



1600 E. Murdock Wichita, KS 67214

Phone: (866) 384-3010



CERTIFICATE
#3040.01

Hydraulic Torque Wrench

Calibration Report for:

Northern Natural Gas Company

7174 FM 119
Sunray, TX 79086

Calibration #:	140708.25.29721
Calibration Date:	07/08/2014
Expiration Date:	07/08/2015
Temperature:	21.3 °C
Humidity:	30.00% RH

Asset ID #:	1000054080
Asset Type:	Hydraulic Torque Wrench
Manufacturer:	HYTORC
Model #:	GS3004
Serial #:	070114.2

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	291	298	0.9	296	0.9
2000	582	602	6	600	6
3000	873	902	6.5	902	6.5
4000	1164	1202	6.9	1200	6.9
5000	1455	1504	7.3	1498	7.3
6000	1746	1812	7.7	1806	7.7
7000	2037	2114	8.2	2108	8.2
8000	2328	2408	8.6	2406	8.6
9000	2619	2709	9	2709	9
10000	2910	3010	9.4	3012	9.4

As Left T:P Ratio:	0.3007	Ref. T:P Ratio:	0.2906	% Deviation	3.4800%
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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:



Michael McClellan, 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.



In-House (Mechanical Lab, Wichita) Calibration Laboratory: Certification Schedule

Capacity	Item	Model #	Serial #	Traceability/Report #	Date Due Cal
10,000 psi	AKO Pressure Transducer	TSD10KPT	127056	140609.07.42628	06/09/2015
20,000 ft.lb	AKO Transducer	TSD20011	6194	27012	11/05/2014
Temp/Humid	Dickson Temp/Humid (Mechanical Lab)	FH635	13259020	637161	11/20/2014