

OIL ANALYSIS REPORT

VOLVO PENTA

WARD 520-178 VOLVO PENTA A1132087 - STARBOARD DIESEL ENGINE

Sample No: VPA057314
Oil Type: DIESEL ENGINE OIL SAE 40

SAMPLE INFORMATION

Sample Number	VPA057314	---	---	---
Sample Date	27 Nov 2023	---	---	---
Machine Hours	227	---	---	---
Oil Hours	0	---	---	---
Oil Changed	N/A	---	---	---
Sample Status	NORMAL	---	---	---

Outstanding Marine
PO Box 274
GALENA, MD
US 21635
Contact: Ronda Bolinger
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T:
F:

OIL CONDITION

Visc @ 100°C	cSt	█ 13.5	---	---	---
Base Number (BN)	mg KOH/g	█ 10.3	---	---	---
Oxidation (PA)	%	54	---	---	---

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.

CONTAMINATION

Water	%	NEG	---	---	---
Soot %	%	█ 0.5	---	---	---
Nitration (PA)	%	46	---	---	---
Sulfation (PA)	%	53	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	<1.0	---	---	---
Silicon	ppm	█ 6	---	---	---
Sodium	ppm	█ <1	---	---	---
Potassium	ppm	█ 0	---	---	---

WEAR METALS

Iron	ppm	█ 13	---	---	---
Copper	ppm	█ 4	---	---	---
Lead	ppm	█ <1	---	---	---
Tin	ppm	█ <1	---	---	---
Aluminum	ppm	█ 1	---	---	---
Chromium	ppm	█ <1	---	---	---
Molybdenum	ppm	█ 60	---	---	---
Nickel	ppm	█ <1	---	---	---
Titanium	ppm	█ <1	---	---	---
Silver	ppm	█ 0	---	---	---
Manganese	ppm	█ <1	---	---	---
Vanadium	ppm	<1	---	---	---

ADDITIVES

Calcium	ppm	█ 1068	---	---	---
Magnesium	ppm	█ 979	---	---	---
Zinc	ppm	█ 1245	---	---	---
Phosphorus	ppm	█ 1018	---	---	---
Barium	ppm	█ 0	---	---	---
Boron	ppm	█ 5	---	---	---

Depot: VP153685
Unique No: 10816339
Signed: Don Baldrige
Report Date: 04 Jan 2024

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GRAPHS

