

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR 40027 - Diesel Engine

Sample No: LH0178203

Oil Type: DIESEL ENGINE OIL SAE 30



#### Sample Information

Sample Number	LH0178203	LH0178224	LH0247110	LH0235013
Sample Date	07 Mar 2024	11 Oct 2023	14 Jun 2023	06 Dec 2022
Machine Hours	0	14240	13749	13130
Oil Hours	500	500	619	500
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	ATTENTION	NORMAL	NORMAL	NORMAL

**DOMINION NICKEL ALLOYS LTD.**

834 APPLEBY LINE  
BURLINGTON, ON  
CA L7L 2Y7

Contact: Trevor Taylor  
trevor@domnickel.com  
T: (905)639-9939  
F: (905)639-3788



#### Oil Condition

Visc @ 100°C	cSt	12.2	11.8	12.2	12.2
Oxidation (PA)	%	67	69	79	80



#### Contamination

Water	%	NEG	NEG	0.073	NEG
Soot %	%	1.8	1.3	2.6	2.2
Nitration (PA)	%	103	85	111	109
Sulfation (PA)	%	69	62	72	73
Glycol	%	0.0	0.0	0.0	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	12	11	10	9
Sodium	ppm	358	20	9	4
Potassium	ppm	6	0	<1	<1

#### Diagnosis

Check for low coolant level. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample. All component wear rates are normal. Water treatment chemicals present, indicating slow coolant leak. Test for glycol is negative. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service (see recommendation).



#### Wear Metals

Iron	ppm	29	23	42	36
Copper	ppm	4	6	7	11
Lead	ppm	0	2	3	2
Tin	ppm	<1	<1	1	1
Aluminum	ppm	10	9	12	11
Chromium	ppm	<1	<1	2	1
Molybdenum	ppm	28	68	71	62
Nickel	ppm	<1	0	<1	<1
Titanium	ppm	7	0	<1	<1
Silver	ppm	0	<1	<1	0
Manganese	ppm	<1	0	<1	<1
Vanadium	ppm	0	0	0	0



#### Additives

Calcium	ppm	1567	1771	1740	1775
Magnesium	ppm	596	443	442	463
Zinc	ppm	1175	1216	1191	1224
Phosphorus	ppm	1009	1025	1022	1075
Barium	ppm	<1	<1	<1	<1
Boron	ppm	41	48	33	25

Depot: DOMBUR  
Unique No: 5763621  
Signed: Kevin Marson  
Report Date: 23 Apr 2024



### Graphs

