

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

TOWER 1S (S/N 121817)

Component Center Gearbox Fluid SHELL MORLINA S4 B 220 (50 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.

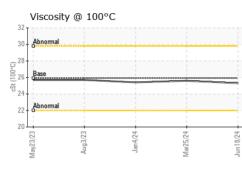
Fluid Condition

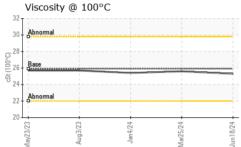
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

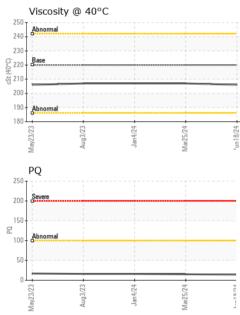
| SAMPLE INFORM | IATION | method | limit/base | current | history1 | history2 |
|------------------|---------------|-------------|------------|-------------|-------------|-------------|
| Sample Number | | Client Info | | TO60002797 | TO60002427 | TO60001386 |
| Sample Date | | Client Info | | 18 Jun 2024 | 25 Mar 2024 | 04 Jan 2024 |
| 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 | N | method | limit/base | current | history1 | history2 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| PQ | | ASTM D8184 | | 14 | 15 | 16 |
| 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 | 0 |
| Silver | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | <1 | 0 | 0 |
| Lead | ppm | ASTM D5185m | >100 | 0 | 0 | 0 |
| Copper | ppm | ASTM D5185m | >200 | 0 | 0 | 0 |
| Tin | ppm | ASTM D5185m | >25 | <1 | 0 | <1 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185m | | 3 | 2 | 3 |
| Barium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Magnesium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Calcium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Phosphorus | ppm | ASTM D5185m | | 320 | 320 | 313 |
| Zinc | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Sulfur | ppm | ASTM D5185m | | 880 | 875 | 711 |
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
| Silicon | ppm | ASTM D5185m | >50 | 16 | 16 | 17 |
| Sodium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Potassium | ppm | ASTM D5185m | >20 | 2 | 0 | 0 |
| FLUID DEGRADA | TION | method | limit/base | current | history1 | history2 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | 0.80 | | |



OIL ANALYSIS REPORT

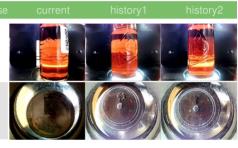




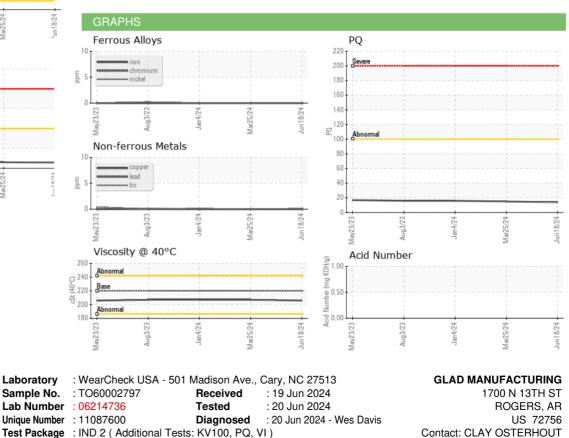


| VISUAL | | method | limit/base | current | history1 | history2 |
|----------------------|--------|------------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE | NONE |
| Silt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | 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 | >0.2 | NEG | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG | NEG |
| FLUID PROPERT | IES | method | limit/base | current | history1 | history2 |
| Visc @ 40°C | cSt | ASTM D445 | 220 | 206 | 207 | 207 |
| Visc @ 100°C | cSt | ASTM D445 | 25.9 | 25.3 | 25.6 | 25.4 |
| Viscosity Index (VI) | Scale | ASTM D2270 | 149 | 154 | 155 | 154 |
| SAMPLE IMAGES | 3 | method | limit/base | current | history1 | history2 |
| Color | | | | | | a. |

- ..



Bottom



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)

Report Id: GLAROG [WUSCAR] 06214736 (Generated: 06/23/2024 02:48:47) Rev: 1

Certificate 12367

Submitted By: CLAY OSTERHOUT Page 2 of 2

clay.osterhout@clorox.com

T:

F: