

# OIL ANALYSIS REPORT



## MR WEIR CUMMINS 74171209 - PORT DIESEL ENGINE

**Sample No:** VPA045594  
**Oil Type:** SHELL ROTELLA T4 15W40

### SAMPLE INFORMATION

Sample Number	<b>VPA045594</b>	VPA056023	---	---
Sample Date	<b>09 Jan 2024</b>	03 Mar 2023	---	---
Machine Hours	<b>236</b>	149	---	---
Oil Hours	<b>236</b>	0	---	---
Oil Changed	<b>Not Changd</b>	Changed	---	---
Sample Status	<b>NORMAL</b>	NORMAL	---	---

### Walstrom Marine - 767948

501 Bay Street  
 HARBOR SPRINGS, MI  
 US 49740  
 Contact: MARK LEWIS  
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T:  
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### OIL CONDITION

Visc @ 100°C	cSt	<b>14.9</b>	14.8	---	---
Base Number (BN)	mg KOH/g	<b>8.7</b>	9.2	---	---
Oxidation (PA)	%	<b>68</b>	72	---	---

### CONTAMINATION

Water	%	<b>NEG</b>	NEG	---	---
Soot %	%	<b>0.9</b>	0.9	---	---
Nitration (PA)	%	<b>63</b>	71	---	---
Sulfation (PA)	%	<b>60</b>	63	---	---
Glycol	%	<b>NEG</b>	NEG	---	---
Fuel	%	<b>&lt;1.0</b>	<1.0	---	---
Silicon	ppm	<b>8</b>	10	---	---
Sodium	ppm	<b>2</b>	4	---	---
Potassium	ppm	<b>6</b>	6	---	---

### 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.

### WEAR METALS

Iron	ppm	<b>23</b>	30	---	---
Copper	ppm	<b>57</b>	81	---	---
Lead	ppm	<b>&lt;1</b>	2	---	---
Tin	ppm	<b>0</b>	<1	---	---
Aluminum	ppm	<b>6</b>	7	---	---
Chromium	ppm	<b>1</b>	2	---	---
Molybdenum	ppm	<b>2</b>	11	---	---
Nickel	ppm	<b>2</b>	3	---	---
Titanium	ppm	<b>0</b>	<1	---	---
Silver	ppm	<b>0</b>	1	---	---
Manganese	ppm	<b>&lt;1</b>	2	---	---
Vanadium	ppm	<b>&lt;1</b>	<1	---	---

### ADDITIVES

Calcium	ppm	<b>2027</b>	1957	---	---
Magnesium	ppm	<b>44</b>	188	---	---
Zinc	ppm	<b>1183</b>	1100	---	---
Phosphorus	ppm	<b>987</b>	902	---	---
Barium	ppm	<b>0</b>	0	---	---
Boron	ppm	<b>154</b>	114	---	---

**Depot:** VP154879  
**Unique No:** 10832029  
**Signed:** Jonathan Hester  
**Report Date:** 17 Jan 2024

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## GRAPHS

