

OIL ANALYSIS REPORT



ERIK KRUEGER VOLVO PENTA 7009113214 - STARBOARD DIESEL ENGINE

Sample No: VPA052178
Oil Type: VOLVO PENTA SAE 15W40

SAMPLE INFORMATION

Sample Number	VPA052178	VPA041047	VPA034230	VPA022644
Sample Date	02 Apr 2024	07 Mar 2023	13 Apr 2022	14 Oct 2019
Machine Hours	866	757	693	564
Oil Hours	49	64	100	0
Oil Changed	Changed	Changed	Changed	Not Changd
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

Jefferson Beach Yacht Sales Inc
 24400 Jefferson Ave.
 SAINT CLAIR SHORES, MI
 US 48080
 Contact: DENNIS BUTT
 dbutt@jbys.com
 T: (866)490-5297
 F:

OIL CONDITION

Visc @ 100°C	cSt	12.9	13.0	12.8	13.3
Base Number (BN)	mg KOH/g	10.0	10.2	11.0	---
Oxidation (PA)	%	55	56	59	49

CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.3	0.3	0.5	0.2
Nitration (PA)	%	47	48	63	48
Sulfation (PA)	%	52	54	57	47
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	4	3	6	6
Sodium	ppm	3	2	2	5
Potassium	ppm	0	<1	0	9

WEAR METALS

Iron	ppm	9	9	21	9
Copper	ppm	5	3	8	6
Lead	ppm	0	0	2	2
Tin	ppm	<1	<1	1	0
Aluminum	ppm	<1	1	3	2
Chromium	ppm	0	<1	1	<1
Molybdenum	ppm	56	61	60	45
Nickel	ppm	0	1	2	1
Titanium	ppm	0	0	0	<1
Silver	ppm	0	0	<1	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	0	0	0	0

ADDITIVES

Calcium	ppm	1060	1081	1129	1102
Magnesium	ppm	945	913	985	871
Zinc	ppm	1208	1270	1190	1106
Phosphorus	ppm	1036	1038	1094	935
Barium	ppm	0	0	0	0
Boron	ppm	5	1	5	3

Diagnosis

Resample at the next service interval to monitor. Metal levels are typical for a new component breaking in. 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.

Depot: VP297371
Unique No: 10965783
Signed: Sean Felton
Report Date: 10 Apr 2024

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**VOLVO
PENTA**

GRAPHS

