

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

KAESER 9202214

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

DIAGNOSIS

Recommendation

The filter change at the time of sampling has been noted. We were unable to perform a particle count due to a high concentration of particles present in this sample. We advise that you stop the unit and follow the water drain-off procedure for this component. We recommend an early resample in 500 hours to monitor this condition.

Wear

All component wear rates are normal.

Contamination

High concentration of visible dirt/debris present in the oil. There is a light concentration of water 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.

| SAMPLE INFORM | MATION | method | limit/base | current | history1 | history2 |
|---|--|--|--|--|------------------------------|--------------------------------------|
| Sample Number | | Client Info | | KCPA018784 | | |
| Sample Date | | Client Info | | 29 May 2024 | | |
| Machine Age | hrs | Client Info | | 645 | | |
| Oil Age | hrs | Client Info | | 0 | | |
| Oil Changed | | Client Info | | Not Changd | | |
| Sample Status | | | | ABNORMAL | | |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >50 | 2 | | |
| Chromium | ppm | ASTM D5185m | >10 | <1 | | |
| Nickel | ppm | ASTM D5185m | >3 | <1 | | |
| Titanium | ppm | ASTM D5185m | >3 | <1 | | |
| Silver | ppm | ASTM D5185m | >2 | 0 | | |
| Aluminum | ppm | ASTM D5185m | >10 | 1 | | |
| Lead | ppm | ASTM D5185m | >10 | <1 | | |
| Copper | ppm | ASTM D5185m | >50 | 2 | | |
| Tin | ppm | ASTM D5185m | >10 | <1 | | |
| Vanadium | ppm | ASTM D5185m | | 0 | | |
| Cadmium | ppm | ASTM D5185m | | <1 | | |
| | | | | | | |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| ADDITIVES Boron | ppm | method ASTM D5185m | limit/base | current 0 | history1 | history2 |
| | ppm ppm | | | | | |
| Boron | | ASTM D5185m | | 0 | | |
| Boron Barium | ppm | ASTM D5185m ASTM D5185m | | 0 <1 | | |
| Boron Barium Molybdenum | ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m | | 0 <1 0 | | |
| Boron Barium Molybdenum Manganese | ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 90 | 0 <1 0 <1 | | |
| Boron Barium Molybdenum Manganese Magnesium | ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 90 90 | 0 <1 0 <1 36 | | |
| Boron Barium Molybdenum Manganese Magnesium Calcium | ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 90 90 | 0 <1 0 <1 36 0 | | |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus | ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 90 90 | 0 <1 0 <1 36 0 5 | | |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc | ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 90 90 | 0 <1 0 <1 36 0 5 28 | | |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur | ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 90 90 2 | 0 <1 0 <1 36 0 5 28 28 28634 | | |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS | ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m | 90 90 2 limit/base | 0 <1 0 <1 36 0 5 28 28634 current | history1 | history2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon | ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m | 90 90 2 limit/base | 0 <1 0 <1 36 0 5 28 28634 28634 current 0 | history1 | history2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium | ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m | 90 90 2 limit/base >25 | 0 <1 0 <1 36 0 5 28 28634 28634 current 0 2 | history1 | history2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium | ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m | 90 90 2 limit/base >25 >20 | 0 <1 0 <1 36 0 5 28 28634 28634 <u>current</u> 0 2 6 | history1 | history2 |
| Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water | ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm | ASTM D5185m ASTM D5185m | 90 2 2 limit/base >25 >20 >20 >0.05 | 0 <1 0 <1 36 0 5 28 28634 28634 current 0 2 6 6 0.132 | | history2 |



12000

10000

8000 Water (ppm)

6000

4000

2000

(B/HO) Base

Ê0.30

-a u 0.20

0.10 0.00

Built for a lifetime.

OIL ANALYSIS REPORT

| ilt for a lifetime." | | | | |
|----------------------|------------------------|--------|-----------|----------|
| Water (KF) | VISUAL | | method | limit/ba |
| Severe | White Metal | scalar | *Visual | NONE |
| | Yellow Metal | scalar | *Visual | NONE |
| | Precipitate | scalar | *Visual | NONE |
| | Silt | scalar | *Visual | NONE |
| | Debris | scalar | *Visual | NONE |
| normal | Sand/Dirt | scalar | *Visual | NONE |
| | Appearance Odor | scalar | *Visual | NORMI |
| | Odor Odor | scalar | *Visual | NORM |
| id Number | Emulsified Water | scalar | *Visual | >0.05 |
| | Free Water | scalar | *Visual | |
| Se | FLUID PROPE | RTIES | method | limit/b |
| | Visc @ 40°C | cSt | ASTM D445 | 46 |
| | SAMPLE IMAC | GES | method | limit/b |
| | | | | |
| | tolor | | | |
| | P3/28/24 | | | |
| scosity @ 40°C | | | | |
| normal | Detter | | | |
| | Bottom | | | |
| 369 | | | | |
| ase | GRAPHS | | | |
| | Ferrous Alloys | | | |
| bnormal | ¹⁰ | | | |
| | o tromium | | | |
| | | | | |
| | 2 | | | |
| | | | | |
| | May29/24 | | | May29/24 |
| | May | | | Mayi |
| | Non-ferrous Me | etals | | |
| | 10 copper 1 | | | |
| | | | | |
| | E 6 | | | |
| | 2 | | | 1 |
| | | | | |
| | | | | 9/24 |
| | May29/24 | | | May29/24 |
| | Viscosity @ 40° | с | | |
| | 55 | | | |
| | 50 Abnormal | | | |
| | Co of 45 4 Abnormal | | | |
| | 40 Abnormal | | | |
| | | | | |
| | 35 4 | | | 24 + |

no image no image no image no image

history1

history1

history1

history2

history2

history2

current

NONE

NONE

NONE

NONE

HEAVY

NONE

NORML

NORML

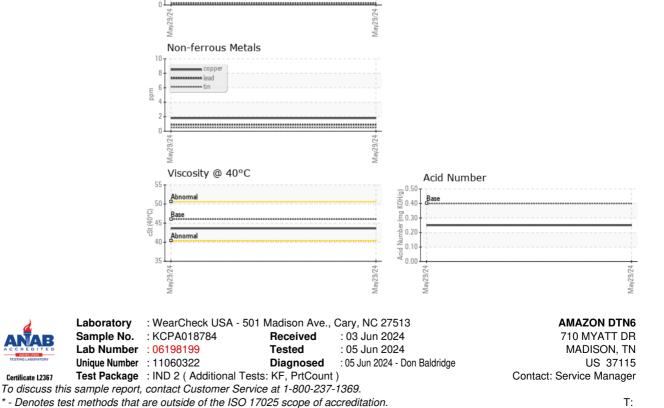
current

current

NEG

43.6

0.2%



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

Contact/Location: Service Manager - AMAMADTN

F: