

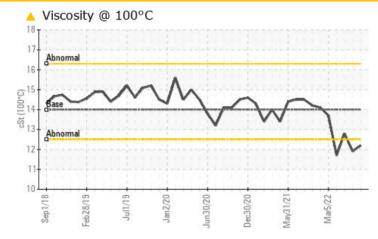
# **PROBLEM SUMMARY**

### Area **RANDY HOOPER** Machine Id **[RANDY HOOPER] 008 622755-8** Component

**Starboard Genset** 

MOBIL DELVAC 1300 SUPER15W40 (7 GAL)

# COMPONENT CONDITION SUMMARY



## RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS							
Sample Status				ATTENTION	ATTENTION	NORMAL	
Visc @ 100°C	cSt	ASTM D445	14	<u> </u>	11.9	12.8	

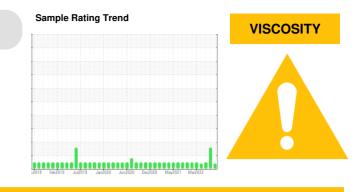
Customer Id: INGPAD Sample No.: MW0061285 Lab Number: 06028312 Test Package: MAR 2



To manage this report scan the QR code

*To discuss the diagnosis or test data:* Don Baldridge +1 <u>don.b505@comcast.net</u>

*To change component or sample information:* Customer Service +1 1-800-237-1369 <u>customerservice@wearcheck.com</u>



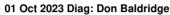
There are no recommended actions for this sample.

### **HISTORICAL DIAGNOSIS**

#### 15 Oct 2023 Diag: Wes Davis

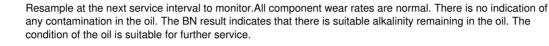


No corrective action is recommended at this time. Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor.All component wear rates are normal. Light fuel dilution occurring. No other contaminants were detected in the oil. Additive levels indicate the addition of a different brand, or type of oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.



11 Sep 2023 Diag: Jonathan Hester







view report



No corrective action is recommended at this time. Resample at the next service interval to monitor.All component wear rates are normal. Fuel content negligible. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.





# **OIL ANALYSIS REPORT**

### Area **RANDY HOOPER** Machine Id **[RANDY HOOPER] 008 622755-8** Component

Starboard Genset

MOBIL DELVAC 1300 SUPER15W40 (7 GAL)

## DIAGNOSIS

### A Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

## Wear

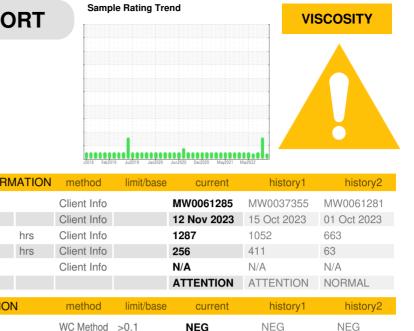
All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

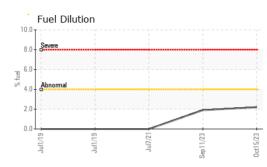
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

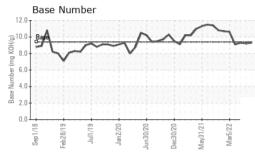


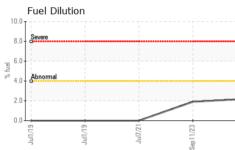
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		MW0061285	MW0037355	MW0061281
Sample Date		Client Info		12 Nov 2023	15 Oct 2023	01 Oct 2023
Machine Age	hrs	Client Info		1287	1052	663
Oil Age	hrs	Client Info		256	411	63
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				ATTENTION	ATTENTION	NORMAL
CONTAMINATION	١	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	7	10	4
Chromium	ppm	ASTM D5185m	>4	<1	<1	0
Nickel	ppm	ASTM D5185m	>2	0	<1	<1
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>5	0	0	0
Aluminum	ppm		>12	2	5	4
Lead	ppm	ASTM D5185m	>17	0	0	<1
Copper	ppm	ASTM D5185m	>70	10	13	9
Tin	ppm	ASTM D5185m	>15	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	<1	<1
Cadmium	ppm	ASTM D5185m		0	<1	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	383	<b>A</b> 337	343
Barium	ppm	ASTM D5185m	0	6	0	0
Molybdenum	ppm	ASTM D5185m	0	136	<b>1</b> 30	127
Manganese	ppm	ASTM D5185m		1	<1	<1
Magnesium	ppm	ASTM D5185m	0	647	651	678
Calcium	ppm	ASTM D5185m		1542	1401	1449
Phosphorus	ppm	ASTM D5185m		704	757	730
Zinc	ppm	ASTM D5185m		827	833	876
Sulfur	ppm	ASTM D5185m		2695	2858	2546
CONTAMINANTS		method	limit/base	current	history1	history2
CONTAMINANTS Silicon	ppm		limit/base	current 9	<mark>history1</mark> 9	history2 8
Silicon	ppm	ASTM D5185m		9	9	8
Silicon Sodium	ppm ppm	ASTM D5185m ASTM D5185m	>25	9 0	9	8
Silicon Sodium Potassium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	>25 >20	9 0 2	9 2 3	8 1 1
Silicon Sodium Potassium Fuel	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D3524	>25 >20 >4.0	9 0 2 <1.0	9 2 3 ▲ 2.2	8 1 1 <1.0
Silicon Sodium Potassium Fuel INFRA-RED	ppm ppm %	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D3524 method	>25 >20 >4.0	9 0 2 <1.0 current	9 2 3 ▲ 2.2 history1	8 1 1 <1.0 history2
Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm ppm %	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D3524 method *ASTM D7844	>25 >20 >4.0 limit/base	9 0 2 <1.0 current 0.1	9 2 3 ▲ 2.2 history1 0.1	8 1 1 <1.0 history2 0.1
Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration	ppm ppm % % Abs/cm Abs/.1mm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D3524 method *ASTM D7844 *ASTM D7624	>25 >20 >4.0 limit/base	9 0 2 <1.0 <u>current</u> 0.1 6.4	9 2 3 ▲ 2.2 history1 0.1 7.1	8 1 1 <1.0 history2 0.1 5.2
Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm ppm % % Abs/cm Abs/.1mm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D3524 <b>method</b> *ASTM D7844 *ASTM D7624 *ASTM D7415	>25 >20 >4.0 limit/base >20 >30	9 0 2 <1.0 <u>current</u> 0.1 6.4 22.7	9 2 3 ▲ 2.2 history1 0.1 7.1 22.9	8 1 1 <1.0 history2 0.1 5.2 22.3
Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA	ppm ppm % % Abs/cm Abs/.1mm	ASTM D5185m ASTM D5185m ASTM D3524 *ASTM D3524 *ASTM D7844 *ASTM D7624 *ASTM D7624 *ASTM D7415	>25 >20 >4.0 Iimit/base >20 >30 Iimit/base >25	9 0 2 <1.0 current 0.1 6.4 22.7 current	9 2 3 ▲ 2.2 history1 0.1 7.1 22.9 history1	8 1 1 <1.0 history2 0.1 5.2 22.3 history2



# **OIL ANALYSIS REPORT**







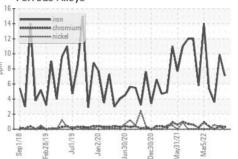
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	LIGHT	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14	<b>12.2</b>	11.9	12.8
GRAPHS						

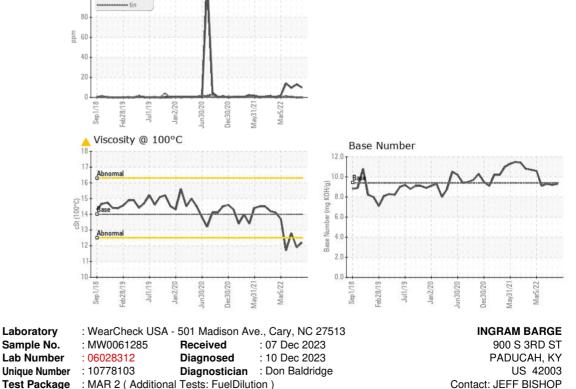


Non-ferrous Metals

120

100







Test Package : MAR 2 (Additional Tests: FuelDilution) Certificate L2367 jeff.bishop@ingrambarge.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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T: