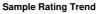


OIL ANALYSIS REPORT





| | | p2017 Feb20 | | | May2021 | |
|-----------------|--------|--------------|------------|----------------|-------------|------------|
| SAMPLE INFOR | MATION | method | limit/base | current | history1 | history2 |
| Sample Number | | Client Info | | PTK0000396 | PTK0001301 | PTK000131 |
| Sample Date | | Client Info | | 09 Nov 2023 | 13 Jun 2023 | 23 Nov 202 |
| 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 | | | | ATTENTION | ABNORMAL | NORMAL |
| CONTAMINATIC | N | method | limit/base | current | history1 | history2 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >200 | 3 | 3 | 7 |
| Chromium | ppm | ASTM D5185m | >10 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >10 | 0 | 0 | <1 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | | 0 | 0 | <1 |
| Aluminum | ppm | ASTM D5185m | >25 | 0 | 0 | 1 |
| Lead | ppm | ASTM D5185m | >50 | 0 | 0 | <1 |
| Copper | ppm | ASTM D5185m | >200 | 2 | <1 | 1 |
| Tin | ppm | ASTM D5185m | >10 | 0 | 0 | <1 |
| Antimony | ppm | ASTM D5185m | >5 | | | |
| 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 | | 10 | 11 | <1 |
| Barium | ppm | ASTM D5185m | | 0 | 5 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Magnesium | ppm | ASTM D5185m | | 0 | 5 | <1 |
| Calcium | ppm | ASTM D5185m | | 0 | 7 | 2 |
| Phosphorus | ppm | ASTM D5185m | | 299 | 365 | 234 |
| Zinc | ppm | ASTM D5185m | | 17 | 43 | 56 |
| Sulfur | ppm | ASTM D5185m | | 13525 | 17506 | 6572 |
| CONTAMINANTS | S | method | limit/base | current | history1 | history2 |
| Silicon | ppm | | >50 | 1 | <1 | 4 |
| Sodium | ppm | ASTM D5185m | | 1 | 0 | <1 |
| Potassium | ppm | ASTM D5185m | >20 | 0 | <1 | <1 |
| FLUID CLEANLI | NESS | method | limit/base | current | history1 | history |
| Particles >4µm | | ASTM D7647 | | 8440 | | 7041 |
| Particles >6µm | | ASTM D7647 | | <u> </u> | | 1517 |
| Particles >14µm | | ASTM D7647 | | <u> </u> | | 150 |
| Particles >21µm | | ASTM D7647 | | 85 | | 36 |
| Particles >38µm | | ASTM D7647 | | 4 | | 2 |
| Particles >71µm | | ASTM D7647 | | 1 | | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >18/15 | 4 19/16 | | 18/14 |

Machine Id KBA 7203 Component Gearbox Fluid NOT GIVEN (--- GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

All component wear rates are normal.

Contamination

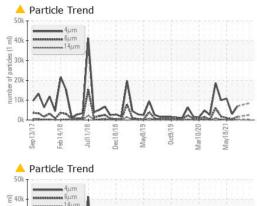
There is a light amount of silt (particulates < 14 microns in size) present in the oil.

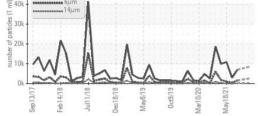
Fluid Condition

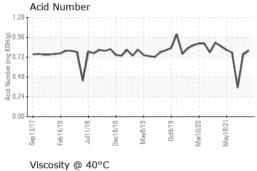
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

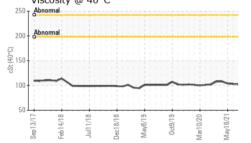


OIL ANALYSIS REPORT





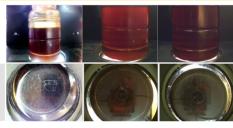


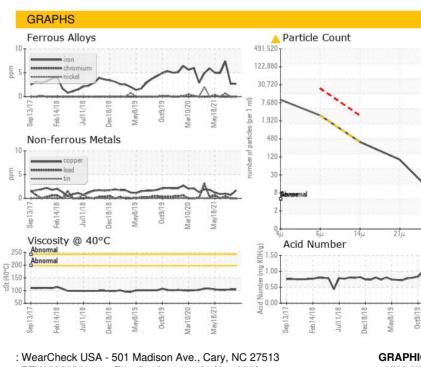


| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|-------------------|----------|------------|------------|---------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | 0.80 | 0.75 | 0.35 |
| VISUAL | | method | limit/base | current | history1 | history2 |
| White Metal | scalar | *Visual | NONE | NONE | 🔺 MODER | LIGHT |
| 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 | >0.2 | NEG | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG | NEG |
| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
| Visc @ 40°C | cSt | ASTM D445 | | 104 | 104 | 102 |
| SAMPLE IMAGES | 6 | method | limit/base | current | history1 | history2 |

Color

Bottom





GRAPHIC PACKAGING Laboratory Sample No. : PTK0000396 Received : 24 Nov 2023 1500 NICHOLAS BLVD Lab Number : 06017321 : 28 Nov 2023 ELK GROVE, IL Diagnosed Unique Number : 10756465 Diagnostician : Wes Davis US 60017 Test Package : MOB 2 (Additional Tests: PrtCount) Contact: TONY HILDY Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. anthonyhildy@graphicpkg.com * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (847)437-1700 F: Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Contact/Location: TONY HILDY - GRAELK

May18/21

Mar10/20

ISO 4406:1999 Cle -20

12 8

18