



# LIEBHERR

## OIL ANALYSIS REPORT

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



Machine Id  
**LIEBHERR LH40M 122207-1215**  
Component  
**Front Left Wheel Hub**  
Fluid  
**GEAR OIL SAE 80W90 (--- 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>LH0273217</b>	LH0244666	---
Sample Date		Client Info		<b>08 Jan 2024</b>	17 May 2023	---
Machine Age	hrs	Client Info		<b>3977</b>	2962	---
Oil Age	hrs	Client Info		<b>0</b>	0	---
Filter Age	hrs	Client Info		<b>0</b>	0	---
Oil Changed		Client Info		<b>N/A</b>	Changed	---
Filter Changed		Client Info		<b>N/A</b>	Changed	---
Sample Status				<b>ABNORMAL</b>	NORMAL	---

### WEAR

Bearing and/or bushing wear is indicated. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>650	<b>50</b>	47	---
Chromium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	---
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	---
Titanium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	---
Silver	ppm	ASTM D5185m		<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>25	<b>2</b>	<1	---
Lead	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	---
Copper	ppm	ASTM D5185m	>60	<b>▲ 76</b>	49	---
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	MODER	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

### CONTAMINATION

There is no indication of any contamination in the oil.

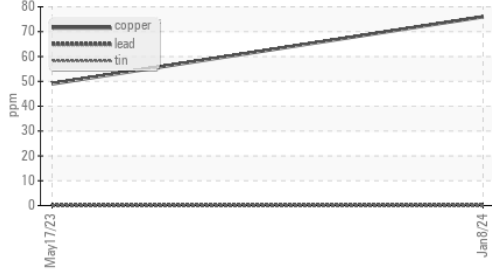
Silicon	ppm	ASTM D5185m	>75	<b>4</b>	4	---
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	2	---
Water		WC Method	>0.2	<b>NEG</b>	NEG	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	---

### FLUID CONDITION

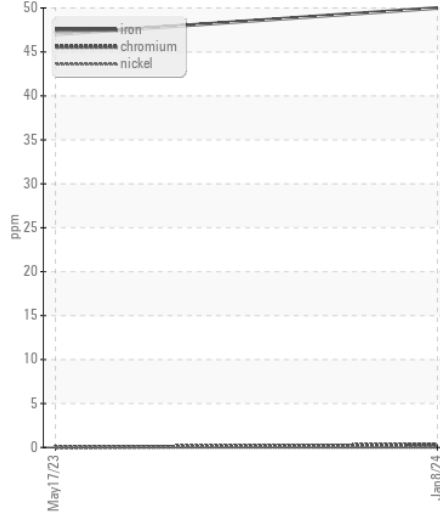
The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>170	<b>21</b>	19	---
Boron	ppm	ASTM D5185m	400	<b>1</b>	0	---
Barium	ppm	ASTM D5185m	200	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	12	<b>&lt;1</b>	<1	---
Manganese	ppm	ASTM D5185m		<b>4</b>	3	---
Magnesium	ppm	ASTM D5185m	12	<b>0</b>	1	---
Calcium	ppm	ASTM D5185m	150	<b>32</b>	40	---
Phosphorus	ppm	ASTM D5185m	1650	<b>2283</b>	2484	---
Zinc	ppm	ASTM D5185m	125	<b>57</b>	58	---
Sulfur	ppm	ASTM D5185m	22500	<b>30614</b>	25056	---
Visc @ 40°C	cSt	ASTM D445	143	<b>186</b>	186	---

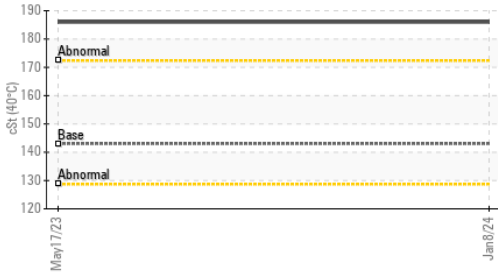
▲ Non-ferrous Metals



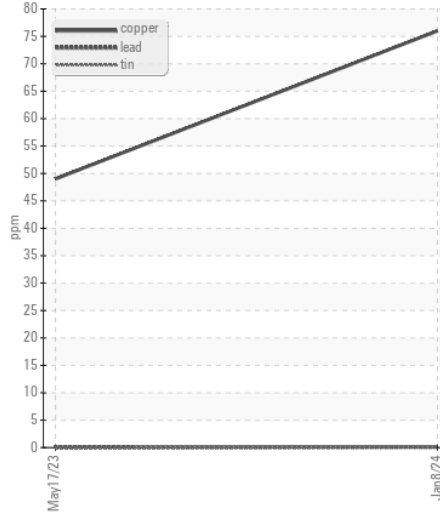
Ferrous Alloys



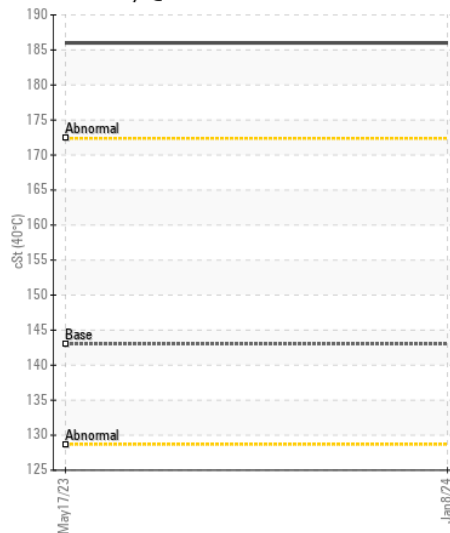
Viscosity @ 40°C



▲ Non-ferrous Metals



Viscosity @ 40°C



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LH0273217 **Recieved** : 16 Jan 2024  
**Lab Number** : 06061551 **Diagnosed** : 17 Jan 2024  
**Unique Number** : 10832933 **Diagnostician** : Don Baldrige  
**Test Package** : CONST

**RECO EQUIPMENT INC.**  
 1040 REED DRIVE  
 MONROE, OH  
 US 45050  
 Contact: Eric Hansen  
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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)