

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR TA230 4162 - Diesel Engine

Sample No: LH06059096

Oil Type: DIESEL ENGINE OIL SAE 15W40



**HEAVY MACHINES INC.**  
 3930 EAST RAINES RD  
 MEMPHIS, TN  
 US 38118  
 Contact: J. DAVIS  
 JDAVIS@HEAVY.LLC.COM  
 T:  
 F: (901)260-2245



#### SAMPLE INFORMATION

Sample Number	LH06059096	---	---	---
Sample Date	10 Nov 2023	---	---	---
Machine Hours	3503	---	---	---
Oil Hours	0	---	---	---
Oil Changed	N/A	---	---	---
Sample Status	NORMAL	---	---	---



#### OIL CONDITION

Visc @ 100°C	cSt	12.2	---	---	---
Base Number (BN)	mg KOH/g	7.1	---	---	---
Oxidation (PA)	%	78	---	---	---



#### CONTAMINATION

Water	%	NEG	---	---	---
Soot %	%	0.2	---	---	---
Nitration (PA)	%	78	---	---	---
Sulfation (PA)	%	59	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	0.5	---	---	---
Silicon	ppm	9	---	---	---
Sodium	ppm	4	---	---	---
Potassium	ppm	<1	---	---	---



#### WEAR METALS

Iron	ppm	11	---	---	---
Copper	ppm	66	---	---	---
Lead	ppm	<1	---	---	---
Tin	ppm	1	---	---	---
Aluminum	ppm	3	---	---	---
Chromium	ppm	<1	---	---	---
Molybdenum	ppm	53	---	---	---
Nickel	ppm	2	---	---	---
Titanium	ppm	8	---	---	---
Silver	ppm	<1	---	---	---
Manganese	ppm	2	---	---	---
Vanadium	ppm	<1	---	---	---



#### ADDITIVES

Calcium	ppm	1164	---	---	---
Magnesium	ppm	935	---	---	---
Zinc	ppm	1257	---	---	---
Phosphorus	ppm	909	---	---	---
Barium	ppm	1	---	---	---
Boron	ppm	0	---	---	---

#### Diagnosis

No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. Fuel content negligible. 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: LEC0051  
 Unique No: 10830478  
 Signed: Wes Davis  
 Report Date: 16 Jan 2024



### GRAPHS

