

OIL ANALYSIS REPORT



MARK & SUE RINGHAM MSR VOLVO PENTA D8-A1-1 MP 7008496980 - PORT DIESEL ENGINE

Sample No: VPA059442

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

SAMPLE INFORMATION

Sample Number	VPA059442	VPA046862	VPA042464	VPA042465
Sample Date	23 Nov 2023	21 Aug 2023	05 May 2023	10 Aug 2022
Machine Hours	847	652	458	250
Oil Hours	195	194	208	200
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

ALL SYSTEMS MARINE

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OIL CONDITION

Visc @ 100°C	cSt	13.2	13.1	13.0	13.3
Base Number (BN)	mg KOH/g	9.9	10.0	9.7	10.9
Oxidation (PA)	%	56	57	58	63

CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.1	0.1	0.1	0.1
Nitration (PA)	%	44	47	48	53
Sulfation (PA)	%	51	52	53	58
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	10	9	9	12
Sodium	ppm	0	0	<1	0
Potassium	ppm	2	<1	1	0

WEAR METALS

Iron	ppm	3	3	2	4
Copper	ppm	4	3	2	2
Lead	ppm	<1	0	0	<1
Tin	ppm	<1	0	0	0
Aluminum	ppm	<1	0	5	<1
Chromium	ppm	<1	<1	0	<1
Molybdenum	ppm	61	57	65	58
Nickel	ppm	<1	<1	0	0
Titanium	ppm	<1	<1	0	0
Silver	ppm	0	<1	0	<1
Manganese	ppm	<1	<1	0	<1
Vanadium	ppm	0	0	0	0

ADDITIVES

Calcium	ppm	1056	984	1183	1050
Magnesium	ppm	958	871	1037	917
Zinc	ppm	1202	1119	1404	1183
Phosphorus	ppm	1034	958	1136	993
Barium	ppm	<1	<1	0	0
Boron	ppm	2	0	16	2

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.

Depot: VP99220003
Unique No: 10763074
Signed: Sean Felton
Report Date: 29 Nov 2023

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VOLVO PENTA

GRAPHS

