

LIEBHERR

CONSTRUCTION EQUIPMENT



[(341435)] LIEBHERR LH50M 128733-1216 - Hydraulic System

Sample No: LH0289409

Oil Type: {unknown}



Sample Information

Sample Number	LH0289409	LH0286548	LH0278633	LH0277774
Sample Date	17 Jun 2024	19 Mar 2024	17 Jan 2024	20 Nov 2023
Machine Hours	10161	9241	8647	8180
Oil Hours	0	0	0	0
Oil Changed	Changed	Not Changd	Not Changd	Not Changd
Sample Status	SEVERE	SEVERE	SEVERE	SEVERE

COMBINED METAL INDUSTRIES
 454 DOBBIE DRIVE
 CAMBRIDGE, ON
 CA N1T 1S7
 Contact: Service Manager



Oil Condition

Visc @ 40°C	cSt	40.5	40.6	41.1	41.4
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T:
F:



Contamination

Water	%	0.137	0.016	NEG	NEG
Particles >4µm		71540	6312	3341	1666
Particles >6µm		33140	1698	876	448
Particles >14µm		5864	110	58	23
ISO 4406:1999 (c)		23/22/20	20/18/14	19/17/13	18/16/12
Silicon	ppm	2	<1	2	2
Sodium	ppm	6	2	2	2
Potassium	ppm	7	<1	1	0

Diagnosis

We advise that you check all areas where contaminants can enter the system. The oil change at the time of sampling has been noted. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation. Please specify the brand, type, and viscosity of the oil on your next sample. Iron ppm levels are severe. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion. There is a high amount of particulates (2 to 100 microns in size) present in the oil. There is a moderate concentration of water present in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.



Wear Metals

PQ		18	14	9	0
Iron	ppm	149	140	124	123
Copper	ppm	5	4	4	4
Lead	ppm	<1	0	<1	<1
Tin	ppm	0	0	0	0
Aluminum	ppm	<1	0	<1	<1
Chromium	ppm	2	1	1	1
Molybdenum	ppm	0	0	0	0
Nickel	ppm	<1	0	<1	0
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	0	<1
Manganese	ppm	2	1	2	2
Vanadium	ppm	0	0	0	0



Additives

Calcium	ppm	387	417	415	434
Magnesium	ppm	2	2	3	2
Zinc	ppm	792	802	779	806
Phosphorus	ppm	648	632	635	634
Barium	ppm	0	0	0	0
Boron	ppm	2	0	0	<1

Depot: COM454CAM
 Unique No: 5800170
 Signed: Kevin Marson
 Report Date: 21 Jun 2024

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Graphs

