

OIL ANALYSIS REPORT

Sample Rating Trend





TOWER 9P (S/N 002126342-1-1)

Left Gearbox

SHELL MORLINA S4 B 220 (18 GAL)

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

Fluid Condition

The condition of the oil is acceptable for the time in service.

| | | May202 | 3 Aug2023 | Jan 2024 | Mar2024 | |
|---------------|--------|-------------|-----------|-------------|-------------|-------------|
| SAMPLE INFORM | MATION | method | | | | history2 |
| Sample Number | | Client Info | | TO60002415 | TO60001376 | TO60001127 |
| Sample Date | | Client Info | | 25 Mar 2024 | 04 Jan 2024 | 03 Aug 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 |

| CONTAMINATION | | memou | | | HISTOLAL | HISTOLYZ |
|---------------|-----|-------------|------------|---------|----------|----------|
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| WEAR METALS | ; | method | limit/base | current | history1 | history2 |
| PQ | | ASTM D8184 | | 12 | 16 | 10 |
| Iron | ppm | ASTM D5185m | >200 | 0 | 0 | 0 |
| Chromium | ppm | ASTM D5185m | >15 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >15 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | <1 |
| Silver | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | 0 | 0 | 0 |
| Lead | ppm | ASTM D5185m | >100 | 0 | 0 | 0 |
| Copper | ppm | ASTM D5185m | >200 | 0 | 0 | <1 |
| Tin | ppm | ASTM D5185m | >25 | 0 | <1 | 0 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | <1 |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| ADDITIVES | | mothod | limit/baco | current | hictory1 | hictory? |

| ADDITIVES | | memod | | riistory i | HISTORYZ |
|------------|-----|-------------|------|------------|----------|
| Boron | ppm | ASTM D5185m | 2 | 3 | 2 |
| Barium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | 0 | 0 | 0 |
| Magnesium | ppm | ASTM D5185m | 0 | 0 | 2 |
| Calcium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Phosphorus | ppm | ASTM D5185m | 287 | 280 | 281 |
| Zinc | ppm | ASTM D5185m | 0 | 0 | 3 |
| Sulfur | ppm | ASTM D5185m | 1108 | 924 | 1099 |

| CONTAMINANTS | | method | | | | history2 |
|--------------|-----|-------------|-----|---|---|----------|
| Silicon | ppm | ASTM D5185m | >50 | 5 | 6 | 6 |
| Sodium | ppm | ASTM D5185m | | 0 | 0 | <1 |
| Potassium | ppm | ASTM D5185m | >20 | 0 | 0 | 2 |

| | 1-1- | | | • | | |
|-------------------------|--------|---------|------------|---------|-----------------|-----------|
| 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 | NONE | LIGHT | 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 |
| 18 Free Water | scalar | *Visual | | NEG | mittedEby: CLAY | OSTERHOUT |



OIL ANALYSIS REPORT







Laboratory Sample No.

Lab Number : 06133681 Unique Number: 10953146

: TO60002415

Received : 29 Mar 2024 **Tested** Diagnosed

: 03 Apr 2024

: 03 Apr 2024 - Sean Felton Test Package: IND 2 (Additional Tests: KV100, PQ, VI)

US 72756 Contact: CLAY OSTERHOUT clay.osterhout@clorox.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.

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

T:

F:

1700 N 13TH ST

ROGERS, AR