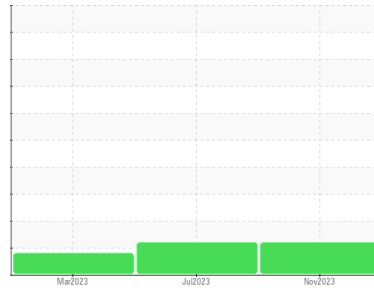




PROBLEM SUMMARY

Sample Rating Trend



VISUAL METAL



Machine Id
DEN_MLU2
 Component
Outboard Pump
 Fluid
NOT GIVEN (--- GAL)

COMPONENT CONDITION SUMMARY

No relevant graphs to display


RECOMMENDATION

We suspect abnormal metal contamination may be due to sampling method. No corrective action is recommended at this time. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Yellow Metal	scalar	*Visual	NONE	▲ MODER	NONE	NONE

Customer Id: ENENEW
Sample No.: RP0036221
Lab Number: 06026567
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

12 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. Moderate concentration of visible metal present. All 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



02 Mar 2023 Diag: Don Baldrige

WEAR



No corrective action is recommended at this time. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample. The iron level is abnormal. 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 acceptable for the time in service.

view report

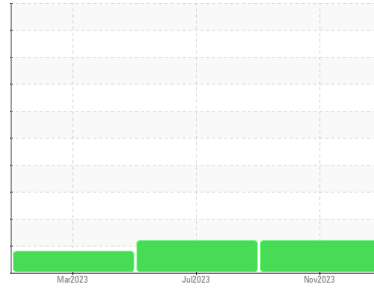


OIL ANALYSIS REPORT

Sample Rating Trend

VISUAL METAL

Machine Id
DEN_MLU2
Component
Outboard Pump
Fluid
NOT GIVEN (--- GAL)



DIAGNOSIS

Recommendation

We suspect abnormal metal contamination may be due to sampling method. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

Moderate concentration of visible metal present. All 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		RP0036221	RP0031986	RP0032826
Sample Date	Client Info		29 Nov 2023	12 Jul 2023	02 Mar 2023
Machine Age	hrs	Client Info	0	0	0
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >90	42	73	▲ 161
Chromium	ppm	ASTM D5185m >5	<1	<1	2
Nickel	ppm	ASTM D5185m >5	0	0	0
Titanium	ppm	ASTM D5185m >3	<1	<1	<1
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >7	0	<1	<1
Lead	ppm	ASTM D5185m >12	3	1	0
Copper	ppm	ASTM D5185m >30	18	21	24
Tin	ppm	ASTM D5185m >9	2	2	3
Vanadium	ppm	ASTM D5185m	<1	<1	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	0
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0
Manganese	ppm	ASTM D5185m	0	<1	1
Magnesium	ppm	ASTM D5185m	54	82	87
Calcium	ppm	ASTM D5185m	0	2	4
Phosphorus	ppm	ASTM D5185m	0	0	0
Zinc	ppm	ASTM D5185m	0	0	0

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >60	<1	<1	3
Sodium	ppm	ASTM D5185m	<1	1	0
Potassium	ppm	ASTM D5185m >20	0	<1	0
Water	%	ASTM D6304 >.1	0.018	0.034	0.024
ppm Water	ppm	ASTM D6304 >1000	184	348.0	241.4

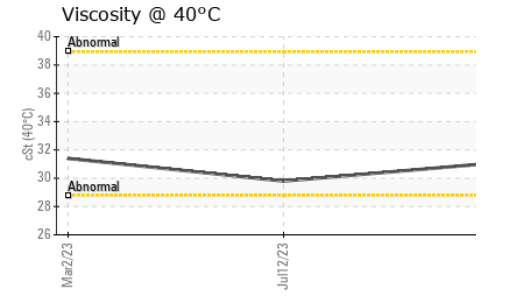
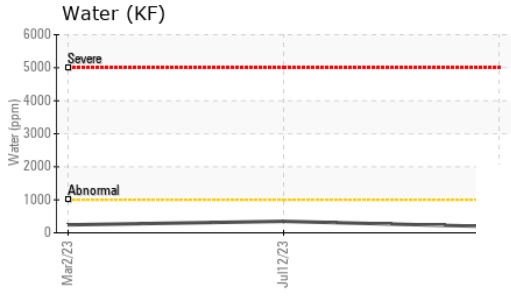
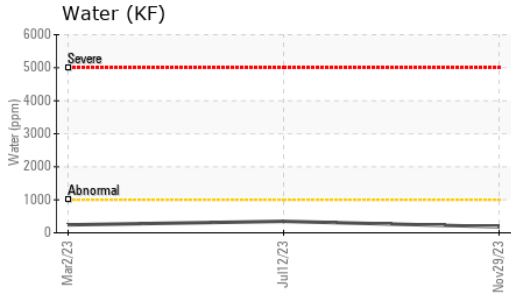
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.33	0.38	0.35

VISUAL

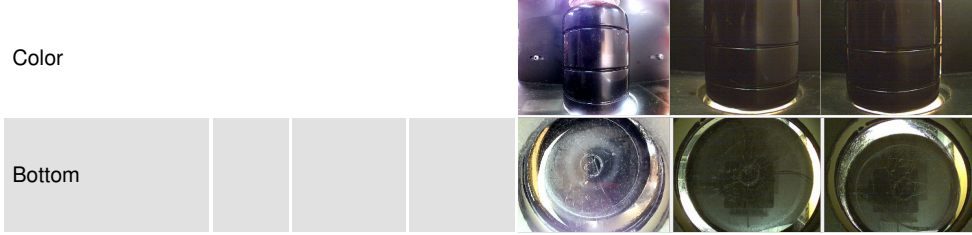
	method	limit/base	current	history1	history2
White Metal	scalar	*Visual NONE	NONE	▲ MODER	VLITE
Yellow Metal	scalar	*Visual NONE	▲ MODER	NONE	NONE
Precipitate	scalar	*Visual NONE	NONE	NONE	NONE
Silt	scalar	*Visual NONE	NONE	NONE	NONE
Debris	scalar	*Visual NONE	NONE	NONE	LIGHT
Sand/Dirt	scalar	*Visual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

OIL ANALYSIS REPORT

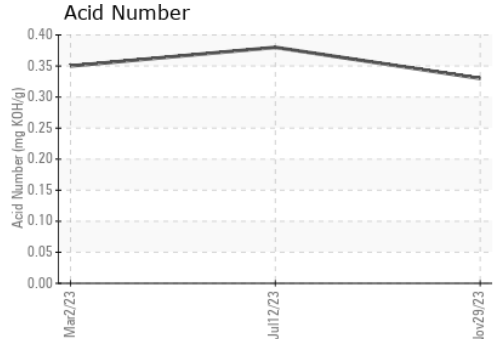
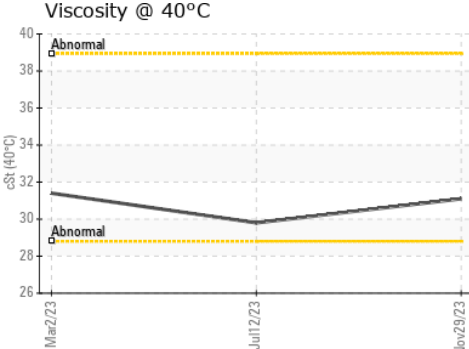
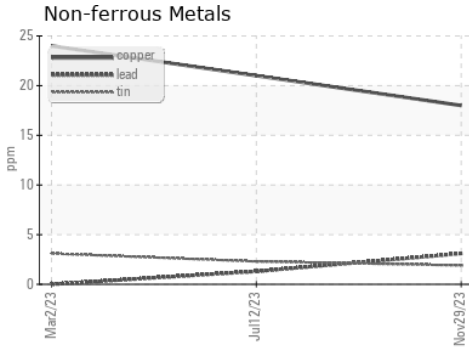
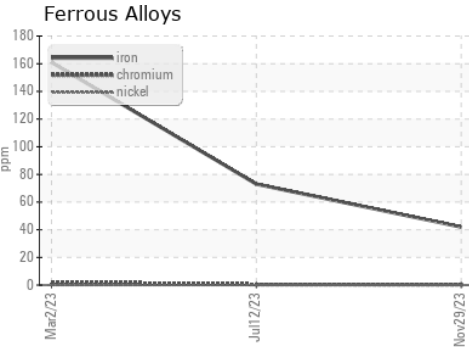


FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		31.1	29.8	31.4

SAMPLE IMAGES		method	limit/base	current	history1	history2
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GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0036221 **Received** : 06 Dec 2023
Lab Number : 06026567 **Diagnosed** : 08 Dec 2023
Unique Number : 10776358 **Diagnostician** : Jonathan Hester
Test Package : IND 2

ENERGY TRANSFER - DENVER STATION
 1131 BROADWAY AVE
 NEW JOHNSONVILLE, TN
 US 37134
 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: