

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

5221771 (S/N 1899) Component Compressor

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

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 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.

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		KCPA012486		
Sample Date		Client Info		09 May 2024		
Machine Age	hrs	Client Info		2023		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		Changed		
Sample Status				ABNORMAL		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	1		
Chromium	ppm	ASTM D5185m	>10	<1		
Nickel	ppm	ASTM D5185m	>3	0		
Titanium	ppm	ASTM D5185m	>3	0		
Silver	ppm	ASTM D5185m	>2	<1		
Aluminum	ppm	ASTM D5185m	>10	0		
Lead	ppm	ASTM D5185m	>10	<1		
Copper	ppm	ASTM D5185m	>50	4		
Tin	ppm	ASTM D5185m	>10	0		
Vanadium	ppm	ASTM D5185m		<1		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0		
Barium	ppm	ASTM D5185m	90	0		
Molybdenum	ppm	ASTM D5185m	0	0		
Manganese	ppm	ASTM D5185m		<1		
Magnesium	ppm	ASTM D5185m	100	39		
Calcium	ppm	ASTM D5185m	0	0		
Phosphorus	ppm	ASTM D5185m	0	0		
Zinc	ppm	ASTM D5185m	0	37		
Sulfur	ppm	ASTM D5185m	23500	23908		
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<1		
Sodium	ppm	ASTM D5185m		14		
Potassium	ppm	ASTM D5185m	>20	2		
Water	%	ASTM D6304	>0.05	0.015		
ppm Water	ppm	ASTM D6304	>500	156		
FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		11097		
Particles >6µm		ASTM D7647	>1300	<u> </u>		
Particles >14µm		ASTM D7647	>80	33		
Particles >21µm		ASTM D7647	>20	6		
Particles >38µm		ASTM D7647	>4	3		
Particles >71µm		ASTM D7647	>3	3		
Oil Cleanliness		ISO 4406 (c)	>/17/13	1 21/19/12		
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.34		
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12000

8000 Water (ppm)

6000 4000

Pio 0.24 0.00 Mav/9/74

12000

800 Water (ppm) 6000

4000 2000

Abn () 50 () 50 15 45 Base

Bas (B/H0.90 KOH/8) E0.72

Seve 10000

Seve 10000

umber of particles (1 ml) or 10k

Built for a lifetime."

OIL ANALYSIS REPORT

article Trend		VISUAL		method	limit/ba
4μm 6μm		White Metal	scalar	*Visual	NONE
14μm		Yellow Metal	scalar	*Visual	NONE
		Precipitate	scalar	*Visual	NONE
		Silt	scalar	*Visual	NONE
		Debris	scalar	*Visual	NONE
		Sand/Dirt	scalar	*Visual	NONE
	May9/24 -	Appearance	scalar	*Visual	NORML
	May	Odor	scalar	*Visual	NORML
		Emulsified Water	scalar	*Visual	>0.05
ater (KF)		Free Water	scalar	*Visual	
zvere		FLUID PROPER		method	limit/ba
		Visc @ 40°C	cSt	ASTM D445	45
		SAMPLE IMAGE	S	method	limit/ba
			0	moulou	
onormal	54	Color			
	May9/24	Color			
cid Number					
		Bottom			
aseormal		Dottom			
		GRAPHS			
		Ferrous Alloys			
		¹⁰ T			41
		8 iron			1
	1.C. G H	E 6-			
		· 4			
ater (KF)		2			
		24 27			/24 ml)
evere		May9/24			May9/24
		– Non-ferrous Meta	lc.		ticles
		10 _T			of par
		8 - copper			nber
		E 6-			2
bnormal		8 4-			
	r.	2			
	D M.	54 1			54
		May9/24			May9/24
iscosity @ 40°C					2
avere		Viscosity @ 40°C			
evere	*****	55 Severe			
bnormal					
ase		(2000 + Abnormal (2000 + Base Base Abnormal Base			
bnormal		Abrioritia			
evere		40 Severe			
		354			
	V C D	May9/			May9/24
	νά	-			<u> </u>
	Laboratory	: WearCheck USA - 50	1 Madiso	n Ave Carv	. NC 275
	Sample No.	: KCPA012486	Recei		6 May 202
	Lab Number	: 06182025	Teste) May 202
		and the second			

HIGHLINE CONTROLS INC 6736 PRESTON AVE LIVERMORE, CA US 94551 Contact: ALAN alan@highlinecontrols.com T:

38

214

history2

history2

history2

no image

no image

0SI

1999 Cle

18 18

14

Mav9/24

current

NONE

NONE NONE NONE NONE

NONE

NORML NORML NEG

NEG

43.7

current

current

Particle Count

Acid Number

Mav9/24

history1

history1

history1

no image

no image

on Baldridge s: K⊢ 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)

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