



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**WMC**  
Component  
**Starboard Reduction Gear**  
Fluid  
**Reduction Gear Oil (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MW05824218</b>	WC05745356	MW05685229
Sample Date		Client Info		<b>18 Apr 2023</b>	22 Jan 2023	03 Nov 2022
Machine Age	hrs	Client Info		<b>66078</b>	65316	64699
Oil Age	hrs	Client Info		<b>762</b>	1177	557
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	<b>2</b>	2	2
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m		<b>2</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>1</b>	1	1
Lead	ppm	ASTM D5185m	>100	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m	>50	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m	>10	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

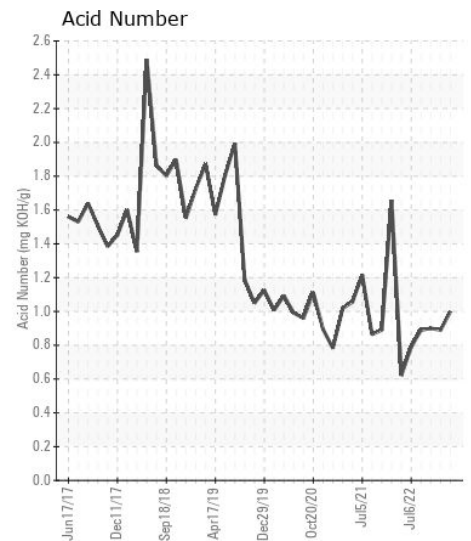
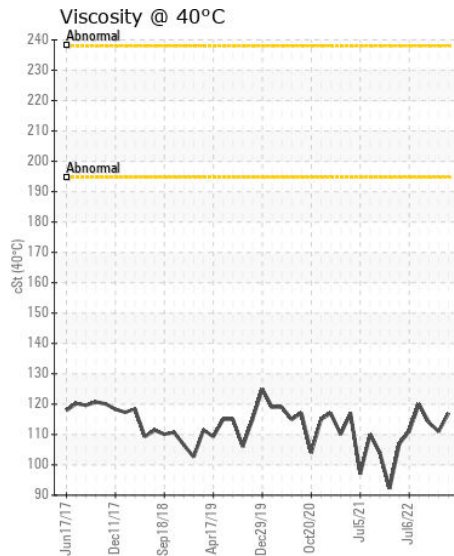
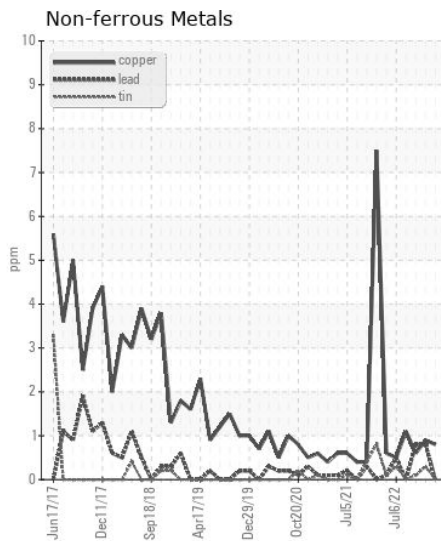
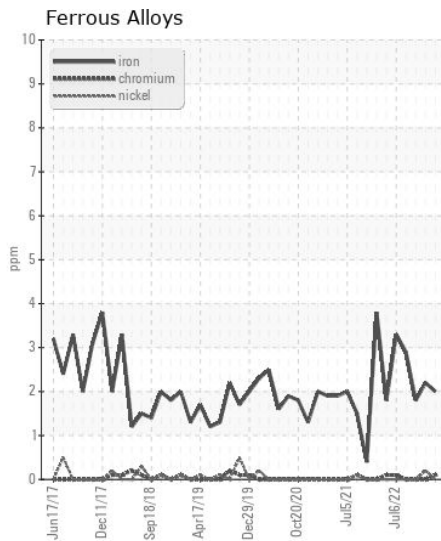
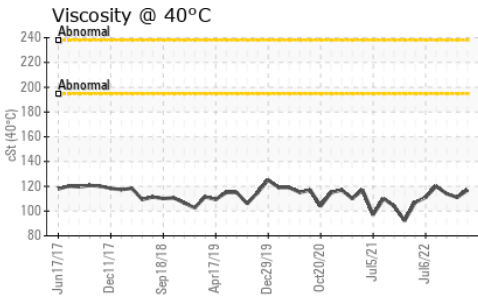
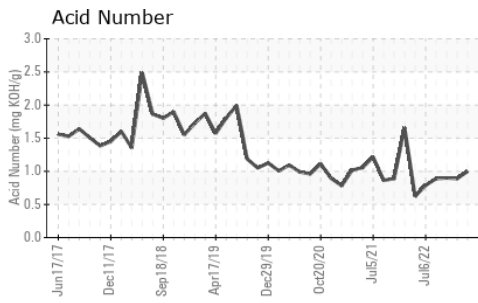
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>50	<b>4</b>	5	4
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	<1	0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>1</b>	1	2
Boron	ppm	ASTM D5185m		<b>362</b>	328	342
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>47</b>	52	47
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>120</b>	172	148
Calcium	ppm	ASTM D5185m		<b>2568</b>	2315	2273
Phosphorus	ppm	ASTM D5185m		<b>821</b>	772	717
Zinc	ppm	ASTM D5185m		<b>933</b>	890	805
Sulfur	ppm	ASTM D5185m		<b>3747</b>	3687	3334
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>1.00</b>	0.89	0.90
Visc @ 40°C	cSt	ASTM D445		<b>117</b>	111	114



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MW05824218  
**Lab Number** : 05824218  
**Unique Number** : 10432301  
**Test Package** : MAR 2

**Received** : 19 Apr 2023  
**Tested** : 21 Apr 2023  
**Diagnosed** : 21 Apr 2023 - Jonathan Hester

**ILLINOIS MARINE TOWING**  
 PO BOX 391  
 LEMONT, IL  
 US 60439

Contact: RHETT DANIEL  
 rdaniel@imtowing.com

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)

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