PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

Perry Johnson Laboratory Accreditation, Inc. has assessed the Laboratory of:

Tohnichi America Corp

1303 Barclay Blvd, Buffalo Grove, IL 60089

(Hereinafter called the Organization) and hereby declares that Organization is accredited in accordance with the recognized International Standard:

ISO/IEC 17025:2017

This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system
(as outlined by the joint ISO-ILAC-IAF Communiqué dated April 2017):

Mechanical Calibration

(As detailed in the supplement)

Accreditation claims for such testing and/or calibration services shall only be made from addresses referenced within this certificate. This Accreditation is granted subject to the system rules governing the Accreditation referred to above, and the Organization hereby covenants with the Accreditation body's duty to observe and comply with the said rules.

For PJLA:

Tracy Szerszen
President

Perry Johnson Laboratory Accreditation, Inc. (PJLA)
755 W. Big Beaver, Suite 1325
Troy, Michigan 48084

Initial Accreditation Date:	*Issue Date:*	*Expiration Date:*
October 16, 2023	October 16, 2023	January 31, 2026

Accreditation No.:	*Certificate No.:*
117486	L23-755

The validity of this certificate is maintained through ongoing assessments based on a continuous accreditation cycle. The validity of this certificate should be confirmed through the PJLA website: www.pjlabs.com

Certificate of Accreditation: Supplement

Tohnichi America Corp
1303 Barclay Blvd, Buffalo Grove, IL 60089
Contact Name: Chris Schmidt Phone: 847-947-8560

Accreditation is granted to the facility to perform the following calibrations:

Mechanical

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE OR NOMINAL DEVICE SIZE AS APPROPRIATE	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED
Torque Transducers[3 F]	(2 to 6) cN m	0.14 % + 0.013 cN m	Toque Tester TDT60CN3-G (CIS-03 TDT3-G)
	(3 to 80) ozf in	0.14 % + 0.018 ozf in	
	(0.2 to 5) lbf in	0.14 % + 0.001 1 lbf in	
	(20 to 600) cN m	0.2 % + 0.36 cN m	Toque Tester TDT600CN3-G (CIS-03 TDT3-G)
	(30 to 800) ozf in	0.2 % + 0.510 ozf in	
	(0.2 to 50) lbf in	0.2 % + 0.032 lbf in	
	(2 to 20) N m	0.17 % + 0.0015 N m	Toque Tester DOTE20 (CIS-04 DOTE)
	(200 to 2 000) cN m	0.17 % + 0.015 cN m	
	(18 to 180) lbf in	0.17 % + 0.013 lbf in	
	(10 to 100) N m	0.15 % + 0.001 N m	Toque Tester DOTE100 (CIS-04 DOTE)
	(88 to 880) lbf in	0.15 % + 0.008 8 lbf in	
	(7.3 to 73) lbf ft	0.15 % + 0.000 7 lbf ft	
	(20 to 200) N m	0.16 % + 0.004 0 N m	Toque Tester DOTE200 (CIS-04 DOTE)
	(170 to 1 700) lbf in	0.16 % + 0.035 4 lbf in	
	(15 to 150) lbf ft	0.16 % + 0.002 9 lbf ft	
	(4 to 100) N m	0.16 % + 0.062 N m	Toque Tester TCC500-CH2 (CIS-02 TCC500N2-G)
	(400 to 10 000) cN m	0.16 % + 6.2 cN m	
	(36 to 14 161) ozf in	0.16 % + 8.779 9 ozf in	
	(36 to 880) lbf in	0.16 % + 0.548 7 lbf in	
	(3 to 74) lbf ft	0.16 % + 0.045 7 lbf ft	
	(20 to 500) N m	0.18 % + 0.1 N m	Toque Tester TCC500-CH1 (CIS-02 TCC500N2-G)
	(2 000 to 50 000) cN m	0.18 % + 10 cN m	
	(2 832 to 70 806) ozf in	0.18 % + 14.16 ozf in	
	(180 to 4 400) lbf in	0.18 % + 0.89 lbf in	
	(15 to 369) lbf ft	0.18 % + 0.07 lbf ft	
	(2 to 50) N m	0.14 % + 0.01 N m	Toque Tester TF2000N-Ch3 (CIS-01 TF2000N)
	(17.7 to 442.5) lbf in	0.14 % + 0.089 lbf in	
	(2 to 37) lbf ft	0.14 % + 0.007 lbf ft	
	(20 to 500) N m	0.18 % + 0.18 N m	Toque Tester TF2000N-Ch2 (CIS-01 TF2000N)
	(177 to 4 425) lbf in	0.18 % + 1.59 lbf in	
	(20 to 370) lbf ft	0.18 % + 0.133 lbf ft	

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Torque Transducers [F]	(100 to 2100) N m	0.22 % + 1.3 N m	Toque Tester TF2000N-Ch1 CIS-01 TF2000N
	(885 to 18 587) lbf in	0.22 % +11.51 lbf in	
	(100 to 1 500) lbf ft	0.22 % + 0.96 lbf ft	
Torque – Click Wrenches [F]	(30 to 600) cN m	0.38% + 0.01 cN m	Torque Tester TDT600CN3-G (CIS-06 Wrench)
	(3 to 80) ozf in	0.38% + 0.014 ozf in	
	(0.2 to 5) lbf in	0.38% + 0.0009 lbf in	
	(2 to 20) N m	0.48 % + 0.002 N m	Toque Tester DOTE20N4-G (CIS-06 Wrench)
	(200 to 2 000) cN m	0.48 % + 0.2 cN m	
	(18 to 180) lbf in	0.48 % + 0.018 lbf in	
	(4 to 100) N m	0.52 % + 0.006 8 N m	Toque Tester TCC500N2-G Ch2 (CIS-06 Wrench)
	(400 to 10 000) cN m	0.52 % + 6.8 cN m	
	(36 to 14 161) ozf in	0.52 % + 9.59 ozf in	
	(36 to 880) lbf in	0.52 % + 0.06 lbf in	
	(3 to 74) lbf ft	0.52 % + 0.005 lbf ft	
	(100 to 500) N m	0.89 % + 0.64 N m	Toque Tester TCC500N2-G Ch1 (CIS-06 Wrench)
	(2 000 to 50 000) cN m	0.89 % + 64 cN m	
	(2 832 to 70 806) ozf in	0.89 % + 90.63 ozf in	
	(180 to 4 400) lbf in	0.89 % + 5.66 lbf in	
	(15 to 369) lbf ft	0.89 % + 0.47 lbf ft	
	(2 to 50) N m	0.18 % + 0.03 N m	Toque Tester TF2000N Ch3 (CIS-06 Wrench)
	(17.7 to 442.5) lbf in	0.18 % + 0.27 lbf in	
	(2 to 37) lbf ft	0.18 % + 0.02 lbf ft	
	(20 to 500) N m	0.7 % + 0.02 N m	Toque Tester TF2000N Ch2 (CIS-06 Wrench)
	(177 to 4 425) lbf in	0.7 % + 1.77 lbf in	
	(20 to 370) lbf ft	0.7 % + 0.15 lbf ft	
	(100 to 2 100) N m	1.7 % + 0.73 N m	Toque Tester TF2000N Ch1 (CIS-06 Wrench)
	(885 to 18 587) lbf in	1.7 % + 6.46 lbf in	
	(100 to 1 500) lbf ft	1.7 % + 0.54 lbf ft	
Torque – Digital Wrenches [F]	(2 to 20) N m	0.16 % + 0.01 N m	Toque Tester DOTE20ND-G (CIS-06 Wrench)
	(200 to 2 000) cN m	0.16 % + 0.78 cN m	
	(18 to 180) lbf in	0.16 % + 0.07 lbf in	
	(2 to 50) N m	0.15 % + 0.006 6 N m	Toque Tester TF2000N Ch3 CIS-06 Wrench)
	(17.7 to 442.5) lbf in	0.15 % + 0.06 lbf in	
	(2 to 37) lbf ft	0.15 % + .001 lbf ft	

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Torque – Digital Wrenches [F]	(20 to 500) N m	0.33 % + 0.17 N m	Toque Tester TF2000N Ch2 CIS-06 Wrench)
	(177 to 4 425) lbf in	0.33 % + 1.50 lbf in	
	(20 to 370) lbf ft	0.33 % + 0.13 lbf ft	
	(170 to 850) N m	0.5 % + 0.35 N m	Toque Tester TF2000N Ch1 CIS-06 Wrench
	(885 to 18 587) lbf in	0.5 % + 3.10 lbf in	
	(100 to 1 500) lbf ft	0.5 % + 0.26 lbf ft	
Torque – Rotary Slip Drivers [F]	(2 to 60) cN m	0.48 % + 0.000 8 cN m	Toque Tester TDT60CN3-G (CIS-07 Driver)
	(3 to 80) ozf in	0.48 % + 0.001 1 ozf in	
	(0.2 to 5) lbf in	0.48 % + 0.000 07 lbf in	
	(20 to 500) cN m	0.65 % + 0.01 cN m	Toque Tester TDT600CN3-G (CIS-07 Driver)
	(30 to 800) ozf in	0.65 % + 0.014 ozf in	
	(2 to 50) lbf in	0.65 % + 0.089 lbf in	
Torque – Digital Guage [F]	(0.1 to 1) cN m	0.23 % + 0.001 5 cN m	Toque Tester ATGE (CIS-08 ATGE_BTGE)
	(0.142 to 1.142) ozf in	0.23 % + 0.002 1 ozf in	
	(1 to 10) mN m	0.23 % + 0.015 mN m	
	(0.4 to 20) cN m	0.11 % + 0.003 6 cN m	Toque Tester ATGE (CIS-08 ATGE_BTGE)
	(2.83 to 28.32) ozf in	0.11 % + 0.005 1 ozf in	
	(20 to 200) mN m	0.11 % + 0.036 mN m	
	(2 to 50) cN m	0.12 % + 0.011 cN m	Toque Tester BTGE (CIS-08 ATGE_BTGE)
	(2.83 to 70.8) ozf in	0.12 % + 0.015 6 ozf in	
	(0.177 to 4.43) lbf in	0.12 % + 0.001 0 lbf in	
	(20 to 200) cN m	0.14 % + 0.052 cN m	Toque Tester BTGE (CIS-08 ATGE_BTGE)
	(28.32 to 283.22) ozf in	0.14 % + 0.073 6 ozf in	
	(1.77 to 17.70) lbf in	0.14 % + 0.004 6 lbf in	
Torque – Non Rotary Slip Drivers [F]	(2.26 to 10.17) N m	1.2 % + 0.012 N m	Toque Tester DOTE20N4-G (CIS-07 Driver)
	(20 to 90) lbf in	1.2 % + 0.106 2 lbf in	

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Accreditation is granted to the facility to perform the following calibrations:

1. The CMC (Calibration and Measurement Capability) stated for calibrations included on this scope of accreditation represents the smallest measurement uncertainty attainable by the laboratory when performing a more or less routine calibration of a nearly ideal device under nearly ideal conditions. It is typically expressed at a confidence level of 95 % using a coverage factor k (usually equal to 2). The actual measurement uncertainty associated with a specific calibration performed by the laboratory will typically be larger than the CMC for the same calibration since capability and performance of the device being calibrated and the conditions related to the calibration may reasonably be expected to deviate from ideal to some degree.

2. The laboratories range of calibration capability for all disciplines for which they are accredited is the interval from the smallest calibrated standard to the largest calibrated standard used in performing the calibration. The low end of this range must be an attainable value for which the laboratory has or has access to the standard referenced. Verification of an indicated value of zero in the absence of a standard is common practice in the procedure for many calibrations but by its definition it does not constitute calibration of zero capacity.

3. The presence of a superscript F means that the laboratory performs calibration of the indicated parameter at its fixed location. Example: Outside MicrometerF would mean that the laboratory performs this calibration at its fixed location.

4. Measurement uncertainties obtained for calibrations performed at customer sites can be expected to be larger than the measurement uncertainties obtained at the laboratories fixed location for similar calibrations. This is due to the effects of transportation of the standards and equipment and upon environmental conditions at the customer site which are typically not controlled as closely as at the laboratories fixed location.