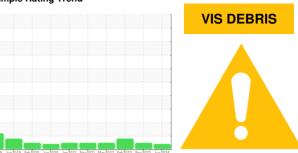


OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

KAESER BSD 50T 6346050 (S/N 1453)

Component Compressor

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

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.

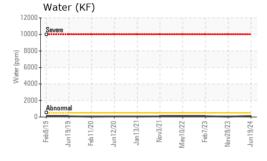
Fluid Condition

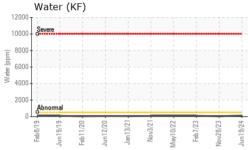
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

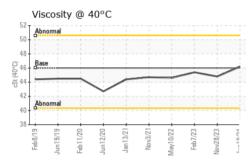
	- Feb. 2019 - June 2019 - Feb. 2020 - June 2021 - Nave 2021 - May 2022 - Feb. 2023 - Nave 2023 - June 2024					
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		KCPA018585	KCPA011191	KCP55642
Sample Date		Client Info		19 Jun 2024	28 Nov 2023	07 Feb 2023
Machine Age	hrs	Client Info		41160	37302	32598
Oil Age	hrs	Client Info		3800	0	7067
Oil Changed		Client Info		Not Changd	N/A	Changed
Sample Status	ample Status		ABNORM		NORMAL	ATTENTION
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	0	0	0
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m	>3	<1	0	0
Titanium	ppm	ASTM D5185m	>3	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>10	<1	0	0
Lead	ppm	ASTM D5185m	>10	0	0	0
Copper	ppm	ASTM D5185m	>50	13	9	9
Tin	ppm	ASTM D5185m	>10	0	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m	90	0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	10 10 100	ASTM D5185m	90	0	0	0
Magnosiani	ppm	ASTIVI DOTOSITI	00	U	U	U
Calcium	ppm	ASTM D5185m	2	0	0	0
Calcium	ppm	ASTM D5185m		0	0	0
Calcium Phosphorus	ppm ppm	ASTM D5185m ASTM D5185m		0 <1	0	0 7
Calcium Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		0 <1 0	0 0 0	0 7 0
Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 limit/base	0 <1 0 20147	0 0 0 0 17271	0 7 0 18062
Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	2 limit/base	0 <1 0 20147 current	0 0 0 17271 history1	0 7 0 18062 history2
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	limit/base >25	0 <1 0 20147 current <1	0 0 0 17271 history1	0 7 0 18062 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 >20	0 <1 0 20147 current <1 3	0 0 0 17271 history1 0 <1	0 7 0 18062 history2 <1 0
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	2 limit/base >25 >20 >0.05	0 <1 0 20147 current <1 3 2	0 0 0 17271 history1 0 <1	0 7 0 18062 history2 <1 0
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	2 limit/base >25 >20 >0.05	0 <1 0 20147 current <1 3 2 0.013	0 0 0 17271 history1 0 <1 0	0 7 0 18062 history2 <1 0 0
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 <1 0 20147 current <1 3 2 0.013 138	0 0 0 17271 history1 0 <1 0 0.004 41	0 7 0 18062 history2 <1 0 0 0.009 98.3
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 limit/base	0 <1 0 20147 current <1 3 2 0.013 138	0 0 0 17271 history1 0 <1 0 0.004 41 history1	0 7 0 18062 history2 <1 0 0 0.009 98.3 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 D7647	limit/base >25 >20 >0.05 >500 limit/base	0 <1 0 20147 current <1 3 2 0.013 138 current	0 0 0 17271 history1 0 <1 0 0.004 41 history1 786	0 7 0 18062 history2 <1 0 0 0.009 98.3 history2 7291
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 <1 0 20147 current <1 3 2 0.013 138 current	0 0 0 17271 history1 0 <1 0 0.004 41 history1 786 265	0 7 0 18062 history2 <1 0 0 0.009 98.3 history2 7291 1506
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 <1 0 20147 current <1 3 2 0.013 138 current	0 0 0 17271 history1 0 <1 0 0.004 41 history1 786 265 21	0 7 0 18062 history2 <1 0 0 0.009 98.3 history2 7291 1506 70
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 METHOD ASTM D7647 ASTM D7647 ASTM D7647	2 limit/base >25 >20 >0.05 >500 limit/base >1300 >80 >20	0 <1 0 20147 current <1 3 2 0.013 138 current	0 0 0 17271 history1 0 <1 0 0.004 41 history1 786 265 21	0 7 0 18062 history2 <1 0 0.009 98.3 history2 7291 1506 70 22
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 ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m 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 <1 0 20147 current <1 3 2 0.013 138 current	0 0 0 17271 history1 0 <1 0 0.004 41 history1 786 265 21 4	0 7 0 18062 history2 <1 0 0 0.009 98.3 history2 7291 1506 70 22 1
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm Particles >38µm Particles >71µm	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	2 limit/base >25 >20 >0.05 >500 limit/base >1300 >80 >20 >4 >3	0 <1 0 20147	0 0 0 17271 history1 0 <1 0 0.004 41 history1 786 265 21 4 0	0 7 0 18062 history2 <1 0 0.009 98.3 history2 7291 1506 70 22 1 0



OIL ANALYSIS REPORT







VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	▲ MODER	NONE	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	ΓIES	method	limit/base	current	historv1	history2

Visc @ 40°C	cSt	ASTM D445	46	46.2	44.8	45.4
SAMPLE IMAGES	S	method	limit/base	current	history1	history2

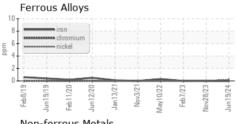
Color

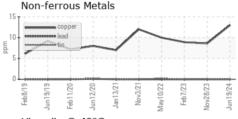


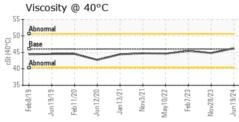


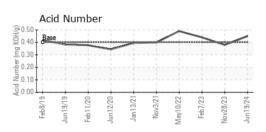


GRAPHS













Certificate 12367

Laboratory Sample No.

Lab Number : 06220367 Unique Number : 11098564

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : KCPA018585

Received **Tested** Diagnosed

: 25 Jun 2024 : 27 Jun 2024

: 27 Jun 2024 - Don Baldridge Test Package : IND 2 (Additional Tests: KF, PrtCount)

900 PETERSON DR ELIZABETHTOWN, KY US 42701 Contact: GARY CAMPBELL gary.campbell@fi-usa.com

FISCHBACH USA

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: