

PROBLEM SUMMARY

Sample Rating Trend

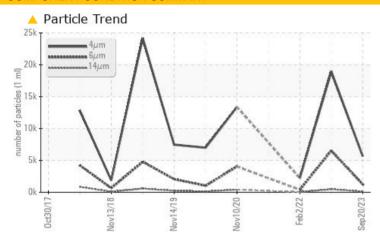
ISO

Machine Id KAESER SK 15 4289019 (S/N 1169)

Compressor

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

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 | | | ATTENTION | ABNORMAL | NORMAL | | | | | |
| Particles >14µm | ASTM D7647 | >80 | <u> </u> | △ 473 | 32 | | | | | |
| Particles >21μm | ASTM D7647 | >20 | △ 35 | <u> </u> | 10 | | | | | |
| Oil Cleanliness | ISO 4406 (c) | >17/13 | 17/14 | A 20/16 | 16/12 | | | | | |

Customer Id: IUPIND Sample No.: KC05964632 Lab Number: 05964632 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

17 Feb 2023 Diag: Doug Bogart

ISO



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. All component wear rates are normal. There is a high 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.



02 Feb 2022 Diag: Don Baldridge

NORMAL



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



24 May 2021 Diag: Jonathan Hester

VIS DEBRIS



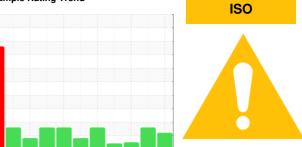
Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.All component wear rates are normal. Moderate concentration of visible dirt/debris 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

Sample Rating Trend



Machine Id

KAESER SK 15 4289019 (S/N 1169)

Component

Compressor

KAESER SIGMA (OEM) S-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 a moderate 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.

| | | 0ct2017 | Nov2018 Nov2019 | Nov2020 Feb2022 | Sep2023 | |
|--|--|---|--|---|--|---|
| SAMPLE INFORM | MATION | method | limit/base | current | history1 | history2 |
| Sample Number | | Client Info | | KC05964632 | KC101447 | KC85679 |
| Sample Date | | Client Info | | 20 Sep 2023 | 17 Feb 2023 | 02 Feb 2022 |
| Machine Age | hrs | Client Info | | 44048 | 43433 | 41562 |
| Oil Age | hrs | Client Info | | 0 | 6000 | 3000 |
| Oil Changed | | Client Info | | N/A | Changed | Not Changd |
| Sample Status | | | | ATTENTION | ABNORMAL | NORMAL |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >50 | 0 | <1 | <1 |
| Chromium | ppm | ASTM D5185m | >10 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >3 | 0 | <1 | 0 |
| Titanium | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | >2 | 0 | <1 | <1 |
| Aluminum | ppm | ASTM D5185m | >10 | 0 | <1 | <1 |
| Lead | ppm | ASTM D5185m | >10 | 0 | <1 | 0 |
| Copper | ppm | ASTM D5185m | >50 | <1 | 6 | 3 |
| Tin | ppm | ASTM D5185m | >10 | 0 | 0 | 0 |
| Antimony | ppm | ASTM D5185m | | | | 0 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185m | | 0 | 0 | 3 |
| Barium | ppm | ASTM D5185m | 90 | 43 | 2 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 0 | 0 | 0 |
| | | | | | | |
| Manganese | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Manganese Magnesium | | ASTM D5185m ASTM D5185m | 90 | 0 55 | 0 <1 | 0 10 |
| • | ppm | | 90 | - | - | |
| Magnesium | ppm ppm | ASTM D5185m | | 55 | <1 | 10 |
| Magnesium Calcium | ppm ppm | ASTM D5185m ASTM D5185m | | 55 4 | <1 0 | 10 |
| Magnesium Calcium Phosphorus | ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m | | 55 4 3 | <1 0 2 | 10 0 2 |
| Magnesium Calcium Phosphorus Zinc | ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 2 limit/base | 55 4 3 36 | <1 0 2 41 | 10 0 2 52 |
| Magnesium Calcium Phosphorus Zinc CONTAMINANTS | ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method | 2 limit/base | 55 4 3 36 current | <1 0 2 41 history1 | 10 0 2 52 history2 |
| Magnesium Calcium Phosphorus Zinc CONTAMINANTS Silicon | ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m | limit/base | 55 4 3 36 current | <1 0 2 41 history1 | 10 0 2 52 history2 |
| Magnesium Calcium Phosphorus Zinc CONTAMINANTS Silicon Sodium | ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m | limit/base >25 >20 | 55 4 3 36 current 0 6 | <1 0 2 41 history1 0 | 10 0 2 52 history2 0 5 |
| Magnesium Calcium Phosphorus Zinc CONTAMINANTS Silicon Sodium Potassium | ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m | limit/base | 55 4 3 36 current 0 6 <1 | <1 0 2 41 history1 0 0 <1 | 10 0 2 52 history2 0 5 |
| Magnesium Calcium Phosphorus Zinc CONTAMINANTS Silicon Sodium Potassium Water | 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 D5185m ASTM D5185m | 2 limit/base >25 >20 >0.05 | 55 4 3 36 current 0 6 <1 0.001 | <1 0 2 41 history1 0 0 <1 0.007 | 10 0 2 52 history2 0 5 0 0.008 |
| Magnesium Calcium Phosphorus Zinc CONTAMINANTS Silicon Sodium Potassium Water ppm Water | 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 D5185m ASTM D6304 ASTM D6304 | 2 limit/base >25 >20 >0.05 >500 | 55 4 3 36 current 0 6 <1 0.001 14.6 | <1 0 2 41 history1 0 0 <1 0.007 75.4 | 10 0 2 52 history2 0 5 0 0.008 84.1 |
| Magnesium Calcium Phosphorus Zinc CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN | 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 D5185m ASTM D6304 ASTM D6304 method | limit/base | 55 4 3 36 current 0 6 <1 0.001 14.6 current | <1 0 2 41 history1 0 0 <1 0.007 75.4 history1 | 10 0 2 52 history2 0 5 0 0.008 84.1 history2 |
| Magnesium Calcium Phosphorus Zinc CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm | 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 ASTM D6304 ASTM D6304 | limit/base | 55 4 3 36 current 0 6 <1 0.001 14.6 current 5670 | <1 0 2 41 history1 0 0 <1 0.007 75.4 history1 18951 | 10 0 2 52 history2 0 5 0 0.008 84.1 history2 2229 |
| 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 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 | 55 4 3 36 current 0 6 <1 0.001 14.6 current 5670 1251 | <1 0 2 41 history1 0 0 <1 0.007 75.4 history1 18951 6515 | 10 0 2 52 52 history2 0 5 0 0.008 84.1 history2 2229 382 |
| 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 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 | 55 4 3 36 current 0 6 <1 0.001 14.6 current 5670 1251 113 | <1 0 2 41 history1 0 0 <1 0.007 75.4 history1 18951 △ 6515 △ 473 | 10 0 2 52 52 history2 0 5 0 0.008 84.1 history2 2229 382 32 |
| 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 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 | 55 4 3 36 current 0 6 <1 0.001 14.6 current 5670 1251 113 35 | <1 0 2 41 history1 0 0 <1 0.007 75.4 history1 18951 △ 6515 △ 473 △ 115 | 10 0 2 52 history2 0 5 0 0.008 84.1 history2 2229 382 32 10 |
| Magnesium Calcium Phosphorus Zinc CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >21µm Particles >38µm | 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 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 | 2 limit/base >25 | 55 4 3 36 current 0 6 <1 0.001 14.6 current 5670 1251 113 35 2 | <1 0 2 41 history1 0 0 <1 0.007 75.4 history1 18951 6515 473 115 4 | 10 0 2 52 history2 0 5 0 0.008 84.1 history2 2229 382 32 10 0 |
| Magnesium Calcium Phosphorus Zinc 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 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 | 55 4 3 36 current 0 6 <1 0.001 14.6 current 5670 1251 113 35 2 0 | <1 0 2 41 history1 0 0 <1 0.007 75.4 history1 18951 46515 473 115 4 0 | 10 0 2 52 history2 0 5 0 0.008 84.1 history2 2229 382 32 10 0 0 |

Acid Number (AN)

mg KOH/g ASTM D8045 0.4

0.37

0.40

0.34



OIL ANALYSIS REPORT





Certificate L2367

Sample No. Lab Number **Unique Number**

Test Package

: KC05964632

: 05964632 : 10671183

Diagnosed Diagnostician

: 02 Oct 2023 : Don Baldridge 525 PRATT DR INDIANA, PA US 15705

Contact: Service Manager

To discuss this sample report, contact Customer Service at 1-800-237-1369.

: IND 2

* - 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: