

LIEBHERR

CONSTRUCTION EQUIPMENT



U23.04.90004 - Diesel Engine

Sample No: LH0247137

Oil Type: CHEVRON 15W40



SAMPLE INFORMATION

Sample Number	LH0247137	LH0247136	---	---
Sample Date	17 Aug 2023	10 Jul 2023	---	---
Machine Hours	250	50	---	---
Oil Hours	0	0	---	---
Oil Changed	Changed	Not Changd	---	---
Sample Status	NORMAL	NORMAL	---	---

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

Visc @ 100°C	cSt	13.5	13.8	---	---
Oxidation (PA)	%	54	50	---	---



CONTAMINATION

Soot %	%	0.3	0	---	---
Nitration (PA)	%	57	43	---	---
Sulfation (PA)	%	54	52	---	---
Glycol	%	0.0	0.0	---	---
Fuel	%	<1.0	<1.0	---	---
Silicon	ppm	11	9	---	---
Sodium	ppm	30	22	---	---
Potassium	ppm	2	<1	---	---

Diagnosis

Resample at the next service interval to monitor. Metal levels are typical for a new component breaking in. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.



WEAR METALS

Iron	ppm	15	6	---	---
Copper	ppm	28	13	---	---
Lead	ppm	4	2	---	---
Tin	ppm	3	1	---	---
Aluminum	ppm	6	2	---	---
Chromium	ppm	<1	<1	---	---
Molybdenum	ppm	78	77	---	---
Nickel	ppm	0	0	---	---
Titanium	ppm	<1	0	---	---
Silver	ppm	<1	<1	---	---
Manganese	ppm	<1	<1	---	---
Vanadium	ppm	0	0	---	---



ADDITIVES

Calcium	ppm	1737	1708	---	---
Magnesium	ppm	340	335	---	---
Zinc	ppm	1229	1199	---	---
Phosphorus	ppm	1109	1111	---	---
Barium	ppm	14	9	---	---
Boron	ppm	353	393	---	---

Depot: REMAN
 Unique No: 5642714
 Signed: Wes Davis
 Report Date: 12 Sep 2023



GRAPHS

