



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

Machine Id  
**CAPT RICKIE JOHNSON (S/N 7-474127-1)**

Component  
**Starboard Reduction Gear**

Fluid  
**SCHAEFFER 209 MOLY UNIVERSAL GEARLUBE ISO 220 (135 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MWM731178</b>	MWM727717	MWM727687
Sample Date		Client Info		<b>20 Mar 2024</b>	05 Jan 2024	26 Nov 2023
Machine Age	hrs	Client Info		<b>44932</b>	43116	42176
Oil Age	hrs	Client Info		<b>44887</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changed</b>	Not Changed	Not Changed
Filter Changed		Client Info		<b>Not Changed</b>	Not Changed	Not Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	<b>26</b>	21	14
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>6</b>	2	4
Lead	ppm	ASTM D5185m	>100	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185m	>50	<b>6</b>	4	4
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

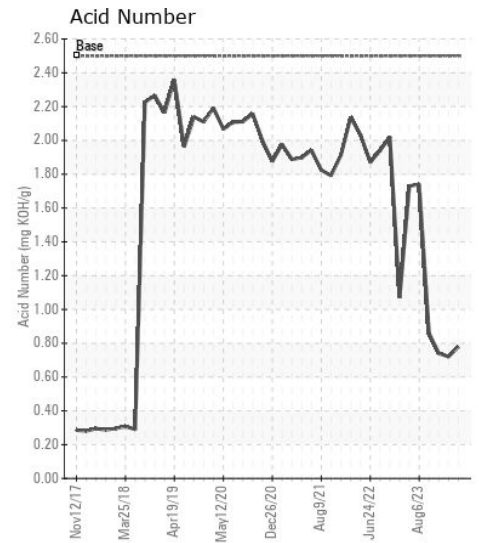
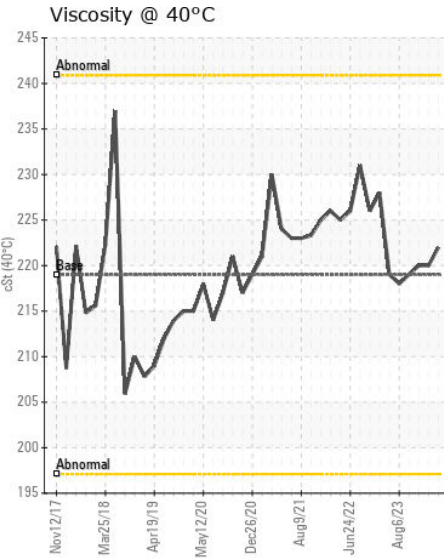
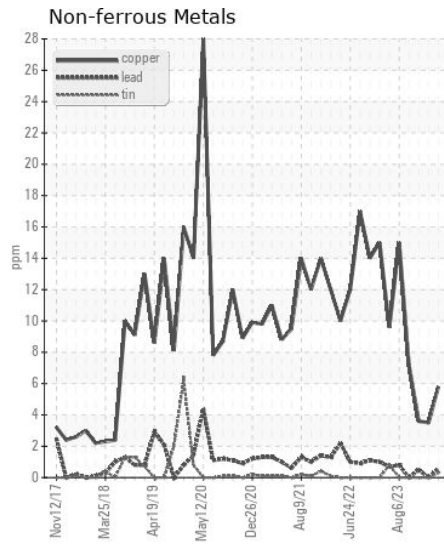
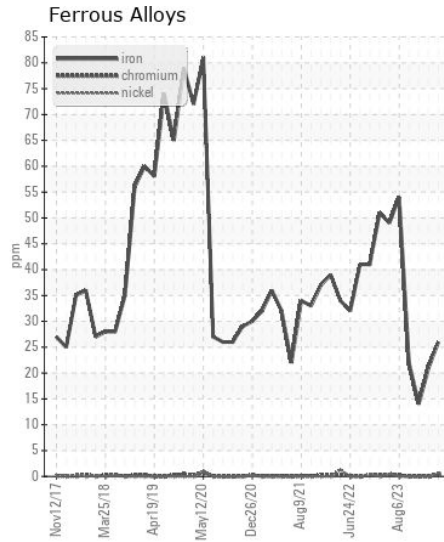
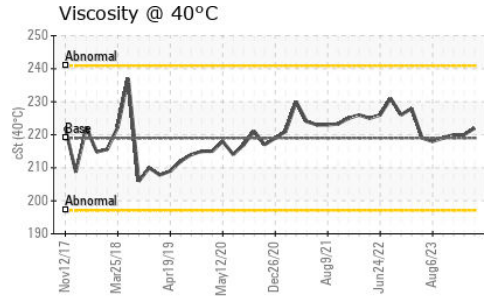
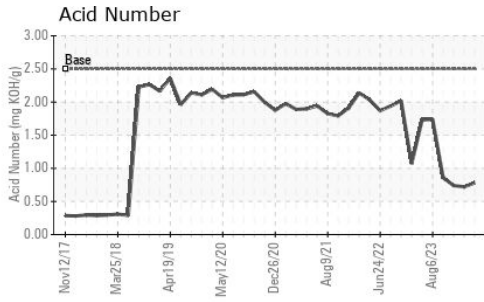
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>50	<b>18</b>	21	14
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	2	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>2</b>	0	<1
Boron	ppm	ASTM D5185m	65	<b>&lt;1</b>	0	8
Barium	ppm	ASTM D5185m		<b>2</b>	0	0
Molybdenum	ppm	ASTM D5185m	325	<b>567</b>	565	477
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m		<b>5</b>	5	6
Calcium	ppm	ASTM D5185m		<b>46</b>	42	39
Phosphorus	ppm	ASTM D5185m	875	<b>481</b>	476	428
Zinc	ppm	ASTM D5185m		<b>165</b>	141	153
Sulfur	ppm	ASTM D5185m	16000	<b>19304</b>	16995	15479
Acid Number (AN)	mg KOH/g	ASTM D8045	2.5	<b>0.78</b>	0.72	0.74
Visc @ 40°C	cSt	ASTM D445	219	<b>222</b>	220	220



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MWM731178  
**Lab Number** : 06159289  
**Unique Number** : 10994712  
**Test Package** : MAR 2

**Received** : 24 Apr 2024  
**Tested** : 25 Apr 2024  
**Diagnosed** : 26 Apr 2024 - Don Baldrige

**AMERICAN COMMERCIAL LINES**  
 PO BOX 610, 1701 E. MARKET STREET  
 JEFFERSONVILLE, IN  
 US 47130

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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)

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