

LIEBHERR

CONSTRUCTION EQUIPMENT



C21.04.90043 - Diesel Engine

Sample No: LH0251628

Oil Type: NOT GIVEN



SAMPLE INFORMATION

Sample Number	LH0251628	---	---	---
Sample Date	18 Jan 2023	---	---	---
Machine Hours	1	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Not Chngd	---	---	---
Sample Status	SEVERE	---	---	---

LIEBHERR CANADA LTD. - REMAN
 1015 SUTTON DRIVE
 BURLINGTON, ON
 CA L7L 5Z8
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OIL CONDITION

Visc @ 100°C	cSt	11.4	---	---	---
Oxidation (PA)	%	42	---	---	---



CONTAMINATION

Soot %	%	0	---	---	---
Nitration (PA)	%	83	---	---	---
Sulfation (PA)	%	36	---	---	---
Glycol	%	>.70	---	---	---
Fuel	%	1.2	---	---	---
Silicon	ppm	10	---	---	---
Sodium	ppm	30	---	---	---
Potassium	ppm	12	---	---	---



WEAR METALS

Iron	ppm	15	---	---	---
Copper	ppm	11	---	---	---
Lead	ppm	2	---	---	---
Tin	ppm	<1	---	---	---
Aluminum	ppm	4	---	---	---
Chromium	ppm	1	---	---	---
Molybdenum	ppm	<1	---	---	---
Nickel	ppm	<1	---	---	---
Titanium	ppm	<1	---	---	---
Silver	ppm	1	---	---	---
Manganese	ppm	7	---	---	---
Vanadium	ppm	<1	---	---	---



ADDITIVES

Calcium	ppm	3639	---	---	---
Magnesium	ppm	124	---	---	---
Zinc	ppm	1108	---	---	---
Phosphorus	ppm	788	---	---	---
Barium	ppm	29	---	---	---
Boron	ppm	165	---	---	---

Diagnosis

We advise that you check for the source of the coolant leak. We recommend that you drain the oil from the component if this has not already been done. We advise that you flush the component thoroughly before re-filling with oil. We recommend an early resample to monitor this condition. No other corrective action is recommended at this time. Please specify the brand, type, and viscosity of the oil on your next sample. Metal levels are typical for a new component breaking in. Test for glycol is positive. Light fuel dilution occurring. There is a high concentration of glycol present in the oil. There is a moderate concentration of water present in the oil. Free water present. No other contaminants were detected in the oil. Viscosity of sample indicates oil is within SAE 30 range, advise investigate. The oil is no longer serviceable due to the presence of contaminants.

Depot: REMAN
Unique No: 5515485
Signed: Kevin Marson
Report Date: 23 Jan 2023



GRAPHS

