



# LIEBHERR

## OIL ANALYSIS REPORT

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



Machine Id  
**LIEBHERR LH40M 1215-124371**  
Component  
**Rear Differential**  
Fluid  
**{not provided} (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|----------|
| Sample Number  |     | Client Info |           | <b>LH0236272</b>   | LH0213413   | ---      |
| Sample Date    |     | Client Info |           | <b>06 Sep 2022</b> | 24 Feb 2022 | ---      |
| Machine Age    | hrs | Client Info |           | <b>1949</b>        | 1033        | ---      |
| Oil Age        | hrs | Client Info |           | <b>0</b>           | 0           | ---      |
| Filter Age     | hrs | Client Info |           | <b>0</b>           | 0           | ---      |
| Oil Changed    |     | Client Info |           | <b>Changed</b>     | Changed     | ---      |
| Filter Changed |     | Client Info |           | <b>Not Changed</b> | None        | ---      |
| Sample Status  |     |             |           | <b>NORMAL</b>      | NORMAL      | ---      |

### WEAR

All component wear rates are normal.

|              |        |             |      |              |       |     |
|--------------|--------|-------------|------|--------------|-------|-----|
| Iron         | ppm    | ASTM D5185m | >150 | <b>11</b>    | 28    | --- |
| Chromium     | ppm    | ASTM D5185m | >5   | <b>&lt;1</b> | <1    | --- |
| Nickel       | ppm    | ASTM D5185m |      | <b>0</b>     | 0     | --- |
| Titanium     | ppm    | ASTM D5185m |      | <b>0</b>     | 0     | --- |
| Silver       | ppm    | ASTM D5185m |      | <b>&lt;1</b> | <1    | --- |
| Aluminum     | ppm    | ASTM D5185m | >5   | <b>&lt;1</b> | 0     | --- |
| Lead         | ppm    | ASTM D5185m | >5   | <b>0</b>     | <1    | --- |
| Copper       | ppm    | ASTM D5185m | >125 | <b>10</b>    | 27    | --- |
| Tin          | ppm    | ASTM D5185m | >5   | <b>0</b>     | 0     | --- |
| Vanadium     | ppm    | ASTM D5185m |      | <b>0</b>     | 0     | --- |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | LIGHT | --- |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | NONE  | --- |

### CONTAMINATION

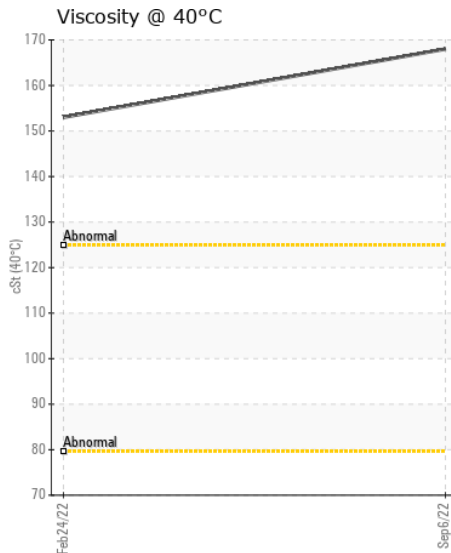
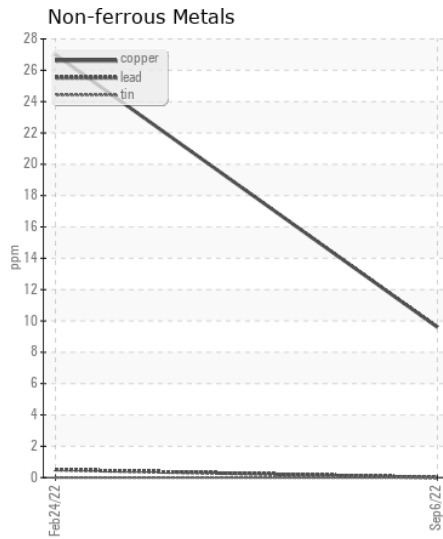
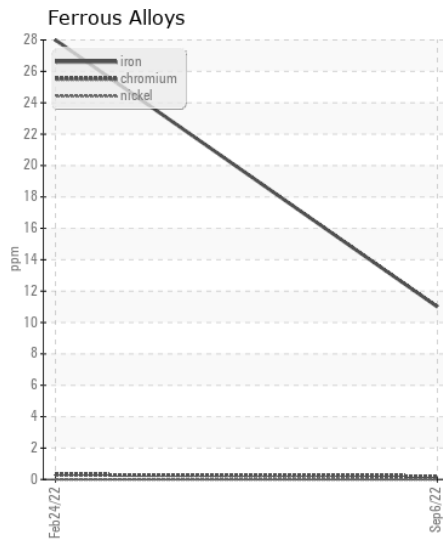
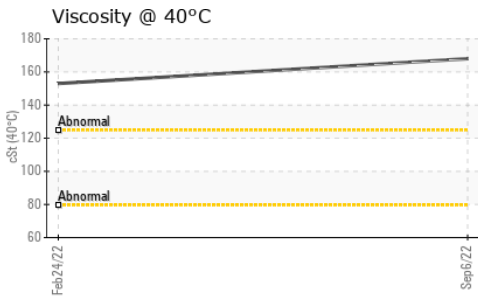
There is no indication of any contamination in the oil.

|                  |        |             |       |              |       |     |
|------------------|--------|-------------|-------|--------------|-------|-----|
| Silicon          | ppm    | ASTM D5185m | >20   | <b>2</b>     | 7     | --- |
| Potassium        | ppm    | ASTM D5185m | >20   | <b>0</b>     | 1     | --- |
| Water            |        | WC Method   | >0.2  | <b>NEG</b>   | NEG   | --- |
| Silt             | scalar | *Visual     | NONE  | <b>NONE</b>  | NONE  | --- |
| Debris           | scalar | *Visual     | NONE  | <b>NONE</b>  | VLITE | --- |
| Sand/Dirt        | scalar | *Visual     | NONE  | <b>NONE</b>  | NONE  | --- |
| Appearance       | scalar | *Visual     | NORML | <b>NORML</b> | NORML | --- |
| Odor             | scalar | *Visual     | NORML | <b>NORML</b> | NORML | --- |
| Emulsified Water | scalar | *Visual     | >0.2  | <b>NEG</b>   | NEG   | --- |

### FLUID CONDITION

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

|             |     |             |  |              |       |     |
|-------------|-----|-------------|--|--------------|-------|-----|
| Sodium      | ppm | ASTM D5185m |  | <b>5</b>     | 4     | --- |
| Boron       | ppm | ASTM D5185m |  | <b>7</b>     | 11    | --- |
| Barium      | ppm | ASTM D5185m |  | <b>0</b>     | 0     | --- |
| Molybdenum  | ppm | ASTM D5185m |  | <b>&lt;1</b> | 2     | --- |
| Manganese   | ppm | ASTM D5185m |  | <b>&lt;1</b> | 2     | --- |
| Magnesium   | ppm | ASTM D5185m |  | <b>&lt;1</b> | 2     | --- |
| Calcium     | ppm | ASTM D5185m |  | <b>57</b>    | 309   | --- |
| Phosphorus  | ppm | ASTM D5185m |  | <b>2189</b>  | 2381  | --- |
| Zinc        | ppm | ASTM D5185m |  | <b>16</b>    | 77    | --- |
| Sulfur      | ppm | ASTM D5185m |  | <b>25056</b> | 27084 | --- |
| Visc @ 40°C | cSt | ASTM D445   |  | <b>168</b>   | 153   | --- |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LH0236272  
**Lab Number** : 05641754  
**Unique Number** : 10136293  
**Test Package** : CONST  
**Received** : 14 Sep 2022  
**Tested** : 15 Sep 2022  
**Diagnosed** : 15 Sep 2022 - Angela Borella

**SADOFF IRON AND METAL**  
 240 ARNDT STREET  
 FOND DU LAC, WI  
 US 54936  
 Contact: DAVE CASPER  
 casperd@sadoff.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: