

OIL ANALYSIS REPORT

VOLVO PENTA

7001 3655/PB70-01 VOLVO PENTA 2013735017 - STARBOARD DIESEL ENGINE

Sample No: VPA047606

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

SAMPLE INFORMATION

Sample Number	VPA047606	VPA037262	---	---
Sample Date	12 Mar 2024	11 Feb 2022	---	---
Machine Hours	1138	784	---	---
Oil Hours	0	200	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	NORMAL	NORMAL	---	---

GRAND BANKS

450 SW SALEM RD

STUART, FL

US 34994

Contact: ROBERT ANTONA

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F:

OIL CONDITION

Visc @ 100°C	cSt	█ 13.4	█ 13.2	---	---
Base Number (BN)	mg KOH/g	█ 10.1	█ 10.1	---	---
Oxidation (PA)	%	54	66	---	---

CONTAMINATION

Water	%	NEG	NEG	---	---
Soot %	%	█ 0.1	█ 0.5	---	---
Nitration (PA)	%	39	67	---	---
Sulfation (PA)	%	50	62	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	<1.0	---	---
Silicon	ppm	█ 5	█ 7	---	---
Sodium	ppm	█ 2	█ 3	---	---
Potassium	ppm	█ <1	█ 2	---	---

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	█ 2	█ 10	---	---
Copper	ppm	█ <1	█ 4	---	---
Lead	ppm	█ <1	█ <1	---	---
Tin	ppm	█ <1	█ <1	---	---
Aluminum	ppm	█ 2	█ 1	---	---
Chromium	ppm	█ <1	█ <1	---	---
Molybdenum	ppm	█ 61	█ 60	---	---
Nickel	ppm	█ <1	█ <1	---	---
Titanium	ppm	█ 0	█ 0	---	---
Silver	ppm	█ 0	█ <1	---	---
Manganese	ppm	█ 0	█ <1	---	---
Vanadium	ppm	0	0	---	---

ADDITIVES

Calcium	ppm	█ 1088	█ 1187	---	---
Magnesium	ppm	█ 971	1063	---	---
Zinc	ppm	█ 1241	█ 1250	---	---
Phosphorus	ppm	█ 1051	█ 1168	---	---
Barium	ppm	█ 0	█ 0	---	---
Boron	ppm	█ 5	█ 7	---	---

Depot: VP531377

Unique No: 10930171

Signed: Don Baldrige

Report Date: 20 Mar 2024

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GRAPHS

