

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH50 1203-82019 - Diesel Engine

Sample No: LHMC132851

Oil Type: LIEBHERR MOTOROIL 5W30



BRENNER RECYCLING

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Sample Information

Sample Number	LHMC132851	LHMC112872	LHMC80688	---
Sample Date	02 Jul 2024	09 Feb 2017	11 Jul 2016	---
Machine Hours	94	2097	767	---
Oil Hours	94	500	767	---
Oil Changed	Changed	Changed	Changed	---
Sample Status	NORMAL	ABNORMAL	ABNORMAL	---



Oil Condition

Visc @ 100°C	cSt	11.5	14.04	14.00	---
Base Number (BN)	mg KOH/g	9.1	---	---	---
Oxidation (PA)	%	52	80	68	---



Contamination

Water	%	NEG	NEG	NEG	---
Soot %	%	0.1	1.1	0.5	---
Nitration (PA)	%	63	108	83	---
Sulfation (PA)	%	49	64	42	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	<1.0	---
Silicon	ppm	12	10	12	---
Sodium	ppm	5	7	16	---
Potassium	ppm	15	4	3	---



Wear Metals

Iron	ppm	11	97	84	---
Copper	ppm	17	69	183	---
Lead	ppm	2	22	16	---
Tin	ppm	2	2	7	---
Aluminum	ppm	2	42	24	---
Chromium	ppm	0	3	2	---
Molybdenum	ppm	3	6	10	---
Nickel	ppm	<1	1	1	---
Titanium	ppm	<1	0	<1	---
Silver	ppm	<1	0	0	---
Manganese	ppm	1	2	3	---
Vanadium	ppm	0	0	0	---



Additives

Calcium	ppm	1451	2202	2012	---
Magnesium	ppm	713	88	143	---
Zinc	ppm	868	801	777	---
Phosphorus	ppm	791	662	590	---
Barium	ppm	7	4	27	---
Boron	ppm	75	3	4	---

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 acceptable for the time in service.

Depot: BREHAZ
Unique No: 11126065
Signed: Don Baldrige
Report Date: 17 Jul 2024



Graphs

