

PROBLEM SUMMARY

Sample Rating Trend

ISO

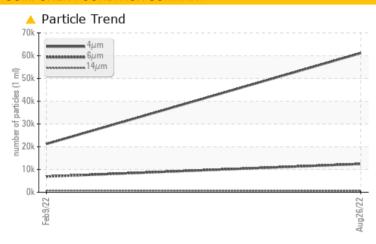
Machine Id **4246647 (S/N 1046)**

Component

Compressor

KAESER SIGMA (OEM) M-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 F | RESULTS | | | | |
|--------------------|--------------|---------|-----------------|----------------|--|
| Sample Status | | | ABNORMAL | ABNORMAL | |
| Particles >6µm | ASTM D7647 | >1300 | 12453 | △ 6918 | |
| Particles >14μm | ASTM D7647 | >80 | <u> </u> | ▲ 791 | |
| Particles >21µm | ASTM D7647 | >20 | <u> </u> | <u>^</u> 228 | |
| Oil Cleanliness | ISO 4406 (c) | >/17/13 | 23/21/16 | <u>^</u> 20/17 | |

Customer Id: CHEKNO Sample No.: KCP33330 Lab Number: 05629574 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Doug Bogart +1 (800)237-1369 x4016 dougb@wearcheckusa.com

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

09 Feb 2022 Diag: Doug Bogart

ADDITIVES



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. Additive levels indicate the addition of a different brand, or type of oil. Confirm oil type. The AN level is acceptable for this fluid.





OIL ANALYSIS REPORT

ISO

4246647 (S/N 1046)

Compressor

KAESER SIGMA (OEM) M-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 high amount of particulates present in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

| SIS REPORT | Samp | ole Rating Trend | I | |
|--------------------|--------|------------------|---------|------|
| 0.0 1.2. 0111 | | | | |
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| | | | | |
| | | | | |
| | | Feb 2022 | Aug2022 | |
| SAMPLE INFORMATION | method | limit/base | current | hist |

| SAMPLE INFORM | MATION | method | imit/base | current | nistory i | nistory 2 |
|-----------------|--------|--------------|--------------|-----------------|----------------|-----------|
| Sample Number | | | | KCP33330 | KCP41285 | |
| Sample Date | | | | 26 Aug 2022 | 09 Feb 2022 | |
| Machine Age | hrs | | | 62750 | 59957 | |
| Oil Age | hrs | | | 2693 | 6684 | |
| Oil Changed | | | | Not Changd | Changed | |
| Sample Status | | | | ABNORMAL | ABNORMAL | |
| WEAR METALS | | method | limit/base | current | history 1 | history 2 |
| | | | | | | |
| Iron | ppm | ASTM D5185m | >50 | <1 | <1 | |
| Chromium | ppm | ASTM D5185m | >10 | 0 | 0 | |
| Nickel | ppm | ASTM D5185m | >3 | 0 | 0 | |
| Titanium | ppm | ASTM D5185m | >3 | 0 | 0 | |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | |
| Aluminum | ppm | ASTM D5185m | >10 | 7 | 4 | |
| Lead | ppm | ASTM D5185m | >10 | 0 | 0 | |
| Copper | ppm | ASTM D5185m | >50 | 5 | <1 | |
| Tin | ppm | ASTM D5185m | >10 | 0 | <1 | |
| Antimony | ppm | ASTM D5185m | | | 0 | |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | |
| ADDITIVES | | method | limit/base | current | history 1 | history 2 |
| Boron | ppm | ASTM D5185m | 0 | 0 | <1 | |
| Barium | ppm | ASTM D5185m | 90 | 2 | 0 | |
| Molybdenum | ppm | ASTM D5185m | 0 | 0 | 0 | |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | |
| Magnesium | ppm | ASTM D5185m | 100 | 17 | 0 | |
| Calcium | ppm | ASTM D5185m | 0 | 0 | <1 | |
| Phosphorus | ppm | ASTM D5185m | 0 | 103 | 394 | |
| Zinc | ppm | ASTM D5185m | 0 | 20 | 2 | |
| Sulfur | ppm | ASTM D5185m | 23500 | 14337 | <u></u> 95 | |
| CONTAMINANTS | ; | method | limit/base | current | history 1 | history 2 |
| Silicon | ppm | ASTM D5185m | >25 | 0 | <1 | |
| Sodium | ppm | ASTM D5185m | | 20 | 2 | |
| Potassium | ppm | ASTM D5185m | >20 | 5 | <1 | |
| Water | % | ASTM D6304 | >0.05 | 0.016 | 0.003 | |
| ppm Water | ppm | ASTM D6304 | >500 | 160.0 | 25.9 | |
| FLUID CLEANLIN | IESS | method | limit/base | current | history 1 | history 2 |
| Particles >4µm | | ASTM D7647 | | 61141 | 21209 | |
| Particles >6µm | | ASTM D7647 | >1300 | 12453 | △ 6918 | |
| Particles >14µm | | ASTM D7647 | >80 | <u></u> 611 | △ 791 | |
| Particles >21µm | | ASTM D7647 | >20 | <u>^</u> 98 | <u>^</u> 228 | |
| Particles >38µm | | ASTM D7647 | >4 | 4 | <u> </u> | |
| Particles >71μm | | ASTM D7647 | >3 | 0 | 0 | |
| Oil Cleanliness | | ISO 4406 (c) | >/17/13 | 23/21/16 | <u>^</u> 20/17 | |
| FLUID DEGRADA | TION | method | limit/base | current | history 1 | history 2 |
| . LOID DEGITION | | modified | III III DUGU | Carront | Thotory I | motory 2 |

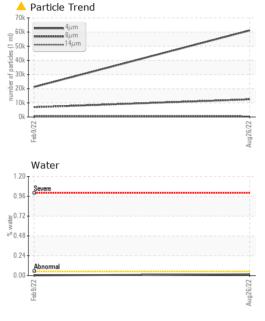
mg KOH/g ASTM D8045 1.0

Acid Number (AN)

0.21



OIL ANALYSIS REPORT



| VISUAL | | method | limit/base | current | history 1 | history 2 |
|--|--------|-----------|------------|----------------|-----------|-----------------|
| Vhite Metal | scalar | *Visual | NONE | NONE | NONE | |
| ellow Metal | scalar | *Visual | NONE | NONE | NONE | |
| recipitate | scalar | *Visual | NONE | NONE | NONE | |
| Silt | scalar | *Visual | NONE | NONE | NONE | |
| Debris | scalar | *Visual | NONE | NONE | NONE | |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | |
| ppearance | scalar | *Visual | NORML | NORML | NORML | |
| Odor | scalar | *Visual | NORML | NORML | NORML | |
| mulsified Water | scalar | *Visual | >0.05 | NEG | NEG | |
| ree Water | scalar | *Visual | | NEG | NEG | |
| FLUID PROPERT | ΓIES | method | limit/base | current | history 1 | history 2 |
| /isc @ 40°C | cSt | ASTM D445 | 45 | 48.3 | 49.6 | |
| SAMPLE IMAGES | S | method | limit/base | current | history 1 | history 2 |
| Color | | | | | | no image |
| Bottom | | | | | | no image |
| GRAPHS | | | | | | |
| Ferrous Alloys | | | | Particle Count | Ē | 0.2 |
| iron | | | 491,520 | | | T ²¹ |
| | | | | | | |
| ************************************** | | | 122,880 | İ | | -24 |

480

(B) 1.20 0.96 Ĕ 0.72 은 0.48 0.24 0.00 Acid Number





Laboratory Sample No. Lab Number Unique Number : 10114095

: KCP33330 : 05629574

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

Non-ferrous Metals

Viscosity @ 40°C

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

: 29 Aug 2022 : 30 Aug 2022 Diagnostician : Doug Bogart

USA 37909 Contact: Service Manager

T: F:

1540 AMHERST RD

KNOXVILLE, TN

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)

CHEP USA