

OIL ANALYSIS REPORT



Machine Id

KAESER 6669198

Component Compressor Fluid KAESER SIGMA (OEM) S-460 (--- GAL)

DIAGNOSIS

Recommendation

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. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Wear

All component wear rates are normal.

Contamination

Moderate concentration of visible dirt/debris present in the oil.

Fluid Condition

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

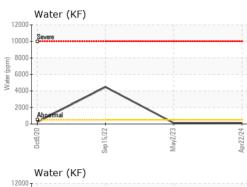
| SAMPLE INFORM | IATION | method | limit/base | current | history1 | history2 | |
|------------------------------------|---------------|--------------|------------|------------------|--|--------------|--|
| Sample Number | | Client Info | | KCPA016753 | KCP50014 | KC106607 | |
| Sample Date | | Client Info | | 22 Apr 2024 | 02 May 2023 | 15 Sep 2022 | |
| Machine Age | hrs | Client Info | | 1633 | 0 | 7074 | |
| Oil Age | hrs | Client Info | | 400 | 0 | 7000 | |
| Oil Changed | | Client Info | | Changed | Changed | Changed | |
| Sample Status | | | | ABNORMAL | ABNORMAL | ABNORMAL | |
| WEAR METALS | | method | limit/base | current | history1 | history2 | |
| Iron | ppm | ASTM D5185m | >50 | <1 | 7 | 14 | |
| Chromium | ppm | ASTM D5185m | >10 | 0 | <1 | 0 | |
| Nickel | ppm | ASTM D5185m | >3 | 3 | 1 | 0 | |
| Titanium | ppm | ASTM D5185m | >3 | 0 | 0 | 0 | |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | 0 | |
| Aluminum | ppm | ASTM D5185m | >10 | 0 | 0 | <1 | |
| Lead | ppm | ASTM D5185m | >10 | 0 | 0 | 0 | |
| Copper | ppm | ASTM D5185m | | 10 | 7 | 21 | |
| Tin | ppm | ASTM D5185m | >10 | <1 | 0 | 0 | |
| Antimony | ppm | ASTM D5185m | | | | | |
| 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 | 0 | |
| Barium | ppm | ASTM D5185m | 90 | 10 | 6 | 0 | |
| Molybdenum | ppm | ASTM D5185m | | 0 | 0 | 0 | |
| Manganese | ppm | ASTM D5185m | | <1 | 1 | 0 | |
| Magnesium | ppm | ASTM D5185m | 90 | 20 | 48 | 0 | |
| Calcium | ppm | ASTM D5185m | 2 | <1 | 0 | 0 | |
| Phosphorus | ppm | ASTM D5185m | | 3 | 6 | 0 | |
| Zinc | ppm | ASTM D5185m | | 47 | 14 | 0 | |
| Sulfur | ppm | ASTM D5185m | | 22620 | 22992 | 20225 | |
| CONTAMINANTS | ; | method | limit/base | current | history1 | history2 | |
| Silicon | ppm | ASTM D5185m | >25 | 1 | 0 | <1 | |
| Sodium | ppm | ASTM D5185m | | 14 | 17 | <1 | |
| Potassium | ppm | ASTM D5185m | >20 | 3 | 4 | 0 | |
| Water | % | ASTM D6304 | >0.05 | 0.009 | 0.012 | ▲ 0.447 | |
| ppm Water | ppm | ASTM D6304 | >500 | 97 | 120.3 | 4 470 | |
| FLUID CLEANLIN | IESS | method | limit/base | current | history1 | history2 | |
| Particles >4µm | | ASTM D7647 | | | | | |
| Particles >6µm | | ASTM D7647 | >1300 | | | | |
| Particles >14µm | | ASTM D7647 | >80 | | | | |
| Particles >21µm | | ASTM D7647 | >20 | | | | |
| Particles >38µm | | ASTM D7647 | >4 | | | | |
| Particles >71µm | | ASTM D7647 | >3 | | | | |
| Oil Cleanliness | | ISO 4406 (c) | >/17/13 | | | | |
| FLUID DEGRADA | TION | method | limit/base | current | history1 | history2 | |
| Acid Number (AN) (10:08) Bey: 1 | mg KOH/g | ASTM D8045 | 0.4 | 0.265 Contact | 0.265 0.34 0.17 Contact/Location: B. BANDT - BESSTL | | |

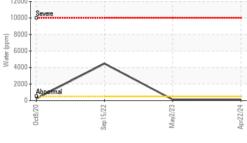
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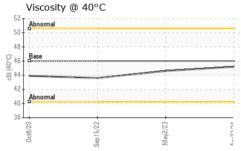
Contact/Location: B. RANDT - RESSTL



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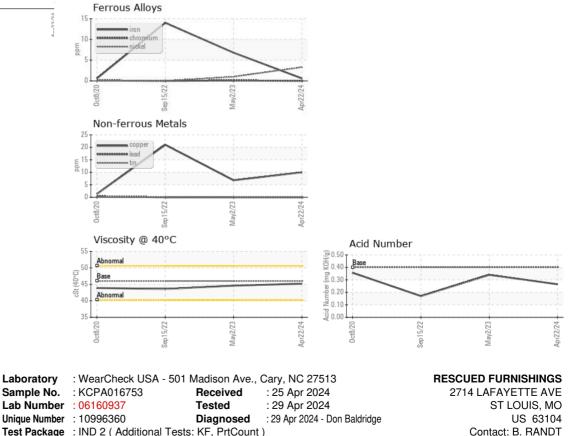
| VISUAL | | method | limit/base | current | history1 | history2 |
|------------------|--------|-----------|------------|---------|----------|--------------|
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE | NONE |
| Silt | scalar | *Visual | NONE | NONE | NONE | 🔺 MODER |
| Debris | scalar | *Visual | NONE | 🔺 MODER | 🔺 MODER | 🔺 MODER |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | NORML | - HAZY |
| Odor | scalar | *Visual | NORML | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.05 | NEG | NEG | ▲ 0.2% |
| Free Water | scalar | *Visual | | NEG | NEG | 1 0.0 |
| FLUID PROPERT | IES | method | limit/base | current | history1 | history2 |
| Visc @ 40°C | cSt | ASTM D445 | 46 | 45.2 | 44.6 | 43.6 |
| SAMPLE IMAGES | S | method | limit/base | current | history1 | history2 |
| Color | | | | | | |

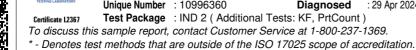
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GRAPHS





Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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