

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH24 1251-1077 21 - Front Left Wheel Hub

Sample No: LH0244000

Oil Type: LIEBHERR 20W40 GEAR PLUS



POTOMAC METALS INC
410 16TH AVENUE
RANSON, WV
US 25438
Contact: Service Manager



SAMPLE INFORMATION

Sample Number	LH0244000	LH0258006	LH0229674	LH0147682
Sample Date	19 Jul 2023	27 Apr 2023	13 Sep 2022	22 Mar 2022
Machine Hours	8881	8247	6696	5504
Oil Hours	634	826	1192	1113
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	ATTENTION	NORMAL	NORMAL	MARGINAL



OIL CONDITION

Visc @ 40°C	cSt	183	118	115	114
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T:
F:



CONTAMINATION

Silicon	ppm	5	11	8	6
Sodium	ppm	3	3	3	4
Potassium	ppm	0	0	0	0

Diagnosis

The oil change at the time of sampling has been noted. 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 oil viscosity is higher than normal. Confirm oil type. The condition of the oil is acceptable for the time in service.



WEAR METALS

Iron	ppm	23	26	16	20
Copper	ppm	<1	1	6	7
Lead	ppm	0	0	0	<1
Tin	ppm	0	0	0	0
Aluminum	ppm	0	0	2	<1
Chromium	ppm	0	<1	<1	0
Molybdenum	ppm	0	0	0	<1
Nickel	ppm	0	0	0	0
Titanium	ppm	0	0	0	0
Silver	ppm	<1	0	0	<1
Manganese	ppm	<1	<1	1	<1
Vanadium	ppm	0	0	<1	0



ADDITIVES

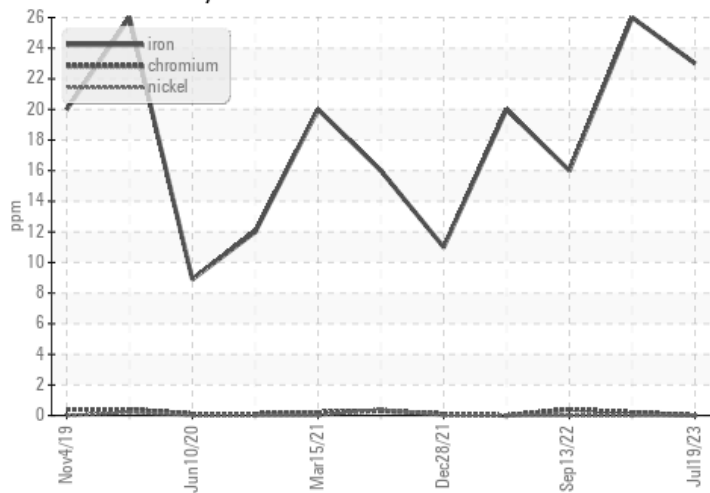
Calcium	ppm	892	3660	3411	3252
Magnesium	ppm	6	13	8	6
Zinc	ppm	367	1457	1383	1292
Phosphorus	ppm	1998	1187	1130	1253
Barium	ppm	2	3	0	0
Boron	ppm	16	116	96	73

Depot: POTRAN
Unique No: 10608975
Signed: Sean Felton
Report Date: 21 Aug 2023

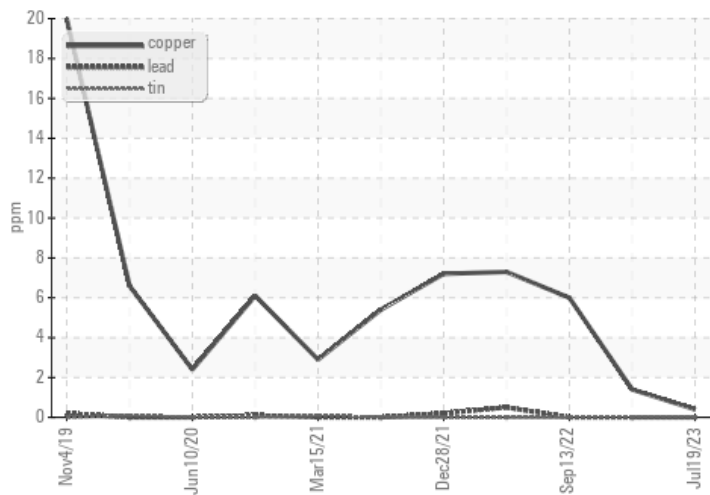


GRAPHS

Ferrous Alloys



Non-ferrous Metals



● Viscosity @ 40°C

