

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id 6994180 (S/N 1091) Component

Compressor Fluid KAESER SIGMA (OEM) M-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.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Fluid Condition

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

			Mar2023	Jan2024		
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		KCPA009917	KCPA000060	
Sample Date		Client Info		08 Jan 2024	27 Mar 2023	
Machine Age	hrs	Client Info		11741	8368	
Oil Age	hrs	Client Info		0	0	
Oil Changed		Client Info		N/A	N/A	
Sample Status				NORMAL	ATTENTION	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	<1	<1	
Chromium	ppm	ASTM D5185m	>10	<1	0	
Nickel	ppm	ASTM D5185m	>3	0	0	
Titanium	ppm	ASTM D5185m	>3	<1	0	
Silver	ppm	ASTM D5185m	>2	0	0	
Aluminum	ppm	ASTM D5185m	>10	2	1	
Lead	ppm	ASTM D5185m	>10	<1	0	
Copper	ppm	ASTM D5185m	>50	7	7	
Tin	ppm	ASTM D5185m	>10	0	0	
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	11	2	
Molybdenum	ppm	ASTM D5185m	0	0	0	
Manganese	ppm	ASTM D5185m		0	<1	
Magnesium	ppm	ASTM D5185m	100	35	19	
Calcium	ppm	ASTM D5185m	0	<1	<1	
Phosphorus	ppm	ASTM D5185m	0	28	1	
Zinc	ppm	ASTM D5185m	0	18	43	
Sulfur	ppm	ASTM D5185m	23500	22163	22553	
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	6	3	
Sodium	ppm	ASTM D5185m		11	4	
Potassium	ppm	ASTM D5185m	>20	4	0	
Water	%	ASTM D6304	>0.05	0.015	0.011	
ppm Water	ppm	ASTM D6304		157	117.0	
FLUID CLEANLIN	ESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		937	9208	
Particles >6µm		ASTM D7647	>1300	296	2 434	
Particles >14µm		ASTM D7647	>80	68	1 51	
Particles >21µm		ASTM D7647	>20	34	▲ 32	
Particles >38µm		ASTM D7647	>4	2	1	
Particles >71µm		ASTM D7647	>3	0	0	
Oil Cleanliness		ISO 4406 (c)	>/17/13	17/15/13	▲ 20/18/14	
FLUID DEGRADA		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.39	0.42	

Contact/Location: Service Manager - CLEHAY



OIL ANALYSIS REPORT

12000 -	Water (KF)		VISUAL		method	limit/base	current	history1	history2
10000-	Severe		White Metal	scalar	*Visual	NONE	LIGHT	NONE	
- 8000			Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
+ 0009 Water (ppm)			Precipitate	scalar	*Visual	NONE	NONE	NONE	
[≇] ≥ 4000-			Silt	scalar	*Visual	NONE	NONE	NONE	
2000-			Debris	scalar	*Visual	NONE	NONE	NONE	
0	Abnormal		Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
	Mar27/23	Jan 8/24	Appearance	scalar	*Visual	NORML	NORML	NORML	
	N N N N N N N N N N N N N N N N N N N		Odor	scalar	*Visual	NORML	NORML	NORML	
	Particle Trend		Emulsified Water	scalar	*Visual	>0.05	NEG	NEG	
10k	4μm		Free Water	scalar	*Visual		NEG	NEG	
ि 8k - ₽			FLUID PROPER	TIES	method	limit/base	current	history1	history2
number of particles (1 ml) 84 - 44 - 44 - 44 - 54 - 54 - 54 - 54 -		 	Visc @ 40°C	cSt	ASTM D445	45	48.5	48.1	
jo Jaqu			SAMPLE IMAGE	S	method	limit/base	current	history1	history2
Ok	Matc27/23	Jan 8/24	Color						no image
12000 -	Water (KF) Severe		Bottom						no image
- 0009 (ppm)			GRAPHS						
≥ 4000			Ferrous Alloys				Particle Count		
2000-	Abnormal		10 [iron]			491,520	I		T ²⁶
01	Abnormal	5	chromium			122,880			-24
	Mar27/23					30,720			-22
			2-						TZZ
	Viscosity @ 40°C					7,680			-20 8
60	Servere		Mar27/23			Jan8/24 (per 1 ml)			-20 ISO 4406:1999 -16 Cleanliness -16 Cleanliness -14 cleanliness -12 de
55-	Severe					ee		N	1998
ç 50-	Abnormal		Non-ferrous Meta	s		otted 480			16 Cear
() 50 - () 50 - 15 45 -	Base		8 copper			jo aquinu		2	-14 8
40	Abnormal		E 6- tin						Code
	Severe					30			+12
35	/23 +	V Cr.	2				Berme mal		-10
	Mar27/23	-	0			4Z 2			
			Mar27/23			Jan8/24			
10k т	Particle Trend		≥ Viscosity @ 40°C			0	⁴ μ 6μ	14μ 21μ	38µ 71µ
〒 8k	4μm 6μm		60 T			-1.20	Acid Number		
1 L SS			55 - Severe			(BHO) 0.96	Basermal		
eloitteo			3 50 - Abnormal						
8k - 6k - 4k - 2k -			Abitoittia		*****	4 0.48			
dung 2k-	And and and an and and and and and and an		40 - Severe			- Berner			
Ok	1	and the state of t	35			0.00 × 124	/23		24
	Mar27/23	A.C. S and	Mar27/23			Jan 8/24	Mar27/23		Jan 8/24
	Certificate To disc. * - Deno	Sample No. Lab Number Unique Number	: 10836413 : IND 2 (Additional Tes contact Customer Serv are outside of the ISO 1	Recei Teste Diagr sts: KF, P ice at 1-8 7025 sco	ived : 18 id : 07 nosed : 07 PrtCount) 800-237-1369 ope of accred	3 Jan 2024 7 Feb 2024 Feb 2024 - Dou 9. <i>litation.</i>	ug Bogart	H Contact: Se cirous@	BA PURPLE TIE WINTON AVE AYWARD, CA US 94545 rvice Manager opurpletie.com T: F: