



# LIEBHERR

## OIL ANALYSIS REPORT

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



Machine Id  
**LIEBHERR L586 046715-1334**  
Component  
**Front Right 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>LH0273339</b>	LH0254412	LHMC122629
Sample Date		Client Info		<b>22 Mar 2024</b>	27 Mar 2023	07 May 2020
Machine Age	hrs	Client Info		<b>11124</b>	10000	4146
Oil Age	hrs	Client Info		<b>1000</b>	0	2000
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>1625	<b>83</b>	45	65
Chromium	ppm	ASTM D5185m	>8	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</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	>25	<b>0</b>	0	0
Lead	ppm	ASTM D5185m	>8	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>150	<b>7</b>	5	22
Tin	ppm	ASTM D5185m	>10	<b>0</b>	<1	1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	MODER	LIGHT
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

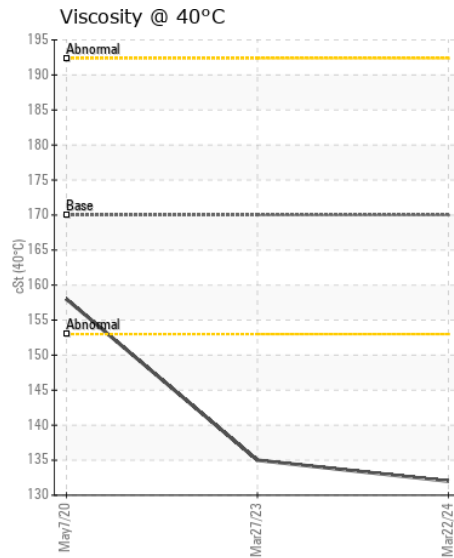
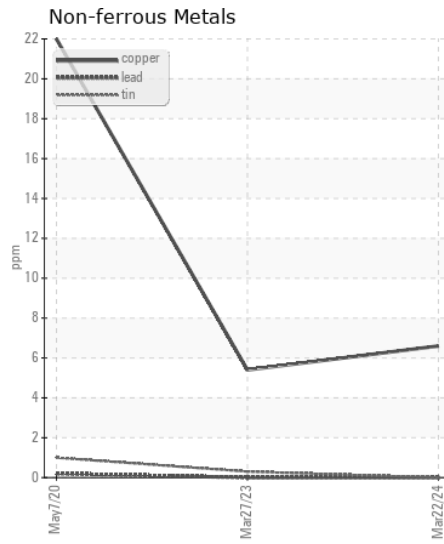
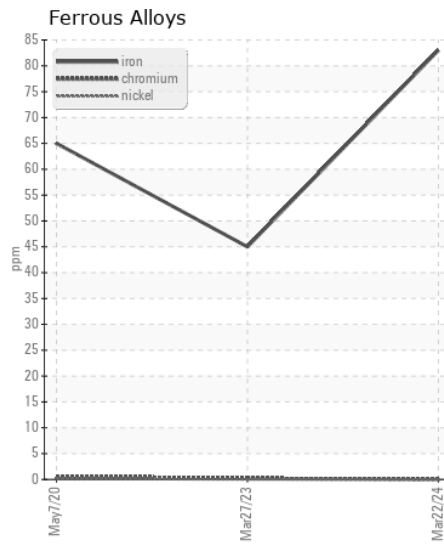
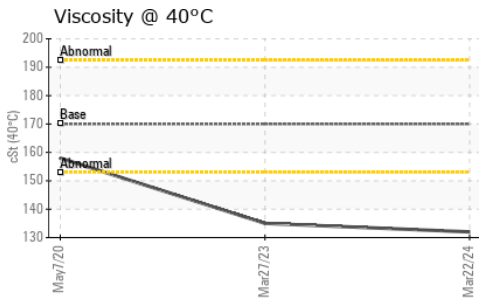
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>100	<b>7</b>	3	2
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>	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>&lt;1</b>	0	2
Boron	ppm	ASTM D5185m	0	<b>34</b>	118	134
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	0	<b>0</b>	<1	0
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	4
Magnesium	ppm	ASTM D5185m	<1	<b>&lt;1</b>	1	<1
Calcium	ppm	ASTM D5185m	<1	<b>13</b>	12	10
Phosphorus	ppm	ASTM D5185m	2143	<b>739</b>	965	1958
Zinc	ppm	ASTM D5185m	<1	<b>4</b>	6	9
Sulfur	ppm	ASTM D5185m	23468	<b>24041</b>	17246	21602
Visc @ 40°C	cSt	ASTM D445	170	<b>132</b>	135	158



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LH0273339  
**Lab Number** : 06146817  
**Unique Number** : 10976895  
**Test Package** : CONST

**Received** : 11 Apr 2024  
**Tested** : 12 Apr 2024  
**Diagnosed** : 15 Apr 2024 - Sean Felton

**OZINGA BROS INC**  
 19001 OLD LAGRANDE RD, SUITE 300  
 MOKENA, IL  
 US 60448

Contact: TOM KONIECZNY  
 tom.konieczny@imcrushingllc.com

T: (847)344-1443  
 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)