

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH50 1203-77107 -Rear Differential

Sample No: LH0220729

Oil Type: GEAR OIL SAE 80W90



SAMPLE INFORMATION

Sample Number	LH0220729	LH0272544	LH0254744	LH0243167
Sample Date	15 Dec 2023	28 Nov 2023	16 Jun 2023	22 Dec 2022
Machine Hours	20218	20037	18994	17940
Oil Hours	838	0	0	0
Oil Changed	Not Chngd	Changed	Changed	Changed
Sample Status	ABNORMAL	ABNORMAL	NORMAL	NORMAL

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OIL CONDITION

Visc @ 40°C	cSt	119	119	128	134



CONTAMINATION

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



WEAR METALS

Iron	ppm	7	41	61	59
Copper	ppm	0	2	2	3
Lead	ppm	0	0	0	0
Tin	ppm	0	0	<1	0
Aluminum	ppm	0	0	1	2
Chromium	ppm	0	0	0	<1
Molybdenum	ppm	0	0	<1	3
Nickel	ppm	0	0	<1	0
Titanium	ppm	<1	1	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	0	<1	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	38	48	64	85
Magnesium	ppm	3	10	8	12
Zinc	ppm	17	22	31	40
Phosphorus	ppm	777	734	840	783
Barium	ppm	0	0	0	<1
Boron	ppm	3	5	12	21

Diagnosis

No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. Moderate concentration of visible dirt/debris present in the oil. The condition of the oil is acceptable for the time in service.

Depot: LEC0008
 Unique No: 10807063
 Signed: Jonathan Hester
 Report Date: 29 Dec 2023



GRAPHS

