

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR L580 H3 (S/N 1762-69856) - Diesel Engine

Sample No: LH0268705

Oil Type: LIEBHERR MOTOROIL 5W-30 LOW ASH



SAMPLE INFORMATION

Sample Number	LH0268705	---	---	---
Sample Date	06 Feb 2024	---	---	---
Machine Hours	2000	---	---	---
Oil Hours	1000	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	ABNORMAL	---	---	---

LIEBHERR EQUIPMENT SOURCE

8200 FAYETTEVILLE ROAD
 RALEIGH, NC
 US 27603
 Contact: Timothy Bailey
 timothy.bailey@liebherr.com
 T:
 F: (919)329-0084



OIL CONDITION

Visc @ 100°C	cSt	12.0	---	---	---
Base Number (BN)	mg KOH/g	4.2	---	---	---
Oxidation (PA)	%	187	---	---	---

Diagnosis

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.



CONTAMINATION

Water	%	NEG	---	---	---
Soot %	%	0.1	---	---	---
Nitration (PA)	%	105	---	---	---
Sulfation (PA)	%	100	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	<1.0	---	---	---
Silicon	ppm	12	---	---	---
Sodium	ppm	2	---	---	---
Potassium	ppm	2	---	---	---



WEAR METALS

Iron	ppm	17	---	---	---
Copper	ppm	144	---	---	---
Lead	ppm	12	---	---	---
Tin	ppm	2	---	---	---
Aluminum	ppm	2	---	---	---
Chromium	ppm	<1	---	---	---
Molybdenum	ppm	34	---	---	---
Nickel	ppm	0	---	---	---
Titanium	ppm	0	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	2	---	---	---
Vanadium	ppm	0	---	---	---



ADDITIVES

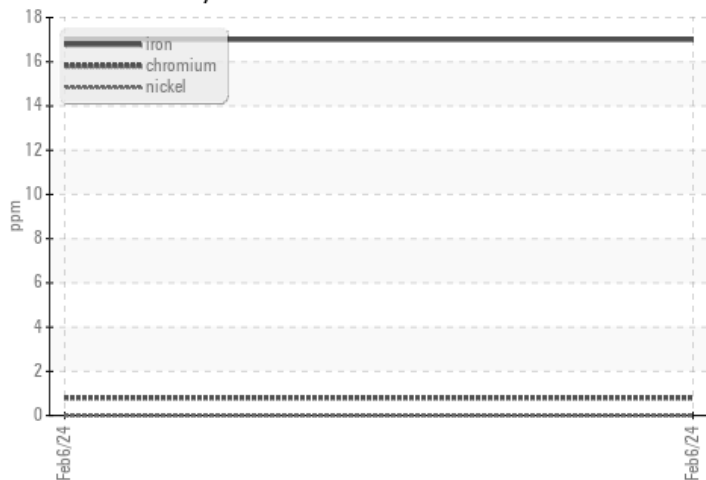
Calcium	ppm	1679	---	---	---
Magnesium	ppm	693	---	---	---
Zinc	ppm	937	---	---	---
Phosphorus	ppm	753	---	---	---
Barium	ppm	21	---	---	---
Boron	ppm	88	---	---	---

Depot: LIEBHERRNC
 Unique No: 10869743
 Signed: Jonathan Hester
 Report Date: 09 Feb 2024

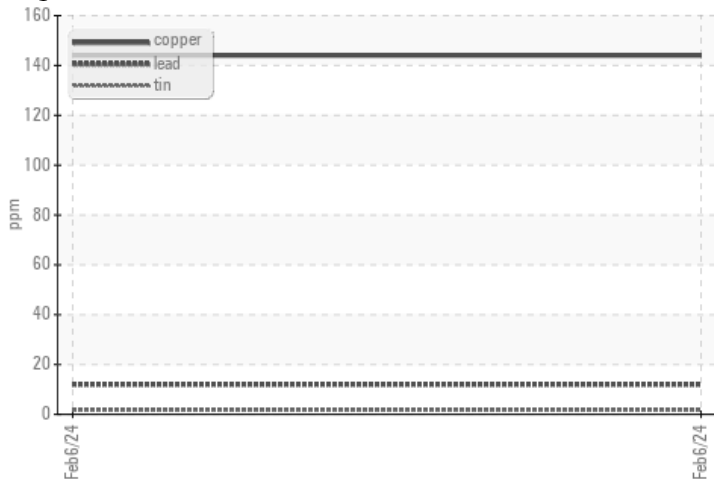


GRAPHS

Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



Base Number

