

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR T60-9 021155-1709 - Diesel Engine

Sample No: LH

Oil Type: DIESEL ENGINE OIL SAE 10W30



#### SAMPLE INFORMATION

Sample Number	LH	LH	LH	---
Sample Date	21 Dec 2023	12 Dec 2022	22 Sep 2021	---
Machine Hours	1500	1500	500	---
Oil Hours	0	0	0	---
Oil Changed	N/A	N/A	N/A	---
Sample Status	ABNORMAL	SEVERE	NORMAL	---

**LIEBHERR CANADA LTEE**  
 4250 AUTOROUTE CHOMEDEY 13  
 LAVAL, QC  
 CA H7R 6E9  
 Contact: Stephane Plourde  
 Stephane.Plourde@liebherr.com  
 T: (450)963-7174  
 F: (450)963-9176



#### OIL CONDITION

Visc @ 40°C	cSt	86.8	---	---	---
Visc @ 100°C	cSt	13.4	13.6	11.9	---
Viscosity Index (VI)	Scale	156	---	---	---
Oxidation (PA)	%	56	56	39	---

#### Diagnosis

Nous vous recommandons de vidanger l'huile de ce composant si vous ne l'avez pas déjà fait. Nous vous recommandons d'échantillonner de nouveau dès que possible afin de contrôler la situation. Usure de piston. Il n'y a aucun indice de contamination dans l'huile. l'huile n'est plus en état de service en raison d'une usure anormale et/ou sévère.



#### CONTAMINATION

Water	%	NEG	NEG	NEG	---
Soot %	%	0	0	0	---
Nitration (PA)	%	52	61	88	---
Sulfation (PA)	%	49	53	45	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	1.8	---
Silicon	ppm	10	5	23	---
Sodium	ppm	2	2	5	---
Potassium	ppm	<1	<1	4	---



#### WEAR METALS

Iron	ppm	55	21	55	---
Copper	ppm	3	4	11	---
Lead	ppm	0	<1	2	---
Tin	ppm	<1	<1	3	---
Aluminum	ppm	24	34	9	---
Chromium	ppm	2	4	3	---
Molybdenum	ppm	57	48	<1	---
Nickel	ppm	<1	<1	<1	---
Titanium	ppm	0	<1	0	---
Silver	ppm	0	0	0	---
Manganese	ppm	0	<1	6	---
Vanadium	ppm	0	0	<1	---



#### ADDITIVES

Calcium	ppm	1016	1408	3742	---
Magnesium	ppm	956	780	217	---
Zinc	ppm	1143	1178	1223	---
Phosphorus	ppm	1025	1083	1145	---
Barium	ppm	0	0	<1	---
Boron	ppm	9	13	211	---

**Depot:** LIESTL  
**Unique No:** 5698174  
**Signed:** Kevin Marson  
**Report Date:** 27 Dec 2023



### GRAPHS

