

## Machine Id **142459** Component **Diesel Engine** Fluid **DIESEL ENGINE OIL SAE 40 (--- QTS)**

RECOMMENDATION

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 40. Please confirm. Please specify the component make and model with your next sample.

WEAR

All component wear rates are normal.

## **CONTAMINATION**

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

NORM	CONTAMINATION
NORM	FLUID CONDITION

NORM

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Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		IL06217709		
Sample Date		Client Info		14 May 2024		
Machine Age	hrs	Client Info		1432		
Oil Age	hrs	Client Info		0		
Filter Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Filter Changed		Client Info		N/A		
Sample Status				NORMAL		
Iron	ppm	ASTM D5185m	>100	54		
Chromium	ppm	ASTM D5185m	>20	4		
Nickel	ppm	ASTM D5185m	>4	0		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m	>3	0		
Aluminum	ppm	ASTM D5185m	>20	45		
Lead	ppm	ASTM D5185m	>40	0		
Copper	ppm	ASTM D5185m	>330	4		
Tin	ppm	ASTM D5185m	>15	0		
Vanadium	ppm	ASTM D5185m		<1		
White Metal	scalar	*Visual	NONE	NONE		
Yellow Metal	scalar	*Visual	NONE	NONE		
Silicon	ppm	ASTM D5185m	>25	9		
Potassium	ppm	ASTM D5185m	>20	112		
Fuel		WC Method	>5	<1.0		
Water		WC Method	>0.2	NEG		
Glycol		WC Method		NEG		
Soot %	%	*ASTM D7844	>3	0.9		
Nitration	Abs/cm	*ASTM D7624	>20	10.8		
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.4		
Silt	scalar	*Visual	NONE	NONE		
Debris	scalar	*Visual	NONE	NONE		
Sand/Dirt	scalar	*Visual	NONE	NONE		
Appearance	scalar	*Visual	NORML	NORML		
Odor	scalar	*Visual	NORML	NORML		
Emulsified Water	scalar	*Visual	>0.2	NEG		
Sodium	nnm	ASTM D5185m	>216	2		
Boron	ppm ppm	ASTM D5185m	250	6		
Barium	ppm	ASTM D5185m	10	ہ <1		
Molybdenum	ppm	ASTM D5185m	100	62		
Manganese	ppm	ASTM D5185m	100	2		
Magnesium	ppm	ASTM D5185m	450	2 994		
Calcium	ppm	ASTM D5185m	3000	1229		
Phosphorus	ppm	ASTM D5185m	1150	1067		
Zinc	ppm	ASTM D5185m	1350	1294		
Sulfur	ppm	ASTM D5185m	4250	3630		
Oxidation	Abs/.1mm	*ASTM D5105111	>25	18.2		
Base Number (BN)	mg KOH/g	ASTM D7414 ASTM D2896	8.5	8.6		
Visc @ 100°C	cSt	ASTM D2090 ASTM D445	14.4	12.6		
	001	AG HVI D443	14.4	12.0		

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 **RUSH TRUCK LEASING - CINCINNATI IDEALEASE** Sample No. Received : 24 Jun 2024 11777 HIGHWAY DRIVE : IL06217709 Lab Number : 06217709 Tested CINCINNATI, OH : 25 Jun 2024 Diagnosed Unique Number : 11090573 : 25 Jun 2024 - Wes Davis US 45241 Test Package : FLEET Contact: ROBERT BAIER Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. baierr@rushenterprises.com \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (513)657-7901 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (513)733-0537

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Contact/Location: ROBERT BAIER - IDECIN Page 2 of 2