

1600 E. Murdock Wichita, KS 67214

For Maintenance or Recalibration call:
Phone: (866) 384-3010
Fax: (316) 686-3151

CALIBRATION CERT #3040.01

Hydraulic Torque Wrench

Calibration Report For:

Iland Wind Energy

PO Box 25763
Christiansted, VI 00824

Calibration Date:	26 Sep 2013
Calibration Number:	130926.07B.1
Temperature:	72.40°F
Humidity:	57.30% RH

Test Instrument Identification

Manufacturer:	NORWOLF	Model:	X DRIVER
Type:	Hydraulic wrench	Serial Number:	X2-5021

As Left T:P Ratio:	3.2345	Last T:P Ratio:	3.2015	% Deviation:	-1.03%
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Pressure Setting (PSI)	Manufacturer Standards (FT-LB)	"As Found" Reading(s) [1] (FT-LB)	"As Left" Reading(s) [2] (FT-LB)	Low Limit -3% (FT-LB)	High Limit +3% (FT-LB)
69	221	226	224	214	228
138	442	448	456	429	455
207	663	657	677	643	683
276	884	875	901	857	910
345	1105	1092	1118	1071	1138
414	1325	1318	1342	1286	1365
483	1546	1537	1560	1500	1593
552	1767	1763	1775	1714	1820
621	1988	1987	1999	1928	2048
690	2209	2211	2223	2143	2275

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 NEW CHART**

Test Instrument is functioning properly within an acceptable deviation percentage of 5%, however it is necessary to use new operational chart provided with this calibration to maintain the instrument's accuracy.

Technician Comments:

John Townsend, Calibration Technician

Notes

- A. This accredited organization maintains both A2LA accreditation to ISO/IEC 17025 for the specific tests/calibrations listed in A2LA Certificate #3040.01, and ISO 6789.
- B. Environmental conditions were held within MobileCal's standards of 60 to 88 degrees Fahrenheit and below 90% relative humidity.
- C. Procedures for this calibration method are outlined in the MobileCal Quality Management Procedure Manual Version 3.0.
- 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 MobileCal'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 MobileCal.
- G. Calibration performed and valid for Clockwise Direction only.
- H. This calibration document is followed by a Calibration Schedule page.



Calibration Laboratory Location #5: Certification Schedule

Capacity	Item	Serial #	Report #	Date Due Cal
100 INLB	AWS LOAD CELL	10196-1	10196-1:1330001416	03/25/2014
500 INLB	AWS LOAD CELL	10196-2	10196-2:1330002500	03/25/2014
250 FTLB	AWS LOAD CELL	10450-1	26553	06/14/2014
600 FTLB	AWS LOAD CELL	10450-2	26553	06/14/2014
1500 FTLB	AWS LOAD CELL	10450-3	26553	06/14/2014
250 FTLB	AWS LOAD CELL	7914-1	M3311007-1	02/06/2014
1000 FTLB	AWS LOAD CELL	7914-2	M3311007-2	02/06/2014
5000 FTLB	AWS LOAD CELL	M11963	24514	08/12/2014
25000 FTLB	AWS LOAD CELL	7874-1	24843	Out For Calibration
300 PSI	DRUCK	3351599	1314953051-2	11/16/2013
5000 PSI	DRUCK	3108944	1314954418	07/27/2013
10000 PSI	DRUCK	3388037	1314950308-2	11/16/2013
15000 PSI	VIATRAN TRANSDUCER	439641	43010.001	04/11/2014
30000 PSI	ADDITEL	211H13050006	91300274	04/11/2014
Electrical	FLUKE	2364803	F566016	03/28/2014
Electrical	FLUKE	B1B660	4181:B113660	11/16/2013
Electrical	FLUKE	170062467	1583873-170067462 1344629754	08/10/2013
Temp/RH	Dickson	12143114	1-BY7Z-L-332	09/11/2013
Temp/RH	Dickson	12143119	1-BZ69C-2-2	10/02/2013