

OIL ANALYSIS REPORT

**VOLVO
PENTA**

DEAN HOLMES PATRICK 502464-5250 VOLVO PENTA 7011405480 - STARBOARD DIESEL ENGINE

Sample No: VPA059335

Oil Type: DIESEL ENGINE OIL SAE 40

SAMPLE INFORMATION

Sample Number	VPA059335	VPA036011	---	---
Sample Date	16 Nov 2023	09 Sep 2021	---	---
Machine Hours	509	311	---	---
Oil Hours	95	10	---	---
Oil Changed	Changed	N/A	---	---
Sample Status	NORMAL	NORMAL	---	---

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OIL CONDITION

Visc @ 100°C	cSt	12.4	13.5	---	---
Base Number (BN)	mg KOH/g	9.7	---	---	---
Oxidation (PA)	%	56	61	---	---

CONTAMINATION

Water	%	NEG	NEG	---	---
Soot %	%	0.2	0	---	---
Nitration (PA)	%	47	42	---	---
Sulfation (PA)	%	53	59	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	1.0	<1.0	---	---
Silicon	ppm	5	5	---	---
Sodium	ppm	1	<1	---	---
Potassium	ppm	<1	0	---	---

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. Fuel content negligible. 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 suitable for further service.

WEAR METALS

Iron	ppm	3	2	---	---
Copper	ppm	18	3	---	---
Lead	ppm	<1	<1	---	---
Tin	ppm	<1	<1	---	---
Aluminum	ppm	<1	1	---	---
Chromium	ppm	<1	<1	---	---
Molybdenum	ppm	59	55	---	---
Nickel	ppm	<1	0	---	---
Titanium	ppm	0	0	---	---
Silver	ppm	0	0	---	---
Manganese	ppm	<1	<1	---	---
Vanadium	ppm	<1	0	---	---

ADDITIVES

Calcium	ppm	1086	1060	---	---
Magnesium	ppm	984	944	---	---
Zinc	ppm	1268	1232	---	---
Phosphorus	ppm	1066	993	---	---
Barium	ppm	0	0	---	---
Boron	ppm	3	3	---	---

Depot: VP794951
Unique No: 10755302
Signed: Jonathan Hester
Report Date: 28 Nov 2023

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GRAPHS

