#### STATE OF MAINE

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

PAUL R. LEPAGE GOVERNOR

Walter E. Whitcomb COMMISSIONER

Steve Giguere Acting Director

## REPORT OF CALIBRATION MAINE TEST NUMBER 7047ME

3000 lb Weight Cart SN: 092112K Date of Report: May 26, 2017

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 NIST Test Number 822/263897-00. Weight cart was received in good condition.

The Maine Laboratory is recognized by NIST, WMD, under the "Laboratory Metrology Program", at Mass Echelon III for 2017. 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. The combined measurement uncertainty and result have been taken in to account when issuing statements of compliance.

Nominal	Correction as left	Uncertainty	Tolerance	Correction as
	lb	lb	lb	Found lb
3000 lb	0.06	0.24	1.00	-0.93

Calibrations performed by this laboratory comply with the requirements of ISO/IEC 17025:2010

SI conversion: 1-pound avoirdupois equals 0.45359237 kilograms.

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CALIBRATION

PHONE: (207) 287-7587 FAX: (207) 287-7161 NVLAP Lab Code 200414-0

### Advanced Scale, Inc. MAINE TEST NUMBER 7047ME

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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<sup>3</sup> at 20 degrees C.

Date Received: May 26, 2017 Date of Test: May 26, 2017 Calibration due: May 31, 2018

Calibration by: Bradford Bachelder & Michael Picard

Bradford Bachelder, Metrologist

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

Walter E. Whitcomb

Steve Giguere Acting Director

#### MAINE TEST NUMBER 7048ME

Weight cart adjustment standards SN: NY12 29

Date of Report: May 26, 2017

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 NH Test Number 2015-012. The Maine Laboratory is recognized by NIST, OWM, under the "Laboratory Metrology Program", at Mass Echelon III for 2017. 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	Correction mg	NIST Class F	Uncertainty
		Tolerance mg	mg
8  oz - 1	15.0	45	5.9
8  oz - 2	10.0	45	5.9
8  oz - 3	8.0	45	5.9
8 oz – 4	17.0	45	5.9
8 oz – 5	19.0	45	5.9
8 oz – 6	12.0	45	5.9
8 oz – 7	17.0	45	5.9
8 oz – 8	25.0	45	5.9
8  oz - 9	14.0	45	5.9

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CALIBRATION (®

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## Advanced Scale, Inc MAINE TEST NUMBER 7048ME

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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<sup>3</sup> 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: 18.9 °C Humidity: 46.1 %

Pressure: 744.92 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 17025:2005

Date Received: May 26, 2017 Date of Test: May 26, 2017 Calibration Due: May 31, 2018 Calibrated By: Bradford Bachelder

Bradford Bachelder

Metrologist

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