



PERRY JOHNSON LABORATORY ACCREDITATION, INC.

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Certificate of Accreditation

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

Engineered Lubricants Co.
11525 Rock Island Court, Maryland Heights, MO 63043

(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):

Chemical and Mechanical Testing *(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

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

Initial Accreditation Date: August 16, 2018 *Issue Date:* November 27, 2024 *Expiration Date:* January 31, 2027

Accreditation No.: 98864 *Certificate No.:* L24-912

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.pilabs.com



Certificate of Accreditation: Supplement

Engineered Lubricants Co.
 11525 Rock Island Court, Maryland Heights, MO 63043
 Contact Name: Ms. Bridget Dubbert Phone: 314-872-9540

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

FLEX CODE	FIELD OF TEST	ITEMS, MATERIALS, OR PRODUCTS TESTED	COMPONENT, CHARACTERISTIC, PARAMETER TESTED	SPECIFICATION OR STANDARD METHOD	TECHNOLOGY OR TECHNIQUE USED
F1, F2	Chemical ^F	Lubricants- Lubricating Fluids, Oils, Greases, Glycols	Kinematic Viscosity	ASTM D445 ASTM D2270	Time, Bath, Glass Capillary Viscometer
F1, F2			Water Content	ASTM E203	Karl Fischer Titration
				ASTM D6304	Coulometric Karl Fischer Titration
F1, F2, F4			Particle Count by Light Extinction	PSC.HIAC ISO4406 NAS 1638 SAE AS4059	Light Obscuration
F1, F2			Cooling Characteristics of Quench Fluids	ASTM D6200	Cooling Curve Analysis
F1, F2			Pour Point	ASTM D6749	Cold source, visual
F1, F2			Wear Preventative Characteristics (4-Ball method)	ASTM D2266 ASTM D4172	Fourball Rotary Tester
F1, F2				Extreme Pressure Properties (4-Ball method)	
F1, F2			Copper Strip Corrosion Test	ASTM D130 ASTM D4048	Copper (other) strip, ASTM Reference
F1, F2, F4			Elemental Content by Energy Dispersive X- Ray Fluorescence	ASTM D429 PSC.XRF	X-Ray Fluorescence Spectroscopy
F1, F2			Amount of Volatile Material in a Sample	ASTM E1868 SCAQMD Rule #1144	Thermogravimetry
F1, F2			Foaming Tendencies of Fluids Sequence I, II, III	ASTM D892	Aeration, Temperature Bath
F1, F2			Specific Gravity	ASTM D7777	Portable Density Meter
F1, F2			Elemental Content by ICP	ASTM D5185	Inductively Coupled Plasma Spectroscopy
F1, F2			Total Acid Number	ASTM D664	Titration (Methods A and B)
F1, F2			Ferrography Analysis of Wear and Contaminant Particles in Oils and Greases	ASTM D7684 ASTM D7690	Ferrogram, Direct Reading Ferrography
F1, F4				Energy Dispersive Spectroscopy with a Scanning Electron Microscope	



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F1, F2	Chemical ^F	Lubricants- Lubricating Fluids, Oils, Greases, Glycols	Oxidation Stability of Oils and Greases by RPVOT	ASTM D2272 Method B ASTM D942	RPVOT
F1, F2			Flashpoint	ASTM D92-16b	Flashpoint Unit or Manual, Heat Source
F1, F2	Mechanical ^F		Penetration Cone (Worked or Unworked)	ASTM D217	Cone penetrator
F1, F2			Penetration Cone (½ scale or ¼ scale)	ASTM D1403	

- The presence of a superscript F means that the laboratory performs testing of the indicated parameter at its fixed location.
- Flex Code:
 - F0-Fixed scope item. No deviations allowed to the line item as identified, except for updating to the most recent version of an accredited standard method after verification
 - F1-Laboratory has the capability to test a new item, material, matrix, or product similar in composition to item, material, matrix, or product identified on the scope
 - F2-Laboratory has the capability to introduce the newest revision of an accredited authoritative standard method (with no modifications) identified on the scope
 - F3-Laboratory has the capability to introduce a parameter/component/analyte to an accredited test method identified on the scope
 - F4-Laboratory has the capability to introduce a new revision of an accredited non-standard method using the same technology or technique identified on the scope
 - F5-Laboratory has the capability to introduce a validated method that is equivalent to an accredited method (using same technology or technique) identified on the scope