



LIEBHERR

OIL ANALYSIS REPORT

WEAR
CONTAMINATION
FLUID CONDITION

ABNORMAL

NORMAL

NORMAL



Machine Id
LIEBHERR LH40M 1215-124371
Component
Transmission (Manual)
Fluid
LIEBHERR 5W40 (--- GAL)

RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0236710	LH0204760	LH0213418
Sample Date		Client Info		20 Jan 2023	06 Sep 2022	24 Feb 2022
Machine Age	hrs	Client Info		2616	1949	1033
Oil Age	hrs	Client Info		671	0	0
Filter Age	hrs	Client Info		671	0	0
Oil Changed		Client Info		Not Changed	Changed	Changed
Filter Changed		Client Info		N/A	Not Changed	None
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

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

Iron	ppm	ASTM D5185m	>200	6	9	12
Chromium	ppm	ASTM D5185m	>5	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	<1	0
Titanium	ppm	ASTM D5185m		45	<1	<1
Silver	ppm	ASTM D5185m	>7	0	<1	<1
Aluminum	ppm	ASTM D5185m	>25	2	4	3
Lead	ppm	ASTM D5185m	>45	<1	<1	<1
Copper	ppm	ASTM D5185m	>225	10	20	22
Tin	ppm	ASTM D5185m	>10	<1	1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	▲ MODER	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

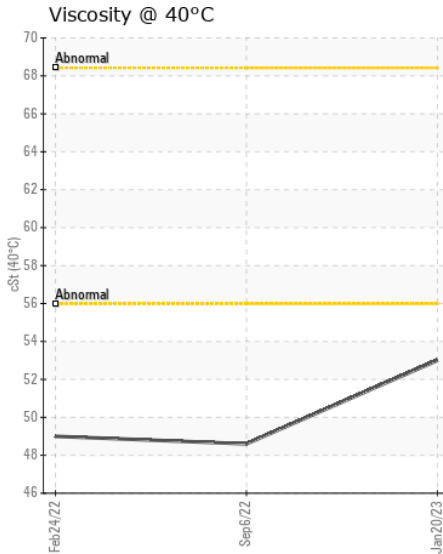
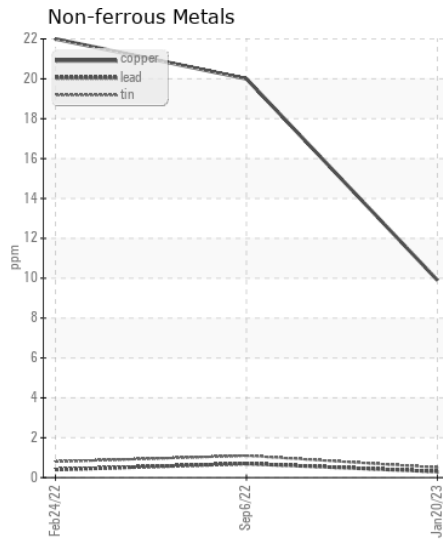
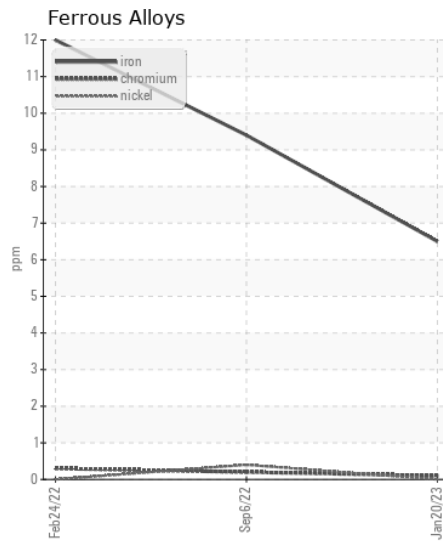
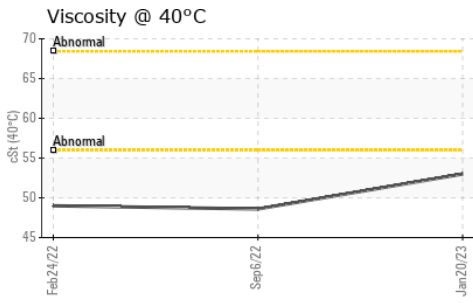
There is no indication of any contamination in the fluid.

Silicon	ppm	ASTM D5185m	>125	4	3	3
Potassium	ppm	ASTM D5185m	>20	2	0	4
Water		WC Method	>0.1	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
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	>0.1	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		12	26	37
Boron	ppm	ASTM D5185m		118	36	4
Barium	ppm	ASTM D5185m		0	1	0
Molybdenum	ppm	ASTM D5185m		6	2	<1
Manganese	ppm	ASTM D5185m		5	8	15
Magnesium	ppm	ASTM D5185m		467	142	7
Calcium	ppm	ASTM D5185m		1784	2637	2942
Phosphorus	ppm	ASTM D5185m		899	892	947
Zinc	ppm	ASTM D5185m		1020	1043	1036
Sulfur	ppm	ASTM D5185m		6111	7697	7417
Visc @ 40°C	cSt	ASTM D445		53.0	48.6	49.0



Certificate L2367

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

Sample No. : LH0236710

Lab Number : 05751144

Unique Number : 10310748

Test Package : CONST

Received : 26 Jan 2023

Tested : 27 Jan 2023

Diagnosed : 29 Jan 2023 - Don Baldrige

SADOFF IRON AND METAL

240 ARNDT STREET

FOND DU LAC, WI

US 54936

Contact: DAVE CASPER

casperd@sadoff.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)