

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR L538 1559-59801 - Front Differential

Sample No: LH0209842

Oil Type: GEAR OIL SAE 80W90



SAMPLE INFORMATION

Sample Number	LH0209842	LH05774529	LH0209829	LH0209816
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 Changd	Not Changd	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

DIEHL AND NUEMAIER

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OIL CONDITION

Visc @ 40°C	cSt	172	172	179	196



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Silicon	ppm	4	4	4	6
Sodium	ppm	3	2	2	10
Potassium	ppm	2	3	<1	2

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	112	58	65	110
Copper	ppm	<1	0	0	<1
Lead	ppm	0	1	0	0
Tin	ppm	0	<1	0	0
Aluminum	ppm	3	1	0	<1
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	<1	<1	0	<1
Nickel	ppm	0	<1	0	<1
Titanium	ppm	<1	0	0	<1
Silver	ppm	0	0	0	0
Manganese	ppm	4	4	3	4
Vanadium	ppm	0	0	0	<1



ADDITIVES

Calcium	ppm	35	31	75	26
Magnesium	ppm	3	4	<1	2
Zinc	ppm	10	11	16	12
Phosphorus	ppm	2448	1822	2522	2071
Barium	ppm	1	0	0	<1
Boron	ppm	0	<1	<1	25

Depot: DIEDEF
Unique No: 10913207
Signed: Jonathan Hester
Report Date: 08 Mar 2024



GRAPHS

