

# [[TITUS]] VOLVO PENTA A1113956 - STARBOARD DIESEL ENGINE

**Sample No:** VPA043940

**Oil Type:** VOLVO

## SAMPLE INFORMATION

Sample Number	VPA043940	---	---	---
Sample Date	02 Dec 2021	---	---	---
Machine Hours	240	---	---	---
Oil Hours	240	---	---	---
Oil Changed	N/A	---	---	---
Sample Status	NORMAL	---	---	---

**Diesel Services of America, Inc.**  
 2501 West State Road 84  
 FORT LAUDERDALE, FL  
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 Contact: Dan Rosas  
 dan@dieselservicesofamerica.com  
 T:  
 F:

## OIL CONDITION

Visc @ 100°C	cSt	█ 14.1	---	---	---
Base Number (BN)	mg KOH/g	█ 10.8	---	---	---
Oxidation (PA)	%	65	---	---	---

## 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.

## CONTAMINATION

Water	%	NEG	---	---	---
Soot %	%	█ 0.2	---	---	---
Nitration (PA)	%	48	---	---	---
Sulfation (PA)	%	58	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	<1.0	---	---	---
Silicon	ppm	█ 7	---	---	---
Sodium	ppm	█ 3	---	---	---
Potassium	ppm	█ 1	---	---	---

## WEAR METALS

Iron	ppm	█ 9	---	---	---
Copper	ppm	█ 3	---	---	---
Lead	ppm	█ 2	---	---	---
Tin	ppm	█ 1	---	---	---
Aluminum	ppm	█ 1	---	---	---
Chromium	ppm	█ <1	---	---	---
Molybdenum	ppm	█ 19	---	---	---
Nickel	ppm	█ <1	---	---	---
Titanium	ppm	█ <1	---	---	---
Silver	ppm	█ <1	---	---	---
Manganese	ppm	<1	---	---	---
Vanadium	ppm	0	---	---	---

## ADDITIVES

Calcium	ppm	█ 1481	---	---	---
Magnesium	ppm	█ 553	---	---	---
Zinc	ppm	█ 781	---	---	---
Phosphorus	ppm	█ 683	---	---	---
Barium	ppm	█ 0	---	---	---
Boron	ppm	█ 59	---	---	---

**Depot:** VP509836  
**Unique No:** 9764017  
**Signed:** Don Baldrige  
**Report Date:** 07 Dec 2021

Contact/Location: Dan Rosas - VP509836

# GRAPHS

