



CERTIFICATE
#207954/A/0001/UK/En

Manual Wrench Type II Class A

Calibration Report for:

Joy Global Sparwood
739 Douglas Fir Road
Sparwood, BC V0B 2G0
CA

Calibration #:	150519.06.43866
Calibration Date:	05/19/2015
Expiration Date:	05/19/2016
Temperature:	17.1 °C
Humidity:	34.00% RH

Asset ID #:	1432055196
Asset Type:	Manual Wrench Type II Class A
Manufacturer:	WESTWARD
Model #:	TW-12150
Serial #:	5192015.1

Testing Points		"As Found" Data (1) (FT-LBS)						"As Left" Data (2) (FT-LBS)						Low Limit -4%	High Limit +4%
		1	2	3	4	5	AVG	1	2	3	4	5	AVG		
30	Readings	30.8	30.6	29.3	29.8	30.3	30.16	30.8	30.6	29.3	29.8	30.3	30.16	28.8	31.2
	Dev. %	2.67	2.00	-2.33	-0.67	1.00	0.53	2.67	2.00	-2.33	-0.67	1.00	0.53		
	CL 95% (FT-LBS)	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8		
90	Readings	88.6	89.4	92.3	90.5	91.4	90.44	88.6	89.4	92.3	90.5	91.4	90.44	86.4	93.6
	Dev. %	-1.56	-0.67	2.56	0.56	1.56	0.49	-1.56	-0.67	2.56	0.56	1.56	0.49		
	CL 95% (FT-LBS)	1.3	1.3	1.4	1.3	1.3	1.3	1.3	1.3	1.4	1.3	1.3	1.3		
150	Readings	153.2	151.4	154.8	148.5	150.6	151.7	153.2	151.4	154.8	148.5	150.6	151.7	144	156
	Dev. %	2.13	0.93	3.20	-1.00	0.40	1.13	2.13	0.93	3.20	-1.00	0.40	1.13		
	CL 95% (FT-LBS)	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9		

Remarks:

(1) "As Found" Data: IN TOLERANCE

Test Instrument was found within applicable tolerance levels.

(2) "As Left" Data: IN TOLERANCE

Test Instrument was left within applicable tolerance levels.

Technician Comments:

Spencer Yeats, Calibration Technician

Notes:

- A. This accredited organization maintains both A2LA accreditation to ISO/IEC 17025 and ANSI/NCSL Z540-1-1994 for the specific tests/calibrations listed in A2LA Certificate #3040.01, and ISO 6789.
- B. Environmental conditions were held within Allite's standards of 60 to 88 degrees Fahrenheit and below 90% relative humidity.
- C. Procedures for this calibration method are outlined in CP-005-13.
- D. All standards and associated equipment used to calibrate this instrument have been calibrated and are traceable to A2LA accreditation and the National Institute of Standards and Technology (NIST).
- E. Customer acknowledges and agrees that Allite's standard sales terms and conditions are incorporated herein by reference and made a part of this calibration report.
- F. This document relates only to the test instrument listed on this certificate and cannot be reproduced, except in full, without written approval of Allite.
- G. Calibration performed and valid for Clockwise Direction only.
- H. This calibration document is followed by a Calibration Schedule page.
- I. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2, such that the confidence level (CL approximates 95%). CL 95% = 0.00 or not displayed the reading is not an accredited calibration point.



Red Deer Calibration Laboratory: Certification Schedule

Capacity	Item	Model #	Serial #	Traceability/Report #	Date Due Cal
2,000 ft.lb	AKO Torque Transducer	TSD2011	6226	15202.25.57120	02/02/2016
Temp/Humid	Extech	445703	MC411-02	164131	03/30/2016