

OIL ANALYSIS REPORT

VOLVO PENTA

TRAVIS HOLT CLIFTON MILLER VOLVO PENTA 7011314524 - STARBOARD DIESEL ENGINE

Sample No: VPA036545
Oil Type: VOLVO PENTA SAE 15W40

SAMPLE INFORMATION

Sample Number	VPA036545	VPA043119	VPA031089	---
Sample Date	06 Jul 2023	19 Sep 2022	29 Aug 2022	---
Machine Hours	2288	2008	1843	---
Oil Hours	0	2008	100	---
Oil Changed	Changed	N/A	Changed	---
Sample Status	NORMAL	NORMAL	NORMAL	---

Endor Marine LLC - Coastal Marine - 152124
4300 11th Ave. NW
SEATTLE, WA
US 98107
Contact: WILLOW YANARELLA
service@coastalmarineengine.com
T: (206)784-3703
F: (206)784-8823

OIL CONDITION

Visc @ 100°C	cSt	█ 13.4	█ 13.1	█ 12.9	---
Base Number (BN)	mg KOH/g	█ 9.5	█ 10.6	█ 10.6	---
Oxidation (PA)	%	57	61	60	---

CONTAMINATION

Soot %	%	█ 0.4	█ 0.7	█ 0.4	---
Nitration (PA)	%	55	58	53	---
Sulfation (PA)	%	53	60	58	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	<1.0	---
Silicon	ppm	█ 7	█ 4	█ 5	---
Sodium	ppm	█ 1	█ <1	█ 1	---
Potassium	ppm	█ <1	█ 0	█ 1	---

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	█ 7	█ 5	█ 4	---
Copper	ppm	█ 20	█ 26	█ 23	---
Lead	ppm	█ <1	█ 2	█ 2	---
Tin	ppm	█ <1	█ 0	█ <1	---
Aluminum	ppm	█ 1	█ <1	█ 1	---
Chromium	ppm	█ <1	█ <1	█ <1	---
Molybdenum	ppm	█ 66	█ 54	█ 61	---
Nickel	ppm	█ <1	█ <1	█ <1	---
Titanium	ppm	█ 0	█ 0	█ 0	---
Silver	ppm	█ 0	█ 0	█ <1	---
Manganese	ppm	█ <1	█ <1	█ <1	---
Vanadium	ppm	0	0	0	---

ADDITIVES

Calcium	ppm	█ 1086	█ 1032	█ 1078	---
Magnesium	ppm	1056	█ 890	█ 984	---
Zinc	ppm	█ 1329	█ 1108	█ 1246	---
Phosphorus	ppm	█ 1102	█ 915	█ 1082	---
Barium	ppm	█ 0	█ 0	█ 0	---
Boron	ppm	█ 3	█ 3	█ 6	---

Depot: VP794951
Unique No: 10587678
Signed: Doug Bogart
Report Date: 06 Aug 2023

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GRAPHS

