

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH50 1216-139058 - Diesel Engine

Sample No: LHMC51529
Oil Type: MOBIL 15W40



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SAMPLE INFORMATION

Sample Number	LHMC51529	LHMC88790	LHMC62857	LHMC51583
Sample Date	17 Aug 2023	23 Jun 2023	04 May 2023	09 Mar 2023
Machine Hours	4098	5586	3081	2575
Oil Hours	500	500	500	500
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL



OIL CONDITION

Visc @ 100°C	cSt	13.0	13.0	13.1	13.0
Base Number (BN)	mg KOH/g	9.8	10.1	8.9	9.6
Oxidation (PA)	%	88	90	83	85



CONTAMINATION

Soot %	%	0.1	0.1	0.1	0.1
Nitration (PA)	%	68	69	63	68
Sulfation (PA)	%	60	61	55	59
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	12	11	12	10
Sodium	ppm	3	2	3	<1
Potassium	ppm	1	<1	2	0



WEAR METALS

Iron	ppm	3	3	2	3
Copper	ppm	<1	<1	<1	1
Lead	ppm	0	0	1	0
Tin	ppm	<1	<1	1	0
Aluminum	ppm	5	2	0	1
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	41	40	38	38
Nickel	ppm	0	0	<1	0
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	0	0	<1	0



ADDITIVES

Calcium	ppm	1760	1654	1596	1600
Magnesium	ppm	554	525	511	489
Zinc	ppm	961	947	917	850
Phosphorus	ppm	793	770	743	692
Barium	ppm	0	0	0	0
Boron	ppm	43	43	45	50

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.

Depot: PACTOM
Unique No: 10619297
Signed: Wes Davis
Report Date: 25 Aug 2023

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GRAPHS

