

OIL ANALYSIS REPORT

VOLVO PENTA

PHIL MARCARIO - PRESTIGE VOLVO PENTA A1065426 - STARBOARD DIESEL ENGINE

Sample No: VPA036405

Oil Type: SHELL ROTELLA T 15W40

SAMPLE INFORMATION

Sample Number	VPA036405	VPA043765	VPA043640	---
Sample Date	06 Dec 2023	12 Dec 2022	09 Nov 2021	---
Machine Hours	117	99	73	---
Oil Hours	117	99	73	---
Oil Changed	Not Chngd	Changed	Changed	---
Sample Status	NORMAL	NORMAL	NORMAL	---

Larry's Lighthouse Marina

1250

AQUEBOGUE, NY

US 11931

Contact: MAX FUHLBRUGGE

info@lighthousemarina.com

T: x:

F: x:

OIL CONDITION

Visc @ 100°C	cSt	█ 14.5	█ 14.7	█ 14.5	---
Base Number (BN)	mg KOH/g	█ 8.8	█ 11.3	---	---
Oxidation (PA)	%	64	60	65	---

CONTAMINATION

Water	%	NEG	NEG	NEG	---
Soot %	%	█ 0.2	█ 0.1	█ 0.3	---
Nitration (PA)	%	45	47	50	---
Sulfation (PA)	%	56	56	58	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	<1.0	---
Silicon	ppm	█ 4	█ 5	█ 7	---
Sodium	ppm	█ <1	█ 0	█ 1	---
Potassium	ppm	█ 7	█ 8	█ 6	---

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

ADDITIVES

Calcium	ppm	█ 2077	█ 2201	█ 2354	---
Magnesium	ppm	█ 15	█ 31	█ 28	---
Zinc	ppm	█ 1181	█ 1127	█ 1072	---
Phosphorus	ppm	█ 954	█ 971	█ 975	---
Barium	ppm	█ 0	█ 0	█ 0	---
Boron	ppm	█ 200	█ 196	█ 205	---

Depot: VP610438

Unique No: 10792817

Signed: Don Baldrige

Report Date: 20 Dec 2023

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PENTA**

GRAPHS

