

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH40M 124711-1215 - Rear Right Wheel Hub

Sample No: LH0253934

Oil Type: HARTLAND 80W90 LS



SAMPLE INFORMATION

Sample Number	LH0253934	LH0253912	LH0236480	LH0236458
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	NORMAL	NORMAL	NORMAL	NORMAL

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OIL CONDITION

Visc @ 40°C	cSt	146	145	147	151



CONTAMINATION

Element	ppm	5	5	5	7
Silicon	ppm	5	5	5	7
Sodium	ppm	4	5	<1	4
Potassium	ppm	1	0	2	0



WEAR METALS

Element	ppm	36	66	63	63
Iron	ppm	36	66	63	63
Copper	ppm	24	28	24	32
Lead	ppm	0	0	<1	0
Tin	ppm	0	0	0	0
Aluminum	ppm	<1	<1	0	1
Chromium	ppm	0	<1	<1	<1
Molybdenum	ppm	3	6	6	8
Nickel	ppm	<1	0	<1	0
Titanium	ppm	<1	0	<1	0
Silver	ppm	0	0	0	0
Manganese	ppm	1	2	2	2
Vanadium	ppm	0	0	0	0



ADDITIVES

Element	ppm	73	98	102	151
Calcium	ppm	73	98	102	151
Magnesium	ppm	10	8	8	0
Zinc	ppm	32	36	42	30
Phosphorus	ppm	1150	1292	1218	1470
Barium	ppm	0	0	0	0
Boron	ppm	<1	3	4	5

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: 10736260

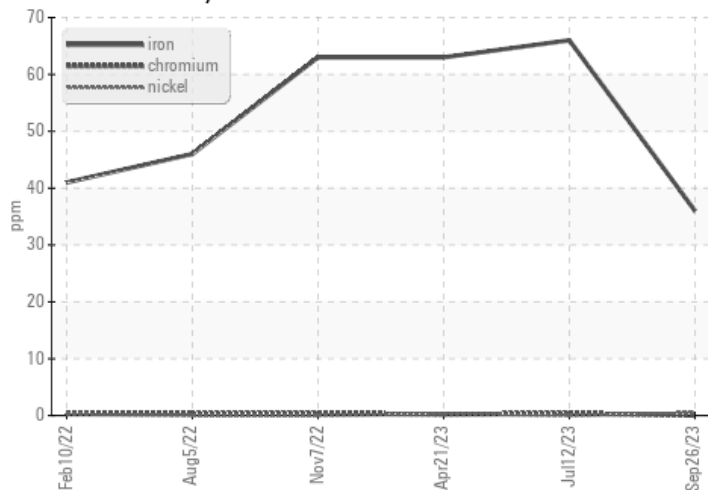
Signed: Sean Felton

Report Date: 10 Nov 2023

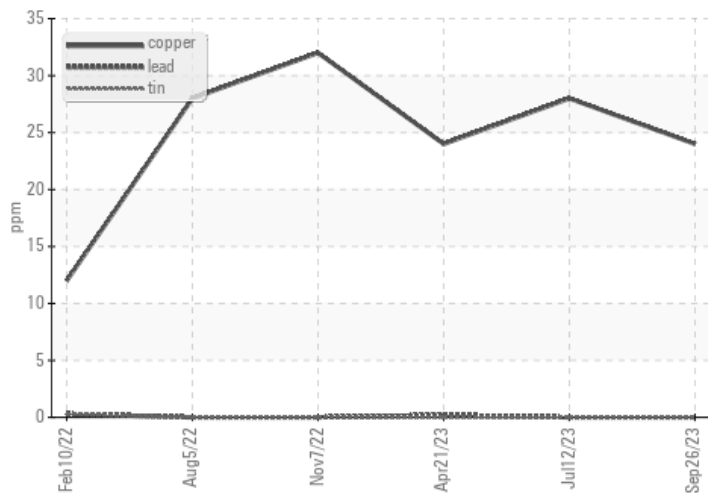


GRAPHS

Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C

