

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR LH50 137429 - Front Right Wheel Hub

Sample No: LH0274504

Oil Type: GEAR OIL SAE 75W90



#### SAMPLE INFORMATION

Sample Number	LH0274504	LH0247026	LH0251877	LH0247250
Sample Date	20 Aug 2023	11 Jun 2023	23 Feb 2023	02 Dec 2022
Machine Hours	6359	5689	4360	3290
Oil Hours	0	0	0	0
Oil Changed	Changed	N/A	Changed	Changed
Sample Status	ABNORMAL	NORMAL	NORMAL	ABNORMAL

**CMI - COMBINED METAL INDUSTRIES**  
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 NORTH YORK, ON  
 CA M9L 1P9  
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#### OIL CONDITION

Visc @ 40°C	cSt	101	100	101	103
		●	●	●	●



#### CONTAMINATION

Element	ppm	2	3	4	3
Silicon	ppm	● 2	● 3	● 4	● 3
Sodium	ppm	● 3	● 3	● 2	● 3
Potassium	ppm	● <1	● 1	● <1	● 1



#### WEAR METALS

Element	ppm	19	19	21	18
Iron	ppm	● 19	● 19	● 21	● 18
Copper	ppm	● 48	● 46	● 37	● 37
Lead	ppm	● 1	● 1	● 1	● <1
Tin	ppm	● 0	● 0	● 0	● 0
Aluminum	ppm	● 2	● 2	● 2	● 2
Chromium	ppm	● 0	● 0	● 0	● 0
Molybdenum	ppm	● <1	● <1	● <1	● <1
Nickel	ppm	● 0	● 0	● <1	● 0
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	● 2	● 2	● 2	● 2
Vanadium	ppm	0	0	0	0



#### ADDITIVES

Element	ppm	59	66	57	58
Calcium	ppm	● 59	● 66	● 57	● 58
Magnesium	ppm	● 2	● 2	● 2	● 2
Zinc	ppm	● 51	● 50	● 43	● 39
Phosphorus	ppm	● 1370	● 1361	● 1372	● 1370
Barium	ppm	● 0	● 0	● 0	● 0
Boron	ppm	● 319	● 263	● 263	● 273

#### Diagnosis

We advise that you check for visible metal particles in the oil. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Moderate concentration of visible metal present. Bearing and/or bushing wear is indicated. There is no indication of any contamination in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

**Depot:** COMWES  
**Unique No:** 5630298  
**Signed:** Kevin Marson  
**Report Date:** 22 Aug 2023



### GRAPHS

