

OIL ANALYSIS REPORT



MIKE BICKNELL 505665 VOLVO PENTA 7011482207 - STARBOARD DIESEL ENGINE

Sample No: VPA052176

Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3

SAMPLE INFORMATION

Sample Number	VPA052176	VPA041053	VPA029943	VPA032960
Sample Date	25 Mar 2024	14 Mar 2023	18 Jan 2022	10 Feb 2021
Machine Hours	286	237	197	96
Oil Hours	286	40	100	96
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	ATTENTION

Jefferson Beach Yacht Sales Inc
 24400 Jefferson Ave.
 SAINT CLAIR SHORES, MI
 US 48080
 Contact: CORT CORINO
 ccorino@jbys.com
 T: (773)641-6947
 F:

OIL CONDITION

Visc @ 100°C	cSt	12.5	12.7	12.7	11.4
Base Number (BN)	mg KOH/g	7.7	10.4	11.1	---
Oxidation (PA)	%	51	54	67	64

CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.3	0.3	0.5	0.4
Nitration (PA)	%	55	47	53	49
Sulfation (PA)	%	48	53	62	57
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	2.0
Silicon	ppm	6	6	8	46
Sodium	ppm	<1	<1	2	4
Potassium	ppm	3	<1	2	0

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	4	4	8	17
Copper	ppm	11	9	19	44
Lead	ppm	<1	<1	<1	3
Tin	ppm	<1	0	<1	0
Aluminum	ppm	2	0	0	2
Chromium	ppm	<1	0	<1	2
Molybdenum	ppm	67	57	54	2
Nickel	ppm	<1	0	<1	2
Titanium	ppm	<1	0	0	<1
Silver	ppm	0	0	<1	<1
Manganese	ppm	<1	<1	<1	2
Vanadium	ppm	0	0	0	0

Diagnosis

ADDITIVES

Calcium	ppm	1800	1044	1035	2905
Magnesium	ppm	251	931	945	60
Zinc	ppm	1131	1252	1057	1263
Phosphorus	ppm	888	962	1052	1173
Barium	ppm	0	0	0	0
Boron	ppm	96	1	20	31

Depot: VP297371
Unique No: 10954138
Signed: Don Baldrige
Report Date: 03 Apr 2024

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**VOLVO
PENTA**

GRAPHS

