

OIL ANALYSIS REPORT

VOLVO PENTA

NADINE URUIOLI REGENOLD VOLVO PENTA 5102152611X - CENTER DIESEL ENGINE

Sample No: VPA056428

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

SAMPLE INFORMATION

Sample Number	VPA056428	VPA034376	VPA025821	VPA019410
Sample Date	07 Sep 2023	17 May 2021	13 May 2020	06 Jun 2019
Machine Hours	236	194	0	153
Oil Hours	236	0	0	0
Oil Changed	Changed	N/A	Not Changd	Not Changd
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

Helmut's Marine Service

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T: x:

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OIL CONDITION

Visc @ 100°C	cSt	13.4	13.3	13.7	13.7
Base Number (BN)	mg KOH/g	9.9	---	---	---
Oxidation (PA)	%	56	60	59	56

CONTAMINATION

Soot %	%	0.1	0.1	0.1	0.1
Nitration (PA)	%	41	40	42	41
Sulfation (PA)	%	51	55	54	51
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	4	2	6	3
Sodium	ppm	2	2	2	0
Potassium	ppm	2	<1	<1	0

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	4	4	6	5
Copper	ppm	1	<1	2	2
Lead	ppm	<1	1	0	1
Tin	ppm	<1	<1	0	0
Aluminum	ppm	1	<1	2	2
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	56	61	64	59
Nickel	ppm	0	<1	0	<1
Titanium	ppm	<1	<1	<1	0
Silver	ppm	0	<1	0	0
Manganese	ppm	<1	<1	<1	1
Vanadium	ppm	<1	<1	0	0

ADDITIVES

Calcium	ppm	1142	1121	1114	1010
Magnesium	ppm	1018	1049	1080	928
Zinc	ppm	1336	1339	1190	1130
Phosphorus	ppm	1050	1116	1054	931
Barium	ppm	0	0	<1	<1
Boron	ppm	0	4	2	3

Depot: VP152741

Unique No: 10649615

Signed: Sean Felton

Report Date: 20 Sep 2023

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GRAPHS

