

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR A934 044099-1007 - Swing Drive

Sample No: LH0259167

Oil Type: LIEBHERR GEAR BASIC 90 LS



#### SAMPLE INFORMATION

Sample Number	LH0259167	LH0244932	LH0229933	LH0217028
Sample Date	10 Oct 2023	04 Apr 2023	02 Dec 2022	08 Feb 2022
Machine Hours	31151	30303	29760	28049
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Not Changd	Changed
Sample Status	NORMAL	NORMAL	SEVERE	ATTENTION

#### INTEGRITY METALS

835 EAST INDUSTRIAL  
MORRISTOWN, IN  
US 46161  
Contact: HEIDI KERSTIENS  
heidi@integrity-metals.com  
T: (765)763-8000  
F: (765)763-8001



#### OIL CONDITION

Visc @ 40°C	cSt	183	181	250	119.9
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#### CONTAMINATION

Water	%	---	---	2.58	---
Silicon	ppm	1	2	3	8
Sodium	ppm	4	4	2	<1
Potassium	ppm	2	<1	1	<1

#### Diagnosis

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



#### WEAR METALS

Iron	ppm	159	141	813	128
Copper	ppm	28	85	131	202
Lead	ppm	0	0	<1	<1
Tin	ppm	2	1	4	13
Aluminum	ppm	<1	<1	2	3
Chromium	ppm	1	0	9	<1
Molybdenum	ppm	0	<1	<1	<1
Nickel	ppm	0	0	2	<1
Titanium	ppm	<1	<1	0	<1
Silver	ppm	0	0	<1	0
Manganese	ppm	2	2	6	<1
Vanadium	ppm	0	0	<1	0



#### ADDITIVES

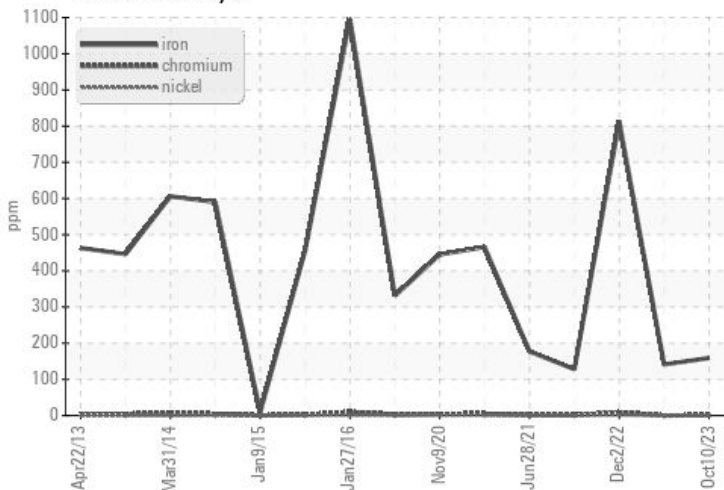
Calcium	ppm	32	15	19	70
Magnesium	ppm	<1	<1	10	2
Zinc	ppm	17	0	25	180
Phosphorus	ppm	1933	2241	2397	1718
Barium	ppm	0	0	0	0
Boron	ppm	0	<1	4	2

Depot: INTMORLH  
Unique No: 10708583  
Signed: Angela Borella  
Report Date: 24 Oct 2023

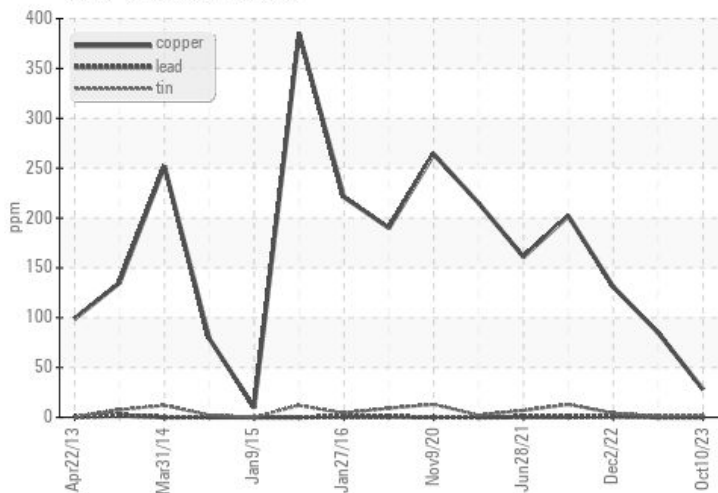


### GRAPHS

#### Ferrous Alloys



#### Non-ferrous Metals



#### Viscosity @ 40°C

