



1600 E. Murdock Wichita, KS 67214

Phone: (866) 384-3010



CERTIFICATE
#3040.01

Hydraulic Torque Wrench

Calibration Report for:

Vestas American Wind Technology - Rock Creek

202 Main St
Tarkio, MO 64491

Calibration #:	210615.58.53274
Calibration Date:	06/15/2021
Expiration Date:	06/15/2022
Temperature:	21.4 °C
Humidity:	42.00% RH

Asset ID #:	1561150674
Asset Type:	Hydraulic Torque Wrench
Manufacturer:	HYTORC
Model #:	Edge-4
Serial #:	E4TR1439-043

Pressure Setting (PSI)	Reference 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	307.9	286	0.9	290	0.9
2000	615.8	576	6	580	6
3000	923.7	864	6.4	872	6.4
4000	1231.6	1158	6.8	1162	6.8
5000	1539.5	1458	7.2	1450	7.2
6000	1847.4	1758	7.7	1742	7.6
7000	2155.3	2060	8.1	2060	8.1
8000	2463.2	2370	8.5	2364	8.5
9000	2771.1	2674	8.9	2669	8.9
10000	3079	2978	9.4	2974	9.4

As Left T:P Ratio:	0.2939	Ref. T:P Ratio:	0.3079	% Deviation	-4.5469%
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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: OUT OF TOLERANCE

Test Instrument is not within manufacturer's standards or is not linear or predictable. See "As Left" remark below for recommended action.

(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:

Mike Coker, 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-001-19.

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. The uncertainty(s) listed represent an expanded uncertainty expressed using a coverage factor of k=2, such that the confidence level (CL) approximates 95%. CL 95% = Unaccred. or * means the measurement falls outside our accredited scope and therefore no measure of uncertainty has been determined.



Van 11: North Dakota 7428 Calibration Laboratory: Certification Schedule

Capacity	Item	Model #	Serial #	Traceability/Report #	Date Due Cal
10000 PSI	Additel Digital Pressure Gauge	681	211H18B20019	200928.03.34919	03/27/2022
Temp/Humid	Extech	445703	MC411-05	00268263-0AZ8iS	08/21/2021
20000 FTLB	AKO Torqe Transducer	TSD 20011	5142	210204.19.46636	08/04/2022