

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR PR736LGP 018903-1155 - Diesel Engine

Sample No: LH0268579

Oil Type: LIEBHERR MOTOROIL 5W-30 LOW ASH



LIEBHERR EQUIPMENT SOURCE
 8200 FAYETTEVILLE ROAD
 RALEIGH, NC
 US 27603
 Contact: Timothy Bailey
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 T:
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SAMPLE INFORMATION

Sample Number	LH0268579	LH0174113	---	---
Sample Date	05 Feb 2024	02 Mar 2021	---	---
Machine Hours	1317	450	---	---
Oil Hours	867	450	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	ABNORMAL	ABNORMAL	---	---



OIL CONDITION

Visc @ 100°C	cSt	● 11.6	● 11.9	---	---
Base Number (BN)	mg KOH/g	● 6.9	---	---	---
Oxidation (PA)	%	65	190	---	---



CONTAMINATION

Water	%	NEG	● 0.102	---	---
Soot %	%	● 0.1	● 0.1	---	---
Nitration (PA)	%	81	93	---	---
Sulfation (PA)	%	55	107	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	<1.0	---	---
Silicon	ppm	● 8	● 8	---	---
Sodium	ppm	● 0	● 3	---	---
Potassium	ppm	● 4	● 4	---	---



WEAR METALS

Iron	ppm	● 9	● 9	---	---
Copper	ppm	● 128	● 304	---	---
Lead	ppm	● 0	● 3	---	---
Tin	ppm	● 0	● 2	---	---
Aluminum	ppm	● 2	● 1	---	---
Chromium	ppm	● <1	● <1	---	---
Molybdenum	ppm	● 0	● 44	---	---
Nickel	ppm	● 0	● <1	---	---
Titanium	ppm	<1	<1	---	---
Silver	ppm	● 0	<1	---	---
Manganese	ppm	● 0	● 1	---	---
Vanadium	ppm	0	<1	---	---



ADDITIVES

Calcium	ppm	● 1638	● 1308	---	---
Magnesium	ppm	● 474	● 759	---	---
Zinc	ppm	● 808	● 855	---	---
Phosphorus	ppm	● 639	● 683	---	---
Barium	ppm	● 6	● 28	---	---
Boron	ppm	● 54	● 97	---	---

Diagnosis

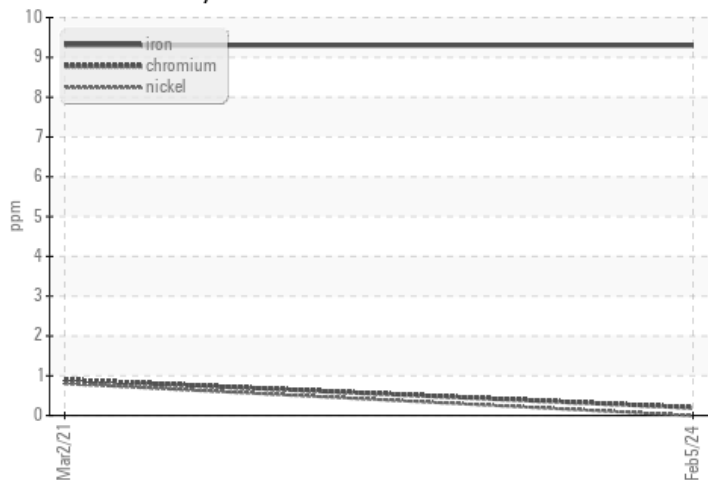
Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. The copper level has decreased, but is still abnormal. All other component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Depot: LIEBHERRNC
 Unique No: 10863277
 Signed: Don Baldrige
 Report Date: 07 Feb 2024

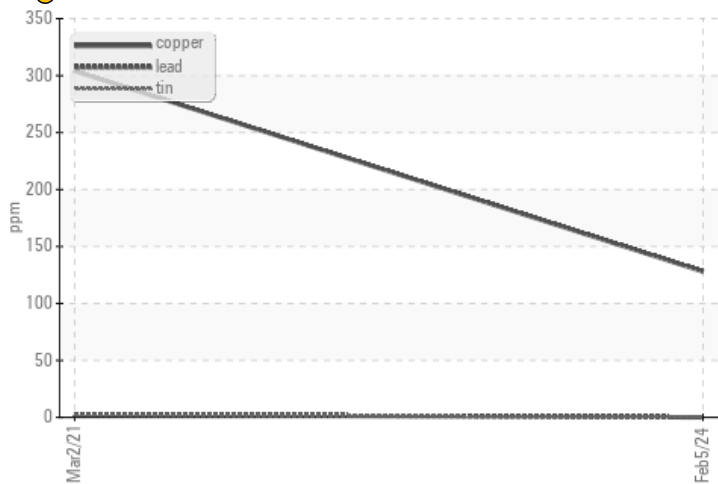


GRAPHS

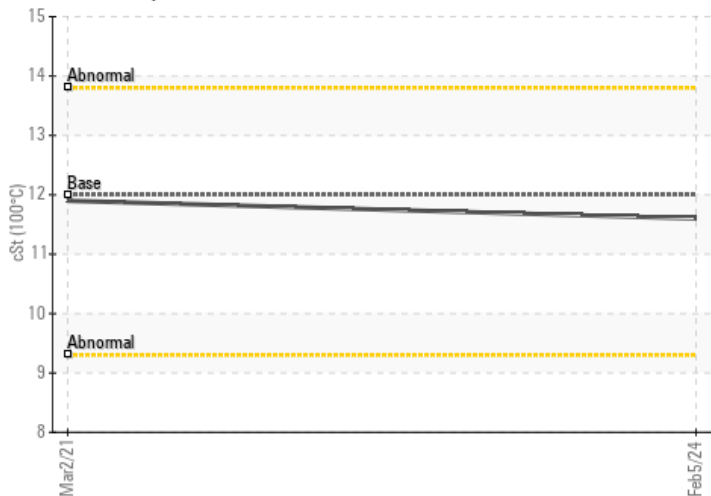
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



Base Number

