

OIL ANALYSIS REPORT

VOLVO PENTA

DOUGLAS BLISS VOLVO PENTA A722498 - CENTER DIESEL ENGINE

Sample No: VPA052319

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

SAMPLE INFORMATION

Sample Number	VPA052319	---	---	---
Sample Date	28 Jun 2024	---	---	---
Machine Hours	1355	---	---	---
Oil Hours	1355	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	ATTENTION	---	---	---

Helmut's Marine Service

619 Canal Street
SAN RAFAEL, CA
US 94901-3545
Contact: NADINE URUIOLI
SERVICE@HELMUTSMARINE.COM

T: x:

F: x:

OIL CONDITION

Visc @ 100°C	cSt	█ 13.3	---	---	---
Base Number (BN)	mg KOH/g	█ 9.6	---	---	---
Oxidation (PA)	%	58	---	---	---

CONTAMINATION

Water	%	NEG	---	---	---
Soot %	%	█ 0.6	---	---	---
Nitration (PA)	%	58	---	---	---
Sulfation (PA)	%	55	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	<1.0	---	---	---
Silicon	ppm	█ 6	---	---	---
Sodium	ppm	█ 5	---	---	---
Potassium	ppm	█ <1	---	---	---

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. The aluminum level is abnormal. The nickel level is abnormal. 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	█ 62	---	---	---
Copper	ppm	█ 7	---	---	---
Lead	ppm	█ 0	---	---	---
Tin	ppm	█ <1	---	---	---
Aluminum	ppm	● 21	---	---	---
Chromium	ppm	█ 4	---	---	---
Molybdenum	ppm	█ 60	---	---	---
Nickel	ppm	● 9	---	---	---
Titanium	ppm	█ <1	---	---	---
Silver	ppm	█ 0	---	---	---
Manganese	ppm	█ 1	---	---	---
Vanadium	ppm	0	---	---	---

ADDITIVES

Calcium	ppm	█ 1081	---	---	---
Magnesium	ppm	█ 993	---	---	---
Zinc	ppm	█ 1301	---	---	---
Phosphorus	ppm	█ 1095	---	---	---
Barium	ppm	█ 0	---	---	---
Boron	ppm	█ 4	---	---	---

Depot: VP152741

Unique No: 11110627

Signed: Don Baldrige

Report Date: 05 Jul 2024

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GRAPHS

