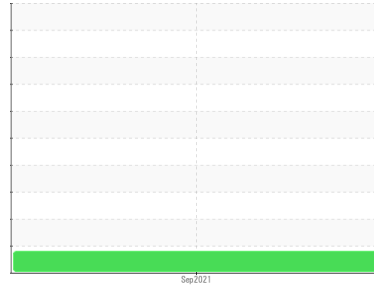


Machine Id  
**LIEBHERR 184-713**  
 Component  
**2 Winch**  
 Fluid  
**GEAR OIL SAE 80W90 (--- GAL)**



**COMPONENT CONDITION SUMMARY**

▲ Ferrous Alloys



**RECOMMENDATION**

No corrective action is recommended at this time.  
 Resample at the next service interval to monitor.

**PROBLEMATIC TEST RESULTS**

| Sample Status |     |             |      | <b>ABNORMAL</b> | --- | --- |
|---------------|-----|-------------|------|-----------------|-----|-----|
| Iron          | ppm | ASTM D5185m | >150 | ▲ 171           | --- | --- |

**Customer Id:** LEC0033  
**Sample No.:** LH0200473  
**Lab Number:** 05411454  
**Test Package:** MOBCE



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Don Baldrige +1  
[don.b505@comcast.net](mailto:don.b505@comcast.net)

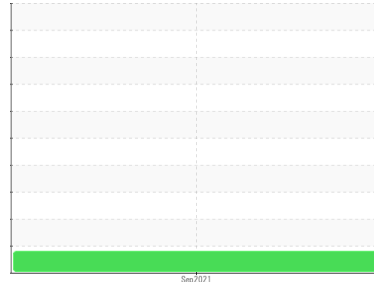
To change component or sample information:  
 Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

*There are no recommended actions for this sample.*

## HISTORICAL DIAGNOSIS

Machine Id  
**LIEBHERR 184-713**  
 Component  
**2 Winch**  
 Fluid  
**GEAR OIL SAE 80W90 (--- GAL)**



**DIAGNOSIS**

**▲ Recommendation**

No corrective action is recommended at this time. Resample at the next service interval to monitor.

**▲ Wear**

Gear wear is indicated.

**Contamination**

There is no indication of any contamination in the oil.

**Fluid Condition**

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

**SAMPLE INFORMATION**    method    limit/base    current    history1    history2

|               |             |             |                    |     |     |
|---------------|-------------|-------------|--------------------|-----|-----|
| Sample Number | Client Info |             | <b>LH0200473</b>   | --- | --- |
| Sample Date   | Client Info |             | <b>30 Sep 2021</b> | --- | --- |
| Machine Age   | hrs         | Client Info | <b>8339</b>        | --- | --- |
| Oil Age       | hrs         | Client Info | <b>0</b>           | --- | --- |
| Oil Changed   |             | Client Info | <b>N/A</b>         | --- | --- |
| Sample Status |             |             | <b>ABNORMAL</b>    | --- | --- |

**WEAR METALS**    method    limit/base    current    history1    history2

|          |     |             |      |              |     |     |
|----------|-----|-------------|------|--------------|-----|-----|
| Iron     | ppm | ASTM D5185m | >150 | <b>▲ 171</b> | --- | --- |
| Chromium | ppm | ASTM D5185m |      | <b>2</b>     | --- | --- |
| Nickel   | ppm | ASTM D5185m |      | <b>0</b>     | --- | --- |
| Titanium | ppm | ASTM D5185m |      | <b>&lt;1</b> | --- | --- |
| Silver   | ppm | ASTM D5185m |      | <b>&lt;1</b> | --- | --- |
| Aluminum | ppm | ASTM D5185m | >5   | <b>2</b>     | --- | --- |
| Lead     | ppm | ASTM D5185m | >15  | <b>2</b>     | --- | --- |
| Copper   | ppm | ASTM D5185m | >80  | <b>57</b>    | --- | --- |
| Tin      | ppm | ASTM D5185m |      | <b>17</b>    | --- | --- |
| Antimony | ppm | ASTM D5185m |      | <b>0</b>     | --- | --- |
| Vanadium | ppm | ASTM D5185m |      | <b>0</b>     | --- | --- |
| Cadmium  | ppm | ASTM D5185m |      | <b>0</b>     | --- | --- |

**ADDITIVES**    method    limit/base    current    history1    history2

|            |     |             |       |              |     |     |
|------------|-----|-------------|-------|--------------|-----|-----|
| Boron      | ppm | ASTM D5185m | 400   | <b>51</b>    | --- | --- |
| Barium     | ppm | ASTM D5185m | 200   | <b>0</b>     | --- | --- |
| Molybdenum | ppm | ASTM D5185m | 12    | <b>&lt;1</b> | --- | --- |
| Manganese  | ppm | ASTM D5185m |       | <b>2</b>     | --- | --- |
| Magnesium  | ppm | ASTM D5185m | 12    | <b>&lt;1</b> | --- | --- |
| Calcium    | ppm | ASTM D5185m | 150   | <b>92</b>    | --- | --- |
| Phosphorus | ppm | ASTM D5185m | 1650  | <b>1176</b>  | --- | --- |
| Zinc       | ppm | ASTM D5185m | 125   | <b>157</b>   | --- | --- |
| Sulfur     | ppm | ASTM D5185m | 22500 | <b>18585</b> | --- | --- |

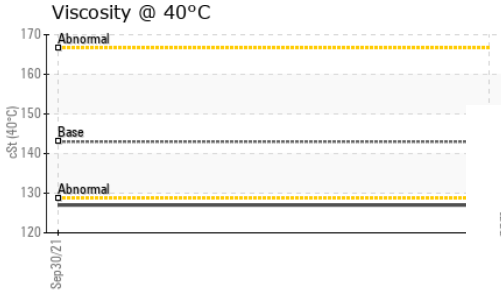
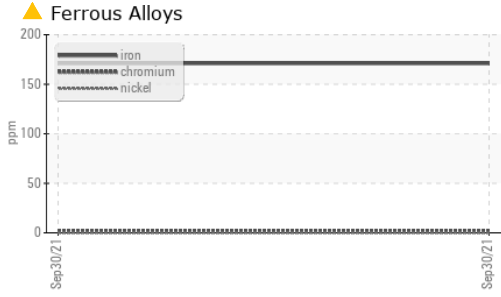
**CONTAMINANTS**    method    limit/base    current    history1    history2

|           |     |             |      |              |     |     |
|-----------|-----|-------------|------|--------------|-----|-----|
| Silicon   | ppm | ASTM D5185m | >25  | <b>4</b>     | --- | --- |
| Sodium    | ppm | ASTM D5185m | >170 | <b>&lt;1</b> | --- | --- |
| Potassium | ppm | ASTM D5185m | >20  | <b>0</b>     | --- | --- |

**VISUAL**    method    limit/base    current    history1    history2

|                  |        |         |       |              |     |     |
|------------------|--------|---------|-------|--------------|-----|-----|
| White Metal      | scalar | *Visual | NONE  | <b>VLITE</b> | --- | --- |
| Yellow Metal     | scalar | *Visual | NONE  | <b>NONE</b>  | --- | --- |
| Precipitate      | scalar | *Visual | NONE  | <b>NONE</b>  | --- | --- |
| Silt             | scalar | *Visual | NONE  | <b>NONE</b>  | --- | --- |
| Debris           | scalar | *Visual | NONE  | <b>NONE</b>  | --- | --- |
| Sand/Dirt        | scalar | *Visual | NONE  | <b>NONE</b>  | --- | --- |
| Appearance       | scalar | *Visual | NORML | <b>NORML</b> | --- | --- |
| Odor             | scalar | *Visual | NORML | <b>NORML</b> | --- | --- |
| Emulsified Water | scalar | *Visual | >0.2  | <b>NEG</b>   | --- | --- |
| Free Water       | scalar | *Visual |       | <b>NEG</b>   | --- | --- |

# OIL ANALYSIS REPORT



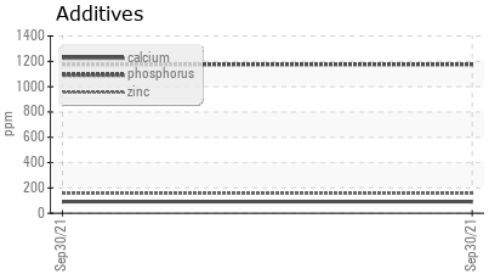
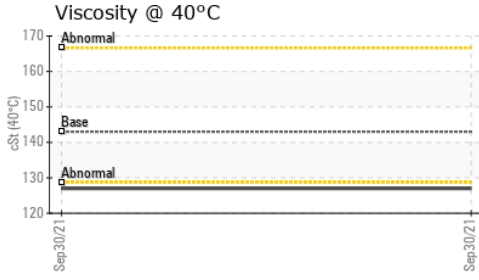
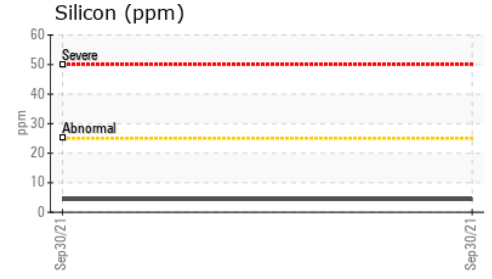
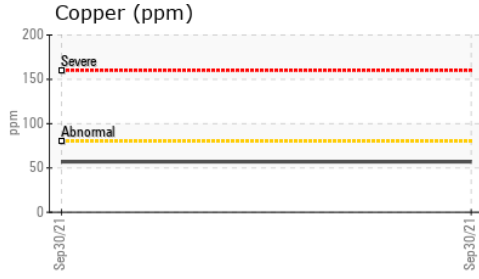
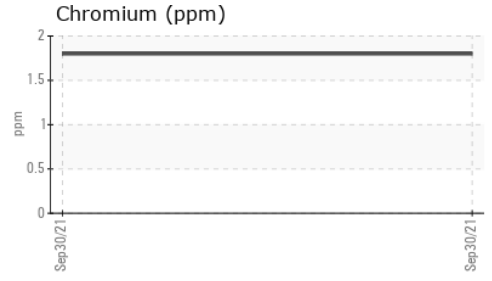
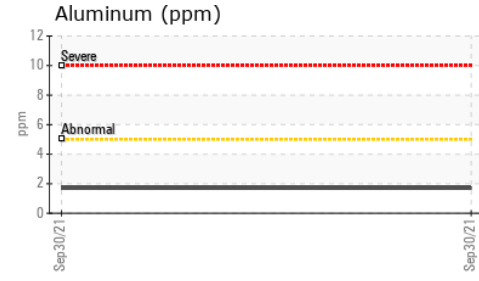
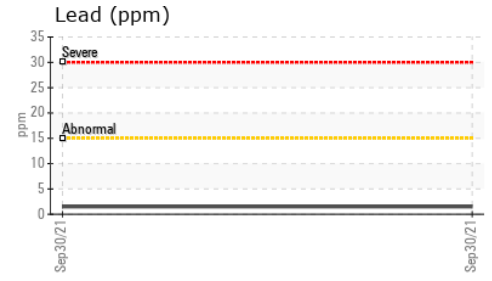
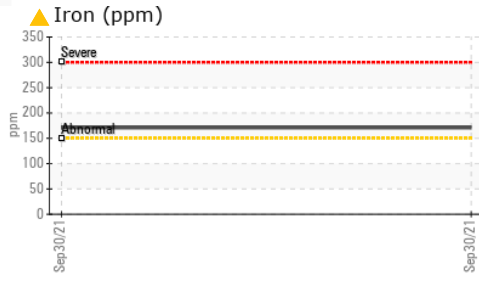
**FLUID PROPERTIES**      method      limit/base      current      history1      history2

Visc @ 40°C      cSt      ASTM D445      143      **127**      ---      ---

**SAMPLE IMAGES**      method      limit/base      current      history1      history2

|        |  |  |  |          |          |          |
|--------|--|--|--|----------|----------|----------|
| Color  |  |  |  | no image | no image | no image |
| Bottom |  |  |  | no image | no image | no image |

**GRAPHS**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LH0200473      **Received** : 29 Nov 2021  
**Lab Number** : **05411454**      **Diagnosed** : 01 Dec 2021  
**Unique Number** : 9760642      **Diagnostician** : Don Baldrige  
**Test Package** : MOBCE

**FINKBINER EQUIPMENT CO.**  
 15 W 400 N FRONTAGE RD  
 BURR RIDGE, IL  
 US 60527  
 Contact: DON FITZGERALD  
 dfitzgerald@finkbiner.com  
 T: (815)546-8991  
 F: (630)654-3792

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)