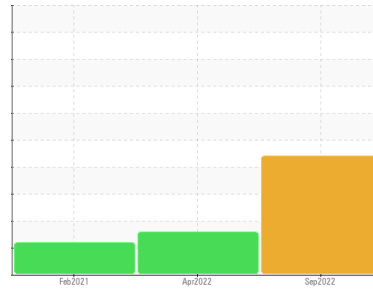


PROBLEM SUMMARY

Sample Rating Trend



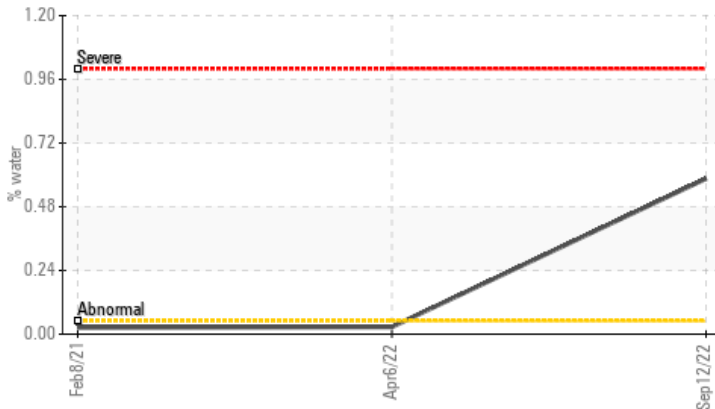
WATER



Machine Id
KAESER AIRTOWER 7.5C 7208721 (S/N 1058)
Component
Compressor
Fluid
KAESER SIGMA (OEM) S-460 (--- GAL)

COMPONENT CONDITION SUMMARY

▲ Water



RECOMMENDATION

We recommend you service the filters on this component. We were unable to perform a particle count due to a high concentration of particles present in this sample. We advise that you stop the unit and follow the water drain-off procedure for this component. We recommend an early resample in 500 hours to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Water	%	ASTM D6304	>0.05	▲ 0.586	0.027	0.025
ppm Water	ppm	ASTM D6304	>500	▲ 5860	270.9	258.6
Debris	scalar	*Visual	NONE	▲ MODER	NONE	NONE
Appearance	scalar	*Visual	NORML	▲ HAZY	NORML	NORML
Free Water	scalar	*Visual		▲ 1.0	NEG	NEG

Customer Id: HELMEL
Sample No.: KC96724
Lab Number: 05646560
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 Filter	---	---	?	We recommend you service the filters on this component.
Alert	---	---	?	We were unable to perform a particle count due to a high concentration of particles present in this sample.

HISTORICAL DIAGNOSIS

06 Apr 2022 Diag: Doug Bogart

ISO



Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. 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](#)



08 Feb 2021 Diag: Jonathan Hester

ISO



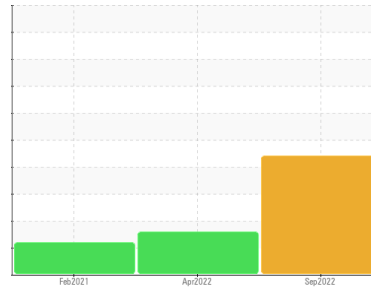
Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

[view report](#)



OIL ANALYSIS REPORT

Sample Rating Trend



WATER



Machine Id
KAESER AIRTOWER 7.5C 7208721 (S/N 1058)

Component

Compressor

Fluid

KAESER SIGMA (OEM) S-460 (--- GAL)

DIAGNOSIS

▲ Recommendation

We recommend you service the filters on this component. We were unable to perform a particle count due to a high concentration of particles present in this sample. We advise that you stop the unit and follow the water drain-off procedure for this component. We recommend an early resample in 500 hours to monitor this condition.

Wear

All component wear rates are normal.

▲ Contamination

Appearance is hazy. Free water present. There is a moderate concentration of water present in the oil. Moderate concentration of visible dirt/debris present 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	history 1	history 2
Sample Number			KC96724	KC98795	KC90447
Sample Date			12 Sep 2022	06 Apr 2022	08 Feb 2021
Machine Age	hrs		486	403	194
Oil Age	hrs		82	211	194
Oil Changed			Not Changed	Changed	Changed
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m >50	0	<1	2
Chromium	ppm	ASTM D5185m >10	0	0	0
Nickel	ppm	ASTM D5185m >3	0	0	<1
Titanium	ppm	ASTM D5185m >3	0	0	0
Silver	ppm	ASTM D5185m >2	0	0	<1
Aluminum	ppm	ASTM D5185m >10	0	<1	0
Lead	ppm	ASTM D5185m >10	0	<1	<1
Copper	ppm	ASTM D5185m >50	3	2	4
Tin	ppm	ASTM D5185m >10	<1	0	<1
Antimony	ppm	ASTM D5185m	---	---	0
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m	0	0	<1
Barium	ppm	ASTM D5185m 90	0	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m 90	25	50	36
Calcium	ppm	ASTM D5185m 2	<1	0	<1
Phosphorus	ppm	ASTM D5185m	2	7	9
Zinc	ppm	ASTM D5185m	7	8	10

CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m >25	0	<1	<1
Sodium	ppm	ASTM D5185m	4	14	16
Potassium	ppm	ASTM D5185m >20	0	2	3
Water	%	ASTM D6304 >0.05	▲ 0.586	0.027	0.025
ppm Water	ppm	ASTM D6304 >500	▲ 5860	270.9	258.6

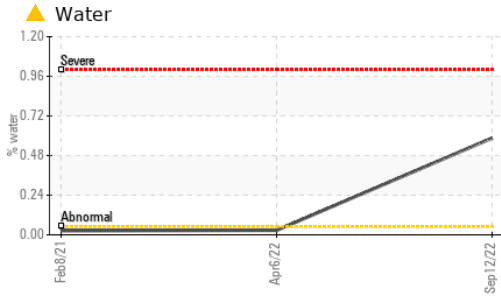
FLUID CLEANLINESS

	method	limit/base	current	history 1	history 2
Particles >4µm	ASTM D7647		---	14086	109931
Particles >6µm	ASTM D7647 >1300		---	▲ 6145	▲ 25153
Particles >14µm	ASTM D7647 >80		---	▲ 226	▲ 511
Particles >21µm	ASTM D7647 >20		---	▲ 54	▲ 75
Particles >38µm	ASTM D7647 >4		---	▲ 5	2
Particles >71µm	ASTM D7647 >3		---	0	0
Oil Cleanliness	ISO 4406 (c) >--/17/13		---	▲ 20/15	▲ 22/16

FLUID DEGRADATION

	method	limit/base	current	history 1	history 2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.4	0.31	0.30	0.262

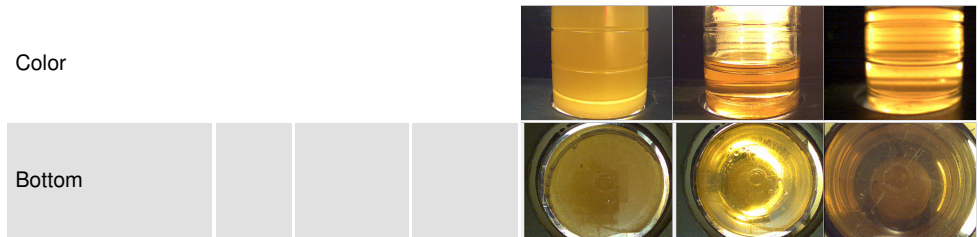
OIL ANALYSIS REPORT



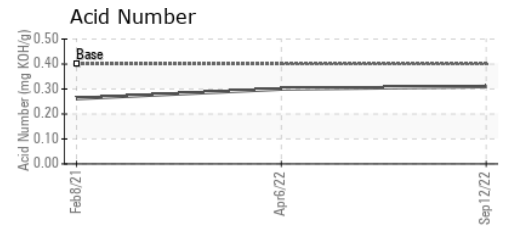
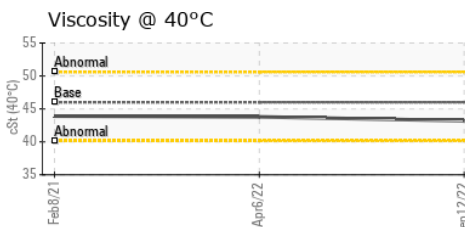
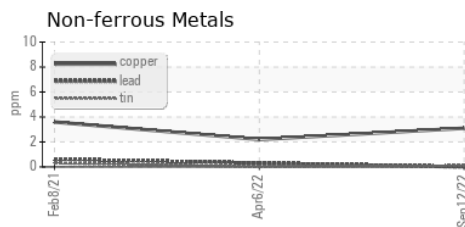
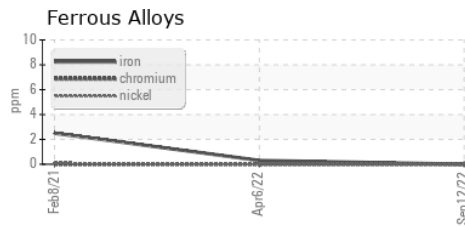
VISUAL	method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	▲ MODER	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	▲ HAZY	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	0.2%	NEG
Free Water	scalar	*Visual		▲ 1.0	NEG

FLUID PROPERTIES	method	limit/base	current	history 1	history 2
Visc @ 40°C	cSt	ASTM D445	46	43.2	43.8

SAMPLE IMAGES	method	limit/base	current	history 1	history 2
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GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KC96724 **Received** : 20 Sep 2022
Lab Number : 05646560 **Diagnosed** : 21 Sep 2022
Unique Number : 10141099 **Diagnostician** : Jonathan Hester
Test Package : IND 2

HELICOPTER HELMET
 274 WEST DR
 MELBOURNE, FL
 USA 32904
 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: