

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR L538 1559-59801 - Front Left Wheel Hub

Sample No: LH0209848

Oil Type: GEAR OIL SAE 80W90



SAMPLE INFORMATION

Sample Number	LH0209848	LH0254771	LH05774530	LH0209835
Sample Date	28 Feb 2024	03 May 2023	21 Feb 2023	01 Mar 2022
Machine Hours	3009	2250	0	966
Oil Hours	0	250	2003	0
Oil Changed	Not Changd	Changed	Not Changd	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

DIEHL AND NUEMAIER

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OIL CONDITION

Visc @ 40°C	cSt	201	194	194	179
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CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Silicon	ppm	10	4	5	4
Sodium	ppm	1	1	2	2
Potassium	ppm	2	1	<1	<1

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	227	170	145	65
Copper	ppm	<1	<1	0	0
Lead	ppm	0	0	<1	0
Tin	ppm	0	0	<1	0
Aluminum	ppm	3	0	2	0
Chromium	ppm	2	2	2	<1
Molybdenum	ppm	<1	<1	1	0
Nickel	ppm	<1	<1	<1	0
Titanium	ppm	<1	<1	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	5	4	4	3
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	64	57	53	37
Magnesium	ppm	3	2	5	0
Zinc	ppm	78	73	70	<1
Phosphorus	ppm	2402	2326	2128	2573
Barium	ppm	2	0	0	0
Boron	ppm	1	3	<1	1

Depot: DIEDEF
Unique No: 10913205
Signed: Jonathan Hester
Report Date: 08 Mar 2024



GRAPHS

