

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH40M 124711-1215 - Front Right Wheel Hub

Sample No: LH0253932

Oil Type: HARTLAND 80W90 LS



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SAMPLE INFORMATION

Sample Number	LH0253932	LH0253913	LH0204212	LH0236457
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



OIL CONDITION

Visc @ 40°C	cSt	136	137	136	151
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CONTAMINATION

Silicon	ppm	3	11	16	20
Sodium	ppm	6	9	6	11
Potassium	ppm	2	0	2	0



WEAR METALS

Iron	ppm	36	104	122	125
Copper	ppm	12	22	24	34
Lead	ppm	0	0	<1	<1
Tin	ppm	0	0	0	0
Aluminum	ppm	<1	2	<1	3
Chromium	ppm	0	<1	<1	<1
Molybdenum	ppm	1	5	6	8
Nickel	ppm	<1	0	<1	0
Titanium	ppm	<1	<1	<1	0
Silver	ppm	0	0	0	0
Manganese	ppm	1	3	4	4
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	41	102	193	247
Magnesium	ppm	11	9	7	0
Zinc	ppm	8	32	75	74
Phosphorus	ppm	874	1135	1274	1768
Barium	ppm	0	0	0	0
Boron	ppm	0	2	3	4

Diagnosis

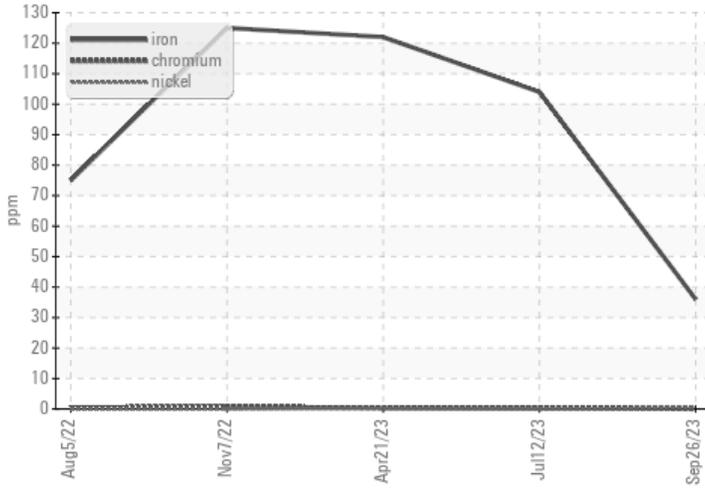
Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

Depot: LEC0008
Unique No: 10736258
Signed: Sean Felton
Report Date: 10 Nov 2023

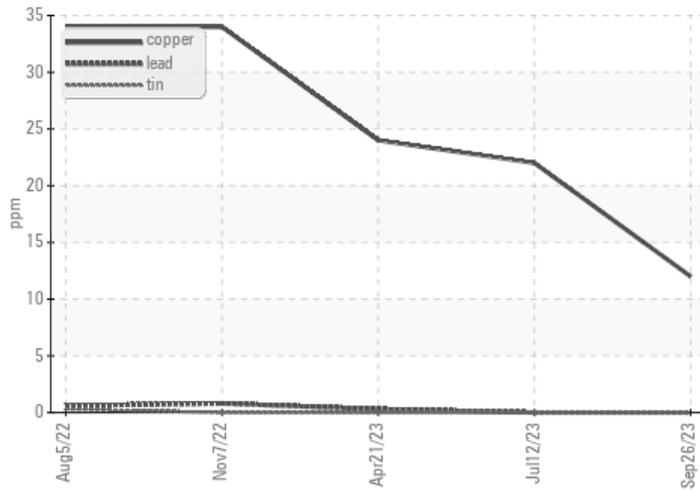


GRAPHS

Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C

