



PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

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

Trico Corporation
1235 Hickory Street, Pewaukee, WI 53072

(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):

Lubricating Oil, Grease and Fuel Testing Laboratory Specializing in Utilizing Wear Particle and Used Oil Analysis in the Diagnosis of the Condition of Industrial Equipment
(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:

Initial Accreditation Date:

March 7, 2007

Issue Date:

August 7, 2017

Expiration Date:

August 7, 2019

Accreditation No.:

59419

Certificate No.:

L17-342

Tracy Szerszen
President/Operations Manager

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.pjlab.com



Certificate of Accreditation: Supplement

Trico Corporation

1235 Hickory Street, Pewaukee, WI 53072
 Contact name: Kemberlee Snelling Phone: 262-691-9336

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 ¹	Lube Oils and Greases	RDE Emission Spectroscopy	ASTM D6595	Range/Detection Limit: Varies by Element
		ICP-Inductively Coupled Plasma	D5185	Range/Detection Limit: Varies by Element
		DR Ferrograph	Trico Method	Range/Detection Limit: < 90:DL before dilution
		Analytical Ferrography	Trico Method	Range/Detection Limit: N/A
	Lube Oils	Karl Fisher Water Titration	ASTM D6304	Range/Detection Limit: < 10 000 mg/kg
		Acid Number	ASTM D664	Range/Detection Limit: < 10 mg KOH/g
		Base Number	ASTM D4739	Range/Detection Limit: < 70 mg KOH/g
		FTIR	ASTM E2412	Range/Detection Limit: Varies by item tested
		Water, Soot, Ethylene Glycol, Fuel, Sulfur, Pentane Insolubles, Chlorine	Trico Method	Range/Detection Limit: N/A
		Varnish Test	Trico Method	Range/Detection Limit: N/A
		Glycol Contamination	Trico Method	Range/Detection Limit: ≤ 1 000 mg/kg
		% Chlorine	Chlor-D-Tect Method	Range/Detection Limit: 200 mg/kg to 4 000 mg/kg
		Viscosity	ASTM D445	Range/Detection Limit: ≤ 1 000 cSt @ 40 °C and ≤ 100 cSt @ 100 °C
		Water Seperability	ASTM D1401	Range/Detection Limit: Visual
		Optical Particle Count	ISO 4406	Range/Detection Limit: 3 000 000 particles/ml
		Soot Percentage	Wilkes Soot Meter Method	Range/Detection Limit: 0 % to 7 %
		Flash and Fire Point	ASTM D92	Range/Detection Limit: Visual Flash and Fire
		Penske Martin Flash Point	ASTM 93	21.1 °C to 93 °C (70 °F to 200 °F)



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Chemical ^F	Lube Oils and Fuels	Bacteria Concentration	Sani-Check BF Test Kit	Range/Detection Limit: N/A
	Engine Coolant	Myron L Meter	Myron L Meter Method	Range/Detection Limit: < 10 000 mg/kg
	Lube Oils & Antifreeze	Refractometer	ASTM D3321	Range/Detection Limit: Freeze Point 0 °C to -51 °C (32 °C to -60 C) Contamination of Glycol 0 % to 63 %

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.

