

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR L538 1559-59801 - Rear Differential

Sample No: LH0209843

Oil Type: GEAR OIL SAE 80W90



#### SAMPLE INFORMATION

Sample Number	LH0209843	LH05774534	LH0209830	LH0209817
Sample Date	28 Feb 2024	21 Feb 2023	01 Mar 2022	27 Oct 2021
Machine Hours	3009	0	966	495
Oil Hours	0	2003	0	0
Oil Changed	Not Chngd	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

#### DIEHL AND NUEMAIER

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DE FOREST, WI  
US 53532  
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#### OIL CONDITION

Visc @ 40°C	cSt	181	172	178	232



#### CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Silicon	ppm	4	3	4	12
Sodium	ppm	<1	1	6	11
Potassium	ppm	2	2	0	11

#### 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.



#### WEAR METALS

Iron	ppm	250	69	171	512
Copper	ppm	<1	0	<1	<1
Lead	ppm	0	<1	0	0
Tin	ppm	0	<1	<1	0
Aluminum	ppm	3	1	1	1
Chromium	ppm	1	<1	<1	3
Molybdenum	ppm	<1	<1	<1	0
Nickel	ppm	<1	<1	0	1
Titanium	ppm	<1	0	<1	<1
Silver	ppm	0	0	<1	0
Manganese	ppm	2	2	2	4
Vanadium	ppm	0	0	0	0



#### ADDITIVES

Calcium	ppm	25	22	33	19
Magnesium	ppm	5	5	<1	3
Zinc	ppm	12	6	0	12
Phosphorus	ppm	2396	1889	2389	1972
Barium	ppm	<1	0	0	<1
Boron	ppm	1	0	7	25

Depot: DIEDEF  
Unique No: 10913206  
Signed: Jonathan Hester  
Report Date: 08 Mar 2024



### GRAPHS

