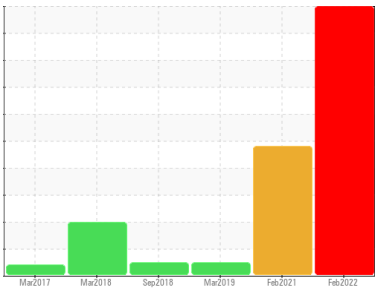
STAUFF FILTRATION TECHNOLOGY

PROBLEM SUMMARY

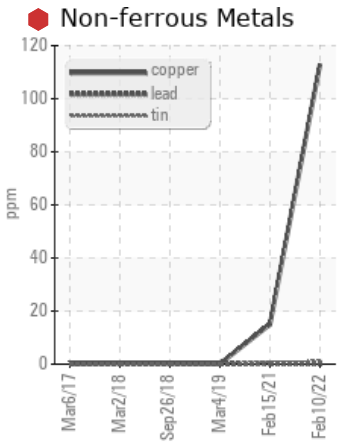
Sample Rating Trend

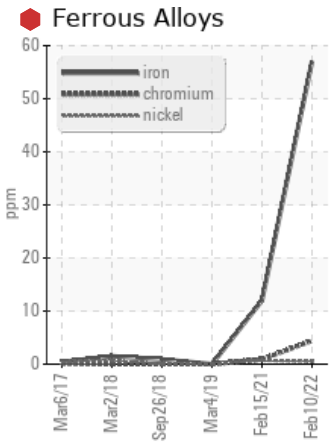


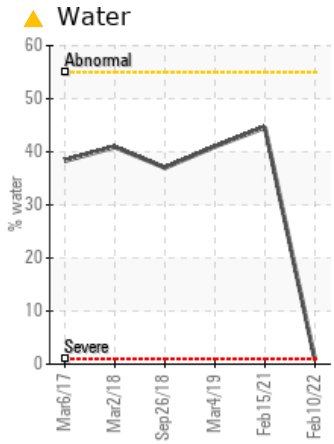
WEAR

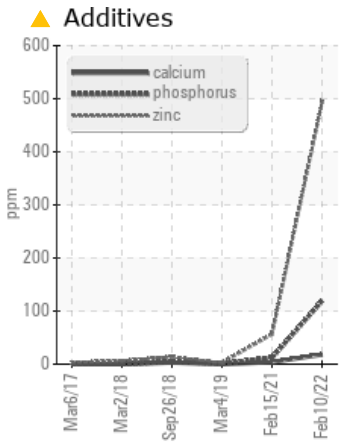
Machine Id
DIRECT CAST TILT HYD DCTHYD
Component
Main Hydraulic System
Fluid
FIRE-RESISTANT FLUID ISO 46 (150 GAL)

COMPONENT CONDITION SUMMARY









RECOMMENDATION

We recommend that you drain the oil and perform a filter service on this component if not already done. 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. Due to an abnormal test result it is recommended to contact Stauff Corp at (201)-444-7800 for help resolving the issue.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	ABNORMAL	NORMAL
Iron	ppm	ASTM D5185m	>20	**57**	12	0
Copper	ppm	ASTM D5185m	>20	**113**	15	<1
Zinc	ppm	ASTM D5185m	62	**492**	56	2
Sulfur	ppm	ASTM D5185m	500	**1194**	118	14
Water	%	ASTM D6304	>55	**0.785**	44.6	41.0
ppm Water	ppm	ASTM D6304	>55000	**7850**	446000	410000
Debris	scalar	*Visual	NONE	**MODER**	LIGHT	NONE
Appearance	scalar	*Visual	NORML	**LAYRD**	LAYRD	NORML
Free Water	scalar	*Visual		**10.0**	NEG	NEG

Customer Id: KOBPIN
Sample No.: ST37295
Lab Number: 05470209
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

Action	Status	Date	Done By	Description
Change Fluid	MISSED	Feb 20 2023	?	We recommend that you drain the oil and perform a filter service on this component if not already done.
Change Filter	MISSED	Feb 20 2023	?	We recommend that you drain the oil and perform a filter service on this component if not already done.
Resample	MISSED	Feb 20 2023	?	We recommend an early resample to monitor this condition.
Contact Required	MISSED	Feb 20 2023	?	Due to an abnormal test result it is recommended to contact Stauff Corp at (201)-444-7800 for help resolving the issue.
Alert	---	---	?	We were unable to perform a particle count due to a high concentration of particles present in this sample.

HISTORICAL DIAGNOSIS

15 Feb 2021 Diag: Doug Bogart

WEAR

We recommend you service the filters on this component. Resample at the next service interval to monitor. Due to an abnormal test result it is recommended to contact Stauff Corp at (201)-444-7800 for help resolving the issue.An increase in the iron and cooped levels noted. All other component wear rates are normal. There is a high amount of particulates present in the oil. The pH level of this fluid is within the acceptable limits at 7.0. The condition of the oil is acceptable for the time in service.

view report

04 Mar 2019 Diag: Doug Bogart

NORMAL

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The pH level of this fluid is within the acceptable limits. The condition of the oil is suitable for further service.

view report

26 Sep 2018 Diag: Jonathan Hester

NORMAL

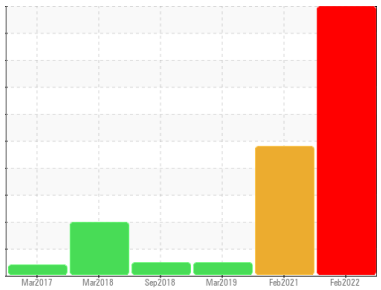
Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

STAUFF FILTRATION TECHNOLOGY

OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Machine Id
DIRECT CAST TILT HYD DCTHYD
Component
Main Hydraulic System
Fluid
FIRE-RESISTANT FLUID ISO 46 (150 GAL)

DIAGNOSIS

Recommendation
We recommend that you drain the oil and perform a filter service on this component if not already done. 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. Due to an abnormal test result it is recommended to contact Stauff Corp at (201)-444-7800 for help resolving the issue.

Wear
The iron level is severe. The copper level is abnormal.

Contamination
Excessive free water present. Moderate concentration of visible dirt/debris present in the oil. The water value is lower than typical, possibly indicating the addition of different type of oil.

Fluid Condition
Additive levels indicate the addition of a different brand, or type of oil.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**ST37295**	ST42600	ST40120
Sample Date		Client Info		**10 Feb 2022**	15 Feb 2021	04 Mar 2019
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				**SEVERE**	ABNORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	● **57**	▲ 12	0
Chromium	ppm	ASTM D5185m	>20	**4**	<1	0
Nickel	ppm	ASTM D5185m	>20	**<1**	<1	0
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m		**<1**	<1	0
Aluminum	ppm	ASTM D5185m	>20	**0**	<1	0
Lead	ppm	ASTM D5185m	>20	**<1**	<1	0
Copper	ppm	ASTM D5185m	>20	● **113**	▲ 15	<1
Tin	ppm	ASTM D5185m	>20	**<1**	<1	0
Antimony	ppm	ASTM D5185m		**0**	0	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**<1**	<1	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	**3**	2	<1
Barium	ppm	ASTM D5185m	5	**0**	0	0
Molybdenum	ppm	ASTM D5185m	5	**<1**	<1	0
Manganese	ppm	ASTM D5185m		**1**	<1	0
Magnesium	ppm	ASTM D5185m	5	**2**	1	0
Calcium	ppm	ASTM D5185m	50	**18**	4	0
Phosphorus	ppm	ASTM D5185m	175	**119**	12	<1
Zinc	ppm	ASTM D5185m	62	▲ **492**	56	2
Sulfur	ppm	ASTM D5185m	500	▲ **1194**	118	14

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**21**	11	<1
Sodium	ppm	ASTM D5185m		**4**	0	1
Potassium	ppm	ASTM D5185m	>20	**<1**	<1	0
Water	%	ASTM D6304	>55	▲ **0.785**	44.6	41.0
ppm Water	ppm	ASTM D6304	>55000	▲ **7850**	446000	410000

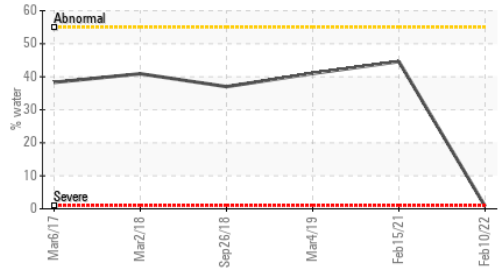
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	---	▲ 10444	260
Particles >6µm		ASTM D7647	>1300	---	▲ 5690	142
Particles >14µm		ASTM D7647	>160	---	▲ 968	24
Particles >21µm		ASTM D7647	>40	---	▲ 326	8
Particles >38µm		ASTM D7647	>10	---	▲ 50	1
Particles >71µm		ASTM D7647	>3	---	▲ 5	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	---	▲ 21/20/17	15/14/12

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	3.63	**0.15**	---	3.753

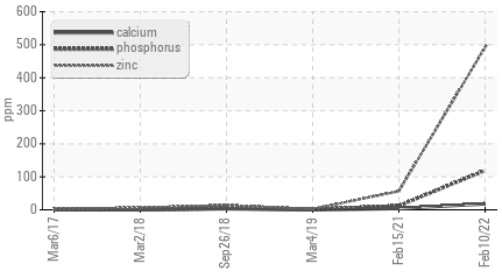
OIL ANALYSIS REPORT

STAUFF FILTRATION TECHNOLOGY

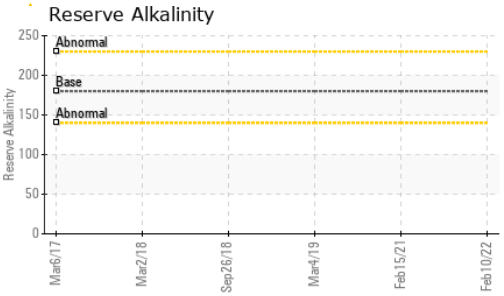
Water



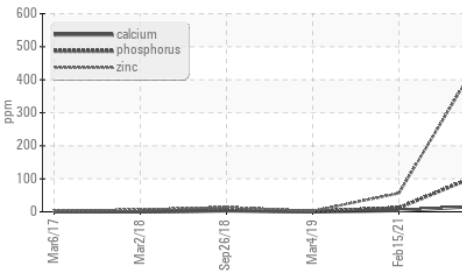
Additives



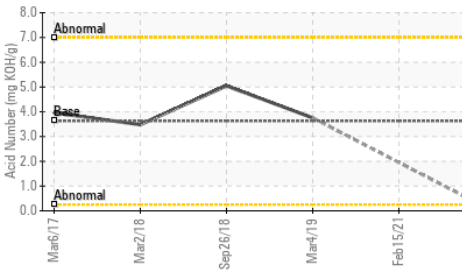
Reserve Alkalinity



Additives

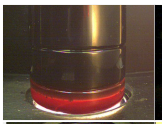
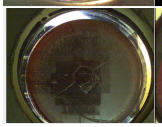
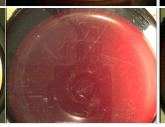


Acid Number



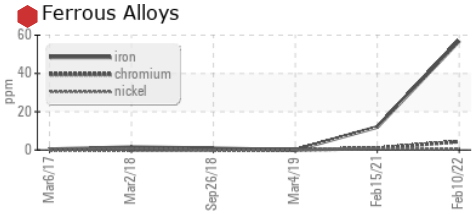
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	▲ **MODER**	LIGHT	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	▲ **LAYRD**	▲ LAYRD	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>55	**NEG**	0.2%	0.2%
Free Water	scalar	*Visual		⬢ **10.0**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
pH	Scale 0-14	ASTM D1287		**---**	7.00	9.00
Visc @ 40°C	cSt	ASTM D445	46	**45.14**	43.9	42.05

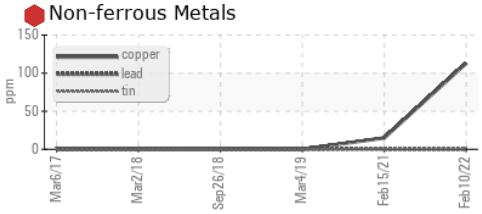
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

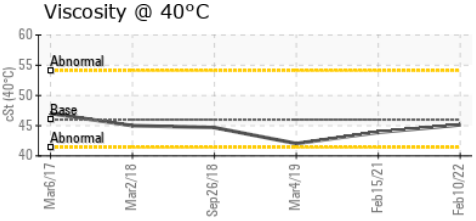
Ferrous Alloys



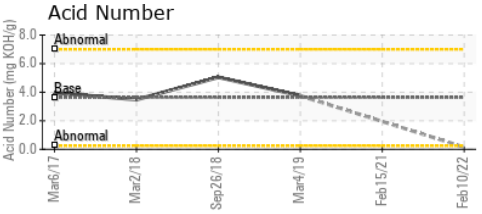
Non-ferrous Metals



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory	: WearCheck USA - 501 Madison Ave., Cary, NC 27513		
Sample No.	: ST37295	**Received**	: 16 Feb 2022
Lab Number	: 05470209	**Diagnosed**	: 18 Feb 2022
Unique Number	: 9854422	**Diagnostician**	: Jonathan Hester
Test Package	: IND 2 (Additional Tests: KF, pH, ReserveAlk)		

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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