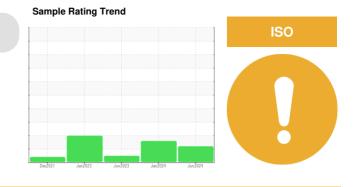


OIL ANALYSIS REPORT



Machine Id **KAESER AIRCENTER SK 20 7255101 (S/N 1573)** Component Compressor

Fluid KAESER SIGMA (OEM) M-460 (--- GAL)

DIAGNOSIS

Recommendation

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.

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.

| SAMPLE INFORM | <u>ATION</u> | method | limit/base | current | history1 | history2 |
|------------------|--------------|--------------|------------|-------------------|-------------|-------------|
| Sample Number | | Client Info | | KCPA019367 | KCPA011932 | KCPA002127 |
| Sample Date | | Client Info | | 20 Jun 2024 | 11 Jan 2024 | 19 Jun 2023 |
| Machine Age | hrs | Client Info | | 8232 | 6727 | 6502 |
| Oil Age | hrs | Client Info | | 1730 | 0 | 0 |
| Oil Changed | | Client Info | | Changed | N/A | N/A |
| Sample Status | | | | ATTENTION | ABNORMAL | NORMAL |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >50 | 0 | 0 | 0 |
| Chromium | ppm | ASTM D5185m | >10 | 0 | <1 | 0 |
| Nickel | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | >3 | 0 | <1 | <1 |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >10 | 0 | 2 | 1 |
| Lead | ppm | ASTM D5185m | >10 | 0 | <1 | 0 |
| Copper | ppm | ASTM D5185m | >50 | 3 | 4 | 1 |
| Tin | ppm | ASTM D5185m | >10 | 0 | <1 | <1 |
| Vanadium | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185m | 0 | 0 | 0 | 0 |
| Barium | ppm | ASTM D5185m | 90 | 14 | 51 | 22 |
| Molybdenum | ppm | ASTM D5185m | 0 | 0 | <1 | 0 |
| Manganese | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Magnesium | ppm | ASTM D5185m | 100 | 57 | 87 | 87 |
| Calcium | ppm | ASTM D5185m | 0 | 1 | 2 | 2 |
| Phosphorus | ppm | ASTM D5185m | 0 | 2 | 0 | <1 |
| Zinc | ppm | ASTM D5185m | 0 | 3 | 0 | 1 |
| Sulfur | ppm | ASTM D5185m | 23500 | 22134 | 25076 | 24090 |
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
| Silicon | ppm | ASTM D5185m | >25 | <1 | 0 | <1 |
| Sodium | ppm | ASTM D5185m | | 15 | 6 | 11 |
| Potassium | ppm | ASTM D5185m | >20 | 6 | 6 | 7 |
| Water | % | ASTM D6304 | >0.05 | 0.026 | 0.010 | 0.019 |
| ppm Water | ppm | ASTM D6304 | >500 | 267 | 107 | 199.5 |
| FLUID CLEANLIN | IESS | method | limit/base | current | history1 | history2 |
| Particles >4µm | | ASTM D7647 | | 3409 | 37343 | 1331 |
| Particles >6µm | | ASTM D7647 | | <u> </u> | <u> </u> | 542 |
| Particles >14µm | | ASTM D7647 | >80 | <mark> </mark> 84 | 807 | 41 |
| Particles >21µm | | ASTM D7647 | | 19 | <u> </u> | 10 |
| Particles >38µm | | ASTM D7647 | >4 | 0 | 1 | 1 |
| Particles >71µm | | ASTM D7647 | | 0 | 0 | 1 |
| Oil Cleanliness | | ISO 4406 (c) | >/17/13 | 9/18/14 | A 22/21/17 | 18/16/13 |
| FLUID DEGRADA | TION | method | limit/base | current | history1 | history2 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 1.0 | 0.34 | 0.32 | 0.38 |
| | | | | | | |

Contact/Location: KEVIN AUBIN - ALRLOU Page 1 of 2



Built for a lifetime.

100

40

201

10000 8000

۱ 12000

1 1 20 (B/0.96 KOH/0 Ê0.72 e 0.48 Pio 0.24

0.00

10000

800

600 Water (

4000

200

60

40

35

S 55

Ba

Se

Dec30/2

Abnormal

an 16/23

Viscosity @ 40°C

:0/01 mil

(mqq)

Î 80

Cles 60

OIL ANALYSIS REPORT

NONE

NONE

NONE

NONE

NONE

NONE

NORML

NORML

>0.05

45

ASTM D445

1/74

NONE

NONE

NONE

NONE

NONE

NONE

NORML

NORML

NEG

NEG

46.5

NONE

NONE

NONE

NONE

NONE

NONE

NORML

NORML

NEG

NEG

46.6

LIGHT

NONE

NONE

NONE

NONE

NONE

NORML

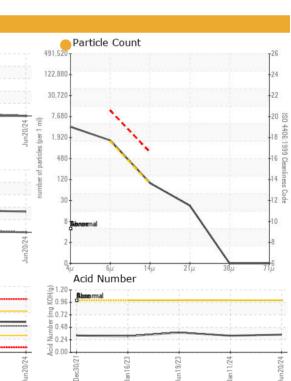
NORML

NEG

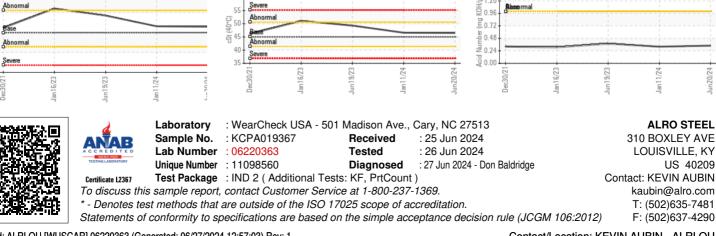
NEG

49.3

| Built for a lifetime. | | | | | | |
|---------------------------|------------|---|---------------|------------------|----------|----------|
| Particle Trend | | | | VISUAL | | methoo |
| 80k 4μm | | | | White Metal | scalar | *Visual |
| 14μm | | | | Yellow Metal | scalar | *Visual |
| 60k | | | | Precipitate | scalar | *Visual |
| 40k | | \wedge | | Silt | scalar | *Visual |
| 20k | | | | Debris | scalar | *Visual |
| 0k | | CONTRACTOR OF THE OWNER | Conversion of | Sand/Dirt | scalar | *Visual |
| Dec30/21 - Jan 16/23 - | Jun19/23 | Jan 11/24 | Jun20/24 | Appearance | scalar | *Visual |
| Jan | Jun | Jan | Juni | Odor | scalar | *Visual |
| Water (KF) | | | | Emulsified Water | scalar | *Visual |
| 000 T | | | | Free Water | scalar | *Visual |
| 000 - Severe | | | | FLUID PROPE | RTIES | method |
| 000 - 000 - | | | | Visc @ 40°C | cSt | ASTM D4 |
| 000 - | | | | SAMPLE IMAG | ES | methoo |
| 000 | | | | | | |
| Jan 16,23 3 4 000 | Jun19/23 - | Jan11/24 - | Jun20/24 | Color | | |
| Acid Number | | | | | | |
| 1.96 - Base rmal | | | | Bottom | | |
| 1.72 | | | | | | |
|).48 | | | | | | |
| .24 | | | | GRAPHS | | |
| 0.00 | | | | Ferrous Alloys | | |
| Dec30/21 Jan16/23 | Jun 19/23 | Jan 11/24 | 1010 | 10 8 iron | | 1 |
| La De | Ju | Ja | 1 | chromium | 1 | |
| Water (KF) | | | | ≞ ₄ | | |
| 000 Severe | | | | 2 | | |
| - | 1 | | | Dec30/21 | Jun19/23 | Jan11/24 |
| 000 - | 1 | | | Dec | Jun | Jan |
| 000 - | | | | Non-ferrous Me | tals | |
| 000 T | | | | 10 T | | |







lun19/23

| | 30- | | 12 0 |
|--------|---|---------|---------|
| | 8 Sebver emal | | -10 |
| 20/24 | 2- | | -8 |
| Jun20/ | 0. 4 ₁₁ 6 ₁₁ 1 | 14µ 21µ | 38µ 71µ |
| | Acid Number | | |
| | 91.20 99.96 90.96 | | |

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Jan11/24

ler30

60

Viscosity @ 40°C