

LIEBHERR

CONSTRUCTION EQUIPMENT



LIBHERR 113-1 Winch

Sample No: LH0183671
 Oil Type: LIEBHERR GEAR HYPOID 90 EP



Sample Information

Sample Number	LH0183671	---	---	---
Sample Date	14 Mar 2024	---	---	---
Machine Hours	588	---	---	---
Oil Hours	125	---	---	---
Oil Changed	N/A	---	---	---
Sample Status	NORMAL	---	---	---

LIEBHERR CANADA LTD.
 49C MEWS PLACE
 ST. JOHN'S, NL
 CA A1B 4N2
 Contact: Warren Coombs
 warren.coombs@liebherr.com
 T:
 F: (709)368-6494



Oil Condition

Visc @ 40°C	cSt	● 182	---	---	---
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Contamination

Water	%	NEG	---	---	---
Silicon	ppm	● 0	---	---	---
Sodium	ppm	● 3	---	---	---
Potassium	ppm	● <1	---	---	---



Wear Metals

Iron	ppm	● 121	---	---	---
Copper	ppm	● 6	---	---	---
Lead	ppm	● 0	---	---	---
Tin	ppm	0	---	---	---
Aluminum	ppm	● <1	---	---	---
Chromium	ppm	● 2	---	---	---
Molybdenum	ppm	● 0	---	---	---
Nickel	ppm	● <1	---	---	---
Titanium	ppm	0	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	● <1	---	---	---
Vanadium	ppm	0	---	---	---



Additives

Calcium	ppm	● 69	---	---	---
Magnesium	ppm	1	---	---	---
Zinc	ppm	● 57	---	---	---
Phosphorus	ppm	756	---	---	---
Barium	ppm	● 3	---	---	---
Boron	ppm	1	---	---	---

Diagnosis

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

Depot: LIE49STJ
 Unique No: 5760199
 Signed: Wes Davis
 Report Date: 05 Apr 2024



Graphs

