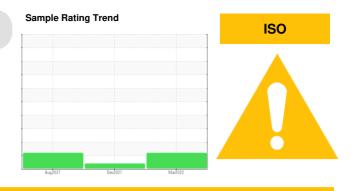


PROBLEM SUMMARY

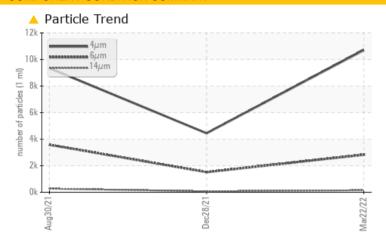
[147936] **KAESER 7421010**

Compressor

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



COMPONENT CONDITION SUMMARY



RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS							
Sample Status			ABNORMAL	ATTENTION	ABNORMAL		
Particles >6µm	ASTM D7647	>1300	2831	<u>▲</u> 1517	<u>▲</u> 3581		
Particles >14µm	ASTM D7647	>80	150	70	<u>^</u> 271		
Particles >21µm	ASTM D7647	>20	4 35	12	<u>42</u>		
Oil Cleanliness	ISO 4406 (c)	>/17/13	19/14	▲ 18/13	▲ 19/15		

Customer Id: AMABON Sample No.: KC94833 Lab Number: 05511899 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:

Don Baldridge +1 don.b505@comcast.net

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.

HISTORICAL DIAGNOSIS

28 Dec 2021 Diag: Don Baldridge



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 silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



30 Aug 2021 Diag: Angela Borella

ISO



We recommend you service the filters on this component. 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.



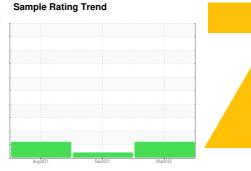


OIL ANALYSIS REPORT

[147936] **KAESER 7421010**

Compressor

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





DIAGNOSIS

Recommendation

We recommend you service the filters on this component. 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.

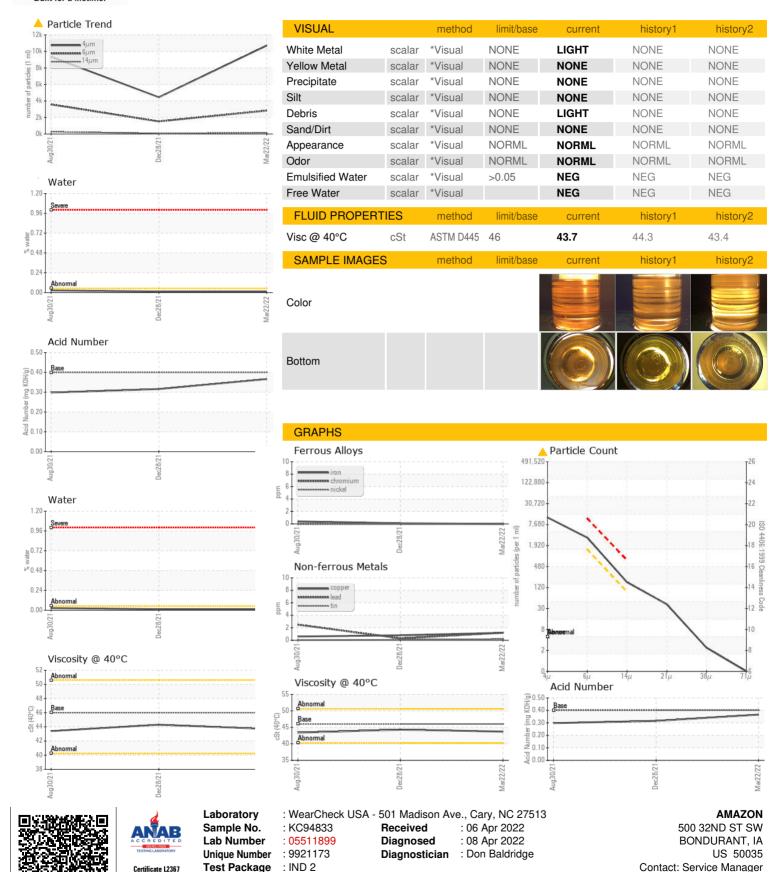
Fluid Condition

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

Sample Number Client Info KC94833 KC96400 KC82525 Sample Date Client Info 22 Mar 2022 28 Dec 2021 30 Aug 2021 30 Aug 2022 30 Aug 20			Au	g2021	Dec2021 Mar2	022	
Sample Date Client Info 22 Mar 2022 28 Dec 2021 30 Aug 202	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info	Sample Number		Client Info		KC94833	KC96400	KC82525
Dil Age	Sample Date		Client Info		22 Mar 2022	28 Dec 2021	30 Aug 2021
Oil Changed Sample Status	Machine Age	hrs	Client Info		6486	4473	3044
MEAR METALS	Oil Age	hrs	Client Info		2013	2308	879
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >50 0 <1	Oil Changed		Client Info		Not Changd	Changed	Not Changd
Iron	Sample Status				ABNORMAL	ATTENTION	ABNORMAL
Chromium ppm ASTM D5185m >10 0 0 0 Nickel ppm ASTM D5185m >3 0 0 0 Titanium ppm ASTM D5185m >3 0 0 0 Silver ppm ASTM D5185m >2 <1 <1 0 Aluminum ppm ASTM D5185m >10 <1 <1 <1 <1 Lead ppm ASTM D5185m >10 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <td>WEAR METALS</td> <td></td> <td>method</td> <td>limit/base</td> <th>current</th> <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	<1
Titanium	Chromium	ppm	ASTM D5185m	>10	0	0	0
Silver	Nickel	ppm	ASTM D5185m	>3	0	0	0
Aluminum ppm ASTM D5185m >10 <1 <1 <1 <1 <1 Copper ppm ASTM D5185m >10 1 <1 <1 2 Copper ppm ASTM D5185m >50 1 <1 <1 <1 <1 Copper ppm ASTM D5185m >50 1 <1 <1 <1 Copper ppm ASTM D5185m >50 1 <1 <1 Copper ppm ASTM D5185m >50 1 <1 <1 Copper ppm ASTM D5185m >10 <1 <1 Copper ppm ASTM D5185m >10 <1 <1 Copper ppm ASTM D5185m	Titanium	ppm	ASTM D5185m	>3	0	0	0
Lead ppm ASTM D5185m >10 1 <1 2 Copper ppm ASTM D5185m >50 1 <1 <1 Tin ppm ASTM D5185m >50 1 <1 <1 Antimony ppm ASTM D5185m 0 0 Vanadium ppm ASTM D5185m 0 0 0 Caddmium ppm ASTM D5185m 0 0 0 Boron ppm ASTM D5185m 90 68 19 48 Molybdenum ppm ASTM D5185m 90 68 19 48 Molybdenum ppm ASTM D5185m 0 0 0 1 Manganese ppm ASTM D5185m 90 94 79 82 Calcium ppm ASTM D5185m 2 3 2 2 Phosphorus ppm ASTM D5185m 2 3 2 2 Silicon </td <td>Silver</td> <td>ppm</td> <td>ASTM D5185m</td> <td>>2</td> <th><1</th> <td><1</td> <td>0</td>	Silver	ppm	ASTM D5185m	>2	<1	<1	0
Copper ppm ASTM D5185m >50 1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <0 ASTM D5185m >>10 <1 <1 0 O <	Aluminum	ppm	ASTM D5185m	>10	<1	<1	<1
Tin	Lead	ppm	ASTM D5185m	>10	1	<1	2
Antimony	Copper	ppm	ASTM D5185m	>50	1	<1	<1
Vanadium ppm ASTM D5185m 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 68 19 48 Barium ppm ASTM D5185m 90 68 19 48 Molybdenum ppm ASTM D5185m 0 0 0 1 Manganese ppm ASTM D5185m 0 0 0 0 Magnesium ppm ASTM D5185m 90 94 79 82 Calcium ppm ASTM D5185m 2 3 2 2 Phosphorus ppm ASTM D5185m 2 3 2 2 Zinc ppm ASTM D5185m 0 0 <1 1 CONTAMINANTS method limit/base current history1 history2	Tin	ppm	ASTM D5185m	>10	<1	<1	0
Vanadium ppm ASTM D5185m 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m <1 22 22 22 Barium ppm ASTM D5185m 90 68 19 48 Molybdenum ppm ASTM D5185m 90 68 19 48 Manganese ppm ASTM D5185m 0 0 0 1 Manganesium ppm ASTM D5185m 90 94 79 82 Calcium ppm ASTM D5185m 2 3 2 2 2 Phosphorus ppm ASTM D5185m 2 3 2 2 2 Zinc ppm ASTM D5185m 0 0 0 <1 1 CONTAMINANTS method limit/base current	Antimony	ppm	ASTM D5185m			0	0
ADDITIVES	Vanadium	ppm	ASTM D5185m		0	0	0
Boron ppm ASTM D5185m	Cadmium	ppm	ASTM D5185m		0	0	0
Barium ppm ASTM D5185m 90 68 19 48 Molybdenum ppm ASTM D5185m 0 0 0 1 Manganese ppm ASTM D5185m 90 94 79 82 Calcium ppm ASTM D5185m 2 3 2 2 Phosphorus ppm ASTM D5185m 2 3 2 2 Phosphorus ppm ASTM D5185m 0 0 0 < 1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 3 <1 2 Sodium ppm ASTM D5185m 16 11 8 Potassium ppm ASTM D5185m >20 4 6 2 Water 96 ASTM D6304 >0.05 0.013 0.013 0.026 ppm Water ppm ASTM D6304 >500 130.4 139.7 266.0 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 10706 4446 9347 Particles >6μm ASTM D7647 >1300 2831 1517 3581 Particles >12 2 2 2 2 Particles >21 3 2 2 2 Particles >3 3 2 2 2 2 Particles >3 4 4 6 2 Particles >21 3 2 2 2 Particles >3 4 5 2 2 3 Particles >20 4 6 2 Particles >4μm ASTM D6304 >500 130.4 139.7 266.0 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 >10706 4446 9347 Particles >6μm ASTM D7647 >10706 4446 9347 Particles >21 μm ASTM D7647 >20 35 12 42 Particles >38μm ASTM D7647 >4 2 0 2 Particles >71 μm ASTM D7647 >3 0 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 19/14 18/13 19/15 FLUID DEGRADATION method limit/base current history1 history2	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 0 0 1 Manganese ppm ASTM D5185m 0 0 0 Magnesium ppm ASTM D5185m 90 94 79 82 Calcium ppm ASTM D5185m 2 3 2 2 Phosphorus ppm ASTM D5185m 2 <1 0 Zinc ppm ASTM D5185m 2 <1 0 Zinc ppm ASTM D5185m 2 <1 0 Zinc ppm ASTM D5185m 2 <1 0 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 3 <1 2 Sodium ppm ASTM D5185m >20 4 6 2 Water % ASTM D5185m >20 4 6 2 Water % ASTM D6304 >0.05<	Boron	ppm	ASTM D5185m		<1	22	22
Manganese ppm ASTM D5185m 0 0 0 Magnesium ppm ASTM D5185m 90 94 79 82 Calcium ppm ASTM D5185m 2 3 2 2 Phosphorus ppm ASTM D5185m 2 <1	Barium	ppm	ASTM D5185m	90	68	19	48
Magnesium ppm ASTM D5185m 90 94 79 82 Calcium ppm ASTM D5185m 2 3 2 2 Phosphorus ppm ASTM D5185m 2 <1 0 Zinc ppm ASTM D5185m 0 0 <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 3 <1	Molybdenum	ppm	ASTM D5185m		0	0	1
Calcium ppm ASTM D5185m 2 3 2 2 Phosphorus ppm ASTM D5185m 2 <1 0 Zinc ppm ASTM D5185m 2 <1 0 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 3 <1 2 Sodium ppm ASTM D5185m >25 3 <1 2 Sodium ppm ASTM D5185m >20 4 6 2 Water ppm ASTM D5185m >20 4 6 2 Water % ASTM D6304 >0.05 0.013 0.013 0.026 <t< td=""><td>Manganese</td><td>ppm</td><td>ASTM D5185m</td><td></td><th>0</th><td>0</td><td>0</td></t<>	Manganese	ppm	ASTM D5185m		0	0	0
Phosphorus ppm ASTM D5185m 2 <1 0 Zinc ppm ASTM D5185m 0 0 <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 3 <1 2 Sodium ppm ASTM D5185m >20 4 6 2 Water ppm ASTM D5185m >20 4 6 2 Water % ASTM D6304 >0.05 0.013 0.013 0.026 ppm Water ppm ASTM D6304 >500 130.4 139.7 266.0 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 >1006 4446 9347 Particles >6μm ASTM D7647 >80 150 70 271 Particles >21μm ASTM D7647 >20 35 12 42 Partic	Magnesium	ppm	ASTM D5185m	90	94	79	82
Zinc ppm ASTM D5185m 0 0 <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 3 <1	Calcium	ppm	ASTM D5185m	2	3	2	2
Zinc ppm ASTM D5185m 0 0 <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 3 <1	Phosphorus	ppm	ASTM D5185m		2	<1	0
Silicon ppm ASTM D5185m >25 3 <1 2 Sodium ppm ASTM D5185m 16 11 8 Potassium ppm ASTM D5185m >20 4 6 2 Water % ASTM D6304 >0.05 0.013 0.013 0.026 ppm Water ppm ASTM D6304 >500 130.4 139.7 266.0 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 >1300 2831 ▲ 1517 ▲ 3581 Particles >14μm ASTM D7647 >80 ▲ 150 70 ▲ 271 Particles >21μm ASTM D7647 >20 ▲ 35 12 ▲ 42 Particles >38μm ASTM D7647 >3 0 0 0 Particles >71μm ASTM D7647 >3 0 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 19/14 18/13	Zinc	ppm	ASTM D5185m		0	0	<1
Sodium ppm ASTM D5185m 16 11 8 Potassium ppm ASTM D5185m >20 4 6 2 Water % ASTM D6304 >0.05 0.013 0.013 0.026 ppm Water ppm ASTM D6304 >500 130.4 139.7 266.0 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 10706 4446 9347 Particles >6μm ASTM D7647 >1300 2831 1517 △3581 Particles >14μm ASTM D7647 >80 △150 70 △271 Particles >21μm ASTM D7647 >20 △35 12 △42 Particles >71μm ASTM D7647 >3 0 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 19/14 ▲ 18/13 ▲ 19/15 FLUID DEGRADATION method limit/base current history1	CONTAMINANTS	3	method	limit/base	current	history1	history2
Sodium ppm ASTM D5185m 16	Silicon	ppm	ASTM D5185m	>25	3	<1	2
Water % ASTM D6304 >0.05 0.013 0.013 0.026 ppm Water ppm ASTM D6304 >500 130.4 139.7 266.0 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 10706 4446 9347 Particles >6μm ASTM D7647 >1300 2831 ▲ 1517 ▲ 3581 Particles >14μm ASTM D7647 >80 ▲ 150 70 ▲ 271 Particles >21μm ASTM D7647 >20 ▲ 35 12 ▲ 42 Particles >38μm ASTM D7647 >3 0 0 0 Particles >71μm ASTM D7647 >3 0 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 19/14 № 18/13 № 19/15 FLUID DEGRADATION method limit/base current history1 history2	Sodium		ASTM D5185m		16	11	8
Water % ASTM D6304 >0.05 0.013 0.013 0.026 ppm Water ppm ASTM D6304 >500 130.4 139.7 266.0 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 10706 4446 9347 Particles >6μm ASTM D7647 >1300 2831 1517 3581 Particles >14μm ASTM D7647 >80 150 70 271 Particles >21μm ASTM D7647 >20 35 12 42 Particles >38μm ASTM D7647 >4 2 0 2 Particles >71μm ASTM D7647 >3 0 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 19/14 18/13 19/15 FLUID DEGRADATION method limit/base current history1 history2	Potassium	ppm	ASTM D5185m	>20	4	6	2
FLUID CLEANLINESS method limit/base current history1 history2 Particles >4μm ASTM D7647 10706 4446 9347 Particles >6μm ASTM D7647 >1300 2831 1517 3581 Particles >14μm ASTM D7647 >80 150 70 271 Particles >21μm ASTM D7647 >20 35 12 42 Particles >38μm ASTM D7647 >4 2 0 2 Particles >71μm ASTM D7647 >3 0 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 19/14 18/13 19/15 FLUID DEGRADATION method limit/base current history1 history2	Water		ASTM D6304	>0.05	0.013	0.013	0.026
Particles >4μm ASTM D7647 10706 4446 9347 Particles >6μm ASTM D7647 >1300 2831 ▲ 1517 ▲ 3581 Particles >14μm ASTM D7647 >80 ▲ 150 70 ▲ 271 Particles >21μm ASTM D7647 >20 ▲ 35 12 ▲ 42 Particles >38μm ASTM D7647 >4 2 0 2 Particles >71μm ASTM D7647 >3 0 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 ▲ 19/14 ▲ 18/13 ▲ 19/15 FLUID DEGRADATION method limit/base current history1 history2	ppm Water	ppm	ASTM D6304	>500	130.4	139.7	266.0
Particles >6μm ASTM D7647 >1300 2831 1517 3581 Particles >14μm ASTM D7647 >80 150 70 271 Particles >21μm ASTM D7647 >20 35 12 42 Particles >38μm ASTM D7647 >4 2 0 2 Particles >71μm ASTM D7647 >3 0 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 19/14 18/13 19/15 FLUID DEGRADATION method limit/base current history1 history2	FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >14μm ASTM D7647 >80 ▲ 150 70 ▲ 271 Particles >21μm ASTM D7647 >20 ▲ 35 12 ▲ 42 Particles >38μm ASTM D7647 >4 2 0 2 Particles >71μm ASTM D7647 >3 0 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 ▲ 19/14 ▲ 18/13 ▲ 19/15 FLUID DEGRADATION method limit/base current history1 history2	Particles >4µm		ASTM D7647		10706	4446	9347
Particles >21μm ASTM D7647 >20 ▲ 35 12 ▲ 42 Particles >38μm ASTM D7647 >4 2 0 2 Particles >71μm ASTM D7647 >3 0 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 ▲ 19/14 ▲ 18/13 ▲ 19/15 FLUID DEGRADATION method limit/base current history1 history2	Particles >6μm		ASTM D7647	>1300	<u>^</u> 2831	<u>▲</u> 1517	△ 3581
Particles >38μm ASTM D7647 >4 2 0 2 Particles >71μm ASTM D7647 >3 0 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 19/14 18/13 19/15 FLUID DEGRADATION method limit/base current history1 history2	Particles >14μm		ASTM D7647	>80	150	70	△ 271
Particles >71μm ASTM D7647 >3 0 0 0 Oil Cleanliness ISO 4406 (c) >/17/13 ▲ 19/14 ▲ 18/13 ▲ 19/15 FLUID DEGRADATION method limit/base current history1 history2	Particles >21µm		ASTM D7647	>20	4 35	12	<u>42</u>
Oil Cleanliness ISO 4406 (c) >/17/13 ▲ 19/14 ▲ 18/13 ▲ 19/15 FLUID DEGRADATION method limit/base current history1 history2	Particles >38µm		ASTM D7647	>4	2	0	2
Oil Cleanliness ISO 4406 (c) >/17/13 ▲ 19/14 ▲ 18/13 ▲ 19/15 FLUID DEGRADATION method limit/base current history1 history2	Particles >71µm		ASTM D7647	>3	0	0	0
	Oil Cleanliness		ISO 4406 (c)	>/17/13	19/14	▲ 18/13	▲ 19/15
Acid Number (AN) mg KOH/g ASTM D8045 0.4 0.366 0.316 0.298	FLUID DEGRADA	ATION	method	limit/base	current	history1	history2
	Acid Number (AN)	mg KOH/g	ASTM D8045	0.4	0.366	0.316	0.298



OIL ANALYSIS REPORT



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: