

LIEBHERR

CONSTRUCTION EQUIPMENT



[[SMS]] LIEBHERR R936 040909-1148 - Diesel Engine

Sample No: LHMC133698
 Oil Type: LIEBHERR 5W40



SAMPLE INFORMATION

Sample Number	LHMC133698	LHMC133734	---	---
Sample Date	19 Oct 2023	26 May 2023	---	---
Machine Hours	9498	9403	---	---
Oil Hours	93	4	---	---
Oil Changed	Not Changd	Not Changd	---	---
Sample Status	NORMAL	NORMAL	---	---

FINKBINER EQUIPMENT CO.
 15 W 400 N FRONTAGE RD
 BURR RIDGE, IL
 US 60527
 Contact: DON FITZGERALD
 dfitzgerald@finkbiner.com
 T: (815)546-8991
 F: (630)654-3792



OIL CONDITION

Visc @ 100°C	cSt	14.4	14.4	---	---
Base Number (BN)	mg KOH/g	8.8	10.2	---	---
Oxidation (PA)	%	57	52	---	---

Diagnosis

Resample at the next service interval to monitor. All 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.



CONTAMINATION

Soot %	%	0.3	0.1	---	---
Nitration (PA)	%	64	39	---	---
Sulfation (PA)	%	51	48	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	<1.0	---	---
Silicon	ppm	16	6	---	---
Sodium	ppm	9	2	---	---
Potassium	ppm	18	2	---	---



WEAR METALS

Iron	ppm	23	13	---	---
Copper	ppm	17	4	---	---
Lead	ppm	2	<1	---	---
Tin	ppm	2	0	---	---
Aluminum	ppm	3	1	---	---
Chromium	ppm	<1	<1	---	---
Molybdenum	ppm	2	60	---	---
Nickel	ppm	<1	0	---	---
Titanium	ppm	<1	<1	---	---
Silver	ppm	<1	0	---	---
Manganese	ppm	2	<1	---	---
Vanadium	ppm	<1	0	---	---



ADDITIVES

Calcium	ppm	1505	1058	---	---
Magnesium	ppm	871	847	---	---
Zinc	ppm	961	1170	---	---
Phosphorus	ppm	919	1008	---	---
Barium	ppm	35	3	---	---
Boron	ppm	128	7	---	---

Depot: LEC0033
 Unique No: 10716173
 Signed: Wes Davis
 Report Date: 31 Oct 2023



GRAPHS

