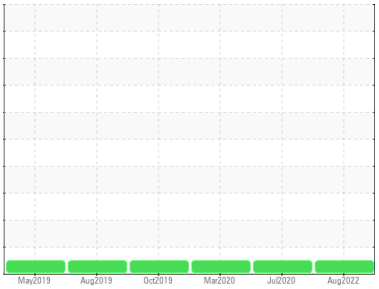
LIEBHERR

OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
LIEBHERR LH50M 110225-1216
Component
Front Left Wheel Hub
Fluid
NOT GIVEN (--- GAL)

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor.

Wear
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.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**LH05617412**	LHMC163660	LHMC163992
Sample Date		Client Info		**14 Aug 2022**	14 Jul 2020	16 Mar 2020
Machine Age	hrs	Client Info		**11011**	7927	5627
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**Not Changd**	Not Changd	Not Changd
Sample Status				**NORMAL**	NORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>450	**393**	110	183
Chromium	ppm	ASTM D5185m	>3	**1**	<1	<1
Nickel	ppm	ASTM D5185m	>2	**0**	<1	<1
Titanium	ppm	ASTM D5185m		**<1**	0	<1
Silver	ppm	ASTM D5185m		**<1**	0	0
Aluminum	ppm	ASTM D5185m	>10	**3**	1	2
Lead	ppm	ASTM D5185m	>4	**<1**	<1	1
Copper	ppm	ASTM D5185m	>80	**33**	21	20
Tin	ppm	ASTM D5185m	>3	**<1**	0	0
Antimony	ppm	ASTM D5185m	>10	**---**	0	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**<1**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**23**	66	90
Barium	ppm	ASTM D5185m		**2**	0	0
Molybdenum	ppm	ASTM D5185m		**<1**	0	<1
Manganese	ppm	ASTM D5185m		**5**	3	3
Magnesium	ppm	ASTM D5185m		**2**	2	2
Calcium	ppm	ASTM D5185m		**50**	65	68
Phosphorus	ppm	ASTM D5185m		**1949**	1149	1228
Zinc	ppm	ASTM D5185m		**43**	38	38
Sulfur	ppm	ASTM D5185m		**24934**	13749	23856

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>90	**18**	6	11
Sodium	ppm	ASTM D5185m		**14**	6	6
Potassium	ppm	ASTM D5185m	>20	**5**	2	5

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**MODER**	LIGHT	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
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	>0.2	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

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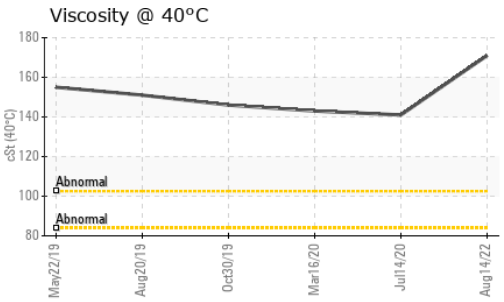
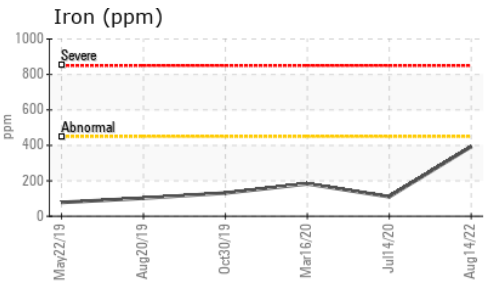
OIL ANALYSIS REPORT

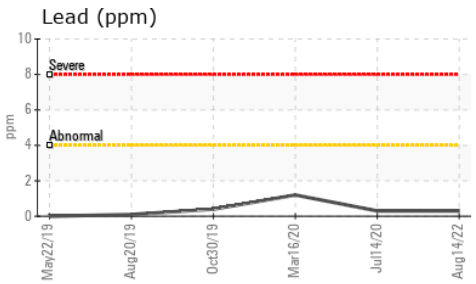


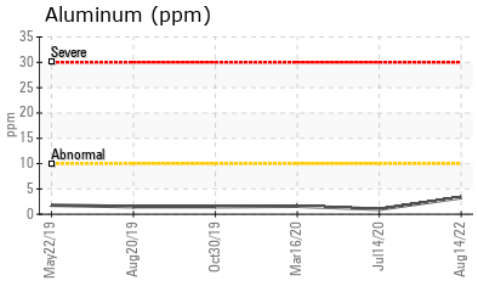
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		**171**	141	143

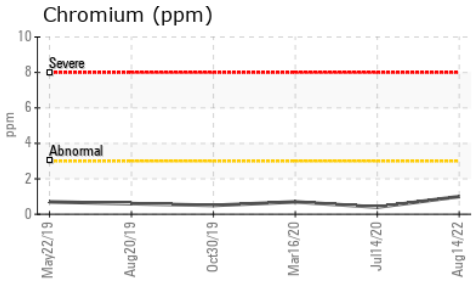
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color			*no image*	*no image*	*no image*
Bottom			*no image*	*no image*	*no image*

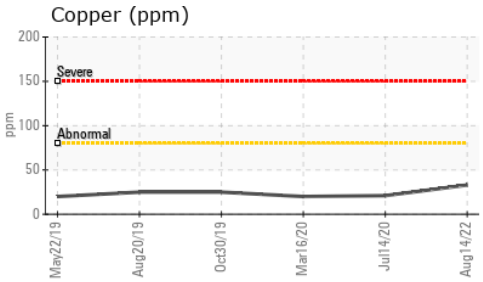
GRAPHS

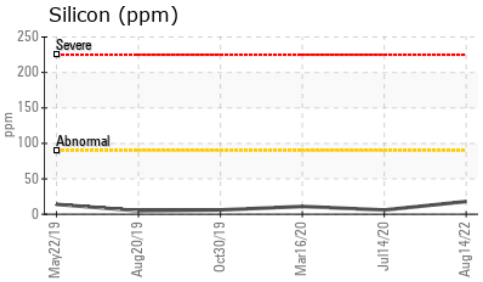


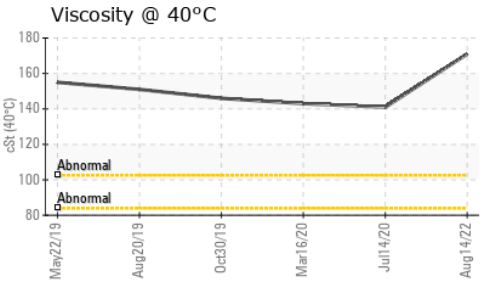


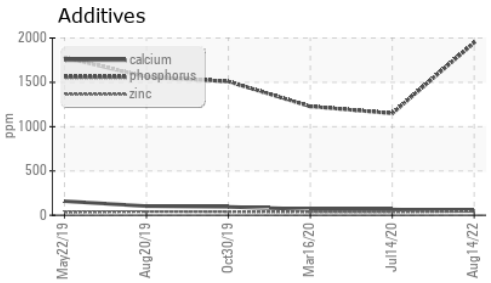












Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LH05617412
Lab Number : 05617412
Unique Number : 10091906
Test Package : MOB 1

Received : 15 Aug 2022
Diagnosed : 17 Aug 2022
Diagnostician : Don Baldridge

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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