

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR LH40M 123121-1215 - Diesel Engine

Sample No: LH0244094

Oil Type: DIESEL ENGINE OIL SAE 15W40



#### SAMPLE INFORMATION

Sample Number	LH0244094	LHMC134117	---	---
Sample Date	03 Feb 2024	05 Aug 2023	---	---
Machine Hours	0	3770	---	---
Oil Hours	0	500	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	NORMAL	NORMAL	---	---

#### YAFFE METALS

7300 CHARLES PAGE BLVD  
TULSA, OK  
US 74127  
Contact: ADAM ADAMS  
aadams@yaffeco.net  
T: (918)245-0257  
F: (918)245-4006



#### OIL CONDITION

Visc @ 100°C	cSt	12.9	13.3	---	---
Base Number (BN)	mg KOH/g	5.0	6.3	---	---
Oxidation (PA)	%	104	67	---	---



#### CONTAMINATION

Water	%	NEG	NEG	---	---
Soot %	%	0.1	0.1	---	---
Nitration (PA)	%	112	86	---	---
Sulfation (PA)	%	73	65	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	<1.0	---	---
Silicon	ppm	7	6	---	---
Sodium	ppm	2	2	---	---
Potassium	ppm	0	5	---	---



#### WEAR METALS

Iron	ppm	7	8	---	---
Copper	ppm	4	4	---	---
Lead	ppm	0	5	---	---
Tin	ppm	<1	<1	---	---
Aluminum	ppm	<1	<1	---	---
Chromium	ppm	0	<1	---	---
Molybdenum	ppm	45	34	---	---
Nickel	ppm	0	0	---	---
Titanium	ppm	0	0	---	---
Silver	ppm	0	0	---	---
Manganese	ppm	0	<1	---	---
Vanadium	ppm	0	0	---	---



#### ADDITIVES

Calcium	ppm	1304	1918	---	---
Magnesium	ppm	720	561	---	---
Zinc	ppm	1137	1300	---	---
Phosphorus	ppm	951	1003	---	---
Barium	ppm	0	0	---	---
Boron	ppm	6	0	---	---

#### Diagnosis

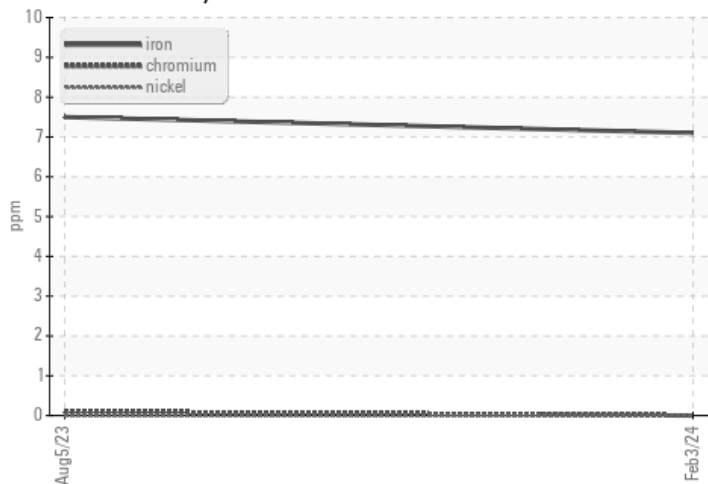
Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Depot: YAFTUL  
Unique No: 10912751  
Signed: Doug Bogart  
Report Date: 07 Mar 2024

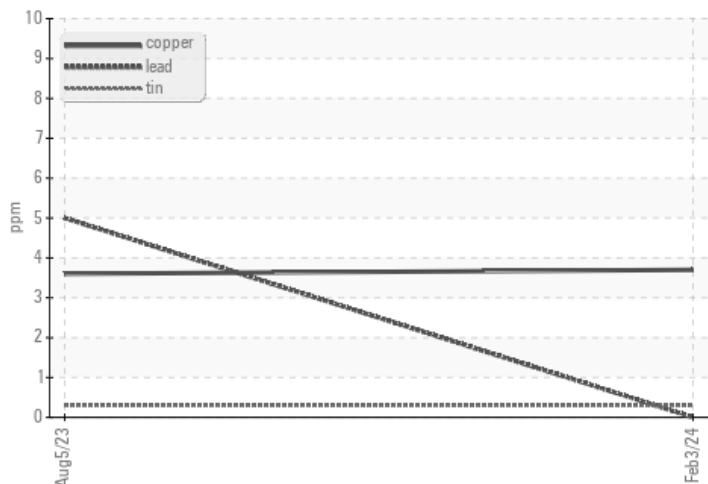


### GRAPHS

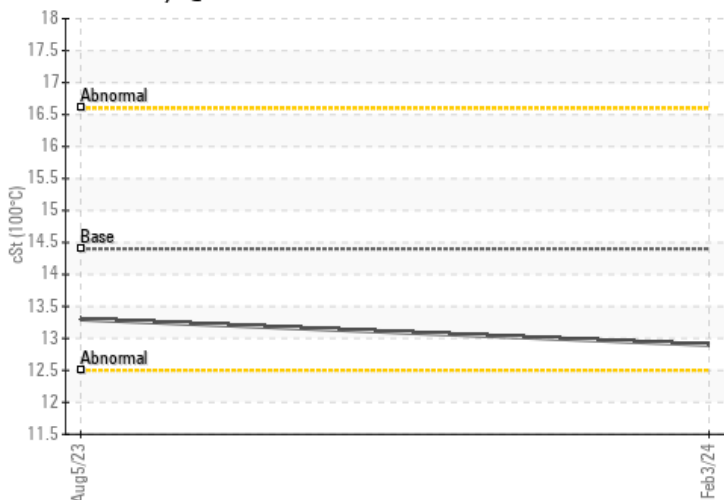
#### Ferrous Alloys



#### Non-ferrous Metals



#### Viscosity @ 100°C



#### Base Number

