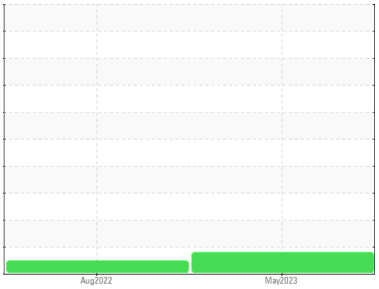
LIEBHERR

PROBLEM SUMMARY

Sample Rating Trend

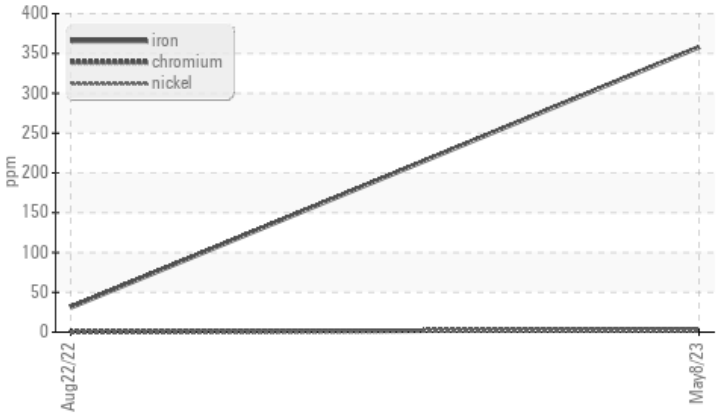


WEAR

Machine Id
LIEBHERR HS885HD 184713
Component
1 Winch
Fluid
LIEBHERR GEAR BASIC 90 LS (5 GAL)

COMPONENT CONDITION SUMMARY

▲ Ferrous Alloys



RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	NORMAL	---
Iron	ppm	ASTM D5185m	>150	▲ **358**	31	---

Customer Id: LEC0033
Sample No.: LH0257975
Lab Number: 05861533
Test Package: CONST

To manage this report scan the QR code

To discuss the diagnosis or test data:
Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

22 Aug 2022 Diag: Angela Borella

NORMAL

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report

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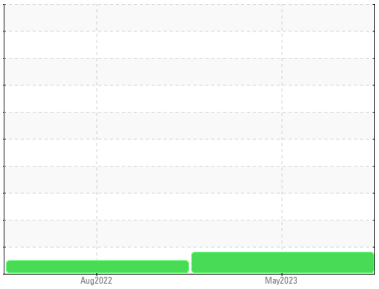
OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Machine Id
LIEBHERR HS885HD 184713
Component
1 Winch
Fluid
LIEBHERR GEAR BASIC 90 LS (5 GAL)

DIAGNOSIS

Recommendation
The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear
Gear wear is indicated.

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		**LH0257975**	LHMC119863	---
Sample Date		Client Info		**08 May 2023**	22 Aug 2022	---
Machine Age	hrs	Client Info		**10527**	9000	---
Oil Age	hrs	Client Info		**500**	30	---
Oil Changed		Client Info		**Changed**	Changed	---
Sample Status				**ABNORMAL**	NORMAL	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>150	▲ **358**	31	---
Chromium	ppm	ASTM D5185m	>10	**3**	0	---
Nickel	ppm	ASTM D5185m	>10	**2**	0	---
Titanium	ppm	ASTM D5185m		**<1**	0	---
Silver	ppm	ASTM D5185m		**0**	<1	---
Aluminum	ppm	ASTM D5185m	>5	**1**	<1	---
Lead	ppm	ASTM D5185m	>15	**0**	0	---
Copper	ppm	ASTM D5185m	>80	**3**	<1	---
Tin	ppm	ASTM D5185m		**0**	0	---
Vanadium	ppm	ASTM D5185m		**0**	0	---
Cadmium	ppm	ASTM D5185m		**0**	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**111**	38	---
Barium	ppm	ASTM D5185m	0	**0**	<1	---
Molybdenum	ppm	ASTM D5185m	0	**<1**	0	---
Manganese	ppm	ASTM D5185m	0	**2**	<1	---
Magnesium	ppm	ASTM D5185m	<1	**4**	0	---
Calcium	ppm	ASTM D5185m	<1	**24**	19	---
Phosphorus	ppm	ASTM D5185m	2143	**1131**	956	---
Zinc	ppm	ASTM D5185m	<1	**60**	23	---
Sulfur	ppm	ASTM D5185m	23468	**26846**	21194	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**7**	2	---
Sodium	ppm	ASTM D5185m		**<1**	<1	---
Potassium	ppm	ASTM D5185m	>20	**2**	0	---

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	MODER	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	---
Silt	scalar	*Visual	NONE	**NONE**	NONE	---
Debris	scalar	*Visual	NONE	**NONE**	NONE	---
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	---
Appearance	scalar	*Visual	NORML	**NORML**	NORML	---
Odor	scalar	*Visual	NORML	**NORML**	NORML	---
Emulsified Water	scalar	*Visual	>0.2	**NEG**	NEG	---
Free Water	scalar	*Visual		**NEG**	NEG	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	170	**154**	158	---

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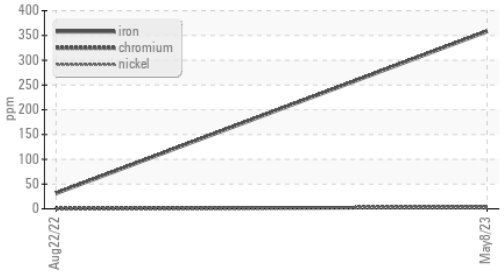
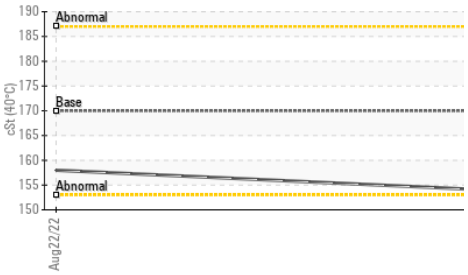
OIL ANALYSIS REPORT

Ferrous Alloys



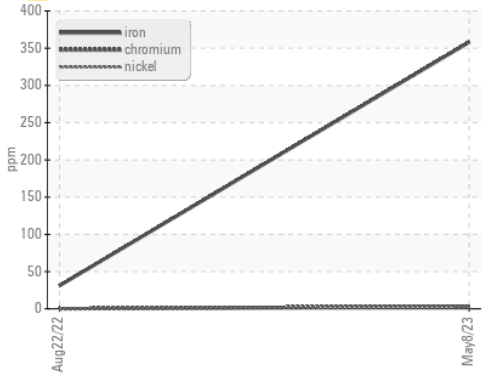
Viscosity @ 40°C



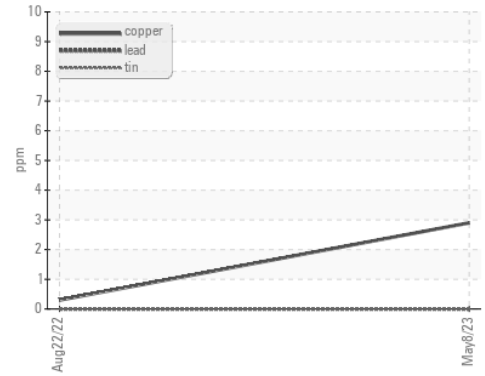
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color			no image	no image	no image
Bottom			no image	no image	no image

GRAPHS

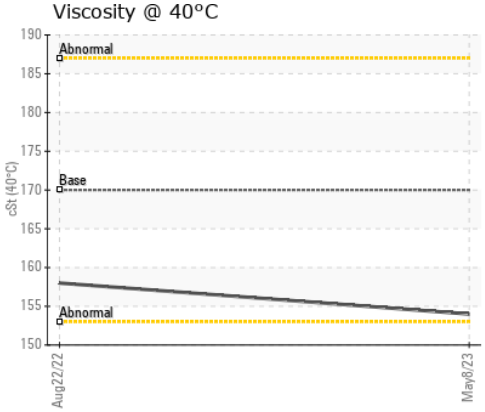
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LH0257975
Lab Number : 05861533
Unique Number : 10495998
Test Package : CONST

Received : 31 May 2023
Diagnosed : 02 Jun 2023
Diagnostician : Jonathan Hester

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)

FINKBINER EQUIPMENT CO.
15 W 400 N FRONTAGE RD
BURR RIDGE, IL
US 60527
Contact: DON FITZGERALD
dfitzgerald@finkbiner.com
T: (815)546-8991
F: (630)654-3792