MAR II

WEAR CHECK Inland Marine Oil Analysis Program

# OIL ANALYSIS REPORT

| | |
|---|---|
| WEAR | NORMAL |
| CONTAMINATION | NORMAL |
| FLUID CONDITION | NORMAL |

Machine Id
## CAIRO (S/N 2079)
Component
## Port Reduction Gear
Fluid
## SCHAEFFER 209 MOLY UNIVERSAL GEARLUBE ISO 220 (160 GAL)

## RECOMMENDATION

Resample at the next service interval to monitor.

## WEAR

All component wear rates are normal.

## CONTAMINATION

There is no indication of any contamination in the oil.

## FLUID CONDITION

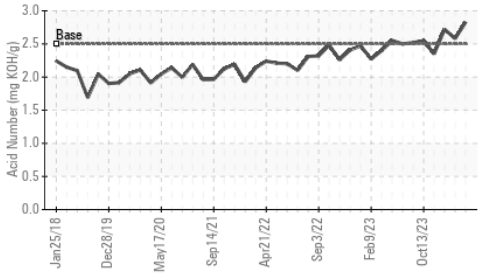
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | MW0047460 | MW0062437 | MW0062375 |
| Sample Date | | Client Info | | 20 Feb 2024 | 27 Dec 2023 | 20 Nov 2023 |
| Machine Age | hrs | Client Info | | 50096 | 48792 | 47931 |
| Oil Age | hrs | Client Info | | 50096 | 48792 | 47931 |
| Filter Age | hrs | Client Info | | 50096 | 48792 | 47931 |
| Oil Changed | | Client Info | | Not Changd | Not Changd | Not Changd |
| Filter Changed | | Client Info | | Not Changd | Not Changd | Not Changd |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |
| Iron | ppm | ASTM D5185m | >150 | 40 | 40 | 40 |
| Chromium | ppm | ASTM D5185m | >10 | <1 | 0 | <1 |
| Nickel | ppm | ASTM D5185m | >10 | 0 | 0 | <1 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | <1 |
| Silver | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | 2 | 2 | 2 |
| Lead | ppm | ASTM D5185m | >100 | <1 | 0 | 1 |
| Copper | ppm | ASTM D5185m | >50 | 3 | 4 | 5 |
| Tin | ppm | ASTM D5185m | >10 | 0 | 0 | <1 |
| Vanadium | ppm | ASTM D5185m | | <1 | 0 | <1 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Silicon | ppm | ASTM D5185m | >50 | 4 | 4 | 6 |
| Potassium | ppm | ASTM D5185m | >20 | 2 | 2 | 4 |
| Water | | WC Method | >0.1 | NEG | NEG | NEG |
| 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 | >0.1 | NEG | NEG | NEG |
| Sodium | ppm | ASTM D5185m | | 10 | 12 | 8 |
| Boron | ppm | ASTM D5185m | 65 | 7 | 6 | 8 |
| Barium | ppm | ASTM D5185m | | 0 | 0 | 4 |
| Molybdenum | ppm | ASTM D5185m | 325 | 109 | 119 | 131 |
| Manganese | ppm | ASTM D5185m | | <1 | 0 | <1 |
| Magnesium | ppm | ASTM D5185m | | 0 | 0 | 4 |
| Calcium | ppm | ASTM D5185m | | 78 | 75 | 78 |
| Phosphorus | ppm | ASTM D5185m | 875 | 973 | 991 | 933 |
| Zinc | ppm | ASTM D5185m | | 59 | 53 | 55 |
| Sulfur | ppm | ASTM D5185m | 16000 | 16048 | 14844 | 19165 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 2.5 | 2.83 | 2.58 | 2.72 |
| Visc @ 40°C | cSt | ASTM D445 | 219 | 270 | 265 | 266 |

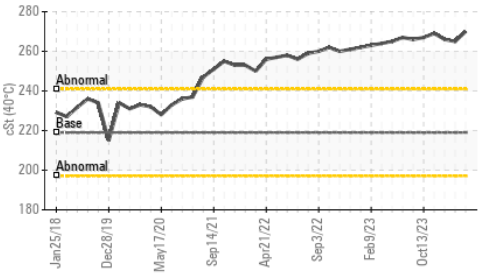
Report Id: AMELOU [WUSCAR] 06104492 (Generated: 03/03/2024 20:08:05) Rev: 1

Contact/Location: RONALD SCHNEIDER - AMELOU

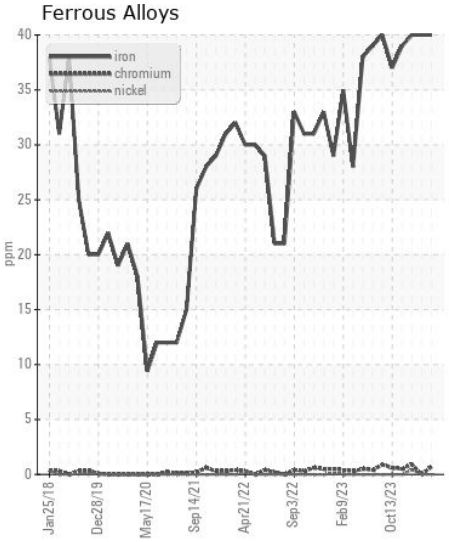
Acid Number



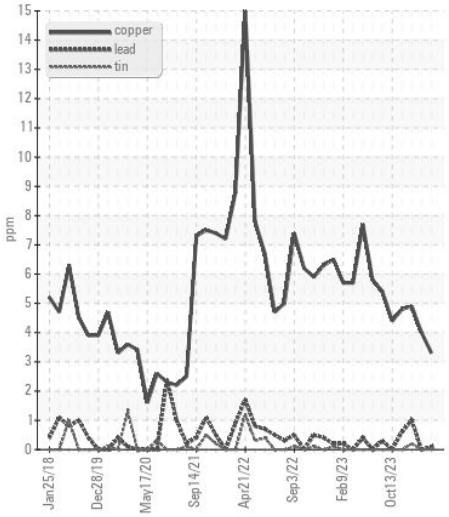

Viscosity @ 40°C



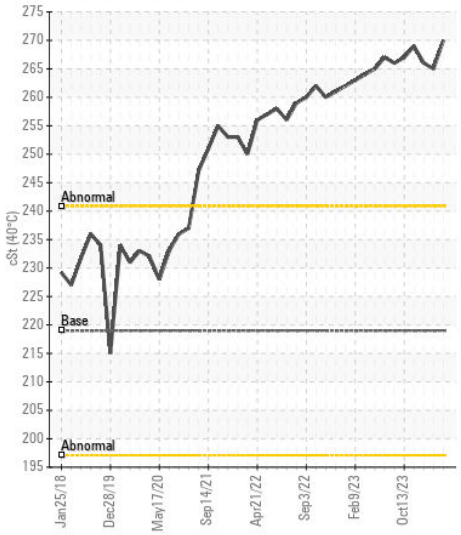

Ferrous Alloys



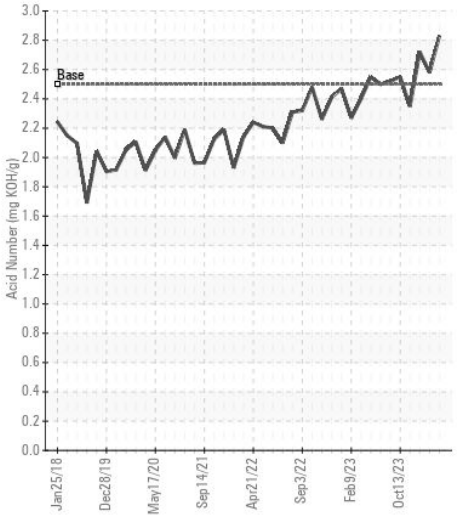

Non-ferrous Metals




Viscosity @ 40°C




Acid Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : MW0047460
**Lab Number** : 06104492
**Unique Number** : 10902722
**Test Package** : MAR 2

**Received** : 29 Feb 2024
**Tested** : 01 Mar 2024
**Diagnosed** : 03 Mar 2024 - Doug Bogart

*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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