## National Conference on Weights and Measures

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

For: Load Cell Double Ended Shear Beam Model: 603053-AC n<sub>max</sub>: Class III L, Multiple Cells: 10 000 Capacity: 25 000 lb

Accuracy Class: III L

Submitted by: Intercomp Corporation 14465 23<sup>rd</sup> Avenue, North Minneapolis, MN 55447-3438 Tel: (763) 476-2531 Fax: (763) 476-2613 Contact: Matt Young

## **Standard Features and Options**

The specific model, capacity, and  $v_{min}$  value of the load cell covered by this certificate are listed below.

Model	Capacity (lb)	v <sub>min</sub> (lb)	Minimum Dead Load (lb)
603053-AC	25 000	3.75	1250

Construction: Alloy steel 4-wire design Nominal output: 3.0 mV/V

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: September 12, 2001

Ronald D Mundock

Ronald D. Murdock Chairman, NCWM, Inc.

Louis & Strawb

Louis E. Straub Chairman, National Type Evaluation Program Committee Issued Date: September 12, 2001

Note: The National Conference on Weights and Measures does not "approve", "recommend", or "endorse" any proprietary product or material, either as a single item or as a class or group. Results shall not be used in advertising or sales promotion to indicate explicit or implicit endorsement of the product or material by the NCWM.

## Intercomp Corporation Double Ended Shear Beam Load Cell Model: 603053-AC

- **Application:** The load cell may be used in Class III L scales for multiple cell applications consistent with the model designations, number of scale divisions, 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 the load cell with fewer 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.
- **Identification:** A pressure sensitive identification badge containing the manufacturer, model designation, and serial number is on the load cell. All other required information must be on an accompanying document including the serial number of the load cell.
- <u>**Test Conditions:**</u> This Certificate supersedes Certificate of Conformance Number 97-057 and was issued without additional testing to reactivate Certificate of Conformance Number 97-057 without lapse. Changes were also made to update the contact information.

<u>Certificate of Conformance 97-057:</u> Three 50 000-lb capacity load cells were tested at the manufacturer's facility using dead weights as the reference standard (manufacturer requested that only the 25 000 lb capacity be listed on this certificate). The Certificate was upgraded from provisional to full and no unfavorable comments were received during the comment period. The data were analyzed for multiple load cell applications. The cells were tested over a temperature range of -10 °C 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. Representatives of NIST evaluated the manufacturer's facility, witnessed repeat tests and analyzed the data.

Two additional capacities of load cells were tested and new  $v_{min}$  values were assigned to reflect current (1988) requirements for multiple cell applications.

The results of the evaluations indicate the load cells comply with the applicable requirements of Handbook 44.

Type Evaluation Criteria Used: NIST Handbook 44, 1997 Edition

Tested By: NIST Force Group, NIST Office of Weights and Measures 97-057

Information Reviewed By: J. Williams (NIST) 97-057

Updated By: Linda Bernetich (NCWM) 97-057A1