

OIL ANALYSIS REPORT

**VOLVO
PENTA**

MOE KRABBE PATRICK/501434-5250 VOLVO PENTA A769078 - STARBOARD DIESEL ENGINE

Sample No: VPA045931

Oil Type: VOLVO VDS-4.5 Premium Motor Oil 15W40

SAMPLE INFORMATION

Sample Number	VPA045931	---	---	---
Sample Date	30 Jun 2023	---	---	---
Machine Hours	342	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	NORMAL	---	---	---

Endor Marine LLC - Coastal Marine - 152124
4300 11th Ave. NW
SEATTLE, WA
US 98107
Contact: WILLOW YANARELLA
service@coastalmarineengine.com
T: (206)784-3703
F: (206)784-8823

OIL CONDITION

Visc @ 100°C	cSt	█ 13.5	---	---	---
Base Number (BN)	mg KOH/g	█ 9.9	---	---	---
Oxidation (PA)	%	54	---	---	---

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 %	%	█ 0.1	---	---	---
Nitration (PA)	%	46	---	---	---
Sulfation (PA)	%	50	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	< 1.0	---	---	---
Silicon	ppm	█ 6	---	---	---
Sodium	ppm	█ 2	---	---	---
Potassium	ppm	█ 0	---	---	---

WEAR METALS

Iron	ppm	█ 9	---	---	---
Copper	ppm	█ 2	---	---	---
Lead	ppm	█ < 1	---	---	---
Tin	ppm	█ < 1	---	---	---
Aluminum	ppm	█ 3	---	---	---
Chromium	ppm	█ < 1	---	---	---
Molybdenum	ppm	█ 60	---	---	---
Nickel	ppm	█ < 1	---	---	---
Titanium	ppm	█ < 1	---	---	---
Silver	ppm	█ 0	---	---	---
Manganese	ppm	█ < 1	---	---	---
Vanadium	ppm	< 1	---	---	---

ADDITIVES

Calcium	ppm	█ 1173	---	---	---
Magnesium	ppm	1055	---	---	---
Zinc	ppm	█ 1298	---	---	---
Phosphorus	ppm	█ 1076	---	---	---
Barium	ppm	█ 0	---	---	---
Boron	ppm	█ 4	---	---	---

Depot: VP794951
Unique No: 10563365
Signed: Jonathan Hester
Report Date: 20 Jul 2023

OIL ANALYSIS REPORT

VOLVO PENTA

GRAPHS

