

OIL ANALYSIS REPORT



VOLVO PENTA A309941 - STARBOARD DIESEL ENGINE

Sample No: VPA051563
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3

SAMPLE INFORMATION

Sample Number	VPA051563	VPA047738	VPA014549	---
Sample Date	13 Feb 2024	25 Apr 2023	01 Nov 2022	---
Machine Hours	1400	2800	1500	---
Oil Hours	100	0	300	---
Oil Changed	Not Changd	N/A	Changed	---
Sample Status	NORMAL	NORMAL	NORMAL	---

FDDA FT PIERCE - POWER CENTER

FORT PIERCE, FL
 US
 Contact: KYLE GRASER
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 T:
 F:

OIL CONDITION

Visc @ 100°C	cSt	13.0	13.4	13.6	---
Base Number (BN)	mg KOH/g	9.8	10.0	11.2	---
Oxidation (PA)	%	54	55	63	---

Diagnosis

No corrective action is recommended at this time. 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.

CONTAMINATION

Water	%	NEG	NEG	NEG	---
Soot %	%	0.1	0.3	0.5	---
Nitration (PA)	%	40	45	63	---
Sulfation (PA)	%	51	53	60	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	<1.0	---
Silicon	ppm	6	3	4	---
Sodium	ppm	1	0	1	---
Potassium	ppm	2	0	0	---

WEAR METALS

Iron	ppm	6	5	17	---
Copper	ppm	1	1	4	---
Lead	ppm	0	0	1	---
Tin	ppm	0	0	<1	---
Aluminum	ppm	1	<1	<1	---
Chromium	ppm	<1	0	<1	---
Molybdenum	ppm	62	53	59	---
Nickel	ppm	<1	0	2	---
Titanium	ppm	<1	0	0	---
Silver	ppm	0	0	0	---
Manganese	ppm	0	<1	<1	---
Vanadium	ppm	0	0	0	---

ADDITIVES

Calcium	ppm	955	973	1092	---
Magnesium	ppm	952	889	985	---
Zinc	ppm	1211	1163	1272	---
Phosphorus	ppm	874	904	991	---
Barium	ppm	11	0	0	---
Boron	ppm	<1	0	2	---

Depot: VP208659
Unique No: 10882771
Signed: Doug Bogart
Report Date: 16 Feb 2024

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GRAPHS

