

OIL ANALYSIS REPORT



NADINE URUIOLI MARK NICHOL VOLVO PENTA D4-225A-E 2006022306 - CENTER DIESEL ENGINE

Sample No: VPA059963

Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3

SAMPLE INFORMATION

Sample Number	VPA059963	VPA026367	---	---
Sample Date	05 Jan 2024	21 Apr 2020	---	---
Machine Hours	776	550	---	---
Oil Hours	776	0	---	---
Oil Changed	Changed	Not Changd	---	---
Sample Status	NORMAL	NORMAL	---	---

Helmut's Marine Service
 619 Canal Street
 SAN RAFAEL, CA
 US 94901-3545
 Contact: NADINE URUIOLI
 SERVICE@HELMUTSMARINE.COM
 T: x:
 F: x:

OIL CONDITION

Visc @ 100°C	cSt	13.3	15.0	---	---
Base Number (BN)	mg KOH/g	9.7	---	---	---
Oxidation (PA)	%	67	63	---	---

CONTAMINATION

Water	%	NEG	NEG	---	---
Soot %	%	0.1	0.1	---	---
Nitration (PA)	%	64	68	---	---
Sulfation (PA)	%	57	53	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	<1.0	---	---
Silicon	ppm	4	3	---	---
Sodium	ppm	2	1	---	---
Potassium	ppm	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	11	38	---	---
Copper	ppm	10	14	---	---
Lead	ppm	12	12	---	---
Tin	ppm	1	2	---	---
Aluminum	ppm	1	11	---	---
Chromium	ppm	<1	1	---	---
Molybdenum	ppm	61	52	---	---
Nickel	ppm	2	2	---	---
Titanium	ppm	0	3	---	---
Silver	ppm	0	0	---	---
Manganese	ppm	0	<1	---	---
Vanadium	ppm	0	0	---	---

ADDITIVES

Calcium	ppm	1068	980	---	---
Magnesium	ppm	1006	836	---	---
Zinc	ppm	1328	1034	---	---
Phosphorus	ppm	1108	909	---	---
Barium	ppm	0	0	---	---
Boron	ppm	5	3	---	---

Depot: VP152741
Unique No: 10832031
Signed: Jonathan Hester
Report Date: 17 Jan 2024

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VOLVO PENTA

GRAPHS

