

OIL ANALYSIS REPORT

VOLVO PENTA

NADINE URUIOLI KALLSEN-2300563 VOLVO PENTA 7008494609 - STARBOARD DIESEL ENGINE

Sample No: VPA055951

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

SAMPLE INFORMATION

Sample Number	VPA055951	---	---	---
Sample Date	15 Nov 2023	---	---	---
Machine Hours	457	---	---	---
Oil Hours	457	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	ABNORMAL	---	---	---

OIL CONDITION

Visc @ 100°C	cSt	█ 13.6	---	---	---
Base Number (BN)	mg KOH/g	█ 10.2	---	---	---
Oxidation (PA)	%	55	---	---	---

CONTAMINATION

Water	%	NEG	---	---	---
Soot %	%	█ 0.2	---	---	---
Nitration (PA)	%	42	---	---	---
Sulfation (PA)	%	52	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	<1.0	---	---	---
Silicon	ppm	█ 11	---	---	---
Sodium	ppm	█ 5	---	---	---
Potassium	ppm	█ 1	---	---	---

WEAR METALS

Iron	ppm	█ 25	---	---	---
Copper	ppm	█ 10	---	---	---
Lead	ppm	█ <1	---	---	---
Tin	ppm	█ 0	---	---	---
Aluminum	ppm	▲ 49	---	---	---
Chromium	ppm	█ 1	---	---	---
Molybdenum	ppm	█ 62	---	---	---
Nickel	ppm	█ 1	---	---	---
Titanium	ppm	█ 0	---	---	---
Silver	ppm	█ 0	---	---	---
Manganese	ppm	█ <1	---	---	---
Vanadium	ppm	0	---	---	---

ADDITIVES

Calcium	ppm	█ 1075	---	---	---
Magnesium	ppm	█ 1019	---	---	---
Zinc	ppm	█ 1354	---	---	---
Phosphorus	ppm	█ 1002	---	---	---
Barium	ppm	█ 0	---	---	---
Boron	ppm	█ <1	---	---	---

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. 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: 10762478

Signed: Doug Bogart

Report Date: 28 Nov 2023

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GRAPHS

