

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### 944-3 - Swing Drive

Sample No: LH0260177

Oil Type: GEAR OIL SAE 75W90



#### SAMPLE INFORMATION

Sample Number	LH0260177	---	---	---
Sample Date	07 Jun 2023	---	---	---
Machine Hours	0	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	SEVERE	---	---	---

**Gerdau - Mandak Metal Processors Ltd.,**  
 1 Railway St., P.O. Box 334  
 Selkirk, MB  
 CA R1A 2B3  
 Contact: Santiago Giraldo  
 santiago.giraldo@gerdau.com  
 T:  
 F: (204)482-8241



#### OIL CONDITION

Visc @ 40°C	cSt	● 106	---	---	---
-------------	-----	-------	-----	-----	-----



#### CONTAMINATION

Silicon	ppm	● 115	---	---	---
Sodium	ppm	● 2	---	---	---
Potassium	ppm	● 1	---	---	---



#### WEAR METALS

PQ		● 39	---	---	---
Iron	ppm	● 1624	---	---	---
Copper	ppm	● 873	---	---	---
Lead	ppm	● 22	---	---	---
Tin	ppm	● 34	---	---	---
Aluminum	ppm	● <1	---	---	---
Chromium	ppm	● 9	---	---	---
Molybdenum	ppm	● <1	---	---	---
Nickel	ppm	● <1	---	---	---
Titanium	ppm	● 0	---	---	---
Silver	ppm	● 0	---	---	---
Manganese	ppm	● 12	---	---	---
Vanadium	ppm	● 0	---	---	---



#### ADDITIVES

Calcium	ppm	● 13	---	---	---
Magnesium	ppm	● 7	---	---	---
Zinc	ppm	● 65	---	---	---
Phosphorus	ppm	● 1374	---	---	---
Barium	ppm	● <1	---	---	---
Boron	ppm	● 182	---	---	---

#### Diagnosis

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) GEAR OIL SAE 75W90. Please confirm. Copper, iron and tin ppm levels are severe. Bearing and/or bushing wear is indicated. 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. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

**Depot:** MANSEL  
**Unique No:** 5631909  
**Signed:** Kevin Marson  
**Report Date:** 29 Aug 2023



### GRAPHS

