

PROBLEM SUMMARY

Sample Rating Trend

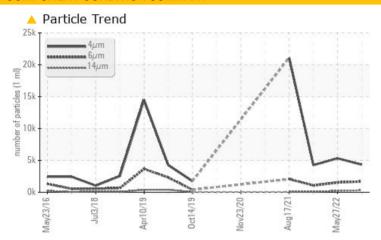
WEAR

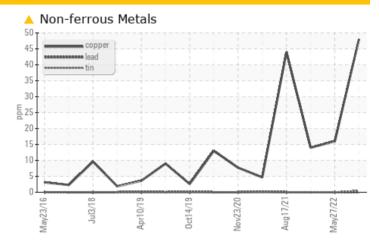
Machine Id KAESER SK 15 5340462 (S/N 1803)

Compressor

KAESER SIGMA (OEM) S-460 (--- QTS)

COMPONENT CONDITION SUMMARY





RECOMMENDATION

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

| PROBLEMATIC TEST RESULTS | | | | | | | | |
|--------------------------|-----|--------------|--------|--------------|---------------|----------------------|--|--|
| Sample Status | | | | ABNORMAL | ABNORMAL | ATTENTION | | |
| Copper | ppm | ASTM D5185m | >50 | 48 | 16 | 14 | | |
| Particles >6µm | | ASTM D7647 | >1300 | 1696 | <u>▲</u> 1532 | 1065 | | |
| Particles >14µm | | ASTM D7647 | >80 | △ 310 | <u>^</u> 219 | <u>\$\times\$</u> 98 | | |
| Particles >21μm | | ASTM D7647 | >20 | <u> </u> | 9 0 | 27 | | |
| Particles >38μm | | ASTM D7647 | >4 | <u>^</u> 6 | <u> 11</u> | 0 | | |
| Oil Cleanliness | | ISO 4406 (c) | >17/13 | 18/15 | <u></u> 18/15 | ▲ 17/14 | | |

Customer Id: SCOCLA Sample No.: KC0563769 Lab Number: 05637691 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Jonathan Hester +1 919-379-4092 x4092 ihester@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

27 May 2022 Diag: Jonathan Hester

ISO



The 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 suitable for further service.



07 Jan 2022 Diag: Angela Borella

ISO



The 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 moderate amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



17 Aug 2021 Diag: Jonathan Hester

WEAR



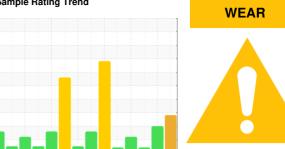
Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. The copper level is marginal. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.





OIL ANALYSIS REPORT

Sample Rating Trend



KAESER SK 15 5340462 (S/N 1803)

Compressor

KAESER SIGMA (OEM) S-460 (--- QTS)

DIAGNOSIS Recommendation

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

The copper level is marginal.

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 suitable for further service.

| | | vlay2016 J | ul2018 Apr2019 Oct | 2019 Nov2020 Aug2021 | May2022 | |
|-----------------|--------|--------------|--------------------|----------------------|----------------|----------------|
| SAMPLE INFORM | MATION | method | limit/base | current | history 1 | history 2 |
| Sample Number | | | | KC0563769 | KC05562639 | KC05444096 |
| Sample Date | | | | 18 Aug 2022 | 27 May 2022 | 07 Jan 2022 |
| Machine Age | hrs | | | 14777 | 0 | 13502 |
| Oil Age | hrs | | | 0 | 0 | 561 |
| Oil Changed | | | | N/A | Not Changd | Not Changd |
| Sample Status | | | | ABNORMAL | ABNORMAL | ATTENTION |
| WEAR METALS | | method | limit/base | current | history 1 | history 2 |
| Iron | ppm | ASTM D5185m | >50 | 1 | 1 | 1 |
| Chromium | ppm | ASTM D5185m | >10 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >10 | 4 | 4 | 4 |
| Lead | ppm | ASTM D5185m | >10 | 0 | 0 | 0 |
| Copper | ppm | ASTM D5185m | >50 | 48 | 16 | 14 |
| Tin | ppm | ASTM D5185m | >10 | <1 | 0 | 0 |
| Antimony | ppm | ASTM D5185m | | | | 0 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| ADDITIVES | | method | limit/base | current | history 1 | history 2 |
| Boron | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Barium | ppm | ASTM D5185m | 90 | 0 | <1 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | 0 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 90 | 12 | 37 | 54 |
| Calcium | ppm | ASTM D5185m | 2 | 0 | 0 | <1 |
| Phosphorus | ppm | ASTM D5185m | | 0 | 21 | 3 |
| Zinc | ppm | ASTM D5185m | | 42 | 42 | 36 |
| CONTAMINANTS | 6 | method | limit/base | current | history 1 | history 2 |
| Silicon | ppm | ASTM D5185m | >25 | <1 | <1 | 0 |
| Sodium | ppm | ASTM D5185m | | 2 | 11 | 18 |
| Potassium | ppm | ASTM D5185m | >20 | 0 | 0 | 0 |
| Water | % | ASTM D6304 | | 0.020 | 0.016 | 0.006 |
| ppm Water | ppm | ASTM D6304 | >500 | 207.8 | 168.0 | 68.7 |
| FLUID CLEANLIN | IESS | method | limit/base | current | history 1 | history 2 |
| Particles >4µm | | ASTM D7647 | | 4329 | 5322 | 4257 |
| Particles >6µm | | ASTM D7647 | >1300 | 1696 | <u>▲</u> 1532 | 1065 |
| Particles >14µm | | ASTM D7647 | >80 | ▲ 310 | <u>^</u> 219 | 9 8 |
| Particles >21µm | | ASTM D7647 | >20 | <u> </u> | 4 90 | 27 |
| Particles >38µm | | ASTM D7647 | >4 | <u>^</u> 6 | <u> 11</u> | 0 |
| Particles >71μm | | ASTM D7647 | >3 | 0 | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >17/13 | △ 18/15 | △ 18/15 | △ 17/14 |
| FLUID DEGRADA | ATION | method | limit/base | current | history 1 | history 2 |
| | | | | | | |

0.28

Acid Number (AN)

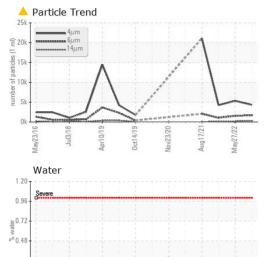
mg KOH/g ASTM D8045 0.4

0.30

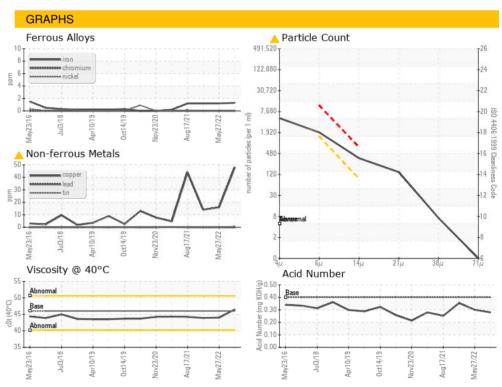
0.354



OIL ANALYSIS REPORT



| VISUAL | | method | limit/base | current | history 1 | history 2 |
|-------------------------|--------|-----------|------------|---------|-----------|-----------|
| 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 | NONE |
| Debris | scalar | *Visual | NONE | NONE | NONE | LIGHT |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | NORML | NORML |
| Odor | scalar | *Visual | NORML | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.05 | NEG | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG | NEG |
| FLUID PROPERTIES | | method | limit/base | current | history 1 | history 2 |
| Visc @ 40°C | cSt | ASTM D445 | 46 | 46.5 | 44.0 | 43.9 |
| SAMPLE IMAGES | | method | limit/base | current | history 1 | history 2 |
| Color | | | | BALL | | |







Certificate L2367

Laboratory Sample No. Lab Number **Unique Number** Test Package : IND 2

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : KC0563769 : 05637691 : 10127221

Bottom

Received Diagnosed

: 09 Sep 2022 : 14 Sep 2022 Diagnostician : Jonathan Hester

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)

SCOVILL FASTENERS

1802 SCOVILL DR CLARKSVILLE, GA USA 30523

Contact:

T: F: