



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

MCGARD LLC/L.D. MCCAULEY LLC  
3875 California Rd.  
Orchard Park, NY 14127  
Dennis James Sieracki Phone: 716 445 0486

MECHANICAL

Valid To: February 29, 2024

Certificate Number: 4743.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests on specialty fasteners, security fasteners, and security devices.

<u>Test(s):</u>	<u>Test Method(s):</u>
Metallurgy Lab: Depth of Decarburization  Case Depth Inclusions in Steel Macro Evaluation  Micro Hardness (Knoop & Vickers)	ASTM E1077; SAE J419, J121 <sup>2</sup> <i>(withdrawn 2013)</i> ASTM F2328; SAE J423 (section 5.2 and 6.3) ASTM E45 ( <i>Method E</i> ); SAE J422 ASTM E340 (etching), ML-11 (Visual inspection) ASTM E384 (50 gf and 500gf)
Engineering Lab: Torque Cycle Testing Torque Tension Testing Torque to Failure/Static Testing Impact Cycle Testing L-Handle Cycle Testing Cyclic Fatigue Testing Offset Wrench Testing Damageability  <i>Chemical Testing:</i> Resistance to Fluids	LTP 2 Automatic <sup>1</sup> , LTP 3 Manual <sup>1</sup> GMW 14994, 14995; EN ISO 16047; LTP1 <sup>1</sup> LTP 2 Automatic <sup>1</sup> , LTP 3 Manual <sup>1</sup> LTP 18 Automatic, LTP 14 Manual LTP 21 Automatic, LTP 4 Manual LTP 46 <sup>1</sup> LTP 13 Manual, LTP 33 Automatic Ford ES-E1BC-1012-AA; LTP 2 <sup>1</sup> , LTP 3 <sup>1</sup> , LTP 14, LTP 18  GMW 14334 Class B; LTP 29, LTP 30 <sup>1</sup>



<b><u>Test(s):</u></b>	<b><u>Test Method(s):</u></b>
Plating Lab: Cass Spray  Salt Spray  Corrodekote Thickness of Platings (x-ray) Adhesion (Saw/Grind) Thermal Shock Coulometric Pore Count	ASTM B368; GMW 14458; Toyota PPS-1001; ISO 9227 ASTM B117; GMW 3286; Chrysler 463PB-10-01; GM 4298P ASTM B380 ISO 3497, 2177; ASTM B487, B568 GMW 14672; ASTM B571 GMW 14672; ASTM B571 GMW 14672 Class B GMW 14672 Class B
Quality Assurance Lab: Hardness (Rockwell) A, B, C, 15N, 30N, 45N DeEmbrittlement on Lock and Key Assemblies Proofload/Compression (Tinius)  Tensile and Proof Load Testing Discontinuities Testing Magni Adhesion	ASTM E18, E140, A370, A623, B294, F606/F606M SAE/USCAR-7 ASTM F606/F606M, A370; SAE J1216; GMW 17370 ASTM A370, B557, E8/E8M; Chrysler PS 7138 GMW 17370; ISO 6157; ASTM E340 ASTM D3359 Method A

I. Dimensional Testing<sup>3,5</sup>

Parameter/Equipment	Range	CMC <sup>4</sup> (±)	Comments
Linear	Up to 1 in	0.000 18 in	Point micrometers
	Up to 1 in	0.000 27 in	Blade micrometers
	Up to 1 in	0.000 27 in	O.D. micrometers
	(1 to 2) in	0.000 25 in	
	Up to 6 in	0.0015 in	Calipers
	Up to 0.030 in	0.0065 in	Tri-roll concentricity gages with indicators
	Up to 1 in	0.000 22 in	Digital indicator, height gage

Parameter/Equipment	Range	CMC <sup>4</sup> (±)	Comments
Linear (cont)	Up to 1 in	0.000 22 in	Digital indicator, height gage
	Up to 2 in	0.000 38 in	
	Up to 2 in	0.0024 in	
	Up to 12 in	0.0016 in	Dial height gage
	X = 12 in, Y = 9 in	0.0011 in	Optical comparator
	X = 8 in, Y = 8 in, Z = 6 in	0.0010 in	Smart scope
	(0.011 to 0.750) in	11 µin	Pin gages
	Ra: Up to 250 µin Rz: Up to 1000 µin Rmax: Up to 1000 µin	Ra: 4.5 µin Rz: 29 µin Rmax: 37 µin	Surface finish roughness (Surf-com Flex 50A)
	0.138-32 to 9/16-18 in M3 x 0.5 to M30 x 2.0 mm	75 µin 0.001 88 mm	External Johnson thread gage
	0.3125-30 to 1.0-20 in M6 x 1.0 to M14 x 1.25 mm	130 µin 0.0032 mm	Internal Johnson thread gage
Angle	(0 to 180) °	0.29 °	Optical comparator
	(0 to 90) °	0.039 °	Smart scope
Radius	Up to 3 in	0.0011 in	Optical comparator
	Up to 3 in	0.0010 in	Smart scope

<sup>1</sup> This laboratory also uses customer supplied specifications and/or methods directly related to the testing technologies and parameters listed above.

<sup>2</sup> This laboratory's scope contains withdrawn or superseded methods. As a clarifier, this indicates that the applicable method itself has been withdrawn or is now considered "historical" and not that the laboratory's accreditation for the method has been withdrawn.

<sup>3</sup> This laboratory does not offer commercial dimensional testing service, only internal for PPAP only.

<sup>4</sup> Calibration and Measurement Capability (CMC) is the smallest uncertainty of measurement that a laboratory can achieve within its scope of accreditation when performing more or less routine measurements of nearly ideal measurement standards or nearly ideal measuring equipment. Calibration and Measurement Capabilities represent expanded uncertainties expressed at approximately the 95 % level of confidence, usually using a coverage factor of  $k = 2$ . The actual measurement uncertainty of a specific measurement performed by the laboratory may be greater than the CMC due to the behavior of the customer's device and to influences from the circumstances of the specific measurement.

<sup>5</sup> This test is not equivalent to that of a calibration.



## Accredited Laboratory

A2LA has accredited

**MCGARD LLC/L.D. MCCAULEY LLC**

*Orchard Park, NY*

for technical competence in the field of

**Mechanical Testing**

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).



Presented this 2<sup>nd</sup> day of February 2022.

A blue ink signature of the Vice President of Accreditation Services.

Vice President, Accreditation Services  
For the Accreditation Council  
Certificate Number 4743.01  
Valid to February 29<sup>th</sup>, 2024

*For the types of tests to which this accreditation applies, please refer to the laboratory's Mechanical Scope of Accreditation.*