

OIL ANALYSIS REPORT



MATTHEW SHARPE SAM VOLVO PENTA A874343 - PORT DIESEL ENGINE

Sample No: VPA059277
 Oil Type: VOLVO PENTA SAE 15W40

SAMPLE INFORMATION

Sample Number	VPA059277	VPA044975	VPA037837	---
Sample Date	20 Mar 2024	20 Jan 2023	19 Nov 2021	---
Machine Hours	440	395	332	---
Oil Hours	45	97	0	---
Oil Changed	Changed	Not Changd	Changed	---
Sample Status	NORMAL	NORMAL	NORMAL	---

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OIL CONDITION

Visc @ 100°C	cSt	█ 13.9	█ 13.7	█ 13.6	---
Base Number (BN)	mg KOH/g	█ 9.6	█ 10.2	---	---
Oxidation (PA)	%	53	53	49	---

CONTAMINATION

Water	%	NEG	NEG	NEG	---
Soot %	%	█ 0.1	█ 0.2	█ 0.1	---
Nitration (PA)	%	40	45	63	---
Sulfation (PA)	%	49	51	50	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	<1.0	---
Silicon	ppm	█ 4	█ 6	█ 4	---
Sodium	ppm	█ 0	█ 0	█ 5	---
Potassium	ppm	█ 0	█ 2	█ 3	---

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.

WEAR METALS

Iron	ppm	█ 5	█ 10	█ 9	---
Copper	ppm	█ <1	█ 2	█ 2	---
Lead	ppm	█ 0	█ 2	█ <1	---
Tin	ppm	█ 0	█ <1	█ <1	---
Aluminum	ppm	█ 3	█ 2	█ 2	---
Chromium	ppm	█ 0	█ <1	█ <1	---
Molybdenum	ppm	█ 59	█ 55	█ 14	---
Nickel	ppm	█ 0	█ <1	█ <1	---
Titanium	ppm	█ 0	█ 0	█ <1	---
Silver	ppm	█ 0	█ 0	█ <1	---
Manganese	ppm	█ 0	█ <1	█ <1	---
Vanadium	ppm	0	<1	0	---

ADDITIVES

Calcium	ppm	█ 1118	█ 1202	█ 1435	---
Magnesium	ppm	1001	█ 948	█ 666	---
Zinc	ppm	█ 1251	█ 1291	█ 776	---
Phosphorus	ppm	█ 1074	█ 1033	█ 739	---
Barium	ppm	█ 0	█ 0	█ 0	---
Boron	ppm	█ 4	█ 14	█ 96	---

Depot: VP794951
 Unique No: 10941502
 Signed: Don Baldrige
 Report Date: 27 Mar 2024

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**VOLVO
PENTA**

GRAPHS

