



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>MWM727717</b>	MWM727687	MWM727697
Sample Date		Client Info		<b>05 Jan 2024</b>	26 Nov 2023	08 Oct 2023
Machine Age	hrs	Client Info		<b>43116</b>	42176	40990
Oil Age	hrs	Client Info		<b>0</b>	0	56
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changed</b>	Not Changed	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>21</b>	14	22
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>10	<b>0</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>2</b>	4	2
Lead	ppm	ASTM D5185m	>100	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>50	<b>4</b>	4	7
Tin	ppm	ASTM D5185m	>10	<b>0</b>	0	0
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**

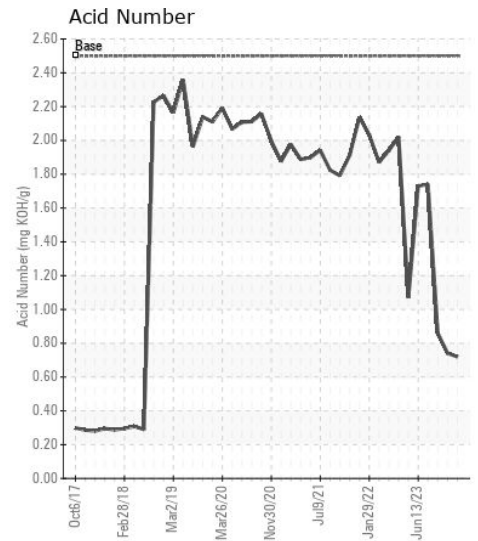
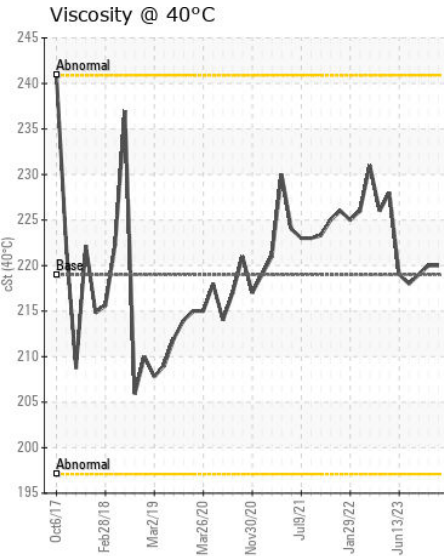
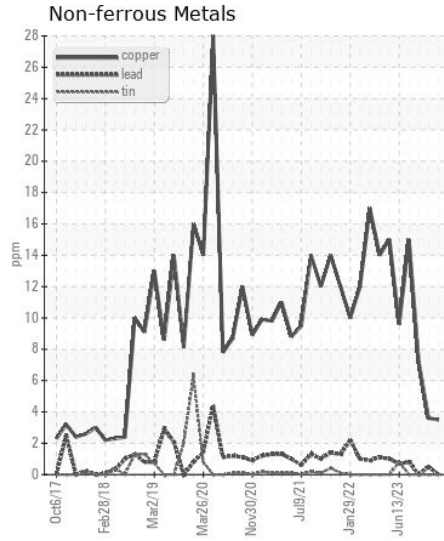
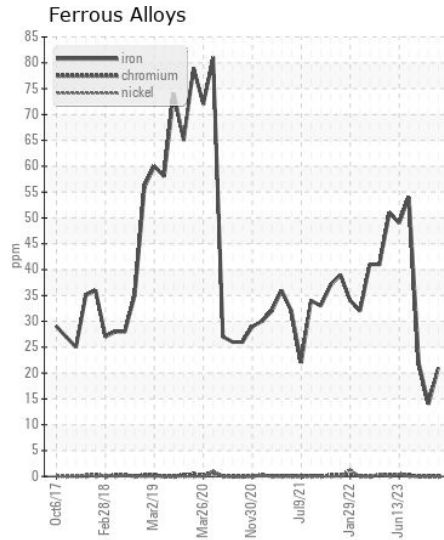
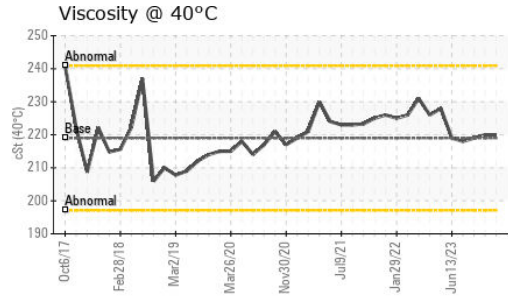
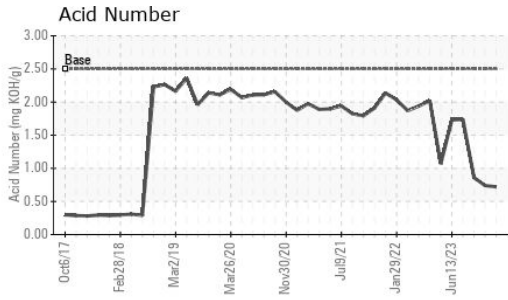
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>50	<b>21</b>	14	17
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	0	0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	MODER
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>0</b>	<1	<1
Boron	ppm	ASTM D5185m	65	<b>0</b>	8	<1
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	325	<b>565</b>	477	408
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>5</b>	6	0
Calcium	ppm	ASTM D5185m		<b>42</b>	39	31
Phosphorus	ppm	ASTM D5185m	875	<b>476</b>	428	396
Zinc	ppm	ASTM D5185m		<b>141</b>	153	123
Sulfur	ppm	ASTM D5185m	16000	<b>16995</b>	15479	14455
Acid Number (AN)	mg KOH/g	ASTM D8045	2.5	<b>0.72</b>	0.74	0.86
Visc @ 40°C	cSt	ASTM D445	219	<b>220</b>	220	219



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MWM727717 **Received** : 10 Jan 2024  
**Lab Number** : 06057430 **Diagnosed** : 12 Jan 2024  
**Unique Number** : 10823379 **Diagnostician** : Don Baldrige  
**Test Package** : MAR 2

**AMERICAN COMMERCIAL LINES**  
 PO BOX 610, 1701 E. MARKET STREET  
 JEFFERSONVILLE, IN  
 US 47130  
 Contact: RONALD SCHNEIDER  
 ronald.schneider@bargaeacbl.com  
 T:  
 F: (812)288-1644

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)