

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH50M 1216-110224 - Diesel Engine

Sample No: LHMC163712

Oil Type: MOBIL DELVAC 1 5W40



SAMPLE INFORMATION

Sample Number	LHMC163712	LHMC163458	LHMC163390	LHMC163320
Sample Date	02 Feb 2024	01 Nov 2023	20 Jul 2023	08 Mar 2023
Machine Hours	9264	8782	8255	7609
Oil Hours	482	526	646	539
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

AHLSTROM-MUNKSJO NA SPECIALTY
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OIL CONDITION

Visc @ 100°C	cSt	13.1	13.0	13.1	13.1
Base Number (BN)	mg KOH/g	5.0	4.8	4.9	5.2
Oxidation (PA)	%	182	188	183	187



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.1	0.2	0.2	0.1
Nitration (PA)	%	84	86	90	85
Sulfation (PA)	%	104	109	107	107
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	18	12	12	14
Sodium	ppm	0	0	<1	0
Potassium	ppm	1	2	2	<1



WEAR METALS

Iron	ppm	2	4	4	3
Copper	ppm	1	2	2	<1
Lead	ppm	<1	0	<1	<1
Tin	ppm	<1	0	<1	<1
Aluminum	ppm	1	2	2	2
Chromium	ppm	<1	0	<1	<1
Molybdenum	ppm	46	47	47	45
Nickel	ppm	<1	0	0	0
Titanium	ppm	<1	<1	<1	0
Silver	ppm	<1	0	0	0
Manganese	ppm	<1	0	<1	<1
Vanadium	ppm	<1	0	<1	0



ADDITIVES

Calcium	ppm	976	1033	1074	980
Magnesium	ppm	840	871	962	854
Zinc	ppm	1157	1229	1334	1235
Phosphorus	ppm	1014	1007	1066	1037
Barium	ppm	0	0	0	0
Boron	ppm	100	88	75	82

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: AHLKAU
 Unique No: 10883719
 Signed: Don Baldrige
 Report Date: 19 Feb 2024

Contact/Location: JOE SEITZ - AHLKAU



GRAPHS

