

# OIL ANALYSIS REPORT



**GROFF JC VOLVO PENTA 3940019181 - STARBOARD IPS**

**Sample No:** VPA021906  
**Oil Type:** VOLVO 90W

## SAMPLE INFORMATION

Sample Number	<b>VPA021906</b>	VPA040680	---	---
Sample Date	<b>13 Dec 2023</b>	21 Jun 2022	---	---
Machine Hours	<b>517</b>	400	---	---
Oil Hours	<b>0</b>	0	---	---
Oil Changed	<b>Not Changd</b>	Not Changd	---	---
Sample Status	<b>NORMAL</b>	NORMAL	---	---

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

## OIL CONDITION

Visc @ 40°C	cSt	<b>107</b>	107	---	---
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## CONTAMINATION

Water	%	<b>NEG</b>	NEG	---	---
Silicon	ppm	<b>6</b>	6	---	---
Sodium	ppm	<b>0</b>	0	---	---
Potassium	ppm	<b>0</b>	<1	---	---

## Diagnosis

No corrective action is recommended at this time. 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 condition of the oil is acceptable for the time in service.

## WEAR METALS

PQ		<b>11</b>	23	---	---
Iron	ppm	<b>8</b>	27	---	---
Copper	ppm	<b>2</b>	4	---	---
Lead	ppm	<b>0</b>	0	---	---
Tin	ppm	<b>0</b>	<1	---	---
Aluminum	ppm	<b>0</b>	<1	---	---
Chromium	ppm	<b>0</b>	<1	---	---
Molybdenum	ppm	<b>0</b>	<1	---	---
Nickel	ppm	<b>0</b>	0	---	---
Titanium	ppm	<b>0</b>	0	---	---
Silver	ppm	<b>0</b>	<1	---	---
Manganese	ppm	<b>&lt;1</b>	<1	---	---
Vanadium	ppm	<b>&lt;1</b>	0	---	---

## ADDITIVES

Calcium	ppm	<b>0</b>	36	---	---
Magnesium	ppm	<b>0</b>	5	---	---
Zinc	ppm	<b>0</b>	19	---	---
Phosphorus	ppm	<b>1348</b>	1208	---	---
Barium	ppm	<b>0</b>	0	---	---
Boron	ppm	<b>318</b>	302	---	---

**Depot:** VP153685  
**Unique No:** 10816476  
**Signed:** Doug Bogart  
**Report Date:** 04 Jan 2024

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## GRAPHS

