

NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance for Weighing and Measuring Devices

For:

Crane Scale Digital Electronic

Models: 3260, 3360, MSI-3460 and MSI-3460C

n_{max}: 2000 to 2500 (See table below)

e_{min}: (See table below)

Capacities: 250 to 10 000 lb (125 to 5000 kg)

Accuracy Class: III

Submitted By:

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Standard Features and Options

Model(s)	Capacity x emin (lb)	Capacity x emin (kg)	n _{max}
3260, 3360, MSI-3460, MSI-3460C	250 x 0.1	125 x 0.05	2500/2500
3260, 3360, MSI-3460, MSI-3460C	500 x 0.2	250 x 0.1	2500/2500
3260, 3360, MSI-3460, MSI-3460C	1 000 x 0.5	500 x 0.2	2000/2500
3260, 3360, MSI-3460, MSI-3460C	2 000 x 1	1 000 x 0.5	2000/2000
3260, 3360, MSI-3460, MSI-3460C	5 000 x 2	2 500 x 1	2500/2500
3260, 3360, MSI-3460, MSI-3460C	10 000 x 5	5 000 x 2	2000/2500

Load Cells Used:

MSI models non-NTEP

Features:

- Semi-automatic zero (push button)
- Automatic zero tracking
- Rechargeable battery power supply
- Light Emitting Diode (L.E.D.) display
- External lb/kg conversion
- Sleep mode (3360, MSI-3460 and MSI-3460C)
- Automatic shut-off (3360, MSI-3460 and MSI-3460C)
- Push-button tare (3360, MSI-3460 and MSI-3460C)
- Gross/net display (3360, MSI-3460 and MSI-3460C)
- DC power (MSI-3460C)
- Remote customer display (MSI-3460C)
- Ethernet/Wireless interface (MSI-3460C)
- RS-232/USB interface (MSI-3460C)
- Remotely calibrated or configuration (MSI-3460C)

Options:

- AC power adapter
- Remote control

Temperature Range: -10 °C to 40 °C (14 °F to 104 °F)

This device was evaluated under the National Type Evaluation Program and was found to comply with the applicable technical requirements of "NIST Handbook 44: Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices." Evaluation results and device characteristics necessary for inspection and use in commerce are on the following pages.

Hal Prince

Chairman, NCWM, Inc.

Craig VanBuren Chair, NTEP Committee Issued: July 21, 2020

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Rice Lake Weighing Systems

Crane Scale / 3260, 3360, MSI-3460, MSI-3460C

Application: General purpose Hanging Scale.

<u>Identification:</u> The identification badge is on top of the scale.

<u>Sealing:</u> The scale can be sealed by placing a pressure sensitive seal over the front panel and the edge of the scale. Additionally, a wire security seal can be threaded through two screws on the face of the scale. This prevents access to the calibration switch inside.

<u>Test Conditions</u>: This Certificate supersedes Certificate of Conformance (CC) Number 86-021A4 and is issued to add a new Model designation Model MSI-3460C. The MSI-3460C has been upgraded with a new style power supply and display board. Metrological components remain unchanged. Updated Company name and contact info. No additional testing was deemed necessary. Previous test conditions are listed below for reference.

<u>Certificate of Conformance Number 86-021A4:</u> This Certificate supersedes Certificate of Conformance (CC) Number 86-021A3 and is issued to recognize the change in Model designation from Model 3460 to Model MSI-3460. No additional testing was deemed necessary. Previous test conditions are listed below for reference.

Certificate of Conformance Number 86-021A3: This Certificate supersedes Certificate of Conformance (CC) Number 86-021A2 and is issued to add Model 3460. A 250 lb hanging scale was submitted for evaluation and tested over a temperature range of -10°C to 40°C. A load of approximately one-half capacity was applied to the scale over 100 000 times. Increasing and decreasing load tests were conducted periodically during this time. The emphasis of the evaluation was on device design, operation and marking requirements. The load cells used in all three models are the same, respective to capacity, so previous tests were accepted to cover the ranges.

<u>Certificate of Conformance Number 86-021A2:</u> This Certificate supersedes Certificate of Conformance (CC) Number 86-021A1 and is issued to correct an error in the "Submitted by" section on the first page of the CC.

Certificate of Conformance Number 86-021A1: The Model 3360 was specially configured with a 1250 lb capacity (n_{max}: 2500) for the evaluation. The emphasis of the evaluation was on device design, operation and marking requirements. Increasing and decreasing load tests up to 1250 lb were conducted in the laboratory. The scale was tested for accuracy over a temperature range of -10 °C to 40 °C. A load of approximately one-half capacity was applied to the scale over 100 000 times. Increasing and decreasing load tests were conducted periodically during this time. The Model 3360 (5000 lb capacity) scale was also submitted for evaluation. Two increasing and decreasing load tests up to 5000 lb were conducted in the laboratory. The scale was sealed and used in a field location for approximately 60 days. The scale was returned to the laboratory and additional increasing and decreasing load tests up to 5000 lb were repeated. The 10 000 lb scale was not submitted due to the load cell design and electronic output.

<u>Certificate of Conformance Number 86-021:</u> The Model 3260 was evaluated. The emphasis of the evaluation was on the accuracy of the device. The 250 lb scale was tested over a temperature range of -10 °C to 40 °C and under conditions of high heat and high humidity.

Evaluated By: J. Tollefson (CA) 86-021, 86-021A1; J. Cippolone (CA), G. Castro (CA), N. Ingram (CA) 86-021A2; K. Jones (CA) 86-021A3; M. Manheim (NCWM) 86-021A5

<u>Type Evaluation Criteria Used:</u> NIST Handbook 44 Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices, 2012 Edition. NCWM Publication 14 Weighing Devices, 2012 Edition.

Conclusion: The results of the evaluation and information provided by the manufacturer indicate the device complies with applicable requirements.

Information Reviewed By: J. Truex (NCWM) 86-021A3, 86-021A4; D. Flocken (NCWM) 86-021A5





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Crane Scale / 3260, 3360, MSI-3460, MSI-3460C

Examples of Device:

