

OIL ANALYSIS REPORT

Area **CTL 64.1** CTL 64.1 Cut-to-Length Shear (Rotory) (S/N 16-5220-0245) Gearbox Fluid GEAR OIL ISO 220 (--- QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

The water content is negligible. There is no indication of any contamination in the oil.

Fluid Condition

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

| | | UI2015 De | czulis Sepzul/ H | 62019 Jul2020 Jan2022 | Jul2023 | |
|------------------|----------|-------------|------------------|-----------------------|-------------|-------------|
| SAMPLE INFORM | IATION | method | limit/base | current | history1 | history2 |
| Sample Number | | Client Info | | RP0044262 | RP0034945 | RP0030641 |
| Sample Date | | Client Info | | 28 May 2024 | 24 Jul 2023 | 18 Jan 2023 |
| Machine Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | N/A | N/A | N/A |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| PQ | | ASTM D8184 | | 22 | 25 | 25 |
| Iron | ppm | ASTM D5185m | >200 | 9 | 21 | 19 |
| Chromium | ppm | ASTM D5185m | >15 | <1 | 0 | <1 |
| Nickel | ppm | ASTM D5185m | >15 | <1 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | <1 | <1 | 0 |
| Silver | ppm | ASTM D5185m | | 1 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | 1 | <1 | <1 |
| Lead | ppm | ASTM D5185m | >100 | 1 | 0 | 0 |
| Copper | ppm | ASTM D5185m | >200 | 2 | 1 | 1 |
| Tin | ppm | ASTM D5185m | >25 | 1 | 0 | <1 |
| Vanadium | ppm | ASTM D5185m | | <1 | <1 | 0 |
| Cadmium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185m | 50 | <1 | 0 | 0 |
| Barium | ppm | ASTM D5185m | 15 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 15 | <1 | <1 | <1 |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 50 | 4 | 3 | 1 |
| Calcium | ppm | ASTM D5185m | 50 | 0 | 10 | 15 |
| Phosphorus | ppm | ASTM D5185m | 350 | 146 | 161 | 258 |
| Zinc | ppm | ASTM D5185m | 100 | 21 | 7 | 7 |
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
| Silicon | ppm | ASTM D5185m | >50 | 3 | <1 | 3 |
| Sodium | ppm | ASTM D5185m | | 0 | 1 | <1 |
| Potassium | ppm | ASTM D5185m | >20 | <1 | 0 | <1 |
| Water | % | ASTM D6304 | >0.2 | 0.016 | 0.004 | 0.011 |
| ppm Water | ppm | ASTM D6304 | >2000 | 160 | 45.3 | 117.0 |
| FLUID DEGRADA | TION | method | limit/base | current | history1 | history2 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.85 | 0.37 | 0.36 | 0.21 |

2015 Dec2016 Sec017 Fe2019 Ju2020 Ju2022 Ju2023

Sample Rating Trend





OIL ANALYSIS REPORT







ig22/19

16/20

50

Sep 17/17 /av22/18

| VISUAL | | method | limit/base | 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 | LIGHT | 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 PROPERT | IES | method | limit/base | current | history1 | history2 |
| Visc @ 40°C | cSt | ASTM D445 | 220 | 215 | 226 | 218 |
| SAMPLE IMAGES | | method | limit/base | current | history1 | history2 |
| Color | | | | A. | | |
| | | | | | A second | |

Bottom



OUTOKUMPU STAINLESS USA Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : RP0044262 Received : 29 May 2024 HWY 43 N Lab Number : 06194107 Tested : 30 May 2024 CALVERT, AL Unique Number : 11056230 Diagnosed : 31 May 2024 - Angela Borella US 36513 Test Package : IND 2 (Additional Tests: PQ) Contact: MARIO JOHNSON Certificate 12367 Mario.johnson@outokumpu.com 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. T: (251)321-4105

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

Submitted By: DALE ROBINSON

Page 2 of 2

F: x: