



# LIEBHERR

## OIL ANALYSIS REPORT

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



Machine Id  
**LIEBHERR LH60M 119208-1217**  
Component  
**Rear Left Wheel Hub**  
Fluid  
**LIEBHERR GEAR BASIC 90 LS (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0267397</b>	LH0257450	LH0257445
Sample Date		Client Info		<b>04 Jan 2024</b>	05 Jul 2023	03 Jul 2023
Machine Age	hrs	Client Info		<b>4478</b>	3275	3275
Oil Age	hrs	Client Info		<b>0</b>	700	700
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>N/A</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>650	<b>18</b>	115	20
Chromium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m		<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>25	<b>2</b>	2	1
Lead	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>60	<b>6</b>	8	4
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</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

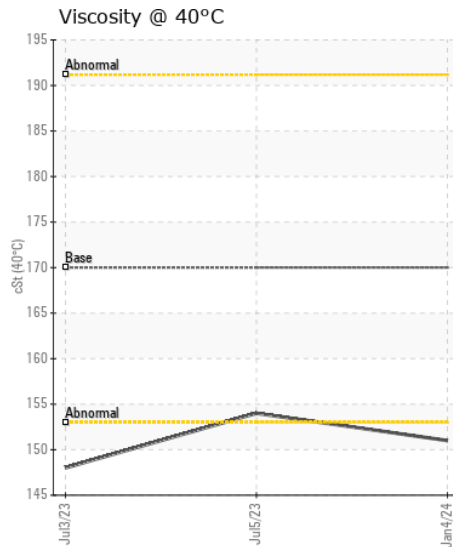
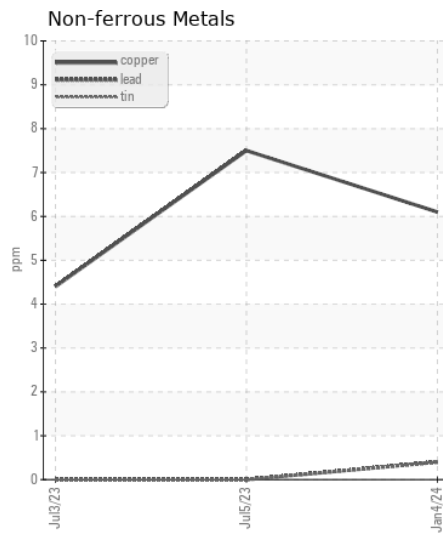
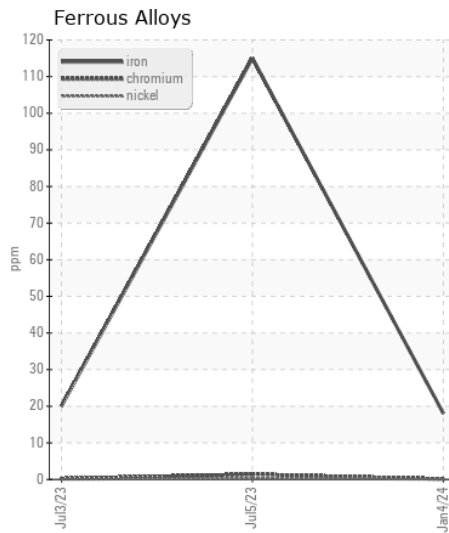
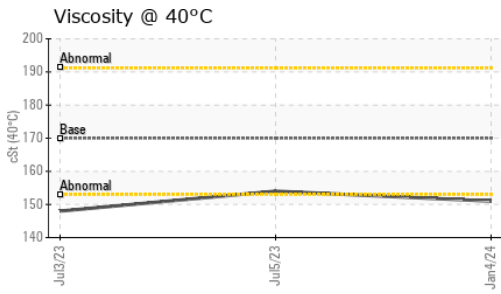
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	<b>1</b>	3	<1
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	1	0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>NONE</b>	LIGHT	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>0</b>	2	<1
Boron	ppm	ASTM D5185m	0	<b>182</b>	131	171
Barium	ppm	ASTM D5185m	0	<b>36</b>	77	25
Molybdenum	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	0
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	2	<1
Magnesium	ppm	ASTM D5185m	<1	<b>&lt;1</b>	1	0
Calcium	ppm	ASTM D5185m	<1	<b>8</b>	11	3
Phosphorus	ppm	ASTM D5185m	2143	<b>1055</b>	1119	1121
Zinc	ppm	ASTM D5185m	<1	<b>1</b>	27	0
Sulfur	ppm	ASTM D5185m	23468	<b>28624</b>	31565	31154
Visc @ 40°C	cSt	ASTM D445	170	<b>151</b>	154	148



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LH0267397 **Received** : 08 Jan 2024  
**Lab Number** : 06054386 **Diagnosed** : 10 Jan 2024  
**Unique Number** : 10820335 **Diagnostician** : Jonathan Hester  
**Test Package** : CONST

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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)