

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH30 114399-1253 - Diesel Engine

Sample No: LH0191002

Oil Type: LIEBHERR MOTOROIL 5W30



SIMS METAL MANAGEMENT
 3220 DEEPWATER TERMINAL RD
 RICHMOND, VA
 US 23234
 Contact: Service Manager

T: (703)392-0111
 F:



SAMPLE INFORMATION

Sample Number	LH0191002	---	---	---
Sample Date	05 Aug 2021	---	---	---
Machine Hours	2002	---	---	---
Oil Hours	2002	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	ABNORMAL	---	---	---



OIL CONDITION

Visc @ 100°C	cSt	12.2	---	---	---
Oxidation (PA)	%	202	---	---	---



CONTAMINATION

Water	%	0.13	---	---	---
Soot %	%	0.2	---	---	---
Nitration (PA)	%	158	---	---	---
Sulfation (PA)	%	107	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	<1.0	---	---	---
Silicon	ppm	8	---	---	---
Sodium	ppm	4	---	---	---
Potassium	ppm	12	---	---	---



WEAR METALS

Iron	ppm	24	---	---	---
Copper	ppm	194	---	---	---
Lead	ppm	18	---	---	---
Tin	ppm	<1	---	---	---
Aluminum	ppm	4	---	---	---
Chromium	ppm	<1	---	---	---
Molybdenum	ppm	48	---	---	---
Nickel	ppm	<1	---	---	---
Titanium	ppm	6	---	---	---
Silver	ppm	<1	---	---	---
Manganese	ppm	1	---	---	---
Vanadium	ppm	0	---	---	---



ADDITIVES

Calcium	ppm	1438	---	---	---
Magnesium	ppm	816	---	---	---
Zinc	ppm	794	---	---	---
Phosphorus	ppm	684	---	---	---
Barium	ppm	24	---	---	---
Boron	ppm	43	---	---	---

Diagnosis

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. The copper level is abnormal. Elemental level of copper (Cu) probably due to leaching of copper from copper components (i.e. cooling core) by the oil additives. All other 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.

Depot: SIMRCLH
 Unique No: 9633903
 Signed: Jonathan Hester
 Report Date: 26 Aug 2021



GRAPHS

