



# LIEBHERR

## OIL ANALYSIS REPORT

|                 |                 |
|-----------------|-----------------|
| WEAR            | <b>ABNORMAL</b> |
| CONTAMINATION   | <b>NORMAL</b>   |
| FLUID CONDITION | <b>NORMAL</b>   |



Machine Id  
**LIEBHERR L566 1332-62108**  
Component  
**Splitter Box**  
Fluid  
**LIEBHERR GEAR BASIC 90 LS (--- GAL)**

### RECOMMENDATION

The oil change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>LH0268217</b>   | LH0264012   | LH0176284   |
| Sample Date    |     | Client Info |           | <b>18 Dec 2023</b> | 16 Aug 2023 | 23 Mar 2023 |
| Machine Age    | hrs | Client Info |           | <b>7565</b>        | 6834        | 5480        |
| Oil Age        | hrs | Client Info |           | <b>0</b>           | 0           | 0           |
| Filter Age     | hrs | Client Info |           | <b>0</b>           | 0           | 0           |
| Oil Changed    |     | Client Info |           | <b>Changed</b>     | Changed     | Changed     |
| Filter Changed |     | Client Info |           | <b>Not Changed</b> | N/A         | None        |
| Sample Status  |     |             |           | <b>ABNORMAL</b>    | SEVERE      | NORMAL      |

### WEAR

Gear wear is indicated.

|              |        |             |      |              |      |      |
|--------------|--------|-------------|------|--------------|------|------|
| Iron         | ppm    | ASTM D5185m | >100 | <b>▲ 179</b> | 762  | 8    |
| Chromium     | ppm    | ASTM D5185m | >5   | <b>3</b>     | 12   | <1   |
| Nickel       | ppm    | ASTM D5185m | >5   | <b>2</b>     | 5    | 0    |
| Titanium     | ppm    | ASTM D5185m |      | <b>1</b>     | <1   | 3    |
| Silver       | ppm    | ASTM D5185m |      | <b>0</b>     | 0    | 0    |
| Aluminum     | ppm    | ASTM D5185m | >20  | <b>2</b>     | 17   | <1   |
| Lead         | ppm    | ASTM D5185m | >30  | <b>&lt;1</b> | <1   | 0    |
| Copper       | ppm    | ASTM D5185m | >20  | <b>&lt;1</b> | 2    | <1   |
| Tin          | ppm    | ASTM D5185m | >10  | <b>&lt;1</b> | 0    | 0    |
| Vanadium     | ppm    | ASTM D5185m |      | <b>0</b>     | 0    | 0    |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |

### CONTAMINATION

There is no indication of any contamination in the oil.

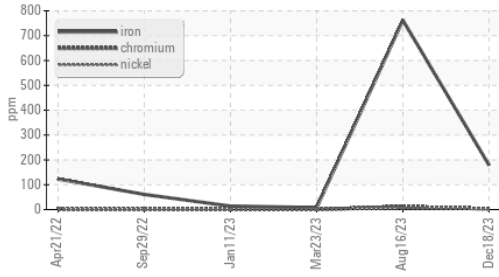
|                  |        |             |       |              |       |       |
|------------------|--------|-------------|-------|--------------|-------|-------|
| Silicon          | ppm    | ASTM D5185m | >30   | <b>11</b>    | 61    | <1    |
| Potassium        | ppm    | ASTM D5185m | >20   | <b>1</b>     | 2     | 0     |
| Water            |        | WC Method   | >0.1  | <b>NEG</b>   | NEG   | NEG   |
| Silt             | scalar | *Visual     | NONE  | <b>NONE</b>  | NONE  | NONE  |
| Debris           | scalar | *Visual     | NONE  | <b>NONE</b>  | NONE  | NONE  |
| Sand/Dirt        | scalar | *Visual     | NONE  | <b>NONE</b>  | NONE  | NONE  |
| Appearance       | scalar | *Visual     | NORML | <b>NORML</b> | NORML | NORML |
| Odor             | scalar | *Visual     | NORML | <b>NORML</b> | NORML | NORML |
| Emulsified Water | scalar | *Visual     | >0.1  | <b>NEG</b>   | NEG   | NEG   |

### FLUID CONDITION

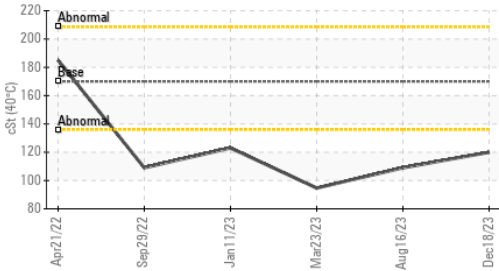
The condition of the oil is acceptable for the time in service.

|             |     |             |       |              |       |       |
|-------------|-----|-------------|-------|--------------|-------|-------|
| Sodium      | ppm | ASTM D5185m | >25   | <b>0</b>     | 0     | 2     |
| Boron       | ppm | ASTM D5185m | 0     | <b>23</b>    | 84    | 22    |
| Barium      | ppm | ASTM D5185m | 0     | <b>0</b>     | 0     | 0     |
| Molybdenum  | ppm | ASTM D5185m | 0     | <b>1</b>     | 4     | 8     |
| Manganese   | ppm | ASTM D5185m | 0     | <b>3</b>     | 7     | <1    |
| Magnesium   | ppm | ASTM D5185m | <1    | <b>13</b>    | 9     | 66    |
| Calcium     | ppm | ASTM D5185m | <1    | <b>42</b>    | 91    | 162   |
| Phosphorus  | ppm | ASTM D5185m | 2143  | <b>752</b>   | 791   | 749   |
| Zinc        | ppm | ASTM D5185m | <1    | <b>111</b>   | 159   | 187   |
| Sulfur      | ppm | ASTM D5185m | 23468 | <b>23614</b> | 22072 | 23569 |
| Visc @ 40°C | cSt | ASTM D445   | 170   | <b>120</b>   | 109   | 94.7  |

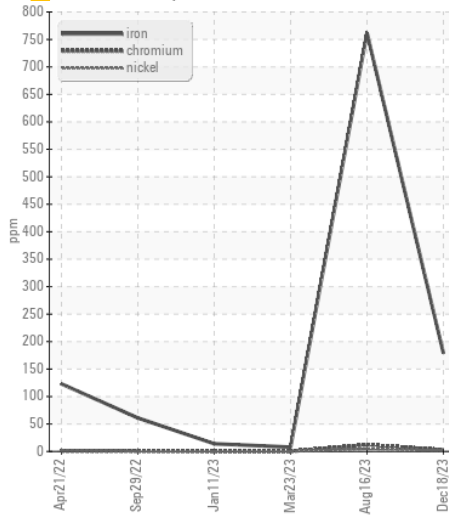
▲ Ferrous Alloys



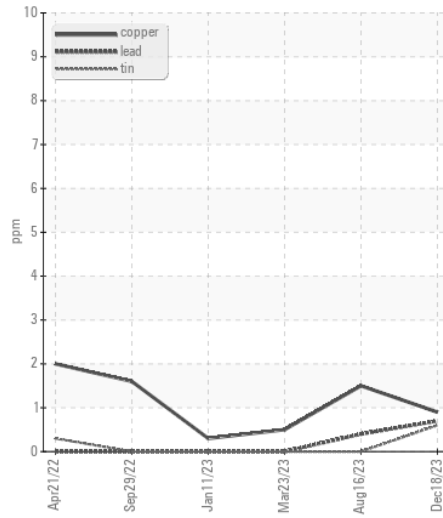
Viscosity @ 40°C



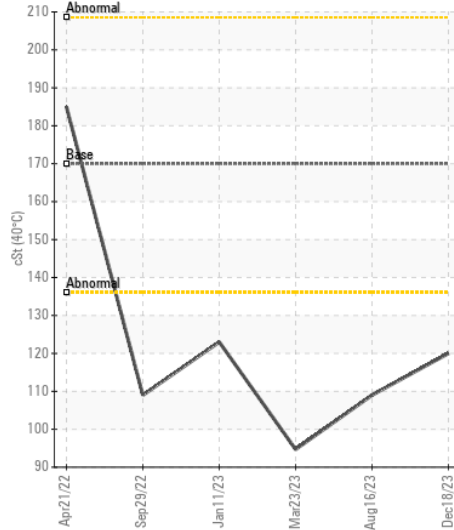
▲ Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LH0268217 **Received** : 08 Jan 2024  
**Lab Number** : 06055083 **Diagnosed** : 10 Jan 2024  
**Unique Number** : 10821032 **Diagnostician** : Sean Felton  
**Test Package** : CONST

**ALTER SCRAP**  
 1640 BRUCE STREET  
 MILWAUKEE, WI  
 US 53227  
 Contact: JEFF KOENIGS

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)

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