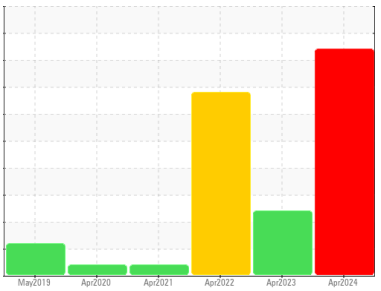
STAUFF FILTRATION TECHNOLOGY

PROBLEM SUMMARY

Sample Rating Trend

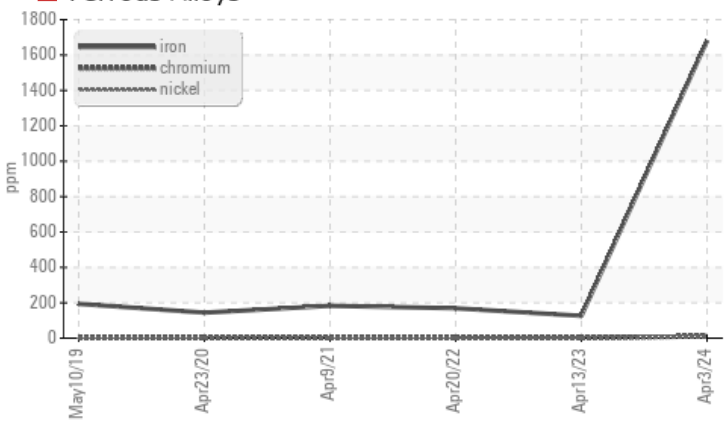


WEAR

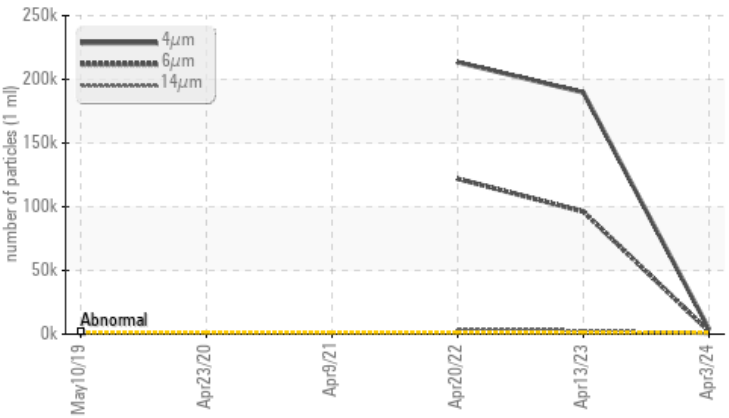
Machine Id
FALK WERKSPOOR 4RH
Component
Gearbox
Fluid
AMALIE 220 (10 GAL)

COMPONENT CONDITION SUMMARY

Ferrous Alloys



Particle Trend



RECOMMENDATION

We recommend you service the filters on this component. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. 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	SEVERE
Iron	ppm	ASTM D5185m	>200	▲ **1681**	126	169
Particles >4µm		ASTM D7647	>1300	▲ **4028**	▲ 189711	▲ 213457
Particles >6µm		ASTM D7647	>320	▲ **2194**	▲ 96170	▲ 121967
Particles >14µm		ASTM D7647	>80	▲ **373**	▲ 2833	▲ 3839
Particles >21µm		ASTM D7647	>20	▲ **126**	▲ 329	▲ 315
Particles >38µm		ASTM D7647	>4	▲ **19**	▲ 18	0
Oil Cleanliness		ISO 4406 (c)	>17/15/13	▲ **19/18/16**	▲ 25/24/19	▲ 25/24/19

Customer Id: HYDBELFL
Sample No.: ST43246
Lab Number: 06143079
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
Inspect Wear Source	---	---	?	We advise that you inspect for the source(s) of wear.
Change Filter	---	---	?	We recommend you service the filters on this component.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Contact Required	---	---	?	Due to an abnormal test result it is recommended to contact Stauff Corp at (201)-444-7800 for help resolving the issue.

HISTORICAL DIAGNOSIS

ISO

13 Apr 2023 Diag: Jonathan Hester

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. Due to an abnormal test result it is recommended to contact Stauff Corp at (201)-444-7800 for help resolving the issue.All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

ISO

20 Apr 2022 Diag: Wes Davis

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation.All component wear rates are normal. Particles >14µm are severely high. Particles >21µm are severely high. Particles >6µm are severely high. Particles >4µm are severely high. The water content is negligible. The system cleanliness code is much higher than the acceptable limit for the target ISO 4406 cleanliness code. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

VIS DEBRIS

09 Apr 2021 Diag: Angela Borella

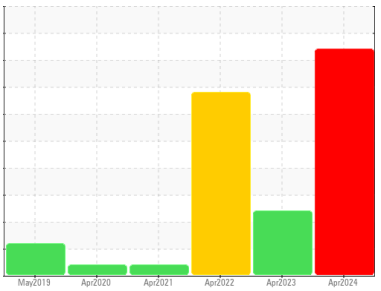
We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample. Due to an abnormal test result it is recommended to contact Stauff Corp at (201)-444-7800 for help resolving the issue.All component wear rates are normal. Moderate concentration of visible dirt/debris present in the oil. 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
FALK WERKSPOOR 4RH
Component
Gearbox
Fluid
AMALIE 220 (10 GAL)

DIAGNOSIS

▲ Recommendation
We recommend you service the filters on this component. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. Due to an abnormal test result it is recommended to contact Stauff Corp at (201)-444-7800 for help resolving the issue.

▲ Wear
Gear wear is indicated.

▲ Contamination
There is a high amount of particulates present in the oil.

Fluid Condition
The AN level is acceptable for this fluid.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**ST43246**	ST44817	ST44316
Sample Date		Client Info		**03 Apr 2024**	13 Apr 2023	20 Apr 2022
Machine Age	mths	Client Info		**0**	0	0
Oil Age	mths	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**SEVERE**	ABNORMAL	SEVERE

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	▲ **1681**	126	169
Chromium	ppm	ASTM D5185m	>15	**11**	<1	<1
Nickel	ppm	ASTM D5185m	>15	**9**	<1	0
Titanium	ppm	ASTM D5185m		**<1**	<1	<1
Silver	ppm	ASTM D5185m		**0**	0	<1
Aluminum	ppm	ASTM D5185m	>25	**3**	2	2
Lead	ppm	ASTM D5185m	>100	**2**	0	<1
Copper	ppm	ASTM D5185m	>200	**155**	32	32
Tin	ppm	ASTM D5185m	>25	**12**	3	4
Antimony	ppm	ASTM D5185m	>5	**---**	---	---
Vanadium	ppm	ASTM D5185m		**<1**	<1	<1
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**7**	3	5
Barium	ppm	ASTM D5185m		**16**	2	0
Molybdenum	ppm	ASTM D5185m		**9**	5	6
Manganese	ppm	ASTM D5185m		**18**	1	1
Magnesium	ppm	ASTM D5185m		**20**	7	4
Calcium	ppm	ASTM D5185m		**163**	32	33
Phosphorus	ppm	ASTM D5185m		**184**	142	139
Zinc	ppm	ASTM D5185m		**67**	23	15
Sulfur	ppm	ASTM D5185m		**11961**	12472	9959

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	**17**	6	9
Sodium	ppm	ASTM D5185m		**7**	2	0
Potassium	ppm	ASTM D5185m	>20	**165**	28	43
Water	%	ASTM D6304	>0.2	**0.105**	0.013	0.006
ppm Water	ppm	ASTM D6304	>2000	**1050**	138.1	62.9

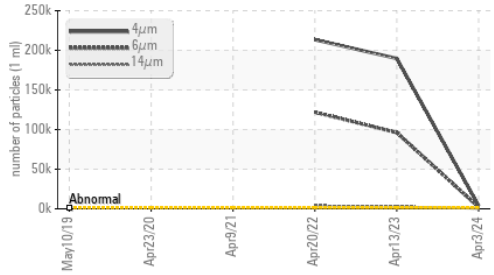
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>1300	▲ **4028**	▲ 189711	▲ 213457
Particles >6µm		ASTM D7647	>320	▲ **2194**	▲ 96170	▲ 121967
Particles >14µm		ASTM D7647	>80	▲ **373**	▲ 2833	▲ 3839
Particles >21µm		ASTM D7647	>20	▲ **126**	▲ 329	▲ 315
Particles >38µm		ASTM D7647	>4	▲ **19**	▲ 18	0
Particles >71µm		ASTM D7647	>3	**2**	1	0
Oil Cleanliness		ISO 4406 (c)	>17/15/13	▲ **19/18/16**	▲ 25/24/19	▲ 25/24/19

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.43**	0.45	0.52

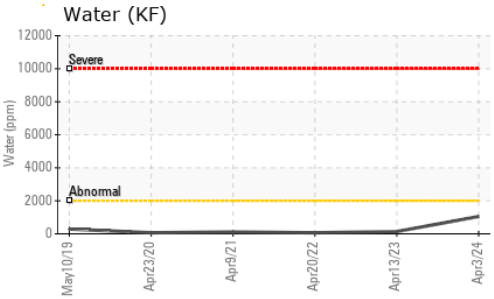
OIL ANALYSIS REPORT

STAUFF FILTRATION TECHNOLOGY

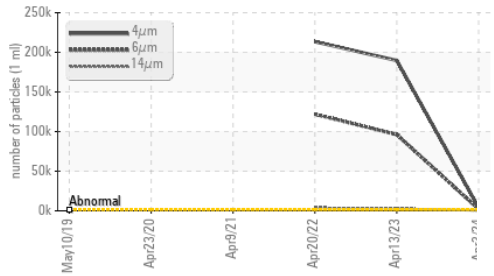
Particle Trend



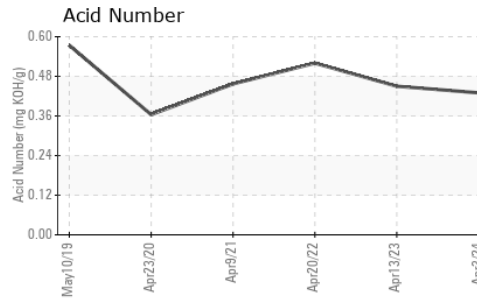
Water (KF)



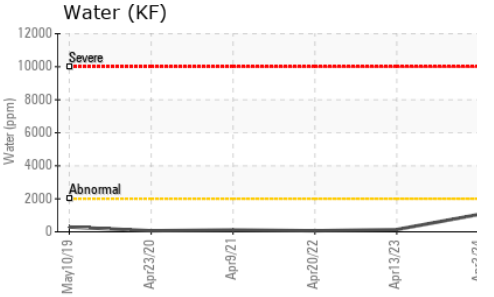
Particle Trend



Acid Number

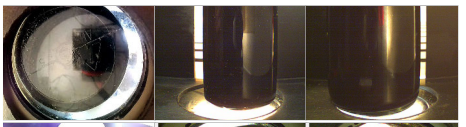
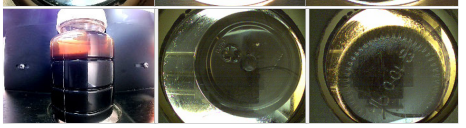


Water (KF)



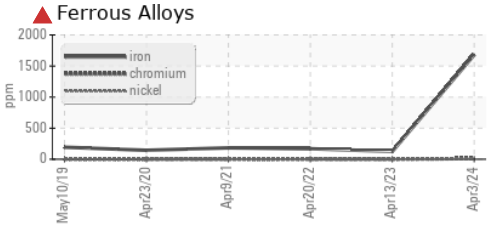
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	LIGHT
Sand/Dirt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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		**242**	220	225

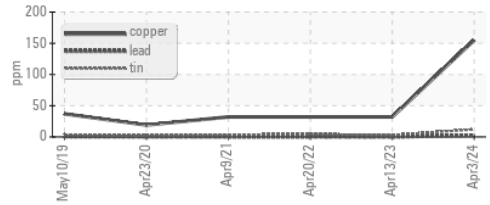
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

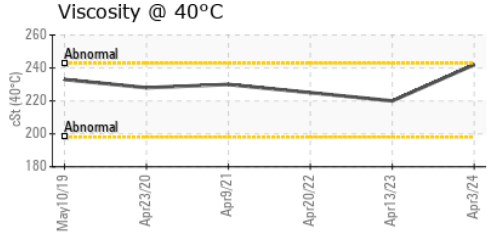
Ferrous Alloys



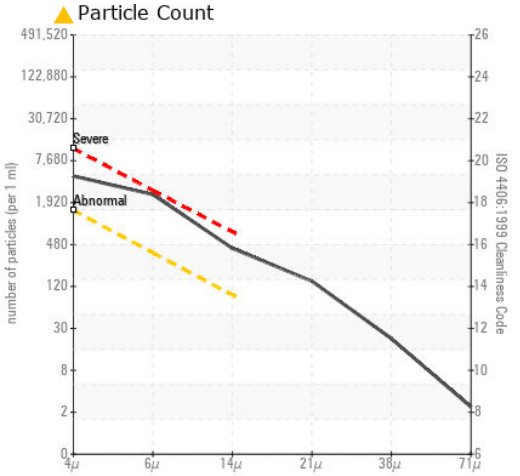
Non-ferrous Metals



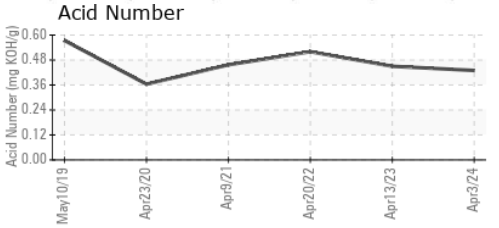
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ST43246
Lab Number : 06143079
Unique Number : 10967887
Test Package : IND 2 (Additional Tests: KF, PrtCount)

Received : 09 Apr 2024
Tested : 15 Apr 2024
Diagnosed : 15 Apr 2024 - Jonathan Hester

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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