



# CONSTRUCTION EQUIPMENT

## VOLVO L110H 63272 - DIESEL ENGINE



**Sample No:** VCP414668  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:**



### SAMPLE INFORMATION

Sample Number	<b>VCP414668</b>	VCP394460	VCP386606	VCP364340
Sample Date	<b>11 Sep 2023</b>	07 Mar 2023	30 Nov 2022	31 Aug 2022
Machine Hours	<b>2619</b>	1775	1193	744
Oil Hours	<b>0</b>	500	500	500
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	ABNORMAL	ABNORMAL

**RIPA AND ASSOCIATES**  
 10149 FISHER AVENUE  
 TAMPA, FL  
 US 33619  
 Contact: PM Services  
 PMServices@ripaconstruction.com  
 T:  
 F:

### OIL CONDITION

Visc @ 100°C	cSt	<b>12.4</b>	12.7	13.0	12.6
Base Number (BN)	mg KOH/g	<b>10.1</b>	10.0	11.1	11.3
Oxidation (PA)	%	<b>79</b>	82	85	82

### CONTAMINATION

Soot %	%	<b>0.2</b>	0.2	0.2	0.2
Nitration (PA)	%	<b>63</b>	62	63	72
Sulfation (PA)	%	<b>59</b>	62	66	64
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>5</b>	4	7	18
Sodium	ppm	<b>3</b>	0	1	3
Potassium	ppm	<b>1</b>	2	2	3

### 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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

### WEAR METALS

Iron	ppm	<b>9</b>	12	14	34
Copper	ppm	<b>&lt;1</b>	3	4	13
Lead	ppm	<b>&lt;1</b>	<1	<1	3
Tin	ppm	<b>&lt;1</b>	1	1	2
Aluminum	ppm	<b>4</b>	7	▲ 18	▲ 103
Chromium	ppm	<b>&lt;1</b>	<1	2	6
Molybdenum	ppm	<b>49</b>	92	41	36
Nickel	ppm	<b>0</b>	<1	0	0
Titanium	ppm	<b>0</b>	<1	0	<1
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>&lt;1</b>	<1	<1	3
Vanadium	ppm	<b>&lt;1</b>	<1	0	0

### ADDITIVES

Calcium	ppm	<b>1829</b>	1699	1678	1505
Magnesium	ppm	<b>557</b>	497	523	583
Zinc	ppm	<b>1210</b>	1134	1117	1119
Phosphorus	ppm	<b>979</b>	921	929	952
Barium	ppm	<b>0</b>	3	2	6
Boron	ppm	<b>29</b>	41	38	37

**Depot:** RIPTAM  
**Unique No:** 10675076  
**Signed:** Wes Davis  
**Report Date:** 04 Oct 2023



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## GRAPHS

