



188367 - Right Winch

Sample No: LH0296484

Oil Type: LIEBHERR GEAR BASIC 90 LS

Sample Info	ormation		
Sample Number	LH0296484	 	
Sample Date	21 Jun 2024	 	
Machine Hours	652	 	
Oil Hours	0	 	
Oil Changed	Changed	 	
Sample Status	NORMAL	 	
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Oil Condition

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Visc @ 40°C

Cont	aminati	on		
Water	%	0.005	 	
Silicon	ppm	0 4	 	
Sodium	ppm	3	 	
Potassium	ppm	○ <1	 	

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Were were	ar Metal	e		
Iron	ppm	0 40	 	
Copper	ppm	<mark></mark> <1	 	
Lead	ppm	0 🔘	 	
Tin	ppm	0	 	
Aluminum	ppm	○ <1	 	
Chromium	ppm	<mark></mark> <1	 	
Molybdenum	ppm	0 🔘	 	
Nickel	ppm	○ <1	 	
Titanium	ppm	0	 	
Silver	ppm	0	 	
Manganese	ppm	○ <1	 	
Vanadium	ppm	0	 	

0 **Additives** 52 Calcium ppm Magnesium 03 ppm Zinc 0 203 ppm Phosphorus ppm 775 03 Barium ppm Boron ppm 01

LIEBHERR CANADA LTD.

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Diagnosis

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. The fluid was specified as LIEBHERR GEAR BASIC 90 LS, however, a fluid match indicates that this fluid is SAE 90 Gear Oil. Please confirm the oil type and grade on your next sample.All component wear rates are normal. The water content is negligible. There is no indication of any contamination in the oil. The oil viscosity is higher than typical. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The condition of the oil is acceptable for the time in service.

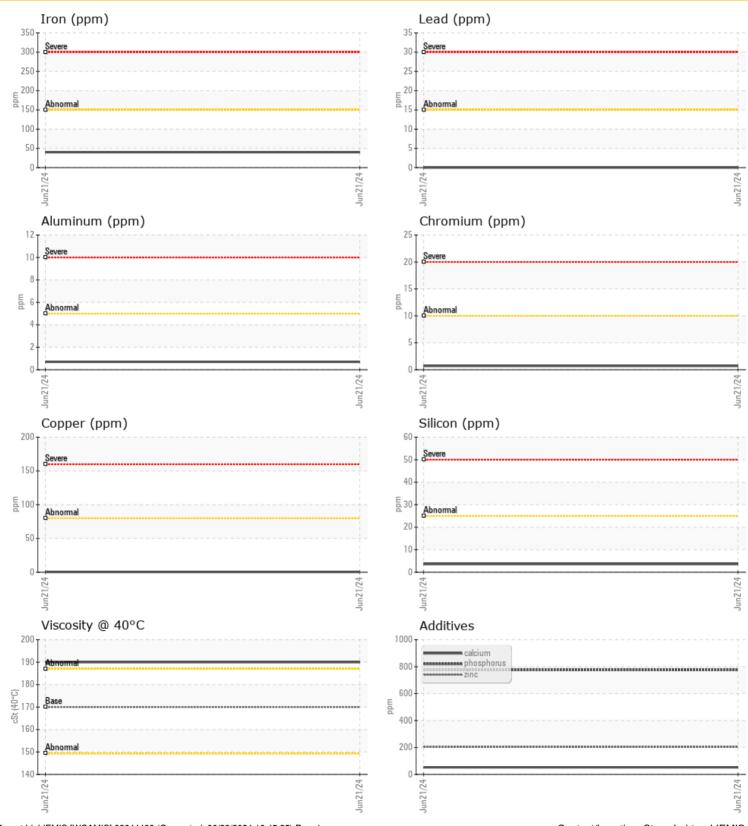
Depot: LIEMIS Unique No: 5801948 Signed: Kevin Marson **Report Date:** 28 Jun 2024 Contact/Location: Steve Lehto - LIEMIS





Graphs

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Contact/Location: Steve Lehto - LIEMIS