**CONSTRUCTION EQUIPMENT** 

## **LIEBHERR LH30M 121854-1253 - Pump Drive**

Sample No: LH0267090

Oil Type: GEAR OIL LS 80W90

Contamination	<u> </u>					
Sample Date   17 May 2024   15 Mar 2024   02 Jan 2024   27 Oct 2023	Sam	ple Infor	mation			
Machine Hours    Machine Hours   0	Sample Number		LH0267090	LH0258818	LH0272743	LH0272578
Oil Hours         0         0         0         0           Oil Changed	Sample Date		17 May 2024	15 Mar 2024	02 Jan 2024	27 Oct 2023
Changed   Cha	Machine Hours		8113	7579	6976	6481
Sample Status         NORMAL         SEVERE         NORMAL           Oil Condition           Confamination           Water         %         NEG         NEG         NEG         NEG           Sodium         ppm         O         0 <td>Oil Hours</td> <td></td> <td>0</td> <td>0</td> <td>0</td> <td>0</td>	Oil Hours		0	0	0	0
Sample Status	Oil Changed		Changed	Changed	Changed	Changed
Visc @ 40°C	-			_	-	-
Visc @ 40°C	<u> </u>					
Visc @ 40°C	Oilc	ondition				
Contamination   Water   %   NEG   NEG   NEG   NEG   Silicon   ppm   0   0   2   0   1   0   0   1   0   1   0   0   0				O 112	O 127	O 117
Water         %         NEG         NEG         NEG         NEG         NEG         NEG         Sed         NEG         Sed         NEG         1         A         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0	L	001	<b>O</b> 100	O =	0 .=/	<b>O</b>
Water         %         NEG         NEG         NEG         NEG         NEG         NEG         Sed         NEG         Sed         NEG         1         A         1         1         1         1         1         1         1         1         1         1         1         1         1         1         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0	Comb					
Silicon			T	NEO	NEO	NEO
Sodium   ppm   O   O   O   O   O   O   O						
Potassium   ppm   0   0   0   0   0   0   0   0   0					_	_
Wear Metals           Iron         ppm         9         11         639         7           Copper         ppm         0         6         78         0           Lead         ppm         0         <1						
Tron	Potassium	ppm	<b>0</b>	0 2	O <1	0
Copper         ppm         0         6         78         0           Lead         ppm         0         <1         <1         0           Tin         ppm         0         1         3         0           Aluminum         ppm         0         3         0         0           Aluminum         ppm         0         3         0         0           Chromium         ppm         <1         <1         0         0           Molybdenum         ppm         0         <1         0         0           Nickel         ppm         0         <1         0         0           Nickel         ppm         0         <1         0         0           Silver         ppm         0         <1         4         0           Vanadium         ppm         0         <1         4         0           Vanadium         ppm         57         71         26         58           Magnesium         ppm         1         5         3         2	wed					
Lead         ppm         0         <1			_		_	•
Tin ppm 0 1 3 0 0  Aluminum ppm 0 0 3 0 0 0  Chromium ppm 0 <1 0 4 0 0  Molybdenum ppm 0 2 0 <1 0 0 0  Nickel ppm 0 0 0 0 0  Titanium ppm 0 0 0 0 0 0  Silver ppm 0 0 0 0 0 0  Manganese ppm 0 <1 0 0  Vanadium ppm 0 <1 0 0  Additives  Calcium ppm 0 57 71 0 26 58  Magnesium ppm 1 0 5 0 3 0 2	• •		_	_	_	
Aluminum ppm 0 0 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				_	_	-
Chromium         ppm         <1         <1         4         0           Molybdenum         ppm         2         <1		ppm			-	_
Molybdenum         ppm         2         <1					<u> </u>	•
Nickel         ppm         0         <1         0         0           Titanium         ppm         <1		ppm		O <1	<b>4</b>	_
Titanium ppm < 1 <1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	•	ppm		O <1	0	_
Silver         ppm         0         0         0         0           Manganese         ppm         <1	Nickel	ppm	<b>0</b>	O <1	0	0
Manganese         ppm         <1	Titanium	ppm	<1	<1	0	
Vanadium         ppm         0         <1         0         0           Additives           Calcium         ppm         57         71         26         58           Magnesium         ppm         1         5         3         2	Silver	ppm	0	0	-	
Additives           Calcium         ppm         57         71         26         58           Magnesium         ppm         1         5         3         2	Manganese	ppm	<b>0</b> <1	O <1	<b>4</b>	0
Calcium         ppm         57         71         26         58           Magnesium         ppm         1         5         3         2	Vanadium	ppm	0	<1	0	0
Calcium         ppm         57         71         26         58           Magnesium         ppm         1         5         3         2						
Magnesium         ppm <b>1</b> ○ 5         ○ 3         ○ 2	Addi	itives				
Magnesium         ppm         ◯ 1         ⊙ 5         ⊙ 3         ○ 2	Calcium	ppm	<b>57</b>	O 71	O 26	O 58
					_	
	Zinc	ppm	<b>64</b>	O 58	O 45	O 38

909

754

 $\bigcirc$  <1

0 822



#### AMERICAN STATE EQUIPMENT CO.

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#### Diagnosis

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

Depot: LEC0008 Unique No: 11048108 Signed: Wes Davis Report Date: 28 May 2024

Contact/Location: CHRIS BARTNIK - LEC0008

**890** 

0

ppm

ppm

ppm

Phosphorus

Barium

Boron

# LIEBHERR







### **Graphs**

