WEAR CONTAMINATION **FLUID CONDITION**

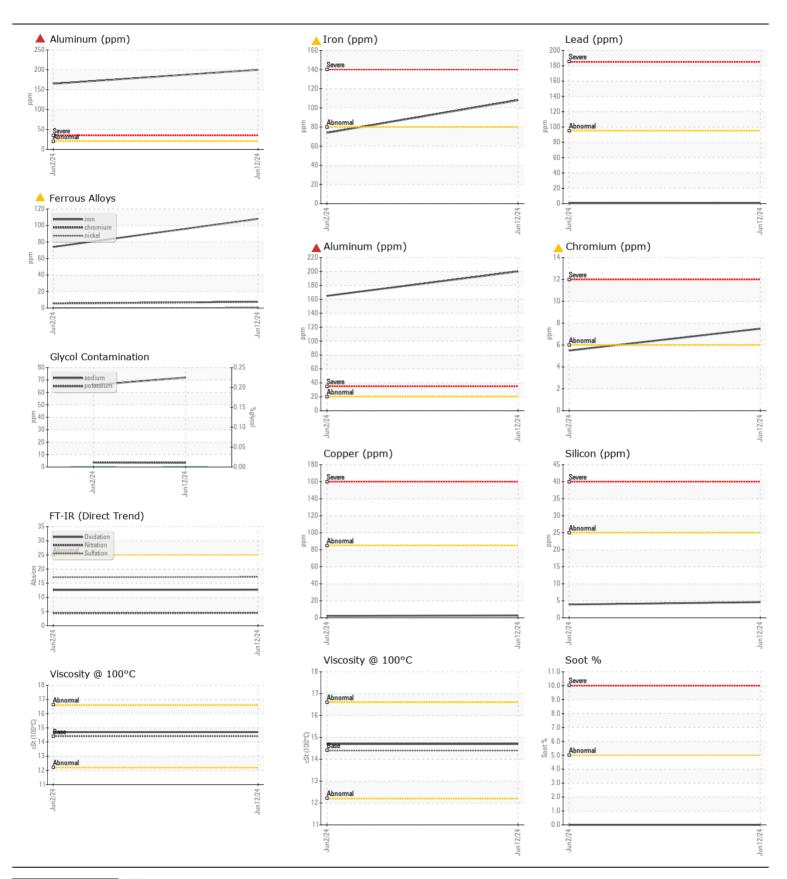
SEVERE NORMAL NORMAL

Machine Id

2006014621

Component
Port Diesel Fngine

Port Diesel Engine DIESEL ENGINE OIL SAE 15W40 (GAL)							
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 15W40. Please confirm.	Sample Number		Client Info		WA0021667	WA0021449	
	Sample Date		Client Info		12 Jun 2024	02 Jun 2024	
	Machine Age	hrs	Client Info		0	936	
	Oil Age	hrs	Client Info		0	0	
	Filter Age	hrs	Client Info		0	0	
	Oil Changed		Client Info		N/A	Not Changd	
	Filter Changed		Client Info		N/A	Not Changd	
	Sample Status				SEVERE	SEVERE	
WEAR Aluminum ppm levels are severe. Chromium and iron ppm levels are abnormal. Cylinder, crank, or cam shaft wear is indicated. Ring wear is indicated. Piston wear is indicated.	PQ		ASTM D8184*		11		
	Iron	ppm	ASTM D5185(m)	>80	<u> </u>	74	
	Chromium	ppm	ASTM D5185(m)	>6	<u> 8</u>	6	
	Nickel	ppm	ASTM D5185(m)	>2	<1	<1	
	Titanium	ppm	ASTM D5185(m)	>2	0	0	
	Silver	ppm	ASTM D5185(m)	>2	0	0	
	Aluminum	ppm	ASTM D5185(m)	>20	200	1 65	
	Lead	ppm	ASTM D5185(m)	>95	<1	<1	
	Copper	ppm	ASTM D5185(m)	>85	3	2	
	Tin	ppm	ASTM D5185(m)	>9	0	0	
	Vanadium	ppm	ASTM D5185(m)		0	0	
CONTAMINATION	Silicon	ppm	ASTM D5185(m)	>25	5	4	
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185(m)	>20	3	4	
	Fuel		WC Method	>4.0	<1.0	<1.0	
	Water		WC Method	>0.1	NEG	NEG	
	Glycol	%	ASTM D7922*		0.0	0.0	
	Soot %	%	ASTM D7844*		0	0	
	Nitration	Abs/cm	ASTM D7624*	>20	4.5	4.4	
	Sulfation	Abs/.1mm	ASTM D7415*	>30	17.2	17.1	
	Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	
FLUID CONDITION	Sodium	ppm	ASTM D5185(m)	>158	72	66	
The oil is no longer serviceable as a result of the abnormal and/or severe wear.	Boron	ppm	ASTM D5185(m)	250	2	2	
	Barium	ppm	ASTM D5185(m)	10	0	0	
	Molybdenum	ppm	ASTM D5185(m)	100	57	58	
	Manganese	ppm	ASTM D5185(m)		<1	<1	
	Magnesium	ppm	ASTM D5185(m)	450	961	976	
	Calcium	ppm	ASTM D5185(m)	3000	1014	1038	
	Phosphorus	ppm	ASTM D5185(m)	1150	978	987	
	Zinc	ppm	ASTM D5185(m)		1129	1135	
	Sulfur	ppm	ASTM D5185(m)		2538	2586	
	Oxidation	Abs/.1mm	ASTM D7414*		12.7	12.6	
	Visc @ 40°C	cSt	ASTM D7279(m)		109		
	Visc @ 100°C	cSt	ASTM D7279(m)		14.7	14.7	
Report Id: DDCDAR IWCAMISI 02641628 (Generated: 06/14/2024 07:35:12) Rev: 1	Viscosity Index (VI)	Scale	ASTM D2270*		139	 elle Hoffman	





CALA ISO 17025:2017 Accredited Laboratory

Sample No.

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9

: WA0021667 Lab Number : 02641628 Unique Number : 5799167

Tested : 13 Jun 2024 Diagnosed : 14 Jun 2024 - Kevin Marson Test Package: MOB 1 (Additional Tests: Glycol, KV40, PQ, VI)

Received

: 13 Jun 2024

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.

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