

LIEBHERR

CONSTRUCTION EQUIPMENT



188367 - Right Winch

Sample No: LH0296484

Oil Type: LIEBHERR GEAR BASIC 90 LS



Sample Information

Sample Number	LH0296484	---	---	---
Sample Date	21 Jun 2024	---	---	---
Machine Hours	652	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	NORMAL	---	---	---

LIEBHERR CANADA LTD.
 1015 SUTTON DRIVE
 BURLINGTON, ON
 CA L7L 5Z8
 Contact: Steve Lehto
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Oil Condition

Visc @ 40°C	cSt	190	---	---	---
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Contamination

Water	%	0.005	---	---	---
Silicon	ppm	4	---	---	---
Sodium	ppm	3	---	---	---
Potassium	ppm	<1	---	---	---



Wear Metals

Iron	ppm	40	---	---	---
Copper	ppm	<1	---	---	---
Lead	ppm	0	---	---	---
Tin	ppm	0	---	---	---
Aluminum	ppm	<1	---	---	---
Chromium	ppm	<1	---	---	---
Molybdenum	ppm	0	---	---	---
Nickel	ppm	<1	---	---	---
Titanium	ppm	0	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	<1	---	---	---
Vanadium	ppm	0	---	---	---



Additives

Calcium	ppm	52	---	---	---
Magnesium	ppm	3	---	---	---
Zinc	ppm	203	---	---	---
Phosphorus	ppm	775	---	---	---
Barium	ppm	3	---	---	---
Boron	ppm	1	---	---	---

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



Graphs

