



LIEBHERR

OIL ANALYSIS REPORT

WEAR	SEVERE
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR L566 1758-71605
Component
Front Right Wheel Hub
Fluid
LIEBHERR GEAR BASIC 90 LS (--- GAL)

RECOMMENDATION

The oil change at the time of sampling has been noted. No corrective action is recommended at this time. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0277176	---	---
Sample Date		Client Info		10 Jul 2024	---	---
Machine Age	hrs	Client Info		2470	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		None	---	---
Sample Status				SEVERE	---	---

WEAR

Bearing and/or bushing wear is indicated. All other metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>500	356	---	---
Chromium	ppm	ASTM D5185m	>8	2	---	---
Nickel	ppm	ASTM D5185m	>5	4	---	---
Titanium	ppm	ASTM D5185m		0	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>5	1	---	---
Lead	ppm	ASTM D5185m	>5	0	---	---
Copper	ppm	ASTM D5185m	>50	▲ 360	---	---
Tin	ppm	ASTM D5185m		7	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	MODER	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

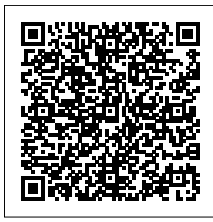
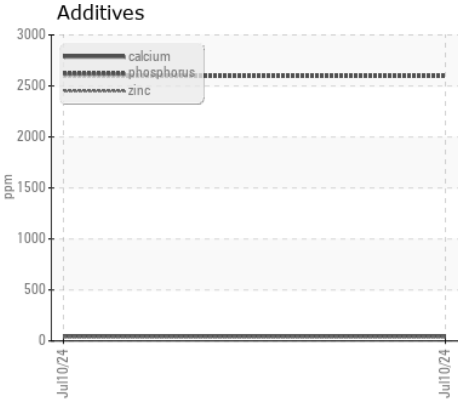
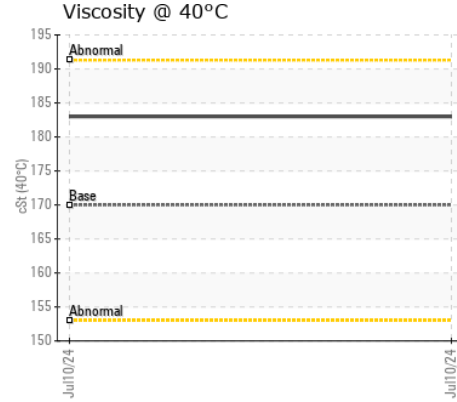
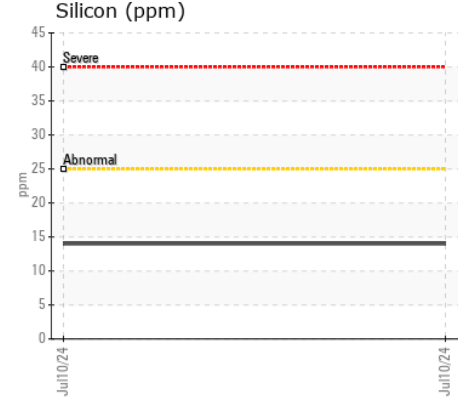
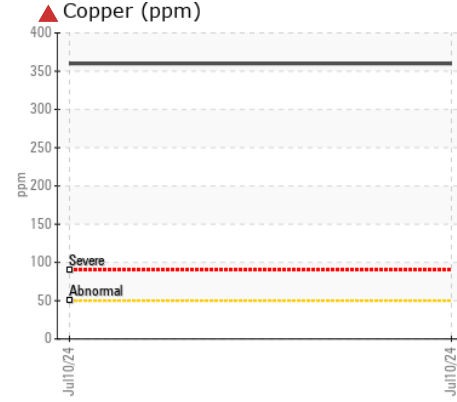
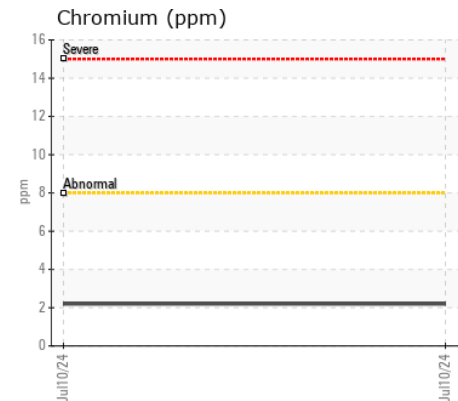
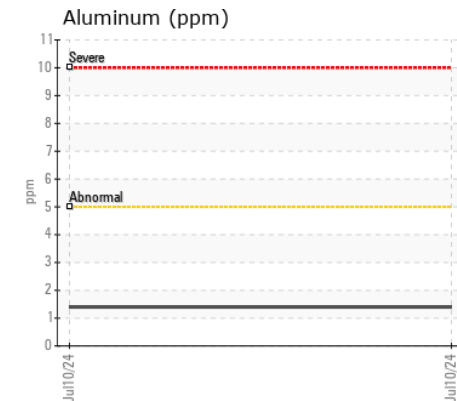
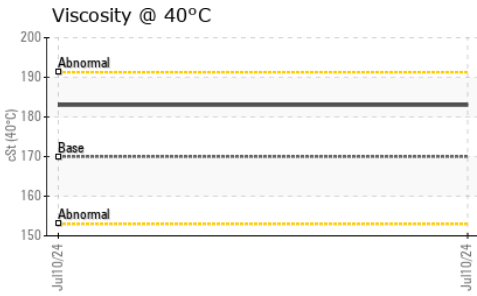
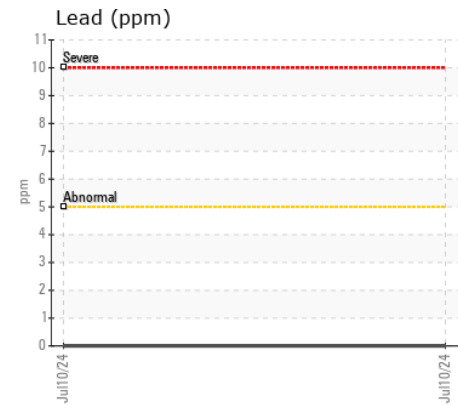
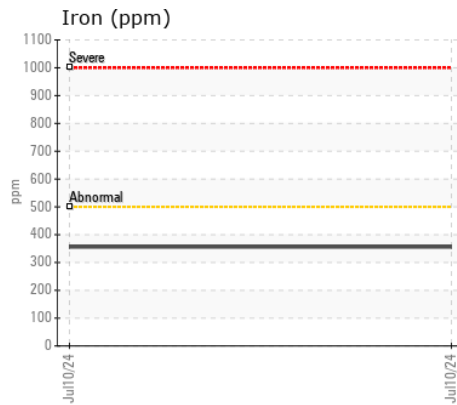
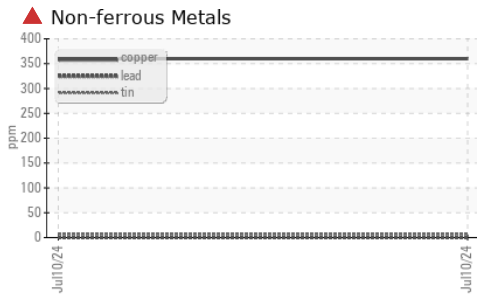
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	14	---	---
Potassium	ppm	ASTM D5185m	>20	2	---	---
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 condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		34	---	---
Boron	ppm	ASTM D5185m	0	0	---	---
Barium	ppm	ASTM D5185m	0	0	---	---
Molybdenum	ppm	ASTM D5185m	0	0	---	---
Manganese	ppm	ASTM D5185m	0	27	---	---
Magnesium	ppm	ASTM D5185m	<1	4	---	---
Calcium	ppm	ASTM D5185m	<1	46	---	---
Phosphorus	ppm	ASTM D5185m	2143	2596	---	---
Zinc	ppm	ASTM D5185m	<1	40	---	---
Sulfur	ppm	ASTM D5185m	23468	35510	---	---
Visc @ 40°C	cSt	ASTM D445	170	183	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LH0277176
Lab Number : 06237188
Unique Number : 11126022
Test Package : MOBCE
Received : 15 Jul 2024
Tested : 17 Jul 2024
Diagnosed : 17 Jul 2024 - Don Baldridge

BARRETT/COLAS
 4800 SOLVAY RD
 JAMESVILLE, NY
 US 13078
 Contact: Service Manager

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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