



# LIEBHERR

## OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Machine Id  
**LIEBHERR LH50 1216-123739**  
Component  
**Swing Drive**  
Fluid  
**GEAR OIL SAE 75W90 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0211685</b>	LH0211657	LH0211643
Sample Date		Client Info		<b>31 Jan 2024</b>	09 Aug 2023	28 Mar 2023
Machine Age	hrs	Client Info		<b>10743</b>	8617	7200
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changed</b>	Not Changed	Not Changed
Filter Changed		Client Info		<b>Not Changed</b>	None	Not Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>1450	<b>376</b>	321	235
Chromium	ppm	ASTM D5185m	>11	<b>2</b>	2	1
Nickel	ppm	ASTM D5185m	>3	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>4	<b>0</b>	<1	<1
Lead	ppm	ASTM D5185m	>4	<b>0</b>	1	0
Copper	ppm	ASTM D5185m	>542	<b>240</b>	171	154
Tin	ppm	ASTM D5185m	>38	<b>22</b>	16	10
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

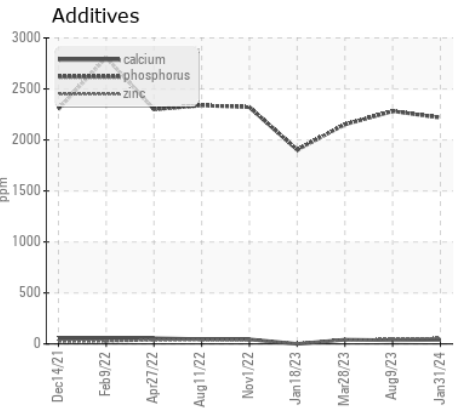
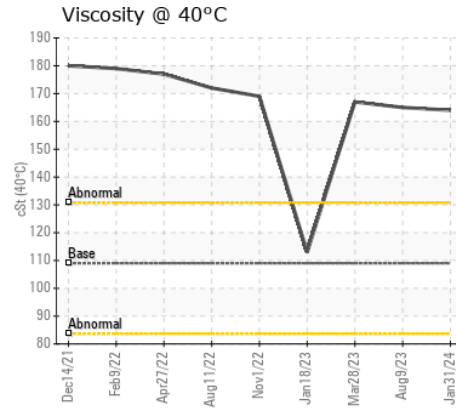
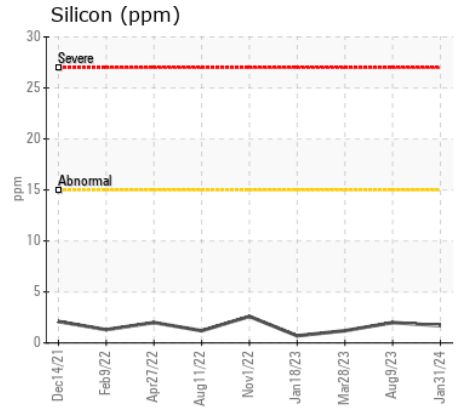
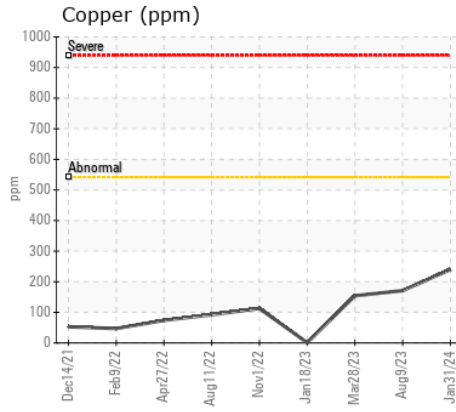
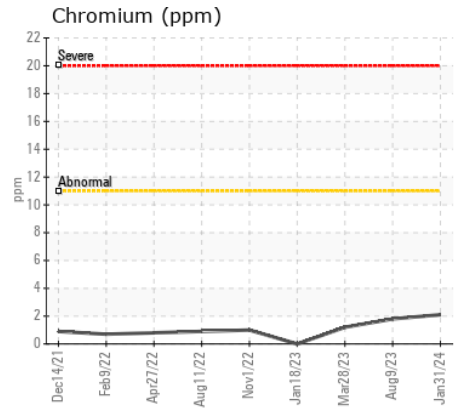
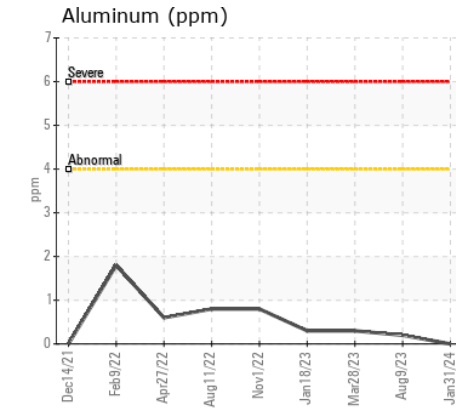
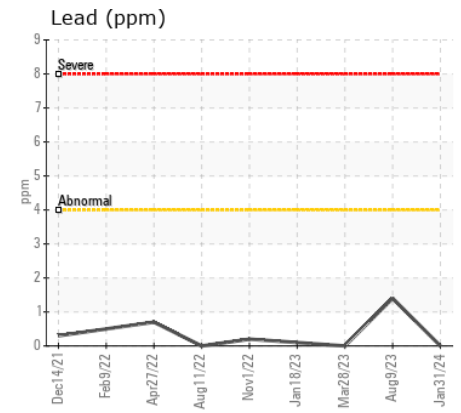
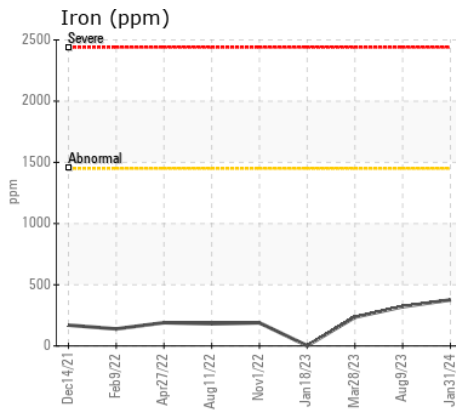
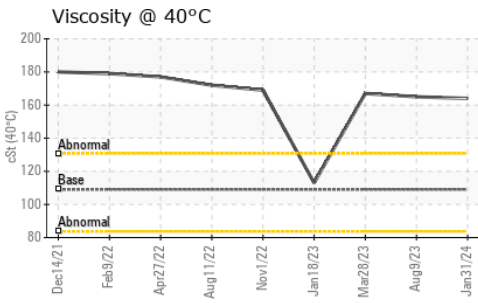
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>15	<b>2</b>	2	1
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	2	<1
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>5</b>	6	5
Boron	ppm	ASTM D5185m	400	<b>63</b>	38	45
Barium	ppm	ASTM D5185m	200	<b>9</b>	4	8
Molybdenum	ppm	ASTM D5185m	12	<b>0</b>	0	<1
Manganese	ppm	ASTM D5185m		<b>4</b>	3	3
Magnesium	ppm	ASTM D5185m	12	<b>2</b>	1	4
Calcium	ppm	ASTM D5185m	150	<b>39</b>	36	42
Phosphorus	ppm	ASTM D5185m	1650	<b>2218</b>	2282	2152
Zinc	ppm	ASTM D5185m	125	<b>58</b>	46	40
Sulfur	ppm	ASTM D5185m	22500	<b>24036</b>	25056	26929
Visc @ 40°C	cSt	ASTM D445	109	<b>164</b>	165	167



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LH0211685  
**Lab Number** : 06084393  
**Unique Number** : 10871838  
**Test Package** : MOBCE

**Received** : 08 Feb 2024  
**Tested** : 09 Feb 2024  
**Diagnosed** : 12 Feb 2024 - Sean Felton

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

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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F: