

OIL ANALYSIS REPORT

VOLVO PENTA

NADINE URCIUOLI DEAN WAVEREN VOLVO PENTA 2004001665 - CENTER DIESEL ENGINE

Sample No: VPA055337

Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3

SAMPLE INFORMATION

Sample Number	VPA055337	---	---	---
Sample Date	11 Dec 2023	---	---	---
Machine Hours	1486	---	---	---
Oil Hours	1486	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	ABNORMAL	---	---	---

OIL CONDITION

Visc @ 100°C	cSt	█ 13.5	---	---	---
Base Number (BN)	mg KOH/g	█ 9.1	---	---	---
Oxidation (PA)	%	71	---	---	---

CONTAMINATION

Water	%	NEG	---	---	---
Soot %	%	█ 0.1	---	---	---
Nitration (PA)	%	80	---	---	---
Sulfation (PA)	%	58	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	<1.0	---	---	---
Silicon	ppm	█ 18	---	---	---
Sodium	ppm	█ 2	---	---	---
Potassium	ppm	█ 1	---	---	---

WEAR METALS

Iron	ppm	█ 44	---	---	---
Copper	ppm	█ 16	---	---	---
Lead	ppm	█ 10	---	---	---
Tin	ppm	█ 1	---	---	---
Aluminum	ppm	▲ 94	---	---	---
Chromium	ppm	█ 6	---	---	---
Molybdenum	ppm	█ 48	---	---	---
Nickel	ppm	█ 1	---	---	---
Titanium	ppm	█ 0	---	---	---
Silver	ppm	█ 0	---	---	---
Manganese	ppm	█ <1	---	---	---
Vanadium	ppm	0	---	---	---

ADDITIVES

Calcium	ppm	█ 1087	---	---	---
Magnesium	ppm	█ 942	---	---	---
Zinc	ppm	█ 1231	---	---	---
Phosphorus	ppm	█ 957	---	---	---
Barium	ppm	█ 0	---	---	---
Boron	ppm	█ 29	---	---	---

Helmut's Marine Service

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T: x:
F: x:

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. All other 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 acceptable for the time in service.

Depot: VP152741
Unique No: 10792795
Signed: Doug Bogart
Report Date: 20 Dec 2023

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GRAPHS

