



# LIEBHERR

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION



Machine Id  
**LIEBHERR R9150BH 038079-1857**  
Component  
**Right Final Drive**  
Fluid  
**LIEBHERR GEAR BASIC 90 LS (--- GAL)**

### RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0268804	---	---
Sample Date		Client Info		27 Dec 2023	---	---
Machine Age	hrs	Client Info		1248	---	---
Oil Age	hrs	Client Info		1248	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ATTENTION	---	---

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>500	4	---	---
Chromium	ppm	ASTM D5185m	>10	0	---	---
Nickel	ppm	ASTM D5185m	>10	0	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>25	<1	---	---
Lead	ppm	ASTM D5185m	>25	0	---	---
Copper	ppm	ASTM D5185m	>50	4	---	---
Tin	ppm	ASTM D5185m	>10	0	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

### CONTAMINATION

There is no indication of any contamination in the oil.

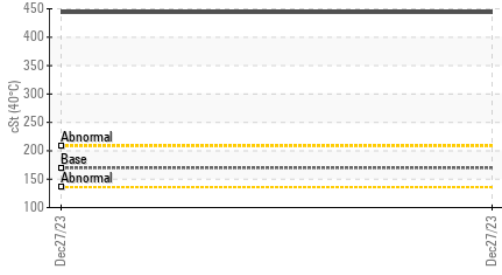
Silicon	ppm	ASTM D5185m	>75	0	---	---
Potassium	ppm	ASTM D5185m	>20	0	---	---
Water		WC Method	>0.2	NEG	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---	---

### FLUID CONDITION

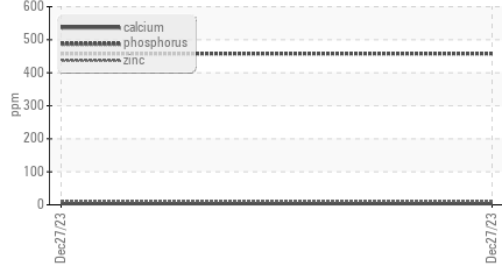
The oil viscosity is higher than normal. This plus the additive levels indicates the addition of a different brand, or type of oil. Confirm oil type.

Sodium	ppm	ASTM D5185m		0	---	---
Boron	ppm	ASTM D5185m	0	18	---	---
Barium	ppm	ASTM D5185m	0	0	---	---
Molybdenum	ppm	ASTM D5185m	0	0	---	---
Manganese	ppm	ASTM D5185m	0	<1	---	---
Magnesium	ppm	ASTM D5185m	<1	1	---	---
Calcium	ppm	ASTM D5185m	<1	3	---	---
Phosphorus	ppm	ASTM D5185m	2143	▲ 458	---	---
Zinc	ppm	ASTM D5185m	<1	11	---	---
Sulfur	ppm	ASTM D5185m	23468	▲ 5877	---	---
Visc @ 40°C	cSt	ASTM D445	170	▲ 444	---	---

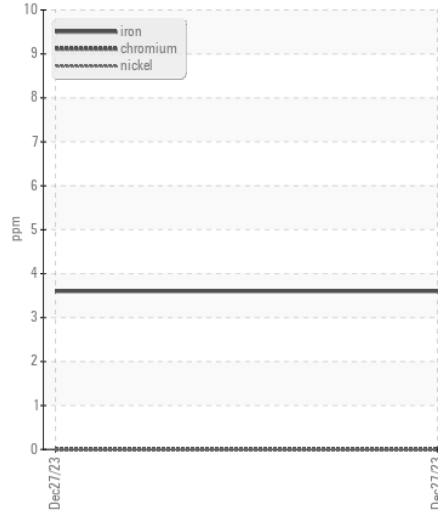
▲ Viscosity @ 40°C



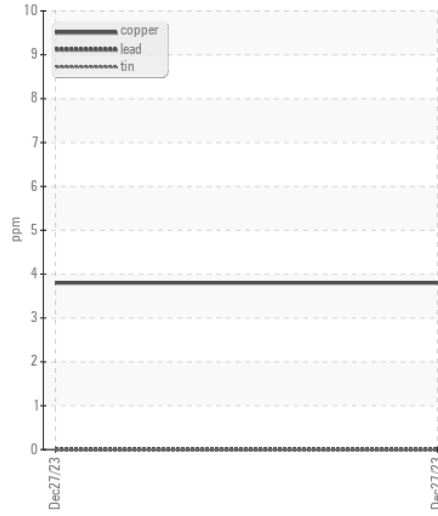
▲ Additives



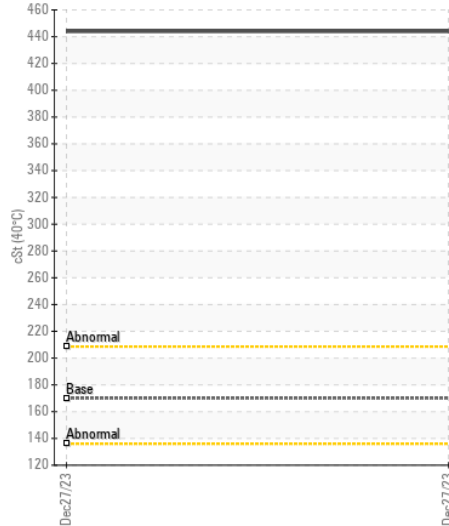
Ferrous Alloys



Non-ferrous Metals



▲ Viscosity @ 40°C



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LH0268804 **Received** : 16 Jan 2024  
**Lab Number** : **06062252** **Diagnosed** : 18 Jan 2024  
**Unique Number** : 10833634 **Diagnostician** : Don Baldrige  
**Test Package** : CONST

**FINKBINER EQUIPMENT CO.**  
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 BURR RIDGE, IL  
 US 60527  
 Contact: DON FITZGERALD  
 dfitzgerald@finkbiner.com  
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 F: (630)654-3792

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)