

# OIL ANALYSIS REPORT

**VOLVO  
PENTA**

## ROSCOE NORTHERN LIGHTS 9442-57357 - STARBOARD GENSET

Sample No: VPA051928

Oil Type: VOLVO VDS-4.5 Premium Motor Oil 15W40

### SAMPLE INFORMATION

Sample Number	VPA051928	---	---	---
Sample Date	18 Jul 2023	---	---	---
Machine Hours	1567	---	---	---
Oil Hours	560	---	---	---
Oil Changed	Not Changd	---	---	---
Sample Status	NORMAL	---	---	---

### NEWT MARINE

5 JONES ST  
DUBUQUE, IA  
US 52001  
Contact: DON LEIK  
service@newtmarine.com  
T:  
F:

### OIL CONDITION

Visc @ 100°C	cSt	█ 13.3	---	---	---
Base Number (BN)	mg KOH/g	8.9	---	---	---
Oxidation (PA)	%	64	---	---	---

### CONTAMINATION

Soot %	%	█ 0.2	---	---	---
Nitration (PA)	%	64	---	---	---
Sulfation (PA)	%	55	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	<1.0	---	---	---
Silicon	ppm	█ 14	---	---	---
Sodium	ppm	█ 1	---	---	---
Potassium	ppm	█ 10	---	---	---

### 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	█ 18	---	---	---
Copper	ppm	█ 10	---	---	---
Lead	ppm	█ 3	---	---	---
Tin	ppm	█ 2	---	---	---
Aluminum	ppm	█ 6	---	---	---
Chromium	ppm	█ <1	---	---	---
Molybdenum	ppm	█ 72	---	---	---
Nickel	ppm	█ 0	---	---	---
Titanium	ppm	<1	---	---	---
Silver	ppm	█ 0	---	---	---
Manganese	ppm	█ <1	---	---	---
Vanadium	ppm	<1	---	---	---

### ADDITIVES

Calcium	ppm	█ 1420	---	---	---
Magnesium	ppm	1077	---	---	---
Zinc	ppm	█ 1462	---	---	---
Phosphorus	ppm	█ 1067	---	---	---
Barium	ppm	█ 0	---	---	---
Boron	ppm	█ 5	---	---	---

Depot: VP99298099  
Unique No: 10593020  
Signed: Don Baldrige  
Report Date: 11 Aug 2023

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## GRAPHS

