

# OIL ANALYSIS REPORT



## MATTHEW SHARPE SAM VOLVO PENTA A874342 - STARBOARD DIESEL ENGINE

Sample No: VPA059272  
 Oil Type: VOLVO PENTA SAE 15W40

### SAMPLE INFORMATION

Sample Number	VPA059272	VPA044980	VPA037845	---
Sample Date	20 Mar 2024	20 Jan 2023	19 Nov 2021	---
Machine Hours	442	397	334	---
Oil Hours	45	0	0	---
Oil Changed	Changed	Not Changd	Changed	---
Sample Status	NORMAL	NORMAL	NORMAL	---

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### OIL CONDITION

Visc @ 100°C	cSt	█ 13.1	█ 13.7	█ 13.6	---
Base Number (BN)	mg KOH/g	█ 10.1	█ 10.3	---	---
Oxidation (PA)	%	55	53	50	---

### CONTAMINATION

Water	%	NEG	NEG	NEG	---
Soot %	%	█ 0.1	█ 0.2	█ 0.2	---
Nitration (PA)	%	41	46	63	---
Sulfation (PA)	%	50	51	50	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	<1.0	---
Silicon	ppm	█ 4	█ 6	█ 4	---
Sodium	ppm	█ 0	█ 0	█ 5	---
Potassium	ppm	█ 0	█ 1	█ 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 acceptable for the time in service.

### WEAR METALS

Iron	ppm	█ 4	█ 9	█ 9	---
Copper	ppm	█ <1	█ 2	█ 5	---
Lead	ppm	█ 0	█ 2	█ <1	---
Tin	ppm	█ 0	█ <1	█ <1	---
Aluminum	ppm	█ <1	█ 2	█ 2	---
Chromium	ppm	█ 0	█ <1	█ <1	---
Molybdenum	ppm	█ 58	█ 54	█ 13	---
Nickel	ppm	█ 0	█ <1	█ <1	---
Titanium	ppm	█ 0	█ 0	█ <1	---
Silver	ppm	█ 0	█ 0	█ 3	---
Manganese	ppm	█ 0	█ <1	█ <1	---
Vanadium	ppm	0	0	0	---

### ADDITIVES

Calcium	ppm	█ 1129	█ 1194	█ 1453	---
Magnesium	ppm	1031	█ 942	█ 676	---
Zinc	ppm	█ 1302	█ 1298	█ 784	---
Phosphorus	ppm	█ 1112	█ 1027	█ 744	---
Barium	ppm	█ 0	█ 0	█ 0	---
Boron	ppm	█ 1	█ 14	█ 95	---

Depot: VP794951  
 Unique No: 10941504  
 Signed: Don Baldrige  
 Report Date: 27 Mar 2024

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# VOLVO PENTA

## GRAPHS

