

OIL ANALYSIS REPORT

VOLVO PENTA

BRAD BLACK 354531 VOLVO PENTA A627899 - STARBOARD DIESEL ENGINE

Sample No: VPA050782

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

SAMPLE INFORMATION

Sample Number	VPA050782	---	---	---
Sample Date	20 Feb 2024	---	---	---
Machine Hours	131	---	---	---
Oil Hours	41	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	NORMAL	---	---	---

Skipper Marine of Ohio, LLC

6801 E. Harbor Rd.

MARBLEHEAD, OH

US 43440

Contact: D LAKE

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F:

OIL CONDITION

Visc @ 100°C	cSt	█ 13.4	---	---	---
Base Number (BN)	mg KOH/g	█ 10.2	---	---	---
Oxidation (PA)	%	56	---	---	---

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 acceptable for the time in service.

CONTAMINATION

Water	%	NEG	---	---	---
Soot %	%	█ 0.2	---	---	---
Nitration (PA)	%	47	---	---	---
Sulfation (PA)	%	51	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	< 1.0	---	---	---
Silicon	ppm	█ 10	---	---	---
Sodium	ppm	█ 1	---	---	---
Potassium	ppm	█ 2	---	---	---

WEAR METALS

Iron	ppm	█ 20	---	---	---
Copper	ppm	█ 6	---	---	---
Lead	ppm	█ < 1	---	---	---
Tin	ppm	█ < 1	---	---	---
Aluminum	ppm	█ 2	---	---	---
Chromium	ppm	█ < 1	---	---	---
Molybdenum	ppm	█ 65	---	---	---
Nickel	ppm	█ < 1	---	---	---
Titanium	ppm	█ < 1	---	---	---
Silver	ppm	█ 0	---	---	---
Manganese	ppm	█ < 1	---	---	---
Vanadium	ppm	0	---	---	---

ADDITIVES

Calcium	ppm	█ 1045	---	---	---
Magnesium	ppm	█ 969	---	---	---
Zinc	ppm	█ 1240	---	---	---
Phosphorus	ppm	█ 1101	---	---	---
Barium	ppm	█ 0	---	---	---
Boron	ppm	█ 8	---	---	---

Depot: VP494046

Unique No: 10910352

Signed: Sean Felton

Report Date: 05 Mar 2024

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GRAPHS

