



# CONSTRUCTION EQUIPMENT

## VOLVO L120H 633400 - DIESEL ENGINE



**Sample No:** VCP437221  
**Oil Type:** VALVOLINE 15W40  
**Job No:**



### SAMPLE INFORMATION

Sample Number	VCP437221	VCP433781	VCP424470	---
Sample Date	20 Feb 2024	15 Dec 2023	19 Oct 2023	---
Machine Hours	2033	1533	1010	---
Oil Hours	0	0	0	---
Oil Changed	Changed	Changed	Changed	---
Sample Status	MARGINAL	NORMAL	ABNORMAL	---

**CITY CARTING**  
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### OIL CONDITION

Visc @ 100°C	cSt	▲ 11.8	■ 13.3	■ 12.9	---
Base Number (BN)	mg KOH/g	■ 6.0	■ 5.9	■ 7.6	---
Oxidation (PA)	%	44	37	77	---

### Diagnosis

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. Fuel content negligible. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

### CONTAMINATION

Water	%	NEG	NEG	NEG	---
Soot %	%	■ 0.2	■ 0.2	■ 0.7	---
Nitration (PA)	%	58	53	73	---
Sulfation (PA)	%	50	46	60	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	■ 0.3	<1.0	<1.0	---
Silicon	ppm	■ 11	■ 6	▲ 30	---
Sodium	ppm	■ 1	■ <1	■ 5	---
Potassium	ppm	■ 0	■ 2	■ 1	---

### WEAR METALS

Iron	ppm	■ 11	■ 12	■ 48	---
Copper	ppm	■ 12	■ <1	▲ 50	---
Lead	ppm	■ 0	■ 0	■ 3	---
Tin	ppm	■ 1	■ <1	■ 4	---
Aluminum	ppm	■ 6	■ 3	▲ 65	---
Chromium	ppm	■ <1	■ <1	■ 5	---
Molybdenum	ppm	■ 25	■ 28	■ 46	---
Nickel	ppm	■ 0	■ 0	■ 0	---
Titanium	ppm	■ 0	■ 0	<1	---
Silver	ppm	■ 0	■ 0	■ 1	---
Manganese	ppm	■ <1	■ <1	■ 3	---
Vanadium	ppm	0	0	0	---

### ADDITIVES

Calcium	ppm	■ 1769	■ 2021	■ 1430	---
Magnesium	ppm	■ 120	116	■ 492	---
Zinc	ppm	■ 844	■ 978	■ 1047	---
Phosphorus	ppm	■ 753	■ 768	■ 969	---
Barium	ppm	■ <1	■ 0	34	---
Boron	ppm	■ 9	■ 15	■ 28	---

**Depot:** CITMILCON  
**Unique No:** 10896444  
**Signed:** Jonathan Hester  
**Report Date:** 28 Feb 2024



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## GRAPHS

