

LIEBHERR

CONSTRUCTION EQUIPMENT



SENNEBOGEN 830E MS17 - Swing Drive

Sample No: LH0244793

Oil Type: GEAR OIL SAE 80W90



SAMPLE INFORMATION

Sample Number	LH0244793	LH0244786	LHMC100181	LHMC104532
Sample Date	08 Feb 2024	11 Dec 2023	23 Aug 2023	05 May 2023
Machine Hours	7932	7567	6878	6853
Oil Hours	2000	0	0	0
Oil Changed	Not Changd	Not Changd	Not Changd	N/A
Sample Status	ABNORMAL	ABNORMAL	ABNORMAL	ABNORMAL

OSCAR WINSKI CO. INC

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US 47904

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OIL CONDITION

Visc @ 40°C	cSt	145	254	186	177
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CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Silicon	ppm	9	9	19	9
Sodium	ppm	2	<1	3	1
Potassium	ppm	1	3	5	2



WEAR METALS

Iron	ppm	376	327	671	347
Copper	ppm	94	74	161	86
Lead	ppm	0	0	2	0
Tin	ppm	15	15	24	11
Aluminum	ppm	2	1	0	<1
Chromium	ppm	2	2	4	2
Molybdenum	ppm	0	0	0	<1
Nickel	ppm	0	<1	0	<1
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	4	4	8	4
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	0	15	27	24
Magnesium	ppm	1	2	2	1
Zinc	ppm	44	24	114	56
Phosphorus	ppm	421	462	570	435
Barium	ppm	0	0	0	0
Boron	ppm	<1	3	5	2

Diagnosis

No corrective action is recommended at this time. Resample at the next service interval to monitor. The tin level is abnormal. All other 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.

Depot: OSCLAF

Unique No: 10911793

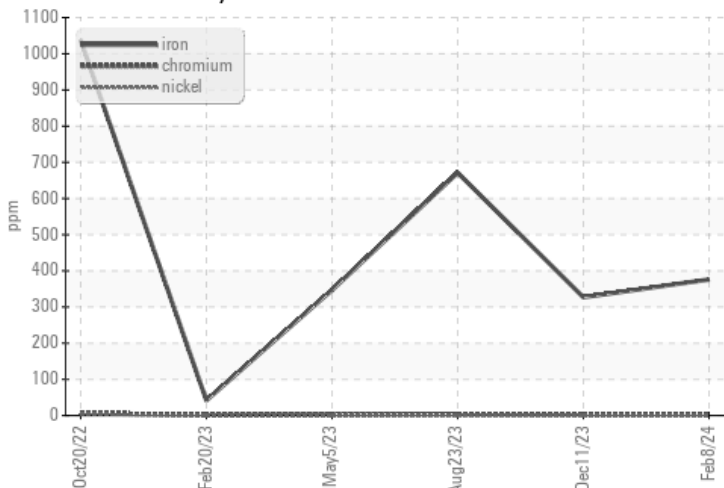
Signed: Sean Felton

Report Date: 06 Mar 2024

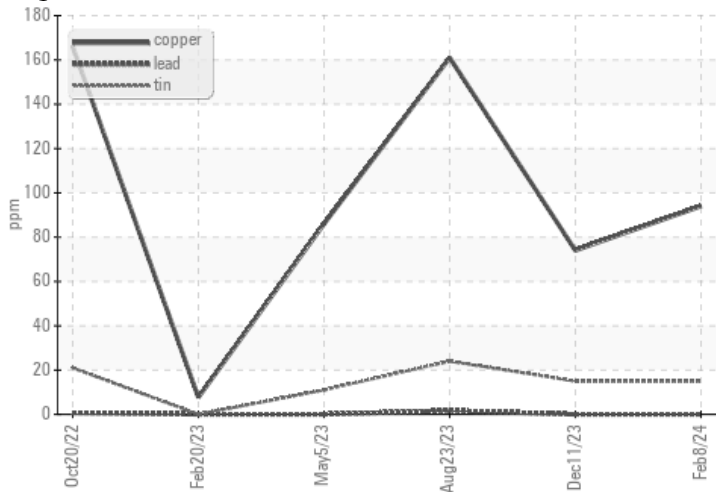


GRAPHS

Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C

