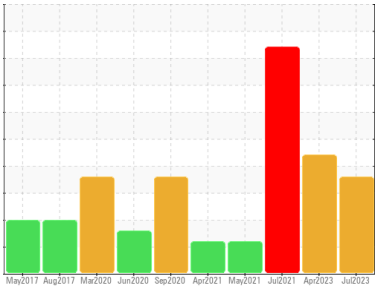
PROBLEM SUMMARY

Area
PRESS
Machine Id
0809SB01
Component
Rear Gearbox
Fluid
KLUBER Klübersynth GH 6 ISO 320 (--- LTR)

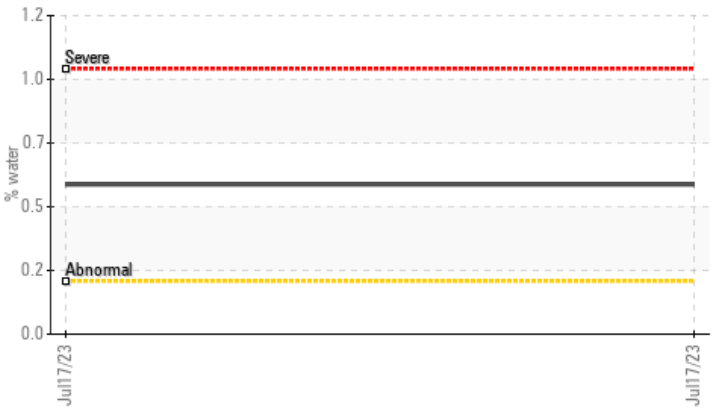
Sample Rating Trend



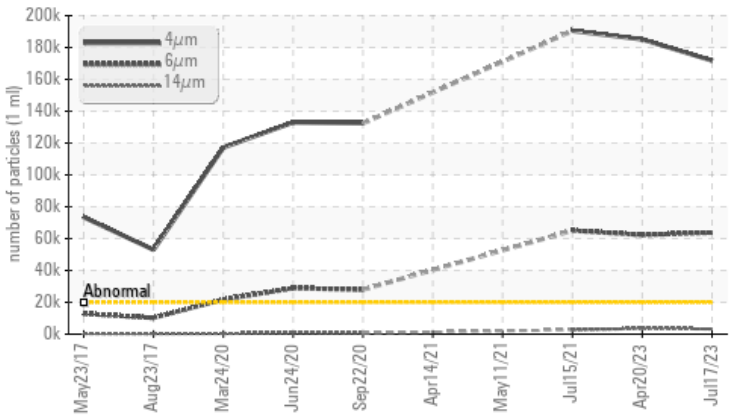
WATER

COMPONENT CONDITION SUMMARY

Water



Particle Trend



RECOMMENDATION

We advise that you check for the source of water entry. We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	SEVERE	SEVERE
Water	%	ASTM D6304	>0.2	▲ **0.564**	---	---
ppm Water	ppm	ASTM D6304	>2000	▲ **5641.1**	---	---
Particles >4µm		ASTM D7647	>20000	▲ **171801**	⬢ 185107	⬢ 190491
Particles >6µm		ASTM D7647	>5000	▲ **63797**	⬢ 62276	⬢ 65016
Particles >14µm		ASTM D7647	>640	▲ **3259**	▲ 3578	⬢ 2694
Particles >21µm		ASTM D7647	>160	▲ **621**	▲ 778	⬢ 485
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ **25/23/19**	⬢ 25/23/19	⬢ 25/23/19

Customer Id: FLAMONNC
Sample No.: WC0668047
Lab Number: 05930871
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldridge +1
don.b505@comcast.net

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 Filter	---	---	?	We recommend you service the filters on this component.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Water Access	---	---	?	We advise that you check for the source of water entry.

HISTORICAL DIAGNOSIS

20 Apr 2023 Diag: Wes Davis

ISO

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. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.All component wear rates are normal. There is a high amount of particulates (2 to 100 microns in size) present in the oil. 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 oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

view report

15 Jul 2021 Diag: Doug Bogart

ISO

We recommend you service the filters on this component. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is at the top-end of the recommended limit.

view report

11 May 2021 Diag: Don Baldridge

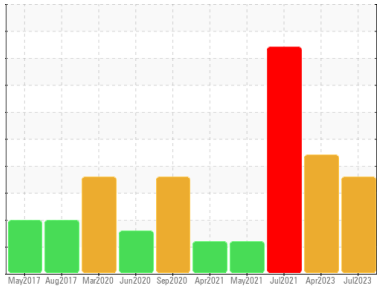
VISUAL METAL

No corrective action is recommended at this time. The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. We were unable to perform a particle count due to metal particles present in this 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

OIL ANALYSIS REPORT

Sample Rating Trend



WATER

Area
PRESS
Machine Id
0809SB01
Component
Rear Gearbox
Fluid
KLUBER Klübersynth GH 6 ISO 320 (--- LTR)

DIAGNOSIS

Recommendation
We advise that you check for the source of water entry. We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

Wear
All component wear rates are normal.

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

Fluid Condition
The AN level is at the top-end of the recommended limit.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0668047**	WC0730479	WC0541860
Sample Date		Client Info		**17 Jul 2023**	20 Apr 2023	15 Jul 2021
Machine Age	hrs	Client Info		**0**	0	80000
Oil Age	hrs	Client Info		**0**	0	8000
Oil Changed		Client Info		**Not Changd**	Not Changd	N/A
Sample Status				**ABNORMAL**	SEVERE	SEVERE

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		**50**	---	---
Iron	ppm	ASTM D5185m	>200	**20**	15	8
Chromium	ppm	ASTM D5185m	>15	**<1**	<1	<1
Nickel	ppm	ASTM D5185m	>15	**0**	<1	<1
Titanium	ppm	ASTM D5185m		**<1**	0	0
Silver	ppm	ASTM D5185m		**0**	0	<1
Aluminum	ppm	ASTM D5185m	>25	**<1**	0	0
Lead	ppm	ASTM D5185m	>100	**0**	0	0
Copper	ppm	ASTM D5185m	>200	**2**	2	<1
Tin	ppm	ASTM D5185m	>25	**<1**	0	<1
Antimony	ppm	ASTM D5185m	>5	**---**	---	0
Vanadium	ppm	ASTM D5185m		**<1**	<1	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

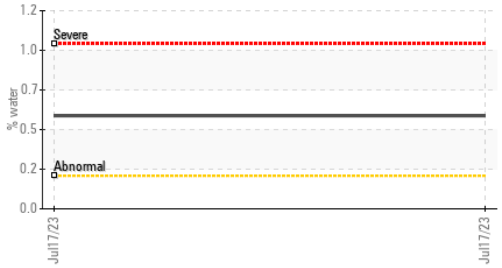
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**8**	0	9
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**0**	0	0
Manganese	ppm	ASTM D5185m		**<1**	0	<1
Magnesium	ppm	ASTM D5185m		**4**	<1	<1
Calcium	ppm	ASTM D5185m		**2**	<1	2
Phosphorus	ppm	ASTM D5185m	2450	**2526**	2089	1634
Zinc	ppm	ASTM D5185m		**16**	18	23
Sulfur	ppm	ASTM D5185m		**235**	0	0

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	**34**	38	21
Sodium	ppm	ASTM D5185m		**0**	3	5
Potassium	ppm	ASTM D5185m	>20	**4**	0	<1
Water	%	ASTM D6304	>0.2	▲ **0.564**	---	---
ppm Water	ppm	ASTM D6304	>2000	▲ **5641.1**	---	---

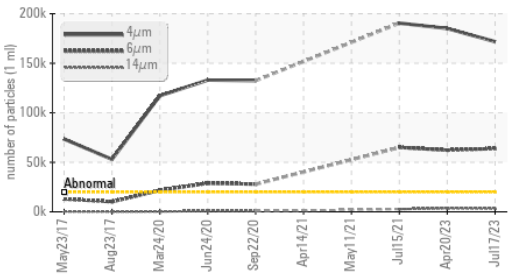
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	▲ **171801**	⬢ 185107	⬢ 190491
Particles >6µm		ASTM D7647	>5000	▲ **63797**	⬢ 62276	⬢ 65016
Particles >14µm		ASTM D7647	>640	▲ **3259**	▲ 3578	⬢ 2694
Particles >21µm		ASTM D7647	>160	▲ **621**	▲ 778	⬢ 485
Particles >38µm		ASTM D7647	>40	**8**	21	▲ 8
Particles >71µm		ASTM D7647	>10	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ **25/23/19**	⬢ 25/23/19	⬢ 25/23/19

OIL ANALYSIS REPORT

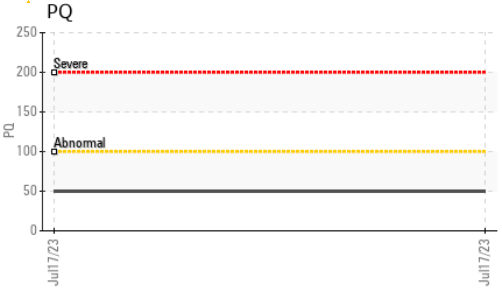
Water



Particle Trend



PQ

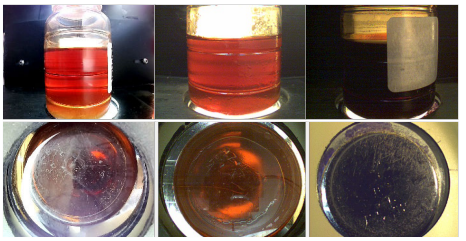


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.955	**2.65**	2.20	▲ 4.014

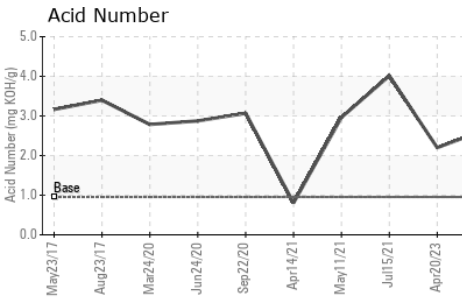
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	LIGHT	NONE
Sand/Dirt	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	336.9	**335**	327	343

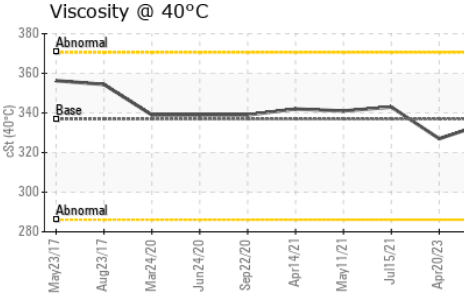
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					



Acid Number

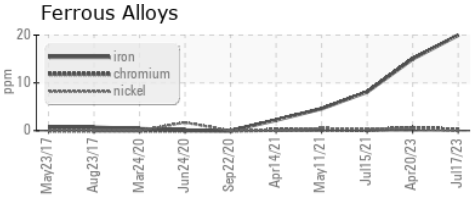


Viscosity @ 40°C

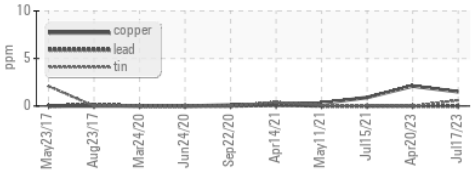


GRAPHS

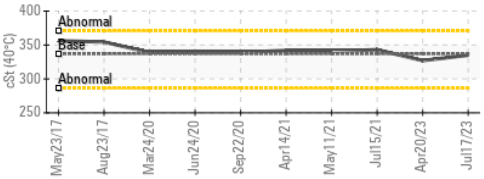
Ferrous Alloys



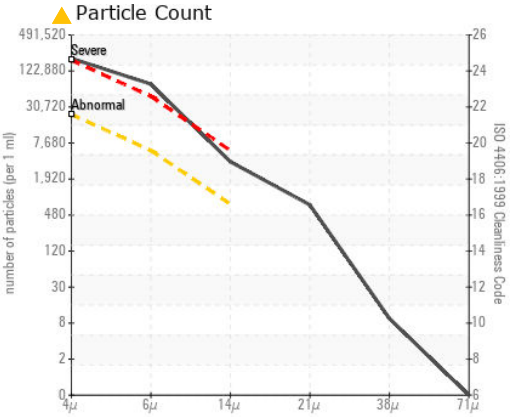
Non-ferrous Metals



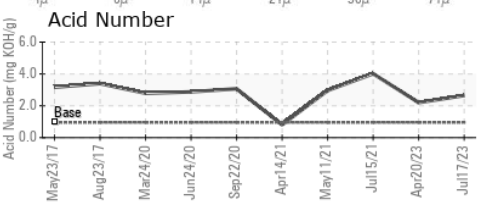
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0668047 **Received** : 22 Aug 2023
Lab Number : 05930871 **Diagnosed** : 23 Aug 2023
Unique Number : 10616142 **Diagnostician** : Don Baldridge
Test Package : IND 2 (Additional Tests: KF, PQ, PrtCount)

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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