

Vermont Weights and Measures Metrology Laboratory
Test Report

Issued To:

Advanced Scale
13 Delta Drive Unit 6
Londonderry, NH 03053-2372

Vermont Test Number: VT17-37

Date of Test: March 14, 2017

Report of Test for Item (Make/Model/Serial Number(s)/#Pieces):

Various/Class F Cast Iron /In Chart/10 - 25 lb. & 47 - 50 lb.

The mass standards described above have been compared to the standards of the State of Vermont, by SOP 8 (modified substitution), and have been found at time of test, or been adjusted, to meet the requirements stated in NIST Handbook 105-1 Specifications and Tolerances for Reference Standards and Field Standard Weights and Measures (Class F). Standards of the state of Vermont are traceable to the SI and National Institute of Standards and Technology (NIST). The Vermont Laboratory is recognized by NIST, under the Laboratory Metrology Program at Mass Echelon III. The mass standards described above were found to have a mass value at the time of test as indicated in the following tabulation. Weights received in an out of tolerance condition show a value in the "before adjustment" column.

The uncertainties shown are 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 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 of k (in chart) for an approximate 95% confidence interval.

Environmental conditions at time of test:

Temperature: 18.9 °C

Relative Humidity: 51.1%

Mass Comparator: MT XP64003L



Weight	Nominal	Before Adjustment	Correction	Uncertainty	NIST Class F Tolerance	Units	k Factor
460	25 lb		432	66	1100	mg	2.07
461	25 lb		152	66	1100	mg	2.07
462	25 lb		-289	66	1100	mg	2.07
463	25 lb		-619	66	1100	mg	2.07
464	25 lb		-649	66	1100	mg	2.07
465	25 lb		-379	66	1100	mg	2.07
466	25 lb		-339	66	1100	mg	2.07
467	25 lb		-689	66	1100	mg	2.07
468	25 lb		422	66	1100	mg	2.07
469	25 lb		672	66	1100	mg	2.07
200	50 lb		-759	88	2300	mg	2.06
201	50 lb	-2153	61	88	2300	mg	2.06
202	50 lb		-869	88	2300	mg	2.06
203	50 lb	-161729	161	88	2300	mg	2.06
204	50 lb		-859	88	2300	mg	2.06
205	50 lb	-2359	-229	88	2300	mg	2.06
206	50 lb		611	88	2300	mg	2.06
207	50 lb	-1829	-859	88	2300	mg	2.06
208	50 lb		91	88	2300	mg	2.06
209	50 lb	-2039	-219	88	2300	mg	2.06
210	50 lb		-1279	88	2300	mg	2.06
211	50 lb		-249	88	2300	mg	2.06
212	50 lb		-1789	88	2300	mg	2.06
213	50 lb		-1179	88	2300	mg	2.06
214	50 lb		-579	88	2300	mg	2.06
215	50 lb		-519	88	2300	mg	2.06
216	50 lb		-489	88	2300	mg	2.06
217	50 lb	-2699	221	88	2300	mg	2.06
218	50 lb		-739	88	2300	mg	2.06
219	50 lb	-2099	861	88	2300	mg	2.06
400	50 lb		161	88	2300	mg	2.06
401	50 lb		91	88	2300	mg	2.06
402	50 lb		1101	88	2300	mg	2.06
403	50 lb		551	88	2300	mg	2.06
404	50 lb		1631	88	2300	mg	2.06
405	50 lb		-789	88	2300	mg	2.06
406	50 lb		171	88	2300	mg	2.06
407	50 lb		-1139	88	2300	mg	2.06
408	50 lb		11	88	2300	mg	2.06
409	50 lb		-659	88	2300	mg	2.06
410	50 lb		-939	88	2300	mg	2.06
411	50 lb		811	88	2300	mg	2.06
412	50 lb		511	88	2300	mg	2.06
413	50 lb		-9	88	2300	mg	2.06
414	50 lb		231	88	2300	mg	2.06
415	50 lb		-369	88	2300	mg	2.06
416	50 lb		-949	88	2300	mg	2.06
417	50 lb		-409	88	2300	mg	2.06

418	50 lb		-1279	88	2300	mg	2.06
419	50 lb		-439	88	2300	mg	2.06
420	50 lb		1261	88	2300	mg	2.06
421	50 lb		1111	88	2300	mg	2.06
422	50 lb		1031	88	2300	mg	2.06
423	50 lb		-1199	88	2300	mg	2.06
424	50 lb		-299	88	2300	mg	2.06
425	50 lb		-1749	88	2300	mg	2.06
426	50 lb		511	88	2300	mg	2.06

Additional documentation material available on request.

The following weights were adjusted: 7- 50 lb weights adjusted.

Marc Paquette

March 15, 2017

Marc Paquette/Vermont Agency of Agriculture
 Consumer Protection Section/Metrologist
 Weights and Measures Specialist

End of Report