

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR LH50M 132404-1216 - Front Right Wheel Hub

Sample No: LH0223399

Oil Type: LIEBHERR GEAR BASIC 90 LS



**HUBERT & FILS**

474 ROUTE 105  
BOIS-FRANC, QC  
CA J9E 3A9

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#### Sample Information

|               |             |             |             |     |
|---------------|-------------|-------------|-------------|-----|
| Sample Number | LH0223399   | LH          | LH          | --- |
| Sample Date   | 07 May 2024 | 26 Apr 2024 | 02 Feb 2024 | --- |
| Machine Hours | 14075       | 13458       | 12428       | --- |
| Oil Hours     | 0           | 0           | 0           | --- |
| Oil Changed   | Changed     | Changed     | Changed     | --- |
| Sample Status | NORMAL      | NORMAL      | NORMAL      | --- |



#### Oil Condition

|             |     |     |     |      |     |
|-------------|-----|-----|-----|------|-----|
| Visc @ 40°C | cSt | 164 | 143 | 92.5 | --- |
|-------------|-----|-----|-----|------|-----|



#### Contamination

|           |     |     |     |     |     |
|-----------|-----|-----|-----|-----|-----|
| Water     | %   | NEG | NEG | NEG | --- |
| Silicon   | ppm | 3   | 5   | 3   | --- |
| Sodium    | ppm | 4   | 2   | 1   | --- |
| Potassium | ppm | <1  | <1  | <1  | --- |



#### Wear Metals

|            |     |    |    |    |     |
|------------|-----|----|----|----|-----|
| Iron       | ppm | 46 | 57 | 29 | --- |
| Copper     | ppm | 7  | 6  | 4  | --- |
| Lead       | ppm | 0  | 0  | 0  | --- |
| Tin        | ppm | 0  | 0  | 0  | --- |
| Aluminum   | ppm | <1 | <1 | 0  | --- |
| Chromium   | ppm | 0  | 0  | 0  | --- |
| Molybdenum | ppm | 0  | 0  | 0  | --- |
| Nickel     | ppm | <1 | 0  | 0  | --- |
| Titanium   | ppm | 0  | 0  | 0  | --- |
| Silver     | ppm | 0  | 0  | 0  | --- |
| Manganese  | ppm | <1 | <1 | 0  | --- |
| Vanadium   | ppm | 0  | 0  | 0  | --- |



#### Additives

|            |     |      |      |      |     |
|------------|-----|------|------|------|-----|
| Calcium    | ppm | 25   | 48   | 21   | --- |
| Magnesium  | ppm | 1    | 2    | <1   | --- |
| Zinc       | ppm | 26   | 15   | 17   | --- |
| Phosphorus | ppm | 2231 | 1977 | 1115 | --- |
| Barium     | ppm | 0    | 0    | 0    | --- |
| Boron      | ppm | 22   | 39   | 147  | --- |

#### Diagnosis

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

Depot: HUBBOI  
Unique No: 5814317  
Signed: Kevin Marson  
Report Date: 19 Jul 2024



### Graphs

