

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR HS 8100.1 2209 (S/N 186057) - 1 Winch

Sample No: LH0272222

Oil Type: LIEBHERR GEAR HYPOID 90 EP



SAMPLE INFORMATION

Sample Number	LH0272222	---	---	---
Sample Date	11 Jan 2024	---	---	---
Machine Hours	569	---	---	---
Oil Hours	569	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	NORMAL	---	---	---

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OIL CONDITION

Visc @ 40°C	cSt	● 225	---	---	---
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CONTAMINATION

Water	%	NEG	---	---	---
Silicon	ppm	● 4	---	---	---
Sodium	ppm	● 0	---	---	---
Potassium	ppm	● 0	---	---	---

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. 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	● 75	---	---	---
Copper	ppm	● 10	---	---	---
Lead	ppm	● 0	---	---	---
Tin	ppm	0	---	---	---
Aluminum	ppm	● <1	---	---	---
Chromium	ppm	● <1	---	---	---
Molybdenum	ppm	● 0	---	---	---
Nickel	ppm	● 0	---	---	---
Titanium	ppm	0	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	● 1	---	---	---
Vanadium	ppm	0	---	---	---



ADDITIVES

Calcium	ppm	● 46	---	---	---
Magnesium	ppm	● 2	---	---	---
Zinc	ppm	● 45	---	---	---
Phosphorus	ppm	● 400	---	---	---
Barium	ppm	● 0	---	---	---
Boron	ppm	● 8	---	---	---

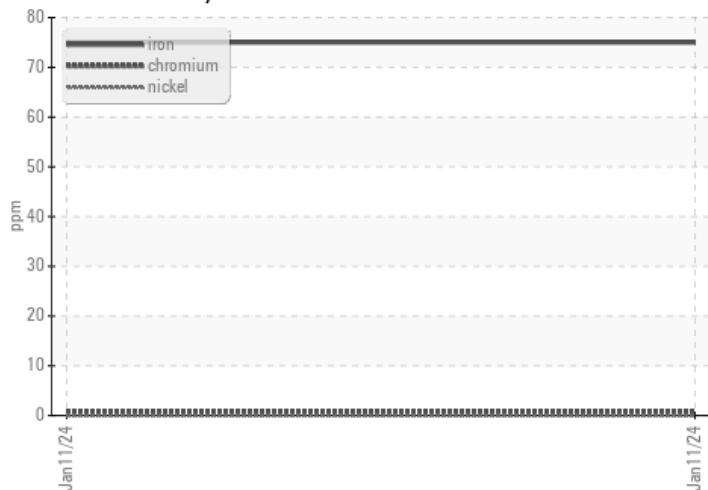
Depot: DENPAE
Unique No: 10833614
Signed: Don Baldrige
Report Date: 18 Jan 2024

Submitted By: ROBERT SHAFFER

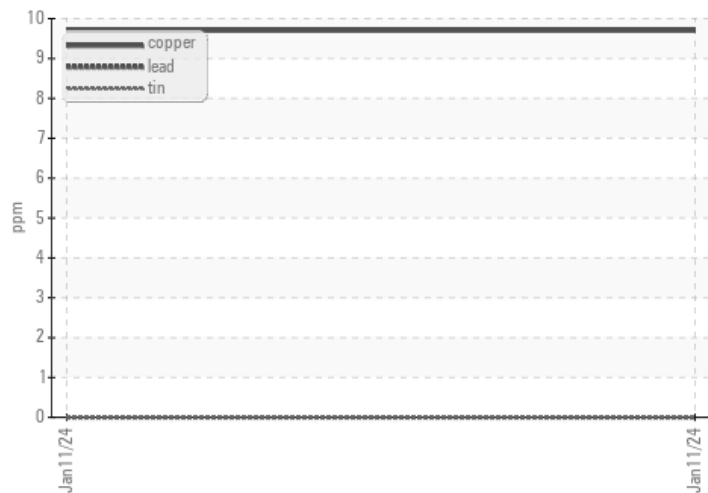


GRAPHS

Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C

