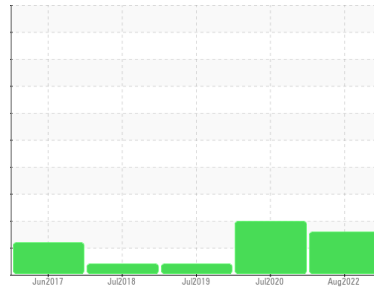


PROBLEM SUMMARY

Sample Rating Trend



ISO



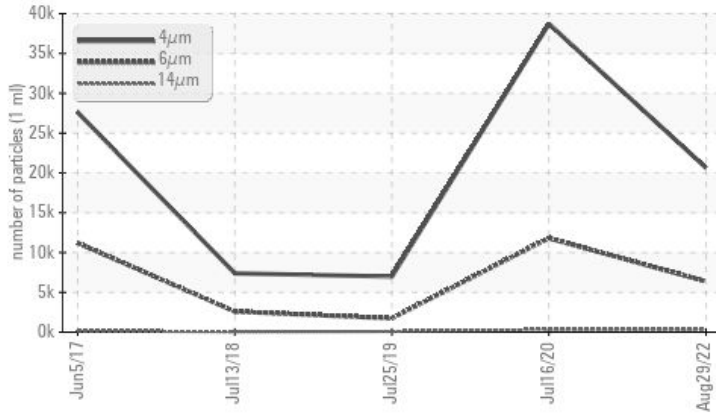
Machine Id
KAESER SM 15T 4651779 (S/N 1135)

Component
Compressor

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

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			ABNORMAL	ABNORMAL	ATTENTION
Particles >6µm	ASTM D7647	>1300	▲ 6367	▲ 11804	▲ 1730
Particles >14µm	ASTM D7647	>80	▲ 305	▲ 326	80
Particles >21µm	ASTM D7647	>20	▲ 32	▲ 51	19
Oil Cleanliness	ISO 4406 (c)	>--/17/13	▲ 22/20/15	▲ 21/16	▲ 18/13

Customer Id: ROBMINMN
Sample No.: KCP48404
Lab Number: 05639124
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	---	---	?	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

16 Jul 2020 Diag: Angela Borella

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



25 Jul 2019 Diag: Angela Borella

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 moderate 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



13 Jul 2018 Diag: Angela Borella

ISO



The oil 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.

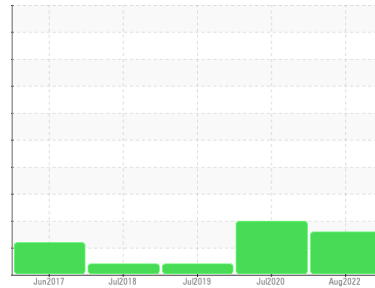
view report



Machine Id
KAESER SM 15T 4651779 (S/N 1135)

Component
Compressor

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



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 suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history 1	history 2
Sample Number			KCP48404	KCP10874	KCP17606
Sample Date			29 Aug 2022	16 Jul 2020	25 Jul 2019
Machine Age	hrs		30847	28294	20808
Oil Age	hrs		2445	6626	8212
Oil Changed			Changed	Changed	Changed
Sample Status			ABNORMAL	ABNORMAL	ATTENTION

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	<1	0	0
Aluminum	ppm ASTM D5185m	>10	1	<1	<1
Lead	ppm ASTM D5185m	>10	<1	<1	0
Copper	ppm ASTM D5185m	>50	2	14	9
Tin	ppm ASTM D5185m	>10	<1	0	<1
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	<1	<1
Barium	ppm ASTM D5185m	90	67	<1	14
Molybdenum	ppm ASTM D5185m	0	0	0	0
Manganese	ppm ASTM D5185m		<1	0	<1
Magnesium	ppm ASTM D5185m	100	82	23	39
Calcium	ppm ASTM D5185m	0	3	<1	<1
Phosphorus	ppm ASTM D5185m	0	11	5	1
Zinc	ppm ASTM D5185m	0	3	18	8
Sulfur	ppm ASTM D5185m	23500	19968	18335	26557

CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm ASTM D5185m	>25	1	<1	1
Sodium	ppm ASTM D5185m		9	7	7
Potassium	ppm ASTM D5185m	>20	1	6	<1
Water	% ASTM D6304	>0.05	0.026	0.015	0.023
ppm Water	ppm ASTM D6304	>500	269.8	159.8	230

FLUID CLEANLINESS

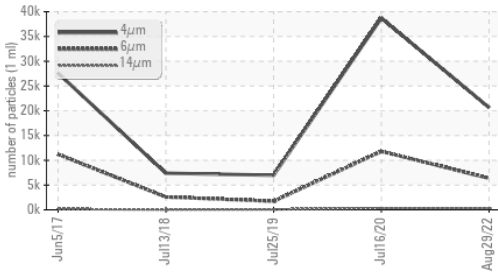
	method	limit/base	current	history 1	history 2
Particles >4µm	ASTM D7647		20639	38716	6976
Particles >6µm	ASTM D7647	>1300	▲ 6367	▲ 11804	▲ 1730
Particles >14µm	ASTM D7647	>80	▲ 305	▲ 326	80
Particles >21µm	ASTM D7647	>20	▲ 32	▲ 51	19
Particles >38µm	ASTM D7647	>4	2	▲ 14	2
Particles >71µm	ASTM D7647	>3	0	▲ 12	0
Oil Cleanliness	ISO 4406 (c)	>--/17/13	▲ 22/20/15	▲ 21/16	▲ 18/13

FLUID DEGRADATION

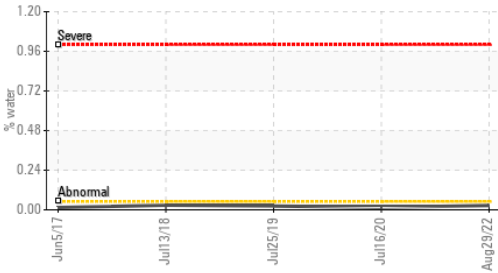
	method	limit/base	current	history 1	history 2
Acid Number (AN)	mg KOH/g ASTM D8045	1.0	0.45	0.421	0.417

OIL ANALYSIS REPORT

▲ Particle Trend



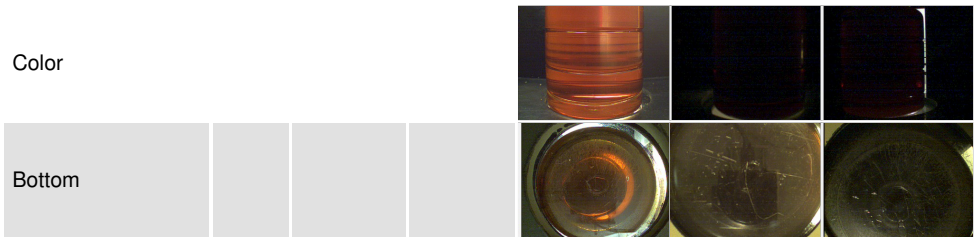
Water



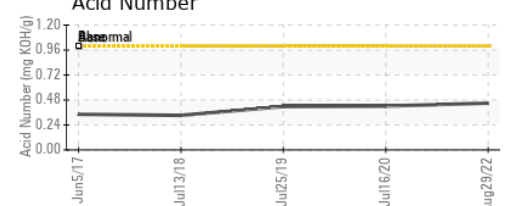
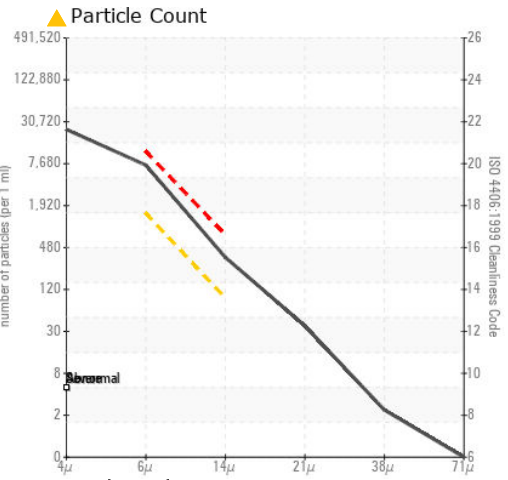
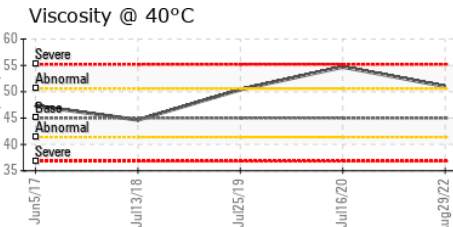
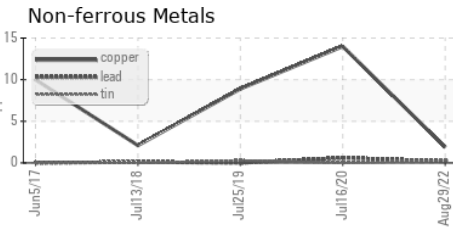
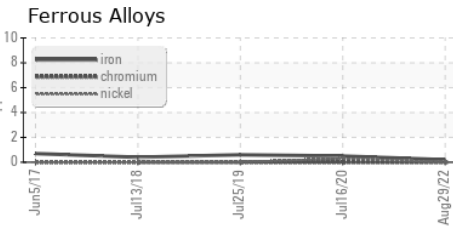
VISUAL	method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	VLITE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	51.0	54.7

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



GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCP48404 **Received** : 12 Sep 2022
Lab Number : 05639124 **Diagnosed** : 14 Sep 2022
Unique Number : 10128654 **Diagnostician** : Jonathan Hester
Test Package : IND 2 (Additional Tests: KF, PrtCount)

ROBERT BOSCH
 8700 WYOMING AVE N
 MINNEAPOLIS, MN
 USA 55445
 Contact:

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: