



# CONSTRUCTION EQUIPMENT

## SW-34353-2 DYNAMIC VOLVO EC220E 314480 - DIESEL ENGINE



**Sample No:** VCP391255  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** SW-34353-2 DYNAMIC



### SAMPLE INFORMATION

Sample Number	<b>VCP391255</b>	VCP397855	VCP396295	---
Sample Date	<b>15 May 2024</b>	12 May 2023	01 Dec 2022	---
Machine Hours	<b>2179</b>	1477	919	---
Oil Hours	<b>702</b>	500	600	---
Oil Changed	<b>Changed</b>	Changed	Changed	---
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	---

**ARNOLD MACHINERY COMPANY**  
 2975 WEST 2100 SOUTH  
 SALT LAKE CITY, UT  
 US 84119  
 Contact: TONY PAYAN  
 tpayan@arnoldmachinery.com  
 T: (801)972-4000  
 F: (801)975-9434



### OIL CONDITION

Visc @ 100°C	cSt	<b>13.1</b>	13.5	13.2	---
Base Number (BN)	mg KOH/g	<b>8.3</b>	9.5	9.1	---
Oxidation (PA)	%	<b>69</b>	66	65	---

### 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.



### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	---
Soot %	%	<b>0.3</b>	0.2	0.2	---
Nitration (PA)	%	<b>77</b>	68	76	---
Sulfation (PA)	%	<b>58</b>	56	57	---
Glycol	%	<b>NEG</b>	NEG	NEG	---
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	---
Silicon	ppm	<b>8</b>	6	8	---
Sodium	ppm	<b>2</b>	2	<1	---
Potassium	ppm	<b>3</b>	0	1	---



### WEAR METALS

Iron	ppm	<b>25</b>	17	19	---
Copper	ppm	<b>3</b>	2	3	---
Lead	ppm	<b>&lt;1</b>	<1	<1	---
Tin	ppm	<b>2</b>	1	2	---
Aluminum	ppm	<b>6</b>	5	3	---
Chromium	ppm	<b>2</b>	2	1	---
Molybdenum	ppm	<b>66</b>	67	59	---
Nickel	ppm	<b>&lt;1</b>	1	<1	---
Titanium	ppm	<b>&lt;1</b>	<1	0	---
Silver	ppm	<b>&lt;1</b>	<1	0	---
Manganese	ppm	<b>&lt;1</b>	<1	<1	---
Vanadium	ppm	<b>&lt;1</b>	0	0	---



### ADDITIVES

Calcium	ppm	<b>1203</b>	1283	1435	---
Magnesium	ppm	<b>1012</b>	1025	817	---
Zinc	ppm	<b>1338</b>	1330	1303	---
Phosphorus	ppm	<b>1070</b>	1089	1076	---
Barium	ppm	<b>0</b>	0	0	---
Boron	ppm	<b>10</b>	10	4	---

**Depot:** VOLVO8770  
**Unique No:** 11045504  
**Signed:** Sean Felton  
**Report Date:** 28 May 2024



# CONSTRUCTION EQUIPMENT



## GRAPHS

