

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### 116431-1217 - Front Differential

Sample No: LH0277749

Oil Type: LIEBHERR GEAR BASIC 90 LS



#### SAMPLE INFORMATION

Sample Number	LH0277749	LH0202730	LH0239237	LH
Sample Date	08 Jan 2024	09 May 2023	29 Aug 2022	26 Jan 2022
Machine Hours	8104	7133	6053	4903
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

#### American Iron and Metal

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#### OIL CONDITION

Visc @ 40°C	cSt	109	104	104	97.2
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#### CONTAMINATION

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



#### WEAR METALS

Iron	ppm	11	3	2	7
Copper	ppm	14	24	18	44
Lead	ppm	<1	<1	<1	2
Tin	ppm	0	0	0	0
Aluminum	ppm	<1	<1	<1	<1
Chromium	ppm	0	0	0	0
Molybdenum	ppm	<1	0	0	0
Nickel	ppm	0	0	<1	0
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	0	<1	<1	<1
Vanadium	ppm	0	0	0	0



#### ADDITIVES

Calcium	ppm	21	6	8	8
Magnesium	ppm	13	1	1	2
Zinc	ppm	27	18	15	34
Phosphorus	ppm	1499	1381	1332	2296
Barium	ppm	4	<1	0	5
Boron	ppm	253	316	325	283

#### 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: BAKOTT  
Unique No: 5711754  
Signed: Wes Davis  
Report Date: 23 Jan 2024



### GRAPHS

