

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH50M 134511-1216 - Energy Recovery Cylinder

Sample No: LH0202884

Oil Type: NOT GIVEN



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



SAMPLE INFORMATION

Sample Number	LH0202884	---	---	---
Sample Date	03 Aug 2023	---	---	---
Machine Hours	5393	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	SEVERE	---	---	---



OIL CONDITION

Visc @ 40°C	cSt	113	---	---	---
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CONTAMINATION

Particles >4µm		● 232113	---	---	---
Particles >6µm		● 62042	---	---	---
Particles >14µm		● 139	---	---	---
ISO 4406:1999 (c)		25/23/14	---	---	---
Silicon	ppm	● 67	---	---	---
Sodium	ppm	● 8	---	---	---
Potassium	ppm	● 8	---	---	---



WEAR METALS

PQ		● 95	---	---	---
Iron	ppm	● 478	---	---	---
Copper	ppm	● 6	---	---	---
Lead	ppm	● 1	---	---	---
Tin	ppm	● <1	---	---	---
Aluminum	ppm	● 31	---	---	---
Chromium	ppm	● 253	---	---	---
Molybdenum	ppm	● <1	---	---	---
Nickel	ppm	● 1	---	---	---
Titanium	ppm	● 4	---	---	---
Silver	ppm	● 0	---	---	---
Manganese	ppm	● 16	---	---	---
Vanadium	ppm	● <1	---	---	---



ADDITIVES

Calcium	ppm	127	---	---	---
Magnesium	ppm	30	---	---	---
Zinc	ppm	77	---	---	---
Phosphorus	ppm	340	---	---	---
Barium	ppm	2	---	---	---
Boron	ppm	4	---	---	---

T:
F:

Diagnosis

Check seals and/or filters for points of contaminant entry. The fluid 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. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation. Please specify the brand, type, and viscosity of the oil on your next sample. Chromium ppm levels are severe. PQ levels are severe. Aluminum, copper and iron ppm levels are abnormal. Cylinder wear is indicated. Bearing and/or bushing wear is indicated. The very high ferrous density (PQ) index indicates that severe wear is occurring. There is a high amount of silt (particulates < 14 microns in size) present in the fluid. The fluid is no longer serviceable as a result of the abnormal and/or severe wear.

Depot: COM454CAM
Unique No: 5619647
Signed: Kevin Marson
Report Date: 11 Aug 2023



GRAPHS

