

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### 2010.04.4500 - Diesel Engine

Sample No: LH0278953  
 Oil Type: DIESEL ENGINE OIL SAE 10W30



#### SAMPLE INFORMATION

Sample Number	LH0278953	---	---	---
Sample Date	07 Feb 2024	---	---	---
Machine Hours	0	---	---	---
Oil Hours	0	---	---	---
Oil Changed	N/A	---	---	---
Sample Status	ABNORMAL	---	---	---

**LIEBHERR CANADA LTD. - REMAN**  
 1015 SUTTON DRIVE  
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 CA L7L 5Z8  
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#### OIL CONDITION

Visc @ 100°C	cSt	14.5	---	---	---
Oxidation (PA)	%	68	---	---	---



#### CONTAMINATION

Water	%	0.104	---	---	---
Soot %	%	0.1	---	---	---
Nitration (PA)	%	57	---	---	---
Sulfation (PA)	%	59	---	---	---
Glycol	%	0.0	---	---	---
Fuel	%	<1.0	---	---	---
Silicon	ppm	4	---	---	---
Sodium	ppm	9	---	---	---
Potassium	ppm	3	---	---	---

#### Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. There is a trace of moisture present in the oil. Test for glycol is negative. Viscosity of sample indicates oil is within SAE 40 range, advise investigate. The condition of the oil is acceptable for the time in service.



#### WEAR METALS

Iron	ppm	5	---	---	---
Copper	ppm	20	---	---	---
Lead	ppm	1	---	---	---
Tin	ppm	<1	---	---	---
Aluminum	ppm	2	---	---	---
Chromium	ppm	0	---	---	---
Molybdenum	ppm	<1	---	---	---
Nickel	ppm	<1	---	---	---
Titanium	ppm	0	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	0	---	---	---
Vanadium	ppm	0	---	---	---



#### ADDITIVES

Calcium	ppm	1887	---	---	---
Magnesium	ppm	76	---	---	---
Zinc	ppm	1041	---	---	---
Phosphorus	ppm	899	---	---	---
Barium	ppm	0	---	---	---
Boron	ppm	139	---	---	---

Depot: REMAN  
 Unique No: 5723695  
 Signed: Kevin Marson  
 Report Date: 13 Feb 2024



### GRAPHS

