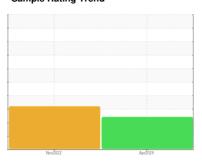


OIL ANALYSIS REPORT

Sample Rating Trend





Machine Id
HC2226
Component
2 Winch

GEAR OIL ISO 220 (--- GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Appearance is hazy. There is a trace of moisture present in the oil.

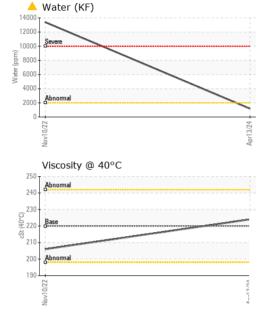
Fluid Condition

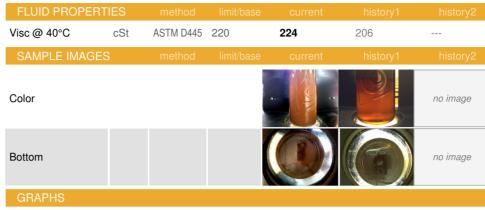
The condition of the oil is acceptable for the time in service.

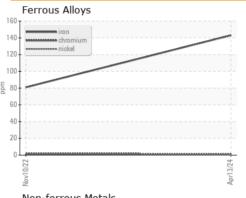
| | | 1 | Nov2022 | Apr2024 | | |
|------------------|--------|---------------|------------|-------------|---------------|----------|
| SAMPLE INFORM | MATION | method | limit/base | current | history1 | history2 |
| Sample Number | | Client Info | | WC0922173 | WC0720429 | |
| Sample Date | | Client Info | | 13 Apr 2024 | 10 Nov 2022 | |
| Machine Age | hrs | Client Info | | 8369 | 6706 | |
| Oil Age | hrs | Client Info | | 926 | 0 | |
| Oil Changed | 1110 | Client Info | | Changed | Changed | |
| Sample Status | | Oliciti IIIIO | | ATTENTION | SEVERE | |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >150 | 143 | 81 | |
| Chromium | ppm | ASTM D5185m | >100 | 1 | 2 | |
| Nickel | ppm | | >10 | - <1 | <1 | |
| Titanium | ppm | ASTM D5185m | 710 | <1 | <1 | |
| Silver | ppm | ASTM D5185m | | <1 | <1 | |
| Aluminum | ppm | ASTM D5185m | >5 | 4 | <1 | |
| Lead | ppm | ASTM D5185m | >15 | - <1 | 5 | |
| Copper | ppm | ASTM D5185m | >80 | 2 | 1 | |
| Tin | ppm | ASTM D5185m | 7 00 | - <1 | <1 | |
| Vanadium | ppm | ASTM D5185m | | <1 | <1 | |
| Cadmium | ppm | ASTM D5185m | | <1 | <1 | |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185m | 50 | 2 | 1 | |
| Barium | ppm | ASTM D5185m | 15 | 0 | 0 | |
| Molybdenum | ppm | ASTM D5185m | 15 | 5 | <1 | |
| Manganese | ppm | ASTM D5185m | | 3 | 2 | |
| Magnesium | ppm | ASTM D5185m | 50 | 11 | 12 | |
| Calcium | ppm | ASTM D5185m | 50 | 28 | 6 | |
| Phosphorus | ppm | ASTM D5185m | 350 | 351 | 259 | |
| Zinc | ppm | ASTM D5185m | 100 | 53 | 13 | |
| Sulfur | ppm | ASTM D5185m | 12500 | 4866 | 126 | |
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
| Silicon | ppm | ASTM D5185m | >25 | 7 | 3 | |
| Sodium | ppm | ASTM D5185m | | 2 | 11 | |
| Potassium | ppm | ASTM D5185m | >20 | 2 | 37 | |
| Water | % | ASTM D6304 | >0.2 | <u> </u> | ▲ 1.34 | |
| ppm Water | ppm | ASTM D6304 | >2000 | <u> </u> | 13400 | |
| VISUAL | | method | limit/base | current | history1 | history2 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | |
| Precipitate | scalar | *Visual | NONE | NONE | NONE | |
| Silt | scalar | *Visual | NONE | MODER | NONE | |
| Debris | scalar | *Visual | NONE | NONE | NONE | |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | |
| Appearance | scalar | *Visual | NORML | HAZY | NORML | |
| Odor | scalar | *Visual | NORML | NORML | NORML | |
| Emulsified Water | scalar | *Visual | >0.2 | 0.2% | ▲ 0.2% | |
| Free Water | scalar | *Visual | | NEG | NEG | |

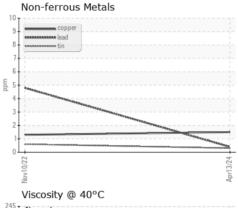


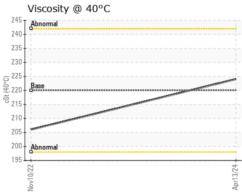
OIL ANALYSIS REPORT













Certificate 12367

Laboratory

Sample No.

: WC0922173 Lab Number : 06153837 Unique Number : 10989260

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 18 Apr 2024 **Tested** : 23 Apr 2024 Diagnosed

: 23 Apr 2024 - Jonathan Hester

US 77378 Contact: JOHN HAWKINS johnh@bucknercompanies.com T:

BUCKNER - WILLIS

18123 HWY 75 NORTH

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.

Test Package : CONST (Additional Tests: KF)

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

F:

WILLIS, TX