



Certification No.:	N-24 -228934-R1
Calibration Date:	November 22, 2024
Certificate Issue Date:	November 22, 2024
Calibration Due:	November 22, 2025

Manufacturer	Model Number	Serial Number	Accuracy	Units	Procedure	Recall Interval
Wren	LOW-2	228934	+/-3% Indicated	lbf-ft	TCI012	1 Year

Link Range 1: 3/4" - 1 13/16"

Link Range 2: 1 7/8" - 2 9/16"

Link Range 3: 2 5/8" - 2 15/16"

Link Range 1			Link Range 2			Link Range 3		
psi	Torque	Torque	psi	Torque	Torque	psi	Torque	Torque
1000	124	145	4100	576	674	7200	1.038	1.312
1100	138	162	4200	593	695	7300	1.052	1.330
1200	153	179	4300	611	715	7400	1.066	1.347
1300	167	196	4400	628	736	7500	1.080	1.365
1400	182	213	4500	645	756	7600	1.093	1.382
1500	196	230	4600	663	776	7700	1.107	1.400
1600	211	247	4700	680	797	7800	1.121	1.418
1700	225	264	4800	698	817	7900	1.135	1.435
1800	240	281	4900	715	838	8000	1.149	1.453
1900	254	298	5000	733	858	8100	1.164	1.471
2000	269	315	5100	746	873	8200	1.179	1.490
2100	283	332	5200	759	889	8300	1.193	1.509
2200	298	349	5300	772	904	8400	1.208	1.527
2300	312	366	5400	785	919	8500	1.223	1.546
2400	327	383	5500	798	935	8600	1.238	1.565
2500	341	400	5600	811	950	8700	1.253	1.583
2600	355	416	5700	824	965	8800	1.267	1.602
2700	370	433	5800	837	980	8900	1.282	1.621
2800	384	450	5900	850	996	9000	1.297	1.639
2900	399	467	6000	863	1.011	9100	1.310	1.657
3000	413	484	6100	878	1.028	9200	1.324	1.674
3100	428	501	6200	893	1.045	9300	1.337	1.691
3200	442	518	6300	907	1.063	9400	1.351	1.708
3300	457	535	6400	922	1.080	9500	1.364	1.725
3400	471	552	6500	937	1.097	9600	1.378	1.742
3500	486	569	6600	951	1.114	9700	1.391	1.759
3600	500	586	6700	966	1.131	9800	1.405	1.776
3700	515	603	6800	981	1.149	9900	1.418	1.793
3800	529	620	6900	995	1.166	10000	1.432	1.810
3900	544	637	7000	1.010	1.183			
4000	558	654	7100	1.024	1.199			

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Wren	LOW-2	228934	+/-3% Indicated	Nm	TCI012	1 Year

Link Range 1: 19-46mm **Link Range 2:** 47-65mm **Link Range 3:** 66-75mm

Link Range 1			Link Range 2			Link Range 3		
1	2	3	1	2	3	1	2	3
bar	Torque	Torque	bar	Torque	Torque	bar	Torque	Torque
69	168	197	283	781	914	496	1.407	1.779
76	188	220	290	804	942	503	1.426	1.803
83	207	243	296	828	970	510	1.445	1.827
90	227	266	303	851	997	517	1.464	1.850
97	247	289	310	875	1.025	524	1.483	1.874
103	266	312	317	899	1.053	531	1.501	1.898
110	286	335	324	922	1.080	538	1.520	1.922
117	306	358	331	946	1.108	545	1.539	1.946
124	325	381	338	970	1.136	552	1.558	1.970
131	345	404	345	993	1.163	558	1.578	1.995
138	365	427	352	1.011	1.184	565	1.598	2.020
145	384	450	359	1.029	1.205	572	1.618	2.046
152	404	473	365	1.046	1.226	579	1.638	2.071
159	423	496	372	1.064	1.246	586	1.658	2.096
165	443	519	379	1.082	1.267	593	1.678	2.122
172	462	542	386	1.099	1.288	600	1.698	2.147
179	482	565	393	1.117	1.308	607	1.718	2.172
186	502	587	400	1.135	1.329	614	1.738	2.198
193	521	610	407	1.153	1.350	621	1.758	2.223
200	541	633	414	1.170	1.371	627	1.777	2.246
207	560	656	421	1.190	1.394	634	1.795	2.269
214	580	679	427	1.210	1.417	641	1.813	2.292
221	600	702	434	1.230	1.441	648	1.831	2.315
228	619	725	441	1.250	1.464	655	1.850	2.338
234	639	748	448	1.270	1.487	662	1.868	2.362
241	659	771	455	1.290	1.511	669	1.886	2.385
248	678	795	462	1.310	1.534	676	1.905	2.408
255	698	818	469	1.330	1.557	683	1.923	2.431
262	718	841	476	1.349	1.581	689	1.941	2.454
269	737	864	483	1.369	1.604			
276	757	887	490	1.388	1.626			

As Left Calibration



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Hydraulic Torque Wrench Calibration

Av. Bemberg 4400, Parque Industrial Hudson, Buenos Aires, Argentina.

Tel: (+54 (011) 4250-7911)

Manufacturer	Model Number	Serial Number	Accuracy	Procedure	Recall Interval
Wren	LOW-2	228934	+/-3% Indicated	TCI012	1 Year

Company Name: CAMETEC
Contact: _____
Address: _____
Phone Number: _____

As Left Calibration: Pages 2 and 3

As Found Calibration: No As Found Data

HIDRATOOLS S.A. calibrates TX-2 tools with a 2 1/8" link. All other link ranges are interpolated.

Notes:

HIDRATOOLS S.A. certifies that this tool has been calibrated using standards listed.

The calibration certificates are traceable through NIST or another National Metrology Institute to the International System of Units (SI Units).

HIDRATOOLS S.A. calibrates hydraulic torque wrenches from 1,000psi to 10,000psi in 1,000psi increments. All other values are interpolated.

This certificate shall not be reproduced, except in full, without written approval of HIDRATOOLS S.A.. Recall intervals are determined by the End User.

Measurement Uncertainties listed are approximately a 95% confidence level using a coverage factor of k=2.

Reference Standards				
Manufacturer	Model Number	Serial Number	Calibration Due Date	Description
AWS	TORC-4050	18122	May 14, 2025	Torque Display
TorcUP	PBG-2A	A1805Y5	May 14, 2025	Pressure Gauge
AWS	TORC-1K	18122-1	May 14, 2025	1,000 lbf-ft Transducer
AWS	TORC-10K	18122-2	May 14, 2025	10,000 lbf-ft Transducer

Calibrated By: _____
Electronically Signed By:
Ezequiel Kseminski
Operario calificado
November 22, 2024

Approved By: _____
Electronically Signed By:
Andres Franchello
Jefe de fábrica
November 22, 2024

