

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### U23.03.90033 (S/N U23.08.90033) - Diesel Engine

Sample No: LH0277597

Oil Type: {unknown}



#### SAMPLE INFORMATION

Sample Number	LH0277597	LH0277598	---	---
Sample Date	13 Mar 2024	13 Mar 2024	---	---
Machine Hours	0	0	---	---
Oil Hours	0	0	---	---
Oil Changed	N/A	N/A	---	---
Sample Status	NORMAL	NORMAL	---	---

**LIEBHERR CANADA LTD. - REMAN**  
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 CA L7L 5Z8  
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#### OIL CONDITION

Visc @ 100°C	cSt	13.6	13.4	---	---
Oxidation (PA)	%	41	44	---	---



#### CONTAMINATION

Water	%	NEG	NEG	---	---
Soot %	%	0.1	0.7	---	---
Nitration (PA)	%	55	67	---	---
Sulfation (PA)	%	45	49	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	<1.0	---	---
Silicon	ppm	9	9	---	---
Sodium	ppm	20	31	---	---
Potassium	ppm	2	2	---	---

#### Diagnosis

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.



#### WEAR METALS

Iron	ppm	7	17	---	---
Copper	ppm	28	40	---	---
Lead	ppm	2	3	---	---
Tin	ppm	<1	2	---	---
Aluminum	ppm	2	2	---	---
Chromium	ppm	0	<1	---	---
Molybdenum	ppm	42	43	---	---
Nickel	ppm	<1	<1	---	---
Titanium	ppm	0	0	---	---
Silver	ppm	0	0	---	---
Manganese	ppm	<1	<1	---	---
Vanadium	ppm	0	0	---	---



#### ADDITIVES

Calcium	ppm	2231	2303	---	---
Magnesium	ppm	130	132	---	---
Zinc	ppm	1082	1101	---	---
Phosphorus	ppm	994	992	---	---
Barium	ppm	41	64	---	---
Boron	ppm	46	36	---	---

Depot: REMAN  
 Unique No: 5747054  
 Signed: Wes Davis  
 Report Date: 14 Mar 2024



### GRAPHS

