## VILTER VILTER

## Screw Compressor

TULCO LUBSOIL LPG WI 100 ( 150 GAL)
COMPONENT CONDITION SUMMARY


## RECOMMENDATION

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

| Sample Status |  |  | ABNORMAL | ABNORMAL | ABNORMAL |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Particles $>4 \mu \mathrm{~m}$ | ASTM D7647 | >10000 | $\triangle 29378$ | $\triangle 90065$ | $\triangle 114551$ |
| Particles $>6 \mu \mathrm{~m}$ | ASTM D7647 | >2500 | $\triangle 5530$ | $\triangle 20151$ | $\triangle 28304$ |
| Particles $>14 \mu \mathrm{~m}$ | ASTM D7647 | >320 | $\triangle 382$ | $\triangle 1427$ | $\triangle 1671$ |
| Particles $>21 \mu \mathrm{~m}$ | ASTM D7647 | >80 | $\triangle 83$ | $\triangle 424$ | $\triangle 320$ |
| Oil Cleanliness | ISO 4406 (c) | >20/18/15 | 22/20/16 | - 24/22/18 | - 24/22/18 |

Customer Id: CAMFORAR
Sample No.: TO70000005
Lab Number: 05573176
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 ACTIONS

| Action | Status | Date | Done By | Description |
| :--- | :---: | :---: | :--- | :--- |
| Change Filter | MISSED | Jul 132022 | $?$ | We recommend you service the filters on this component if applicable. |

## HISTORICAL DIAGNOSIS

## 02 May 2022 Diag: Jonathan Hester

We recommend you service the filters on this component if applicable. 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.


04 Apr 2022 Diag: Don Baldridge

We recommend you service the filters on this component if applicable. 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 Feb 2022 Diag: Doug Bogart

We recommend you service the filters on this component. We advise that you inspect for the source(s) of wear. Resample at the next service interval to monitor. We were unable to perform a particle count due to metal particles present in this sample.An increase in the iron level is noted. Moderate concentration of visible metal present. No other contaminants were detected in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.


## VILTER VILTER

Component
Screw Compressor
TULCO LUBSOIL LPG WI 100 (150 GAL)

## DIAGNOSIS

## Recommendation

We recommend you service the filters on this component if applicable. 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 | history1 | history2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sample Number |  | Client Info |  | TO70000005 | TO70000004 | TO70000002 |
| Sample Date |  | Client Info |  | 02 Jun 2022 | 02 May 2022 | 04 Apr 2022 |
| Machine Age | wks | Client Info |  | 0 | 0 | 0 |
| Oil Age | wks | Client Info |  | 0 | 0 | 0 |
| Oil Changed |  | Client Info |  | N/A | N/A | N/A |
| Sample Status |  |  |  | ABNORMAL | ABNORMAL | ABNORMAL |
| WEAR METALS |  | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >60 | 1 | 2 | 5 |
| Chromium | ppm | ASTM D5185m | >4 | 0 | 0 | <1 |
| Nickel | ppm | ASTM D5185m |  | 0 | 0 | <1 |
| Titanium | ppm | ASTM D5185m |  | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m |  | 0 | 0 | <1 |
| Aluminum | ppm | ASTM D5185m | >5 | <1 | 0 | <1 |
| Lead | ppm | ASTM D5185m | >10 | 0 | <1 | <1 |
| Copper | ppm | ASTM D5185m | >30 | 0 | 0 | <1 |
| Tin | ppm | ASTM D5185m | >15 | <1 | <1 | 1 |
| Antimony | ppm | ASTM D5185m |  | --- | --- | --- |
| Vanadium | ppm | ASTM D5185m |  | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m |  | 0 | 0 | 0 |
| ADDITIVES |  | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185m | 0 | 3 | 4 | 2 |
| Barium | ppm | ASTM D5185m |  | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 0 | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185m |  | 0 | 0 | <1 |
| Magnesium | ppm | ASTM D5185m | 0 | <1 | 0 | 0 |
| Calcium | ppm | ASTM D5185m |  | 2 | 0 | 1 |
| Phosphorus | ppm | ASTM D5185m | 0 | 4 | 6 | 11 |
| Zinc | ppm | ASTM D5185m | 0 | 3 | 0 | 0 |
| Sulfur | ppm | ASTM D5185m | 0 | 1185 | 745 | 877 |


| CONTAMINANTS |  | method | limit/base | current | history1 | history2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Silicon | ppm | ASTM D5185m | >50 | 25 | 24 | 22 |
| Sodium | ppm | ASTM D5185m |  | 0 | 0 | 0 |
| Potassium | ppm | ASTM D5185m | >20 | 0 | 0 | <1 |
| Water | \% | ASTM D6304 | >2.26 | 0.386 | 0.343 | 0.192 |
| ppm Water | ppm | ASTM D6304 | >22600 | 3865.4 | 3431.9 | 1929.5 |
| FLUID CLEANLINESS |  | method | limit/base | current | history1 | history2 |
| Particles $>4 \mu \mathrm{~m}$ |  | ASTM D7647 | >10000 | $\triangle 29378$ | $\triangle 90065$ | - 114551 |
| Particles $>6 \mu \mathrm{~m}$ |  | ASTM D7647 | >2500 | $\triangle 5530$ | - 20151 | $\triangle 28304$ |
| Particles $>14 \mu \mathrm{~m}$ |  | ASTM D7647 | >320 | $\triangle 382$ | $\triangle 1427$ | $\triangle 1671$ |
| Particles $>21 \mu \mathrm{~m}$ |  | ASTM D7647 | >80 | $\triangle 83$ | $\triangle 424$ | - 320 |
| Particles $>38 \mu \mathrm{~m}$ |  | ASTM D7647 | >20 | 5 | $\triangle 22$ | $\triangle 25$ |
| Particles $>71 \mu \mathrm{~m}$ |  | ASTM D7647 | $>4$ | 0 | 0 | 1 |
| Oil Cleanliness |  | ISO 4406 (c) | >20/18/15 | $\triangle 22 / 20 / 16$ | - 24/22/18 | - 24/22/18 |


| FLUID DEGRADATION | method | limitbase | current | history1 | history2 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Acid Number (AN) | mg KOH/g | ASTM D8045 |  | $\mathbf{0 . 3 5 7}$ | 0.259 | 1.09 |

## OIL ANALYSIS REPORT



| VISUAL |  | method | limit/base | current | history1 | history2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| White Metal | scalar | *Visual | NONE | LIGHT | LIGHT | 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 | >2.26 | 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 | 113 | 106 | 108 | 107 |
| Visc @ $100^{\circ} \mathrm{C}$ | cSt | ASTM D445 | 19 | 18.3 | 18.7 | 18.6 |
| Viscosity Index (VI) | Scale | ASTM D2270 | 189 | 192 | 193 | 194 |

SAMPLE IMAGES method limit/base current history1 history2
Color
Bottom

GRAPHS


Viscosity @ $100^{\circ} \mathrm{C}$


Laboratory Sample No. Lab Number Unique Numbe


Non-ferrous Metals


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


Certificate L2367 Test Package: IND 2 ( Additional Tests: KF, KV100, PrtCount, VI )
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)


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