

PROBLEM SUMMARY

V

Sample Rating Trend

ISO

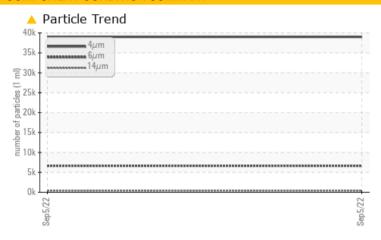
Machine Id **6468831 (S/N 1005)**

Component

Compressor

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

COMPONENT CONDITION SUMMARY



RECOMMENDATION

No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

PROBLEMATIC TE	EST RESULTS			
Sample Status			ABNORMAL	
Particles >6µm	ASTM D7647	>1300	△ 6643	
Particles >14µm	ASTM D7647	>80	411	
Particles >21µm	ASTM D7647	>20	<u> </u>	
Particles >38µm	ASTM D7647	>4	<u> </u>	
Oil Cleanliness	ISO 4406 (c)	>/17/13	22/20/16	

Customer Id: BENBENCA Sample No.: KCP49334 Lab Number: 05633663 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

RECOMMENDE	O 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



OIL ANALYSIS REPORT

Sample Rating Trend ISO

6468831 (S/N 1005)

Compressor

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

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. 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.

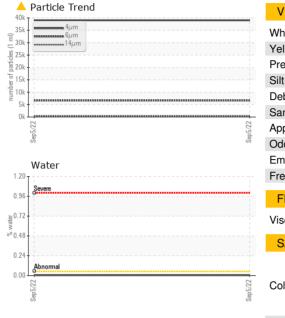
Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

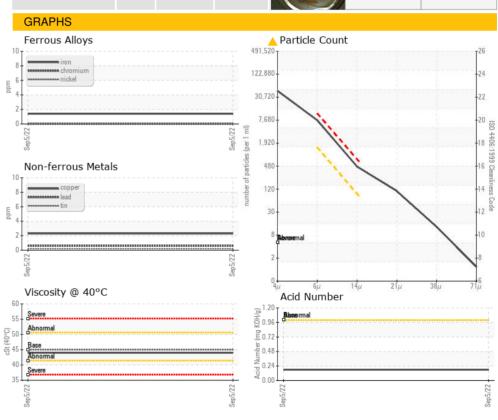
SAMPLE INFORMATION method limit/base current history 1 history 2							
Sample Number Sample Date 05 Sep 2022					Sep2022		
Sample Date 05 Sep 2022	SAMPLE INFORM	MATION	method	limit/base	current	history 1	history 2
Machine Age hrs	Sample Number						
Oil Age hrs 100	Sample Date				05 Sep 2022		
Changed Sample Status Method Iimil/base Current Mistory 1 Mistory 2		hrs					
Mean Metal Metal	Oil Age	hrs					
WEAR METALS method limit/base current history 1 history 2 Iron ppm ASTM D5185m >50 1 Chromium ppm ASTM D5185m >10 0 Nickel ppm ASTM D5185m >3 0 Silver ppm ASTM D5185m >2 0 ALuminum ppm ASTM D5185m >10 <1							
Iron	Sample Status				ABNORMAL		
Chromium ppm ASTM D5185m >10 0 Nickel ppm ASTM D5185m >3 0 Tittanium ppm ASTM D5185m >2 0 Silver ppm ASTM D5185m >2 0 Aluminum ppm ASTM D5185m >10 <1 Lead ppm ASTM D5185m >50 2 Copper ppm ASTM D5185m >10 <1 Tin ppm ASTM D5185m 0 2 Vanadium ppm ASTM D5185m 0 0 ADDITIVES method limil/base current history 1 history 2 Boron ppm ASTM D5185m 0 0 Barium ppm ASTM D5185m 0 0 <th>WEAR METALS</th> <th></th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history 1</th> <th>history 2</th>	WEAR METALS		method	limit/base	current	history 1	history 2
Nickel ppm ASTM D5185m >3 0	Iron	ppm	ASTM D5185m	>50	1		
Titanium	Chromium	ppm	ASTM D5185m	>10	0		
Silver	Nickel	ppm	ASTM D5185m	>3	0		
Aluminum ppm ASTM D5185m >10 <1 Copper ppm ASTM D5185m >50 2 Vanadium ppm ASTM D5185m >50 2 Vanadium ppm ASTM D5185m 0 Vanadium ppm ASTM D5185m 0 Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history 1 history 2 Boron ppm ASTM D5185m 0 0 Barium ppm ASTM D5185m 90 3 Molybdenum ppm ASTM D5185m 0 0 Manganese ppm ASTM D5185m 0 0 Calcium ppm ASTM D5185m 100 5 Calcium ppm ASTM D5185m 0 0 Phosphorus ppm ASTM D5185m 0 5 Zinc ppm ASTM D5185m 0 19 Sulfur ppm ASTM D5185m 0 19 CONTAMINANTS method limit/base current history 1 history 2 Silicon ppm ASTM D5185m >25 20 Vater % ASTM D5185m >20 1 FUID CLEANLINESS method limit/base current history 1 history 2 FLUID CLEANLINESS method limit/base current history 1 history 2 Particles >4µm ASTM D7647 >300 4643 Particles >71µm ASTM D7647 >20 94 Particles >38µm ASTM D7647 >20 94 Particles >71µm ASTM D7647 >3 1 FLUID DEGRADATION method limit/base current history 1 history 2	Titanium	ppm	ASTM D5185m	>3	0		
Lead ppm ASTM D5185m >10 <1 Copper ppm ASTM D5185m >50 2 Tin ppm ASTM D5185m 0 <1	Silver	ppm	ASTM D5185m	>2	0		
Copper ppm ASTM D5185m >50 2 Tin ppm ASTM D5185m >10 <1	Aluminum	ppm	ASTM D5185m	>10	<1		
Copper ppm ASTM D5185m >50 2 Tin ppm ASTM D5185m >10 <1	Lead	ppm	ASTM D5185m	>10	<1		
Vanadium ppm ASTM D5185m 0 ADDITIVES method limit/base current history 1 history 2 Boron ppm ASTM D5185m 0 0 Barium ppm ASTM D5185m 90 3 Molybdenum ppm ASTM D5185m 0 0 Magnesium ppm ASTM D5185m 0 0 Zinc ppm ASTM D5185m 0 19 Sulfur ppm ASTM D5185m 23500 6069	Copper	ppm	ASTM D5185m	>50	2		
Vanadium Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history 1 history 2 Boron ppm ASTM D5185m 0 0 Barium ppm ASTM D5185m 90 3 Molybdenum ppm ASTM D5185m 0 0 Manganese ppm ASTM D5185m 100 5 Magnesium ppm ASTM D5185m 100 5 Calcium ppm ASTM D5185m 0 0 Phosphorus ppm ASTM D5185m 0 5 Zinc ppm ASTM D5185m 0 5 Sulfur ppm ASTM D5185m 23500 6069 CONTAMINANTS method limit/base current history 1 history 2 Silicon ppm ASTM D5185m >25 20	• •		ASTM D5185m	>10	<1		
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Barium ppm ASTM D5185m 90 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ADDITIVES		method	limit/base	current	history 1	history 2
Molybdenum ppm ASTM D5185m 0 0 Manganese ppm ASTM D5185m <1	Boron	ppm	ASTM D5185m	0	0		
Manganese ppm ASTM D5185m <1 Magnesium ppm ASTM D5185m 1 00 5 Calcium ppm ASTM D5185m 0 0 Phosphorus ppm ASTM D5185m 0 19 Zinc ppm ASTM D5185m 0 19 Sulfur ppm ASTM D5185m 0 6069 CONTAMINANTS method limit/base current history 1 history 2 Silicon ppm ASTM D5185m >25 20 Sodium ppm ASTM D5185m >20 1 Potassium ppm ASTM D5185m >20 1 Water % ASTM D6304 >0.05 0.004 Water % ASTM D6304 >500 43.1<	Barium	ppm	ASTM D5185m	90	3		
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CONTAMINANTS method limit/base current history 1 history 2 Silicon ppm ASTM D5185m >25 20 Sodium ppm ASTM D5185m 0 Potassium ppm ASTM D5185m >20 1 Water % ASTM D6304 >0.05 0.004 ppm Water ppm ASTM D6304 >500 43.1 FLUID CLEANLINESS method limit/base current history 1 history 2 Particles >4µm ASTM D7647 >1300 4643 Particles >4µm ASTM D7647 >80 411 </td <td>Zinc</td> <td></td> <td>ASTM D5185m</td> <td>0</td> <td>19</td> <td></td> <td></td>	Zinc		ASTM D5185m	0	19		
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Sodium ppm ASTM D5185m 0 Potassium ppm ASTM D5185m >20 1 Water % ASTM D6304 >0.05 0.004 ppm Water ppm ASTM D6304 >500 43.1 FLUID CLEANLINESS method limit/base current history 1 history 2 Particles >4μm ASTM D7647 39004 Particles >6μm ASTM D7647 >1300 6643 Particles >14μm ASTM D7647 >80 411 Particles >21μm ASTM D7647 >20 94 Particles >71μm ASTM D7647 >3 1 Particles >71μm ASTM D7647 >3 1 Particles >71μm ASTM D7647 >3 1 Particles >71μm	CONTAMINANTS	;	method	limit/base	current	history 1	history 2
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Particles >21μm ASTM D7647 >20 94 Particles >38μm ASTM D7647 >4 11 Particles >71μm ASTM D7647 >3 1 Oil Cleanliness ISO 4406 (c) >/17/13 22/20/16 FLUID DEGRADATION method limit/base current history 1 history 2	Particles >14µm		ASTM D7647	>80	411		
Particles >38μm ASTM D7647 >4 ▲ 11 Particles >71μm ASTM D7647 >3 1 Oil Cleanliness ISO 4406 (c) >/17/13 ▲ 22/20/16 FLUID DEGRADATION method limit/base current history 1 history 2			ASTM D7647	>20	<u> </u>		
Particles >71μm ASTM D7647 >3 1 Oil Cleanliness ISO 4406 (c) >/17/13 ▲ 22/20/16 FLUID DEGRADATION method limit/base current history 1 history 2	Particles >38µm			>4			
Oil Cleanliness ISO 4406 (c) >/17/13 22/20/16 FLUID DEGRADATION method limit/base current history 1 history 2				>3	1		
	Oil Cleanliness						
Acid Number (AN) mg KOH/g ASTM D8045 1.0 0.18	FLUID DEGRADA	TION	method	limit/base	current	history 1	history 2
	Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.18		



OIL ANALYSIS REPORT



VISUAL		method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	NONE		
Yellow Metal	scalar	*Visual	NONE	NONE		
Precipitate	scalar	*Visual	NONE	NONE		
Silt	scalar	*Visual	NONE	NONE		
Debris	scalar	*Visual	NONE	NONE		
Sand/Dirt	scalar	*Visual	NONE	NONE		
Appearance	scalar	*Visual	NORML	NORML		
Odor	scalar	*Visual	NORML	NORML		
Emulsified Water	scalar	*Visual	>0.05	NEG		
Free Water	scalar	*Visual		NEG		
	0.000.00	11000				
FLUID PROPERT		method	limit/base	current	history 1	history 2
FLUID PROPERT Visc @ 40°C			limit/base		history 1	history 2
	TES cSt	method		current		
Visc @ 40°C	TES cSt	method ASTM D445	45	current 44.0		







Laboratory Sample No. Lab Number Unique Number : 10118184

: KCP49334 : 05633663

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 02 Sep 2022 Diagnosed

: 06 Sep 2022 Diagnostician : Doug Bogart

Test Package : IND 2 (Additional Tests: KF, 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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BENICIA, CA USA 94510

Contact: Service Manager

T: F: