

OIL ANALYSIS REPORT

VOLVO PENTA

DEPARTMENT OF ECOLOGY/502725 VOLVO PENTA A308790 - STARBOARD DIESEL ENGINE

Sample No: VPA059618

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

SAMPLE INFORMATION

Sample Number	VPA059618	---	---	---
Sample Date	27 Feb 2024	---	---	---
Machine Hours	1002	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	ABNORMAL	---	---	---

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OIL CONDITION

Visc @ 100°C	cSt	█ 13.6	---	---	---
Base Number (BN)	mg KOH/g	█ 9.5	---	---	---
Oxidation (PA)	%	57	---	---	---

Diagnosis

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. Piston and ring wear is indicated. 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 %	%	█ 0.5	---	---	---
Nitration (PA)	%	60	---	---	---
Sulfation (PA)	%	53	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	<1.0	---	---	---
Silicon	ppm	█ 8	---	---	---
Sodium	ppm	█ 3	---	---	---
Potassium	ppm	█ 2	---	---	---

WEAR METALS

Iron	ppm	█ 45	---	---	---
Copper	ppm	█ 3	---	---	---
Lead	ppm	█ 1	---	---	---
Tin	ppm	█ <1	---	---	---
Aluminum	ppm	▲ 70	---	---	---
Chromium	ppm	▲ 8	---	---	---
Molybdenum	ppm	█ 49	---	---	---
Nickel	ppm	█ 2	---	---	---
Titanium	ppm	█ <1	---	---	---
Silver	ppm	█ 0	---	---	---
Manganese	ppm	█ <1	---	---	---
Vanadium	ppm	<1	---	---	---

ADDITIVES

Calcium	ppm	█ 1106	---	---	---
Magnesium	ppm	█ 916	---	---	---
Zinc	ppm	█ 1166	---	---	---
Phosphorus	ppm	█ 1060	---	---	---
Barium	ppm	█ 0	---	---	---
Boron	ppm	█ 21	---	---	---

Depot: VP794951
Unique No: 10910358
Signed: Jonathan Hester
Report Date: 06 Mar 2024

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GRAPHS

