

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH50 1216-123739 - Diesel Engine

Sample No: LH0211654

Oil Type: DIESEL ENGINE OIL SAE 5W40



AHLSTROM-MUNKSJO NA SPECIALTY
 PO BOX 600
 KAUKAUNA, WI
 US 54130
 Contact: JOE SEITZ
 joe.seitz@ahlstrom-munksjo.com
 T:
 F:



SAMPLE INFORMATION

Sample Number	LH0211654	LH0211650	LH0211640	LH0211637
Sample Date	09 Aug 2023	09 Jun 2023	28 Mar 2023	13 Mar 2023
Machine Hours	8617	7954	7200	6950
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Not Changd
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL



OIL CONDITION

Visc @ 100°C	cSt	12.9	13.1	13.3	13.4
Base Number (BN)	mg KOH/g	4.4	5.3	5.8	6.6
Oxidation (PA)	%	188	181	179	176



CONTAMINATION

Soot %	%	0.1	0.1	0.1	0.1
Nitration (PA)	%	88	99	82	70
Sulfation (PA)	%	106	105	104	103
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	11	11	12	13
Sodium	ppm	<1	1	0	0
Potassium	ppm	1	<1	<1	2



WEAR METALS

Iron	ppm	3	3	0	3
Copper	ppm	2	<1	<1	<1
Lead	ppm	4	0	0	0
Tin	ppm	<1	0	0	0
Aluminum	ppm	2	7	<1	4
Chromium	ppm	0	0	0	<1
Molybdenum	ppm	45	43	47	45
Nickel	ppm	0	0	0	0
Titanium	ppm	<1	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	<1	0	0	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	1078	1061	1047	1012
Magnesium	ppm	937	904	831	836
Zinc	ppm	1296	1310	1219	1196
Phosphorus	ppm	1034	1024	1049	1016
Barium	ppm	0	0	0	0
Boron	ppm	57	66	103	107

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: 10603863
 Signed: Wes Davis
 Report Date: 15 Aug 2023



GRAPHS

