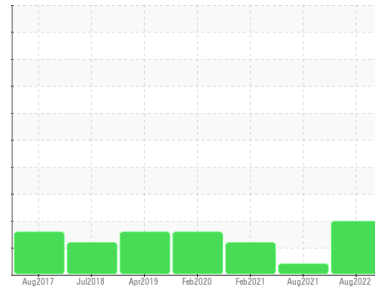


Machine Id
KAESER SM 15 4621602 (S/N 1197)

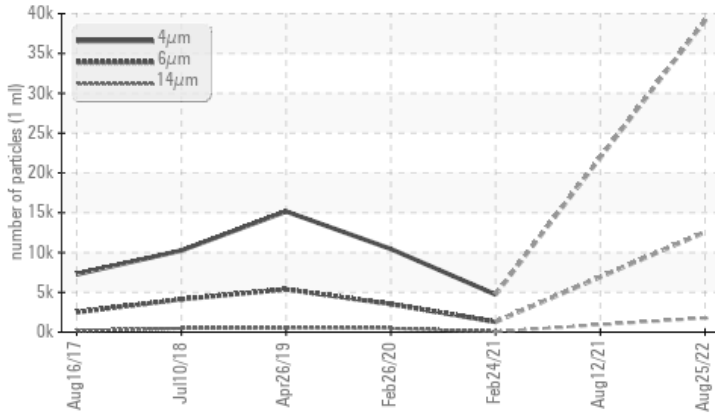
Component
Compressor

Fluid
KAESER SIGMA (OEM) M-460 (--- GAL)



COMPONENT CONDITION SUMMARY

▲ Particle Trend



RECOMMENDATION

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

PROBLEMATIC TEST RESULTS

Sample Status	ASTM D7647	ASTM D7647	ABNORMAL	ABNORMAL	ABNORMAL
Particles >6µm	ASTM D7647	>1300	▲ 12565	---	1294
Particles >14µm	ASTM D7647	>80	▲ 1763	---	▲ 83
Particles >21µm	ASTM D7647	>20	▲ 616	---	▲ 23
Particles >38µm	ASTM D7647	>4	▲ 35	---	2
Oil Cleanliness	ISO 4406 (c)	>--/17/13	▲ 22/21/18	---	▲ 17/14

Customer Id: CUMAVO
Sample No.: KCP51551
Lab Number: 05637129
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	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.

HISTORICAL DIAGNOSIS

12 Aug 2021 Diag: Don Baldrige

VIS DEBRIS



No corrective action is recommended at this time. The filter 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 a high concentration of particles present in this sample. 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 acceptable for the time in service.

[view report](#)



24 Feb 2021 Diag: Jonathan Hester

VISCOSITY



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 moderate amount of particulates present in the oil. The oil viscosity is higher than normal. The AN level is acceptable for this fluid.

[view report](#)



26 Feb 2020 Diag: Angela Borella

ISO



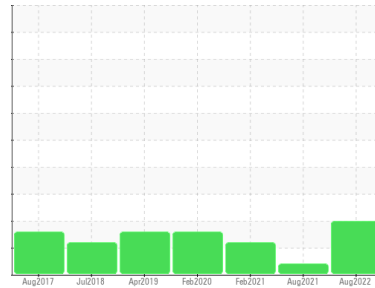
No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

[view report](#)



Machine Id
KAESER SM 15 4621602 (S/N 1197)

Component
Compressor
Fluid
KAESER SIGMA (OEM) M-460 (--- GAL)



DIAGNOSIS

▲ Recommendation

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

Wear

All component wear rates are normal.

▲ Contamination

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

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history 1	history 2
Sample Number			KCP51551	KCP42946	KCP27572
Sample Date			25 Aug 2022	12 Aug 2021	24 Feb 2021
Machine Age	hrs		30724	28136	25080
Oil Age	hrs		2871	3056	3643
Oil Changed			Changed	Not Changd	Changed
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m >50	<1	1	<1
Chromium	ppm	ASTM D5185m >10	0	0	0
Nickel	ppm	ASTM D5185m >3	0	<1	0
Titanium	ppm	ASTM D5185m >3	0	0	0
Silver	ppm	ASTM D5185m >2	0	0	0
Aluminum	ppm	ASTM D5185m >10	<1	0	<1
Lead	ppm	ASTM D5185m >10	0	0	0
Copper	ppm	ASTM D5185m >50	7	8	12
Tin	ppm	ASTM D5185m >10	0	0	0
Antimony	ppm	ASTM D5185m	---	0	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	25	13
Barium	ppm	ASTM D5185m 90	11	0	0
Molybdenum	ppm	ASTM D5185m 0	0	0	0
Manganese	ppm	ASTM D5185m	0	0	0
Magnesium	ppm	ASTM D5185m 100	39	2	22
Calcium	ppm	ASTM D5185m 0	0	0	0
Phosphorus	ppm	ASTM D5185m 0	2	3	10
Zinc	ppm	ASTM D5185m 0	40	36	48
Sulfur	ppm	ASTM D5185m 23500	18005	19072	18701

CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m >25	<1	2	<1
Sodium	ppm	ASTM D5185m	8	2	9
Potassium	ppm	ASTM D5185m >20	0	14	0
Water	%	ASTM D6304 >0.05	0.019	0.009	0.008
ppm Water	ppm	ASTM D6304 >500	197.9	93.0	85.0

FLUID CLEANLINESS

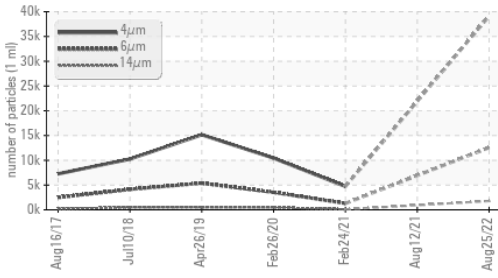
	method	limit/base	current	history 1	history 2
Particles >4µm	ASTM D7647		39111	---	4724
Particles >6µm	ASTM D7647	>1300	▲ 12565	---	1294
Particles >14µm	ASTM D7647	>80	▲ 1763	---	▲ 83
Particles >21µm	ASTM D7647	>20	▲ 616	---	▲ 23
Particles >38µm	ASTM D7647	>4	▲ 35	---	2
Particles >71µm	ASTM D7647	>3	1	---	0
Oil Cleanliness	ISO 4406 (c)	>--/17/13	▲ 22/21/18	---	▲ 17/14

FLUID DEGRADATION

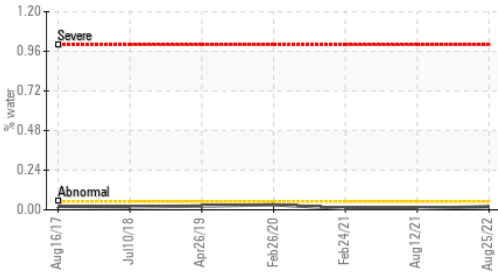
	method	limit/base	current	history 1	history 2
Acid Number (AN)	mg KOH/g	ASTM D8045 1.0	0.40	0.681	0.467

OIL ANALYSIS REPORT

▲ Particle Trend



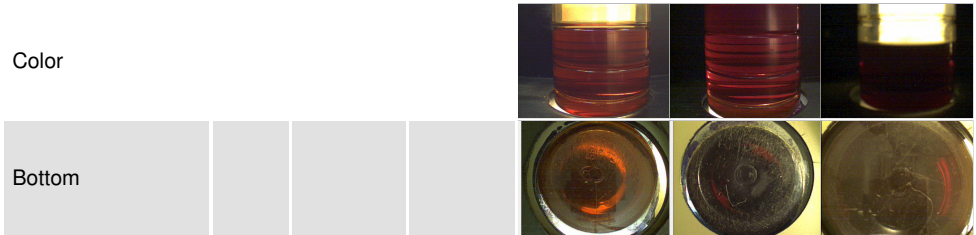
Water



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	LIGHT	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

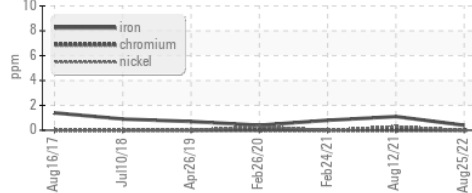
FLUID PROPERTIES	method	limit/base	current	history 1	history 2	
Visc @ 40°C	cSt	ASTM D445	45	49.4	47.2	▲ 58.5

SAMPLE IMAGES	method	limit/base	current	history 1	history 2
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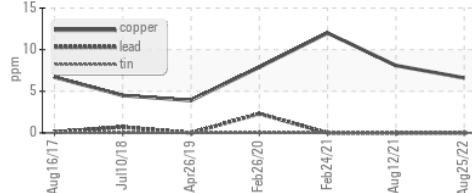


GRAPHS

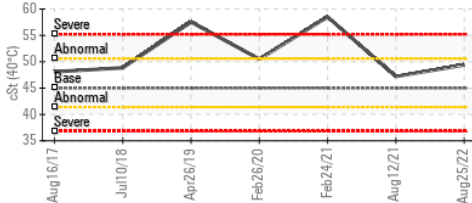
Ferrous Alloys



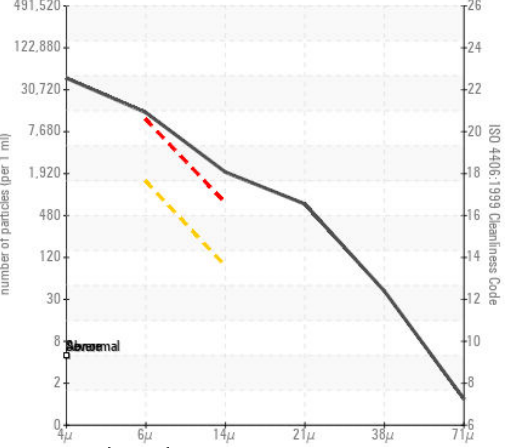
Non-ferrous Metals



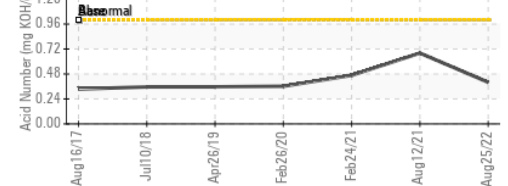
Viscosity @ 40°C



▲ Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCP51551 **Received** : 08 Sep 2022
Lab Number : 05637129 **Diagnosed** : 09 Sep 2022
Unique Number : 10126659 **Diagnostician** : Doug Bogart
Test Package : IND 2 (Additional Tests: KF, PrtCount)

CUMMINGS MICROWAVE - PPG AEROSPACE
 244 BODWELL ST
 AVON, MA
 USA 02322
 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: