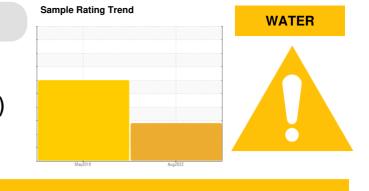


PROBLEM SUMMARY

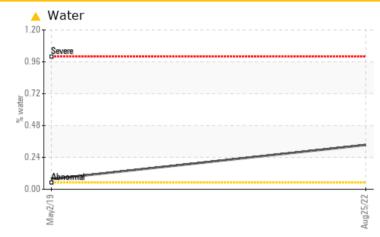
KAESER A/C SM 12 SPECIAL 4489920 (S/N 1233)

Compressor



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

COMPONENT CONDITION SUMMARY



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.

PROBLEMATIC TEST RESULTS Sample Status ABNORMAL ABNORMAL % Water ASTM D6304 >0.05 0.334 ▲ 0.077 ppm Water ASTM D6304 >500 3340 770 ppm Debris NONE NONE scalar *Visual MODER Appearance scalar *Visual NORML HAZY NORML **Emulsified Water** >0.05 scalar *Visual 0.2% NEG

Customer Id: BOUFIT Sample No.: KCP33353 Lab Number: 05629625 Test Package: IND 2



To manage this report scan the QR code

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

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

| RECOMMENDED AC | TIONS | | |
|----------------|--------|------|---------|
| Action | Status | Date | Done By |
| Alert | | | ? |

Description

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

HISTORICAL DIAGNOSIS

02 May 2019 Diag: Doug Bogart



We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample in 500 hours to monitor this condition. The iron level is abnormal. There is a high amount of particulates present in the oil. There is a light concentration of water present in the oil. There is a moderate amount of visible silt present in the sample. The AN level is above the recommended limit. The oil is no longer serviceable.





OIL ANALYSIS

Particles >71µm

Oil Cleanliness

Acid Number (AN)

FLUID DEGRADATION

Built for a lifetime.

Machine Ic KAESER A/C SM 12 SPECIAL 44899 Component

Compressor

KAESER SIGMA (OEM) M-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

Moderate 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.

| SIS REPO | ORT | Samp | le Rating Tre | end | | WATER |
|-----------------|--------|-------------|--------------------|------------------|-------------------|-----------|
| | | | | | | |
| | | | | | | |
| 00000 /C/N | 1000\ | | | | | |
| 89920 (S/N | 1233) | | | | | |
| | | | | | | |
| | | - | | | | |
| SAMPLE INFOR | | mosth o d | ^{May2019} | Augžozz | biotom, 1 | biotom, 0 |
| | | method | IIIIII/Dase | | history 1 | history 2 |
| Sample Number | | | | KCP33353 | KCP19258 | |
| Sample Date | la ura | | | 25 Aug 2022 | 02 May 2019 | |
| Machine Age | hrs | | | 15967 | 12494 | |
| Oil Age | hrs | | | 0 Nat Ohannal | 365 | |
| Oil Changed | | | | Not Changd | Not Changd | |
| Sample Status | | | | ABNORMAL | ABNORMAL | |
| WEAR METALS | | method | limit/base | current | history 1 | history 2 |
| Iron | ppm | ASTM D5185m | >50 | 2 | <mark>▲</mark> 72 | |
| Chromium | ppm | ASTM D5185m | >10 | 0 | 0 | |
| Nickel | ppm | ASTM D5185m | >3 | 0 | 2 | |
| Titanium | ppm | ASTM D5185m | >3 | 0 | 0 | |
| Silver | ppm | ASTM D5185m | >2 | 0 | <1 | |
| Aluminum | ppm | ASTM D5185m | >10 | <1 | 0 | |
| Lead | ppm | ASTM D5185m | >10 | 0 | <1 | |
| Copper | ppm | ASTM D5185m | >50 | 10 | 41 | |
| Tin | ppm | ASTM D5185m | >10 | 0 | 0 | |
| Antimony | ppm | ASTM D5185m | | | 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 | 2 | |
| Barium | ppm | ASTM D5185m | 90 | 15 | 3 | |
| Molybdenum | ppm | ASTM D5185m | 0 | 0 | 0 | |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | |
| Magnesium | ppm | ASTM D5185m | 100 | 22 | 2 | |
| Calcium | ppm | ASTM D5185m | 0 | <1 | 2 | |
| Phosphorus | ppm | ASTM D5185m | 0 | 4 | 10 | |
| Zinc | ppm | ASTM D5185m | 0 | 24 | 13 | |
| Sulfur | ppm | ASTM D5185m | 23500 | 16810 | 21029 | |
| CONTAMINANT | S | method | limit/base | current | history 1 | history 2 |
| Silicon | ppm | ASTM D5185m | >25 | <1 | 0 | |
| Sodium | ppm | ASTM D5185m | | 2 | 6 | |
| Potassium | ppm | ASTM D5185m | >20 | 0 | 1 | |
| Water | % | ASTM D6304 | >0.05 | 0.334 | ▲ 0.077 | |
| ppm Water | ppm | ASTM D6304 | >500 | A 3340 | ▲ 770 | |
| FLUID CLEANLI | NESS | method | limit/base | current | history 1 | history 2 |
| Particles >4µm | | ASTM D7647 | | | 2435 | |
| Particles >6µm | | ASTM D7647 | >1300 | | 1 326 | |
| Particles >14µm | | ASTM D7647 | >80 | | 2 26 | |
| Particles >21µm | | ASTM D7647 | | | A 76 | |
| Particles >38µm | | ASTM D7647 | >4 | | 1 1 | |
| | | | 0 | | 4 | |

Report Id: BOUFIT [WUSCAR] 05629625 (Generated: 09/01/2022 13:44:52)

mg KOH/g ASTM D8045 1.0

limit/base

current

ASTM D7647 >3

method

ISO 4406 (c) >--/17/13

0.38 **1.788** Contact/Location: Service Manager - BOUFIT

history 1

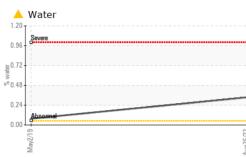
1

🔺 18/15

history 2



OIL ANALYSIS REPORT



| Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 BOUTWELL OWENS AND CO ING Sample No. : KCP33353 Received : 29 Aug 2022 251 AUTHORITY DI Lab Number : 05629625 Diagnosed : 31 Aug 2022 FITCHBURG, M. Unique Number : 10114146 Diagnostician : Don Baldridge USA 0142 iscuss this sample report, contact Customer Service at 1-800-237-1369. Contact: Service Manage | | VISUAL | | method | limit/base | current | history 1 | history 2 |
|---|---|------------------|--|---|--|---|-------------------------------|--|
| Precipitale scalar Visual NONE NONE NONE MODER | | White Metal | scalar | *Visual | NONE | NONE | LIGHT | |
| Sitt scalar 'Visual NONE NONE AMODER | | Yellow Metal | scalar | *Visual | NONE | NONE | NONE | |
| Debris scalar 'Visual NONE MONE NONE Sand/Dirt scalar 'Visual NORML NONE NONE NONE NONE NONE NORML NORML Codor scalar 'Visual NORML NORML NORML NORML Enuised Water scalar 'Visual NORML NORML NORML Free Water scalar 'Visual NORML NORML NORML Free Water scalar 'Visual NORML NORML NORML Free Water scalar 'Visual NORML NORML NORML NORML Free Water scalar 'Visual NORML NORML NORML NORML NORML Free Water scalar 'Visual NORML NORML NORML NORML NORML NORML Free Water scalar 'Visual NORML NOR | | Precipitate | scalar | *Visual | NONE | NONE | NONE | |
| SandDirt soalar 'Visual NONE NONE NONE Appearance scalar 'Visual NONL A HAZY NORMU Free Water scalar 'Visual >0.05 A 0.2% NEG Free Water scalar 'Visual >0.05 A 0.2% NEG To image Visc @ 40°C c5t ASTM D45 45 44.8 46.0 SAMPLE IMAGES method Imitbase current history 1 history 2 Color no image Bottom no image Ferrous Alloys Ferrous Alloys Ferrous Alloys Uscostry @ 40°C Uscostry & 40°C Uscostry @ 40°C Uscostry & 40°C Us | | Silt | scalar | *Visual | NONE | NONE | A MODER | |
| Appearance scalar 'Visual NORML HAY NORML Emulsified Water scalar 'Visual >0.05 NEG NEG Free Water scalar 'Visual >0.07 NE NEG NEG Free Water scalar 'Visual >0.07 NEG | | Debris | scalar | *Visual | NONE | A MODER | NONE | |
| Emulaified Water scalar 'Visual >0.05 NEG Free Water scalar 'Visual NEG NEG FLUID PROPERTIES method innitbase current history 1 history 2 Visc @ 40°C cSt ASTM D445 45 44.8 46.0 SAMPLE IMAGES method innitbase current history 1 history 2 Color no image Bottom no image GRAPHS Ferrous Alloys | | Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | |
| Emulaified Water scalar 'Visual >0.05 NEG Free Water scalar 'Visual NEG NEG FLUID PROPERTIES method innitbase current history 1 history 2 Visc @ 40°C cSt ASTM D445 45 44.8 46.0 SAMPLE IMAGES method innitbase current history 1 history 2 Color no image Bottom no image GRAPHS Ferrous Alloys | 5/22 | Appearance | scalar | *Visual | NORML | 🔺 HAZY | NORML | |
| Free Water scalar 'Visual NEG NEG FLUID PROPERTIES method imit/base current history 1 history 2 Vise @ 40°C cS1 ASTM D445 45 44.8 46.0 SAMPLE IMAGES method imit/base current history 1 history 2 Color Imit/base current history 1 history 2 no image Bottom Imit/base current history 1 no image Olor Imit/base current history 1 no image Imit base Imit base current history 1 no image Imit base Imit base current history 1 no image Imit base Imit base current history 1 no image Imit base Imit base Imit base imit base no image Imit base Imit base Imit base imit base imit base Imit base Imit base Imit base imit base imit base Imit base Imit base Imit base | Aug2 | Odor | scalar | *Visual | NORML | NORML | NORML | |
| FLUID PROPERTIES method limit/base current history 1 history 2 Visc @ 40°C cS1 ASTM D445 45 44.8 46.0 SAMPLE IMAGES method imit/base current history 1 history 2 Color Imit/base current history 1 history 2 Bottom Imit/base current history 1 history 2 Reperts Imit/base current history 1 history 2 Non-ferrous Alloys Imit/base molimage molimage Viscosity @ 40°C Imit/base Imit/base Add Number Imit Color Imit Color Imit Color Imit Color Viscosity @ 40°C Imit Color Imit Color Imit Color Imit Color Viscosity @ 40°C Imit Color Imit Color Imit Color Imit Color Imit Color Sample No. Weachbeck USA - 501 Madison Ave., Cary, NC 27513 Imit Color 251 AUTHORITY DI Imit Color 251 AUTHORITY DI Imit Color 251 AUTHORITY DI Lab Number Index Color 250 Diagnosed 31 Aug 2022 31 Aug 2022 Imit Color 251 AUTH | | Emulsified Water | scalar | *Visual | >0.05 | 6.2% | NEG | |
| Visc @ 40°C CSI ASTM D445 45 44.8 46.0 SAMPLE IMAGES method imitbase current history 1 history 2 Color no image Bottom Color no image CRAPHS Ferrous Alloys | | Free Water | scalar | *Visual | | NEG | NEG | |
| Visc @ 40°C CSI ASTM D445 45 44.8 46.0 SAMPLE IMAGES method imitbase current history 1 history 2 Color no image Bottom Color no image CRAPHS Ferrous Alloys | | FLUID PROPER | TIES | method | limit/base | current | history 1 | history 2 |
| Color no image Bottom no image CRAPHS Ferrous Alloys 0 0 0 0 0 0 0 0 0 0 0 0 0 | | | | | | | | |
| Color no image Bottom no image CRAPHS Ferrous Alloys 0 0 0 0 0 0 0 0 0 0 0 0 0 | | | S | method | limit/base | current | history 1 | history 2 |
| CRAPHS Ferrous Alloys On-ferrous Metals Add Number Viscosity @ 40°C On-ferrous Metals Viscosity @ 40°C On-ferrous Metals Output Viscosity @ 40°C Output Output Viscosity @ 40°C Output Output Superiors Superiors Superiors Viscosity @ 40°C Output Output Output Output Output Output Output Output Output Superiors Superiors Superiors Output Output Output Output Output | | | | | | | | |
| Ferrous Alloys Image: Strategy of the strateg | | Bottom | | | | | | no image |
| kaboratory :: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. Lab Number :: 505629625 Diagnosed :: 31 Aug 2022 Test Package :: IND 2 (Additional Tests: KF, PrtCount) Secure :: Sample report, contact Customer Service at 1-800-237-1369. | | | | | | | | |
| Laboratory Sample No. Lab Number Wiscoss this sample report, contact Customer Service at 1-800-237-1368. | | ⁸⁰ T | | | | | | |
| Laboratory Sample No. Laboratory Sample No. Lab Number USCOS bit Sample ro. Lab Number Second Structure Second Structure S | | nickal | | | | | | |
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| Acid Number Viscosity @ 40°C Viscosity @ 40°C | | 20- | | | | | | |
| Acid Number Viscosity @ 40°C Viscosity @ 40°C | | | | | | | | |
| Acid Number Viscosity @ 40°C Viscosity @ 40°C | | /2/19 | | | 5/22 | | | |
| Acid Number Viscosity @ 40°C Viscosity @ 40°C | | 10 | | | 12 | | | |
| Acid Number Viscosity @ 40°C Viscosity @ 40°C | | Ŵ | | | Aug | | | |
| Laboratory WearCheck USA - 501 Madison Ave., Cary, NC 27513 BOUTWELL OWENS AND CO INV Sample No. KCP33353 Received :29 Aug 2022 251 AUTHORITY DI Unique Number :10114146 Diagnostician Don Baldridge USA 0142 Contact: Service Manage :ND 2 (Additional Tests: KF, PrfCount) Contact: Service Manage | | | als | | Aug | | | |
| Viscosity @ 40°C Acid Number Viscosity @ 40°C Image: State of the | | Non-ferrous Meta | ls | | Aut | | | |
| Viscosity @ 40°C Acid Number Viscosity @ 40°C Image: State of the | | Non-ferrous Meta | als | | Aur | | | |
| Viscosity @ 40°C Viscosity @ 40°C Image: State of the s | | Non-ferrous Meta | ils | | Aur | | | |
| Viscosity @ 40°C Acid Number Acid Number Acid Number Anomal Anomal Sample No. KCP33353 Received :29 Aug 2022 Lab Number :05629625 Diagnosed :31 Aug 2022 Fitcheluck Usch 0142 | | Non-ferrous Meta | als | | Au | | | |
| Viscosity @ 40°C Acid Number Image: Sample No. KCP33353 Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : KCP33353 Lab Number : 05629625 Unique Number : 10114146 Unique Number : 10114146 Diagnostician : Don Baldridge Usac this sample report, contact Customer Service at 1-800-237-1369. | | Non-ferrous Meta | ils | | Au | | | |
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| Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : KCP33353 Received : 29 Aug 2022 251 AUTHORITY DI Lab Number : 05629625 Diagnosed : 31 Aug 2022 FITCHBURG, M. Unique Number : 10114146 Diagnostician : Don Baldridge USA 0142 Contact: Service Manage iscuss this sample report, contact Customer Service at 1-800-237-1369. | | Non-ferrous Meta | | | | Acid Number | | |
| Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : KCP33353 Received : 29 Aug 2022 251 AUTHORITY DI Lab Number : 05629625 Diagnosed : 31 Aug 2022 FITCHBURG, M. Unique Number : 10114146 Diagnostician : Don Baldridge USA 0142 Contact: Service Manage iscuss this sample report, contact Customer Service at 1-800-237-1369. | | Non-ferrous Meta | | | Aug25/22 | | | |
| Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : KCP33353 Received : 29 Aug 2022 251 AUTHORITY DI Lab Number : 05629625 Diagnosed : 31 Aug 2022 FITCHBURG, M. Unique Number : 10114146 Diagnostician : Don Baldridge USA 0142 Contact: Service Manage iscuss this sample report, contact Customer Service at 1-800-237-1369. | | Non-ferrous Meta | | | Aug25/22 | | | |
| Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : KCP33353 Received : 29 Aug 2022 251 AUTHORITY DI Lab Number : 05629625 Diagnosed : 31 Aug 2022 FITCHBURG, M. Unique Number : 10114146 Diagnostician : Don Baldridge USA 0142 iscute 12307 Test Package : IND 2 (Additional Tests: KF, PrtCount) Contact: Service Manage | | Non-ferrous Meta | | | Aug25/22 | | | |
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| Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : KCP33353 Received : 29 Aug 2022 251 AUTHORITY DI Lab Number : 05629625 Diagnosed : 31 Aug 2022 FITCHBURG, M. Unique Number : 10114146 Diagnostician : Don Baldridge USA 0142 Test Package : IND 2 (Additional Tests: KF, PrtCount) Contact: Service Manage | | Non-ferrous Meta | | | Aug25722 Aug25722 Gid Number (mg K0H(g) | | | |
| Sample No. : KCP33353 Received : 29 Aug 2022 251 AUTHORITY DI Lab Number : 05629625 Diagnosed : 31 Aug 2022 FITCHBURG, M. Unique Number : 10114146 Diagnostician : Don Baldridge USA 0142 icate 12367 Test Package : IND 2 (Additional Tests: KF, PrtCount) Contact: Service Manage liscuss this sample report, contact Customer Service at 1-800-237-1369. : Service Manage : Service Manage | | Non-ferrous Meta | | | Acid Number (ng KOH/g) Acid Number (ng KOH/g) | 0 5 6 8 8 8 8 9 9 9 | | 2 |
| | | Non-ferrous Meta | | | Acid Number (ng KOH/g) Acid Number (ng KOH/g) | 0 5 6 8 8 8 8 9 9 9 | | |
| enotes test methods that are outside of the ISO 17025 scope of accreditation. | Sample No. Lab Number Unique Number Test Package | Non-ferrous Meta | 501 Madia Received Diagnos Diagnost | d : 29 / ed : 31 / tician : Dor PrtCount) | (0)Hoy Mu 22/52 ^{Dn} W (0)Hoy Mu 22/52 ^{Dn} W (0) (0) (0) (0) (0) (0) (0) (0) (0) (0) | 0 5 6 1 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 | JTWELL OWENS 251 AI FIT | UTHORITY DF FCHBURG, M/ USA 0142 |

Contact/Location: Service Manager - BOUFIT Page 4 of 4