



# LIEBHERR

## OIL ANALYSIS REPORT

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



Machine Id  
**LIEBHERR LH50 1216-123739**  
Component  
**Front Left Wheel Hub**  
Fluid  
**GEAR OIL SAE 75W90 (--- GAL)**

### RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0211715</b>	LH0211687	LH0211645
Sample Date		Client Info		<b>17 Jun 2024</b>	31 Jan 2024	28 Mar 2023
Machine Age	hrs	Client Info		<b>12322</b>	10743	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 Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

### WEAR

Gear wear is indicated. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>325	<b>▲ 609</b>	▲ 443	▲ 427
Chromium	ppm	ASTM D5185m	>3	<b>1</b>	<1	2
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	0	<1
Silver	ppm	ASTM D5185m		<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>10	<b>2</b>	<1	3
Lead	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>75	<b>18</b>	14	29
Tin	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	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.

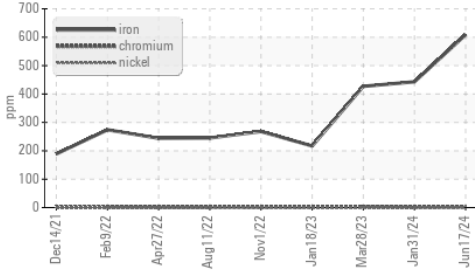
Silicon	ppm	ASTM D5185m	>75	<b>14</b>	13	21
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	<1	2
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>MODER</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	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

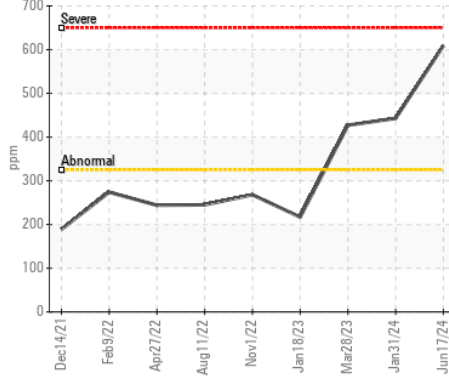
The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>14</b>	9	15
Boron	ppm	ASTM D5185m	400	<b>110</b>	187	21
Barium	ppm	ASTM D5185m	200	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	12	<b>0</b>	0	2
Manganese	ppm	ASTM D5185m		<b>6</b>	4	6
Magnesium	ppm	ASTM D5185m	12	<b>2</b>	2	5
Calcium	ppm	ASTM D5185m	150	<b>124</b>	97	236
Phosphorus	ppm	ASTM D5185m	1650	<b>2308</b>	2017	1982
Zinc	ppm	ASTM D5185m	125	<b>68</b>	46	96
Sulfur	ppm	ASTM D5185m	22500	<b>31415</b>	22209	27234

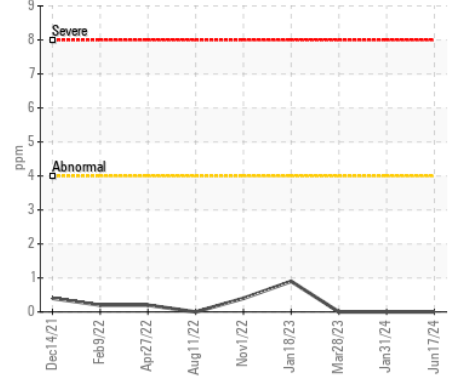
▲ Ferrous Alloys



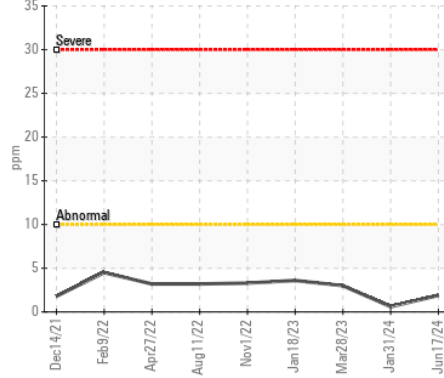
▲ Iron (ppm)



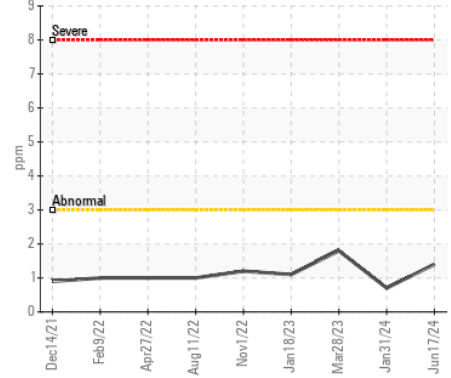
Lead (ppm)



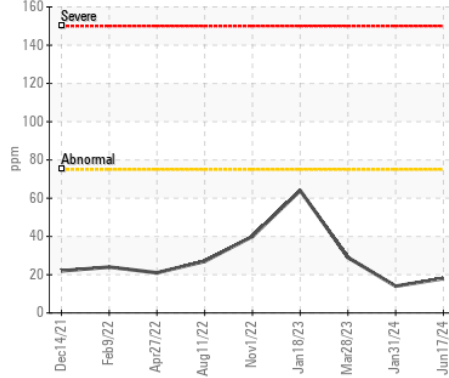
Aluminum (ppm)



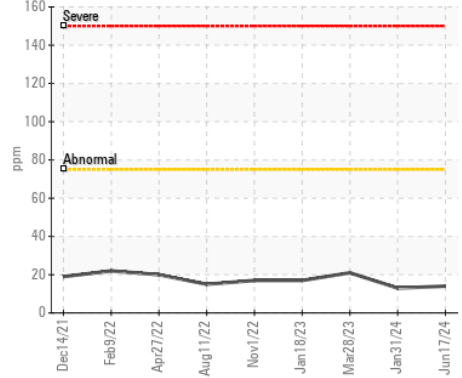
Chromium (ppm)



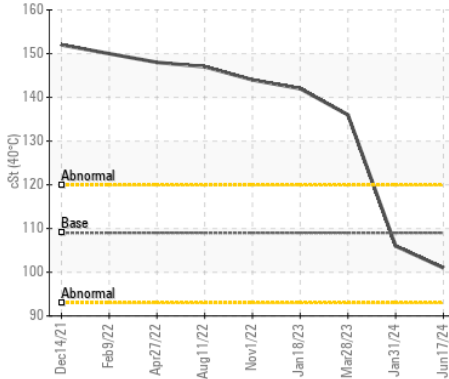
Copper (ppm)



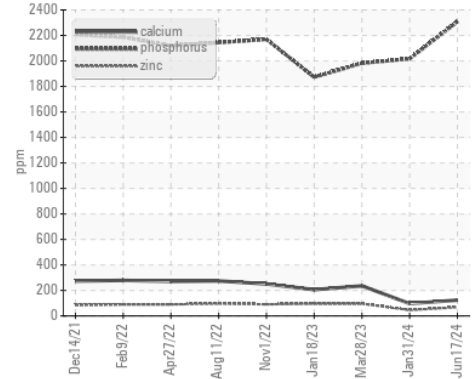
Silicon (ppm)



Viscosity @ 40°C



Additives



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : LH0211715

Lab Number : 06218970

Unique Number : 11097167

Test Package : MOBCE

Received : 24 Jun 2024

Tested : 25 Jun 2024

Diagnosed : 26 Jun 2024 - Don Baldrige

AHLSTROM-MUNKSJO NA SPECIALTY

PO BOX 600

KAUKAUNA, WI

US 54130

Contact: JOE SEITZ

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T:

F:

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)