

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH50 1216-131051 - Swing Drive

Sample No: LH0272173

Oil Type: GEAR OIL SAE 80W90



SAMPLE INFORMATION

Sample Number	LH0272173	LH0213095	LH0213025	LH0213109
Sample Date	18 Dec 2023	30 Aug 2023	25 Apr 2023	24 Jan 2023
Machine Hours	10742	9756	0	7995
Oil Hours	1000	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	ABNORMAL

BOISE WHITE PAPER

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



OIL CONDITION

Visc @ 40°C	cSt	136	141	140	163



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Silicon	ppm	2	2	<1	6
Sodium	ppm	0	2	<1	6
Potassium	ppm	1	0	2	0



WEAR METALS

Iron	ppm	120	209	99	710
Copper	ppm	135	307	141	818
Lead	ppm	0	2	0	26
Tin	ppm	11	25	14	75
Aluminum	ppm	1	<1	<1	<1
Chromium	ppm	<1	<1	0	4
Molybdenum	ppm	3	2	2	<1
Nickel	ppm	<1	0	0	1
Titanium	ppm	<1	<1	0	<1
Silver	ppm	0	0	0	0
Manganese	ppm	<1	2	1	6
Vanadium	ppm	0	<1	0	0



ADDITIVES

Calcium	ppm	40	32	39	77
Magnesium	ppm	12	9	14	28
Zinc	ppm	26	33	26	107
Phosphorus	ppm	990	1096	1051	2172
Barium	ppm	0	0	0	13
Boron	ppm	20	38	21	30

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.

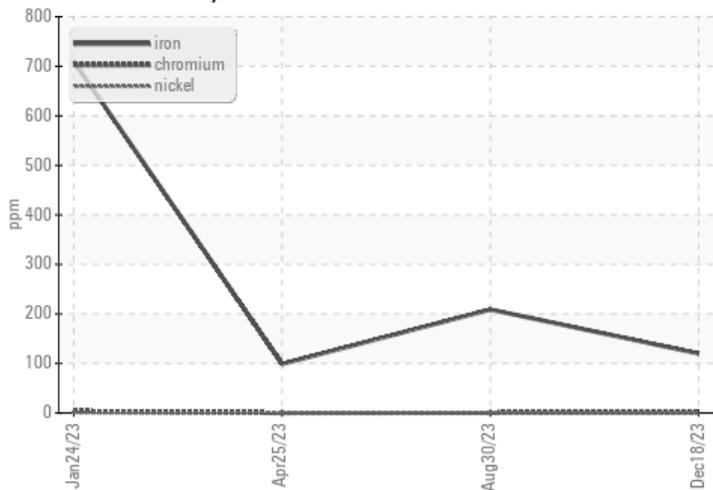
All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

Depot: BOIINT
Unique No: 10845857
Signed: Wes Davis
Report Date: 24 Jan 2024

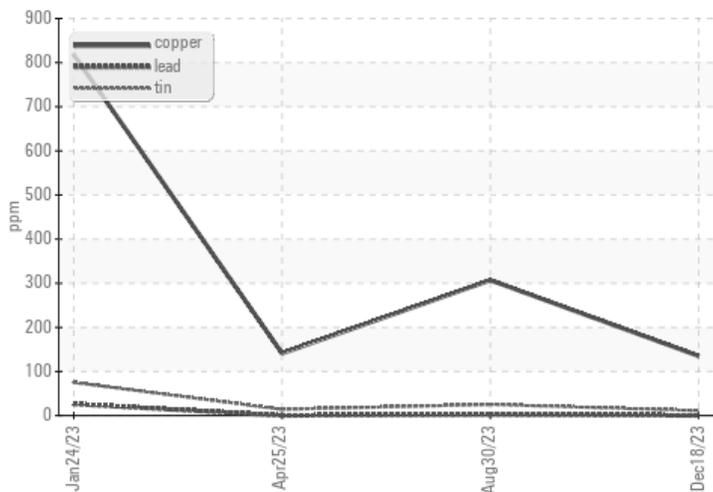


GRAPHS

Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C

