

OIL ANALYSIS REPORT



EVAN LIN DANIEL/502923 VOLVO PENTA A1085685 - STARBOARD DIESEL ENGINE

Sample No: VPA053012
Oil Type: VOLVO PENTA SAE 15W40

SAMPLE INFORMATION

Sample Number	VPA053012	VPA045676	VPA035142	---
Sample Date	17 Apr 2024	24 May 2023	13 Jan 2022	---
Machine Hours	287	249	185	---
Oil Hours	0	0	185	---
Oil Changed	Changed	Changed	Not Changd	---
Sample Status	NORMAL	NORMAL	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	13.3	13.3	13.15	---
Base Number (BN)	mg KOH/g	9.4	10.7	11.6	---
Oxidation (PA)	%	69	57	82	---

CONTAMINATION

Water	%	NEG	NEG	NEG	---
Soot %	%	0.1	0.1	0.6	---
Nitration (PA)	%	39	40	56	---
Sulfation (PA)	%	57	54	66	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	<1.0	---
Silicon	ppm	6	7	24	---
Sodium	ppm	0	2	4	---
Potassium	ppm	2	<1	3	---

Diagnosis

Resample at the next service interval to monitor. Metal levels are typical for a new component breaking in. 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.

WEAR METALS

Iron	ppm	3	10	28	---
Copper	ppm	2	4	19	---
Lead	ppm	<1	2	7	---
Tin	ppm	<1	<1	4	---
Aluminum	ppm	2	3	6	---
Chromium	ppm	<1	<1	2	---
Molybdenum	ppm	48	58	42	---
Nickel	ppm	<1	1	4	---
Titanium	ppm	<1	<1	<1	---
Silver	ppm	0	<1	<1	---
Manganese	ppm	<1	<1	1	---
Vanadium	ppm	<1	<1	<1	---

ADDITIVES

Calcium	ppm	1391	1099	1657	---
Magnesium	ppm	630	958	559	---
Zinc	ppm	979	1256	1201	---
Phosphorus	ppm	887	1038	978	---
Barium	ppm	2	0	0	---
Boron	ppm	50	4	47	---

Depot: VP794951
Unique No: 11022480
Signed: Sean Felton
Report Date: 14 May 2024

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**VOLVO
PENTA**

GRAPHS

