

LIEBHERR

CONSTRUCTION EQUIPMENT



2016.04.1142 - Diesel Engine

Sample No: LH0255972
 Oil Type: DIESEL ENGINE OIL SAE 10W30



SAMPLE INFORMATION

Sample Number	LH0255972	---	---	---
Sample Date	05 Jul 2023	---	---	---
Machine Hours	0	---	---	---
Oil Hours	0	---	---	---
Oil Changed	N/A	---	---	---
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	● 11.8	---	---	---
Oxidation (PA)	%	117	---	---	---



CONTAMINATION

Water	%	● 0.471	---	---	---
Soot %	%	● 0.2	---	---	---
Nitration (PA)	%	116	---	---	---
Sulfation (PA)	%	87	---	---	---
Glycol	%	● 0.0	---	---	---
Fuel	%	● 1.5	---	---	---
Silicon	ppm	● 17	---	---	---
Sodium	ppm	● 4	---	---	---
Potassium	ppm	● 8	---	---	---



WEAR METALS

Iron	ppm	● 59	---	---	---
Copper	ppm	● 18	---	---	---
Lead	ppm	● 34	---	---	---
Tin	ppm	● 17	---	---	---
Aluminum	ppm	● 9	---	---	---
Chromium	ppm	● 2	---	---	---
Molybdenum	ppm	● 20	---	---	---
Nickel	ppm	● <1	---	---	---
Titanium	ppm	● 29	---	---	---
Silver	ppm	● <1	---	---	---
Manganese	ppm	● 1	---	---	---
Vanadium	ppm	<1	---	---	---



ADDITIVES

Calcium	ppm	● 1581	---	---	---
Magnesium	ppm	● 999	---	---	---
Zinc	ppm	● 1306	---	---	---
Phosphorus	ppm	● 1128	---	---	---
Barium	ppm	● 0	---	---	---
Boron	ppm	● 72	---	---	---

Diagnosis

We advise that you check for the source of water entry. We advise that you monitor for an abnormal oil pressure drop and noise. 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. Tin ppm levels are severe. Lead ppm levels are abnormal. Bearing wear is indicated. Slide bearing wear is indicated. Light fuel dilution occurring. There is a moderate concentration of water present in the oil. Test for glycol is negative. No other contaminants were detected in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Depot: REMAN
 Unique No: 5605248
 Signed: Kevin Marson
 Report Date: 07 Jul 2023



GRAPHS

