

# OIL ANALYSIS REPORT



## REMIEN VOLVO PENTA A296115 - STARBOARD DIESEL ENGINE

**Sample No:** VPA036764  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3

### SAMPLE INFORMATION

Sample Number	VPA036764	VPA041215	---	---
Sample Date	06 Dec 2023	22 Feb 2023	---	---
Machine Hours	674	621	---	---
Oil Hours	0	0	---	---
Oil Changed	Changed	N/A	---	---
Sample Status	MARGINAL	NORMAL	---	---

### OIL CONDITION

Visc @ 100°C	cSt	▲ 12.2	■ 13.38	---	---
Base Number (BN)	mg KOH/g	■ 8.4	■ 9.9	---	---
Oxidation (PA)	%	39	52	---	---

### CONTAMINATION

Water	%	NEG	NEG	---	---
Soot %	%	■ 0.1	■ 0.1	---	---
Nitration (PA)	%	38	48	---	---
Sulfation (PA)	%	45	49	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	■ 2.8	<1.0	---	---
Silicon	ppm	■ 6	■ 5	---	---
Sodium	ppm	■ 9	■ <1	---	---
Potassium	ppm	■ <1	■ 3	---	---

### WEAR METALS

Iron	ppm	■ 25	■ 9	---	---
Copper	ppm	■ 4	■ 2	---	---
Lead	ppm	■ 0	■ 1	---	---
Tin	ppm	■ <1	■ <1	---	---
Aluminum	ppm	■ 2	■ <1	---	---
Chromium	ppm	■ 2	■ 0	---	---
Molybdenum	ppm	■ 17	■ 53	---	---
Nickel	ppm	■ <1	■ <1	---	---
Titanium	ppm	■ 0	■ 0	---	---
Silver	ppm	■ <1	■ 0	---	---
Manganese	ppm	■ <1	■ <1	---	---
Vanadium	ppm	0	0	---	---

### ADDITIVES

Calcium	ppm	■ 1945	■ 1242	---	---
Magnesium	ppm	■ 194	■ 932	---	---
Zinc	ppm	■ 908	■ 1314	---	---
Phosphorus	ppm	■ 804	■ 1024	---	---
Barium	ppm	■ 0	■ 0	---	---
Boron	ppm	■ 19	■ 11	---	---

**Outstanding Marine**  
 PO Box 274  
 GALENA, MD  
 US 21635  
 Contact: Ronda Bolinger  
 rlwb@verizon.net  
 T:  
 F:

### Diagnosis

No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. Light fuel dilution occurring. No other contaminants were detected in the oil. Fuel is present in the oil and is lowering the viscosity. The condition of the oil is acceptable for the time in service.

**Depot:** VP153685  
**Unique No:** 10781922  
**Signed:** Doug Bogart  
**Report Date:** 18 Dec 2023

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## GRAPHS

