LIEBHERR
CONSTRUCTION EQUIPMENT

LIEBHERR LH30M 136518-1253 - Splitter Box

Sample No: LH0228854

Oil Type: LIEBHERR GEAR BASIC 90 LS

SAMPLE INFORMATION

Sample Number		**LH0228854**	LH0228842	---	---
Sample Date		**05 Jun 2023**	16 Nov 2022	---	---
Machine Hours		**2000**	1000	---	---
Oil Hours		**0**	0	---	---
Oil Changed		**N/A**	Changed	---	---
Sample Status		**ABNORMAL**	NORMAL	---	---

OIL CONDITION

Visc @ 40°C	cSt	🟢 **186**	🟢 194	---	---

CONTAMINATION

Silicon	ppm	🟠 **34**	🟢 17	---	---
Sodium	ppm	🟢 **3**	🟢 3	---	---
Potassium	ppm	🟢 **2**	🟢 2	---	---

WEAR METALS

PQ		🟢 **30**	---	---	---
Iron	ppm	🟠 **118**	🟢 57	---	---
Copper	ppm	🟢 **7**	🟢 <1	---	---
Lead	ppm	🟢 **<1**	🟢 0	---	---
Tin	ppm	🟢 **0**	🟢 0	---	---
Aluminum	ppm	🟢 **3**	🟢 2	---	---
Chromium	ppm	🟢 **2**	🟢 <1	---	---
Molybdenum	ppm	🟢 **0**	🟢 0	---	---
Nickel	ppm	🟢 **<1**	🟢 0	---	---
Titanium	ppm	**<1**	<1	---	---
Silver	ppm	**0**	0	---	---
Manganese	ppm	🟢 **2**	🟢 2	---	---
Vanadium	ppm	**0**	0	---	---

ADDITIVES

Calcium	ppm	**34**	35	---	---
Magnesium	ppm	🟢 **4**	🟢 3	---	---
Zinc	ppm	**20**	18	---	---
Phosphorus	ppm	🟢 **2067**	🟢 1962	---	---
Barium	ppm	🟢 **<1**	🟢 0	---	---
Boron	ppm	🟢 **1**	🟢 <1	---	---

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Diagnosis

We advise that you check all areas where dirt can enter the system. We recommend that you drain the oil from the component if this has not already been done. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition. Iron ppm levels are abnormal. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion. There is a moderate concentration of dirt present in the oil. High amount of ingressed dirt has caused abrasive wear to the component. Additive levels indicate the addition of a different brand, or type of oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

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⚙ GRAPHS

● Iron (ppm)

Severe — 200
Abnormal — 100

Lead (ppm)

Severe — 60
Abnormal — 30

Aluminum (ppm)

Severe — 40
Abnormal — 20

Chromium (ppm)

Severe — 10
Abnormal — 5

Copper (ppm)

Severe — 40
Abnormal — 20

● Silicon (ppm)

Severe — 60
Abnormal — 30

Viscosity @ 40°C

Abnormal — 205
Base — 170
Abnormal — 130

PQ

Severe — 160
Abnormal — 80