



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

Machine Id  
**CHA**  
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>MW05843483</b>	MW05824238	MW05766008
Sample Date		Client Info		<b>09 May 2023</b>	18 Apr 2023	12 Feb 2023
Machine Age	hrs	Client Info		<b>51354</b>	50370	49749
Oil Age	hrs	Client Info		<b>1610</b>	621	1465
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>	1	2
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	<1	0
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>0</b>	<1	<1
Lead	ppm	ASTM D5185m	>100	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>50	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m	>10	<b>0</b>	0	<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**

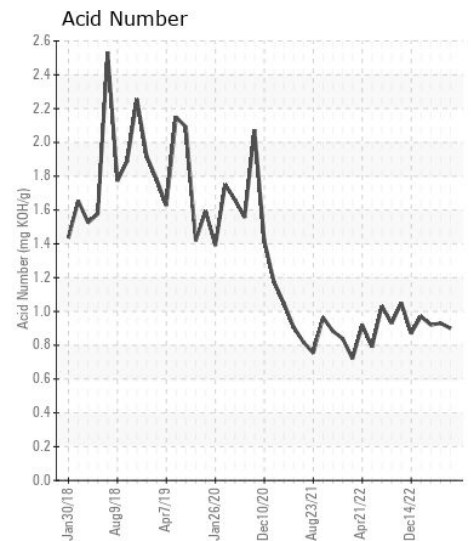
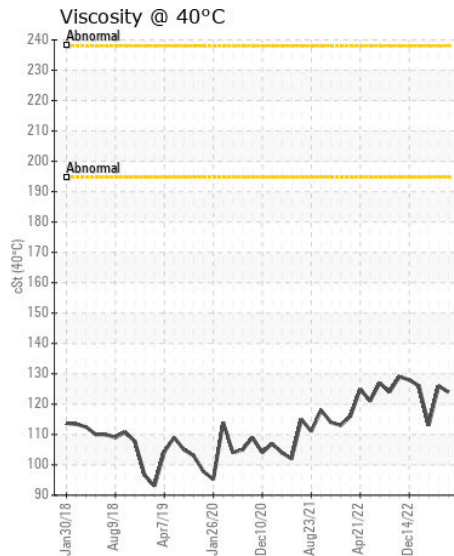
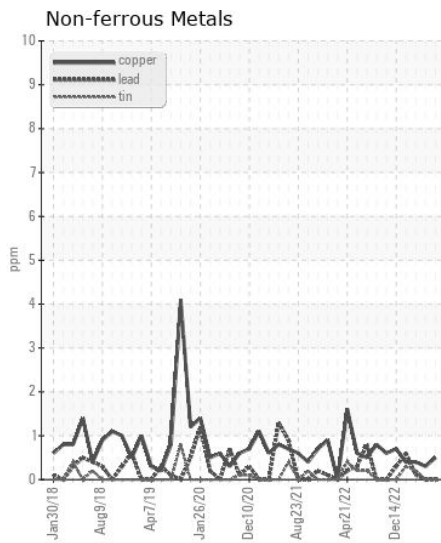
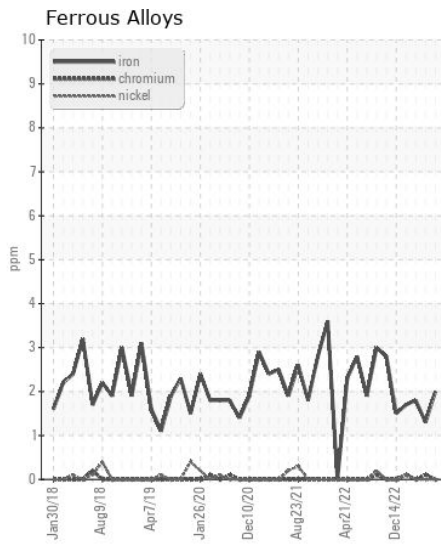
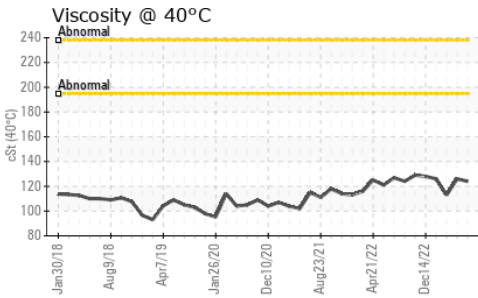
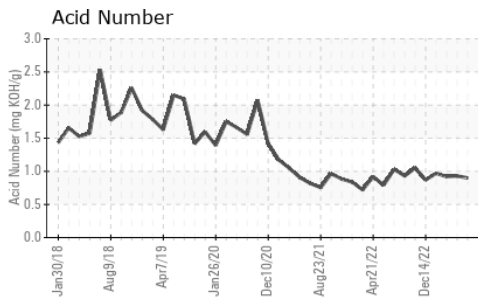
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>50	<b>3</b>	3	4
Potassium	ppm	ASTM D5185m	>20	<b>2</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>&lt;1</b>	2	2
Boron	ppm	ASTM D5185m		<b>285</b>	286	316
Barium	ppm	ASTM D5185m		<b>2</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>37</b>	34	46
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>88</b>	82	160
Calcium	ppm	ASTM D5185m		<b>2318</b>	2243	2074
Phosphorus	ppm	ASTM D5185m		<b>731</b>	698	692
Zinc	ppm	ASTM D5185m		<b>841</b>	795	782
Sulfur	ppm	ASTM D5185m		<b>2871</b>	3205	3114
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.90</b>	0.93	0.92
Visc @ 40°C	cSt	ASTM D445		<b>124</b>	126	113



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MW05843483  
**Lab Number** : 05843483  
**Unique Number** : 10467590  
**Test Package** : MAR 2  
**Received** : 10 May 2023  
**Tested** : 15 May 2023  
**Diagnosed** : 15 May 2023 - Jonathan Hester

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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)