



# LIEBHERR

## OIL ANALYSIS REPORT

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



Machine Id  
**LIEBHERR LH40M 1215-124371**  
Component  
**Front Left Wheel Hub**  
Fluid  
**GEAR OIL SAE 80W90 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH05751110</b>	LH0236267	LH0213419
Sample Date		Client Info		<b>20 Jan 2023</b>	06 Sep 2022	24 Feb 2022
Machine Age	hrs	Client Info		<b>2616</b>	1949	1033
Oil Age	hrs	Client Info		<b>671</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	Changed	Changed
Filter Changed		Client Info		<b>N/A</b>	Not Changed	None
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>650	<b>38</b>	55	81
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>	0	<1
Silver	ppm	ASTM D5185m		<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>25	<b>1</b>	3	2
Lead	ppm	ASTM D5185m	>4	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m	>60	<b>24</b>	53	45
Tin	ppm	ASTM D5185m	>4	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>MODER</b>	MODER	LIGHT
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

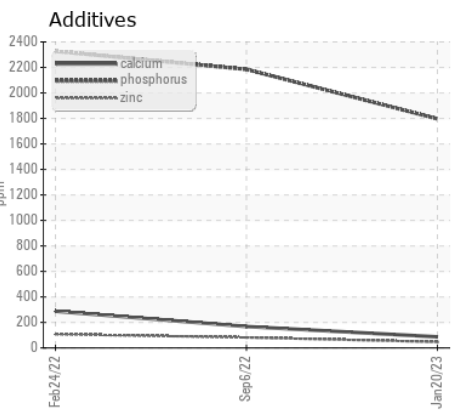
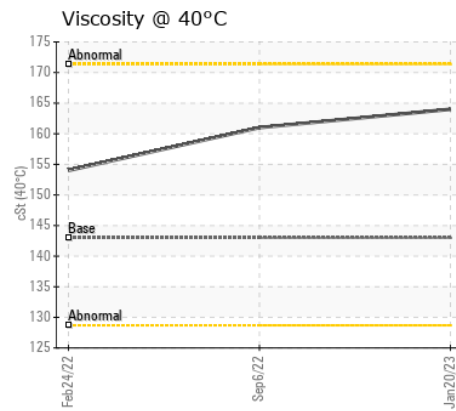
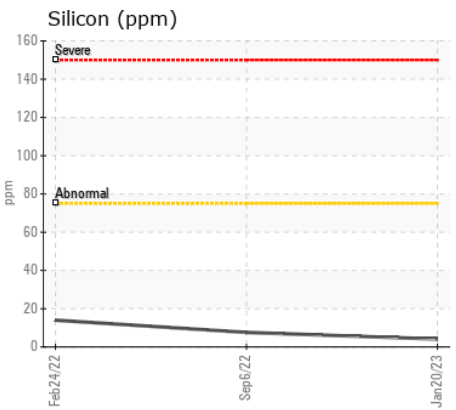
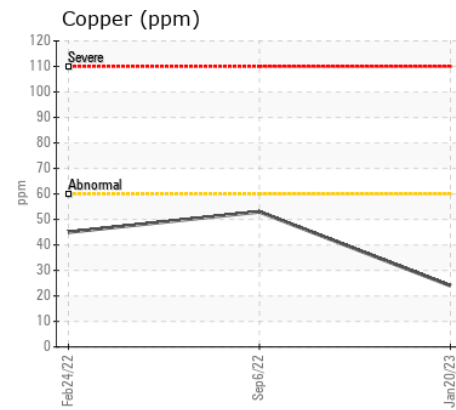
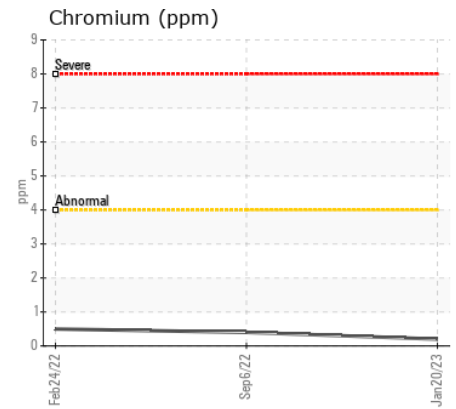
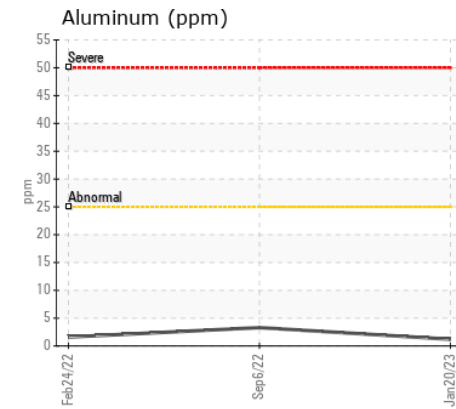
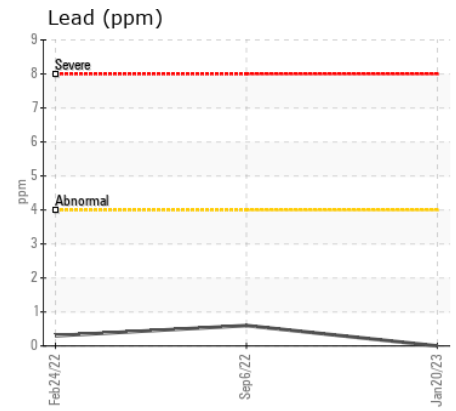
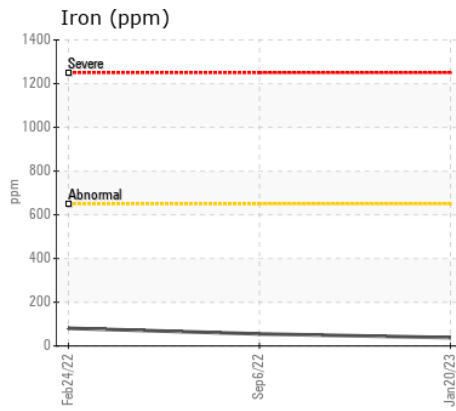
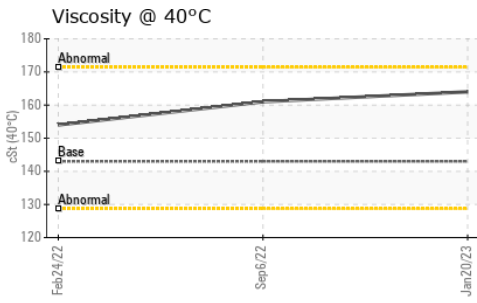
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	<b>4</b>	8	14
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	3
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

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

Sodium	ppm	ASTM D5185m	>170	<b>8</b>	11	10
Boron	ppm	ASTM D5185m	400	<b>4</b>	5	6
Barium	ppm	ASTM D5185m	200	<b>0</b>	1	0
Molybdenum	ppm	ASTM D5185m	12	<b>2</b>	1	2
Manganese	ppm	ASTM D5185m		<b>2</b>	3	4
Magnesium	ppm	ASTM D5185m	12	<b>9</b>	1	2
Calcium	ppm	ASTM D5185m	150	<b>87</b>	168	288
Phosphorus	ppm	ASTM D5185m	1650	<b>1797</b>	2185	2327
Zinc	ppm	ASTM D5185m	125	<b>47</b>	82	108
Sulfur	ppm	ASTM D5185m	22500	<b>30775</b>	25056	26921
Visc @ 40°C	cSt	ASTM D445	143	<b>164</b>	161	154



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LH05751110 **Received** : 26 Jan 2023  
**Lab Number** : 05751110 **Tested** : 27 Jan 2023  
**Unique Number** : 10310714 **Diagnosed** : 27 Jan 2023 - Sean Felton  
**Test Package** : MOBCE

**SADOFF IRON AND METAL**  
 240 ARNDT STREET  
 FOND DU LAC, WI  
 US 54936  
 Contact: DAVE CASPER  
 casperd@sadoff.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: