



OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
LMA104500 (S/N CDRM3013J1012)
 Component
Starboard Main Engine
 Fluid
{not provided} (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on 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.

Fluid Condition

The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			PP	---	---
Sample Date	Client Info			22 Jun 2024	---	---
Machine Age	hrs Client Info			2179	---	---
Oil Age	hrs Client Info			0	---	---
Oil Changed	Client Info			Not Chngd	---	---
Sample Status				NORMAL	---	---

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method		>4.0	<1.0	---	---
Water	WC Method		>0.1	NEG	---	---
Glycol	WC Method			NEG	---	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>75	2	---	---
Chromium	ppm	ASTM D5185(m)	>8	0	---	---
Nickel	ppm	ASTM D5185(m)	>2	0	---	---
Titanium	ppm	ASTM D5185(m)	>3	0	---	---
Silver	ppm	ASTM D5185(m)	>2	0	---	---
Aluminum	ppm	ASTM D5185(m)	>15	1	---	---
Lead	ppm	ASTM D5185(m)	>18	0	---	---
Copper	ppm	ASTM D5185(m)	>80	<1	---	---
Tin	ppm	ASTM D5185(m)	>14	0	---	---
Antimony	ppm	ASTM D5185(m)		0	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
Beryllium	ppm	ASTM D5185(m)		0	---	---
Cadmium	ppm	ASTM D5185(m)		0	---	---

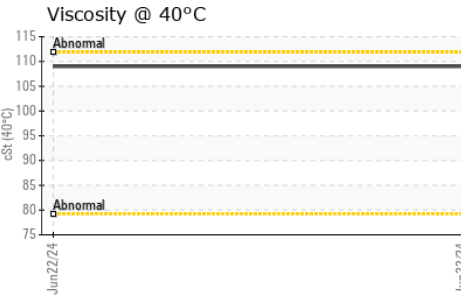
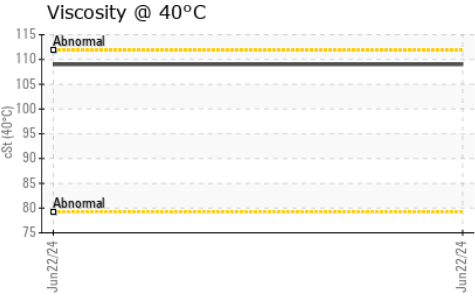
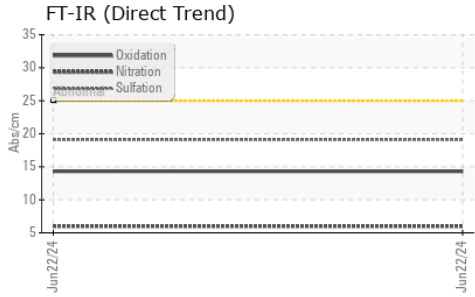
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		123	---	---
Barium	ppm	ASTM D5185(m)		0	---	---
Molybdenum	ppm	ASTM D5185(m)		39	---	---
Manganese	ppm	ASTM D5185(m)		0	---	---
Magnesium	ppm	ASTM D5185(m)		14	---	---
Calcium	ppm	ASTM D5185(m)		1933	---	---
Phosphorus	ppm	ASTM D5185(m)		921	---	---
Zinc	ppm	ASTM D5185(m)		1077	---	---
Sulfur	ppm	ASTM D5185(m)		2961	---	---
Lithium	ppm	ASTM D5185(m)		<1	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>20	5	---	---
Sodium	ppm	ASTM D5185(m)	>75	2	---	---
Potassium	ppm	ASTM D5185(m)	>20	4	---	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		0	---	---
Nitration	Abs/cm	ASTM D7624*	>20	6.0	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.1	---	---



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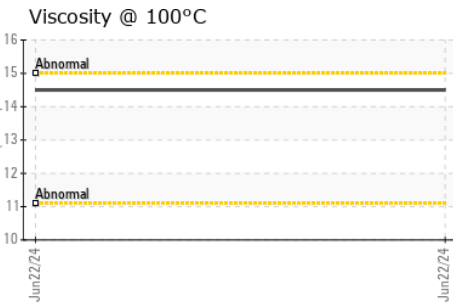
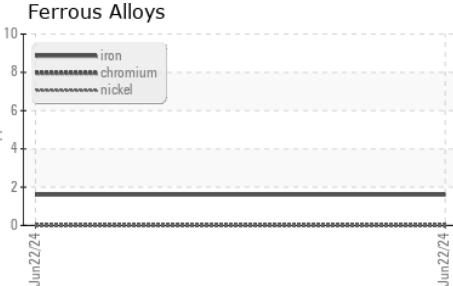


FLUID DEGRADATION	method	limit/base	current	history1	history2	
Oxidation	Abs./1mm	ASTM D7414*	>25	14.3	---	---

VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Precipitate	scalar	Visual*	NONE	NONE	---	---
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*	>0.1	NEG	---	---
Free Water	scalar	Visual*		NEG	---	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	109	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	14.5	---	---
Viscosity Index (VI)	Scale	ASTM D2270*	136	---	---

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PP **Received** : 25 Jun 2024
Lab Number : **02643876** **Tested** : 25 Jun 2024
Unique Number : 5801415 **Diagnosed** : 25 Jun 2024 - Wes Davis
Test Package : MAR 1 (Additional Tests: KV40, VI)

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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.