

OIL ANALYSIS REPORT



MANCHESTER 50 RIGHT AG R823699M VOLVO PENTA 2013929999 - VARIABLE SPEED - STARBOARD DIESEL ENGINE

Sample No: VPA060839
Oil Type: VOLVO PENTA SAE 15W40

SAMPLE INFORMATION

Sample Number	VPA060839	VPA056673	VPA048400	---
Sample Date	10 May 2024	15 Sep 2023	06 Oct 2022	---
Machine Hours	343	318	222	---
Oil Hours	25	96	222	---
Oil Changed	N/A	N/A	N/A	---
Sample Status	NORMAL	ATTENTION	ATTENTION	---

Power Products Systems LLC
 432 Warren Avenue, 432 Warren Ave.
 PORTLAND, ME
 US 04103
 Contact: Cody Clemens
 cclemens@powerprodsys.com
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 F:

OIL CONDITION

Visc @ 100°C	cSt	12.6	12.1	12.1	---
Base Number (BN)	mg KOH/g	10.2	10.0	10.9	---
Oxidation (PA)	%	73	71	62	---

CONTAMINATION

Water	%	NEG	NEG	NEG	---
Soot %	%	0.1	0.1	0.1	---
Nitration (PA)	%	40	44	55	---
Sulfation (PA)	%	58	57	56	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	1.9	---
Silicon	ppm	8	8	17	---
Sodium	ppm	3	2	0	---
Potassium	ppm	<1	2	4	---

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	2	4	11	---
Copper	ppm	3	2	9	---
Lead	ppm	0	<1	<1	---
Tin	ppm	<1	<1	2	---
Aluminum	ppm	1	<1	2	---
Chromium	ppm	0	0	<1	---
Molybdenum	ppm	42	45	60	---
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	1584	1598	1095	---
Magnesium	ppm	528	610	970	---
Zinc	ppm	897	1001	1293	---
Phosphorus	ppm	772	817	1057	---
Barium	ppm	0	0	0	---
Boron	ppm	76	60	1	---

Depot: VP153549
Unique No: 11042528
Signed: Jonathan Hester
Report Date: 23 May 2024

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VOLVO PENTA

GRAPHS

