

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### [(340370)] LIEBHERR R945 050696-1866 - Swing Drive

Sample No: LH0278847

Oil Type: LIEBHERR GEAR BASIC 90 LS



#### SAMPLE INFORMATION

Sample Number	LH0278847	LH0247000	LH0222720	LH0202798
Sample Date	17 Jan 2024	27 Jun 2023	28 Apr 2022	10 Aug 2021
Machine Hours	4963	4010	2019	891
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

**CLOUTHIER VENTURES LTD.**  
 59 MATTHEWS STREET, R.R. # 5  
 PEMBROKE, ON  
 CA K8A 0A6  
 Contact: Travis Bennett  
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#### OIL CONDITION

Visc @ 40°C	cSt	197	98.0	127	126
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#### CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Silicon	ppm	8	5	2	<1
Sodium	ppm	1	<1	3	2
Potassium	ppm	<1	<1	1	<1



#### WEAR METALS

Iron	ppm	257	179	275	24
Copper	ppm	<1	<1	<1	<1
Lead	ppm	<1	0	0	0
Tin	ppm	0	0	0	<1
Aluminum	ppm	<1	<1	<1	0
Chromium	ppm	3	2	5	<1
Molybdenum	ppm	0	<1	<1	0
Nickel	ppm	<1	<1	<1	<1
Titanium	ppm	0	0	0	0
Silver	ppm	<1	0	0	<1
Manganese	ppm	2	2	4	<1
Vanadium	ppm	0	0	0	0



#### ADDITIVES

Calcium	ppm	5	11	9	6
Magnesium	ppm	1	2	<1	2
Zinc	ppm	8	12	9	9
Phosphorus	ppm	1331	1293	1495	1375
Barium	ppm	0	<1	6	3
Boron	ppm	191	180	174	60

#### Diagnosis

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

Depot: CLOPEM  
 Unique No: 5711778  
 Signed: Wes Davis  
 Report Date: 23 Jan 2024



### GRAPHS

