# LIEBHERR

## **CONSTRUCTION EQUIPMENT**

### **LIEBHERR R944 042563-194 - Swing Drive**

Sample No: LH0243873

Oil Type: LIEBHERR GEAR BASIC 90 LS

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J SAMI	PLE INFOR	MATION				
Sample Number		LH0243873	LH0220405	LHMC93575		
Sample Date		29 Feb 2024	03 Oct 2022	29 Dec 2015		
Machine Hours		29512	28033	15560		
Oil Hours		0	1000	1000		
Oil Changed		Changed	Changed	Changed		
Sample Status		SEVERE	ABNORMAL	ATTENTION		
OIL C	ONDITION	ı				
Visc @ 40°C	cSt	<b>306</b>	O 314	294.7		
CONTAMINATION						
Water	%	NEG	0.669	NEG		
Cilicon	nnm	<b>O</b> 0	O 5	0 2		

CONTAMINATION					
Water	%	NEG	0.669	NEG	
Silicon	ppm	<b>8</b>		○ 3	
Sodium	ppm	<b>1</b>	O <1	O 2	
Potassium	ppm	<b>2</b>	O <1	<b>8</b>	
WEAR	R METALS				

	-112 141E 1				
Iron	ppm	<b>1326</b>	O 618	○ 283	
Copper	ppm	<b>637</b>	○ 286	<b>270</b>	
Lead	ppm	<b>○</b> <1	<b>7</b>	<1	
Tin	ppm	<b>58</b>	<u>22</u>	O	
Aluminum	ppm	<b>1</b>	<b>6</b>	<1	
Chromium	ppm	<b>8</b>	<b>4</b>	O 1	
Molybdenum	ppm	<b>0</b>	O <1	<1	
Nickel	ppm	<b>4</b>	O 1	<1	
Titanium	ppm	0	0	0	
Silver	ppm	<1	<1	0	
Manganese	ppm	<b>9</b>	<b>4</b>	2	
Vanadium	ppm	<1	<1	0	

Vanadium	ppm	<1	<1	0	
ADI	DITIVES				
		0.00	0.45	0 =0	
Calcium	ppm	<b>20</b>	O 17	<b>78</b>	
Magnesium	ppm	<b>5</b>	0 2	<b>2</b> 3	
Zinc	ppm	<b>46</b>	○ 39	<b>o</b> 56	
Phosphorus	ppm	<b>1310</b>	O 1015	O 772	
Barium	ppm	<b>0</b>	O 0	<1	
Boron	ppm	<b>123</b>	O 137	<b>128</b>	





### LIEBHERR EQUIPMENT SOURCE

4100 CHESTNUT AVENUE NEWPORT NEWS, VA US 23607

Contact: DAVID CONSTANTINO david.constantino@liebherr.com

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#### Diagnosis

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Bearing and/or bushing wear is indicated. There is no indication of any contamination in the oil. The oil viscosity is higher than normal. Confirm oil type.

Depot: LIEBHERRUS
Unique No: 10915848
Signed: Don Baldridge
Report Date: 11 Mar 2024

# LIEBHERR







#### **GRAPHS**

