



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
LIEBHERR
Machine Id
062713-1419 LIEBHERR A934CHD 062713-1419
Component
Front Right Wheel Hub
Fluid
GEAR OIL SAE 80W90 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) GEAR OIL SAE 80W90. Please confirm.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		DJJ0023809	LH0229495	DJJ0011193
Sample Date		Client Info		13 Jun 2024	12 Jul 2023	09 Feb 2023
Machine Age	hrs	Client Info		12992	12515	12363
Oil Age	hrs	Client Info		0	500	1000
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>450	36	43	72
Chromium	ppm	ASTM D5185m	>4	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>15	2	1	<1
Lead	ppm	ASTM D5185m	>4	0	0	0
Copper	ppm	ASTM D5185m	>75	25	16	14
Tin	ppm	ASTM D5185m		0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
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.

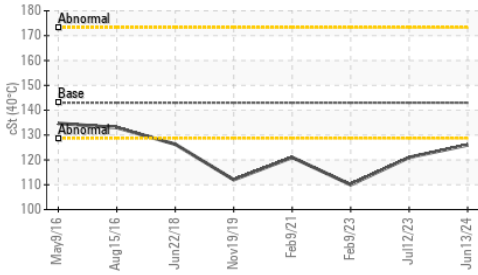
Silicon	ppm	ASTM D5185m	>60	4	4	7
Potassium	ppm	ASTM D5185m	>20	1	3	2
Water		WC Method	>0.2	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	HAZY
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	0.2%

FLUID CONDITION

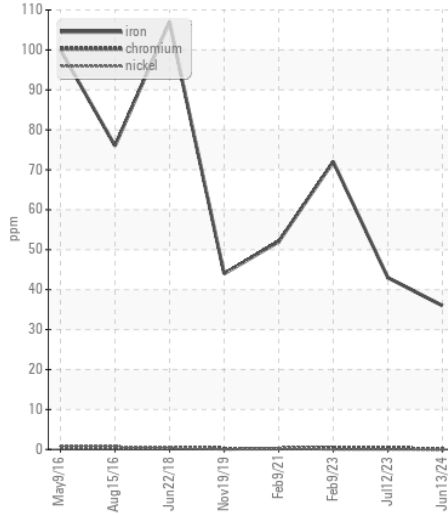
The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>170	2	<1	4
Boron	ppm	ASTM D5185m	400	28	25	75
Barium	ppm	ASTM D5185m	200	0	0	1
Molybdenum	ppm	ASTM D5185m	12	9	18	40
Manganese	ppm	ASTM D5185m		1	2	1
Magnesium	ppm	ASTM D5185m	12	11	17	24
Calcium	ppm	ASTM D5185m	150	241	485	1004
Phosphorus	ppm	ASTM D5185m	1650	450	571	717
Zinc	ppm	ASTM D5185m	125	192	346	590
Sulfur	ppm	ASTM D5185m	22500	11066	14354	7881
Visc @ 40°C	cSt	ASTM D445	143	126	121	110

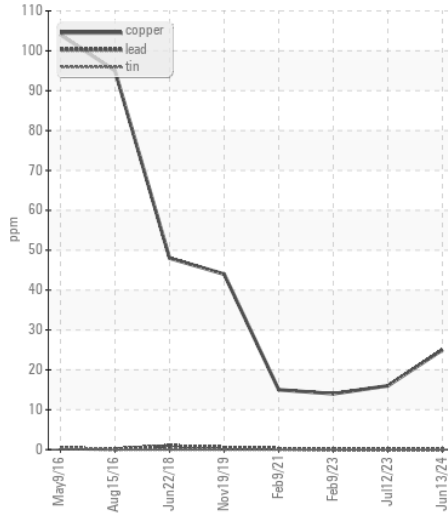
Viscosity @ 40°C



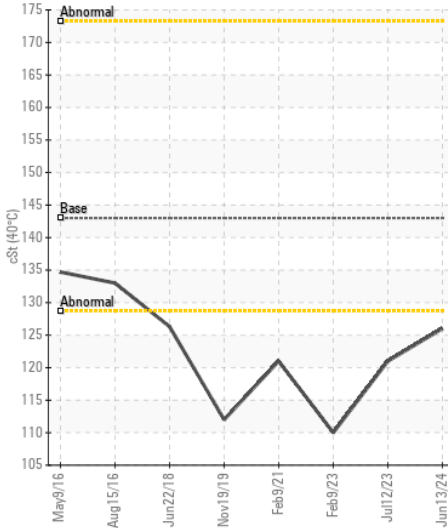
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DJJ0023809
Lab Number : 06213899
Unique Number : 11086763
Test Package : CONST

Received : 18 Jun 2024
Tested : 20 Jun 2024
Diagnosed : 20 Jun 2024 - Wes Davis

METAL RECYCLING SERVICES - GASTONIA
 5401 S YORK HWY
 GASTONIA, NC
 US 28052
 Contact: RYAN BOWDEN

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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