



STATE OF MAINE
MAINE DEPARTMENT OF AGRICULTURE, CONSERVATION AND FORESTRY
DIVISION OF QUALITY ASSURANCE AND REGULATIONS
28 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0028

JANET T. MILLS
GOVERNOR

Amanda E. Beal
COMMISSIONER

Celeste Poulin
Director

REPORT OF CALIBRATION
MAINE TEST NUMBER 7423ME
 3000 lb Weight Cart
 SN: 092112K
 Date of Report: May 23, 2019

SUBMITTED BY:
 Advanced Scale, Inc
 13 Delta Dr Unit 6
 Londonderry, NH 03053

The mass standard described above has been compared with standards of the State of Maine by NIST SOP 33 using a modified double substitution weighing design. Standards of the State of Maine are traceable to the National Institute of Standards and Technology through Oklahoma Bureau of Standards test no. OBS 17-1193. Weight cart was received in good condition.

The Maine Metrology Laboratory is recognized by the NIST Office of Weights and Measures under the "Laboratory Metrology Program" at Mass Echelon III for 2019. Measurements by this laboratory are recognized by NIST as metrologically traceable.

The mass standard described above was found to have mass value at time of test as indicated in the following tabulation. The combined measurement uncertainty and result have been taken in to account when issuing statements of compliance.

Nominal	Correction as left lb	Uncertainty lb	Tolerance lb	Correction as Found, lb
3000 lb	0.40	0.23	1.00	0.40

Calibrations performed by this laboratory comply with the requirements of ISO/IEC 17025:2017

SI conversion: 1-pound avoirdupois equals 0.45359237 kilograms.



Advanced Scale, Inc.
MAINE TEST NUMBER 7432ME
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Environmental conditions at time of test conform to NIST SOP 33 requirements. Data reduction sheets and seal information are on file at the laboratory.

The uncertainties shown with reported values are calculated on the conventional mass values and expressed as the sum of the following sources of inaccuracy; (1) Type B, systematic errors relative to the reference standard and procedure used, and (2) Type A, random errors determined by the D^*_2 method of converting average range of replicate measurements to standard deviation of the measurement process. Type A and Type B uncertainties are combined by the root sum squared method and multiplied by a coverage factor ($K=2.08$) representing approximately a 95% confidence interval. All mass values have been determined as "conventional mass" with respect to stainless steel with a density of 8.0 g/cm^3 at $20 \text{ }^\circ\text{C}$.

Date Received: May 17, 2019
Date of Test: May 23, 2019
Calibration due: May 31, 2020
Calibration by: Bradford Bachelder & Michael Picard



Bradford Bachelder, Metrologist

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Director

MAINE TEST NUMBER 7424ME
 (9) 8 oz weight cart adjustment standards
 SN: 1NY to 9NY
 Date of Report: May 23, 2019

SUBMITTED BY:
 Advanced Scale, Inc
 13 Delta Dr Unit 6
 Londonderry, NH 03053

The mass standards described above have been compared with standards of the State of Maine, by modified substitution (NIST SOP 8), and were found to be, or adjusted to within NIST Handbook 105-1 Class F tolerances.

Standards of the State of Maine are traceable to the National Institute of Standards and Technology through Oregon State test number OR-18-240-C. The Maine Laboratory is recognized by NIST, OWM, under the "Laboratory Metrology Program", at Mass Echelon III for 2019. Measurements by this laboratory are traceable to the National Standards at NIST.

The mass standards described above were found to have mass values at the time of test as indicated in the following tabulation. Weights received in an out of tolerance condition will show a value in a "before adjustment" column if required.

Nominal & Identifier	Correction mg	NIST Class F Tolerance mg	Uncertainty mg
8 oz – 1NY	11.0	45	5.9
8 oz – 2NY	10.0	45	5.9
8 oz – 3NY	12.0	45	5.9
8 oz – 4NY	16.0	45	5.9
8 oz – 5NY	18.0	45	5.9
8 oz – 6NY	14.0	45	5.9
8 oz – 7NY	19.0	45	5.9
8 oz – 8NY	23.0	45	5.9
8 oz – 9NY	12.0	45	5.9



Advanced Scale, Inc
MAINE TEST NUMBER 7424ME
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The uncertainties shown with reported values are calculated on the conventional mass values and expressed as the sum of the following sources of inaccuracy; (1) Type B, systematic errors relative to the reference standard and procedure used, including bias, and (2) Type A, random errors determined by the standard deviation of the measurement process. Type A and Type B uncertainties are combined by the root sum squared method and multiplied by a coverage factor representing approximately a 95% confidence interval. All mass values have been determined as "conventional mass" with respect to stainless steel with a density of 8.0 g/cm^3 at 20 degrees C. The combined measurement uncertainty and result have been taken in to account when issuing statements of compliance.

Laboratory environmental conditions:

Temperature: 20.7 °C

Humidity: 41.9 %

Pressure: 757.48 mmHg.

Data reduction sheets are on file at the laboratory.

Standards were received in good condition.

Calibrations performed by this laboratory comply with the requirements of ISO/IEC 17025:2017

Date Received: May 23, 2019

Date of Test: May 23, 2019

Calibration Due: May 31, 2021

Calibrated By: Bradford Bachelder



Bradford Bachelder
Metrologist

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