

OIL ANALYSIS REPORT



ASTLE NICK/23526 VOLVO PENTA A1099684 - STARBOARD DIESEL ENGINE

Sample No: VPA060726
Oil Type: DIESEL ENGINE OIL SAE 40

SAMPLE INFORMATION

Sample Number	VPA060726	VPA048824	VPA029907	---
Sample Date	10 Jun 2024	06 Jul 2023	25 Mar 2022	---
Machine Hours	0	985	197	---
Oil Hours	0	0	197	---
Oil Changed	Changed	Changed	Changed	---
Sample Status	ATTENTION	NORMAL	ATTENTION	---

Seven Seas Yacht Services LLC
 1804 CRAB ALLEY DR
 CHESTER, MD
 US 21619
 Contact: Stephanie Wright
 stephanie@sevenseasys.com
 T:
 F:

OIL CONDITION

Visc @ 100°C	cSt	13.0	12.8	12.8	---
Base Number (BN)	mg KOH/g	9.5	10.4	11.2	---
Oxidation (PA)	%	55	57	91	---

CONTAMINATION

Water	%	NEG	NEG	NEG	---
Soot %	%	0.1	0.1	0.3	---
Nitration (PA)	%	44	46	52	---
Sulfation (PA)	%	51	53	70	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	<1.0	---
Silicon	ppm	4	3	46	---
Sodium	ppm	5	2	<1	---
Potassium	ppm	2	4	4	---

Diagnosis

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. The nickel level is abnormal. All other 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	14	9	24	---
Copper	ppm	3	3	18	---
Lead	ppm	<1	1	7	---
Tin	ppm	<1	<1	2	---
Aluminum	ppm	10	2	15	---
Chromium	ppm	2	1	3	---
Molybdenum	ppm	58	57	40	---
Nickel	ppm	5	3	0	---
Titanium	ppm	<1	<1	<1	---
Silver	ppm	0	0	<1	---
Manganese	ppm	<1	<1	1	---
Vanadium	ppm	<1	<1	0	---

ADDITIVES

Calcium	ppm	1098	1081	1680	---
Magnesium	ppm	1025	985	524	---
Zinc	ppm	1282	1268	1101	---
Phosphorus	ppm	1039	1021	999	---
Barium	ppm	0	0	0	---
Boron	ppm	2	0	84	---

Depot: VP601781
Unique No: 11100169
Signed: Don Baldrige
Report Date: 28 Jun 2024

OIL ANALYSIS REPORT

VOLVO PENTA

GRAPHS

