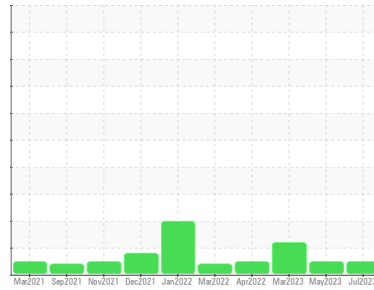




OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id
MHTF_1B MHTF_1B_P1
 Component
Drive End Pump
 Fluid
ROYAL PURPLE SYNFILM GT 32 (--- GAL)

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.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|--------------------|-------------|-------------|------------|--------------------|-------------|-------------|
| Sample Number | Client Info | | | RP0033009 | RP0027454 | RP0012609 |
| Sample Date | Client Info | | | 12 Jul 2023 | 10 May 2023 | 12 Mar 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 | ABNORMAL |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m | >90 | 10 | 24 | 20 |
| Chromium | ppm | ASTM D5185m | >5 | 0 | <1 | 0 |
| Nickel | ppm | ASTM D5185m | >5 | <1 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | >3 | 0 | <1 | 0 |
| Silver | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >7 | <1 | <1 | <1 |
| Lead | ppm | ASTM D5185m | >12 | <1 | 2 | 2 |
| Copper | ppm | ASTM D5185m | >30 | 2 | 8 | 8 |
| Tin | ppm | ASTM D5185m | >9 | 0 | <1 | 0 |
| Vanadium | ppm | ASTM D5185m | | 0 | <1 | <1 |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | 0 |

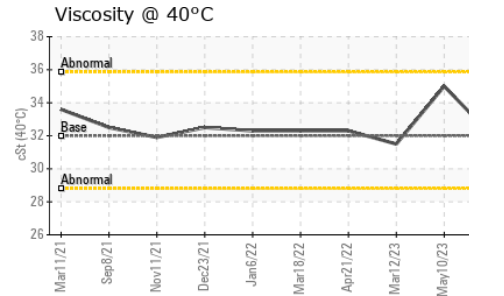
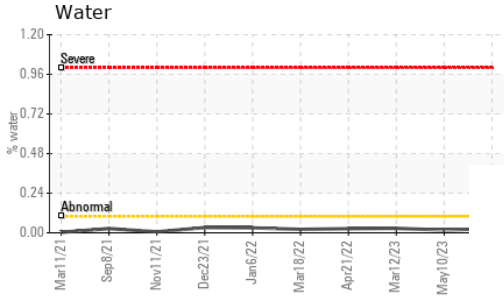
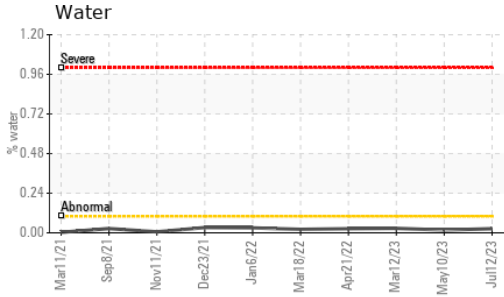
| ADDITIVES | | method | limit/base | current | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Barium | ppm | ASTM D5185m | | 2 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | 0 | <1 | 1 |
| Magnesium | ppm | ASTM D5185m | | 91 | 93 | 82 |
| Calcium | ppm | ASTM D5185m | | <1 | 0 | 2 |
| Phosphorus | ppm | ASTM D5185m | | <1 | 0 | <1 |
| Zinc | ppm | ASTM D5185m | | 0 | 13 | 0 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m | >60 | 2 | 2 | 2 |
| Sodium | ppm | ASTM D5185m | | 2 | 6 | 5 |
| Potassium | ppm | ASTM D5185m | >20 | <1 | 5 | 0 |
| Water | % | ASTM D6304 | | 0.025 | 0.017 | 0.027 |
| ppm Water | ppm | ASTM D6304 | >.1 | 252.0 | 172.3 | 277.4 |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|-------------------|----------|------------|------------|--------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | 0.372 | 0.41 | 0.37 |

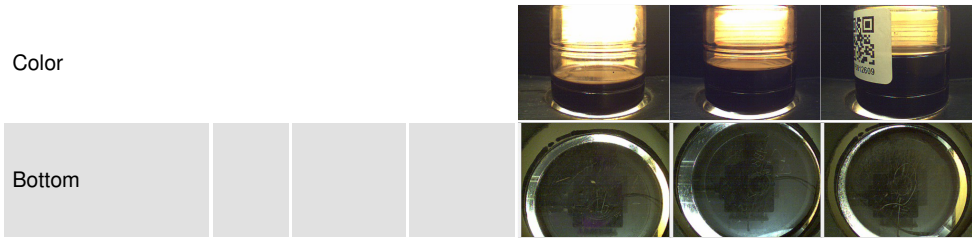
| VISUAL | | method | limit/base | current | history1 | history2 |
|------------------|--------|---------|------------|--------------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | LIGHT | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | ▲ MODER |
| Precipitate | scalar | *Visual | NONE | NONE | NONE | NONE |
| Silt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | LIGHT | 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 | | NEG | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG | NEG |

OIL ANALYSIS REPORT

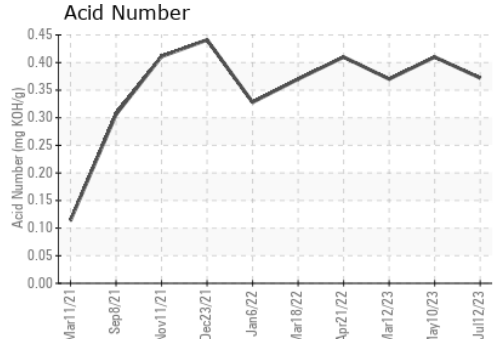
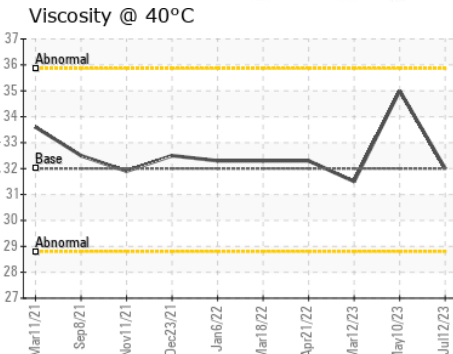
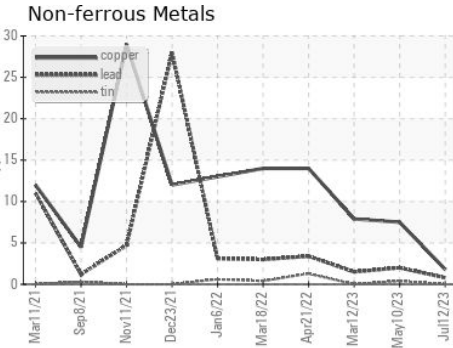
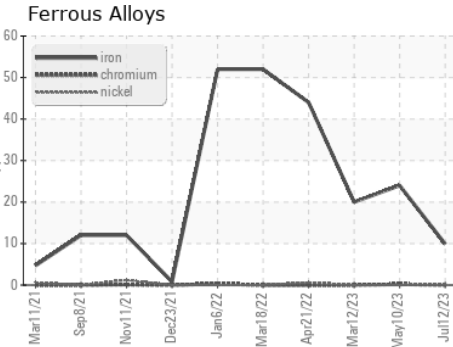


| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|------------------|-----|-----------|------------|-------------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 32 | 32.0 | 35.0 | 31.5 |

| SAMPLE IMAGES | | method | limit/base | current | history1 | history2 |
|---------------|--|--------|------------|---------|----------|----------|
|---------------|--|--------|------------|---------|----------|----------|



GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0033009 **Received** : 14 Jul 2023
Lab Number : 05898675 **Diagnosed** : 18 Jul 2023
Unique Number : 10560031 **Diagnostician** : Jonathan Hester
Test Package : IND 2

ENERGY TRANSFER - MARCUS HOOK TF
 7 COMMERCE DRIVE
 ASTON, PA
 US 19014
 Contact: QUITA MORGAN

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)

T: (610)220-8386

F: