



# CONSTRUCTION EQUIPMENT

## SW-20704-2 CASTLE VA VOLVO A40G 340313 - DIESEL ENGINE



**Sample No:** VCP419291  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** SW-20704-2 CASTLE VA



### SAMPLE INFORMATION

Sample Number	<b>VCP419291</b>	VCP406296	VCP357492	VCP353874
Sample Date	<b>26 Jun 2023</b>	19 Apr 2023	19 Oct 2022	17 Aug 2022
Machine Hours	<b>16501</b>	16023	15182	14694
Oil Hours	<b>500</b>	580	488	500
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	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>12.7</b>	12.1	12.8	12.9
Base Number (BN)	mg KOH/g	<b>9.8</b>	8.5	11.2	11.0
Oxidation (PA)	%	<b>61</b>	72	61	69

### 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

Soot %	%	<b>0.2</b>	0.3	0.1	0.1
Nitration (PA)	%	<b>53</b>	53	61	58
Sulfation (PA)	%	<b>54</b>	57	55	58
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	0.3	<1.0	<1.0
Silicon	ppm	<b>3</b>	7	3	2
Sodium	ppm	<b>1</b>	3	<1	0
Potassium	ppm	<b>1</b>	0	0	1



### WEAR METALS

Iron	ppm	<b>5</b>	13	3	4
Copper	ppm	<b>1</b>	2	0	<1
Lead	ppm	<b>0</b>	0	0	<1
Tin	ppm	<b>&lt;1</b>	0	0	<1
Aluminum	ppm	<b>1</b>	2	0	1
Chromium	ppm	<b>&lt;1</b>	0	<1	0
Molybdenum	ppm	<b>64</b>	50	56	56
Nickel	ppm	<b>0</b>	0	0	0
Titanium	ppm	<b>0</b>	0	0	0
Silver	ppm	<b>0</b>	0	0	<1
Manganese	ppm	<b>&lt;1</b>	<1	<1	<1
Vanadium	ppm	<b>0</b>	0	<1	0



### ADDITIVES

Calcium	ppm	<b>1195</b>	1422	1196	1203
Magnesium	ppm	<b>950</b>	560	905	761
Zinc	ppm	<b>1325</b>	1133	1227	1175
Phosphorus	ppm	<b>1068</b>	905	964	1004
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>24</b>	90	3	18

**Depot:** VOLVO8770  
**Unique No:** 10539082  
**Signed:** Doug Bogart  
**Report Date:** 07 Jul 2023



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## VOLVO GRAPHS

