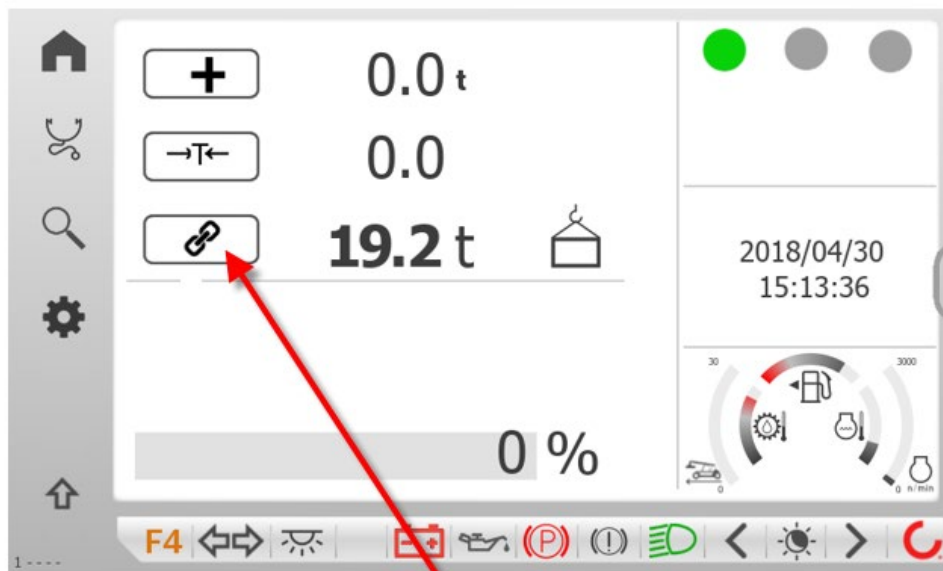
CMGV is a single interval automatic catchweighing instrument. It is designed for weighing of containers.

Measuring system description

The CMGV is designed to weigh containers statically during a regular lift cycle with top pick spreader.

The system is based upon pressure sensors in the lifting cylinders, boom angle sensor and a proximity switch to identify the correct position of the boom when retracted. As soon as the container is picked up and the boom is retracted the user can ask for the legal weighting pressing a dedicated button on the HMI. The system is capable to evaluate the machine conditions and retrieve the container weight. When a weighing of a container should be performed the operator first must fulfil the points below to make the weighing button appear on the display.

- Lift the container above ground.
- Retract the boom completely.
- The machine must be standing on level ground (inclination less than six percentages).
- The machine must be standing still.
- The weight of the container must be within the min and max of the weigh, see plate.



Press this button to get the certified legal weigh.

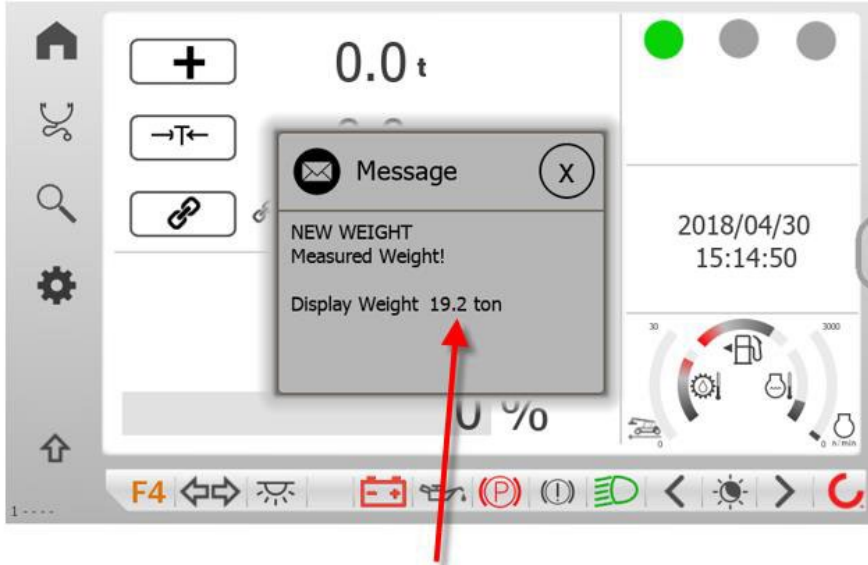
Figure 1: Preview in display MD4 before weight indication

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After pressing it takes a couple of seconds before the weigh value appears in a popup

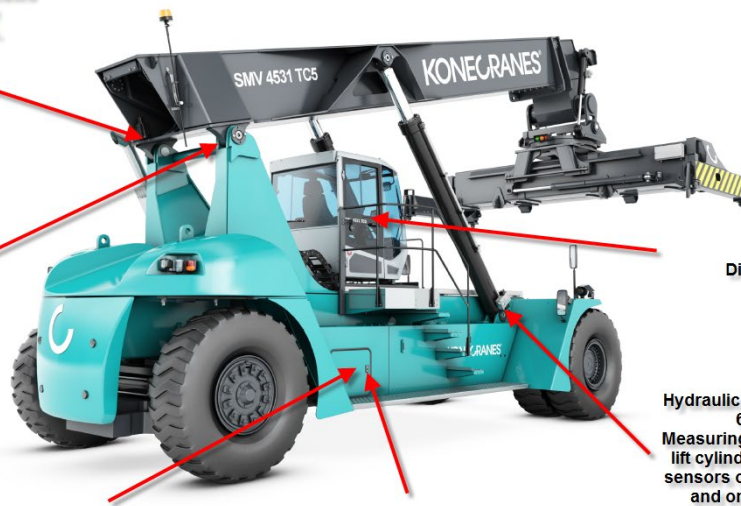


This is the certified legal value of the weight, no consideration taken to Tare- or Add- function.

Figure 2: View in display MD4 with weight indication

Electrical switch: Indicates the boom is in the retracted position.

Boom angle sensor: 6043.135
Redundant anglesensor giving the angle of the boom.



Display: 6043.128.

Hydraulic pressure sensor: 6043.177.
Measuring pressure in both lift cylinders, + and -. Two sensors on the left cylinder and one on the right.

Logic controller: 6043.132

Tilt sensor: 6043.165.
Checking the lateral inclination of the machine is less then 6%.

Figure 3: Lift truck with weighing system CMGV installed.

Essential characteristics

Semi-automatic zero-setting

Technical data

Patterns	CMGV
Temperature range	-25 °C (-10 for MC3) to +55 °C
Max capacity	$e \cdot 100 \leq \text{Max} \leq e \cdot 200$ ton
Min capacity	$\text{Min} \geq 10 e$ (2t)
Scale interval	$e \geq 0,2$ t
Number of verification scale intervals	$100 \leq n \leq 200$
Power supply	24 V DC
Electromagnetic class	E3

Indicating unit

Type	Description
MC3/ MD4	MC3 with built in A/D converters for sensors MD4 is the display unit

Measurand sensor

Type	6043.177	6043.135	6043.165
Measuring range	0-400 bar	0-90 degrees	+/-15 degrees
n_{max}	200	200	200

Software

Interfaces

The instrument may be equipped with the following protective interfaces:
CAN (J1939 busses).

Certificate history

Issue	Dated	Description
1	2019-06-20	First issue

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