**WEAR CONTAMINATION FLUID CONDITION**  **NORMAL NORMAL NORMAL** 

Machine Id

Component
Starboard Reduction Gear

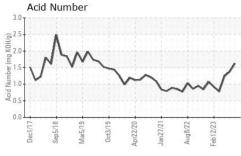
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir 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	00	Client Info		MW05934933	MW05878239	MW0584348
	Sample Date		Client Info		24 Aug 2023	19 Jun 2023	09 May 202
	Machine Age	hrs	Client Info		7961	7569	6845
	Oil Age	hrs	Client Info		1117	729	1166
	Filter Age	hrs	Client Info		0	0	0
	Oil Changed		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	5	4	6
All component wear rates are normal.	Chromium	ppm	ASTM D5185m	>10	0	<1	0
	Nickel	ppm	ASTM D5185m	>10	0	<1	0
	Titanium	ppm	ASTM D5185m		0	0	0
	Silver	ppm	ASTM D5185m		0	0	0
	Aluminum	ppm	ASTM D5185m	>25	1	0	0
	Lead	ppm	ASTM D5185m	>100	0	0	0
	Copper	ppm	ASTM D5185m	>50	<1	<1	<1
	Tin	ppm	ASTM D5185m	>10	0	0	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	Silicon	ppm	ASTM D5185m	>50	5	5	4
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	2	2	1
	Water		WC Method	>0.1	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	ppm	ASTM D5185m		0	2	0
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.	Boron	ppm	ASTM D5185m		462	445	396
	Barium	ppm	ASTM D5185m		0	0	2
	Molybdenum	ppm	ASTM D5185m		62	53	59
	Manganese	ppm	ASTM D5185m		<1	<1	<1
	Magnesium	ppm	ASTM D5185m		149	125	144
	Calcium	ppm	ASTM D5185m		2688	2909	2824
	Phosphorus	ppm	ASTM D5185m		901	970	926
	Zinc	ppm	ASTM D5185m		1053	1154	1039
	Sulfur Acid Number (AN)	ppm mg KOH/g	ASTM D5185m ASTM D8045		3836 1.63	4534 1.38	3629 1.24

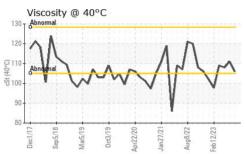
Visc @ 40°C cSt ASTM D445

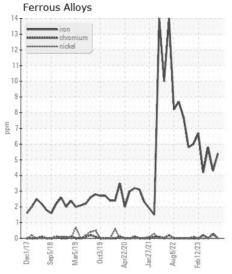
111

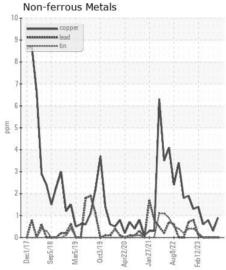
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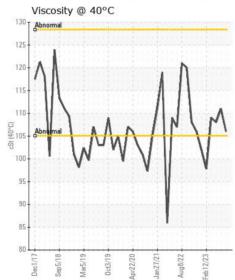
108

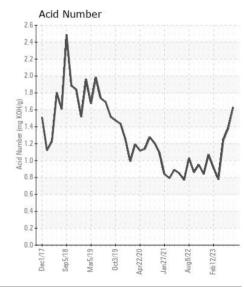














Certificate L2367

Laboratory Sample No.

Lab Number : 05934933 Unique Number : 10620204

Test Package : MAR 2

: MW05934933

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

: 25 Aug 2023 : 28 Aug 2023 Diagnosed

: 28 Aug 2023 - Wes Davis

LEMONT, IL US 60439 Contact: RHETT DANIEL

rdaniel@imtowing.com T: (630)280-4926

**ILLINOIS MARINE TOWING** 

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)

F: (630)739-2041

PO BOX 391