

OIL ANALYSIS REPORT

Sample Rating Trend



Machino Id

KAESER AS 30 7488393 (S/N 1634)

Component

Compressor

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

DIAGNOSIS

Recommendation

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.

Wear

All component wear rates are normal.

Contamination

Moderate concentration of visible dirt/debris present in the oil.

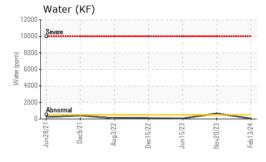
Fluid Condition

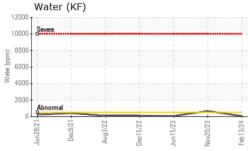
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

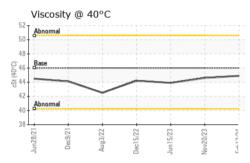
Sample Number Client Info KCP27172 KCP27109 KC120625 Sample Date Client Info 13 Feb 2024 XC120625 15 Jun 2023 17 Jun 2023<			Jun2021	Dec2021 Aug2022	Dec2022 Jun2023 Nov2023	Feb2024	
Sample Date Client Info 13 Feb 2024 20 Nov 2023 15 Jun 2021	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 12503 11975 9744	Sample Number		Client Info		KCP27172	KCP27109	KC120625
Dil Age	Sample Date		Client Info		13 Feb 2024	20 Nov 2023	15 Jun 2023
Dil Changed Sample Status	Machine Age	hrs	Client Info		12503	11975	9744
Bample Status method limit/base current history1 history1 ron ppm ASTM D5185m >50 0 <1	Oil Age	hrs	Client Info		4000	2169	0
WEAR METALS method limit/base current history1 history2 ron ppm ASTM D5185m >50 0 <1	Oil Changed		Client Info		Not Changd	Not Changd	N/A
Iron	Sample Status				ABNORMAL	ABNORMAL	NORMAL
Chromium ppm ASTM D5185m >1.0 <1 <1 0 Nickel ppm ASTM D5185m >3 0 0 0 Tittanium ppm ASTM D5185m >3 0 <1 0 Silver ppm ASTM D5185m >2 0 0 0 Aluminum ppm ASTM D5185m >10 0 2 0 Lead ppm ASTM D5185m >10 0 0 0 Copper ppm ASTM D5185m >10 0 0 0 Capper ppm ASTM D5185m 10 0 0 0 Cadadium ppm ASTM D5185m 0 0 0 0 Cadadium ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 90 0 5 0 Barium ppm ASTM D5185m <1 0 <1 1 </td <td>WEAR METALS</td> <td></td> <td>method</td> <td>limit/base</td> <td>current</td> <td>history1</td> <td>history2</td>	WEAR METALS		method	limit/base	current	history1	history2
Nickel ppm ASTM D5185m >3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Iron	ppm	ASTM D5185m	>50	0	<1	0
Titanium	Chromium	ppm	ASTM D5185m	>10	<1	<1	0
Silver	Nickel	ppm	ASTM D5185m	>3	0	0	0
Aluminum ppm ASTM D5185m >10 0 2 0 0 Copper ppm ASTM D5185m >10 0 0 0 0 Copper ppm ASTM D5185m >50 8 111 5 Tin ppm ASTM D5185m >10 <1 0 0 Cadmium ppm ASTM D5185m 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history1 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m <1 0 0 0 Manganese ppm ASTM D5185m <1 0 0 0 Calcium ppm ASTM D5185m 2 0 0 0 0 Calcium ppm ASTM D5185m 0 0 0 0 Calcium ppm ASTM D5185m 0 0 0 0 0 Calcium ppm ASTM D5185m 0 0 0 0 0 Calcium ppm ASTM D5185m 0 0 0 0 0 Calcium ppm ASTM D5185m 0 0 0 0 0 Calcium ppm ASTM D5185m 0 0 0 0 0 Calcium ppm ASTM D5185m 0 0 0 0 0 Calcium ppm ASTM D5185m 0 0 29 0 Calcium ppm ASTM D5185m 0 0 0 0 0 Calcium ppm ASTM D5185m 0 0 0 0 0 Calcium ppm ASTM D5185m 0 0 0 0 0 Calcium ppm ASTM D5185m 0 0 0 0 0 Calcium ppm ASTM D5185m 0 0 0 0 0 Calcium ppm ASTM D5185m 0 0 0 0 0 Calcium ppm ASTM D5185m 0 0 0 0 0 Calcium ppm ASTM D5185m 0 0 0 0 0 Calcium ppm ASTM D5185m 0 0 0 0 0 0 Calcium ppm ASTM D5185m 0 0 0 0 0 0 0 Calcium ppm ASTM D5185m 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Titanium	ppm	ASTM D5185m	>3	0	<1	0
Lead ppm ASTM D5185m >10 0 0 0 Copper ppm ASTM D5185m >50 8 11 5 Tin ppm ASTM D5185m >50 8 11 5 Vanadium ppm ASTM D5185m 0 0 0 0 Vanadium ppm ASTM D5185m 0 0 0 0 ADDTIVES method limit/base current history1 history1 Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 0 5 0 0 Magnesium ppm ASTM D5185m < 1 0 < 1 0 < 1 Magnesium ppm ASTM D5185m 90 0 2 0 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1	Silver	ppm	ASTM D5185m	>2	0	0	0
Copper ppm ASTM D5185m >50 8 11 5 Tin ppm ASTM D5185m >10 <1	Aluminum	ppm	ASTM D5185m	>10	0	2	0
Copper ppm ASTM D5185m >50 8 11 5 Tin ppm ASTM D5185m >10 <1	Lead	ppm	ASTM D5185m	>10	0	0	0
Tin	Copper		ASTM D5185m	>50	8	11	5
Vanadium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 90 0 5 0 Molybdenum ppm ASTM D5185m 90 0 5 0 Magnesium ppm ASTM D5185m <1 0 <1 Magnesium ppm ASTM D5185m 90 0 2 0 Calcium ppm ASTM D5185m 2 0 0 <1 Phosphorus ppm ASTM D5185m 0 0 29 0 Zinc ppm ASTM D5185m 0 0 0 0 Sulfur ppm ASTM D5185m 0 0 0 0 Silicon ppm ASTM D5185m 225 0 0 0 0			ASTM D5185m	>10	<1	0	0
ADDITIVES	Vanadium	ppm	ASTM D5185m		0	0	0
Boron ppm ASTM D5185m 0 0 0 Barium ppm ASTM D5185m 90 0 5 0 Molybdenum ppm ASTM D5185m <1 0 0 Manganese ppm ASTM D5185m <1 0 <1 Magnesium ppm ASTM D5185m 90 0 2 0 Calcium ppm ASTM D5185m 2 0 0 <1 Phosphorus ppm ASTM D5185m 0 29 0 Zinc ppm ASTM D5185m 0 0 0 Sulfur ppm ASTM D5185m 0 0 0 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >25 0 0 0 0 Sodium ppm ASTM D5185m >25 0 0 0 1 Potassium ppm	Cadmium		ASTM D5185m		0	0	0
Barium ppm ASTM D5185m 90 0 5 0 Molybdenum ppm ASTM D5185m <1	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m <1 0 0 Manganese ppm ASTM D5185m <1 0 <1 Magnesium ppm ASTM D5185m 90 0 2 0 Calcium ppm ASTM D5185m 2 0 0 <1 Phosphorus ppm ASTM D5185m 0 29 0 Zinc ppm ASTM D5185m 0 0 0 Sulfur ppm ASTM D5185m 0 0 0 Sulfur ppm ASTM D5185m 225 0 0 0 CONTAMINANTS method limit/base current history1 history3 Silicon ppm ASTM D5185m >25 0 0 0 Sodium ppm ASTM D5185m >20 0 2 0 Water % ASTM D5185m >20 0 2 0 Water % ASTM D5185m<	Boron	ppm	ASTM D5185m		0	0	0
Manganese ppm ASTM D5185m <1 0 <1 Magnesium ppm ASTM D5185m 90 0 2 0 Calcium ppm ASTM D5185m 2 0 0 <1	Barium	ppm	ASTM D5185m	90	0	5	0
Magnesium ppm ASTM D5185m 90 0 2 0 Calcium ppm ASTM D5185m 2 0 0 <1 Phosphorus ppm ASTM D5185m 0 29 0 Zinc ppm ASTM D5185m 0 0 0 Sulfur ppm ASTM D5185m 16945 17448 12744 CONTAMINANTS method limit/base current history1 history3 Silicon ppm ASTM D5185m >25 0 0 0 Sodium ppm ASTM D5185m >25 0 0 0 Potassium ppm ASTM D5185m >20 0 2 0 Water % ASTM D5185m >20 0 2 0 Water % ASTM D5185m >20 0 0 0 0 Particles >4µm ASTM D6304 >500 56 658 69.7 <t< td=""><td>Molybdenum</td><td>ppm</td><td>ASTM D5185m</td><td></td><td><1</td><td>0</td><td>0</td></t<>	Molybdenum	ppm	ASTM D5185m		<1	0	0
Calcium ppm ASTM D5185m 2 0 0 <1 Phosphorus ppm ASTM D5185m 0 29 0 Zinc ppm ASTM D5185m 0 0 0 Sulfur ppm ASTM D5185m 16945 17448 12744 CONTAMINANTS method limit/base current history1 history3 Silicon ppm ASTM D5185m >25 0 0 0 Sodium ppm ASTM D5185m >20 0 2 0 Potassium ppm ASTM D5185m >20 0 2 0 Water % ASTM D6304 >0.05 0.005 0.066 0.006 ppm Water ppm ASTM D6304 >500 56 658 69.7 FLUID CLEANLINESS method limit/base current history1 history3 Particles >4µm ASTM D7647 >80 470 3145	Manganese	ppm	ASTM D5185m		<1	0	<1
Phosphorus ppm ASTM D5185m 0 29 0 Zinc ppm ASTM D5185m 0 0 0 Sulfur ppm ASTM D5185m 16945 17448 12744 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 0 0 0 Sodium ppm ASTM D5185m >25 0 0 0 Sodium ppm ASTM D5185m >20 0 2 0 Potassium ppm ASTM D5185m >20 0 2 0 Water % ASTM D5185m >20 0 2 0 Water % ASTM D5185m >20 0 2 0 Water % ASTM D5185m >20 0 0 0 Water % ASTM D5185m >20 0 0 0 0 <th< td=""><td>Magnesium</td><td>ppm</td><td>ASTM D5185m</td><td>90</td><td>0</td><td>2</td><td>0</td></th<>	Magnesium	ppm	ASTM D5185m	90	0	2	0
Zinc ppm ASTM D5185m 0 0 0 Sulfur ppm ASTM D5185m 16945 17448 12744 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 0 0 0 Sodium ppm ASTM D5185m >20 0 2 0 Potassium ppm ASTM D5185m >20 0 2 0 Water % ASTM D6304 >0.05 0.005 0.066 0.006 0.006 ppm Water ppm ASTM D6304 >500 56 658 69.7 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >300 470 3145 Particles >21µm ASTM D7647 >80 44 75 Particles >38µm ASTM D7647 >20 15	Calcium	ppm	ASTM D5185m	2	0	0	<1
Sulfur ppm ASTM D5185m 16945 17448 12744 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 0 0 0 Sodium ppm ASTM D5185m >20 0 2 0 Potassium ppm ASTM D5185m >20 0 2 0 Water % ASTM D6304 >0.05 0.005 0.006 0.006 0.006 Particles >4µm ASTM D7647 470 3145 470 3145 Particles >21µm ASTM D7647 >80 <td< td=""><td>Phosphorus</td><td>ppm</td><td>ASTM D5185m</td><td></td><td>0</td><td>29</td><td>0</td></td<>	Phosphorus	ppm	ASTM D5185m		0	29	0
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 0 0 0 Sodium ppm ASTM D5185m <1	Zinc	ppm	ASTM D5185m		0	0	0
Silicon ppm ASTM D5185m >25 0 0 0 Sodium ppm ASTM D5185m <1 0 <1 Potassium ppm ASTM D5185m >20 0 2 0 Water % ASTM D6304 >0.05 0.005 ▲ 0.066 0.006 ppm Water ppm ASTM D6304 >500 56 ▲ 658 69.7 FLUID CLEANLINESS method limit/base current history1 history1 Particles >4μm ASTM D7647 >1300 470 3145 Particles >6μm ASTM D7647 >1300 256 883 Particles >14μm ASTM D7647 >80 44 75 Particles >21μm ASTM D7647 >20 15 25 Particles >71μm ASTM D7647 >3 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 16/15/13 19/17/13 <td>Sulfur</td> <td>ppm</td> <td>ASTM D5185m</td> <td></td> <td>16945</td> <td>17448</td> <td>12744</td>	Sulfur	ppm	ASTM D5185m		16945	17448	12744
Sodium ppm ASTM D5185m <1 0 <1 Potassium ppm ASTM D5185m >20 0 2 0 Water % ASTM D6304 >0.05 0.005 0.006 0.006 ppm Water ppm ASTM D6304 >500 56 658 69.7 FLUID CLEANLINESS method limit/base current history1 history1 Particles >4μm ASTM D7647 470 3145 Particles >6μm ASTM D7647 >1300 256 883 Particles >14μm ASTM D7647 >80 44 75 Particles >21μm ASTM D7647 >20 15 25 Particles >38μm ASTM D7647 >3 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 history1 history2	CONTAMINANTS	3	method	limit/base	current	history1	history2
Sodium ppm ASTM D5185m <1 0 <1 Potassium ppm ASTM D5185m >20 0 2 0 Water % ASTM D6304 >0.05 0.005 0.006 0.006 ppm Water ppm ASTM D6304 >500 56 658 69.7 FLUID CLEANLINESS method limit/base current history1 history1 Particles >4μm ASTM D7647 470 3145 Particles >6μm ASTM D7647 >1300 256 883 Particles >14μm ASTM D7647 >80 44 75 Particles >21μm ASTM D7647 >20 15 25 Particles >71μm ASTM D7647 >3 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 history1 history2	Silicon	ppm	ASTM D5185m	>25	0	0	0
Water % ASTM D6304 >0.05 0.005 △ 0.066 0.006 ppm Water ppm ASTM D6304 >500 56 △ 658 69.7 FLUID CLEANLINESS method limit/base current history1 history1 Particles >4μm ASTM D7647 470 3145 Particles >6μm ASTM D7647 >1300 256 883 Particles >14μm ASTM D7647 >80 44 75 Particles >21μm ASTM D7647 >20 15 25 Particles >38μm ASTM D7647 >4 2 2 Particles >71μm ASTM D7647 >3 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 16/15/13 19/17/13 FLUID DEGRADATION method limit/base current history1 history2	Sodium	ppm	ASTM D5185m		<1	0	<1
Water % ASTM D6304 >0.05 0.005 ▲ 0.066 0.006 ppm Water ppm ASTM D6304 >500 56 ▲ 658 69.7 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 470 3145 Particles >6μm ASTM D7647 >1300 256 883 Particles >14μm ASTM D7647 >80 44 75 Particles >21μm ASTM D7647 >20 15 25 Particles >38μm ASTM D7647 >4 2 2 Particles >71μm ASTM D7647 >3 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 history1 history2	Potassium	ppm	ASTM D5185m	>20	0	2	0
ppm Water ppm ASTM D6304 >500 56 ▲ 658 69.7 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 470 3145 Particles >6μm ASTM D7647 >1300 256 883 Particles >14μm ASTM D7647 >80 44 75 Particles >21μm ASTM D7647 >20 15 25 Particles >38μm ASTM D7647 >4 2 2 Particles >71μm ASTM D7647 >3 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 16/15/13 19/17/13 FLUID DEGRADATION method limit/base current history1 history2	Water		ASTM D6304	>0.05	0.005	△ 0.066	0.006
Particles >4μm ASTM D7647 470 3145 Particles >6μm ASTM D7647 >1300 256 883 Particles >14μm ASTM D7647 >80 44 75 Particles >21μm ASTM D7647 >20 15 25 Particles >38μm ASTM D7647 >4 2 2 Particles >71μm ASTM D7647 >3 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 16/15/13 19/17/13 FLUID DEGRADATION method limit/base current history1 history2	ppm Water						
Particles >6μm ASTM D7647 >1300 256 883 Particles >14μm ASTM D7647 >80 44 75 Particles >21μm ASTM D7647 >20 15 25 Particles >38μm ASTM D7647 >4 2 2 Particles >71μm ASTM D7647 >3 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 16/15/13 19/17/13 FLUID DEGRADATION method limit/base current history1 history2	FLUID CLEANLIN	NESS	method	limit/base	current	history1	history2
Particles >14μm ASTM D7647 >80 44 75 Particles >21μm ASTM D7647 >20 15 25 Particles >38μm ASTM D7647 >4 2 2 Particles >71μm ASTM D7647 >3 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 16/15/13 19/17/13 FLUID DEGRADATION method limit/base current history1 history2	Particles >4µm		ASTM D7647			470	3145
Particles >21μm ASTM D7647 >20 15 25 Particles >38μm ASTM D7647 >4 2 2 Particles >71μm ASTM D7647 >3 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 16/15/13 19/17/13 FLUID DEGRADATION method limit/base current history1 history2	Particles >6μm		ASTM D7647	>1300		256	883
Particles >38μm ASTM D7647 >4 2 2 Particles >71μm ASTM D7647 >3 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 16/15/13 19/17/13 FLUID DEGRADATION method limit/base current history1 history1	Particles >14μm		ASTM D7647	>80		44	75
Particles >38μm ASTM D7647 >4 2 2 Particles >71μm ASTM D7647 >3 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 16/15/13 19/17/13 FLUID DEGRADATION method limit/base current history1 history1	Particles >21µm		ASTM D7647	>20		15	25
Particles >71µm ASTM D7647 >3 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 16/15/13 19/17/13 FLUID DEGRADATION method limit/base current history1 history2	·		ASTM D7647	>4		2	2
Oil Cleanliness ISO 4406 (c) >/17/13 16/15/13 19/17/13 FLUID DEGRADATION method limit/base current history1 history1	•			>3		0	0
·						16/15/13	19/17/13
Acid Number (AN) mg KOH/g ASTM D8045 0.4 0.34 0.29 0.36	FLUID DEGRADA	ATION	method	limit/base	current	history1	history2
	Acid Number (AN)	mg KOH/g	ASTM D8045	0.4	0.34	0.29	0.36

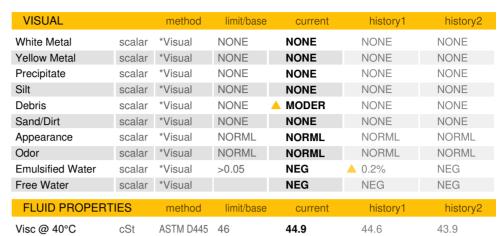


OIL ANALYSIS REPORT









SAMPLE	IMAGES

method limit/base current

history1

history2

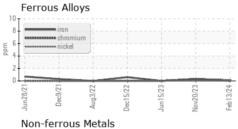
Color

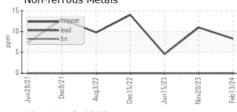
Bottom

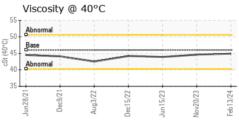


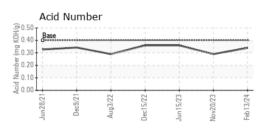
















Laboratory Sample No. Lab Number Unique Number: 10939095

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : KCP27172

: 06124944

Received : 21 Mar 2024 **Tested** Diagnosed

: 24 Mar 2024

: 24 Mar 2024 - Don Baldridge

GRAY COURT, SC

Contact: Service Manager

FIBERTEX NONWOVENS

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)

F:

T: