OIL
DIAGNOSTICS
OIL ANALYSIS REPORT


## COMP 10 (S/N 19514) <br> Componen

## Refrigeration Compressor

## CAMCO 717 SC (--- GAL)

## DIAGNOSIS

## Recommendation

Resample at the next service interval to monitor.

## Wear

All component wear rates are normal.

## Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

## 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 | history1 | history2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sample Number |  | Client Info |  | PCA0109519 | PCA0080234 | PCA0078684 |
| Sample Date |  | Client Info |  | 08 Nov 2023 | 13 Dec 2022 | 20 Jul 2022 |
| Machine Age | hrs | Client Info |  | 33806 | 33789 | 33794 |
| Oil Age | hrs | Client Info |  | 142 | 135 | 130 |
| Oil Changed |  | Client Info |  | Not Changd | Not Changd | Not Changd |
| Sample Status |  |  |  | NORMAL | NORMAL | NORMAL |
| WEAR METALS |  | method | limit/base | current | history 1 | history2 |
| Iron | ppm | ASTM D5185m | >8 | 0 | 0 | 0 |
| Chromium | ppm | ASTM D5185m | >2 | <1 | 0 | 0 |
| Nickel | ppm | ASTM D5185m |  | <1 | 0 | 0 |
| Titanium | ppm | ASTM D5185m |  | <1 | 0 | 0 |
| Silver | ppm | ASTM D5185m | >2 | <1 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
| Lead | ppm | ASTM D5185m | >2 | <1 | 0 | 0 |
| Copper | ppm | ASTM D5185m | >8 | $<1$ | 0 | 0 |
| Tin | ppm | ASTM D5185m | >4 | <1 | 0 | <1 |
| Antimony | ppm | ASTM D5185m |  | --- | --- | --- |
| Vanadium | ppm | ASTM D5185m |  | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m |  | <1 | 0 | 0 |
| ADDITIVES |  | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185m |  | 0 | 0 | 0 |
| Barium | ppm | ASTM D5185m |  | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m |  | <1 | 0 | 0 |
| Manganese | ppm | ASTM D5185m |  | 0 | 0 | 0 |
| Magnesium | ppm | ASTM D5185m |  | 0 | <1 | 0 |
| Calcium | ppm | ASTM D5185m |  | 0 | 0 | 0 |
| Phosphorus | ppm | ASTM D5185m |  | 1 | 34 | 4 |
| Zinc | ppm | ASTM D5185m |  | 0 | 6 | 0 |
| Sulfur | ppm | ASTM D5185m |  | 0 | 0 | 20 |
| CONTAMINANTS |  | method | limit/base | current | history1 | history2 |
| Silicon | ppm | ASTM D5185m | >15 | 0 | 0 | 0 |
| Sodium | ppm | ASTM D5185m |  | 0 | <1 | 0 |
| Potassium | ppm | ASTM D5185m | >20 | 1 | 0 | 0 |
| Water | \% | ASTM D6304 | $>0.01$ | 0.003 | 0.004 | 0.003 |
| ppm Water | ppm | ASTM D6304 | >100 | 28.7 | 49.5 | 32.3 |
| FLUID CLEANLINESS |  | method | limit/base | current | history1 | history2 |
| Particles $>4 \mu \mathrm{~m}$ |  | ASTM D7647 | >10000 | 1354 | 2763 | 1826 |
| Particles $>6 \mu \mathrm{~m}$ |  | ASTM D7647 | >2500 | 296 | 514 | 187 |
| Particles $>14 \mu \mathrm{~m}$ |  | ASTM D7647 | >640 | 14 | 29 | 5 |
| Particles $>21 \mu \mathrm{~m}$ |  | ASTM D7647 | >160 | 3 | 6 | 0 |
| Particles $>38 \mu \mathrm{~m}$ |  | ASTM D7647 | $>40$ | 0 | 0 | 0 |
| Particles $>71 \mu \mathrm{~m}$ |  | ASTM D7647 | $>10$ | 0 | 0 | 0 |
| Oil Cleanliness |  | ISO 4406 (c) | >20/18/16 | 18/15/11 | 19/16/12 | 18/15/10 |
| FLUID DEGRADATION |  | method | limitbase | current | history1 | history2 |
| Acid Number (AN) | mg KOH/g | ASTM D974 |  | 0.011 | 0.015 | 0.012 |



| VISUAL |  | method | limitbase | current | history1 | history2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | NONE |
| 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 | >0.01 | NEG | NEG | NEG |
| Free Water | scalar | *Visual |  | NEG | NEG | NEG |
| FLUID PROPERTIES |  | method | limit/base | current | history1 | history2 |
| Visc @ $40^{\circ} \mathrm{C}$ | cSt | ASTM D445 |  | 63.4 | 63.2 | 66.7 |
| SAMPLE IMA | ES | method | limitbase | current | history1 | history2 |




Viscosity @ $40^{\circ} \mathrm{C}$


Laboratory Sample No. Lab Number Unique Number
: WearCheck USA - 501 Madison Ave., Cary, NC 27513
: PCA0109519 Received : 13 Nov 2023 06005689 Diagnosed : 14 Nov 2023 :10739451 Diagnostician : Doug Bogart


KraftHeinz - New Ulm - Plant 8302 2525 S BRIDGE STREET NEW ULM, MN

US 56073
Contact: RYAN SCHMID ryan.schmid@kraftheinz.com T: (507)568-0338 F: (507)354-7927

