

PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

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

Hytorc Wind Oregon

180 NE Herman Creek Lane, Suite 168, Cascade Locks, OR 97014 Mobile Laboratory VIN #WDYPE8LC7C5651738

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

ISO/IEC 17025:2005

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 January 2009):

Calibration of Mechanical Devices (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/Operations Manager

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

nitial Accreditation Date:	Issue De	ate:	Expiration Date:
November 4, 2014	November 22	2, 2016	January 31, 2019
Accrea	Accreditation No.:		ïcate No.:
7	75363	L16-534	

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: <u>www.pjlabs.com</u>



Certificate of Accreditation: Supplement

Hytorc Wind Oregon

180 NE Herman Creek, Suite 168, Cascade Locks, OR 97014 Contact Name: Darwin Rutherford Phone: 541-374-2001

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 ⁰	10 lbf·ft to 1 000 lbf·ft	1.1 % of reading	TSD6500-3 TSD20011 TSD 10KPT	
	200 lbf·ft to 20 000 lbf·ft	1.2 % of reading		
	500 lbf·ft to 40 000 lbf·ft	1.6 % of reading	TSD6500-2 TSD40011 TSD 10KPT	
Pressure ⁰	10 psi to 100 psi	0.5 % of reading + 0.1 psi	Crystal Engineering 500PSIXP2I	
	100 psi to 500 psi	0.5 % of reading		
	500 psi to 2 000 psi	0.6 % of reading + 2 psi	Crystal Engineering 10KPSIXP2I	
	2 000 psi to 10 000 psi	0.6 % of reading		

Mechanical- VIN #WDYPE8LC7C5651738

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 ^F	10 lbf·ft to 1 000 lbf·ft	1.1 % of reading	TSD6500-3 TSD20011 TSD 10KPT	
	200 lbf \cdot ft to 20 000 lbf \cdot ft	1.2 % of reading		
	500 lbf·ft to 40 000 lbf·ft	1.6 % of reading	TSD6500-2 TSD40011 TSD 10KPT	
Pressure ^F	10 psi to 100 psi	0.5 % of reading + 0.1 psi	Crystal Engineering 500PSIXP2I	
	100 psi to 500 psi	0.5 % of reading		
	500 psi to 2 000 psi	0.6 % of reading + 2 psi	Crystal Engineering 10KPSIXP2I	
	2 000 psi to 10 000 psi	0.6 % of reading		

- 1. 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.



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

- 3. The presence of a superscript F means that the laboratory performs calibration of the indicated parameter at its fixed location. Example: Outside Micrometer ^F would mean that the laboratory performs this calibration at its fixed location.
- 4. The presence of a superscript O means that the laboratory performs calibration of the indicated parameter onsite at customer locations. Example: Outside Micrometer ^O would mean that the laboratory performs this calibration onsite at the customer's location.
- 5. 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.

