



# CONSTRUCTION EQUIPMENT

## 23988 VOLVO L90H 625862 - DIESEL ENGINE



**Sample No:** VCP424654  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** 23988



### SAMPLE INFORMATION

Sample Number	<b>VCP424654</b>	VCP393706	VCP364958	VCP346194
Sample Date	<b>05 Sep 2023</b>	01 Jun 2023	04 Jan 2023	21 Feb 2022
Machine Hours	<b>2626</b>	2230	1603	615
Oil Hours	<b>1000</b>	1000	1000	0
Oil Changed	<b>Changed</b>	Changed	Changed	N/A
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL



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### OIL CONDITION

Visc @ 100°C	cSt	<b>13.4</b>	14.1	13.8	12.8
Base Number (BN)	mg KOH/g	<b>9.8</b>	9.4	8.6	10.3
Oxidation (PA)	%	<b>82</b>	96	86	79



### CONTAMINATION

Soot %	%	<b>0.7</b>	0.8	0.9	0.3
Nitration (PA)	%	<b>71</b>	83	91	69
Sulfation (PA)	%	<b>63</b>	66	64	63
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>7</b>	8	11	13
Sodium	ppm	<b>3</b>	2	3	4
Potassium	ppm	<b>4</b>	2	<1	3



### WEAR METALS

Iron	ppm	<b>20</b>	31	58	47
Copper	ppm	<b>1</b>	2	9	6
Lead	ppm	<b>1</b>	<1	2	2
Tin	ppm	<b>2</b>	2	3	2
Aluminum	ppm	<b>9</b>	15	26	70
Chromium	ppm	<b>2</b>	3	6	11
Molybdenum	ppm	<b>43</b>	46	57	39
Nickel	ppm	<b>&lt;1</b>	1	<1	<1
Titanium	ppm	<b>&lt;1</b>	0	<1	<1
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>1</b>	1	2	4
Vanadium	ppm	<b>&lt;1</b>	<1	<1	0



### ADDITIVES

Calcium	ppm	<b>2025</b>	1900	1792	1854
Magnesium	ppm	<b>557</b>	590	523	554
Zinc	ppm	<b>1235</b>	1333	1293	1243
Phosphorus	ppm	<b>1009</b>	1057	984	1066
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>23</b>	25	60	63

### 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.

**Depot:** VOLVO3387  
**Unique No:** 10647851  
**Signed:** Wes Davis  
**Report Date:** 18 Sep 2023



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## GRAPHS

