WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL

Machine Id WMC

Component Starboard Reduction Gear

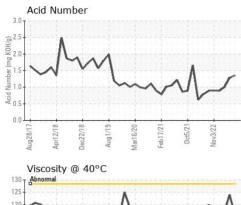
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample.	Sample Number	OOW	Client Info	LITTIU/ADIT	MW05934929	MW05863161	MW05824218
	Sample Date		Client Info		24 Aug 2023	01 Jun 2023	18 Apr 2023
	Machine Age	hrs	Client Info		67370	66847	66078
	Oil Age	hrs	Client Info		523	769	762
	Filter Age	hrs	Client Info		0	0	0
	Oil Changed	1110	Client Info		N/A	N/A	N/A
	Filter Changed		Client Info		N/A	N/A	N/A
	Sample Status				NORMAL	NORMAL	NORMAL
WEAR	Iron	ppm	ASTM D5185m	>150	2	<1	2
All component wear rates are normal.	Chromium	ppm	ASTM D5185m	>10	0	0	<1
	Nickel	ppm	ASTM D5185m	>10	0	0	0
	Titanium	ppm	ASTM D5185m		0	0	<1
	Silver	ppm	ASTM D5185m		<1	0	2
	Aluminum	ppm	ASTM D5185m	>25	1	0	1
	Lead	ppm	ASTM D5185m		0	0	0
	Copper	ppm	ASTM D5185m		1	<1	<1
	Tin	ppm	ASTM D5185m	>10	0	<1	0
	Vanadium	ppm	ASTM D5185m		0	0	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION There is no indication of any contamination in the oil.	Silicon	ppm	ASTM D5185m	>50	5	4	4
	Potassium	ppm	ASTM D5185m		2	0	0
	Water		WC Method		NEG	NEG	NEG
	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
	Debris	scalar	*Visual	NONE	NONE	NONE	NONE
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
	Appearance	scalar	*Visual	NORML	NORML	NORML	NORMI
	Odor	scalar	*Visual	NORML	NORML	NORML	NORMI
	Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG
FLUID CONDITION	Sodium	nnm	ASTM D5185m		0	1	1
	Boron	ppm	ASTM D5185m		457	404	362
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m			0	0
	Molybdenum	ppm	ASTM D5185m		<1 52	41	47
	Manganese	ppm	ASTM D5185m		<1	<1	<1
	Magnesium	ppm	ASTM D5185m		94	48	120
	Calcium	ppm	ASTM D5185m		94 2785	3050	2568
	Phosphorus	ppm	ASTM D5185m		908	861	821
	Zinc	ppm	ASTM D5185m		1043	999	933
	Sulfur		ASTM D5185m		3734	3936	3747
	Acid Number (AN)	ppm mg KOH/g	ASTM D5165111 ASTM D8045		1.36	1.28	1.00
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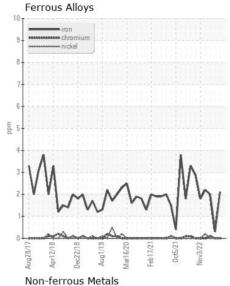
Visc @ 40°C cSt ASTM D445

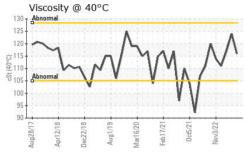
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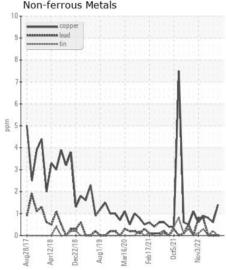
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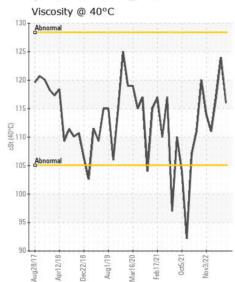
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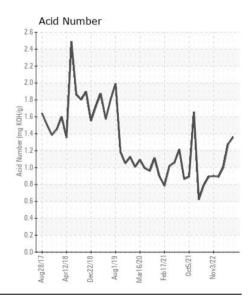
















Laboratory Sample No.

: MW05934929 Lab Number : 05934929 Unique Number : 10620200 Test Package : MAR 2

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 25 Aug 2023 **Tested**

: 28 Aug 2023 Diagnosed

: 28 Aug 2023 - Wes Davis

US 60439 Contact: RHETT DANIEL rdaniel@imtowing.com

ILLINOIS MARINE TOWING

T: (630)280-4926 F: (630)739-2041

Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

PO BOX 391

LEMONT, IL