

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR LH50 137429 - Splitter Box

Sample No: LH0274500

Oil Type: LIEBHERR GEAR BASIC 90 LS



#### SAMPLE INFORMATION

| Sample Number | LH0274500   | LH0247024   | LH0251552   | LH0251873   |
|---------------|-------------|-------------|-------------|-------------|
| Sample Date   | 20 Aug 2023 | 11 Jun 2023 | 11 Apr 2023 | 23 Feb 2023 |
| Machine Hours | 6359        | 5689        | 5027        | 4360        |
| Oil Hours     | 0           | 0           | 0           | 0           |
| Oil Changed   | Changed     | Changed     | Not Changd  | Not Changd  |
| Sample Status | NORMAL      | NORMAL      | NORMAL      | NORMAL      |

**CMI - COMBINED METAL INDUSTRIES**  
 505 GARY RAY DRIVE  
 NORTH YORK, ON  
 CA M9L 1P9  
 Contact: Greg Sacher  
 gsacher@combinedmetal.com  
 T: (416)642-7262  
 F:



#### OIL CONDITION

| Visc @ 40°C | cSt | 88.9 | 91.9 | 92.0 | 92.3 |
|-------------|-----|------|------|------|------|
|-------------|-----|------|------|------|------|



#### CONTAMINATION

| Element   | Unit | Value | Value | Value | Value |
|-----------|------|-------|-------|-------|-------|
| Silicon   | ppm  | 2     | 1     | 2     | 2     |
| Sodium    | ppm  | <1    | <1    | <1    | <1    |
| Potassium | ppm  | <1    | <1    | 1     | <1    |



#### WEAR METALS

| Element    | Unit | Value | Value | Value | Value |
|------------|------|-------|-------|-------|-------|
| Iron       | ppm  | 14    | 9     | 15    | 13    |
| Copper     | ppm  | <1    | <1    | <1    | <1    |
| Lead       | ppm  | 2     | <1    | 0     | 0     |
| Tin        | ppm  | 0     | 0     | 0     | 0     |
| Aluminum   | ppm  | <1    | 0     | <1    | <1    |
| Chromium   | ppm  | <1    | 0     | 0     | 0     |
| Molybdenum | ppm  | 0     | 0     | 0     | 0     |
| Nickel     | ppm  | <1    | 0     | 0     | <1    |
| Titanium   | ppm  | 0     | 0     | 0     | 0     |
| Silver     | ppm  | <1    | 6     | 0     | 0     |
| Manganese  | ppm  | 0     | 0     | <1    | 0     |
| Vanadium   | ppm  | 0     | 0     | 0     | 0     |



#### ADDITIVES

| Element    | Unit | Value | Value | Value | Value |
|------------|------|-------|-------|-------|-------|
| Calcium    | ppm  | 30    | 18    | 10    | 7     |
| Magnesium  | ppm  | 2     | 1     | 1     | 1     |
| Zinc       | ppm  | 48    | 27    | 15    | 10    |
| Phosphorus | ppm  | 1350  | 1388  | 1425  | 1425  |
| Barium     | ppm  | 0     | 0     | 0     | 0     |
| Boron      | ppm  | 308   | 289   | 268   | 262   |

#### 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: COMWES  
 Unique No: 5630294  
 Signed: Wes Davis  
 Report Date: 21 Aug 2023



### GRAPHS

