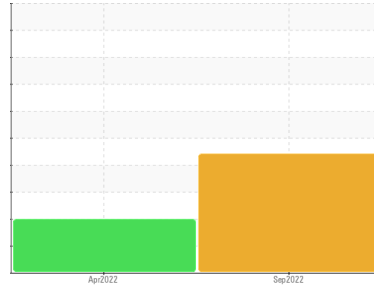


PROBLEM SUMMARY

Sample Rating Trend

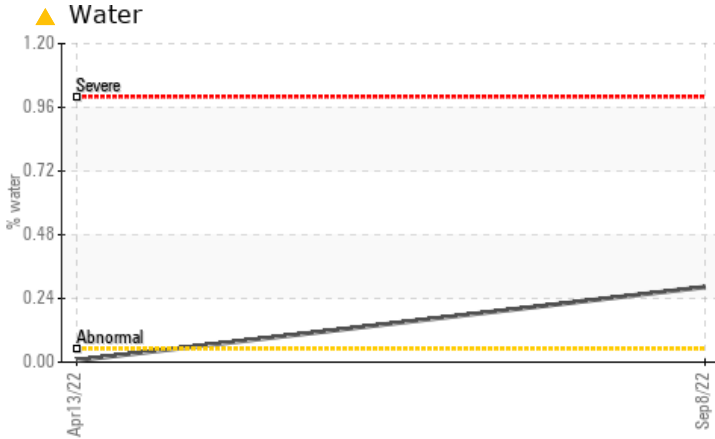


WATER



Machine Id
KAESER SM 15T 7223640 (S/N 1073)
Component
Compressor
Fluid
KAESER SIGMA (OEM) M-460 (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

Oil and filter change at the time of sampling has been noted. 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.

PROBLEMATIC TEST RESULTS

| Sample Status | | | | ABNORMAL | ABNORMAL | --- |
|---------------|--------|------------|-------|-----------------|----------|-----|
| Water | % | ASTM D6304 | >0.05 | ▲ 0.283 | 0.007 | --- |
| ppm Water | ppm | ASTM D6304 | >500 | ▲ 2830 | 72.3 | --- |
| Debris | scalar | *Visual | NONE | ▲ MODER | ▲ MODER | --- |
| Appearance | scalar | *Visual | NORML | ▲ HAZY | NORML | --- |
| Free Water | scalar | *Visual | | ▲ 1.0 | NEG | --- |

Customer Id: ROCHAL
Sample No.: KCP30995
Lab Number: 05641621
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
Angela Borella +1 800-237-1369
angela.borella@wearcheckusa.com

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

HISTORICAL DIAGNOSIS

13 Apr 2022 Diag: Don Baldrige

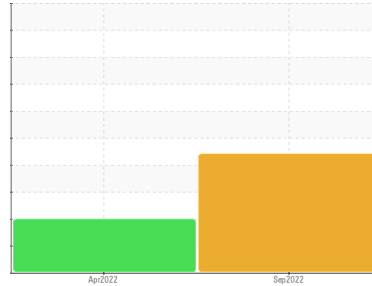
ISO



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. All component wear rates are normal. There is a high amount of particulates present in the oil. Moderate concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report





Machine Id
KAESER SM 15T 7223640 (S/N 1073)

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

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. 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

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

Fluid Condition

The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

| | method | limit/base | current | history 1 | history 2 |
|---------------|--------|------------|--------------------|-------------|-----------|
| Sample Number | | | KCP30995 | KCP44400 | --- |
| Sample Date | | | 08 Sep 2022 | 13 Apr 2022 | --- |
| Machine Age | hrs | | 0 | 10332 | --- |
| Oil Age | hrs | | 0 | 3000 | --- |
| Oil Changed | | | Changed | Changed | --- |
| Sample Status | | | ABNORMAL | ABNORMAL | --- |

WEAR METALS

| | method | limit/base | current | history 1 | history 2 |
|----------|-----------------|------------|--------------|-----------|-----------|
| Iron | ppm ASTM D5185m | >50 | <1 | 0 | --- |
| Chromium | ppm ASTM D5185m | >10 | 0 | 0 | --- |
| Nickel | ppm ASTM D5185m | >3 | 0 | 0 | --- |
| Titanium | ppm ASTM D5185m | >3 | 0 | 0 | --- |
| Silver | ppm ASTM D5185m | >2 | <1 | 0 | --- |
| Aluminum | ppm ASTM D5185m | >10 | <1 | <1 | --- |
| Lead | ppm ASTM D5185m | >10 | 0 | 0 | --- |
| Copper | ppm ASTM D5185m | >50 | 15 | 13 | --- |
| Tin | ppm ASTM D5185m | >10 | 0 | 0 | --- |
| 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 | 0 | 0 | --- |
| Barium | ppm ASTM D5185m | 90 | <1 | 0 | --- |
| Molybdenum | ppm ASTM D5185m | 0 | 0 | 0 | --- |
| Manganese | ppm ASTM D5185m | | 0 | 0 | --- |
| Magnesium | ppm ASTM D5185m | 100 | 0 | 0 | --- |
| Calcium | ppm ASTM D5185m | 0 | 0 | 0 | --- |
| Phosphorus | ppm ASTM D5185m | 0 | 3 | 2 | --- |
| Zinc | ppm ASTM D5185m | 0 | 0 | 0 | --- |
| Sulfur | ppm ASTM D5185m | 23500 | 17007 | 12106 | --- |

CONTAMINANTS

| | method | limit/base | current | history 1 | history 2 |
|-----------|-----------------|------------|----------------|-----------|-----------|
| Silicon | ppm ASTM D5185m | >25 | 2 | <1 | --- |
| Sodium | ppm ASTM D5185m | | <1 | 0 | --- |
| Potassium | ppm ASTM D5185m | >20 | 0 | 0 | --- |
| Water | % ASTM D6304 | >0.05 | ▲ 0.283 | 0.007 | --- |
| ppm Water | ppm ASTM D6304 | >500 | ▲ 2830 | 72.3 | --- |

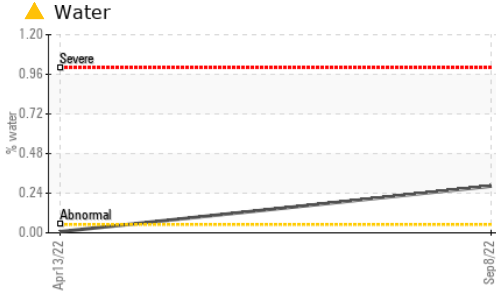
FLUID CLEANLINESS

| | method | limit/base | current | history 1 | history 2 |
|-----------------|--------------|------------|---------|----------------|-----------|
| Particles >4µm | ASTM D7647 | | --- | 60636 | --- |
| Particles >6µm | ASTM D7647 | >1300 | --- | ▲ 27378 | --- |
| Particles >14µm | ASTM D7647 | >80 | --- | ▲ 1048 | --- |
| Particles >21µm | ASTM D7647 | >20 | --- | ▲ 253 | --- |
| Particles >38µm | ASTM D7647 | >4 | --- | ▲ 24 | --- |
| Particles >71µm | ASTM D7647 | >3 | --- | ▲ 1 | --- |
| Oil Cleanliness | ISO 4406 (c) | >--/17/13 | --- | ▲ 22/17 | --- |

FLUID DEGRADATION

| | method | limit/base | current | history 1 | history 2 |
|------------------|---------------------|------------|-------------|-----------|-----------|
| Acid Number (AN) | mg KOH/g ASTM D8045 | 1.0 | 0.37 | 0.32 | --- |

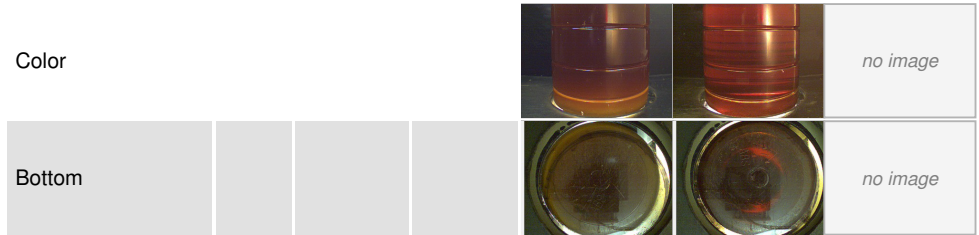
OIL ANALYSIS REPORT



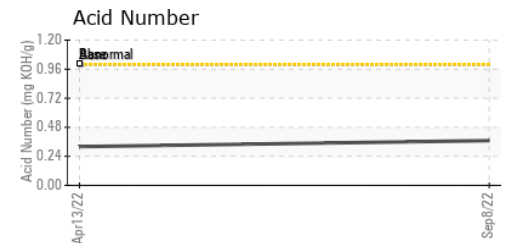
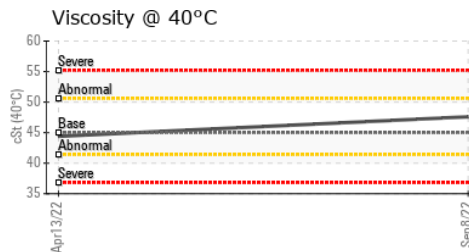
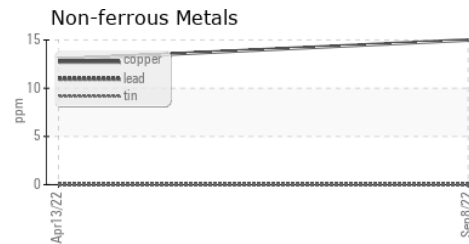
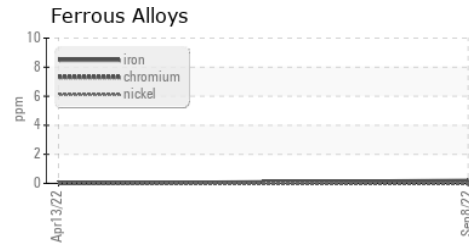
| VISUAL | method | limit/base | current | history 1 | history 2 |
|------------------|--------|------------|---------|-----------|-----------|
| White Metal | scalar | *Visual | NONE | NONE | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- |
| Precipitate | scalar | *Visual | NONE | NONE | --- |
| Silt | scalar | *Visual | NONE | NONE | --- |
| Debris | scalar | *Visual | NONE | ▲ MODER | ▲ MODER |
| Sand/Dirt | scalar | *Visual | NONE | NONE | --- |
| Appearance | scalar | *Visual | NORML | ▲ HAZY | NORML |
| Odor | scalar | *Visual | NORML | NORML | --- |
| Emulsified Water | scalar | *Visual | >0.05 | 0.2% | NEG |
| Free Water | scalar | *Visual | | ▲ 1.0 | NEG |

| FLUID PROPERTIES | method | limit/base | current | history 1 | history 2 |
|------------------|--------|------------|---------|-----------|-----------|
| Visc @ 40°C | cSt | ASTM D445 | 45 | 47.6 | 44.4 |

| SAMPLE IMAGES | method | limit/base | current | history 1 | history 2 |
|---------------|--------|------------|---------|-----------|-----------|
|---------------|--------|------------|---------|-----------|-----------|



GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCP30995 **Received** : 14 Sep 2022
Lab Number : 05641621 **Diagnosed** : 15 Sep 2022
Unique Number : 10131151 **Diagnostician** : Angela Borella
Test Package : IND 2 (Additional Tests: KF, PrtCount)

ROCKET FARMS INC
 2651 CABRILLO HWY N
 HALF MOON BAY, CA
 USA 94019
 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)

T:
F: