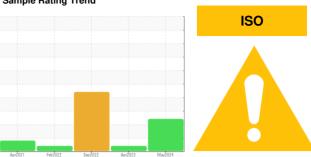


OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

KAESER 7570020 (S/N 1570)

Component Compressor

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

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. 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.

		Apr2021	Feb2022	Sen 2022 Apr 2023	May2024	
		.,			,	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		KCPA018325	KC111597	KC104332
Sample Date		Client Info		21 May 2024	03 Apr 2023	19 Sep 2022
Machine Age	hrs	Client Info		8891	6918	5289
Oil Age	hrs	Client Info		0	3000	1000
Oil Changed	1110	Client Info		Changed	Changed	Not Changd
Sample Status		Oliciti IIIIo		ABNORMAL	ABNORMAL	ABNORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	<1	0	<1
Chromium	ppm	ASTM D5185m	>10	<1	0	0
Nickel	ppm	ASTM D5185m	>3	0	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>10	1	<1	0
Lead	ppm	ASTM D5185m	>10	- <1	0	<1
Copper	ppm	ASTM D5185m	>50	11	6	5
Tin		ASTM D5185m	>10	<1	0	0
Antimony	ppm	ASTM D5185m	>10	< I		
Vanadium	ppm	ASTM D5185m		0	0	0
	ppm			-		
Cadmium	ppm	ASTM D5185m		<1	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m	90	0	0	3
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		0	<1	0
Magnesium	ppm	ASTM D5185m	90	19	18	31
Magnoolam	PPIII		00	. •	10	01
Calcium	ppm	ASTM D5185m		0	0	<1
-						
Calcium	ppm	ASTM D5185m		0	0	<1
Calcium Phosphorus	ppm ppm	ASTM D5185m ASTM D5185m		0 2	0	<1 7
Calcium Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		0 2 11	0 3 0	<1 7
Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 limit/base	0 2 11 22985	0 3 0 21893	<1 7 1 18862
Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	2 limit/base	0 2 11 22985 current	0 3 0 21893 history1	<1 7 1 18862 history2
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	2 limit/base	0 2 11 22985 current 0	0 3 0 21893 history1	<1 7 1 18862 history2
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	limit/base >25	0 2 11 22985 current 0 5	0 3 0 21893 history1 0 7	<1 7 1 18862 history2 <1 4
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >25 >20	0 2 11 22985 current 0 5	0 3 0 21893 history1 0 7	<1 7 1 18862 history2 <1 4 3
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304	limit/base >25 >20 >0.05	0 2 11 22985 current 0 5 2 0.015	0 3 0 21893 history1 0 7 1 0.015	<1 7 1 18862 history2 <1 4 3 • 0.320
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304	limit/base >25 >20 >0.05 >500	0 2 11 22985 current 0 5 2 0.015 152	0 3 0 21893 history1 0 7 1 0.015 152.5	<1 7 1 18862 history2 <1 4 3 0.320 3200
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 method	limit/base >25 >20 >0.05 >500	0 2 11 22985	0 3 0 21893 history1 0 7 1 0.015 152.5 history1	<1 7 1 18862 history2 <1 4 3 ▲ 0.320 ▲ 3200 history2
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D6304 ASTM D6304	limit/base >25 >20 >0.05 >500 limit/base	0 2 11 22985 current 0 5 2 0.015 152 current 79200	0 3 0 21893 history1 0 7 1 0.015 152.5 history1	<1 7 1 18862 history2 <1 4 3 0.320 3200 history2
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 method ASTM D7647 ASTM D7647	limit/base >25 >20 >0.05 >500 limit/base >1300	0 2 11 22985 current 0 5 2 0.015 152 current 79200 ▲ 46596	0 3 0 21893 history1 0 7 1 0.015 152.5 history1	<1 7 1 18862 history2 <1 4 3 0.320 3200 history2
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647	2 limit/base >25 >20 >0.05 >500 limit/base >1300 >80	0 2 11 22985 current 0 5 2 0.015 152 current 79200 ▲ 46596 ▲ 6969	0 3 0 21893 history1 0 7 1 0.015 152.5 history1	<1 7 1 18862 history2 <1 4 3 0.320 3200 history2
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647	2 limit/base >25 >20 >0.05 >500 limit/base >1300 >80 >20	0 2 11 22985 current 0 5 2 0.015 152 current 79200 △ 46596 △ 6969 △ 1863	0 3 0 21893 history1 0 7 1 0.015 152.5 history1	<1 7 1 18862 history2 <1 4 3 ▲ 0.320 ▲ 3200 history2
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 Method ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	2 limit/base >25 >20 >0.05 >500 limit/base >1300 >80 >20 >4	0 2 11 22985 current 0 5 2 0.015 152 current 79200 △ 46596 △ 6969 △ 1863 △ 59	0 3 0 21893 history1 0 7 1 0.015 152.5 history1	<1 7 1 18862 history2 <1 4 3 ▲ 0.320 A 3200 history2



OIL ANALYSIS REPORT







Certificate 12367

Laboratory

Sample No. Lab Number

: KCPA018325 : 06198189 Unique Number : 11060312

Received Test Package : IND 2 (Additional Tests: KF, PrtCount)

: 03 Jun 2024 **Tested** Diagnosed

: 05 Jun 2024 : 05 Jun 2024 - Don Baldridge

US 66049 Contact: DAVID BULLER david.buller@sunflower.com T:

 st - 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)

To discuss this sample report, contact Customer Service at 1-800-237-1369.

F:

3401 W 6TH ST

LAWRENCE, KS