



# PERRY JOHNSON LABORATORY ACCREDITATION, INC.

## Certificate of Accreditation

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

### ***Proto Manufacturing***

***12350 Universal Drive, Taylor, MI 48180  
2175 Solar Crescent, Oldcastle, Ontario N0R 1L0***

*(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):

***NDT, Mechanical and Chemical Testing-Residual Stress and  
Retained Austenite Measurement by X-Ray Diffraction  
(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.

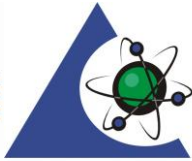
For PJLA:

<i>Initial Accreditation Date:</i>	<i>Issue Date:</i>	<i>Accreditation No.:</i>	<i>Certificate No.:</i>
October 11, 2011	September 16, 2013	71619	L13-184-1

Tracy Szerszen  
President/Operations Manager

*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](http://www.pjlabs.com)*

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



PJLA

# Certificate of Accreditation: Supplement

## Proto Manufacturing

12350 Universal Drive, Taylor, MI 48180  
William Boyer Phone: 734-946-0974

2175 Solar Crescent, Oldcastle, Ontario N0R 1L0  
James Pineault Phone: 519-737-6330

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
Chemical and Mechanical (NDT)	Steel	Volume Fraction Retained Austenite	ASTM E975 SAE SP-453	1 % to 100 % DL=1 %
Mechanical (NDT)	Metal or Other Crystalline	Residual Stress Measurement by X-Ray Diffraction	SAE HS-784 ASTM E915	Fe: 7 MPa (1 ksi) Al: 7 MPa (1 ksi) Ti: 10 MPa (1.5 ksi) To Material Yield Strength Positive (Tensile) or Negative (Compressive)  DL=7 MPa (1 ksi)
Mechanical	Metal or Other Crystalline	Determining the Effective Elastic Constants for X-Ray Diffraction Measurements of Residual Stress	ASTM E1237 (Gages) SAE HS-784 ASTM E1426	$4 \times 10^4$ MPa to $5 \times 10^6$ MPa ( $6 \times 10^3$ ksi to $7 \times 10^4$ ksi) (Mg to Tungsten Carbide) See Note 1
	Solids	Residual Stress Measurement by the Hole-Drilling Strain-Gage Method	ASTM E837	14 MPa (2 ksi) to 50% of the Material Yield Strength Positive (Tensile) or Negative (Compressive)  DL = 14 MPa (2 ksi)

1. Values in this range have been measured. Similar accuracy and precision are expected for materials having effective elastic parameters beyond this range.



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## Perry Johnson Laboratory Accreditation, Inc.

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September 16, 2013

Mr. William Boyer  
Proto Manufacturing  
12350 Universal Drive  
Taylor, MI 48180

Dear Mr. Boyer:

This letter is to confirm that you have successfully completed your reaccreditation assessment. A certificate has now been granted and posted on our website. As you are aware, PJLA will no longer be issuing expiration dates on our certificates. Your certificate # **L13-184-1** will remain valid as long as you continue to maintain your annual assessments and reaccreditation assessments as stated in your customer agreement with PJLA. At this time, we have confirmed that your annual assessments will be conducted during the month of **August** each calendar year. This will include an interim surveillance assessment and a full system reassessment to be completed by **August 2015**. Once your reassessment is conducted and approved by our accreditation committee a revised status letter will be provided to you. Please allow PJLA at least 120 days from your assessment due date to issue this letter.

Please feel free to release this letter to any interested parties as confirmation of your certificate validity. Also, please remind them that your certificate is posted on our website at all times. Any changes in regards to your accreditation status will be reflected on our website.

We would like to thank you for your patronage over the past years and look forward to continuously serving your accreditation needs in the future. If we can assist you any further, please feel free to contact us at any time.

Sincerely,

Tracy Szerszen  
President/Operations Manager