CERTIFICATE OF CALIBRATION

Issue:- 97109_10 | Certificate Number: **97109** | Date of Issue: **04-Jan-24**

Approved Signatory: **Tom Williams**

Page 1 of 2 | Signed: T. W

UKAS CALIBRATION 0352

Kent County Council kent.gov.uk

Submitter:-

Mecmesin Limited
Newton House
Spring Copse Business Park
Slinfold
West Sussex
RH13 0SZ

Issued by:-

Kent Scientific Services
8 Abbey Wood Road
Kings Hill
West Malling
Kent
ME19 4YT
Tel: 03000 415 100
Fax: 01732 220006

EQUIPMENT:	Weights
SERIAL NUMBER:	MC2
MAKE/TYPE:	N/A
STANDARDS USED:	Set 12412
DATE RECEIVED:	20 December 2023
DATE CALIBRATED:	22 December 2023
DETAILS:	20 cast iron

MEASUREMENTS:

Kent Scientific Services method used: CAL SMALL, Calibration of Small Masses.
The calibrations took place in a controlled environment with the temperature held between 18°C and 22°C, and with the relative humidity held between 40% and 60%.
The measurement results obtained in the table, where each measured value given represents not the true mass, but the mass of a hypothetical weight of density 8,000 kg.m^{-3}, which in air of density 1.2 kg.m^{-3} would balance the corresponding weight identified in the first column at 20°C.
The method of weighing was by substitution (Borda's method). In each instance the standard weight used had been calibrated by UKAS Calibration Laboratory number 0474, 0260 or 0352 within the previous three years.
The uncertainty of measurements for each of the different denominations is listed in the last column of the table
Duplicate weights, where present, are indicated by a dot or dots.
Customer supplied information is notated with a ~, and results relate only to the item(s) calibrated.
Unless otherwise notated, samples are tested in as received condition at Kent Scientific Services.

TABLE OF MEASUREMENT RESULTS

Identity Mark	Nominal Mass	Measured Value	Error from Nominal	Estimated Uncertainty
1927	10 LB	4535.993 g	+ 69 mg	± 46 mg
1929	10 LB	4535.783 g	- 140 mg	± 46 mg
1931	10 LB	4535.948 g	+ 25 mg	± 46 mg
1932	10 LB	4535.988 g	+ 64 mg	± 46 mg
1933	10 LB	4535.883 g	- 41 mg	± 46 mg
1935	10 LB	4535.939 g	+ 15 mg	± 46 mg
1966	10 LB	4535.787 g	- 137 mg	± 46 mg
1967	10 LB	4536.003 g	+ 79 mg	± 46 mg
1968	10 LB	4535.930 g	+ 6 mg	± 46 mg
1969	10 LB	4535.844 g	- 80 mg	± 46 mg
1937	5 LB	2268.031 g	+ 69 mg	± 24 mg
1970	5 LB	2268.011 g	+ 49 mg	± 24 mg
1980	5 LB	2268.020 g	+ 58 mg	± 24 mg
1981	5 LB	2268.046 g	+ 85 mg	± 24 mg
1926	2 LB	907.164 4 g	- 20.3 mg	± 9.1 mg
1930	2 LB	907.144 9 g	- 39.9 mg	± 9.1 mg
1971	2 LB	907.178 2 g	- 6.5 mg	± 9.1 mg
1972	2 LB	907.153 8 g	- 30.9 mg	± 9.1 mg
1925	1 LB	453.396 6 g	- 195.8 mg	± 4.6 mg
1973	1 LB	453.396 1 g	- 196.3 mg	± 4.6 mg
1930 *	2 LB	907.182 9 g	- 1.8 mg	± 9.1 mg
1925 *	1 LB	453.582 3 g	- 10.0 mg	± 4.6 mg
1973 *	1 LB	453.590 2 g	- 2.2 mg	± 4.6 mg
1974	1 LB	453.372 4 g	- 220.0 mg	± 4.6 mg
1974 *	1 LB	453.603 3 g	+ 10.9 mg	± 4.6 mg

* Denotes post adjustment calibration

The basis of conversion between imperial and S.I. units is that 1 pound is equivalent to 453.592 37 grammes. There are 16 ounces in 1 pound.

END OF RESULTS

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2 providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with UKAS requirements.