

# OIL ANALYSIS REPORT



## VOLVO PENTA 7008533438 - STARBOARD DIESEL ENGINE

**Sample No:** VPA055556  
**Oil Type:** DIESEL ENGINE OIL SAE 40

### SAMPLE INFORMATION

Sample Number	<b>VPA055556</b>	VPA047595	VPA029799	VPA024204
Sample Date	<b>15 May 2024</b>	01 Dec 2022	31 Aug 2022	30 Aug 2022
Machine Hours	<b>358</b>	0	0	0
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>N/A</b>	N/A	N/A	N/A
Sample Status	<b>NORMAL</b>	NORMAL	ABNORMAL	NORMAL

**Monmouth Marine Engines Inc**  
 536 UNION LN  
 BRIELLE, NJ  
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### OIL CONDITION

Visc @ 100°C	cSt	<b>13.9</b>	13.5	<b>31.6</b>	13.7
Base Number (BN)	mg KOH/g	<b>10.0</b>	10.2	10.9	11.6
Oxidation (PA)	%	<b>59</b>	56	48	57

### CONTAMINATION

Water	%	<b>NEG</b>	NEG	<b>0.500</b>	NEG
Soot %	%	<b>0.8</b>	0.1	0.5	0.1
Nitration (PA)	%	<b>62</b>	43	67	43
Sulfation (PA)	%	<b>55</b>	54	40	54
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>13</b>	11	22	8
Sodium	ppm	<b>6</b>	43	<b>170</b>	44
Potassium	ppm	<b>2</b>	2	8	3

### 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.

### WEAR METALS

Iron	ppm	<b>24</b>	48	22	17
Copper	ppm	<b>38</b>	12	49	7
Lead	ppm	<b>&lt;1</b>	<1	<1	<1
Tin	ppm	<b>1</b>	<1	<1	<1
Aluminum	ppm	<b>4</b>	17	5	7
Chromium	ppm	<b>2</b>	2	2	<1
Molybdenum	ppm	<b>62</b>	57	13	56
Nickel	ppm	<b>2</b>	<1	<1	<1
Titanium	ppm	<b>&lt;1</b>	0	0	0
Silver	ppm	<b>1</b>	<1	1	<1
Manganese	ppm	<b>&lt;1</b>	<1	2	<1
Vanadium	ppm	<b>&lt;1</b>	<1	0	<1

### ADDITIVES

Calcium	ppm	<b>1199</b>	1141	1325	1063
Magnesium	ppm	<b>923</b>	1000	722	921
Zinc	ppm	<b>1205</b>	1328	1250	1229
Phosphorus	ppm	<b>1015</b>	1076	1066	1018
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>8</b>	9	57	8

**Depot:** VP153457  
**Unique No:** 11035256  
**Signed:** Sean Felton  
**Report Date:** 21 May 2024

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# VOLVO PENTA

## GRAPHS

