



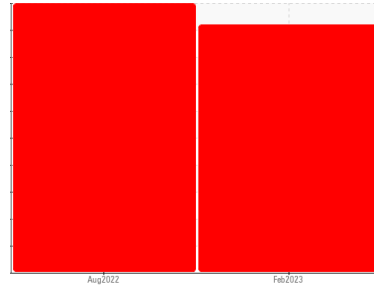
PROBLEM SUMMARY

Sample Rating Trend

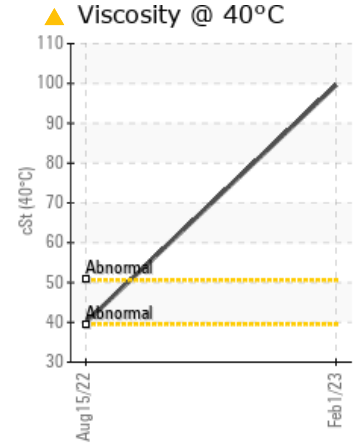
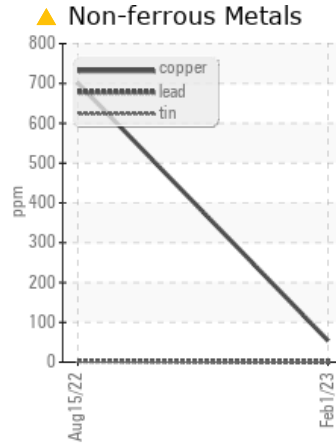
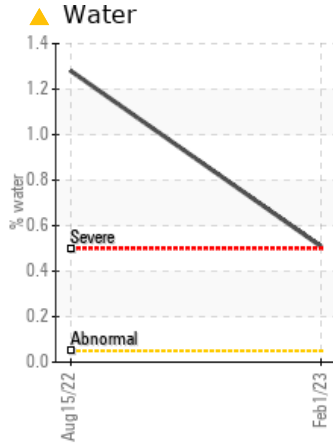
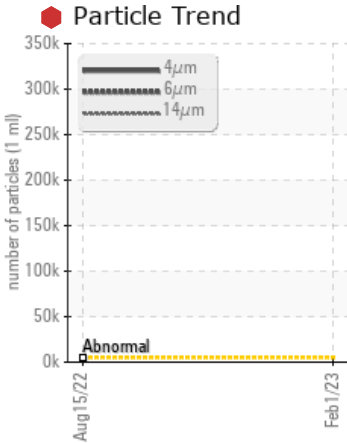
ISO



Area
BATCH SYSTEM 5
 Machine Id
BS5 HOMO CRANKCASE
 Component
Hydraulic System
 Fluid
NOT GIVEN (--- LTR)



COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you perform a filter service and use off-line filtration to improve the cleanliness of the system fluid. We recommend that you drain the oil and perform a filter service on this component if not already done. Else we recommend an early resample to monitor this condition. Please specify the brand and viscosity of the oil on your next sample.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	SEVERE	---
Copper	ppm	ASTM D5185m	>20	▲ 54	● 701	---
Water	%	ASTM D6304	>0.05	▲ 0.509	● 1.28	---
ppm Water	ppm	ASTM D6304	>500	▲ 5090	● 12800	---
Particles >4µm		ASTM D7647	>5000	● 302346	---	---
Particles >6µm		ASTM D7647	>1300	● 199729	---	---
Particles >14µm		ASTM D7647	>160	● 3588	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	● 25/25/19	---	---
Appearance	scalar	*Visual	NORML	▲ HAZY	▲ HAZY	---
Emulsified Water	scalar	*Visual	>0.05	▲ 0.2%	● 0.2%	---
Visc @ 40°C	cSt	ASTM D445		▲ 99.6	40.0	---

Customer Id: KRAMASIOW
 Sample No.: USP247602
 Lab Number: 05759466
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Doug Bogart +1 (800)237-1369 x4016
dougb@wearcheckusa.com

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

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	SKIPPED	Feb 20 2023	?	We recommend that you drain the oil and perform a filter service on this component if not already done.
Change Filter	SKIPPED	Feb 20 2023	?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.
Resample	SKIPPED	Feb 20 2023	?	We recommend an early resample to monitor this condition.
Information Required	---	---	?	Please specify the brand, type, and viscosity of the oil on your next sample.
Filter Fluid	SKIPPED	Feb 20 2023	?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.
Other Action (see Note)	DONE	Feb 20 2023	?	No recommended actions

HISTORICAL DIAGNOSIS

15 Aug 2022 Diag: Jonathan Hester

WEAR



We advise that you follow the water drain-off procedure for this component, and use off-line filtration to improve the cleanliness of the system fluid. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. We were unable to perform a particle count due to a high concentration of particles present in this sample. The copper level is severe. Appearance is hazy. There is a high concentration of water present in the oil. Moderate concentration of visible dirt/debris present in the oil. There is a moderate amount of visible silt present in the sample. The AN level is acceptable for this fluid.

view report





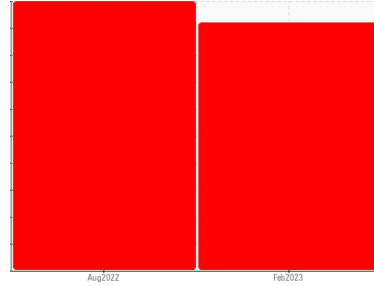
OIL ANALYSIS REPORT

Sample Rating Trend

ISO



Area
BATCH SYSTEM 5
 Machine Id
BS5 HOMO CRANKCASE
 Component
Hydraulic System
 Fluid
NOT GIVEN (--- LTR)



DIAGNOSIS

Recommendation

We advise that you perform a filter service and use off-line filtration to improve the cleanliness of the system fluid. We recommend that you drain the oil and perform a filter service on this component if not already done. Else we recommend an early resample to monitor this condition. Please specify the brand and viscosity of the oil on your next sample.

Wear

The copper level has decreased but is still abnormal. All other component wear rates are normal.

Contamination

There is a high amount of particulates present in the oil. Appearance is hazy. There is a moderate concentration of water present in the oil.

Fluid Condition

The oil viscosity is higher than normal. Confirm oil type. The AN level is acceptable for this fluid.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		USP247602	USP232476	---
Sample Date	Client Info		01 Feb 2023	15 Aug 2022	---
Machine Age	hrs	Client Info	0	0	---
Oil Age	hrs	Client Info	0	0	---
Oil Changed	Client Info		N/A	N/A	---
Sample Status			SEVERE	SEVERE	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	1	11	---
Chromium	ppm	ASTM D5185m >20	0	0	---
Nickel	ppm	ASTM D5185m >20	0	0	---
Titanium	ppm	ASTM D5185m	<1	3	---
Silver	ppm	ASTM D5185m	<1	3	---
Aluminum	ppm	ASTM D5185m >20	0	<1	---
Lead	ppm	ASTM D5185m >20	<1	3	---
Copper	ppm	ASTM D5185m >20	54	701	---
Tin	ppm	ASTM D5185m >20	<1	2	---
Vanadium	ppm	ASTM D5185m	0	0	---
Cadmium	ppm	ASTM D5185m	<1	1	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	7	---
Barium	ppm	ASTM D5185m	0	0	---
Molybdenum	ppm	ASTM D5185m	5	139	---
Manganese	ppm	ASTM D5185m	0	<1	---
Magnesium	ppm	ASTM D5185m	0	1	---
Calcium	ppm	ASTM D5185m	21	14	---
Phosphorus	ppm	ASTM D5185m	368	617	---
Zinc	ppm	ASTM D5185m	413	352	---
Sulfur	ppm	ASTM D5185m	1241	1822	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	4	3	---
Sodium	ppm	ASTM D5185m	2	3	---
Potassium	ppm	ASTM D5185m >20	2	<1	---
Water	%	ASTM D6304 >0.05	0.509	1.28	---
ppm Water	ppm	ASTM D6304 >500	5090	12800	---

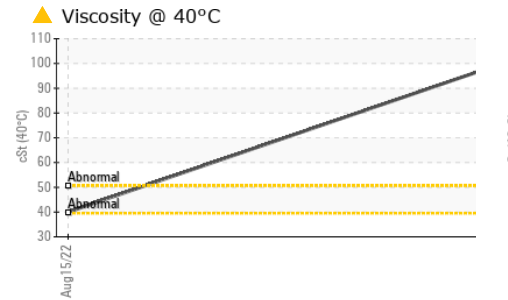
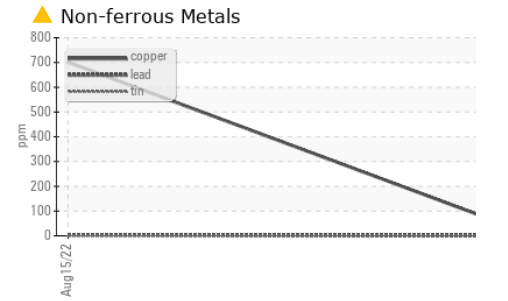
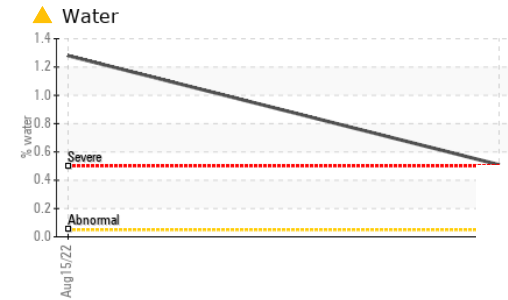
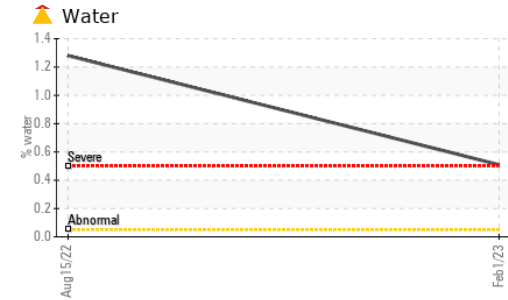
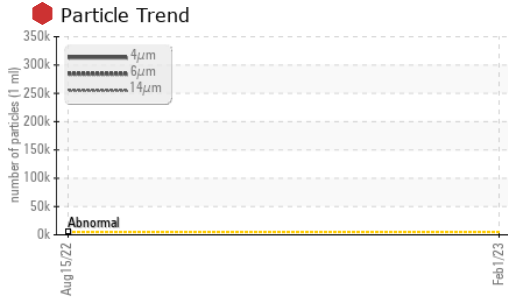
FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	302346	---	---
Particles >6µm	ASTM D7647	>1300	199729	---	---
Particles >14µm	ASTM D7647	>160	3588	---	---
Particles >21µm	ASTM D7647	>40	30	---	---
Particles >38µm	ASTM D7647	>10	1	---	---
Particles >71µm	ASTM D7647	>3	1	---	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	25/25/19	---	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.46	0.81	---

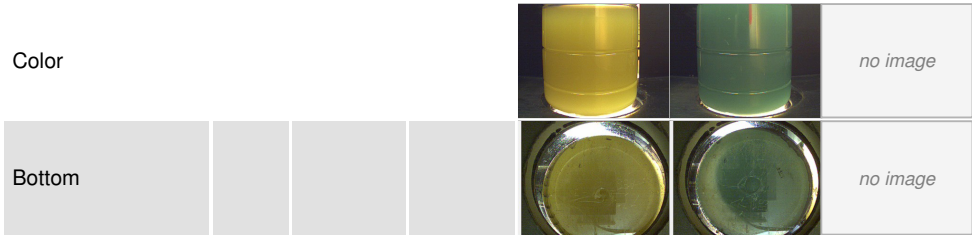
OIL ANALYSIS REPORT



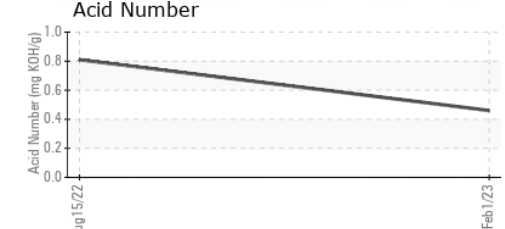
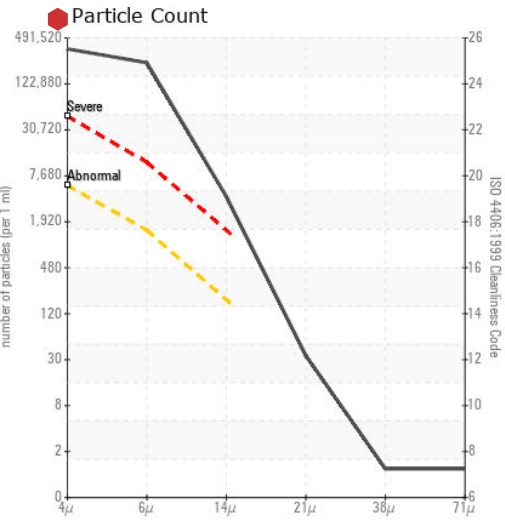
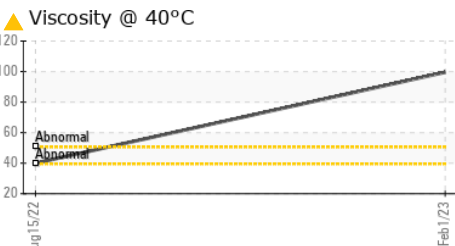
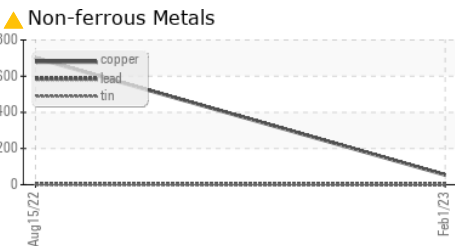
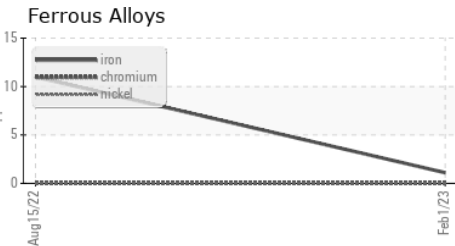
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	▲ MODER	---
Debris	scalar	*Visual	NONE	▲ MODER	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	▲ HAZY	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.05	▲ 0.2%	● 0.2%
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	▲ 99.6	40.0	---

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. : USP247602
Lab Number : 05759466
Unique Number : 10324073
Test Package : IND 2

KraftHeinz - Mason City - Plant 8360
 1022 12TH ST
 MASON CITY, IA
 US 50401
 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: (641)421-2936