The American Association for Laboratory Accreditation

World Class Accreditation

Accredited Laboratory

A2LA has accredited

KERR LAKESIDE INC.

Euclid, OH

for technical competence in the field of

Mechanical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *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 8 January 2009*).

Presented this 18th day of February 2010.

President & CEO
For the Accreditation Council
Certificate Number 0159.01
Valid to February 29, 2012

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

World Class Accreditation

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

KERR LAKESIDE INC.
26841 Tungsten Road
Euclid, OH 44132
Charles L. Kerr Phone: 216 261 2100

MECHANICAL

Valid To: February 29, 2012 Certificate Number: 0159.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests on fasteners:

Test	*Test Methods
Tension Testing	
Axial / Wedge Tensile Strength	ASTM A370 (Sec. A3.1 - 3.3, A4.1 - 4.6)
Proof Load (Ext. Threaded)	ASTM F606, F606M; SAE J429
Hardness (Rockwell and Superficial – A, B, C, N)	ASTM A370 (Sec. 17, A3.3), E18, F606, F606M; SAE J429
Microhardness (Knoop)	ASTM A574, E3, E384, F835, F912
Metallographic Evaluation:	
Carburization / Decarburization	ASTM A574, F835, F912
Case Depth	ASTM A574, F835, F912
Coating Thickness	ASTM B499, B633

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Dimensional Testing:

Parameter	Range	CMC* (±)	Measurement Technique	Standards
Linear	(0 to 1) in (.0001 res.)	0.0002 in	Micrometer / Optical comparator	ANSI/ASME B1.1, B1.2, B1.3M, B18.3; FED-STD-H28
	(0 to 2) in (.0001 res.)	0.0002 in	Micrometer / Optical comparator	
	(0 to 12) in (.001 res.)	0.002 in	Micrometer	
	(0 to 6) in (.0005 res.)	0.001 in	Digital caliper	
	(0 to 6) in (.001 res.)	0.0002 in	Dial caliper	
	(0 to 12) in (.001 res.)	0.002 in	Caliper	
	(0 to 3) in (.001 res.)	0.00015 in	Depth micrometer	
	(0 to 0.004) in (.00005 res.)	0.0001 in	Dial indicator	
	(0 to 0.030) in (.0001 res.)	0.0002 in	Dial indicator	
	(0 to 0.060) in (.00025 res.)	0.0005 in	Dial indicator	
	(0 to 0.075) in (.0005 res.)	0.001 in	Dial indicator	
	(0 to 1) in (.001 res.)	0.002 in	Dial indicator	
Threads	#8 thru 2 in. (.00025 res.)	0.0005 in	Thread gage, System 22	
Angle	0 to 360 (1 min. res.)	2 mins.	Optical comparator	
Radius	(0.005 to 0.700) in (.005 res.)	0.010 in	Optical comparator	

*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.

res. = instrument resolution