

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR LH40M 159572-1215 - Front Right Wheel Hub

Sample No: LH0268005

Oil Type: GEAR OIL SAE 80W90



**HEAVY MACHINES INC**  
 825 31ST STREET NORTH  
 BIRMINGHAM, AL  
 US 35203  
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 T:  
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#### Sample Information

Sample Number	LH0268005	---	---	---
Sample Date	18 May 2024	---	---	---
Machine Hours	194	---	---	---
Oil Hours	194	---	---	---
Oil Changed	Not Chngd	---	---	---
Sample Status	SEVERE	---	---	---



#### Oil Condition

Visc @ 40°C	cSt	● 135	---	---	---
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#### Contamination

Water	%	NEG	---	---	---
Silicon	ppm	● 12	---	---	---
Sodium	ppm	● 3	---	---	---
Potassium	ppm	● <1	---	---	---



#### Wear Metals

Iron	ppm	● 144	---	---	---
Copper	ppm	● 168	---	---	---
Lead	ppm	● <1	---	---	---
Tin	ppm	● <1	---	---	---
Aluminum	ppm	● 6	---	---	---
Chromium	ppm	● <1	---	---	---
Molybdenum	ppm	● 1	---	---	---
Nickel	ppm	● 0	---	---	---
Titanium	ppm	● 0	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	● 6	---	---	---
Vanadium	ppm	0	---	---	---



#### Additives

Calcium	ppm	● 79	---	---	---
Magnesium	ppm	● 0	---	---	---
Zinc	ppm	● 106	---	---	---
Phosphorus	ppm	● 1278	---	---	---
Barium	ppm	● 0	---	---	---
Boron	ppm	● <1	---	---	---

#### Diagnosis

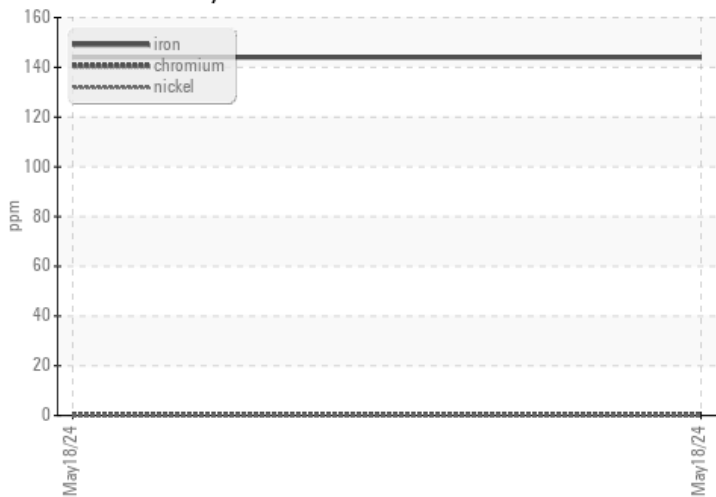
We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. The copper level is severe. High concentration of visible yellow metal present. There is no indication of any contamination in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Depot: HEABIRLH  
 Unique No: 11044843  
 Signed: Sean Felton  
 Report Date: 28 May 2024



### Graphs

#### Ferrous Alloys



#### ● Non-ferrous Metals



#### Viscosity @ 40°C

