

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH60 122926-1217 - Diesel Engine

Sample No: LH0268845

Oil Type: LIEBHERR MOTOROIL 5W30



SAMPLE INFORMATION

Sample Number	LH0268845	LH0267442	LH0254148	LH0229377
Sample Date	28 Jan 2024	19 Jul 2023	26 Mar 2023	09 Jan 2023
Machine Hours	3407	2976	0	2679
Oil Hours	3407	300	0	5
Oil Changed	Changed	Not Changd	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

SIMS METAL MANAGEMENT
 3220 DEEPWATER TERMINAL RD
 RICHMOND, VA
 US 23234
 Contact: Service Manager



OIL CONDITION

Visc @ 100°C	cSt	11.0	11.7	11.8	11.9
Base Number (BN)	mg KOH/g	5.9	7.3	17.7	15.3
Oxidation (PA)	%	74	55	35	38

T: (703)392-0111
 F:



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.1	0.1	0.1	0.1
Nitration (PA)	%	99	80	82	77
Sulfation (PA)	%	60	51	38	40
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	8	8	9	9
Sodium	ppm	3	10	2	0
Potassium	ppm	3	8	0	2

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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.



WEAR METALS

Iron	ppm	6	4	4	4
Copper	ppm	3	1	<1	<1
Lead	ppm	3	0	0	0
Tin	ppm	<1	<1	0	0
Aluminum	ppm	2	3	3	1
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	0	1	1	<1
Nickel	ppm	0	0	0	0
Titanium	ppm	<1	<1	<1	<1
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	1	<1
Vanadium	ppm	0	0	<1	0



ADDITIVES

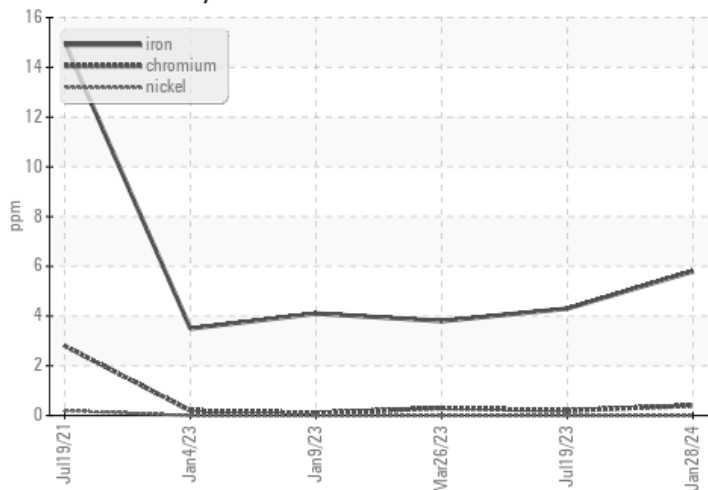
Calcium	ppm	1736	1578	4421	3787
Magnesium	ppm	588	590	35	107
Zinc	ppm	867	827	1223	1050
Phosphorus	ppm	773	695	1009	953
Barium	ppm	0	0	0	0
Boron	ppm	63	92	271	255

Depot: SIMRICLH
 Unique No: 10903268
 Signed: Sean Felton
 Report Date: 04 Mar 2024

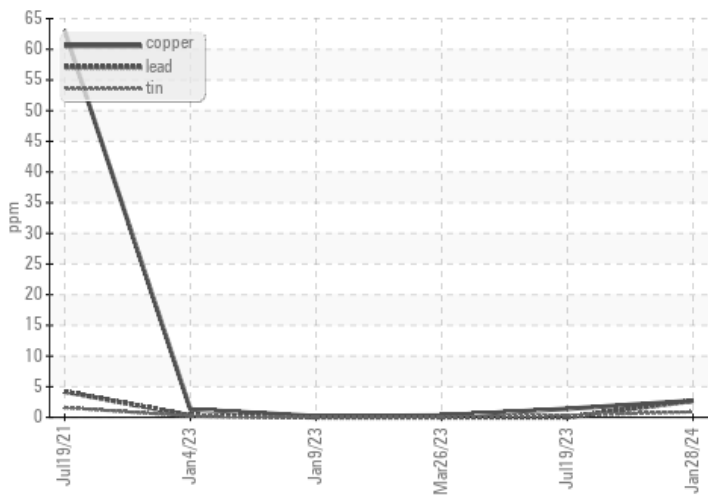


GRAPHS

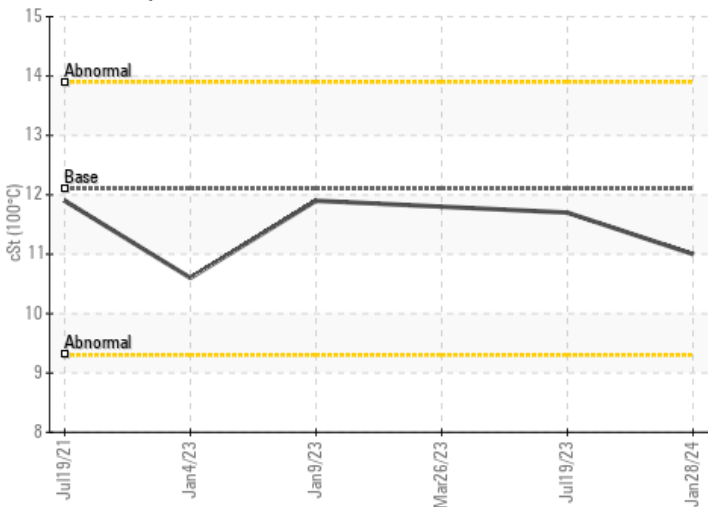
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



Base Number

