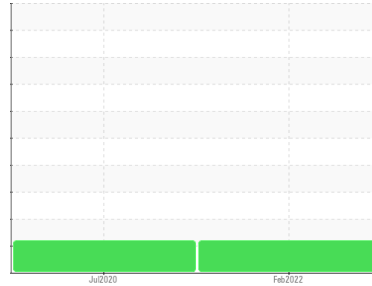




PROBLEM SUMMARY

Sample Rating Trend



ISO

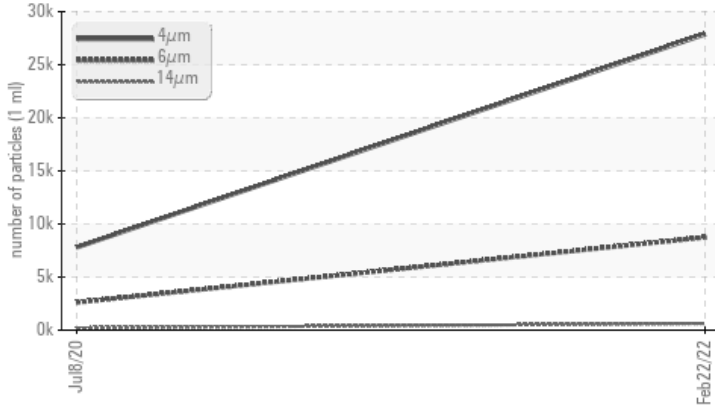


Machine Id
6864089 (S/N 1319)

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

COMPONENT CONDITION SUMMARY

▲ Particle Trend



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.

PROBLEMATIC TEST RESULTS

| Sample Status | | | ABNORMAL | ABNORMAL | --- |
|-----------------|--------------|-----------|-----------------|----------|-----|
| Particles >6µm | ASTM D7647 | >1300 | ▲ 8738 | ▲ 2608 | --- |
| Particles >14µm | ASTM D7647 | >80 | ▲ 625 | ▲ 205 | --- |
| Particles >21µm | ASTM D7647 | >20 | ▲ 130 | ▲ 41 | --- |
| Oil Cleanliness | ISO 4406 (c) | >--/17/13 | ▲ 20/16 | ▲ 19/15 | --- |

Customer Id: HARSAY
Sample No.: KC98435
Lab Number: 05481749
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldrige +1
don.b505@comcast.net

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

| Action | Status | Date | Done By | Description |
|---------------|--------|------|---------|---|
| Change Fluid | --- | --- | ? | Oil and filter change at the time of sampling has been noted. |
| Change Filter | --- | --- | ? | Oil and filter change at the time of sampling has been noted. |

HISTORICAL DIAGNOSIS

08 Jul 2020 Diag: Angela Borella

ISO



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

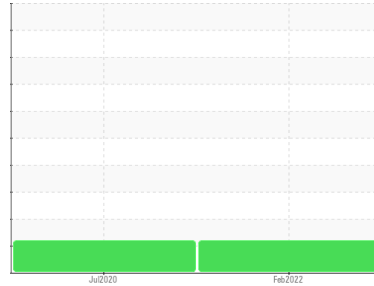
view report





OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id
6864089 (S/N 1319)
 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.

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 suitable for further service.

SAMPLE INFORMATION

| | method | limit/base | current | history 1 | history 2 |
|---------------|-------------|-------------|--------------------|-------------|-----------|
| Sample Number | Client Info | | KC98435 | KC83325 | --- |
| Sample Date | Client Info | | 22 Feb 2022 | 08 Jul 2020 | --- |
| Machine Age | hrs | Client Info | 3317 | 1250 | --- |
| Oil Age | hrs | Client Info | 1775 | 1250 | --- |
| Oil Changed | Client Info | | Changed | Changed | --- |
| Sample Status | | | ABNORMAL | ABNORMAL | --- |

WEAR METALS

| | method | limit/base | current | history 1 | history 2 |
|----------|--------|-----------------|--------------|-----------|-----------|
| Iron | ppm | ASTM D5185m >50 | 0 | 1 | --- |
| Chromium | ppm | ASTM D5185m >10 | 0 | 0 | --- |
| Nickel | ppm | ASTM D5185m >3 | <1 | 0 | --- |
| Titanium | ppm | ASTM D5185m >3 | 0 | 0 | --- |
| Silver | ppm | ASTM D5185m >2 | 0 | <1 | --- |
| Aluminum | ppm | ASTM D5185m >10 | 2 | 0 | --- |
| Lead | ppm | ASTM D5185m >10 | 0 | <1 | --- |
| Copper | ppm | ASTM D5185m >50 | <1 | 4 | --- |
| Tin | ppm | ASTM D5185m >10 | 0 | 0 | --- |
| Antimony | ppm | ASTM D5185m | 0 | <1 | --- |
| 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 | 3 | --- |
| Barium | ppm | ASTM D5185m 90 | 24 | 9 | --- |
| Molybdenum | ppm | ASTM D5185m | 0 | 0 | --- |
| Manganese | ppm | ASTM D5185m | 0 | <1 | --- |
| Magnesium | ppm | ASTM D5185m 90 | 84 | 55 | --- |
| Calcium | ppm | ASTM D5185m 2 | 0 | 3 | --- |
| Phosphorus | ppm | ASTM D5185m | 6 | 4 | --- |
| Zinc | ppm | ASTM D5185m | 0 | 0 | --- |

CONTAMINANTS

| | method | limit/base | current | history 1 | history 2 |
|-----------|--------|------------------|--------------|-----------|-----------|
| Silicon | ppm | ASTM D5185m >25 | 0 | <1 | --- |
| Sodium | ppm | ASTM D5185m | 17 | 14 | --- |
| Potassium | ppm | ASTM D5185m >20 | 3 | 15 | --- |
| Water | % | ASTM D6304 >0.05 | 0.019 | 0.032 | --- |
| ppm Water | ppm | ASTM D6304 >500 | 198.0 | 329.0 | --- |

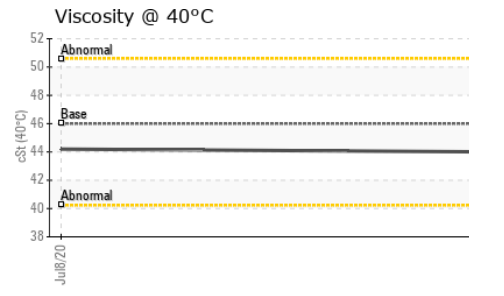
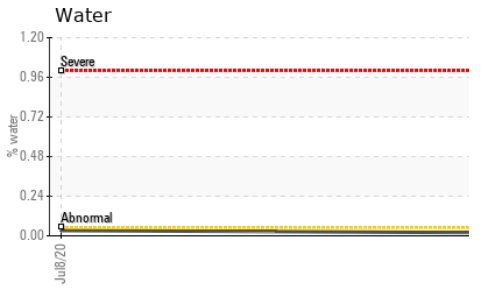
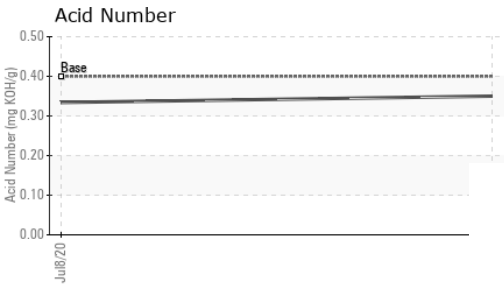
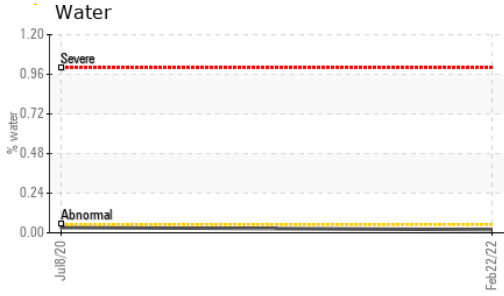
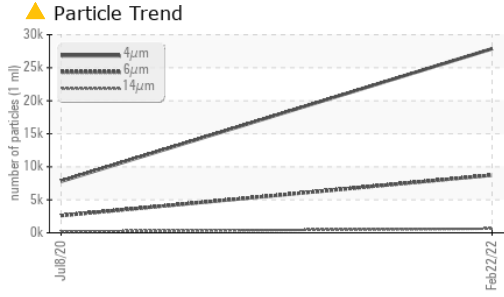
FLUID CLEANLINESS

| | method | limit/base | current | history 1 | history 2 |
|-----------------|------------------------|------------|----------------|-----------|-----------|
| Particles >4µm | ASTM D7647 | | 27872 | 7794 | --- |
| Particles >6µm | ASTM D7647 >1300 | | ▲ 8738 | ▲ 2608 | --- |
| Particles >14µm | ASTM D7647 >80 | | ▲ 625 | ▲ 205 | --- |
| Particles >21µm | ASTM D7647 >20 | | ▲ 130 | ▲ 41 | --- |
| Particles >38µm | ASTM D7647 >4 | | 2 | 0 | --- |
| Particles >71µm | ASTM D7647 >3 | | 0 | 0 | --- |
| Oil Cleanliness | ISO 4406 (c) >--/17/13 | | ▲ 20/16 | ▲ 19/15 | --- |

FLUID DEGRADATION

| | method | limit/base | current | history 1 | history 2 |
|------------------|----------|----------------|-------------|-----------|-----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 0.4 | 0.35 | 0.334 | --- |

OIL ANALYSIS REPORT

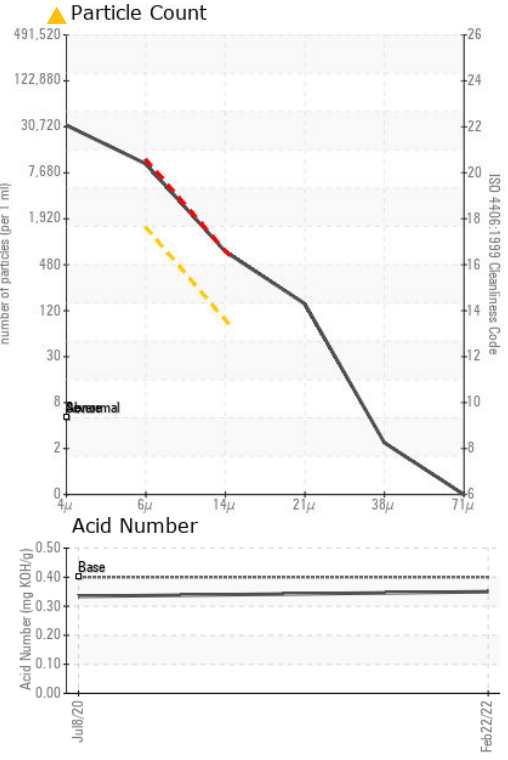
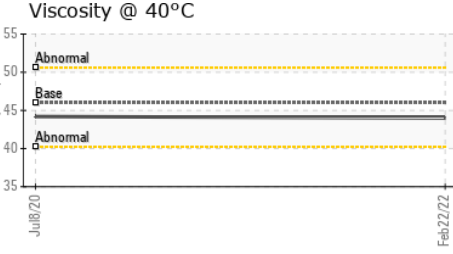
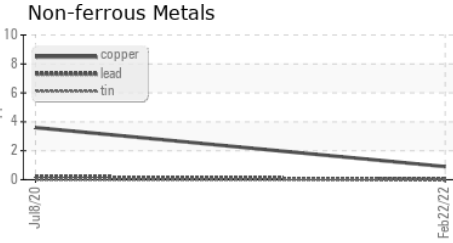
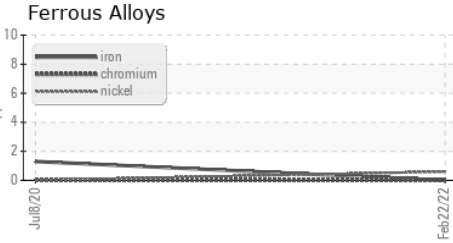


| PARAMETER | VISUAL | method | limit/base | current | history 1 | history 2 |
|------------------|--------|---------|------------|--------------|-----------|-----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | --- |
| Precipitate | scalar | *Visual | NONE | NONE | NONE | --- |
| Silt | scalar | *Visual | NONE | NONE | NONE | --- |
| Debris | scalar | *Visual | NONE | LIGHT | NONE | --- |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | --- |
| Appearance | scalar | *Visual | NORML | NORML | NORML | --- |
| Odor | scalar | *Visual | NORML | NORML | NORML | --- |
| Emulsified Water | scalar | *Visual | >0.05 | NEG | NEG | --- |
| Free Water | scalar | *Visual | | NEG | NEG | --- |

| PARAMETER | method | limit/base | current | history 1 | history 2 |
|------------------|--------|--------------|-------------|-----------|-----------|
| FLUID PROPERTIES | | | | | |
| Visc @ 40°C | cSt | ASTM D445 46 | 44.0 | 44.2 | --- |

| PARAMETER | method | limit/base | current | history 1 | history 2 |
|---------------|--------|------------|---------|-----------|-----------|
| SAMPLE IMAGES | | | | | |
| Color | | | | | no image |
| Bottom | | | | | no image |

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KC98435 **Received** : 02 Mar 2022
Lab Number : 05481749 **Diagnosed** : 03 Mar 2022
Unique Number : 9875968 **Diagnostician** : Don Baldrige
Test Package : IND 2

HARMAC
 301 HARTLE ST
 SAYREVILLE, NJ
 US 08872
 Contact: Service Manager

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)