

LIEBHERR

CONSTRUCTION EQUIPMENT



[[BIGGIE CRANE]] LIEBHERR LR1700 046254 - Diesel Engine

Sample No: LH0254443

Oil Type: NOT GIVEN



SAMPLE INFORMATION

Sample Number	LH0254443	---	---	---
Sample Date	26 Oct 2023	---	---	---
Machine Hours	1626	---	---	---
Oil Hours	25	---	---	---
Oil Changed	N/A	---	---	---
Sample Status	ABNORMAL	---	---	---

LIEBHERR USA CO - MOBILE AND CRAWLER CRANES
 4100 CHESTNUT AVENUE
 NEWPORT NEWS, VA
 US 23607
 Contact: JOHNATHAN SMITH
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 T:
 F:



OIL CONDITION

Visc @ 100°C	cSt	11.7	---	---	---
Base Number (BN)	mg KOH/g	10.4	---	---	---
Oxidation (PA)	%	92	---	---	---



CONTAMINATION

Soot %	%	0.3	---	---	---
Nitration (PA)	%	83	---	---	---
Sulfation (PA)	%	76	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	1.6	---	---	---
Silicon	ppm	91	---	---	---
Sodium	ppm	2	---	---	---
Potassium	ppm	6	---	---	---



WEAR METALS

Iron	ppm	132	---	---	---
Copper	ppm	14	---	---	---
Lead	ppm	4	---	---	---
Tin	ppm	6	---	---	---
Aluminum	ppm	22	---	---	---
Chromium	ppm	7	---	---	---
Molybdenum	ppm	1	---	---	---
Nickel	ppm	1	---	---	---
Titanium	ppm	1	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	2	---	---	---
Vanadium	ppm	<1	---	---	---



ADDITIVES

Calcium	ppm	1554	---	---	---
Magnesium	ppm	1060	---	---	---
Zinc	ppm	1133	---	---	---
Phosphorus	ppm	913	---	---	---
Barium	ppm	0	---	---	---
Boron	ppm	79	---	---	---

Diagnosis

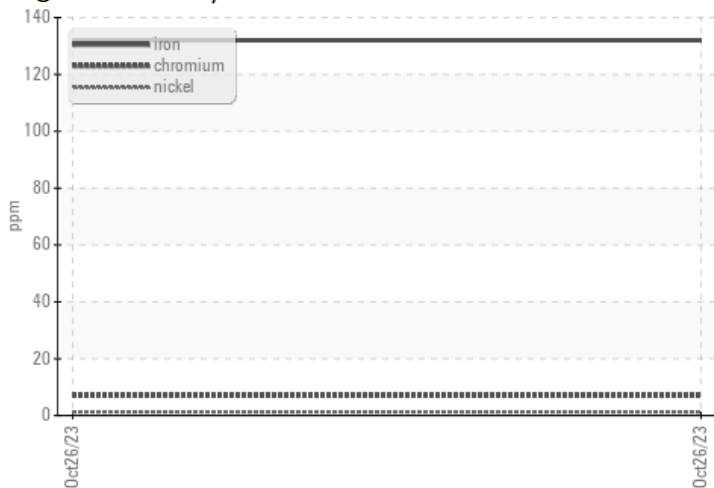
We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample. Cylinder, crank, or cam shaft wear is indicated. Fuel content negligible. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. 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.

Depot: LIENEW
 Unique No: 10726704
 Signed: Don Baldrige
 Report Date: 06 Nov 2023

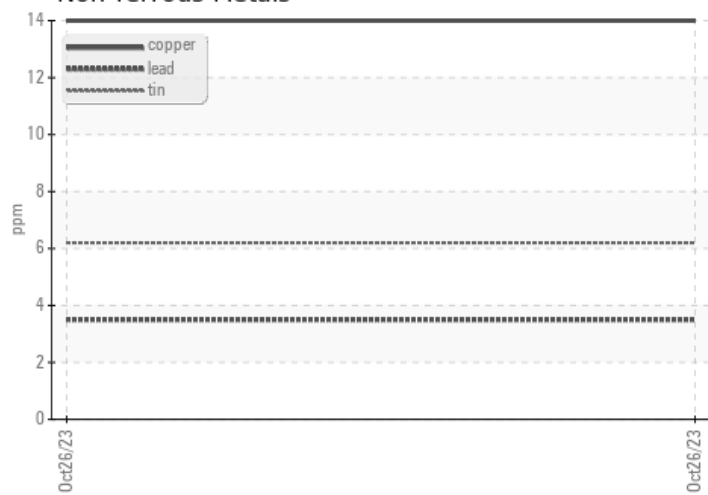


GRAPHS

● Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



Base Number

