



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
015-R0015
Component
Front Hoist
Fluid
LIEBHERR GEAR BASIC 90 LS (--- GAL)

RECOMMENDATION

We suspect abnormal metal contamination may be due to sampling method. No corrective action is recommended at this time. Resample at the next service interval to monitor.

WEAR

Moderate concentration of visible metal present. All component wear rates are normal.

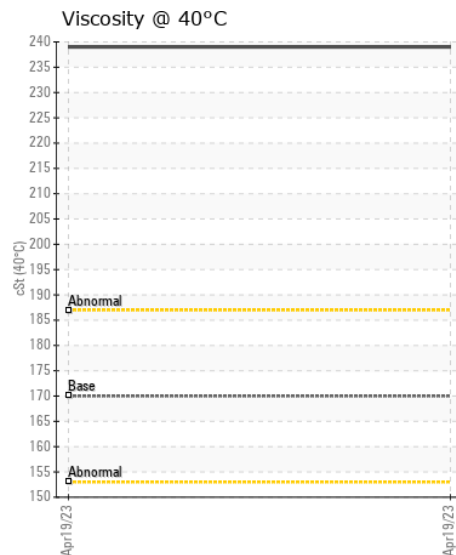
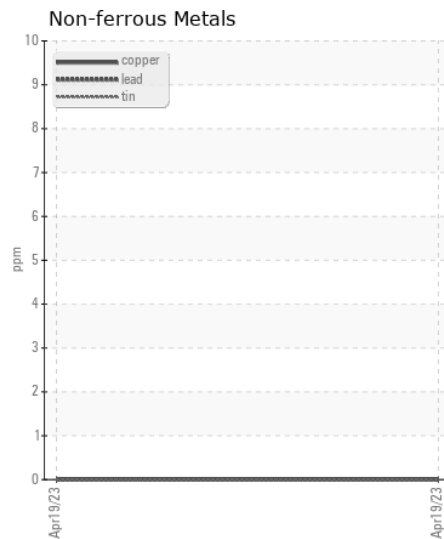
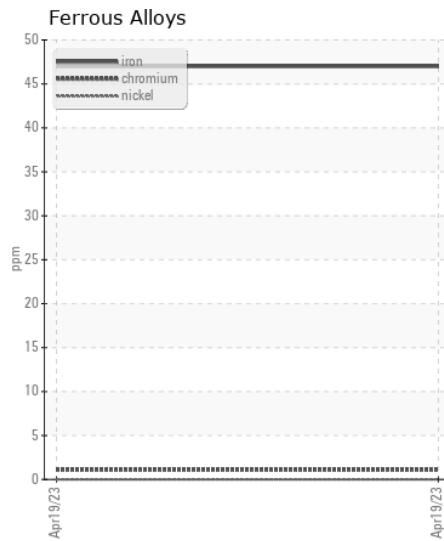
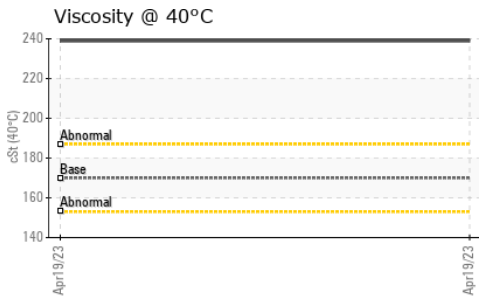
CONTAMINATION

There is no indication of any contamination in the oil.

FLUID CONDITION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0750689	---	---
Sample Date		Client Info		19 Apr 2023	---	---
Machine Age	hrs	Client Info		1176	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Not Changed	---	---
Filter Changed		Client Info		Not Changed	---	---
Sample Status				ABNORMAL	---	---
Iron	ppm	ASTM D5185m	>300	47	---	---
Chromium	ppm	ASTM D5185m	>5	1	---	---
Nickel	ppm	ASTM D5185m	>4	0	---	---
Titanium	ppm	ASTM D5185m		0	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>10	<1	---	---
Lead	ppm	ASTM D5185m	>120	0	---	---
Copper	ppm	ASTM D5185m	>200	0	---	---
Tin	ppm	ASTM D5185m	>15	0	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	▲ MODER	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---
Silicon	ppm	ASTM D5185m	>75	5	---	---
Potassium	ppm	ASTM D5185m	>20	6	---	---
Water		WC Method	>0.1	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	>0.1	NEG	---	---
Sodium	ppm	ASTM D5185m		5	---	---
Boron	ppm	ASTM D5185m	0	0	---	---
Barium	ppm	ASTM D5185m	0	0	---	---
Molybdenum	ppm	ASTM D5185m	0	0	---	---
Manganese	ppm	ASTM D5185m	0	<1	---	---
Magnesium	ppm	ASTM D5185m	<1	2	---	---
Calcium	ppm	ASTM D5185m	<1	3	---	---
Phosphorus	ppm	ASTM D5185m	2143	41	---	---
Zinc	ppm	ASTM D5185m	<1	5	---	---
Sulfur	ppm	ASTM D5185m	23468	2605	---	---
Visc @ 40°C	cSt	ASTM D445	170	239	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : WC0750689

Lab Number : 05829710

Unique Number : 10443203

Test Package : CONST

Received : 25 Apr 2023

Tested : 01 May 2023

Diagnosed : 01 May 2023 - Jonathan Hester

SHIMMICK CONSTRUCTION

5535 TRAILHEAD DRIVE

CHATTANOOGA, TN

US 37415

Contact: DANIEL LISELLA

daniel.lisella@shimmick.com

T:

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)