



CERTIFICATE
#207954/A/0001/UK/En

Hydraulic Torque Wrench

Calibration Report for:

Lockhart Oilfield Services
Bay 5, 7607 Edgar Industrial Drive
Red Deer, Alberta T4P 3R2
CA

Calibration #:	150506.06.58696
Calibration Date:	05/06/2015
Expiration Date:	05/06/2016
Temperature:	19.4 °C
Humidity:	34.00% RH

Asset ID #:	1430945768
Asset Type:	Hydraulic Torque Wrench
Manufacturer:	HYTORC
Model #:	8 BLITZ
Serial #:	Z8 1419B

Pressure Setting (PSI)	Manufacturer Standards (FT-LBS)	"As Found" Data (1) ("FT-LBS)	"As Found" CL 95% ("FT-LBS)	"As Left" Data (2) ("FT-LBS)	"As Left" CL 95% ("FT-LBS)
1000	791	798	6.3	790	6.3
2000	1582	1610	7.5	1600	7.4
3000	2373	2408	8.6	2412	8.6
4000	3164	3238	9.7	3228	9.7
5000	3955	4025	11	4024	11
6000	4746	4830	12	4822	12
7000	5537	5628	51	5626	51
8000	6328	6422	57	6428	57
9000	7119	7221	63	7229	64
10000	7910	8020	70	8030	70

As Left T:P Ratio:	0.8034	Last T:P Ratio:	0.7910	% Deviation	1.5700%
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Remarks:

This hydraulic wrench was tested at ten equal points based on the instrument's maximum pressure range. Readings were taken at those points before and after maintenance was performed (if applicable).

(1) "As Found" Data: IN TOLERANCE

Test Instrument was found within applicable tolerance levels.

(2) "As Left" Data: RESTRICTED WITH CHART

Test Instrument is functioning properly, however it is necessary to use new operational chart provided with this calibration to maintain the instrument's accuracy.

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 Alltite's standards of 60 to 88 degrees Fahrenheit and below 90% relative humidity.
- C. Procedures for this calibration method are outlined in CP-001-13.
- 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 Alltite'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 Alltite.
- 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
10,000 psi	AKO Pressure Transducer	TSD10KPT	127062	150205.25.40036	02/05/2016
40,000 ft.lb	AKO Torque Transducer	TSD40011	6228	500604	01/29/2016
Temp/Humid	Extech	445703	MC411-02	164131	03/30/2016