

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH60C1212-70843 - Hydraulic System

Sample No: LH0267353

Oil Type: LIEBHERR



MIDDLE GROUND MARINE INC
500 BARNES RD
CHESAPEAKE, VA
US 23324
Contact:

T:
F:



SAMPLE INFORMATION

Sample Number	LH0267353	LHMC94591	---	---
Sample Date	11 Aug 2023	01 Dec 2015	---	---
Machine Hours	3522	340	---	---
Oil Hours	3522	340	---	---
Oil Changed	Not Changd	Not Changd	---	---
Sample Status	ABNORMAL	NORMAL	---	---



OIL CONDITION

Visc @ 40°C	cSt	● 46.3	● 47.8	---	---
Acid Number (AN)	mg KOH/g	● 1.14	● 0.642	---	---



CONTAMINATION

Particles >4µm		● 2402	● 246	---	---
Particles >6µm		● 640	● 134	---	---
Particles >14µm		● 61	● 22	---	---
ISO 4406:1999 (c)		18/16/13	15/14/12	---	---
Silicon	ppm	● 2	● 3	---	---
Sodium	ppm	● 4	● 2	---	---
Potassium	ppm	● 2	● 3	---	---



WEAR METALS

Iron	ppm	● 28	● 3	---	---
Copper	ppm	● 18	● 3	---	---
Lead	ppm	● 2	● <1	---	---
Tin	ppm	● 0	● 0	---	---
Aluminum	ppm	● <1	● <1	---	---
Chromium	ppm	● 1	● <1	---	---
Molybdenum	ppm	0	0	---	---
Nickel	ppm	● 0	● 0	---	---
Titanium	ppm	0	<1	---	---
Silver	ppm	0	0	---	---
Manganese	ppm	<1	<1	---	---
Vanadium	ppm	0	0	---	---



ADDITIVES

Calcium	ppm	815	1198	---	---
Magnesium	ppm	4	5	---	---
Zinc	ppm	673	633	---	---
Phosphorus	ppm	492	486	---	---
Barium	ppm	0	0	---	---
Boron	ppm	0	<1	---	---

Diagnosis

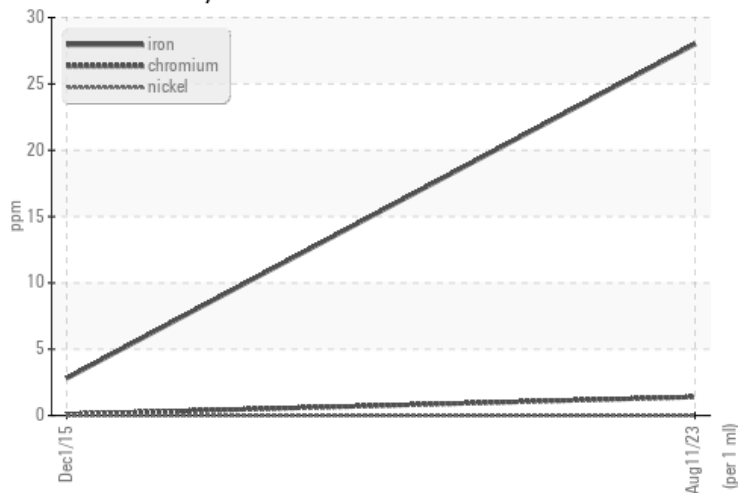
No corrective action is recommended at this time. Resample at the next service interval to monitor. The copper level is abnormal. All other component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Depot: MIDCHE
Unique No: 10615566
Signed: Jonathan Hester
Report Date: 23 Aug 2023

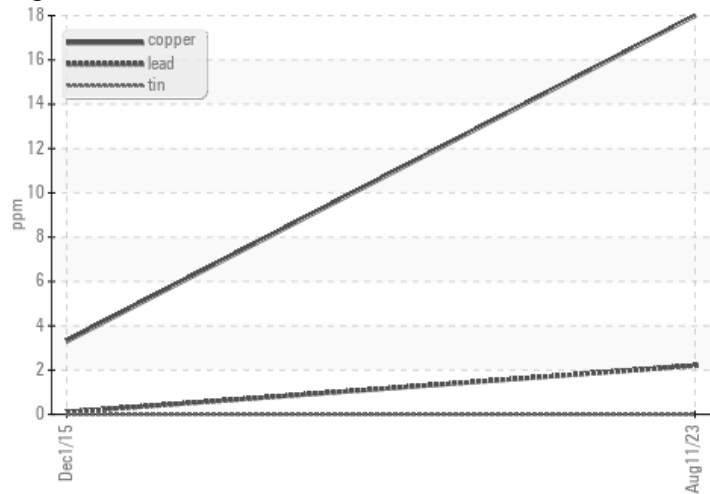


GRAPHS

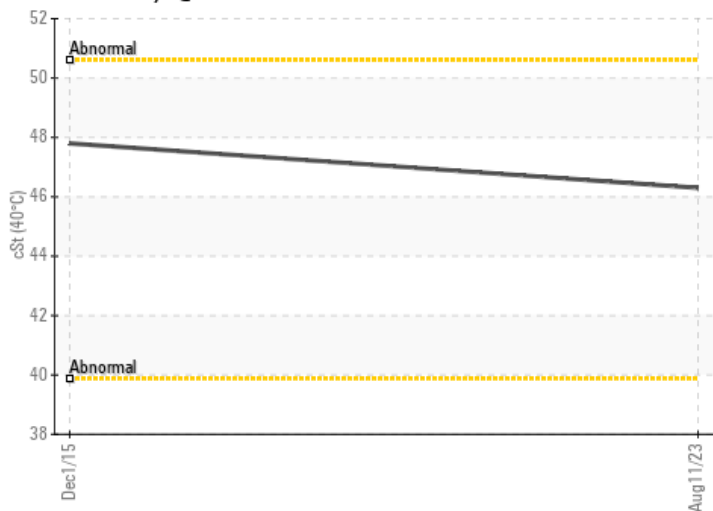
Ferrous Alloys



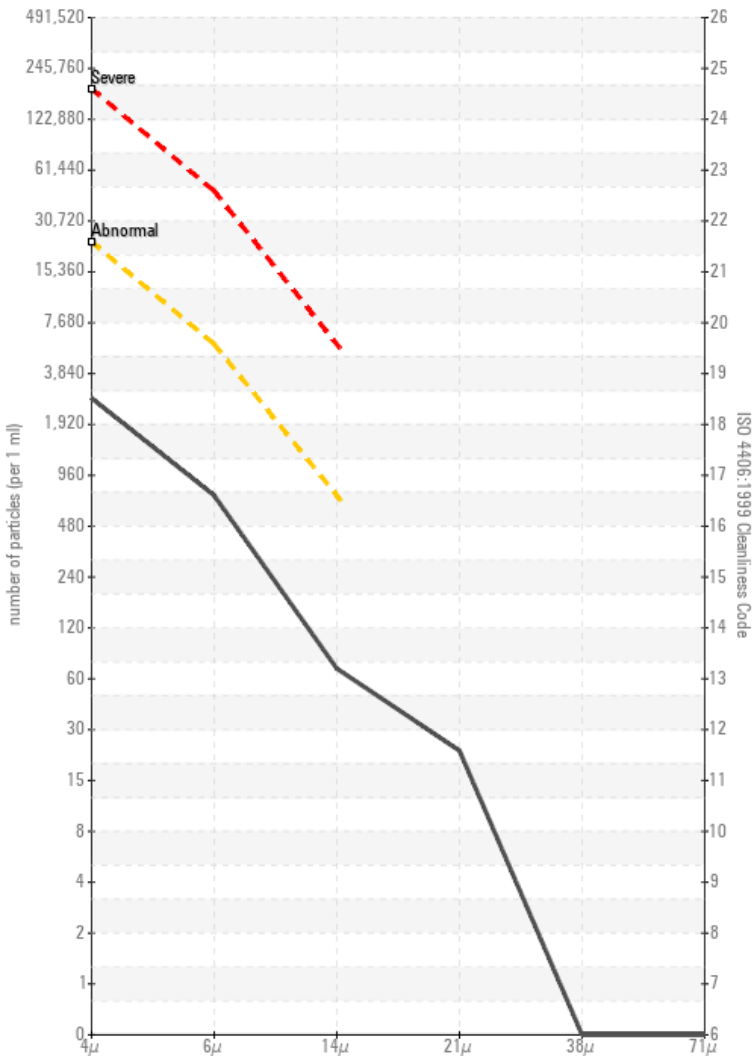
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

