

OIL ANALYSIS REPORT



PATRICK WELCH DILLON VOLVO PENTA A706258 - PORT DIESEL ENGINE

Sample No: VPA053008
Oil Type: VOLVO PENTA SAE 15W40

SAMPLE INFORMATION

Sample Number	VPA053008	VPA048506	VPA045533	---
Sample Date	17 Apr 2024	23 Aug 2023	28 Mar 2023	---
Machine Hours	373	356	329	---
Oil Hours	0	29	0	---
Oil Changed	Changed	Not Changd	N/A	---
Sample Status	NORMAL	NORMAL	ABNORMAL	---

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	13.6	13.6	---
Base Number (BN)	mg KOH/g	9.8	9.6	9.9	---
Oxidation (PA)	%	61	67	61	---

CONTAMINATION

Water	%	NEG	NEG	NEG	---
Soot %	%	0.3	0.3	0.5	---
Nitration (PA)	%	59	54	64	---
Sulfation (PA)	%	55	57	57	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	<1.0	---
Silicon	ppm	11	9	17	---
Sodium	ppm	5	8	10	---
Potassium	ppm	1	3	5	---

Diagnosis

No corrective action is recommended at this time. 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 acceptable for the time in service.

WEAR METALS

Iron	ppm	97	90	▲ 148	---
Copper	ppm	17	16	26	---
Lead	ppm	2	2	6	---
Tin	ppm	<1	<1	2	---
Aluminum	ppm	37	29	▲ 109	---
Chromium	ppm	7	6	▲ 11	---
Molybdenum	ppm	59	55	63	---
Nickel	ppm	2	2	3	---
Titanium	ppm	<1	<1	1	---
Silver	ppm	0	0	<1	---
Manganese	ppm	1	<1	2	---
Vanadium	ppm	<1	<1	0	---

ADDITIVES

Calcium	ppm	1094	1502	1176	---
Magnesium	ppm	940	881	1043	---
Zinc	ppm	1169	1249	1343	---
Phosphorus	ppm	994	1014	1100	---
Barium	ppm	0	0	0	---
Boron	ppm	2	25	<1	---

Depot: VP794951
Unique No: 10990936
Signed: Sean Felton
Report Date: 24 Apr 2024

OIL ANALYSIS REPORT

**VOLVO
PENTA**

GRAPHS

