

OIL ANALYSIS REPORT



REMIEN VOLVO PENTA A296114 - PORT DIESEL ENGINE

Sample No: VPA058987
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3

SAMPLE INFORMATION

Sample Number	VPA058987	VPA036758	VPA041230	---
Sample Date	02 May 2024	06 Dec 2023	22 Feb 2023	---
Machine Hours	680	676	621	---
Oil Hours	6	0	0	---
Oil Changed	N/A	Changed	N/A	---
Sample Status	NORMAL	NORMAL	NORMAL	---

Outstanding Marine
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 US 21635
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 T:
 F:

OIL CONDITION

Visc @ 100°C	cSt	14.3	14.0	13.4	---
Base Number (BN)	mg KOH/g	9.5	8.7	10.2	---
Oxidation (PA)	%	61	63	57	---

CONTAMINATION

Water	%	NEG	NEG	NEG	---
Soot %	%	0.1	0.1	0.1	---
Nitration (PA)	%	48	49	49	---
Sulfation (PA)	%	53	55	52	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	<1.0	---
Silicon	ppm	7	5	6	---
Sodium	ppm	4	9	<1	---
Potassium	ppm	2	5	2	---

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 acceptable for the time in service.

WEAR METALS

Iron	ppm	6	11	9	---
Copper	ppm	<1	4	2	---
Lead	ppm	0	0	1	---
Tin	ppm	<1	0	<1	---
Aluminum	ppm	2	2	<1	---
Chromium	ppm	<1	1	0	---
Molybdenum	ppm	41	6	58	---
Nickel	ppm	<1	<1	<1	---
Titanium	ppm	<1	0	0	---
Silver	ppm	0	3	<1	---
Manganese	ppm	<1	<1	<1	---
Vanadium	ppm	<1	0	0	---

ADDITIVES

Calcium	ppm	1416	2064	1148	---
Magnesium	ppm	454	139	992	---
Zinc	ppm	1121	1232	1325	---
Phosphorus	ppm	970	1042	1034	---
Barium	ppm	0	0	0	---
Boron	ppm	62	178	2	---

Depot: VP153685
Unique No: 11015827
Signed: Doug Bogart
Report Date: 08 May 2024

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GRAPHS

