

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH50M 117 616-1216 - Diesel Engine

Sample No: LH0278608

Oil Type: PETRO CANADA SUPREME 5W30



LIEBHERR CANADA LTD.
 1015 SUTTON DRIVE
 BURLINGTON, ON
 CA L7L 5Z8
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SAMPLE INFORMATION

Sample Number	LH0278608	LH0277471	LH0277427	LH0274534
Sample Date	08 Feb 2024	10 Nov 2023	05 Nov 2023	23 Aug 2023
Machine Hours	14242	14099	14022	13444
Oil Hours	0	0	0	0
Oil Changed	Not Chngd	Changed	Changed	Changed
Sample Status	NORMAL	SEVERE	NORMAL	NORMAL



OIL CONDITION

Visc @ 100°C	cSt	11.8	5.2	11.7	10.4
Oxidation (PA)	%	71	59	83	84



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0	0	0	0
Nitration (PA)	%	65	44	77	78
Sulfation (PA)	%	54	52	59	62
Glycol	%	0.0	NEG	NEG	NEG
Fuel	%	1.1	37	<1.0	<1.0
Silicon	ppm	10	6	5	7
Sodium	ppm	6	1	2	2
Potassium	ppm	11	1	2	<1



WEAR METALS

Iron	ppm	9	10	4	4
Copper	ppm	13	<1	1	2
Lead	ppm	3	<1	<1	2
Tin	ppm	<1	0	0	0
Aluminum	ppm	2	2	1	1
Chromium	ppm	<1	<1	0	0
Molybdenum	ppm	44	34	57	53
Nickel	ppm	0	<1	0	0
Titanium	ppm	0	0	0	0
Silver	ppm	0	<1	<1	0
Manganese	ppm	<1	0	0	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	947	650	992	950
Magnesium	ppm	996	555	899	889
Zinc	ppm	1095	690	1119	1071
Phosphorus	ppm	963	668	910	947
Barium	ppm	23	<1	<1	0
Boron	ppm	76	18	3	1

Diagnosis

No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. Light fuel dilution occurring. No other contaminants were detected in the oil. The condition of the oil is acceptable for the time in service.

Depot: LIEMIS
 Unique No: 5723700
 Signed: Kevin Marson
 Report Date: 13 Feb 2024



GRAPHS

