



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION



Machine Id
LIEBHERR R936 040489-1148
Component
Left Final Drive
Fluid
LIEBHERR HYPOID 85W-140 EP (--- GAL)

RECOMMENDATION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0229681	LH0267370	LH0244005
Sample Date		Client Info		21 Mar 2024	30 Aug 2023	21 May 2023
Machine Age	hrs	Client Info		9014	8524	8050
Oil Age	hrs	Client Info		1000	474	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Not Chngd
Filter Changed		Client Info		Not Changed	Not Chngd	Not Chngd
Sample Status				ATTENTION	ATTENTION	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>500	70	125	121
Chromium	ppm	ASTM D5185m	>10	<1	2	2
Nickel	ppm	ASTM D5185m	>10	0	<1	1
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	2	4	4
Lead	ppm	ASTM D5185m	>25	0	<1	0
Copper	ppm	ASTM D5185m	>50	0	<1	0
Tin	ppm	ASTM D5185m	>10	<1	0	0
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

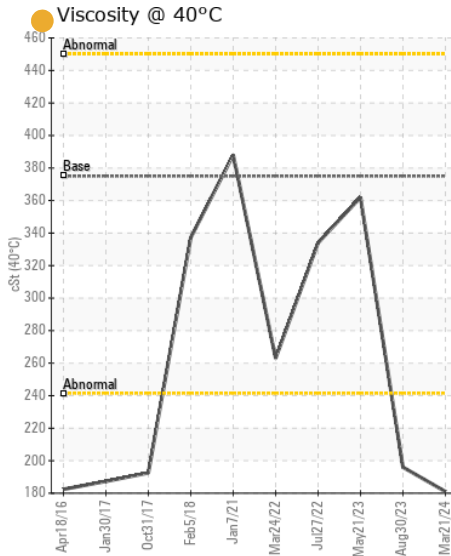
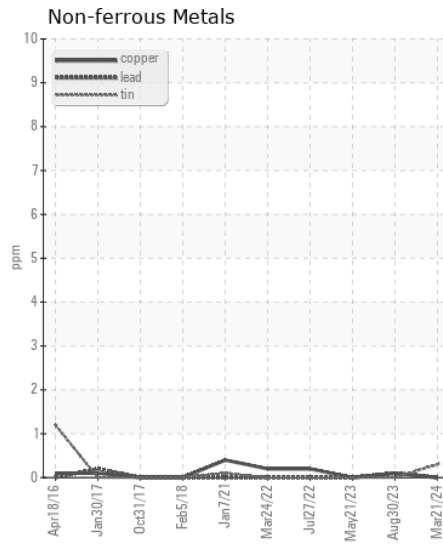
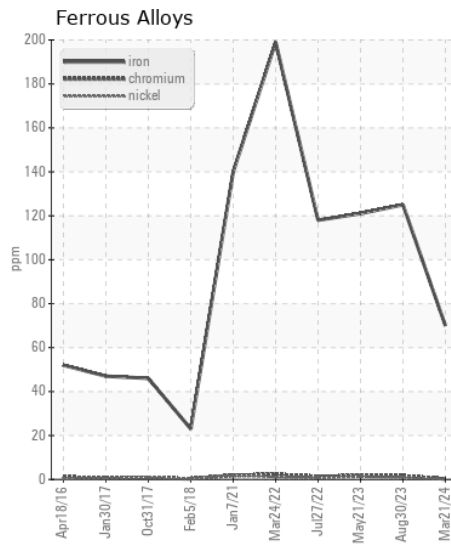
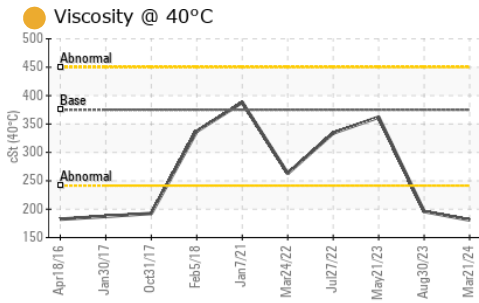
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	17	29	28
Potassium	ppm	ASTM D5185m	>20	0	1	2
Water		WC Method	>0.2	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	LIGHT	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

FLUID CONDITION

The oil viscosity is lower than normal. Confirm oil type. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		3	0	1
Boron	ppm	ASTM D5185m	<1	0	0	3
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0	<1
Manganese	ppm	ASTM D5185m	0	<1	2	1
Magnesium	ppm	ASTM D5185m	<1	<1	2	<1
Calcium	ppm	ASTM D5185m	17	82	18	9
Phosphorus	ppm	ASTM D5185m	1089	2262	2149	1300
Zinc	ppm	ASTM D5185m	4	24	6	<1
Sulfur	ppm	ASTM D5185m	23480	31923	31133	34920
Visc @ 40°C	cSt	ASTM D445	375	181	196	362



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LH0229681
Lab Number : 06157143
Unique Number : 10992566
Test Package : CONST

Received : 22 Apr 2024
Tested : 24 Apr 2024
Diagnosed : 25 Apr 2024 - Jonathan Hester

ACECO
 10119 RESIDENCY ROAD
 MANASSAS, VA
 US 20110
 Contact: RON BROCK

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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