

PROBLEM SUMMARY

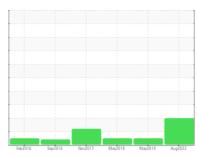
Sample Rating Trend

ISO

KAESER BSD 60T 5123367 (S/N 1045)

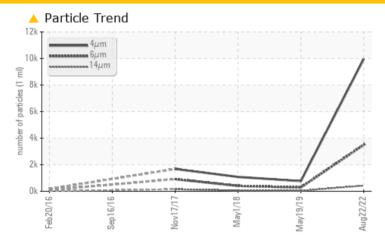
Compressor

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





COMPONENT CONDITION SUMMARY



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.

PROBLEMATIC TEST RESULTS							
Sample Status			ABNORMAL	NORMAL	NORMAL		
Particles >6μm	ASTM D7647	>1300	△ 3500	290	406		
Particles >14μm	ASTM D7647	>80	423	36	59		
Particles >21µm	ASTM D7647	>20	<u>^</u> 87	12	22		
Particles >38µm	ASTM D7647	>4	<u> </u>	0	8		
Oil Cleanliness	ISO 4406 (c)	>/17/13	<u>^</u> 20/19/16	15/12	16/13		

Customer Id: PACALL Sample No.: KC103511 Lab Number: 05636525 Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:

Don Baldridge +1 don.b505@comcast.net

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

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

19 May 2019 Diag: Don Baldridge

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



01 May 2018 Diag: Jonathan Hester

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



17 Nov 2017 Diag: Don Baldridge

ISO

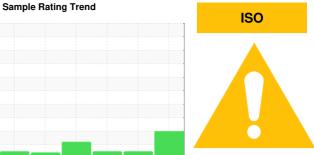


No corrective action is recommended at this time. Resample at the next service interval to monitor.All component wear rates are normal. There is a moderate amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.





OIL ANALYSIS REPORT



KAESER BSD 60T 5123367 (S/N 1045)

Compressor

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

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 a high amount of particulates present in the oil.

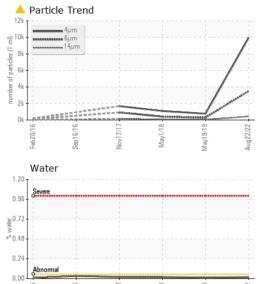
Fluid Condition

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

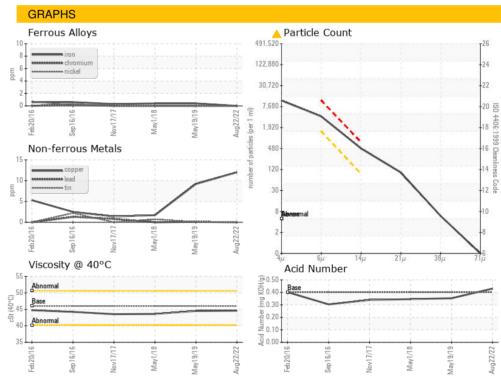
		Feb2016	Sep2016 Nov2017	May2018 May2019	Aug2022	
SAMPLE INFORM	MATION	method	limit/base	current	history 1	history 2
Sample Number				KC103511	KC75316	KC63484
Sample Date				22 Aug 2022	19 May 2019	01 May 2018
Machine Age	hrs			28765	12902	8708
Oil Age	hrs			3469	4194	1973
Oil Changed				Not Changd	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL
WEAR METALS		method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m	>50	0	<1	<1
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m	>3	0	0	0
Titanium	ppm	ASTM D5185m	>3	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>10	<1	<1	1
Lead	ppm	ASTM D5185m	>10	0	<1	0
Copper	ppm	ASTM D5185m	>50	12	9	2
Tin	ppm	ASTM D5185m	>10	0	<1	<1
Antimony	ppm	ASTM D5185m			0	4
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m		0	0	<1
Barium	ppm	ASTM D5185m	90	12	0	3
Molybdenum	ppm	ASTM D5185m		0	0	0
		A OTHER DESIGN		^	0	4
Manganese	ppm	ASTM D5185m		0	0	<1
Manganese Magnesium	ppm	ASTM D5185m ASTM D5185m	90	26	11	<1 70
•			90	-		
Magnesium	ppm	ASTM D5185m		26	11	70
Magnesium Calcium	ppm	ASTM D5185m ASTM D5185m		26 0	11	70 <1
Magnesium Calcium Phosphorus	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		26 0 0	11 0 0	70 <1 0
Magnesium Calcium Phosphorus Zinc	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 limit/base	26 0 0 8	11 0 0 16	70 <1 0 14
Magnesium Calcium Phosphorus Zinc CONTAMINANTS	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	2 limit/base	26 0 0 8 current	11 0 0 0 16 history 1	70 <1 0 14 history 2
Magnesium Calcium Phosphorus Zinc CONTAMINANTS Silicon	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	limit/base	26 0 0 8 current	11 0 0 0 16 history 1	70 <1 0 14 history 2
Magnesium Calcium Phosphorus Zinc CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	limit/base >25 >20	26 0 0 8 current 0 7	11 0 0 16 history 1 0	70 <1 0 14 history 2 <1 19
Magnesium Calcium Phosphorus Zinc CONTAMINANTS Silicon Sodium Potassium	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	26 0 0 8 current 0 7	11 0 0 16 history 1 0 10	70 <1 0 14 history 2 <1 19 3
Magnesium Calcium Phosphorus Zinc 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	26 0 0 8 current 0 7 0 0.017	11 0 0 16 history 1 0 10 4 0.012	70 <1 0 14 history 2 <1 19 3 0.018
Magnesium Calcium Phosphorus Zinc 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 D6304 ASTM D6304	2 limit/base >25 >20 >0.05 >500	26 0 0 8 current 0 7 0 0.017 172.3	11 0 0 16 history 1 0 10 4 0.012 120	70 <1 0 14 history 2 <1 19 3 0.018 180
Magnesium Calcium Phosphorus Zinc 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 D5185m ASTM D6304 ASTM D6304	limit/base	26 0 0 8 current 0 7 0 0.017 172.3 current	11 0 0 16 history 1 0 10 4 0.012 120 history 1	70 <1 0 14 history 2 <1 19 3 0.018 180 history 2
Magnesium Calcium Phosphorus Zinc 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 D6304	limit/base	26 0 0 8 current 0 7 0 0.017 172.3 current 9968	11 0 0 16 history 1 0 10 4 0.012 120 history 1 765	70 <1 0 14 history 2 <1 19 3 0.018 180 history 2
Magnesium Calcium Phosphorus Zinc 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 >80	26 0 0 8 current 0 7 0 0.017 172.3 current 9968 3500	11 0 0 16 history 1 0 10 4 0.012 120 history 1 765 290	70 <1 0 14 history 2 <1 19 3 0.018 180 history 2 1081 406
Magnesium Calcium Phosphorus Zinc 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	limit/base >25 >20 >0.05 >500 limit/base >1300 >80	26 0 0 8 current 0 7 0 0.017 172.3 current 9968 3500 423	11 0 0 16 history 1 0 10 4 0.012 120 history 1 765 290 36	70 <1 0 14 history 2 <1 19 3 0.018 180 history 2 1081 406 59
Magnesium Calcium Phosphorus Zinc 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 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647	2 limit/base >25 >20 >0.05 >500 limit/base >1300 >80 >20 >4	26 0 0 8 current 0 7 0 0.017 172.3 current 9968 3500 423 87	11 0 0 16 history 1 0 10 4 0.012 120 history 1 765 290 36 12	70 <1 0 14 history 2 <1 19 3 0.018 180 history 2 1081 406 59 22
Magnesium Calcium Phosphorus Zinc 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 Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D6304 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	26 0 0 8 current 0 7 0 0.017 172.3 current 9968 3500 423 87 5	11 0 0 16 history 1 0 10 4 0.012 120 history 1 765 290 36 12 0	70 <1 0 14 history 2 <1 19 3 0.018 180 history 2 1081 406 59 22 8
Magnesium Calcium Phosphorus Zinc CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >38µm Particles >71µm	ppm 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 Method ASTM D7647	2 limit/base >25 >20 >0.05 >500 limit/base >1300 >80 >20 >4 >3	26 0 0 8 current 0 7 0 0.017 172.3 current 9968 3500 423 87 5 0	11 0 0 16 history 1 0 10 4 0.012 120 history 1 765 290 36 12 0	70 <1 0 14 history 2 <1 19 3 0.018 180 history 2 1081 406 59 22 8 6



OIL ANALYSIS REPORT



VISUAL		method	limit/base	current	history 1	history 2
VISUAL		memou	IIIIII/Dase	Current	TilStory I	TilStory 2
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	VLITE	NONE	NONE
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	TES	method	limit/base	current	history 1	history 2
Visc @ 40°C	cSt	ASTM D445	46	44.6	44.5	43.6
SAMPLE IMAGES	3	method	limit/base	current	history 1	history 2
Color						
Bottom						







Certificate L2367

Laboratory Sample No. Lab Number Unique Number : 10126055

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : KC103511 : 05636525

Test Package : IND 2

Received : 08 Sep 2022 Diagnosed : 09 Sep 2022 Diagnostician : Don Baldridge PACKAGING CORP. OF AMERICA

7451 CETRONIA RD. ALLENTOWN, PA USA 18106

Contact: SERVICE MANAGER

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: