

OIL ANALYSIS REPORT

Sample Rating Trend

ISO

Machine Id 8437237 (S/N 1234) Component

Compressor Fluid KAESER SIGMA (OEM) M-460 (--- GAL)

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 moderate amount of silt (particulates < 14 microns in size) present in the oil.

Fluid Condition

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

			May2023	Feb2024		
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		KCPA015477	KCPA001603	
Sample Date		Client Info		14 Feb 2024	15 May 2023	
Machine Age	hrs	Client Info		13142	6679	
Oil Age	hrs	Client Info		6000	0	
Oil Changed		Client Info		Changed	N/A	
Sample Status				ATTENTION	ABNORMAL	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	0	0	
Chromium	ppm	ASTM D5185m	>10	0	0	
Nickel	ppm	ASTM D5185m	>3	0	<1	
Titanium	ppm	ASTM D5185m	>3	0	0	
Silver	ppm	ASTM D5185m	>2	0	0	
Aluminum	ppm	ASTM D5185m	>10	<1	<1	
Lead	ppm	ASTM D5185m	>10	0	0	
Copper	ppm	ASTM D5185m	>50	7	7	
Tin	ppm	ASTM D5185m	>10	، <1	<1	
Vanadium	ppm	ASTM D5185m		0	0	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	0	
Barium	ppm	ASTM D5185m	90	0	0	
Molybdenum	ppm	ASTM D5185m	0	0	0	
Manganese	ppm	ASTM D5185m	0	<1	<1	
Magnesium	ppm	ASTM D5185m	100	<1	9	
Calcium	ppm	ASTM D5185m	0	1	0	
Phosphorus		ASTM D5185m	0	6	4	
Zinc	ppm	ASTM D5185m		9	4	
Sulfur	ppm	ASTM D5185m	23500	9 17570	21460	
CONTAMINANTS	ppm					
Silicon		method ASTM D5185m	limit/base	current	history1 <1	history2
	ppm	ASTM D5185m	>20		2	
Sodium	ppm		. 20	<1		
Potassium	ppm	ASTM D5185m	>20	<1	2	
Water	%	ASTM D6304		0.005	0.012	
ppm Water	ppm	ASTM D6304	>500	56	120.0	
FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		5490	20378	
Particles >6µm		ASTM D7647	>1300	1643	<u> </u>	
Particles >14µm		ASTM D7647	>80	59	▲ 729	
Particles >21µm		ASTM D7647	>20	6	1 47	
Particles >38µm		ASTM D7647	>4	0	<u> </u>	
Particles >71µm		ASTM D7647	>3	0	0	
Oil Cleanliness		ISO 4406 (c)	>/17/13	20/18/13	▲ 22/20/17	
FLUID DEGRADA		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.43	0.34	
	39		-			



10000. 8000 Water (ppm) 6000 4000 2000 Abno 0 May15/23

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A Particle Trend	VISUAL		method	limit/base	current	history1	history2
4μm 20k - 6μm	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
15k	Precipitate	scalar	*Visual	NONE	NONE	NONE	
15k 10k 5k	Silt	scalar	*Visual	NONE	NONE	NONE	
	Debris	scalar	*Visual	NONE	NONE	LIGHT	
Ok	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
15/23	Appearance	scalar	*Visual	NORML	NORML	NORML	
Mayl	² Odor	scalar	*Visual	NORML	NORML	NORML	
Water (KF)	Emulsified Water	scalar	*Visual	>0.05	NEG	NEG	
⁰⁰⁰	Free Water	scalar	*Visual		NEG	NEG	
000 - Severe	FLUID PROPER	RTIES	method	limit/base	current	history1	history2
000 -	Visc @ 40°C	cSt	ASTM D445	45	48.5	44.4	
00 -	SAMPLE IMAG	ES	method	limit/base	current	history1	history2
000 0 0 E225 1 ju W	Color						no image
Acid Number	Bottom					\bigcirc	no image
	GRAPHS						
48	Ferrous Alloys				Particle Count		
24	10 iron			491,52	101		T ²⁶
00	seeses chromium			122,88	10 -		-24
May15/23				30,72			
W	2			30,72			-22
Water (KF)	0			7,68	10		-20
00 Severe	May15/23			Feb14/24 particles (per 1 ml) 26'1			18
	May			Feb les (pe			-18 -16 -14
00 -	Non-ferrous Met	als		opted 48	10		-16
00 -	10 copper			jo Jo 12	10-	\	-14
10	6 + Generation tin			nagen 12			-12
Abnormal				3	10 -		+12
240 S	2				8 Berevernal		-10
May15/23					2		
	r. May15/22			Feb14/24	2		
Viscosity @ 40°C		-		E.	0 4µ 6µ	14µ 21µ	38µ 71µ
Severe .	Viscosity @ 40°0				Acid Number		
Abnormal	55 - Severe			(B ^{1.2} HO 0.9	Basemal		
50 - Abnormal	S 50 - Abnormal			Ĕ0.7	2		
50 - 6	C 50			월 0.4	8		
Abnormal 40	40 - Severe			40.4 Vinnper V	4		1
Severe	35						4
5/23	May15/23			Feb14/24	May 15/23		Feb14/24
Mayl	Mi E-t+1			ı£	W		L ^D
Termination Unique Nu Termination Certificate L2367 Test Pack To discuss this sample re	No.: KCPA015477 hber: 06097710 mber: 10890563 kage: IND 2 (Additional Te port, contact Customer Sel	Recei Teste Diagr ests: KF, P rvice at 1-8	ived : 22 ed : 23 nosed : 25 PrtCount) 800-237-1368	2 Feb 2024 3 Feb 2024 Feb 2024 - Doi 9.	n Baldridge	ع LAU	VICE THREAD 504 N KING ST RINBURG, NC US 28352 ervice Manager T:
	that are outside of the ISO to specifications are based				rule (JCGM 106	5:201 <i>2</i>)	F

Contact/Location: Service Manager - SERLAU