

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR TA230 1513-137433 - Diesel Engine

Sample No: LH0236033
 Oil Type: DIESEL ENGINE OIL SAE 15W40



AMERICAN STATE EQUIPMENT CO.
 2400 NORTH 14TH AVENUE
 WAUSAU, WI
 US 54401
 Contact: CHRIS BARTNIK
 cbartnik@amstate.com
 T: (715)675-6900
 F: (715)675-9748



SAMPLE INFORMATION

Sample Number	LH0236033	---	---	---
Sample Date	21 Jun 2023	---	---	---
Machine Hours	818	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	NORMAL	---	---	---



OIL CONDITION

Visc @ 100°C	cSt	12.6	---	---	---
Base Number (BN)	mg KOH/g	6.5	---	---	---
Oxidation (PA)	%	81	---	---	---



CONTAMINATION

Soot %	%	0.1	---	---	---
Nitration (PA)	%	58	---	---	---
Sulfation (PA)	%	60	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	<1.0	---	---	---
Silicon	ppm	9	---	---	---
Sodium	ppm	1	---	---	---
Potassium	ppm	<1	---	---	---



WEAR METALS

Iron	ppm	4	---	---	---
Copper	ppm	88	---	---	---
Lead	ppm	0	---	---	---
Tin	ppm	<1	---	---	---
Aluminum	ppm	0	---	---	---
Chromium	ppm	0	---	---	---
Molybdenum	ppm	44	---	---	---
Nickel	ppm	0	---	---	---
Titanium	ppm	1	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	<1	---	---	---
Vanadium	ppm	0	---	---	---



ADDITIVES

Calcium	ppm	913	---	---	---
Magnesium	ppm	754	---	---	---
Zinc	ppm	920	---	---	---
Phosphorus	ppm	738	---	---	---
Barium	ppm	0	---	---	---
Boron	ppm	24	---	---	---

Diagnosis

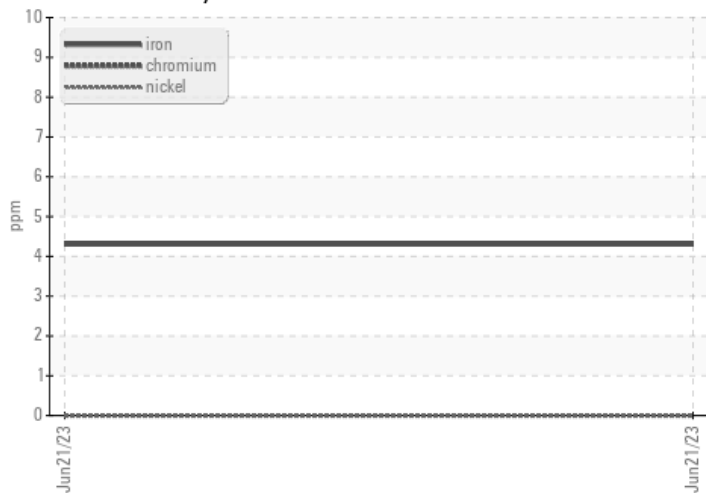
Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. Metal levels are typical for a new component breaking in. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Depot: LEC0008
 Unique No: 10540012
 Signed: Wes Davis
 Report Date: 05 Jul 2023

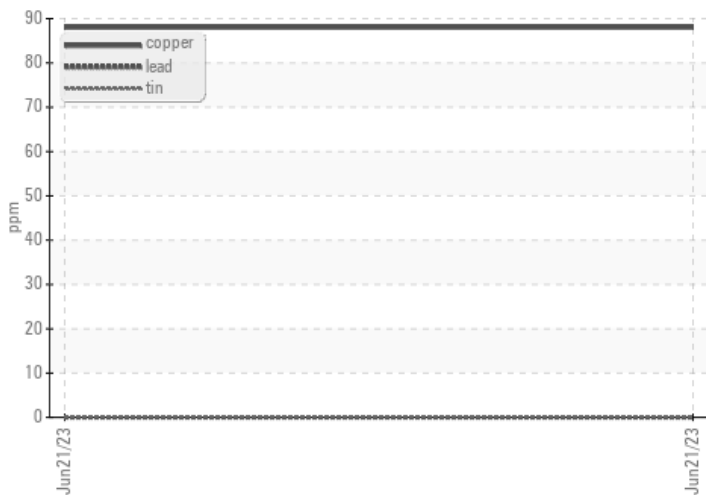


GRAPHS

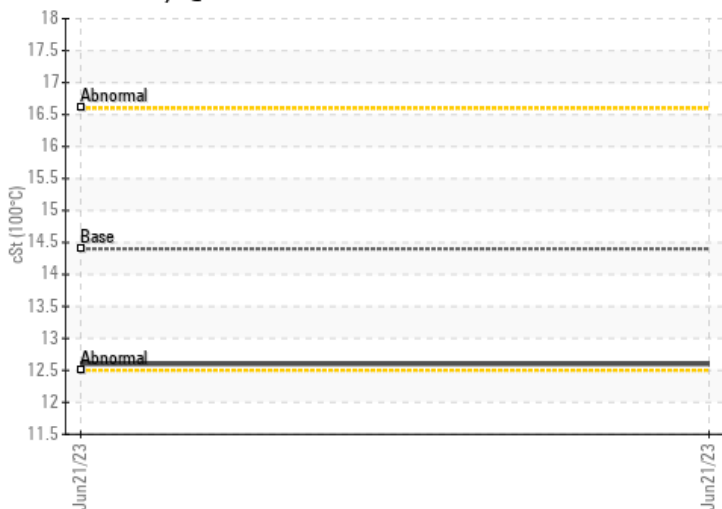
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



Base Number

