

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR LH50M 107 256-1216 - Front Differential

Sample No: LH06163765

Oil Type: GEAR OIL SAE 80W90



**DIEHL AND NUEMAIER**  
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#### Sample Information

Sample Number	<b>LH06163765</b>	LH05511127	LH05170957	LHMC155867
Sample Date	<b>29 Apr 2024</b>	03 Apr 2022	30 Jan 2021	05 Jan 2020
Machine Hours	<b>3993</b>	2974	1987	1017
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL



#### Oil Condition

Visc @ 40°C	cSt	● 174	● 194	● 195	● 192
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#### Contamination

Water	%	NEG	NEG	NEG	NEG
Silicon	ppm	● 2	● <1	● 1	● <1
Sodium	ppm	● 2	● 2	● 0	● 3
Potassium	ppm	● 0	● <1	● 0	● 0



#### Wear Metals

Iron	ppm	● 3	● 4	● 19	● 3
Copper	ppm	● 13	● 5	● 11	● 10
Lead	ppm	● 0	● 0	● 0	● 0
Tin	ppm	● 0	● 0	● 0	● 0
Aluminum	ppm	● 0	● 0	● 0	● <1
Chromium	ppm	● 0	● 0	● <1	● <1
Molybdenum	ppm	● 0	● <1	● 0	● 0
Nickel	ppm	● 0	● 0	● 0	● <1
Titanium	ppm	● 0	● 0	● 0	● 0
Silver	ppm	● 0	● 0	● 0	● 0
Manganese	ppm	● <1	● <1	● <1	● <1
Vanadium	ppm	● 0	● 0	● 0	● 0



#### Additives

Calcium	ppm	● 2	● 5	● 5	● 20
Magnesium	ppm	● 0	● 5	● 0	● <1
Zinc	ppm	● 0	● 4	● 0	● 13
Phosphorus	ppm	● 2469	● 2308	● 2221	● 1924
Barium	ppm	● 0	● 0	● 0	● 6
Boron	ppm	● 0	● 5	● 2	● 8

#### Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

**Depot:** DIEDEF  
**Unique No:** 11004484  
**Signed:** Don Baldrige  
**Report Date:** 01 May 2024



### Graphs

