WEARCK

Inland Marine Oil Analysis Program |  | WEAR |
| ---: | :---: |
|  | NORMAL |
| CONTAMINATION | NORMAL |
| FLUID CONDITION ATIENTION |  |
|  |  |

OIL ANALYSIS REPORT
CHA

## Port Reduction Gear

Reduction Gear Oil (--- GAL)
RECOMMENDATION
No corrective action is recommended at this time. Resample at the
next service interval to monitor. next service interval to monitor.

|  | Machine Age | hrs | Client Info |  | 55259 | 54428 | 53762 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oil Age | hrs | Client Info |  | 1496 | 666 | 1537 |
|  | Filter Age | hrs | Client Info |  | 0 | 0 | 0 |
|  | Oil Changed |  | Client Info |  | N/A | N/A | N/A |
|  | Filter Changed |  | Client Info |  | N/A | N/A | N/A |
|  | Sample Status |  |  |  | ATTENTION | ATTENTION | NORMAL |
| WEAR | Iron | ppm | ASTM D5185m | >150 | 1 | 3 | 3 |
| All component wear rates are normal. | Chromium | ppm | ASTM D5185m | $>10$ | 0 | $<1$ | $<1$ |
|  | Nickel | ppm | ASTM D5185m | >10 | 0 | <1 | <1 |
|  | Titanium | ppm | ASTM D5185m |  | 0 | <1 | <1 |
|  | Silver | ppm | ASTM D5185m |  | 0 | 0 | 0 |
|  | Aluminum | ppm | ASTM D5185m | >25 | 2 | 2 | 2 |
|  | Lead | ppm | ASTM D5185m | >100 | 0 | 0 | 0 |
|  | Copper | ppm | ASTM D5185m | $>50$ | $<1$ | $<1$ | <1 |
|  | Tin | ppm | ASTM D5185m | >10 | 0 | 0 | 0 |
|  | Vanadium | ppm | ASTM D5185m |  | 0 | 0 | 0 |
|  | White Metal | scalar | *Visual | NONE | LIGHT | NONE | NONE |
|  | Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| CONTAMINATION | Silicon | ppm | ASTM D5185m | >50 | 5 | 6 | 4 |
| There is no indication of any contamination in the oil. | Potassium | ppm | ASTM D5185m | >20 | $<1$ | 2 | 2 |
|  | Water |  | WC Method | >0.1 | NEG | NEG | NEG |
|  | Silt | scalar | *Visual | NONE | NONE | NONE | NONE |
|  | Debris | scalar | *Visual | NONE | NONE | NONE | LIGHT |
|  | 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 | >0.1 | NEG | NEG | NEG |
| FLUID CONDITION | Sodium | ppm | ASTM D5185m |  | 2 | 0 | 0 |
| The oil viscosity is lower than normal. Additive levels indicate the | Boron | ppm | ASTM D5185m |  | 366 | 392 | 293 |
| addition of a different brand, or type of oil. Confirm oil type. The AN | Barium | ppm | ASTM D5185m |  | 0 | 0 | 0 |
| level is acceptable for this fluid. | Molybdenum | ppm | ASTM D5185m |  | 107 | 109 | 38 |
|  | Manganese | ppm | ASTM D5185m |  | <1 | <1 | <1 |
|  | Magnesium | ppm | ASTM D5185m |  | 529 | 500 | 91 |
|  | Calcium | ppm | ASTM D5185m |  | - 1587 | - 1570 | 2122 |
|  | Phosphorus | ppm | ASTM D5185m |  | 758 | 663 | 590 |
|  | Zinc | ppm | ASTM D5185m |  | 873 | 848 | 778 |
|  | Sulfur | ppm | ASTM D5185m |  | 2658 | 3061 | 3070 |
|  | Acid Number (AN) | $\mathrm{mg} \mathrm{KOH/g}$ | ASTM D8045 |  | 1.01 | 1.47 | 0.97 |
|  | Visc @ $40^{\circ} \mathrm{C}$ | cSt | ASTM D445 |  | 77.3 | - 81.2 | 120 |



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Received : 07 Dec 2023
Tested : 09 Dec 2023

| Lab Number : 06028761 | Tested |
| :--- | :--- |
| Unique Number : $: 10778552$ | Diagnosed |

Certificate L2367 Test Package: MAR 2
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.

ILLINOIS MARINE TOWING
PO BOX 391
LEMONT, IL
US 60439
Contact: RHETT DANIEL rdaniel@imtowing.com

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)
T: (630)280-4926
F: (630)739-2041

