

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH40M 124711-1215 - Swing Drive

Sample No: LHMC154851

Oil Type: HARTLAND 80W90 LS



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SAMPLE INFORMATION

Sample Number	LHMC154851	LH0253935	LH0236479	LH0220539
Sample Date	20 Dec 2023	26 Sep 2023	21 Apr 2023	07 Nov 2022
Machine Hours	4494	4000	3125	2024
Oil Hours	500	0	500	1000
Oil Changed	Not Chngd	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL



OIL CONDITION

Visc @ 40°C	cSt	127	141	142	168
		●	●	●	●



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Silicon	ppm	● 0	● <1	● 1	● 1
Sodium	ppm	● 0	● 1	● 0	● 3
Potassium	ppm	● 0	● 1	● 1	● 0



WEAR METALS

Iron	ppm	● 53	● 135	● 97	● 181
Copper	ppm	● 17	● 38	● 20	● 30
Lead	ppm	● 0	● 0	● <1	● 0
Tin	ppm	● 2	● 5	● 1	● 1
Aluminum	ppm	● <1	● 0	● 0	● <1
Chromium	ppm	● 0	● <1	● <1	● 1
Molybdenum	ppm	● 0	● <1	● 3	● <1
Nickel	ppm	● 0	● <1	● <1	● 0
Titanium	ppm	● 0	● <1	● <1	● 0
Silver	ppm	● 0	● 0	● 0	● 0
Manganese	ppm	● <1	● 1	● <1	● 2
Vanadium	ppm	● 0	● 0	● 0	● 0



ADDITIVES

Calcium	ppm	● 22	● 33	● 48	● 30
Magnesium	ppm	● 6	● 12	● 10	● 0
Zinc	ppm	● 22	● 32	● 35	● 24
Phosphorus	ppm	● 844	● 1011	● 951	● 1223
Barium	ppm	● 0	● 1	● 0	● 0
Boron	ppm	● 0	● 2	● 7	● 4

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.

Depot: LEC0008
 Unique No: 10833604
 Signed: Wes Davis
 Report Date: 18 Jan 2024



GRAPHS

