

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR LTM1090-4.2 089274 - Diesel Engine

Sample No: LH0258652

Oil Type: LIEBHERR MOTOROIL 10W-40



#### Sample Information

Sample Number	LH0258652	---	---	---
Sample Date	28 May 2024	---	---	---
Machine Hours	20437	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	ATTENTION	---	---	---

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



#### Oil Condition

Visc @ 100°C	cSt	11.0	---	---	---
Base Number (BN)	mg KOH/g	7.4	---	---	---
Oxidation (PA)	%	86	---	---	---

#### Diagnosis

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. Fuel content negligible. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.



#### Contamination

Water	%	NEG	---	---	---
Soot %	%	0.2	---	---	---
Nitration (PA)	%	100	---	---	---
Sulfation (PA)	%	66	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	0.8	---	---	---
Silicon	ppm	15	---	---	---
Sodium	ppm	16	---	---	---
Potassium	ppm	10	---	---	---



#### Wear Metals

Iron	ppm	36	---	---	---
Copper	ppm	30	---	---	---
Lead	ppm	22	---	---	---
Tin	ppm	3	---	---	---
Aluminum	ppm	4	---	---	---
Chromium	ppm	2	---	---	---
Molybdenum	ppm	23	---	---	---
Nickel	ppm	<1	---	---	---
Titanium	ppm	<1	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	1	---	---	---
Vanadium	ppm	0	---	---	---



#### Additives

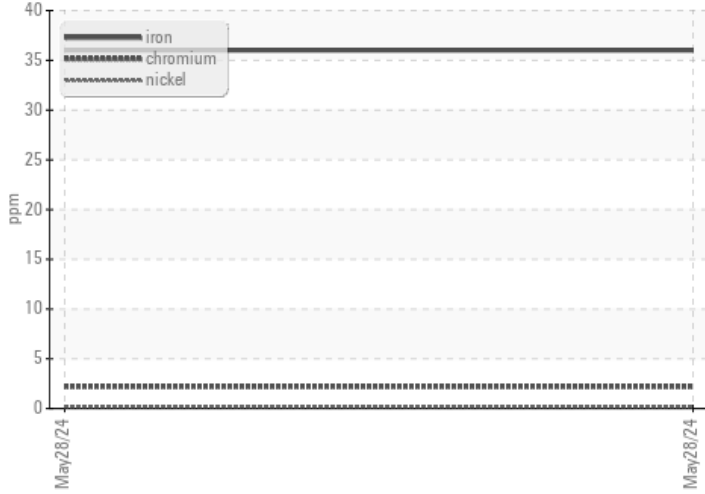
Calcium	ppm	2314	---	---	---
Magnesium	ppm	358	---	---	---
Zinc	ppm	986	---	---	---
Phosphorus	ppm	806	---	---	---
Barium	ppm	4	---	---	---
Boron	ppm	50	---	---	---

Depot: LIENEW  
 Unique No: 11063138  
 Signed: Sean Felton  
 Report Date: 10 Jun 2024

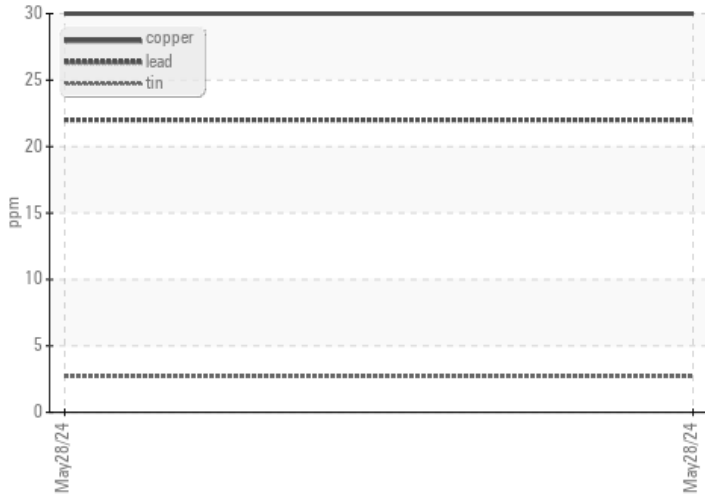


### Graphs

#### Ferrous Alloys



#### Non-ferrous Metals



#### Viscosity @ 100°C



#### Base Number

