

# **PROBLEM SUMMARY**

Sample Rating Trend

ISO

Machine Id

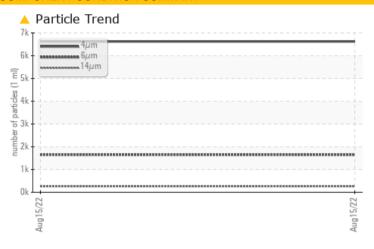
# KAESER SM 15 8255021 (S/N 1274)

Component

Compressor

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

### **COMPONENT CONDITION SUMMARY**



### RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

PROBLEMATIC TEST	T RESULTS			
Sample Status			ABNORMAL	 
Particles >6µm	ASTM D7647	>1300	<b>1650</b>	 
Particles >14µm	ASTM D7647	>80	<b>256</b>	 
Particles >21µm	ASTM D7647	>20	<u> </u>	 
Oil Cleanliness	ISO 4406 (c)	>/17/13	<b>20/18/15</b>	 

Customer Id: CUMAVO Sample No.: KCP51546 Lab Number: 05628397 Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data: Angela Borella +1 800-237-1369 angela.borella@wearcheckusa.com

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com

RECOMMENDED ACTIONS					
Action	Status	Date	Done By	Description	
Change Fluid			?	Oil and filter change at the time of sampling has been noted.	
Change Filter			?	Oil and filter change at the time of sampling has been noted.	

## HISTORICAL DIAGNOSIS

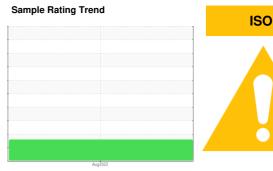


## **OIL ANALYSIS REPORT**

# KAESER SM 15 8255021 (S/N 1274)

Compressor

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



### **DIAGNOSIS**

#### Recommendation

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 high amount of particulates present in the oil.

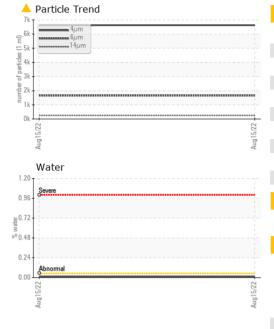
#### **Fluid Condition**

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

				Aug2022		
SAMPLE INFORM	MATION	method	limit/base	current	history 1	history 2
Sample Number				KCP51546		
Sample Date				15 Aug 2022		
Machine Age	hrs			4777		
Oil Age	hrs			4777		
Oil Changed				Changed		
Sample Status				ABNORMAL		
WEAR METALS		method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m	>50	2		
Chromium	ppm	ASTM D5185m	>10	0		
Nickel	ppm	ASTM D5185m	>3	<1		
Titanium	ppm	ASTM D5185m	>3	0		
Silver	ppm	ASTM D5185m	>2	<1		
Aluminum	ppm	ASTM D5185m	>10	2		
Lead	ppm	ASTM D5185m	>10	0		
Copper	ppm	ASTM D5185m	>50	15		
Tin	ppm	ASTM D5185m	>10	1		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
	рріп		11		fiction and a	la la tarra o
ADDITIVES		method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m		<1		
Barium	ppm	ASTM D5185m	90	0		
Molybdenum	ppm	ASTM D5185m		0		
Manganese	ppm	ASTM D5185m		<1		
Magnesium	ppm	ASTM D5185m	90	34		
Calcium	ppm	ASTM D5185m	2	0		
Phosphorus	ppm	ASTM D5185m		2		
	ppm	ASTM D5185m		11		
Zinc	ppm ppm	ASTM D5185m ASTM D5185m		11 16369		
Zinc	ppm		limit/base			
Zinc Sulfur CONTAMINANTS	ppm	ASTM D5185m		16369		
Zinc Sulfur CONTAMINANTS Silicon	ppm	ASTM D5185m method		16369 current		
Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm	ASTM D5185m  method  ASTM D5185m	>25	16369 current <1	history 1	history 2
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm	ASTM D5185m  method  ASTM D5185m  ASTM D5185m  ASTM D5185m	>25 >20	16369	history 1	history 2
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm	ASTM D5185m  method  ASTM D5185m  ASTM D5185m	>25 >20 >0.05	16369	history 1	history 2
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  method  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D6304	>25 >20 >0.05	16369  current  <1 11 0 0.012	history 1	history 2
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  method  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D6304  ASTM D6304	>25 >20 >0.05 >500	16369  current  <1 11 0 0.012 127.5	history 1	history 2
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  method  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D6304  ASTM D6304  method	>25 >20 >0.05 >500 limit/base	16369  current <1 11 0 0.012 127.5  current	history 1	history 2
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  method  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D6304  ASTM D6304  method  ASTM D7647	>25 >20 >0.05 >500 limit/base	16369  current  <1 11 0 0.012 127.5  current 6622	history 1	history 2
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >14µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  method  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D6304  ASTM D6304  method  ASTM D7647  ASTM D7647	>25 >20 >0.05 >500 limit/base >1300 >80	16369  current  <1 11 0 0.012 127.5  current  6622  1650	history 1 history 1 history 1	history 2
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	Method  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D6304  ASTM D6304  Method  ASTM D7647  ASTM D7647  ASTM D7647	>25 >20 >0.05 >500 limit/base >1300 >80	16369  current  <1 11 0 0.012 127.5  current  6622  ▲ 1650  ▲ 256	history 1 history 1 history 1	history 2
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	Method  ASTM D5185m  Method  ASTM D5185m  ASTM D5185m  ASTM D6304  ASTM D6304  Method  ASTM D7647  ASTM D7647  ASTM D7647  ASTM D7647	>25 >20 >0.05 >500 limit/base >1300 >80 >20	16369  current  <1 11 0 0.012 127.5  current  6622  ▲ 1650  ▲ 256  ▲ 87	history 1 history 1 history 1	history 2
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water	ppm ppm ppm ppm ppm ppm ppm ppm	Method  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D6304  ASTM D6304  Method  ASTM D7647  ASTM D7647  ASTM D7647  ASTM D7647  ASTM D7647	>25 >20 >0.05 >500 limit/base >1300 >80 >20 >4	16369  current  <1 11 0 0.012 127.5  current  6622  ▲ 1650  ▲ 256  ▲ 87 3	history 1 history 1	history 2
Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm Particles >71µm	ppm ppm ppm ppm ppm ppm ppm NESS	ASTM D5185m  method  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D6304  ASTM D6304  method  ASTM D7647  ASTM D7647  ASTM D7647  ASTM D7647  ASTM D7647  ASTM D7647  ASTM D7647	>25 >20 >0.05 >500 limit/base >1300 >80 >20 >4 >3	16369  current  <1 11 0 0.012 127.5  current 6622  1650 256 87 3 0	history 1 history 1	history 2



### **OIL ANALYSIS REPORT**



VISUAL		method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	NONE		
Yellow Metal	scalar	*Visual	NONE	NONE		
Precipitate	scalar	*Visual	NONE	NONE		
Silt	scalar	*Visual	NONE	NONE		
Debris	scalar	*Visual	NONE	NONE		
Sand/Dirt	scalar	*Visual	NONE	NONE		
Appearance	scalar	*Visual	NORML	NORML		
Odor	scalar	*Visual	NORML	NORML		
<b>Emulsified Water</b>	scalar	*Visual	>0.05	NEG		
Free Water	scalar	*Visual		NEG		
FLUID PROPERT	TES	method	limit/base	current	history 1	history 2
Visc @ 40°C	cSt	ASTM D445	46	44.8		
SAMPLE IMAGES	3	method	limit/base	current	history 1	history 2
Color					no image	no image

GRAPHS		
Ferrous Alloys	Particle Count	· · · · · · · · · · · · · · · · · · ·
iron chromium	122,880 +	
- seesesses nickel	30,720	
	7,680	
Aug 15/22 <sub>2</sub>	Aug 15/22 1.920 120 120 120	
Non-ferrous Metals	480	
copper	120 -	
weenenenene til	30+	
	<sup>8</sup> <b>Bb/we</b> mal	
Aug 15/22 4	4ug 1572	
Viscosity @ 40°C	$4\mu$ $6\mu$ $14\mu$	21μ 38μ 71
1	Acid Number	
Abnormal Base	Base 9 0.40 - Base	
Abnormal	0.50   Base   Company   Co	
	V 0.00	
Aug15/22	Aug15/22	



Certificate L2367

Laboratory Sample No. Lab Number Unique Number : 10112918

: 05628397

**Bottom** 

: KCP51546

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 26 Aug 2022 Diagnosed : 30 Aug 2022

Diagnostician : Angela Borella

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

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)

**CUMMINGS MICROWAVE - PPG AEROSPACE** 

no image

no image

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T: F:

Contact/Location: SERVICE MANAGER ? - CUMAVO