

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH110CP 1228-147 015 - Diesel Engine

Sample No: LH06068892

Oil Type: DIESEL ENGINE OIL SAE 5W40



SAMPLE INFORMATION

Sample Number	LH06068892	---	---	---
Sample Date	15 Dec 2023	---	---	---
Machine Hours	438	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	ATTENTION	---	---	---

MIDDLE RIVER MARINE
 1771 SOUTH TORRENCE AVE
 CHICAGO, IL
 US 60617
 Contact: Scott Molitor
 scottmolitor@gomiddleriver.com
 T:
 F:



OIL CONDITION

Visc @ 100°C	cSt	● 11.8	---	---	---
Base Number (BN)	mg KOH/g	● 5.7	---	---	---
Oxidation (PA)	%	192	---	---	---

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. Metal levels are typical for a new component breaking in. Fuel content negligible. No other contaminants were detected in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.



CONTAMINATION

Water	%	NEG	---	---	---
Soot %	%	● 0.1	---	---	---
Nitration (PA)	%	93	---	---	---
Sulfation (PA)	%	104	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	● 1.6	---	---	---
Silicon	ppm	● 11	---	---	---
Sodium	ppm	● 4	---	---	---
Potassium	ppm	● 1	---	---	---



WEAR METALS

Iron	ppm	● 9	---	---	---
Copper	ppm	● 26	---	---	---
Lead	ppm	● 2	---	---	---
Tin	ppm	● <1	---	---	---
Aluminum	ppm	● 3	---	---	---
Chromium	ppm	● <1	---	---	---
Molybdenum	ppm	● 46	---	---	---
Nickel	ppm	● 0	---	---	---
Titanium	ppm	● <1	---	---	---
Silver	ppm	● 0	---	---	---
Manganese	ppm	● <1	---	---	---
Vanadium	ppm	<1	---	---	---



ADDITIVES

Calcium	ppm	● 1403	---	---	---
Magnesium	ppm	● 971	---	---	---
Zinc	ppm	● 961	---	---	---
Phosphorus	ppm	● 804	---	---	---
Barium	ppm	● 25	---	---	---
Boron	ppm	● 97	---	---	---

Depot: MIDCHIL
 Unique No: 10845569
 Signed: Sean Felton
 Report Date: 25 Jan 2024



GRAPHS

