

# OIL ANALYSIS REPORT



## VOLVO PENTA 701 1449657 - STARBOARD DIESEL ENGINE

Sample No: VPA050920

Oil Type: DIESEL ENGINE OIL SAE 15W40

### SAMPLE INFORMATION

Sample Number	<b>VPA050920</b>	VPA047199	VPA048375	VPA257719
Sample Date	<b>12 Feb 2024</b>	27 Sep 2023	13 Jul 2022	09 Jun 2020
Machine Hours	<b>735</b>	678	448	116
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>N/A</b>	N/A	N/A	Not Changd
Sample Status	<b>NORMAL</b>	NORMAL	ATTENTION	ATTENTION

### SUNCOAST DIESEL MARINE

6341 PORTER ROAD, SUITE 6  
SARASOTA, FL  
US 34240  
Contact: SERVICE MANAGER  
info@suncoastdmi.com  
T: (941)342-0033  
F:

### OIL CONDITION

Visc @ 100°C	cSt	<b>12.5</b>	14.0	11.9	10.5
Base Number (BN)	mg KOH/g	<b>8.4</b>	9.8	10.8	---
Oxidation (PA)	%	<b>59</b>	57	128	61

### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.4</b>	0.2	0.7	0.2
Nitration (PA)	%	<b>56</b>	51	164	48
Sulfation (PA)	%	<b>53</b>	52	99	53
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	2.9
Silicon	ppm	<b>6</b>	4	6	36
Sodium	ppm	<b>0</b>	15	<1	3
Potassium	ppm	<b>2</b>	17	0	8

### WEAR METALS

Iron	ppm	<b>3</b>	8	9	14
Copper	ppm	<b>20</b>	4	36	90
Lead	ppm	<b>1</b>	<1	1	7
Tin	ppm	<b>&lt;1</b>	<1	<1	0
Aluminum	ppm	<b>1</b>	2	1	3
Chromium	ppm	<b>&lt;1</b>	<1	<1	3
Molybdenum	ppm	<b>80</b>	61	62	6
Nickel	ppm	<b>&lt;1</b>	0	0	1
Titanium	ppm	<b>&lt;1</b>	0	0	<1
Silver	ppm	<b>&lt;1</b>	0	<1	1
Manganese	ppm	<b>&lt;1</b>	1	<1	2
Vanadium	ppm	<b>&lt;1</b>	0	0	0

### ADDITIVES

Calcium	ppm	<b>1316</b>	1223	1099	2551
Magnesium	ppm	<b>1262</b>	958	864	10
Zinc	ppm	<b>1645</b>	1319	1243	1142
Phosphorus	ppm	<b>1336</b>	1058	1020	1048
Barium	ppm	<b>0</b>	0	4	2
Boron	ppm	<b>2</b>	7	0	36

### 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.

Depot: VP705283  
Unique No: 10885079  
Signed: Jonathan Hester  
Report Date: 20 Feb 2024

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**VOLVO  
PENTA**

## GRAPHS

