

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR HS8100.1186046 - 2 Winch

Sample No: LH0277552

Oil Type: LIEBHERR SYNTOGEAR PLUS 220



SAMPLE INFORMATION

Sample Number	LH0277552	LH0239501	---	---
Sample Date	26 Jan 2024	05 Aug 2022	---	---
Machine Hours	3909	530	---	---
Oil Hours	0	0	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	SEVERE	ABNORMAL	---	---

HIGGS & HIGGS

RR # 4

ST THOMAS, ON

CA N5P 3S8

Contact: Bernie Higgs



OIL CONDITION

Visc @ 40°C	cSt	94.7	244	---	---
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T: (519)631-4095

F: (519)631-2745



CONTAMINATION

Water	%	NEG	NEG	---	---
Silicon	ppm	8	<1	---	---
Sodium	ppm	3	2	---	---
Potassium	ppm	2	<1	---	---

Diagnosis

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 ppm levels are severe. Chromium and copper ppm levels are abnormal. There is no indication of any contamination in the oil. Viscosity of sample indicates oil is within SAE 75W90 range, advise investigate. 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.



WEAR METALS

PQ		12	---	---	---
Iron	ppm	1273	7	---	---
Copper	ppm	67	2	---	---
Lead	ppm	3	1	---	---
Tin	ppm	0	0	---	---
Aluminum	ppm	2	<1	---	---
Chromium	ppm	17	0	---	---
Molybdenum	ppm	<1	<1	---	---
Nickel	ppm	5	<1	---	---
Titanium	ppm	0	0	---	---
Silver	ppm	0	0	---	---
Manganese	ppm	7	<1	---	---
Vanadium	ppm	0	0	---	---



ADDITIVES

Calcium	ppm	16	125	---	---
Magnesium	ppm	4	<1	---	---
Zinc	ppm	306	174	---	---
Phosphorus	ppm	1233	314	---	---
Barium	ppm	0	<1	---	---
Boron	ppm	117	5	---	---

Depot: HIGSTT

Unique No: 5720980

Signed: Bill Quesnel

Report Date: 30 Jan 2024



GRAPHS

