



NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:

Weighing / Load Receiving Element (Low Profile Flattop)
Vehicle & Livestock Scale, Modular, Load Cell Electronic
Model: Survivor EZ Series EZXXXYY-OOO-ZZZ-TTT
 n_{max} : 10 000 e_{min} : 10 lb Vehicle, 5 lb Livestock
Capacity: Up to 400 000 lb
CLC: Up to 140 000 lb; Section Capacity: Up to 100 000 lb
Platform: (see below)
Accuracy Class: III L

Submitted By:

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Standard Features and Options

Installations must satisfy the relationship of $v_{min} \leq d / \sqrt{N}$, where N= number of load cells and nominal capacity $\leq CLC \times (N - 0.5)$ where N is the number of sections in the scale.

XXX Designates Platform Length

YY Designates Platform Width

OO Designates Deck Options: "ST" = Steel "SC" = Concrete Note: "SS" was used on early models to designate steel deck.

ZZZ Designates Capacity In Tons

TTT Designates Additional Options: "OTR" = Open Top Load Cell Access For Pit or Pitless Installation

"ATV" = Open Top Load Cell Access with Portable Framework

DT = Designates Dump Through

SV = Designates models with CLC less than 90 000 lb

XV = Designates Heavy Duty

LP = Low Profile

Range of Module Widths:

•Concrete: 9.8 ft. to 16.5ft • Steel: 7.7 ft. to 16.5ft

Maximum Span Between Sections:

For Capacities over 200 000 lb and for Capacities up to 200 000 lb

•Concrete: 25.2 ft • Concrete: 30.65 ft:

• Steel: 29.4 ft •Steel: 33.45 ft

Minimum Platform Area:

•80 sq. ft.

Load Cells: Rice Lake Weighing Systems / Model RL75058 Series / Certificate of Conformance No. 98-143A1, or NTEP Approved Metrological Equivalent

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.

Kristin Macey
Chairman, NCWM, Inc.

Jerry Buendel
Committee Chair, National Type Evaluation Program Committee
Issued: February 20, 2017

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Rice Lake Weighing Systems

Weighing / Load Receiving Element / Survivor EZ Series EZXXXYY-OO-ZZZ-TTT

Application: General-purpose Class III L vehicle or livestock scale.

Identification: The identification badge is located adjacent to the junction box.

Sealing: The junction box, located in a cavity of the scale, may be sealed with a physical lead and wire seal threaded through the screw heads and through a hole in the enclosure, or with pressure sensitive seals applied to the cover joint on two opposite sides. Span adjustment is made through the indicator, which can be sealed with a physical seal.

Test Conditions: This certificate supersedes Certificate of Conformance 02-003A6 and is issued to add the section capacity and CLC parameters, which were inadvertently omitted for the previous version. Contact information was also updated. Previous test conditions are listed below for reference.

Certificate of Conformance Number 02-003A6: This certificate supersedes Certificate of Conformance 02-003A5 and is issued to add a Low Profile Model. A model EZ8011 (80 ft x 11 ft, 200 000 lb x 20 lb,) 5-section platform with a dump through and man hole was submitted. The evaluation included discrimination tests and increasing/decreasing, shift, mid-span, and modular tests using 81,000 lb of known test load and a strain load of 195,120 lb. The emphasis of the evaluation was on design, marking and performance of the weighing/load-receiving element. No further testing was deemed necessary.

Certificate of Conformance Number 02-003A5: This certificate supersedes Certificate of Conformance 02-003A4 and is issued to decrease the e_{min} value to 5 lb for livestock weighing and to use 25 000 lb RL75058 load cells. The emphasis of the evaluation was on design, marking and performance of the weighing/load-receiving element. A model EZ6014 (60 ft x 14 ft, 50 000 lb x 5 lb) was submitted as a 4-section platform with a combination of three modules with steel deck material (20 ft x 14 ft each module). The device was interfaced with a Rice Lake Weighing Systems indicator Model 920i-2A (Certificate of Conformance No. 01-088) and Rice Lake Weighing Systems load cells Model RL75058-25K (Certificate of Conformance No. 96-027A2). The initial evaluation included discrimination tests and increasing/decreasing, shift, mid-span, and modular tests using 41 000 lb of known test weight. The scale was sealed and used until the minimum weighing and time requirements had been met. Then a post permanence evaluation was performed which was identical to the initial pre-permanence evaluation. The scale was also evaluated for an e_{min} value of 5 lb.

Certificate of Conformance Number 02-003A4: This certificate supersedes Certificate of Conformance 02-003A3 and is issued to recognize use of the scale for livestock weighing with stock racks and gates. Scale drawings supplied by the manufacturer, showing the design difference when stock racks and gates were used were reviewed by NTEP. A section capacity for livestock scale use has been added to the certificate. In addition, review of test data conducted during the testing for the issuance of CC Number 02-003, see below, verifies that evaluation was conducted for a minimum division (e_{min}) value of 10 lb and the device performed within applicable tolerances. Per NCWM Publication 14, Weighing Devices, Technical Policy, no additional testing was deemed necessary.

Certificate of Conformance Number 02-003A3: This certificate supersedes Certificate of Conformance 02-003A2 and is issued to recognize platform widths up to 16.5 ft. Multiple models have been tested involving platform widths 14 ft wide using the applicable criteria in NCWM Publication 14 for scales wider than 12 ft. Scale drawings supplied by the manufacturer, showing the design difference between 14 ft and 16 ft platform widths, were reviewed by NTEP. Per NCWM Publication 14, Weighing Devices, Technical Policy, no additional testing was deemed necessary.

Certificate of Conformance Number 02-003A2: This Certificate supersedes Certificate of Conformance 02-003A1 and is issued to increase the CLC to 140 000 lb and add the optional DT (Dump Through) feature. A Model EZ8014 (80ft x 14 ft, 200 000 lb x 20 lb and 400 000 lb x 50 lb) was submitted as a 5-section platform with a combination of two modules with concrete deck material (12ft x 14 ft with a dump through and 26ft x 14 ft) and two modules with steel deck material (12 ft x 14 ft with a dump through and 30ft x 14 ft). The evaluation incorporated modules of 4-cell, 2-cell, and 0-cell design. The device was interfaced with a Rice Lake Weighing Systems indicator Model 920i (Certificate of Conformance No. 01-088A5) Set up as a dual range and Rice Lake Weighing Systems load cells Model RL75058B-125K (Certificate of Conformance No. 98-143A1). The initial evaluation included discrimination tests and increasing/decreasing, shift, mid-span, and modular tests using 126000 lb of known test load and a strain load of 320 000 lb. The scale was sealed and used until the minimum weighing and time requirements had been met. A permanence test was conducted using 70000 lb of known load for the section, mid-span, and modular tests and a strain load of 320000 lb. The emphasis of the evaluation was on design, marking and performance of the weighing/load-receiving element.



Rice Lake Weighing Systems

Weighing / Load Receiving Element / Survivor EZ Series EZXXXYY-OO-ZZZ-TTT

Certificate of Conformance Number 02-003A1: This Certificate of Conformance was issued to correct an error in the Standards Features and Options section of the certificate. No additional testing was performed.

Certificate of Conformance Number 02-003: This Certificate supersedes Certificate of Conformance 98-041A1 and is issued to increase the CLC to 90 000 lb, add the optional ATV (open top load cell access with portable framework) feature and issue a new Certificate Number for this device. Model EZ7014 (70 ft x 14 ft, 200 000 lb x 20 lb,) was submitted as a 5-section platform with a combination of two modules with concrete deck material (11.5 ft x 14 ft and 21 ft x 14 ft) and two modules with steel deck material (12 ft x 14 ft and 24.5 ft x 14 ft). The evaluation incorporated modules of 4-cell, 2-cell, and 0-cell design. The device was interfaced with a Rice Lake Weighing Systems indicator Model IQ Plus 310-FA (Certificate of Conformance No. 91-132A3) and Rice Lake Weighing Systems load cells Model RL75058B-75K (Certificate of Conformance No. 98-143A1). The initial evaluation included discrimination tests and increasing/decreasing, shift, mid-span, and modular tests using 81 000 lb of known test load and a strain load of 160 000 lb. The scale was sealed and used until the minimum weighing and time requirements had been met. A permanence test was conducted using 45 000 lb of known load for the section, mid-span, and modular tests and a strain load of 130 000 lb. The emphasis of the evaluation was on design, marking and performance of the weighing/load-receiving element. The scale was also evaluated for an e_{\min} value of 10 lb.

Certificate of Conformance Number 98-041A1: This Certificate was issued to add the option of steel deck material for sizes up to and including 12 ft widths, and to add the optional OTR (open top load cell access option) feature. Model EZ-7011SS100 (70= x 11=, 200 000 lb x 20 lb using three 23.3 ft x 11 ft modules) was interfaced with a Rice Lake Weighing Systems indicator Model IQ Plus 810 (Certificate of Conformance No. 92-013A2) and Sensortronics, Inc. load cells Model 65058A50K-1115 (Certificate of Conformance No. 86-046A3). The initial evaluation included discrimination tests and increasing/decreasing, shift, mid-span, and modular tests using 63 000 lb of known test load and a strain load of 172 400 lb. The scale was sealed and used until the minimum weighing and time requirements had been met. A permanence test was conducted using 47 000 lb of known load for the section, mid-span, and modular tests and a strain load of 144 600 lb. The emphasis of the evaluation was on design, marking and performance of the weighing/load-receiving element.

Evaluated By: D. Onwiler (NE), K. McConnell (NE) 98-041A1; D. Onwiler (NE) 02-003; T. Davis (KS) 02-003A2; C. Harris (OH), J. Morrison (OH) 02-003A5; M. Kelley (OH) 02-003A6

Type Evaluation Criteria Used: *NIST Handbook 44 Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices*, 2017 Edition. *NCWM Publication 14 Weighing Devices*, 2016 Edition.

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

Information Reviewed By: R. Suiter (NIST) 98-041A1; S. Patoray (NCWM), L. Bernetich (NCWM) 02-003, 02-003A1; J. Truex (NCWM) 02-003A2, 02-003A3, 02-003A4, 02-003A5, 02-003A6, 02-003A7

Example of Device:

