



LIEBHERR

OIL ANALYSIS REPORT

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

Machine Id
LIEBHERR LH0258885 (S/N NOT GIVEN)

Component
Swing Drive

Fluid
GEAR OIL SAE 80W90 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) GEAR OIL SAE 80W90. Please confirm.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|-------------|----------|----------|
| Sample Number | | Client Info | | LH0258885 | --- | --- |
| Sample Date | | Client Info | | 02 Mar 2024 | --- | --- |
| Machine Age | hrs | Client Info | | 1517 | --- | --- |
| Oil Age | hrs | Client Info | | 0 | --- | --- |
| Filter Age | hrs | Client Info | | 0 | --- | --- |
| Oil Changed | | Client Info | | Changed | --- | --- |
| Filter Changed | | Client Info | | N/A | --- | --- |
| Sample Status | | | | NORMAL | --- | --- |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|------|-----|-----|
| Iron | ppm | ASTM D5185m | >400 | 199 | --- | --- |
| Chromium | ppm | ASTM D5185m | >10 | 1 | --- | --- |
| Nickel | ppm | ASTM D5185m | >10 | 0 | --- | --- |
| Titanium | ppm | ASTM D5185m | | 0 | --- | --- |
| Silver | ppm | ASTM D5185m | | 0 | --- | --- |
| Aluminum | ppm | ASTM D5185m | >25 | 0 | --- | --- |
| Lead | ppm | ASTM D5185m | >50 | 0 | --- | --- |
| Copper | ppm | ASTM D5185m | >200 | 49 | --- | --- |
| Tin | ppm | ASTM D5185m | >10 | 2 | --- | --- |
| Vanadium | ppm | ASTM D5185m | | 0 | --- | --- |
| White Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- | --- |

CONTAMINATION

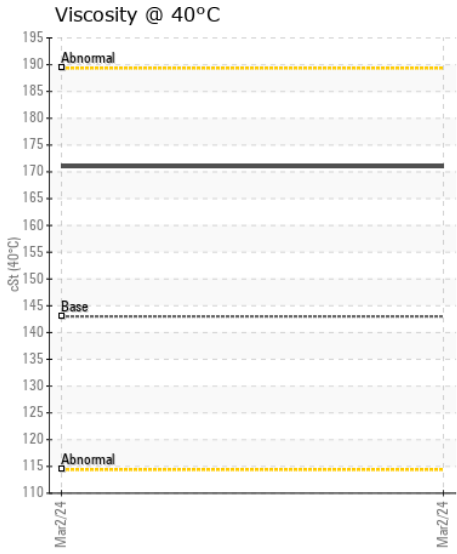
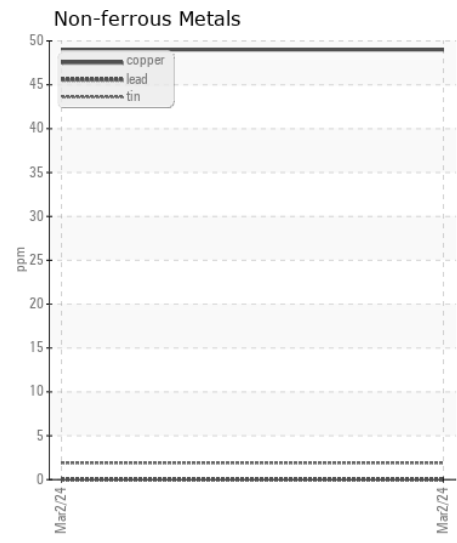
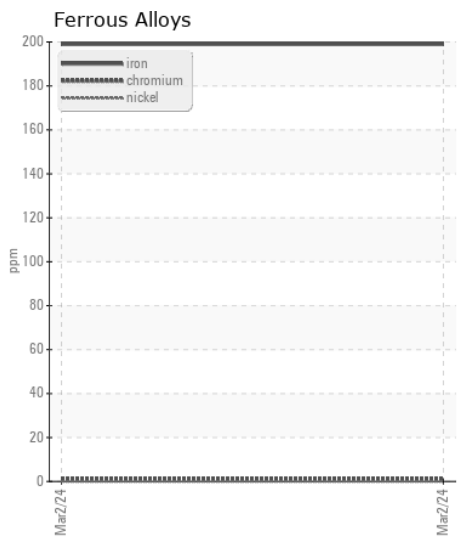
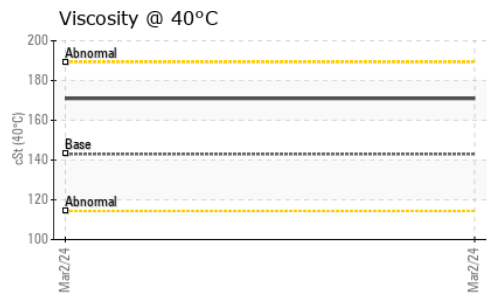
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|--------|-------------|-------|-------|-----|-----|
| Silicon | ppm | ASTM D5185m | >50 | <1 | --- | --- |
| Potassium | ppm | ASTM D5185m | >20 | 0 | --- | --- |
| Water | | WC Method | >0.2 | NEG | --- | --- |
| Silt | scalar | *Visual | NONE | NONE | --- | --- |
| Debris | scalar | *Visual | NONE | NONE | --- | --- |
| Sand/Dirt | scalar | *Visual | NONE | NONE | --- | --- |
| Appearance | scalar | *Visual | NORML | NORML | --- | --- |
| Odor | scalar | *Visual | NORML | NORML | --- | --- |
| Emulsified Water | scalar | *Visual | >0.2 | NEG | --- | --- |

FLUID CONDITION

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

| | | | | | | |
|-------------|-----|-------------|-------|-------|-----|-----|
| Sodium | ppm | ASTM D5185m | >170 | 1 | --- | --- |
| Boron | ppm | ASTM D5185m | 400 | 38 | --- | --- |
| Barium | ppm | ASTM D5185m | 200 | 0 | --- | --- |
| Molybdenum | ppm | ASTM D5185m | 12 | 0 | --- | --- |
| Manganese | ppm | ASTM D5185m | | 1 | --- | --- |
| Magnesium | ppm | ASTM D5185m | 12 | 0 | --- | --- |
| Calcium | ppm | ASTM D5185m | 150 | 78 | --- | --- |
| Phosphorus | ppm | ASTM D5185m | 1650 | 2244 | --- | --- |
| Zinc | ppm | ASTM D5185m | 125 | 43 | --- | --- |
| Sulfur | ppm | ASTM D5185m | 22500 | 30392 | --- | --- |
| Visc @ 40°C | cSt | ASTM D445 | 143 | 171 | --- | --- |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LH0258885
Lab Number : 06124409
Unique Number : 10938560
Test Package : CONST
Received : 20 Mar 2024
Tested : 22 Mar 2024
Diagnosed : 22 Mar 2024 - Wes Davis

AMERICAN STATE EQUIPMENT CO.
 2400 NORTH 14TH AVENUE
 WAUSAU, WI
 US 54401
 Contact: CHRIS BARTNIK
 cbartnik@amstate.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)