



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
132164 LIEBHERR LH60 132164
 Component
Swing Drive
 Fluid
GEAR OIL SAE 80W90 (--- GAL)

RECOMMENDATION

We advise that you inspect for the source(s) of wear. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		DJJ0017476	DJJ0021041	DJJ0017449
Sample Date		Client Info		05 Feb 2024	03 Aug 2023	27 Oct 2022
Machine Age	hrs	Client Info		7745	5715	2761
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	NORMAL

WEAR

Moderate concentration of visible yellow metal present. Bearing and/or bushing wear is indicated.

Iron	ppm	ASTM D5185m	>350	336	303	168
Chromium	ppm	ASTM D5185m	>15	2	2	<1
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>5	1	<1	<1
Lead	ppm	ASTM D5185m	>10	0	2	0
Copper	ppm	ASTM D5185m	>300	▲ 436	▲ 291	39
Tin	ppm	ASTM D5185m	>15	10	▲ 19	7
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	▲ MODER	▲ MODER	MODER

CONTAMINATION

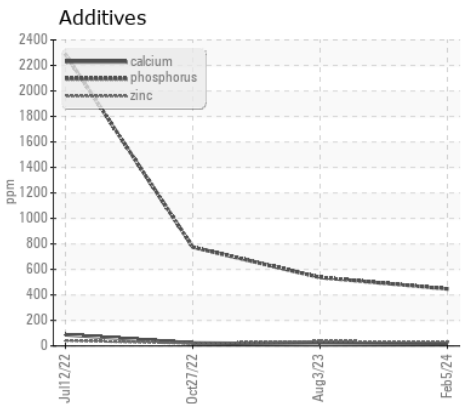
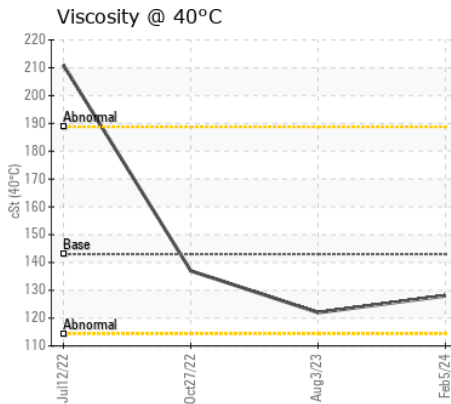
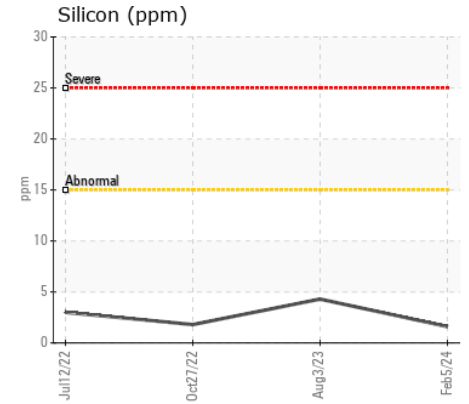
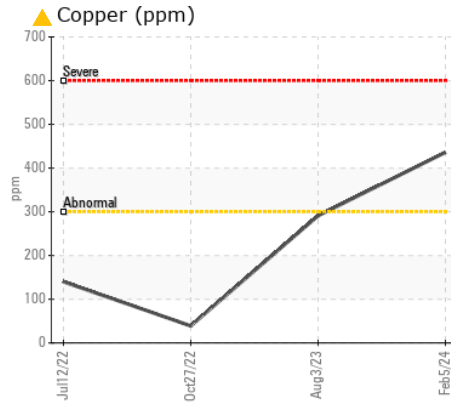
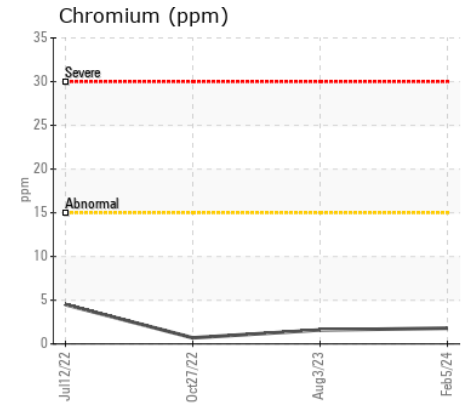
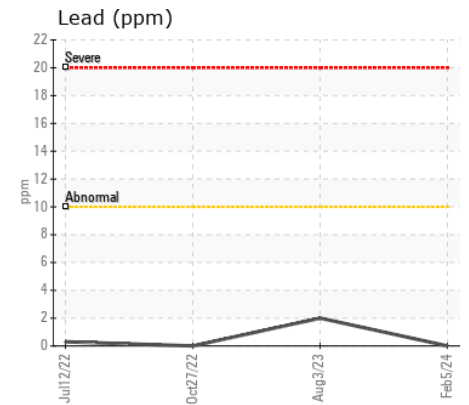
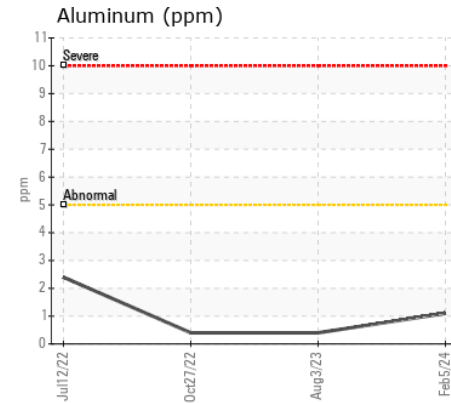
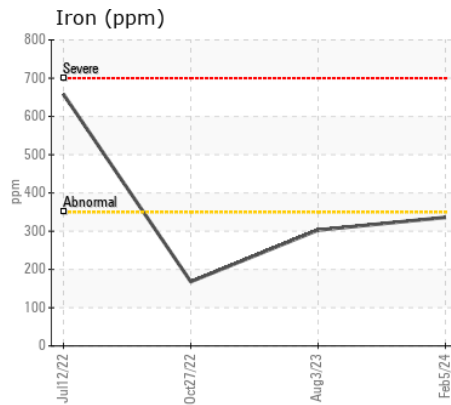
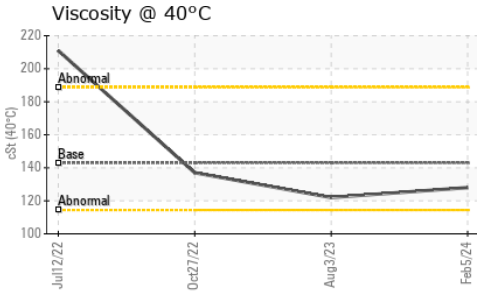
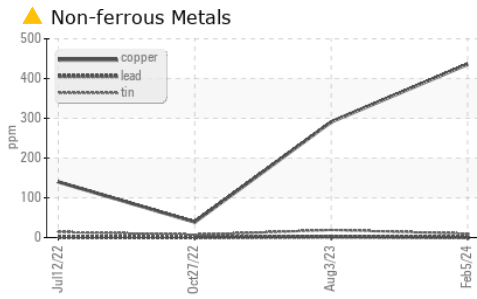
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>15	2	4	2
Potassium	ppm	ASTM D5185m	>20	1	<1	0
Water		WC Method	>0.2	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	MODER	MODER
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m	>170	0	2	2
Boron	ppm	ASTM D5185m	400	2	5	16
Barium	ppm	ASTM D5185m	200	0	0	0
Molybdenum	ppm	ASTM D5185m	12	<1	<1	0
Manganese	ppm	ASTM D5185m		2	3	2
Magnesium	ppm	ASTM D5185m	12	4	4	<1
Calcium	ppm	ASTM D5185m	150	21	16	23
Phosphorus	ppm	ASTM D5185m	1650	447	537	775
Zinc	ppm	ASTM D5185m	125	33	36	20
Sulfur	ppm	ASTM D5185m	22500	17178	22793	29786
Visc @ 40°C	cSt	ASTM D445	143	128	122	137



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DJJ0017476
Lab Number : 06098025
Unique Number : 10896255
Test Package : MOBCE

Received : 22 Feb 2024
Tested : 23 Feb 2024
Diagnosed : 25 Feb 2024 - Don Baldrige

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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)