# KAESER CSD 1256667209 (S/N 1241) <br> Component <br> Compressor <br> KAESER SIGMA (OEM) S-460 (--- GAL) 



## COMPONENT CONDITION SUMMARY

No relevant graphs to display

## RECOMMENDATION

We recommend you service the filters on this component. 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.

PROBLEMATIC TEST RESULTS

| Sample Status |  |  |  | ABNORMAL | NORMAL | ABNORMAL |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Debris | scalar | *Visual | NONE | MODER | NONE | NONE |

Customer Id: OKLTUL
Sample No.: KCPA004461
Lab Number: 05925449
Test Package: IND 2
To manage this report scan the $Q R$ code

To discuss the diagnosis or test data: Jonathan Hester +1 919-379-4092 x4092 jhester@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 Filter | --- | --- | $?$ | We recommend you service the filters on this component. |

## HISTORICAL DIAGNOSIS

## 06 Jun 2022 Diag: Doug Bogart


#### Abstract

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.view report


## 08 Oct 2021 Diag: Don Baldridge

| ISO |  | view report |
| :---: | :---: | :---: |
|  | No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. 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 acceptable for the time in service. |  |

## 11 Mar 2021 Diag: Doug Bogart

We recommend you service the filters on this component. We advise that you inspect for the source(s) of wear. Resample at the next service interval to monitor. We were unable to perform a particle count due to metal particles present in this sample. Please note that this is a corrected copy for diagnostic comment updates.Moderate concentration of visible metal present. All component wear rates are normal. High wear metal levels reflect the reported failure. Suspect sudden failure. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid.
view report


| KAESER CSD 12566672 <br> Component <br> Compressor <br> KAESER SIGMA (OEM) S-460 (--- GAL) |  |  |  |  |  |  | $\bigcirc$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DIAGNOSIS | SAMPLE INFORI | ATION | method | limit/base | current | history1 | history2 |
| Recommendation <br> We recommend you service the filters on this component. 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. | Sample Number |  | Client Info |  | KCPA004461 | KCP40428 | KCP36180 |
|  | Sample Date |  | Client Info |  | 25 Jul 2023 | 06 Jun 2022 | 08 Oct 2021 |
|  | Machine Age | hrs | Client Info |  | 33765 | 25293 | 20271 |
|  | Oil Age | hrs | Client Info |  | 0 | 6426 | 1510 |
|  | Oil Changed |  | Client Info |  | N/A | Changed | Changed |
| Wear | Sample Status |  |  |  | ABNORMAL | NORMAL | ABNORMAL |
| All component wear rates are normal. | WEAR METALS |  | method | limit/base | current | history1 | history2 |
| Contamination <br> Moderate concentration of visible dirt/debris present in the oil. | Iron | ppm | ASTM D5185m | >50 | 0 | <1 | 1 |
|  | Chromium | ppm | ASTM D5185m | $>10$ | 0 | 0 | <1 |
|  | Nickel | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
| Fluid Condition <br> The AN level is acceptable for this fluid. The condition of the oil is suitable for further service. | Titanium | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
|  | Silver | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
|  | Aluminum | ppm | ASTM D5185m | $>10$ | <1 | <1 | 3 |
|  | Lead | ppm | ASTM D5185m | >10 | 0 | 0 | 0 |
|  | Copper | ppm | ASTM D5185m | >50 | 6 | 3 | 2 |
|  | Tin | ppm | ASTM D5185m | >10 | 0 | <1 | 0 |
|  | Antimony | ppm | ASTM D5185m |  | --- | --- | <1 |
|  | 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 | 2 | <1 |
|  | Barium | ppm | ASTM D5185m | 90 | 0 | <1 | <1 |
|  | Molybdenum | ppm | ASTM D5185m |  | 0 | 0 | 0 |
|  | Manganese | ppm | ASTM D5185m |  | 0 | 0 | <1 |
|  | Magnesium | ppm | ASTM D5185m | 90 | 8 | 23 | 47 |
|  | Calcium | ppm | ASTM D5185m | 2 | 0 | 0 | 0 |
|  | Phosphorus | ppm | ASTM D5185m |  | 3 | 5 | 3 |
|  | Zinc | ppm | ASTM D5185m |  | 4 | 18 | 9 |
|  | Sulfur | ppm | ASTM D5185m |  | 21066 | 20801 | 16570 |
|  | CONTAMINANTS |  | method | limit/base | current | history1 | history2 |
|  | Silicon | ppm | ASTM D5185m | >25 | <1 | <1 | 0 |
|  | Sodium | ppm | ASTM D5185m |  | 4 | 6 | 14 |
|  | Potassium | ppm | ASTM D5185m | >20 | 2 | 2 | 6 |
|  | Water | \% | ASTM D6304 | >0.05 | 0.008 | 0.010 | 0.028 |
|  | ppm Water | ppm | ASTM D6304 | >500 | 85.9 | 107.3 | 287.9 |
|  | FLUID CLEANLINESS |  | method | limit/base | current | history1 | history2 |
|  | Particles $>4 \mu \mathrm{~m}$ |  | ASTM D7647 |  | --- | 1311 | 48110 |
|  | Particles $>6 \mu \mathrm{~m}$ |  | ASTM D7647 | >1300 | --- | 299 | $\triangle 15308$ |
|  | Particles $>14 \mu \mathrm{~m}$ |  | ASTM D7647 | >80 | --- | 19 | $\triangle 980$ |
|  | Particles $>21 \mu \mathrm{~m}$ |  | ASTM D7647 | >20 | --- | 4 | - 209 |
|  | Particles $>38 \mu \mathrm{~m}$ |  | ASTM D7647 | >4 | --- | 0 | 4 |
|  | Particles $>71 \mu \mathrm{~m}$ |  | ASTM D7647 | >3 | --- | 0 | 0 |
|  | Oil Cleanliness |  | ISO 4406 (c) | >--/17/13 | --- | 18/15/11 | - 21/17 |
|  | FLUID DEGRADA | TION | method | limit/base | current | history1 | history2 |
|  | Acid Number (AN) | $\mathrm{mg} \mathrm{KOH} / \mathrm{g}$ | ASTM D8045 | 0.4 | 0.37 | 0.41 | 0.342 |

## OIL ANALYSIS REPORT

Built for a lifetime:


| Laboratory | : WearCheck USA -501 Madison Ave., Cary, NC 27513 |  |  |
| :--- | :--- | :--- | :--- |
| Sample No. | $:$ KCPA004461 | Received | $: 15$ Aug 2023 |
| Lab Number | $: 05925449$ | Diagnosed | $: 17$ Aug 2023 |
| Unique Number | $: 10605396$ | Diagnostician : Jonathan Hester |  |
| Test Package | : IND 2 (Additional Tests: KF, PrtCount) |  |  |

