PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

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

Bossard

6521 Production Drive, Cedar Falls, IA 50613

(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):

Dimensional Inspections and Mechanical Testing of Threaded Fasteners, Washers, Rivets, and Related Hardware

(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

Initial Accreditation Date:	*Issue Date:*	*Expiration Date:*
August 5, 2009	February 18, 2020	March 31, 2022

Accreditation No.:	*Certificate No.:*
60247	L20-94

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

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

Bossard
6521 Production Drive, Cedar, IA 50613
Contact Name: Stacey Booth Phone: 319-277-5520

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

FIELD OF TEST	ITEMS, MATERIALS OR PRODUCTS TESTED	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	RANGE (WHERE APPROPRIATE) AND DETECTION LIMIT
Mechanical [F]	Fasteners	Plating thickness, X-ray	QLW-26	0.000 1 in min
Dimensional Inspection [F]	Threaded Fasteners, Washers, Rivets, and Related Hardware	Diameter, Length, and Other Linear Dimensional Measurements Using Calipers	QLW2	0.05 mm to 609.6 mm D.L. = 0.01 mm 0 in to 24 in D.L. = 0.000 5 in
		Diameter, Length, and Other Linear Dimensional Measurements Using Micrometers	QLW2	0.2 mm to 50.8 mm D.L. = 0.001 mm 0 in to 2 in D.L. = 0.000 1 in
	Internally Threaded Fasteners	Evaluation Using Threaded Plug (Go and No Go Gages)	QLW7	M2 mm to M52 mm 0.86 in to 2 in
	Externally Threaded Fasteners	Evaluation Using Threaded Ring (Go and No Go Gages)	QLW7	M2 mm to M36 mm 0.86 in to 1.625 in
	Pitch Diameter	Using Micrometer	QLW2	0 in to 2 in (0.2 mm to 50.8 mm)
Mechanical [F]	Thread Forming Screws	Torsional Breaking Strength	QLW18	0.7 N•m to 340 N•m D.L. = 0.113 N•m (6 in lb to 250 ft lb) D.L. =0.083 ft lb
	Externally Threaded Fasteners	Ultimate Tensile Load	QLW10, QLW11	1 260 N to 300 000 N D.L. = 10 N
	Internally Threaded Fasteners	Nut Proof Load	QLW12	1 260 N to 300 000 N D.L. = 10 N
	Threaded Fasteners, Washers, Rivets, and Related Hardware	Rockwell Hardness	QLW9	HRC 20 to HRC 68 HRB 30 to HRB 100 HR15N 69 to HR15N 93 HR30N 42 to HR30N 84 D.L. = 0.1 Respective Hardness Unit
		Micro Indentation Hardness	QLW22, QLW24	120 HK to 920 HK 105 HK to 940 HV D.L. = 1 Respective Hardness Unit

1. The presence of a superscript F means that the laboratory performs testing of the indicated parameter at its fixed location. Example: Outside Micrometer[F] would mean that the laboratory performs this testing at its fixed location.