

OIL ANALYSIS REPORT

VOLVO PENTA

VOLVO PENTA 2013790918 - STARBOARD DIESEL ENGINE

Sample No: VPA059500

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

SAMPLE INFORMATION

Sample Number	VPA059500	---	---	---
Sample Date	08 May 2024	---	---	---
Machine Hours	537	---	---	---
Oil Hours	100	---	---	---
Oil Changed	Not Changd	---	---	---
Sample Status	NORMAL	---	---	---

SMART DIESEL SERVICE

102 NW 133RD AVE, UNIT 103
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OIL CONDITION

Visc @ 100°C	cSt	█ 12.83	---	---	---
Base Number (BN)	mg KOH/g	█ 9.6	---	---	---
Oxidation (PA)	%	73	---	---	---

Diagnosis

Resample at the next service interval to monitor. All 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.

CONTAMINATION

Water	%	NEG	---	---	---
Soot %	%	█ 0.1	---	---	---
Nitration (PA)	%	46	---	---	---
Sulfation (PA)	%	58	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	< 1.0	---	---	---
Silicon	ppm	█ 5	---	---	---
Sodium	ppm	█ 1	---	---	---
Potassium	ppm	█ 2	---	---	---

WEAR METALS

Iron	ppm	█ 4	---	---	---
Copper	ppm	█ 2	---	---	---
Lead	ppm	█ <1	---	---	---
Tin	ppm	█ <1	---	---	---
Aluminum	ppm	█ 2	---	---	---
Chromium	ppm	█ <1	---	---	---
Molybdenum	ppm	█ 44	---	---	---
Nickel	ppm	█ 0	---	---	---
Titanium	ppm	█ <1	---	---	---
Silver	ppm	█ 0	---	---	---
Manganese	ppm	█ 0	---	---	---
Vanadium	ppm	< 1	---	---	---

ADDITIVES

Calcium	ppm	█ 1490	---	---	---
Magnesium	ppm	█ 557	---	---	---
Zinc	ppm	█ 931	---	---	---
Phosphorus	ppm	█ 825	---	---	---
Barium	ppm	█ 0	---	---	---
Boron	ppm	█ 51	---	---	---

Depot: VPSMAPLA
Unique No: 11022087
Signed: Doug Bogart
Report Date: 10 May 2024

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GRAPHS

