

LIEBHERR

CONSTRUCTION EQUIPMENT



[EARTH BORING] LIEBHERR LB28 115607 - Diesel Engine

Sample No: LH0286846

Oil Type: PETRO CANADA 15W40



SAMPLE INFORMATION

Sample Number	LH0286846	LH0247349	LH0230900	LH
Sample Date	13 Mar 2024	14 Dec 2022	05 Jul 2022	22 Oct 2021
Machine Hours	9668	8263	7685	6721
Oil Hours	0	0	0	0
Oil Changed	Changed	N/A	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

Liebherr Canada

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 Richmond, BC
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OIL CONDITION

Visc @ 100°C	cSt	13.5	11.9	11.8	13.4
Oxidation (PA)	%	61	70	72	56



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0	0	0	0
Nitration (PA)	%	52	63	67	47
Sulfation (PA)	%	54	58	57	53
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	0.8	0.4	<1.0
Silicon	ppm	3	4	4	2
Sodium	ppm	1	4	4	1
Potassium	ppm	0	0	<1	<1

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. The condition of the oil is acceptable for the time in service.



WEAR METALS

Iron	ppm	4	4	4	2
Copper	ppm	2	<1	2	<1
Lead	ppm	<1	0	<1	<1
Tin	ppm	0	<1	<1	<1
Aluminum	ppm	2	1	1	1
Chromium	ppm	<1	<1	0	<1
Molybdenum	ppm	59	58	59	59
Nickel	ppm	<1	<1	0	0
Titanium	ppm	0	<1	<1	0
Silver	ppm	0	0	0	<1
Manganese	ppm	0	<1	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	1053	892	906	1029
Magnesium	ppm	988	1095	1150	994
Zinc	ppm	1151	1174	1283	1188
Phosphorus	ppm	1029	1073	1028	1045
Barium	ppm	0	0	0	0
Boron	ppm	8	40	33	6

Depot: LIERIC
 Unique No: 5747070
 Signed: Wes Davis
 Report Date: 14 Mar 2024



GRAPHS

