

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LTM1090-4.2 089274-1 Winch

Sample No: LH0258655

Oil Type: LIEBHERR GEAR PG 220



Sample Information

Sample Number	LH0258655	---	---	---
Sample Date	28 May 2024	---	---	---
Machine Hours	20437	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	SEVERE	---	---	---

LIEBHERR USA CO - MOBILE AND CRAWLER CRANES
 4800 CHESTNUT AVENUE
 NEWPORT NEWS, VA
 US 23607
 Contact: CHRIS JONES
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 T: (757)245-5251
 F:



Oil Condition

Visc @ 40°C	cSt	● 440	---	---	---
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Contamination

Water	%	● 8.67	---	---	---
Silicon	ppm	● 4	---	---	---
Sodium	ppm	● <1	---	---	---
Potassium	ppm	● 6	---	---	---



Wear Metals

Iron	ppm	● 132	---	---	---
Copper	ppm	● 7	---	---	---
Lead	ppm	● 3	---	---	---
Tin	ppm	● 10	---	---	---
Aluminum	ppm	● 1	---	---	---
Chromium	ppm	● <1	---	---	---
Molybdenum	ppm	● <1	---	---	---
Nickel	ppm	● 2	---	---	---
Titanium	ppm	● <1	---	---	---
Silver	ppm	● 0	---	---	---
Manganese	ppm	● 4	---	---	---
Vanadium	ppm	● <1	---	---	---



Additives

Calcium	ppm	● 8	---	---	---
Magnesium	ppm	● 0	---	---	---
Zinc	ppm	● 77	---	---	---
Phosphorus	ppm	● 70	---	---	---
Barium	ppm	● 0	---	---	---
Boron	ppm	● 25	---	---	---

Diagnosis

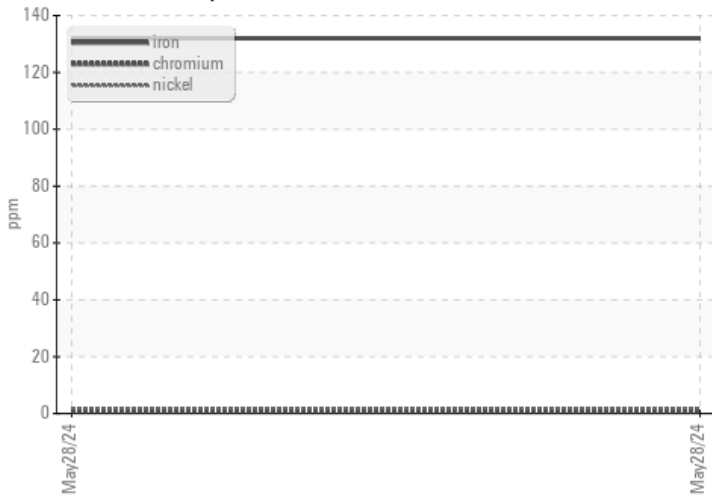
We advise that you check for the source of water entry. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a very high concentration of water present in the oil. The oil viscosity is higher than normal. The oil is no longer serviceable due to the presence of contaminants.

Depot: LIENEW
 Unique No: 11062988
 Signed: Don Baldrige
 Report Date: 08 Jun 2024

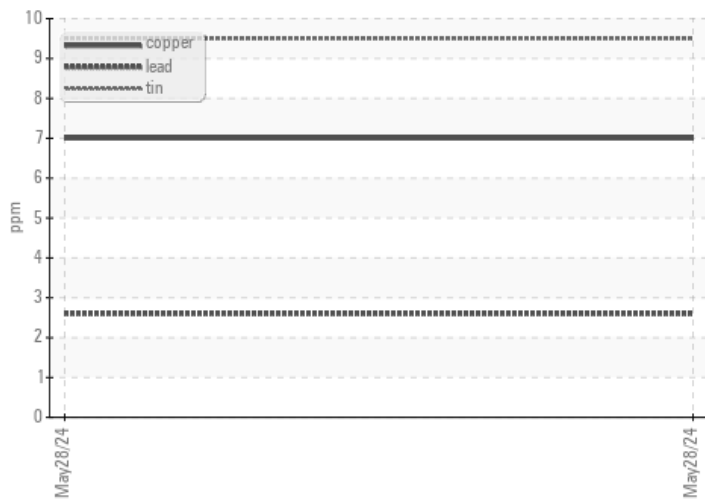


Graphs

Ferrous Alloys



Non-ferrous Metals



● Viscosity @ 40°C

