

OIL ANALYSIS REPORT



STEVE BOUKER 7719010 VOLVO PENTA 7011379637 - PORT DIESEL ENGINE

Sample No: VPA052000

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

SAMPLE INFORMATION

Sample Number	VPA052000	VPA055061	VPA026035	VPA029082
Sample Date	28 Mar 2024	20 Apr 2023	16 Jul 2021	28 Oct 2019
Machine Hours	674	0	398	266
Oil Hours	112	0	134	266
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	12.3	12.8	12.8	12.5
Base Number (BN)	mg KOH/g	9.5	8.6	---	---
Oxidation (PA)	%	57	55	64	64

CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.2	0.3	0.3	0.4
Nitration (PA)	%	51	52	62	67
Sulfation (PA)	%	52	50	58	58
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	8	6	7	18
Sodium	ppm	2	<1	2	3
Potassium	ppm	2	5	<1	7

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	4	44	6	12
Copper	ppm	16	<1	37	76
Lead	ppm	1	0	1	2
Tin	ppm	1	0	1	0
Aluminum	ppm	2	5	0	3
Chromium	ppm	1	<1	<1	<1
Molybdenum	ppm	57	50	59	58
Nickel	ppm	1	0	1	2
Titanium	ppm	<1	0	0	<1
Silver	ppm	0	0	<1	<1
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	<1	0	0	0

ADDITIVES

Calcium	ppm	1093	1372	1049	1254
Magnesium	ppm	1026	788	885	941
Zinc	ppm	1292	1143	1109	1184
Phosphorus	ppm	1181	907	998	1074
Barium	ppm	<1	0	0	0
Boron	ppm	0	33	3	4

Depot: VP99031103
Unique No: 10968326
Signed: Jonathan Hester
Report Date: 12 Apr 2024

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VOLVO PENTA

GRAPHS

