

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH40M 124711-1215 - Front Left Wheel Hub

Sample No: LH0204250

Oil Type: HARTLAND 80W90 LS



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SAMPLE INFORMATION

Sample Number	LH0204250	LH0253916	LH0236476	LH0236455
Sample Date	26 Sep 2023	12 Jul 2023	21 Apr 2023	07 Nov 2022
Machine Hours	4000	3502	3125	2024
Oil Hours	0	500	500	1000
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	ABNORMAL	ABNORMAL	ABNORMAL	ABNORMAL



OIL CONDITION

Visc @ 40°C	cSt	141	141	139	150
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CONTAMINATION

Silicon	ppm	7	11	15	19
Sodium	ppm	10	9	5	6
Potassium	ppm	2	<1	2	2



WEAR METALS

Iron	ppm	143	181	192	175
Copper	ppm	104	153	176	212
Lead	ppm	0	0	<1	<1
Tin	ppm	<1	0	0	0
Aluminum	ppm	4	7	6	8
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	2	5	6	10
Nickel	ppm	<1	0	<1	0
Titanium	ppm	<1	<1	<1	<1
Silver	ppm	0	0	0	0
Manganese	ppm	6	8	9	9
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	59	98	192	252
Magnesium	ppm	14	9	7	3
Zinc	ppm	71	91	155	188
Phosphorus	ppm	1071	1203	1369	1860
Barium	ppm	0	0	0	2
Boron	ppm	3	<1	4	5

Diagnosis

No corrective action is recommended at this time. The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. Bearing and/or bushing wear is indicated. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

Depot: LEC0008
Unique No: 10736223
Signed: Sean Felton
Report Date: 10 Nov 2023



GRAPHS

