

# OIL ANALYSIS REPORT

# VOLVO PENTA

## 15244 VOLVO PENTA 2006021367 - STARBOARD DIESEL ENGINE

**Sample No:** VPA057185  
**Oil Type:** VOLVO PENTA SAE 15W40

### SAMPLE INFORMATION

Sample Number	<b>VPA057185</b>	VPA059110	VPA047927	VPA037646
Sample Date	<b>28 Mar 2024</b>	30 Nov 2023	09 Nov 2022	21 Apr 2021
Machine Hours	<b>1122</b>	1110	1111	1005
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Not Changd</b>	N/A	N/A	Not Changd
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

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### OIL CONDITION

Visc @ 100°C	cSt	<b>14.2</b>	13.5	13.8	14.6
Base Number (BN)	mg KOH/g	<b>9.6</b>	9.0	10.7	---
Oxidation (PA)	%	<b>61</b>	63	67	73

### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0</b>	0.1	0.1	0
Nitration (PA)	%	<b>48</b>	47	60	48
Sulfation (PA)	%	<b>53</b>	55	59	62
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	3	3
Sodium	ppm	<b>1</b>	0	0	2
Potassium	ppm	<b>2</b>	7	2	10

### WEAR METALS

Iron	ppm	<b>1</b>	4	7	3
Copper	ppm	<b>0</b>	1	2	1
Lead	ppm	<b>0</b>	0	<1	2
Tin	ppm	<b>&lt;1</b>	0	<1	<1
Aluminum	ppm	<b>2</b>	2	1	<1
Chromium	ppm	<b>&lt;1</b>	0	0	<1
Molybdenum	ppm	<b>38</b>	22	54	1
Nickel	ppm	<b>&lt;1</b>	0	0	1
Titanium	ppm	<b>0</b>	<1	0	<1
Silver	ppm	<b>0</b>	0	<1	<1
Manganese	ppm	<b>0</b>	0	<1	<1
Vanadium	ppm	<b>0</b>	0	0	<1

### ADDITIVES

Calcium	ppm	<b>1459</b>	1908	1231	2176
Magnesium	ppm	<b>502</b>	323	788	25
Zinc	ppm	<b>1179</b>	1216	1262	1205
Phosphorus	ppm	<b>988</b>	1057	1048	1005
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>64</b>	143	20	199

### Diagnosis

No corrective action is recommended at this time. 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 acceptable for the time in service.

**Depot:** VP151520  
**Unique No:** 10952477  
**Signed:** Doug Bogart  
**Report Date:** 31 Mar 2024

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**VOLVO  
PENTA**

## GRAPHS

