

OIL ANALYSIS REPORT

VOLVO PENTA

APAVA - RICHARD GOLDSTEN GB6017 VOLVO PENTA 2013945656 - STARBOARD DIESEL ENGINE

Sample No: VPA049735
Oil Type: VOLVO PENTA SAE 15W40

SAMPLE INFORMATION

Sample Number	VPA049735	VPA045399	VPA039140	---
Sample Date	14 Nov 2023	10 Oct 2022	08 Oct 2021	---
Machine Hours	875	614	296	---
Oil Hours	200	320	100	---
Oil Changed	Changed	Changed	Changed	---
Sample Status	NORMAL	NORMAL	NORMAL	---

GRAND BANKS
 450 SW SALEM RD
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OIL CONDITION

Visc @ 100°C	cSt	12.7	12.7	12.8	---
Base Number (BN)	mg KOH/g	9.6	10.3	---	---
Oxidation (PA)	%	61	68	45	---

CONTAMINATION

Water	%	NEG	NEG	NEG	---
Soot %	%	0.5	0.5	0.4	---
Nitration (PA)	%	59	74	54	---
Sulfation (PA)	%	57	61	48	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	<1.0	---
Silicon	ppm	7	7	21	---
Sodium	ppm	2	0	2	---
Potassium	ppm	5	5	16	---

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 suitable for further service.

WEAR METALS

Iron	ppm	9	13	30	---
Copper	ppm	2	6	18	---
Lead	ppm	1	<1	2	---
Tin	ppm	1	1	2	---
Aluminum	ppm	2	4	10	---
Chromium	ppm	1	<1	1	---
Molybdenum	ppm	55	59	41	---
Nickel	ppm	1	0	<1	---
Titanium	ppm	<1	0	<1	---
Silver	ppm	<1	<1	<1	---
Manganese	ppm	1	<1	2	---
Vanadium	ppm	<1	<1	0	---

ADDITIVES

Calcium	ppm	1064	1111	1083	---
Magnesium	ppm	947	913	943	---
Zinc	ppm	1294	1246	1330	---
Phosphorus	ppm	1012	1013	1098	---
Barium	ppm	0	0	0	---
Boron	ppm	0	<1	8	---

Depot: VP531377
Unique No: 10753993
Signed: Angela Borella
Report Date: 28 Nov 2023

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GRAPHS

