



LIEBHERR LH40 121161- Front Left Wheel Hub

Sample No: LH

Oil Type: LIEBHERR GEAR BASIC 90 LS



Sample Information

Sample Number	LH	LH0072850	---	---
Sample Date	27 Mar 2024	18 Dec 2020	---	---
Machine Hours	14060	1105	---	---
Oil Hours	0	0	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	ABNORMAL	ABNORMAL	---	---

LIEBHERR CANADA LTEE
 444 AVENUE DE LA FRICHE
 DOLBEAU-MISTASSINI, QC
 CA G8L 3M7
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Oil Condition

Visc @ 40°C	cSt	54.0	104	---	---
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Contamination

Water	%	NEG	0.173	---	---
Silicon	ppm	25	3	---	---
Sodium	ppm	4	<1	---	---
Potassium	ppm	2	<1	---	---



Wear Metals

PQ		12	---	---	---
Iron	ppm	812	26	---	---
Copper	ppm	9	2	---	---
Lead	ppm	0	<1	---	---
Tin	ppm	0	<1	---	---
Aluminum	ppm	4	<1	---	---
Chromium	ppm	4	<1	---	---
Molybdenum	ppm	0	<1	---	---
Nickel	ppm	<1	<1	---	---
Titanium	ppm	1	0	---	---
Silver	ppm	0	<1	---	---
Manganese	ppm	6	<1	---	---
Vanadium	ppm	0	<1	---	---



Additives

Calcium	ppm	172	3	---	---
Magnesium	ppm	16	<1	---	---
Zinc	ppm	322	5	---	---
Phosphorus	ppm	1084	321	---	---
Barium	ppm	0	0	---	---
Boron	ppm	14	4	---	---

Diagnosis

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition. Iron and aluminum ppm levels are abnormal. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion. There is a moderate concentration of dirt present in the oil. High amount of ingressed dirt has caused abrasive wear to the component. The oil viscosity is lower than typical, possibly indicating the addition of lighter grade oil. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Depot: LBADOL
 Unique No: 5763478
 Signed: Kevin Marson
 Report Date: 22 Apr 2024



Graphs

