

***National Type Evaluation Program
Certificate of Conformance
for Weighing and Measuring Devices***

For:

Load Cell
Shear Beam Compression
Models: RL35023S-NX-YY
 n_{\max} : Single Cell, Class III: 3000
 n_{\max} : Multiple Cell, Class III: 5000
 n_{\max} : Single Cell, Class III L: 10 000
Capacity: 1000 to 10 000
Accuracy Class: III/III L

Submitted by:

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Standard Features and Options

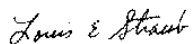
*The specific capacities of load cells covered by this Certificate are listed on page 2.

All load cells are made of stainless steel
4-wire design

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

This device was evaluated under the National Type Evaluation Program (NTEP) and was found to comply with the applicable technical requirements of 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.

Effective Date: December 14, 1994



Louis E. Straub
Chairman, NCWM, Inc.



G. Weston Diggs
Chairman, National Type Evaluation Program Committee

Issue date: February 2, 1995

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This is a reissuance by the NCWM of a Certificate of Conformance already issued by the National Institute of Standards and Technology.

Rice Lake Weighing Systems
Shear Beam Compression Load Cell
Model: RL35023S-NX-YY

Application: The load cells may be used in Class III and Class III L scales for single-cell and multiple-cell applications consistent with the model designations and parameters specified in this certificate. Load cells of a given accuracy class may be used in applications with lower accuracy class requirements provided the number of scale divisions, the v_{min} values, and temperature range are suitable for the application. The manufacturer may market load cells with fewer scale divisions (n_{max}) and with larger v_{min} values than those listed on the certificate. However, the load cells must be marked with the appropriate n_{max} and v_{min} for which the load cell may be used.

Load Cell Parameters:

Capacity (lb)	Class III			Class III L		
	Single 3,000 n_{max} v_{min} (lb)	Multiple 5,000 n_{max} v_{min} (lb)	Minimum Dead Load (lb)	10,000 n_{max}		Minimum Dead Load (lb)
				Single v_{min} (lb)	Multiple v_{min} (lb)	
1,000	0.083	0.071	20	0.04	0.04	20
1,500	0.125	0.106	30	0.06	0.06	30
2,000	0.166	0.14	40	0.08	0.08	40
2,500	0.21	0.18	50	0.10	0.10	50
3,000	0.25	0.21	60	0.12	0.12	60
4,000	0.33	0.28	80	0.16	0.16	80
5,000	0.42	0.35	100	0.20	0.20	100
10,000	0.83	0.71	200	0.40	0.40	200

Test Conditions: Two 5,000-lb capacity load cell cells were tested at NIST using dead weights as the reference standard. The data were analyzed for both single and multiple load cell applications. The cells were tested over a temperature range of -10 to 40 °C. Three tests were run on the each cell at each temperature. The temperature effect on zero was measured and a time dependence (creep) test was performed.

One 2,500-lb capacity load cell was tested using a dead weight machine as the reference standard. The data were analyzed for single load cell applications. The cell was tested over a temperature range of -10 to 40 °C. Three tests were run on each cell at each temperature. The temperature effect on zero was measured and a time dependence (creep) test was performed.

Four 2,500-lb capacity load cells were tested using a dead weight machine as the reference standard. The data were analyzed for multiple load cell applications. The cells were tested over a temperature range of -10 to 40 °C. Three tests were run on each cell at each temperature. The temperature effect on zero was measured and a time dependence (creep) test was performed.

The barometric pressure test was waived due to the insensitivity of the load cell design to changes in barometric pressure. The manufacturer's laboratory was used to collect the test data. The results indicate that the load cells comply with the applicable requirements of NIST Handbook 44.

Type Evaluation Criteria Used: NIST Handbook 44, 1994 Edition

Tested By: NIST Force Group, NIST Office of Weights and Measures

Update Reviewed By: L. Sebring (NIST)