WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL

Area [332264] Machine Id 1857

Component Diesel Engine

DIESEL ENGINE OIL SAE 15W40 ( GAL)							
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor. Please specify the component make and model with your next sample.	Sample Number		Client Info		CU0023043		
	Sample Date		Client Info		09 Feb 2024		
	Machine Age	hrs	Client Info		2484		
	Oil Age	hrs	Client Info		0		
	Filter Age	hrs	Client Info		0		
	Oil Changed		Client Info		Changed		
	Filter Changed		Client Info		Changed		
	Sample Status				NORMAL		
WEAD	la.a.		AOTM DE405()	400	00		
WEAR	Iron	ppm	ASTM D5185(m)		20		
All component wear rates are normal.	Chromium	ppm	ASTM D5185(m)		<1		
	Nickel	ppm	ASTM D5185(m)	>4	<1		
	Titanium	ppm	ASTM D5185(m)		0		
	Silver	ppm	ASTM D5185(m)	>3	0		
	Aluminum	ppm	ASTM D5185(m)		2		
	Lead	ppm	ASTM D5185(m)	>40	<1		
	Copper	ppm	ASTM D5185(m)		4		
	Tin	ppm	ASTM D5185(m)	>15	0		
	Vanadium	ppm	ASTM D5185(m)		0		
	White Metal	scalar	Visual*	NONE	NONE		
	Yellow Metal	scalar	Visual*	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185(m)	>25	4		
	Potassium	ppm	ASTM D5185(m)		<1		
There is no indication of any contamination in the oil.	Fuel	1-1-	WC Method		<1.0		
	Water		WC Method		NEG		
	Glycol		WC Method		NEG		
	Soot %	%	ASTM D7844*	>3	0		
	Nitration	Abs/cm	ASTM D7624*	>20	11.0		
	Sulfation	Abs/.1mm	ASTM D7415*	>30	22.1		
	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		
	<b>Emulsified Water</b>	scalar	Visual*	>0.2	NEG		
ELLUD CONDITION				4-0			
FLUID CONDITION	Sodium	ppm	ASTM D5185(m)		4		
The condition of the oil is acceptable for the time in service.	Boron	ppm	ASTM D5185(m)		39		
	Barium	ppm		10	0		
	Molybdenum	ppm	ASTM D5185(m)	100	60		
	Manganese	ppm	ASTM D5185(m)	450	0		
	Magnesium	ppm	ASTM D5185(m)	450	1054		
	Calcium	ppm	ASTM D5185(m)	3000	871		
	Phosphorus	ppm	ASTM D5185(m)	1150	961		
	Zinc	ppm	ASTM D5185(m)	1350	1142		
	Sulfur	ppm	ASTM D5185(m)	4250	2664		
	Oxidation	Abs/.1mm	ASTM D7414*		23.3		
	Visc @ 100°C	cSt	ASTM D7279(m)	14.4	13.6		





CALA ISO 17025:2017 Accredited Laboratory

Sample No.

Laboratory

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 : CU0023043 Lab Number : 02616907 Unique Number : 5734017

Received **Tested** Diagnosed

: 21 Feb 2024

: 22 Feb 2024 - Kevin Marson

: 21 Feb 2024

Test Package : MOB 1 (Additional Tests: Visual)

To discuss this sample report, contact Customer Service at 1-800-268-2131. Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.

**CUMMINS DIESEL** 

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