

# OIL ANALYSIS REPORT

# VOLVO PENTA

## DANIEL LOEB DANIEL LOEB (S/N NOT GIVEN) - STARBOARD DIESEL ENGINE

Sample No: VPA036743

Oil Type: SHELL ROTELLA T 15W40

### SAMPLE INFORMATION

Sample Number	VPA036743	---	---	---
Sample Date	15 Jan 2024	---	---	---
Machine Hours	113	---	---	---
Oil Hours	113	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	ATTENTION	---	---	---

#### Larry's Lighthouse Marina

1250

AQUEBOGUE, NY

US 11931

Contact: MAX FUHLBRUGGE

info@lighthousemarina.com

T: x:

F: x:

### OIL CONDITION

Visc @ 100°C	cSt	▲ 11.3	---	---	---
Base Number (BN)	mg KOH/g	■ 7.5	---	---	---
Oxidation (PA)	%	52	---	---	---

### CONTAMINATION

Water	%	NEG	---	---	---
Soot %	%	■ 0.6	---	---	---
Nitration (PA)	%	72	---	---	---
Sulfation (PA)	%	52	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	■ 1.8	---	---	---
Silicon	ppm	▲ 44	---	---	---
Sodium	ppm	■ 4	---	---	---
Potassium	ppm	■ 5	---	---	---

### Diagnosis

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. Fuel content negligible. Elemental level of silicon (Si) above normal indicating ingress of seal material. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

### WEAR METALS

Iron	ppm	■ 23	---	---	---
Copper	ppm	■ 34	---	---	---
Lead	ppm	■ 3	---	---	---
Tin	ppm	■ 2	---	---	---
Aluminum	ppm	■ 3	---	---	---
Chromium	ppm	■ <1	---	---	---
Molybdenum	ppm	■ 77	---	---	---
Nickel	ppm	■ <1	---	---	---
Titanium	ppm	■ 0	---	---	---
Silver	ppm	■ 0	---	---	---
Manganese	ppm	■ 1	---	---	---
Vanadium	ppm	<1	---	---	---

### ADDITIVES

Calcium	ppm	■ 2253	---	---	---
Magnesium	ppm	■ 31	---	---	---
Zinc	ppm	■ 1180	---	---	---
Phosphorus	ppm	■ 1011	---	---	---
Barium	ppm	■ 0	---	---	---
Boron	ppm	■ 84	---	---	---

Depot: VP610438

Unique No: 10843043

Signed: Don Baldrige

Report Date: 25 Jan 2024

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## GRAPHS

