

LIEBHERR

CONSTRUCTION EQUIPMENT



[[YORKTOWN MATERIALS]] LIEBHERR R946 045303-1491-Left Fi

Sample No: LH0267610

Oil Type: LIEBHERR GEAR BASIC 90 LS



SAMPLE INFORMATION

Sample Number	LH0267610	---	---	---
Sample Date	21 Sep 2023	---	---	---
Machine Hours	3480	---	---	---
Oil Hours	3480	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	ABNORMAL	---	---	---

LIEBHERR EQUIPMENT SOURCE

4100 CHESTNUT AVENUE
NEWPORT NEWS, VA
US 23607

Contact: LUKE APPLEBY
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T:
F: (757)298-8700



OIL CONDITION

Visc @ 40°C	cSt	288	---	---	---
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CONTAMINATION

Silicon	ppm	3067	---	---	---
Sodium	ppm	23	---	---	---
Potassium	ppm	82	---	---	---



WEAR METALS

Iron	ppm	7139	---	---	---
Copper	ppm	4	---	---	---
Lead	ppm	2	---	---	---
Tin	ppm	1	---	---	---
Aluminum	ppm	302	---	---	---
Chromium	ppm	91	---	---	---
Molybdenum	ppm	8	---	---	---
Nickel	ppm	32	---	---	---
Titanium	ppm	49	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	57	---	---	---
Vanadium	ppm	3	---	---	---



ADDITIVES

Calcium	ppm	49	---	---	---
Magnesium	ppm	23	---	---	---
Zinc	ppm	9	---	---	---
Phosphorus	ppm	2443	---	---	---
Barium	ppm	2	---	---	---
Boron	ppm	3	---	---	---

Diagnosis

We advise that you check all areas where dirt can enter the system. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. Gear wear is indicated. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The oil viscosity is higher than normal.

Depot: LIEBHERRUS
Unique No: 10684320
Signed: Angela Borella
Report Date: 10 Oct 2023

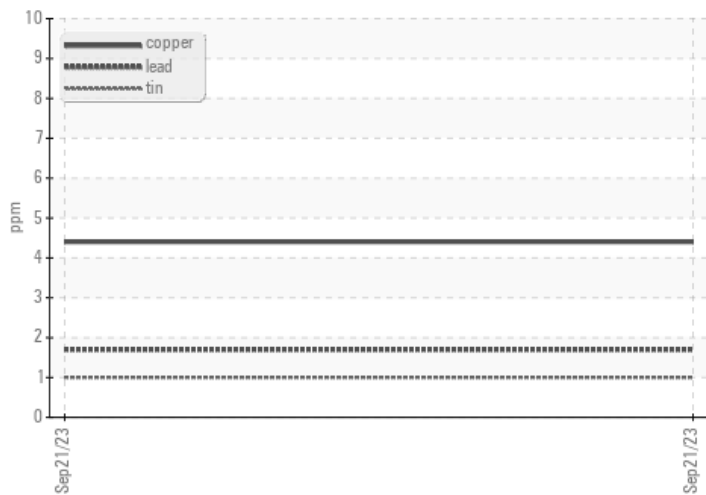


GRAPHS

Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C

