

OIL ANALYSIS REPORT



MANCHESTER 50 LEFT AG R823699M VOLVO PENTA 2013929976 - VARIABLE SPEED - PORT DIESEL ENGINE

Sample No: VPA060842
Oil Type: VOLVO PENTA SAE 15W40

SAMPLE INFORMATION

Sample Number	VPA060842	VPA056726	VPA048472	---
Sample Date	10 May 2024	15 Sep 2023	06 Oct 2022	---
Machine Hours	344	319	223	---
Oil Hours	25	225	223	---
Oil Changed	N/A	N/A	N/A	---
Sample Status	ATTENTION	ATTENTION	ATTENTION	---

Power Products Systems LLC
 432 Warren Avenue, 432 Warren Ave.
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 F:

OIL CONDITION

Visc @ 100°C	cSt	12.2	11.8	11.8	---
Base Number (BN)	mg KOH/g	10.1	10.3	11.2	---
Oxidation (PA)	%	73	71	62	---

CONTAMINATION

Water	%	NEG	NEG	NEG	---
Soot %	%	0.1	0.1	0.1	---
Nitration (PA)	%	40	44	54	---
Sulfation (PA)	%	58	57	56	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	2.6	---
Silicon	ppm	8	8	17	---
Sodium	ppm	3	2	0	---
Potassium	ppm	2	4	12	---

Diagnosis

No corrective action is recommended at this time. Resample at the next service interval to monitor. Metal levels are typical for a new component breaking in. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

WEAR METALS

Iron	ppm	4	5	10	---
Copper	ppm	2	3	15	---
Lead	ppm	0	<1	<1	---
Tin	ppm	<1	<1	2	---
Aluminum	ppm	2	<1	3	---
Chromium	ppm	0	0	<1	---
Molybdenum	ppm	42	44	58	---
Nickel	ppm	0	0	0	---
Titanium	ppm	0	0	0	---
Silver	ppm	0	0	0	---
Manganese	ppm	<1	<1	2	---
Vanadium	ppm	0	0	0	---

ADDITIVES

Calcium	ppm	1568	1602	1085	---
Magnesium	ppm	522	603	968	---
Zinc	ppm	885	993	1285	---
Phosphorus	ppm	761	806	1050	---
Barium	ppm	0	0	0	---
Boron	ppm	75	59	<1	---

Depot: VP153549
Unique No: 11042523
Signed: Jonathan Hester
Report Date: 23 May 2024

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**VOLVO
PENTA**

GRAPHS

