

LIEBHERR

CONSTRUCTION EQUIPMENT



2010034152 (S/N 2010.03.4152) - Diesel Engine

Sample No: LH0270594
 Oil Type: NOT GIVEN



SAMPLE INFORMATION

Sample Number	LH0270594	---	---	---
Sample Date	17 Aug 2023	---	---	---
Machine Hours	1500	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Not Chngd	---	---	---
Sample Status	SEVERE	---	---	---

LIEBHERR CANADA LTD. - REMAN
 1015 SUTTON DRIVE
 BURLINGTON, ON
 CA L7L 5Z8
 Contact: Jeff Carter
 jeff.carter@liebherr.com
 T: (905)319-9222
 F: (905)319-6622



OIL CONDITION

Oxidation (PA)	%	307	---	---	---
----------------	---	-----	-----	-----	-----



CONTAMINATION

Soot %	%	6.2	---	---	---
Nitration (PA)	%	235	---	---	---
Sulfation (PA)	%	70	---	---	---
Glycol	%	0.0	---	---	---
Fuel	%	0.6	---	---	---
Silicon	ppm	10	---	---	---
Sodium	ppm	3	---	---	---
Potassium	ppm	2	---	---	---



WEAR METALS

Iron	ppm	177	---	---	---
Copper	ppm	73	---	---	---
Lead	ppm	4	---	---	---
Tin	ppm	5	---	---	---
Aluminum	ppm	3	---	---	---
Chromium	ppm	3	---	---	---
Molybdenum	ppm	49	---	---	---
Nickel	ppm	0	---	---	---
Titanium	ppm	<1	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	2	---	---	---
Vanadium	ppm	0	---	---	---



ADDITIVES

Calcium	ppm	888	---	---	---
Magnesium	ppm	822	---	---	---
Zinc	ppm	916	---	---	---
Phosphorus	ppm	783	---	---	---
Barium	ppm	0	---	---	---
Boron	ppm	4	---	---	---

Diagnosis

We advise that you check for faulty combustion, plugged air filters, or aftercoolers. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample. Please note that the oil was too thick to perform some of the normal laboratory tests. Iron ppm levels are abnormal. Cylinder, crank, or cam shaft wear is indicated. Fuel content negligible. There is an abnormal amount of solids and carbon present in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Depot: REMAN
 Unique No: 5629734
 Signed: Kevin Marson
 Report Date: 23 Aug 2023



GRAPHS

