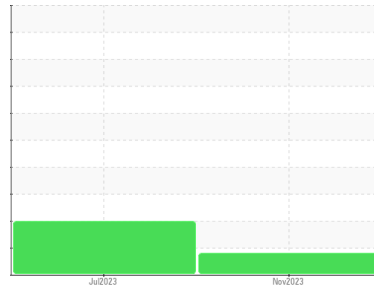


PROBLEM SUMMARY

Sample Rating Trend



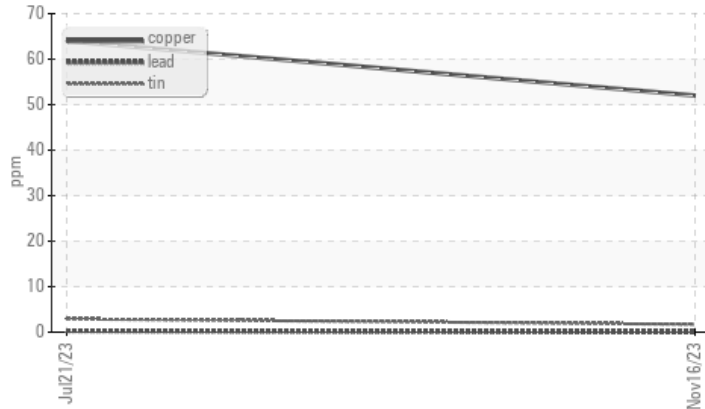
WEAR



Machine Id
HEB_MLU1
 Component
Outboard Pump
 Fluid
NOT GIVEN (--- GAL)

COMPONENT CONDITION SUMMARY

▲ Non-ferrous Metals



RECOMMENDATION

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

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	ABNORMAL	---
Copper	ppm	ASTM D5185m	>30	▲ 52	▲ 64	---

Customer Id: ENEHEB
Sample No.: RP0036148
Lab Number: 06026543
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

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

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

21 Jul 2023 Diag: Don Baldrige

VISUAL METAL



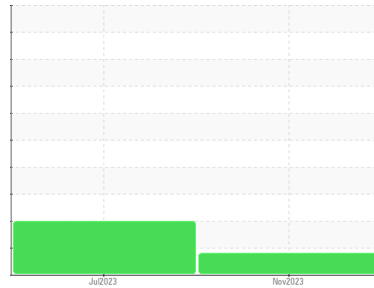
We recommend you service the filters on this component. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. The copper level is abnormal. Moderate concentration of visible metal present. All other component wear rates are normal. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id
HEB_MLU1
Component
Outboard Pump
Fluid
NOT GIVEN (--- GAL)

DIAGNOSIS

Recommendation

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

Wear

The copper level is abnormal. All other component wear rates are normal.

Contamination

The water content is negligible. There is no indication of any contamination in the oil.

Fluid Condition

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			RP0036148	RP0032964	---
Sample Date	Client Info			16 Nov 2023	21 Jul 2023	---
Machine Age	hrs	Client Info		0	0	---
Oil Age	hrs	Client Info		0	0	---
Oil Changed	Client Info			N/A	N/A	---
Sample Status				ABNORMAL	ABNORMAL	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>90	4	5	---
Chromium	ppm	ASTM D5185m	>5	0	0	---
Nickel	ppm	ASTM D5185m	>5	0	0	---
Titanium	ppm	ASTM D5185m	>3	<1	0	---
Silver	ppm	ASTM D5185m	>3	0	0	---
Aluminum	ppm	ASTM D5185m	>7	0	0	---
Lead	ppm	ASTM D5185m	>12	0	<1	---
Copper	ppm	ASTM D5185m	>30	▲ 52	▲ 64	---
Tin	ppm	ASTM D5185m	>9	2	3	---
Vanadium	ppm	ASTM D5185m		<1	0	---
Cadmium	ppm	ASTM D5185m		0	0	---

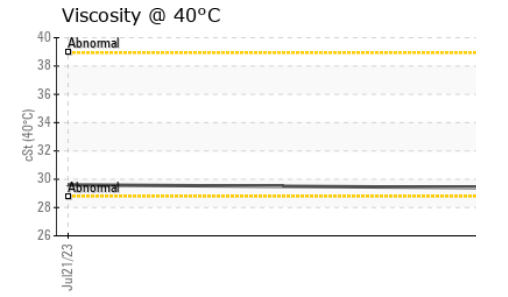
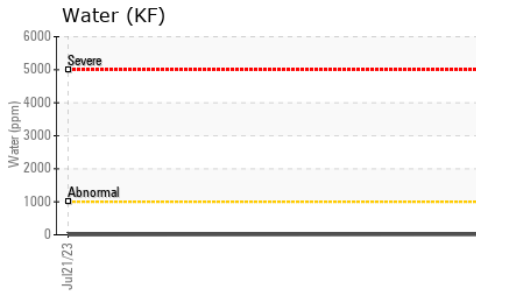
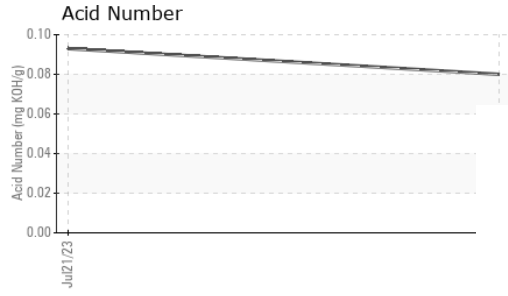
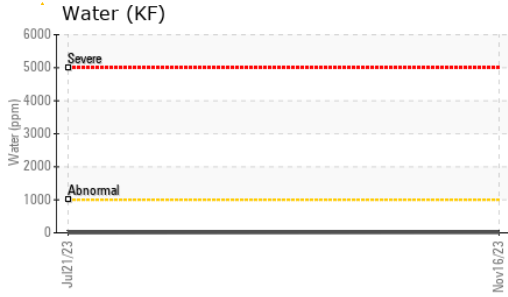
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		0	0	---
Manganese	ppm	ASTM D5185m		0	0	---
Magnesium	ppm	ASTM D5185m		0	8	---
Calcium	ppm	ASTM D5185m		0	0	---
Phosphorus	ppm	ASTM D5185m		66	82	---
Zinc	ppm	ASTM D5185m		30	34	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>60	1	<1	---
Sodium	ppm	ASTM D5185m		2	0	---
Potassium	ppm	ASTM D5185m	>20	0	<1	---
Water	%	ASTM D6304	>.1	0.001	0.001	---
ppm Water	ppm	ASTM D6304	>1000	12	4.7	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.08	0.093	---

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	LIGHT	▲ MODER	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	LIGHT	LIGHT	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>.1	NEG	NEG	---
Free Water	scalar	*Visual		NEG	---	---

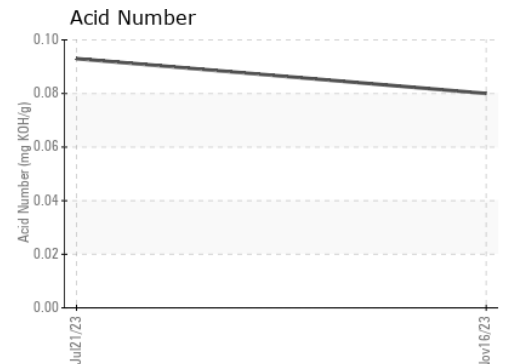
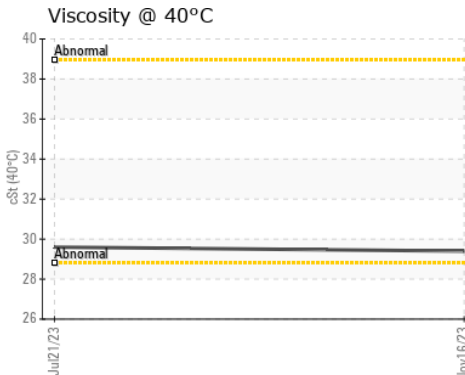
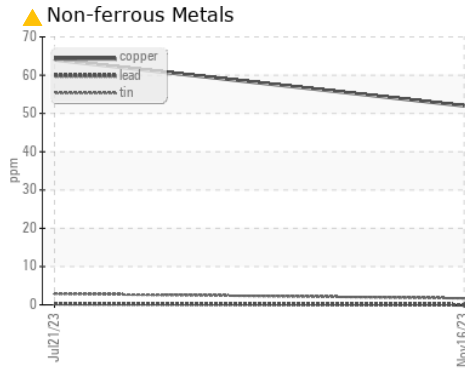
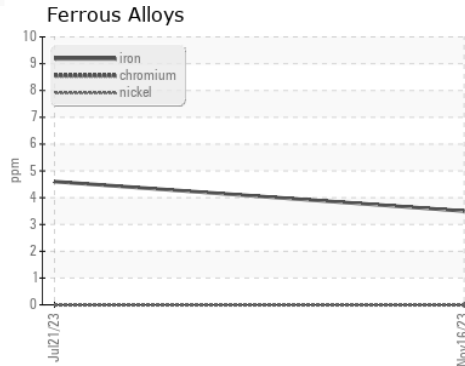
OIL ANALYSIS REPORT



FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		29.4	29.6	---

SAMPLE IMAGES		method	limit/base	current	history1	history2
Color						no image
Bottom						no image

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0036148 **Received** : 06 Dec 2023
Lab Number : 06026543 **Diagnosed** : 07 Dec 2023
Unique Number : 10776334 **Diagnostician** : Jonathan Hester
Test Package : IND 2

ENERGY TRANSFER - HEBRON

HEBRON, KY
 US 41048
 Contact: Service Manager

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)

T:
 F: