

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR LH50M 1216-105960 - Diesel Engine

Sample No: LHMC132948  
 Oil Type: LIEBHERR 10W30



WIETSMANN AND SONS OF SYRACUSE  
 333 BRIDGE STREET  
 SOLVAY, NY  
 US 13209  
 Contact: Service Manager



#### SAMPLE INFORMATION

Sample Number	LHMC132948	LHMC115876	---	---
Sample Date	31 Aug 2023	15 Jan 2019	---	---
Machine Hours	9828	646	---	---
Oil Hours	0	646	---	---
Oil Changed	N/A	Not Changd	---	---
Sample Status	SEVERE	ABNORMAL	---	---



#### OIL CONDITION

Visc @ 100°C	cSt	● 4.9	● 11.97	---	---
Base Number (BN)	mg KOH/g	● 11.1	---	---	---
Oxidation (PA)	%	69	193	---	---



#### CONTAMINATION

Soot %	%	● 0.1	● 0.1	---	---
Nitration (PA)	%	87	90	---	---
Sulfation (PA)	%	47	106	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	● 51.9	<1.0	---	---
Silicon	ppm	● 5	● 10	---	---
Sodium	ppm	● 2	● 5	---	---
Potassium	ppm	● 1	● 5	---	---



#### WEAR METALS

Iron	ppm	● 3	● 18	---	---
Copper	ppm	● <1	● 337	---	---
Lead	ppm	● 2	● 4	---	---
Tin	ppm	● 0	● 1	---	---
Aluminum	ppm	● 2	● 1	---	---
Chromium	ppm	● 0	● <1	---	---
Molybdenum	ppm	● 3	● 49	---	---
Nickel	ppm	● 0	● <1	---	---
Titanium	ppm	<1	<1	---	---
Silver	ppm	● <1	0	---	---
Manganese	ppm	<1	2	---	---
Vanadium	ppm	<1	0	---	---



#### ADDITIVES

Calcium	ppm	● 2463	● 1421	---	---
Magnesium	ppm	● 37	● 980	---	---
Zinc	ppm	699	● 873	---	---
Phosphorus	ppm	585	● 543	---	---
Barium	ppm	● 0	● 52	---	---
Boron	ppm	● 163	● 81	---	---

T:  
F:

#### Diagnosis

We advise that you check the fuel injection system. We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a severe amount of fuel present in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Depot: WIESOL  
 Unique No: 10634664  
 Signed: Don Baldrige  
 Report Date: 08 Sep 2023



### GRAPHS

