CONSTRUCTION EQUIPMENT

LIEBHERR LH50M 138442 - Front Right Wheel Hub

Sample No: LH0274619

Oil Type: **GEAR OIL SAE 80W90**

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SAMP	LE INFOR	MATION				
Sample Number		LH0274619	LH0251842	LH0242642	LH0239588	
Sample Date		20 Aug 2023	23 Mar 2023	19 Oct 2022	03 Aug 2022	
Machine Hours		4196	2454	1200	492	
Oil Hours		0	0	0	0	
Oil Changed		Changed	N/A	Changed	Changed	
Sample Status		NORMAL	ABNORMAL	NORMAL	NORMAL	
OIL CONDITION						
Visc @ 40°C	cSt	105	88.2	O 115	133	
CONTAMINATION						
Silicon	ppm	22	O 121	18	O 13	
Sodium	ppm	1	0 8	6	O 2	
Potassium	ppm	() <1	O 2	O 2	O <1	

WEAL	R METALS				
PQ			○ 30	6	
Iron	ppm	13	480	450	○ 206
Copper	ppm	19	O 65	○ 38	1 9
Lead	ppm	0 <1	O 2	1	1
Tin	ppm	0	O 0	O 0	0
Aluminum	ppm	2	<u> </u>	4	O 2
Chromium	ppm	0	3	3	O 2
Molybdenum	ppm	0	O <1	O <1	<1
Nickel	ppm	() <1	O <1	O <1	O <1
Titanium	ppm	0	<1	<1	<1
Silver	ppm	0	0	0	0
Manganese	ppm	() <1	7	5	2
Vanadium	ppm	0	0	0	0

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ADDITIVES							
Calcium ppm	15	O 162	○ 33	25			
Magnesium ppm	2	O 4	O 2	1			
Zinc ppm	22	207	O 52	38			
Phosphorus ppm	1322	O 1237	O 1275	1110			
Barium ppm	0	0	0	0			
Boron ppm	336	O 124	48	4			



CMI - COMBINED METAL INDUSTRIES 505 GARY RAY DRIVE NORTH YORK, ON CA M9L 1P9 Contact: Greg Sacher gsacher@combinedmetal.com T: (416)642-7262

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Diagnosis

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. Viscosity of sample indicates oil is within SAE 75W90 range, advise investigate. The condition of the oil is acceptable for the time in service.

Depot: **COMWES Unique No:** 5630312 Signed: Kevin Marson Report Date: 22 Aug 2023





GRAPHS

