

# OIL ANALYSIS REPORT

# VOLVO PENTA

## 70112037590 - STARBOARD DIESEL ENGINE

Sample No: VPA056365

Oil Type: VOLVO

### SAMPLE INFORMATION

Sample Number	VPA056365	---	---	---
Sample Date	27 Nov 2023	---	---	---
Machine Hours	135	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Not Changd	---	---	---
Sample Status	ATTENTION	---	---	---

### OIL CONDITION

Visc @ 100°C	cSt	█ 10.9	---	---	---
Base Number (BN)	mg KOH/g	█ 7.5	---	---	---
Oxidation (PA)	%	61	---	---	---

### CONTAMINATION

Water	%	NEG	---	---	---
Soot %	%	█ 0.3	---	---	---
Nitration (PA)	%	68	---	---	---
Sulfation (PA)	%	52	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	< 1.0	---	---	---
Silicon	ppm	▲ 45	---	---	---
Sodium	ppm	█ 2	---	---	---
Potassium	ppm	█ 5	---	---	---

### WEAR METALS

Iron	ppm	█ 14	---	---	---
Copper	ppm	█ 131	---	---	---
Lead	ppm	█ 2	---	---	---
Tin	ppm	█ 2	---	---	---
Aluminum	ppm	█ 2	---	---	---
Chromium	ppm	█ 2	---	---	---
Molybdenum	ppm	█ 75	---	---	---
Nickel	ppm	█ 1	---	---	---
Titanium	ppm	█ <1	---	---	---
Silver	ppm	█ <1	---	---	---
Manganese	ppm	2	---	---	---
Vanadium	ppm	0	---	---	---

### ADDITIVES

Calcium	ppm	█ 2038	---	---	---
Magnesium	ppm	█ 109	---	---	---
Zinc	ppm	█ 1053	---	---	---
Phosphorus	ppm	█ 889	---	---	---
Barium	ppm	█ 2	---	---	---
Boron	ppm	█ 62	---	---	---

**ADVANCED YACHT SUPPORT**  
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### Diagnosis

No corrective action is recommended at this time. Resample at the next service interval to monitor. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). Metal levels are typical for a new component breaking in. Elemental level of silicon (Si) above normal indicating ingress of seal (break-in) material. The BN result indicates that there is suitable alkalinity remaining in the oil. Assuming 30W break-in oil, the condition of the oil is acceptable for the time in service.

**Depot:** VPADVEAS  
**Unique No:** 10764040  
**Signed:** Doug Bogart  
**Report Date:** 29 Nov 2023

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## GRAPHS

