

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH50 1216-116574 - Front Left Wheel Hub

Sample No: LH0272153

Oil Type: GEAR OIL SAE 80W90



SAMPLE INFORMATION

Sample Number	LH0272153	LH0171137	LH0171123	LH0171109
Sample Date	20 Dec 2023	29 Aug 2023	27 Apr 2023	27 Jan 2023
Machine Hours	19776	17910	16762	14930
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	ABNORMAL	ABNORMAL	ABNORMAL

BOISE WHITE PAPER

3RD AVE AND HWY 11, 400 2ND ST
INTERNATIONAL FALLS, MN
US 56649
Contact: GARY MANN
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T:
F: (218)285-5860



OIL CONDITION

Visc @ 40°C	cSt	129	143	163	156



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Silicon	ppm	11	16	21	8
Sodium	ppm	3	8	6	2
Potassium	ppm	0	1	3	<1



WEAR METALS

Iron	ppm	288	596	608	508
Copper	ppm	28	43	36	31
Lead	ppm	0	0	0	<1
Tin	ppm	<1	0	0	0
Aluminum	ppm	3	6	7	2
Chromium	ppm	2	3	3	2
Molybdenum	ppm	2	1	<1	<1
Nickel	ppm	<1	<1	<1	1
Titanium	ppm	<1	<1	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	4	9	8	6
Vanadium	ppm	<1	<1	0	0



ADDITIVES

Calcium	ppm	78	25	14	13
Magnesium	ppm	14	2	4	2
Zinc	ppm	66	56	54	53
Phosphorus	ppm	845	1367	2041	1488
Barium	ppm	<1	0	0	0
Boron	ppm	30	37	81	126

Diagnosis

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) GEAR OIL SAE 80W90. Please confirm.

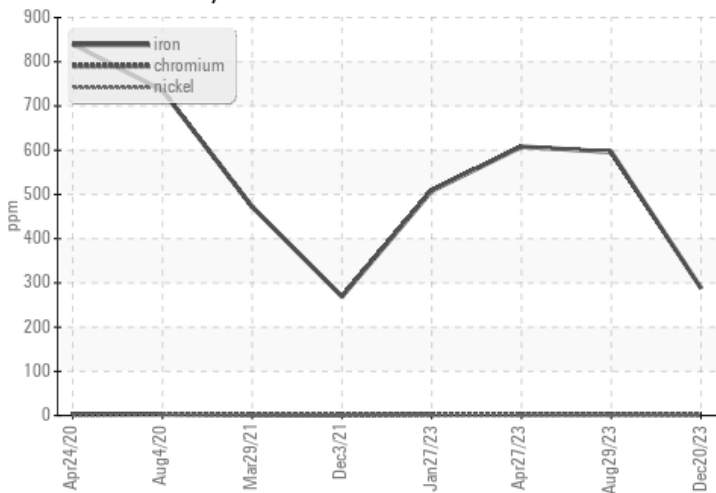
All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

Depot: BOIINT
Unique No: 10844599
Signed: Wes Davis
Report Date: 23 Jan 2024

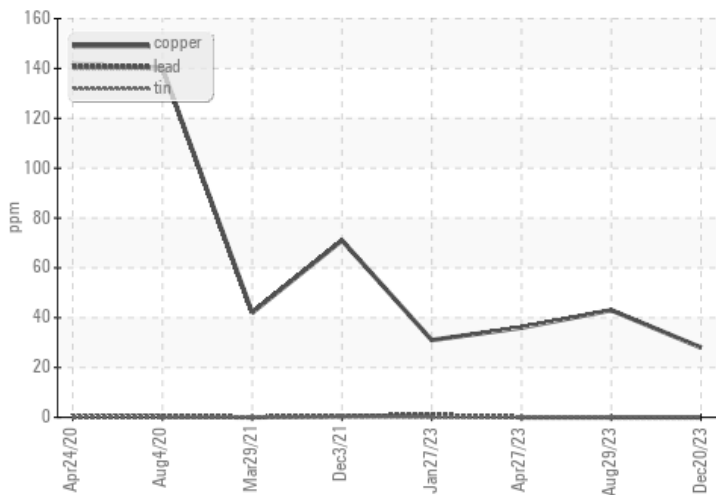


GRAPHS

Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C

