

OIL ANALYSIS REPORT

**VOLVO
PENTA**

MARK THORNDYKE - MER MADE 2.0 VOLVO PENTA 3013201 1825 (S/N 2013201 1825) - STARBOARD DIESEL ENGINE

Sample No: VPA036380

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

SAMPLE INFORMATION

Sample Number	VPA036380	---	---	---
Sample Date	20 Oct 2023	---	---	---
Machine Hours	341	---	---	---
Oil Hours	90	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	NORMAL	---	---	---

CHICAGO YACHT WORKS

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OIL CONDITION

Visc @ 100°C	cSt	█ 13.6	---	---	---
Base Number (BN)	mg KOH/g	█ 8.4	---	---	---
Oxidation (PA)	%	55	---	---	---

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

Soot %	%	█ 0.2	---	---	---
Nitration (PA)	%	55	---	---	---
Sulfation (PA)	%	50	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	< 1.0	---	---	---
Silicon	ppm	█ 8	---	---	---
Sodium	ppm	█ 1	---	---	---
Potassium	ppm	█ 3	---	---	---

WEAR METALS

Iron	ppm	█ 2	---	---	---
Copper	ppm	█ 2	---	---	---
Lead	ppm	█ < 1	---	---	---
Tin	ppm	█ < 1	---	---	---
Aluminum	ppm	█ 2	---	---	---
Chromium	ppm	█ 0	---	---	---
Molybdenum	ppm	█ 61	---	---	---
Nickel	ppm	█ 0	---	---	---
Titanium	ppm	█ 0	---	---	---
Silver	ppm	█ < 1	---	---	---
Manganese	ppm	█ < 1	---	---	---
Vanadium	ppm	0	---	---	---

ADDITIVES

Calcium	ppm	█ 1601	---	---	---
Magnesium	ppm	█ 393	---	---	---
Zinc	ppm	█ 1155	---	---	---
Phosphorus	ppm	█ 987	---	---	---
Barium	ppm	█ 0	---	---	---
Boron	ppm	█ 64	---	---	---

Depot: VP1080862
Unique No: 10714079
Signed: Don Baldrige
Report Date: 30 Oct 2023

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GRAPHS

