

# OIL ANALYSIS REPORT

# VOLVO PENTA

## KNEELAND C4980 VOLVO PENTA KNEELAND (S/N NOT GIVEN) - STARBOARD DIESEL ENGINE

Sample No: VPA044030

Oil Type: DIESEL ENGINE OIL SAE 40

### SAMPLE INFORMATION

Sample Number	VPA044030	---	---	---
Sample Date	23 Jul 2023	---	---	---
Machine Hours	0	---	---	---
Oil Hours	0	---	---	---
Oil Changed	N/A	---	---	---
Sample Status	NORMAL	---	---	---

### Walstrom Marine

501 Bay Street  
HARBOR SPRINGS, MI  
US 49740  
Contact: RICK HEINY  
rheiny@walstrom.com

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F:

### OIL CONDITION

Visc @ 100°C	cSt	█ 13.7	---	---	---
Base Number (BN)	mg KOH/g	█ 10.4	---	---	---
Oxidation (PA)	%	55	---	---	---

### CONTAMINATION

Soot %	%	█ 0.1	---	---	---
Nitration (PA)	%	38	---	---	---
Sulfation (PA)	%	51	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	< 1.0	---	---	---
Silicon	ppm	█ 5	---	---	---
Sodium	ppm	█ < 1	---	---	---
Potassium	ppm	█ < 1	---	---	---

### 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	█ 3	---	---	---
Copper	ppm	█ 1	---	---	---
Lead	ppm	█ 0	---	---	---
Tin	ppm	█ 0	---	---	---
Aluminum	ppm	█ < 1	---	---	---
Chromium	ppm	█ 0	---	---	---
Molybdenum	ppm	█ 64	---	---	---
Nickel	ppm	█ < 1	---	---	---
Titanium	ppm	█ 0	---	---	---
Silver	ppm	█ 0	---	---	---
Manganese	ppm	█ < 1	---	---	---
Vanadium	ppm	0	---	---	---

### ADDITIVES

Calcium	ppm	█ 1221	---	---	---
Magnesium	ppm	█ 1047	---	---	---
Zinc	ppm	█ 1381	---	---	---
Phosphorus	ppm	█ 1137	---	---	---
Barium	ppm	█ 0	---	---	---
Boron	ppm	█ 8	---	---	---

Depot: VP154879  
Unique No: 10566676  
Signed: Sean Felton  
Report Date: 25 Jul 2023

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## GRAPHS

