



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

Machine Id
BILL RODGERS
Component
Starboard Reduction Gear
Fluid
{not provided} (--- GAL)

RECOMMENDATION

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

WEAR

All component wear rates are normal.

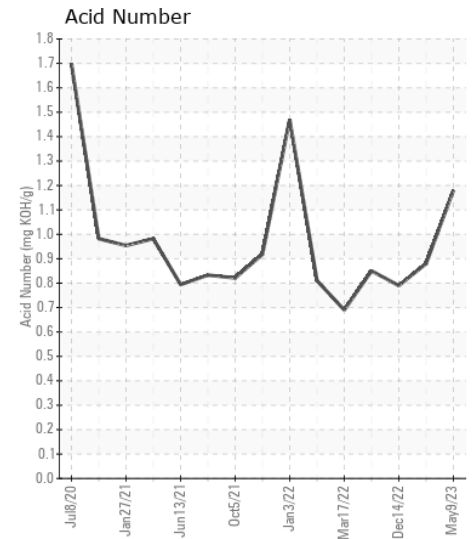
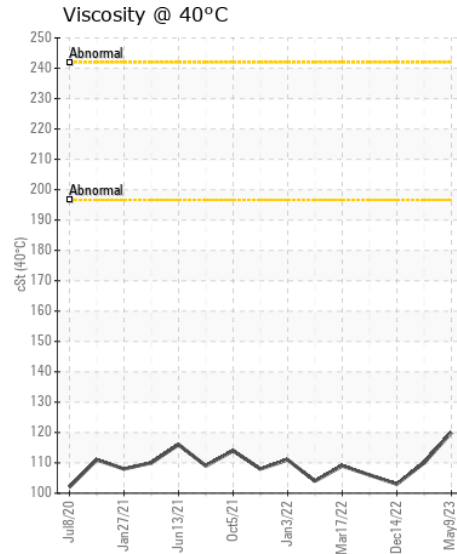
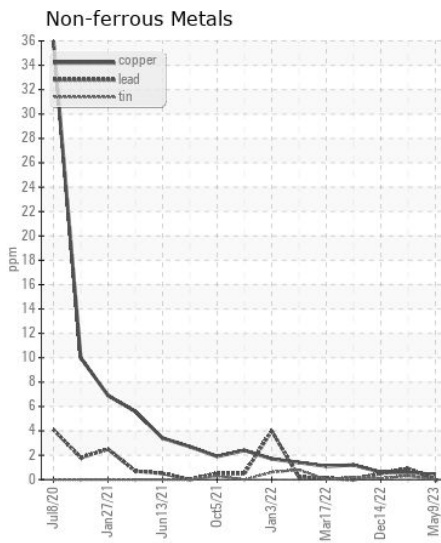
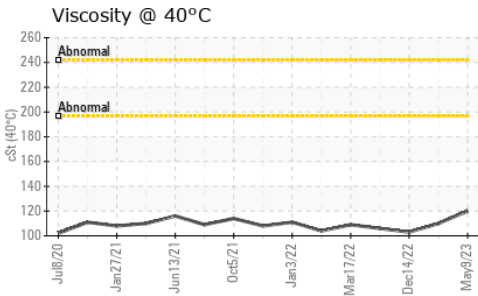
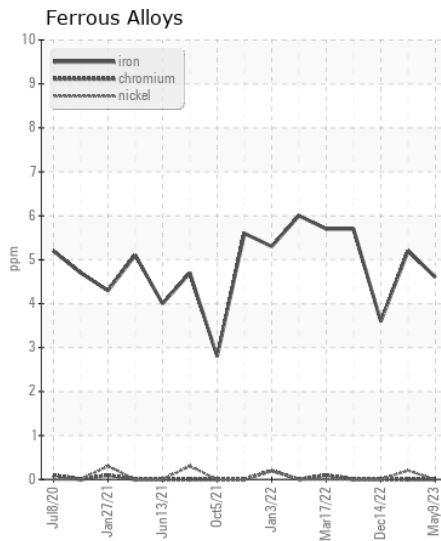
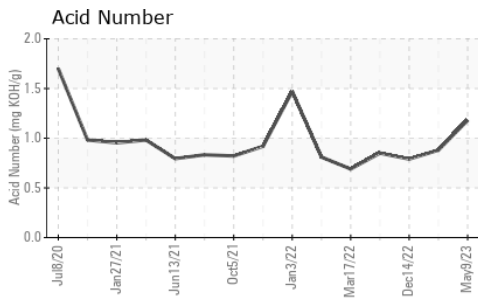
CONTAMINATION

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 | | MW05843478 | WC05745349 | MW05718517 |
| Sample Date | | Client Info | | 09 May 2023 | 22 Jan 2023 | 14 Dec 2022 |
| Machine Age | hrs | Client Info | | 10211 | 9630 | 8749 |
| Oil Age | hrs | Client Info | | 581 | 1350 | 595 |
| Filter Age | hrs | Client Info | | 0 | 1350 | 0 |
| Oil Changed | | Client Info | | N/A | N/A | N/A |
| Filter Changed | | Client Info | | N/A | N/A | N/A |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |
| Iron | ppm | ASTM D5185m | >150 | 5 | 5 | 4 |
| Chromium | ppm | ASTM D5185m | >10 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >10 | 0 | <1 | 0 |
| Titanium | ppm | ASTM D5185m | | 0 | 1 | 1 |
| Silver | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | 0 | 1 | 1 |
| Lead | ppm | ASTM D5185m | >100 | 0 | <1 | <1 |
| Copper | ppm | ASTM D5185m | >50 | <1 | <1 | <1 |
| Tin | ppm | ASTM D5185m | >10 | 0 | <1 | <1 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Silicon | ppm | ASTM D5185m | >50 | 4 | 5 | 4 |
| Potassium | ppm | ASTM D5185m | >20 | 1 | <1 | 0 |
| 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 | | 0 | 1 | <1 |
| Boron | ppm | ASTM D5185m | | 348 | 310 | 299 |
| Barium | ppm | ASTM D5185m | | 2 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 43 | 44 | 46 |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | | 71 | 139 | 179 |
| Calcium | ppm | ASTM D5185m | | 2844 | 2354 | 2081 |
| Phosphorus | ppm | ASTM D5185m | | 857 | 761 | 698 |
| Zinc | ppm | ASTM D5185m | | 954 | 880 | 770 |
| Sulfur | ppm | ASTM D5185m | | 3059 | 3758 | 3169 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | 1.18 | 0.88 | 0.79 |
| Visc @ 40°C | cSt | ASTM D445 | | 120 | 110 | 103 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW05843478 **Received** : 10 May 2023
Lab Number : 05843478 **Tested** : 12 May 2023
Unique Number : 10467585 **Diagnosed** : 12 May 2023 - Wes Davis
Test Package : MAR 2

ILLINOIS MARINE TOWING
 PO BOX 391
 LEMONT, IL
 US 60439
 Contact: RHETT DANIEL
 rdaniel@imtowing.com
 T: (630)280-4926
 F: (630)739-2041

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)