



# 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 Right 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>LH0211716</b>	LH0211688	LH0211660
Sample Date		Client Info		<b>17 Jun 2024</b>	31 Jan 2024	09 Aug 2023
Machine Age	hrs	Client Info		<b>12322</b>	10743	8617
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>	Not Changed	Not Changed
Sample Status				<b>ABNORMAL</b>	NORMAL	ABNORMAL

### WEAR

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

Iron	ppm	ASTM D5185m	>325	<b>▲ 412</b>	236	<b>▲ 395</b>
Chromium	ppm	ASTM D5185m	>3	<b>&lt;1</b>	<1	2
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</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	>10	<b>2</b>	<1	3
Lead	ppm	ASTM D5185m	>4	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>75	<b>39</b>	37	31
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>MODER</b>	NONE	MODER
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

There is no indication of any contamination in the oil.

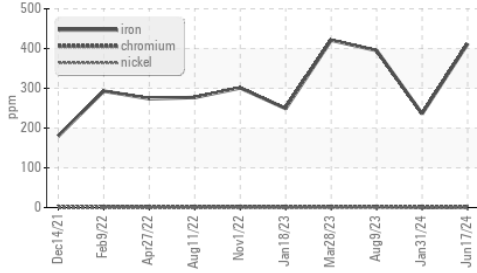
Silicon	ppm	ASTM D5185m	>75	<b>12</b>	10	16
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	0	4
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	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

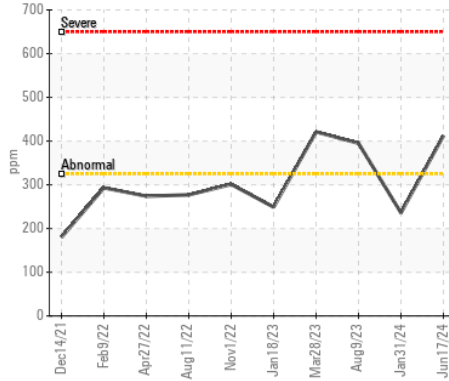
The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>11</b>	6	12
Boron	ppm	ASTM D5185m	400	<b>149</b>	249	12
Barium	ppm	ASTM D5185m	200	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	12	<b>0</b>	0	1
Manganese	ppm	ASTM D5185m		<b>5</b>	3	6
Magnesium	ppm	ASTM D5185m	12	<b>2</b>	<1	3
Calcium	ppm	ASTM D5185m	150	<b>92</b>	63	227
Phosphorus	ppm	ASTM D5185m	1650	<b>2278</b>	2107	2028
Zinc	ppm	ASTM D5185m	125	<b>64</b>	47	94
Sulfur	ppm	ASTM D5185m	22500	<b>30368</b>	22361	27177

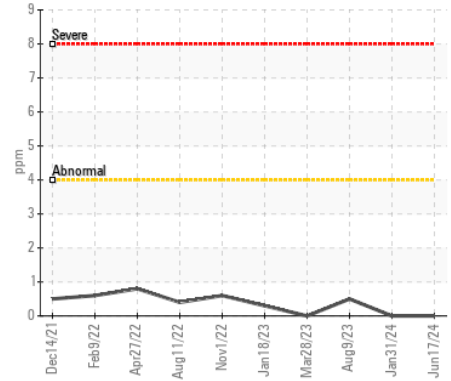
▲ Ferrous Alloys



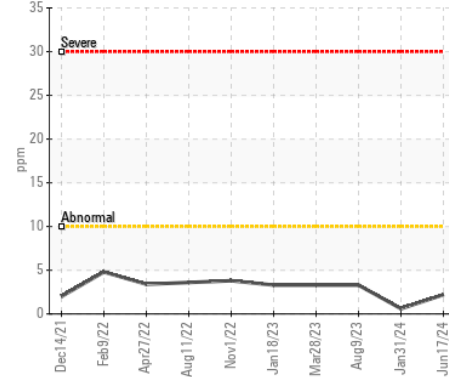
▲ Iron (ppm)



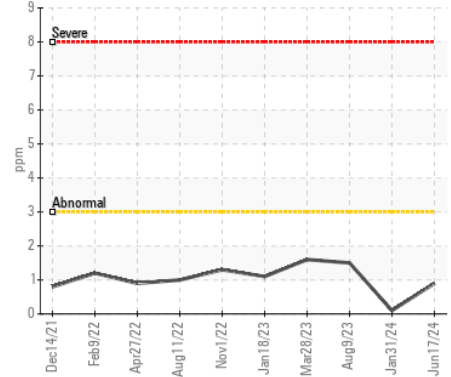
Lead (ppm)



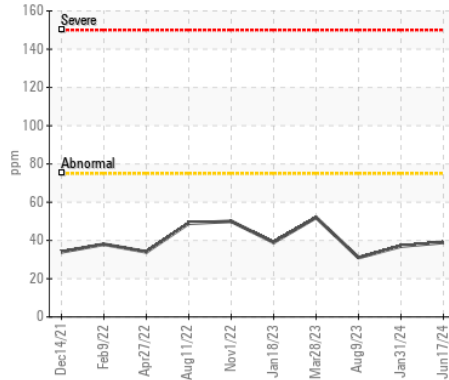
Aluminum (ppm)



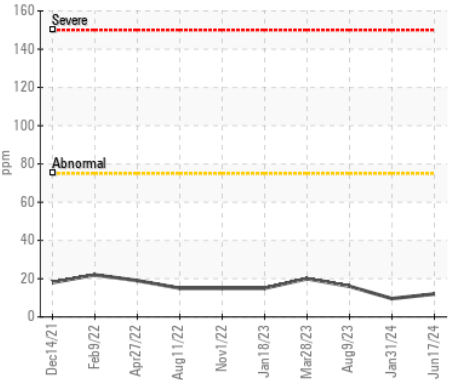
Chromium (ppm)



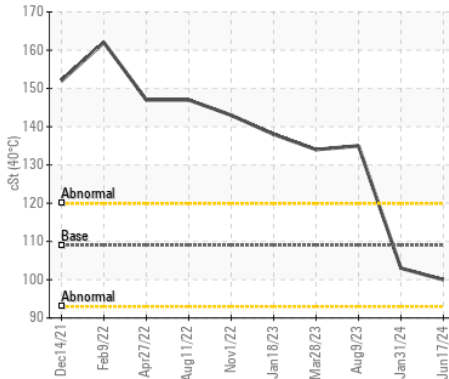
Copper (ppm)



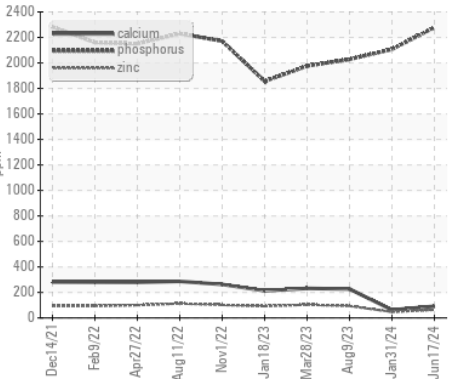
Silicon (ppm)



Viscosity @ 40°C



Additives



Certificate L2367

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

Sample No. : LH0211716

Lab Number : 06218983

Unique Number : 11097180

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)